STATE OF MAINE
STATE HIGHWAY COMMISSION

PLAN AND PROFILE

AUGUSTA BRIDGE

OVER THE

KENNEBEC RIVER

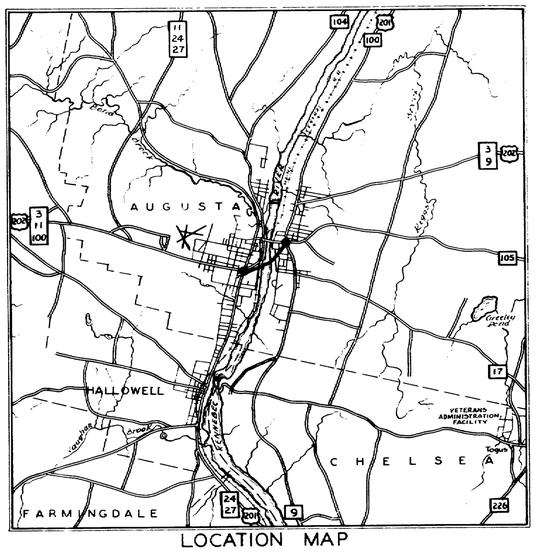
IN THE CITY OF

AUGUSTA

KENNEBEC COUNTY

FEDERAL AID PROJECT
NO. F1, U1-389 (2)

TOTAL LENGTH 0.776 MILE



LOCATION MAP
TRACED FROM U.S.G.S.
SCALE $\frac{1}{62,500}$

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	F1,U1-389(2)	1	19

GENERAL SPECIFICATION

Payment for any necessary unwatering of foundation pits shall be included in the contract unit price for excavation.

CONCRETE CLASSIFICATION

Class A - Bridge floor including sidewalk slabs and all curbs. Approach roadway base slabs, and approach sidewalk slabs and curbs.

Class B - Retaining Wall.

CONTRACT 5

BRIDGE FLOOR

INDEX OF SHEETS

NUMBER	TITLE
1	TITLE SHEET
2	GENERAL LAYOUT
3	NO. RETAINING WALL DETAILS - GAGE ST.
4	APPROACH SLAB - GAGE ST.
5	NO. SIDEWALK & CURB - GAGE ST.
6	SO. SIDEWALK & CURB - GAGE ST.
7	APPROACH SLAB - ABUT. NO. 2
8	EAST APPROACH SLABS
9	GENERAL FLOOR PLAN
10	FLOOR DETAILS - SPAN NO. 1
11	REINFORCING STEEL - SPAN NO. 1
12	FLOOR DETAILS - PANELS A & B
13	FLOOR DETAILS - PANELS C,D,E,F,G,H.
14	FLOOR DETAILS - PANEL NO. 1
15	FLOOR DETAILS - SPAN NO. 7 - PANELS J,K,L
16	FLOOR DETAILS - PANEL M
17	REINF. STEEL - SPANS 2 TO 11, PANELS A TO M
18	LIGHTING DETAILS
19	C.M.P. CO. MANHOLE DETAILS

APPROVED:
MAINE STATE HIGHWAY COMMISSION

Lloyd B. Morton CHAIRMAN
C. J. Russell
Harley D. Welch
Francis D. Barrows
CHIEF ENGINEER

RECOMMENDED FOR APPROVAL DATE

[redacted]

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED DATE

[redacted]

DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	F1,U1-389(2)	1	45

GENERAL SPECIFICATION

Payment for any necessary unwatering of foundation pits shall be included in the contract unit price for excavation except piers 2-3-4 where cofferdams are covered under items 4A, 4B, 4C.

CONCRETE CLASSIFICATION

Abutment 1 Class B.
Pier 1 Class B below and class A above Elev. 73.52
Piers 2,3,4 Seal concrete class A, all other class B
Pier 5 Class B
Pier 6 Class A above and class B below Elev. 40
Piers 7,8,9,10 Class A
Abutment 2 Class B

CONTRACTS 1 & 2

SUBSTRUCTURE AND
STEEL SUPERSTRUCTURE

INDEX OF SHEETS

NUMBER	TITLE
1	TITLE SHEET
2-6	SURVEY PLAN
7-9	PROFILE
10	GENERAL PLAN AND ELEVATION
11	LAYOUT - SUBSTRUCTURE - EAST APPROACH
12	ABUTMENT NO. 1
13	PIER NO. 1
14	PIER NO. 2
15	PIER NO. 3
16	PIER NO. 4
17	PIER NO. 5
18	PIER NO. 6
19	PIER NO. 7
20	PIER NO. 8
21	PIER NO. 9
22	PIER NO. 10
23	ABUTMENT NO. 2
24	ARSENAL ST. RETAINING WALL
25	REINFORCING STEEL - PIERS 1 TO 6
26	REINF. STEEL - ABUTS. & PIERS 7 TO 10
27	SUPERSTRUCTURE AND RAIL DETAILS
28	STRESSES - TRUSS SPANS
29	MAKE-UP OF MEMBERS
30	STRUCTURAL STEEL DETAILS AT U4L4
31	DETAIL AT FIXED PIN
32	DETAIL - PIN AND LINK
33	STEEL & BEARING DETAILS - PIERS 1 & 6
34	EXP. & FIXED BEARINGS - PIERS 2 TO 5
35	FLOOR EXPANSION DETAILS
36-37	STEEL DETAILS - SPAN NO. 1
38	STRESSES & LAYOUT - PLATE GIRDER SPANS
39-40	PLATE GIRDER DETAILS
41	GAGE STREET RAIL
42-45	CROSS SECTIONS - EAST APPROACH

APPROVED
MAINE STATE HIGHWAY COMMISSION

G. Earwood Evans CHAIRMAN
Lloyd B. Morton
C. J. Russell
Francis D. Barrows
CHIEF ENGINEER

RECOMMENDED FOR APPROVAL DATE

[redacted]

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

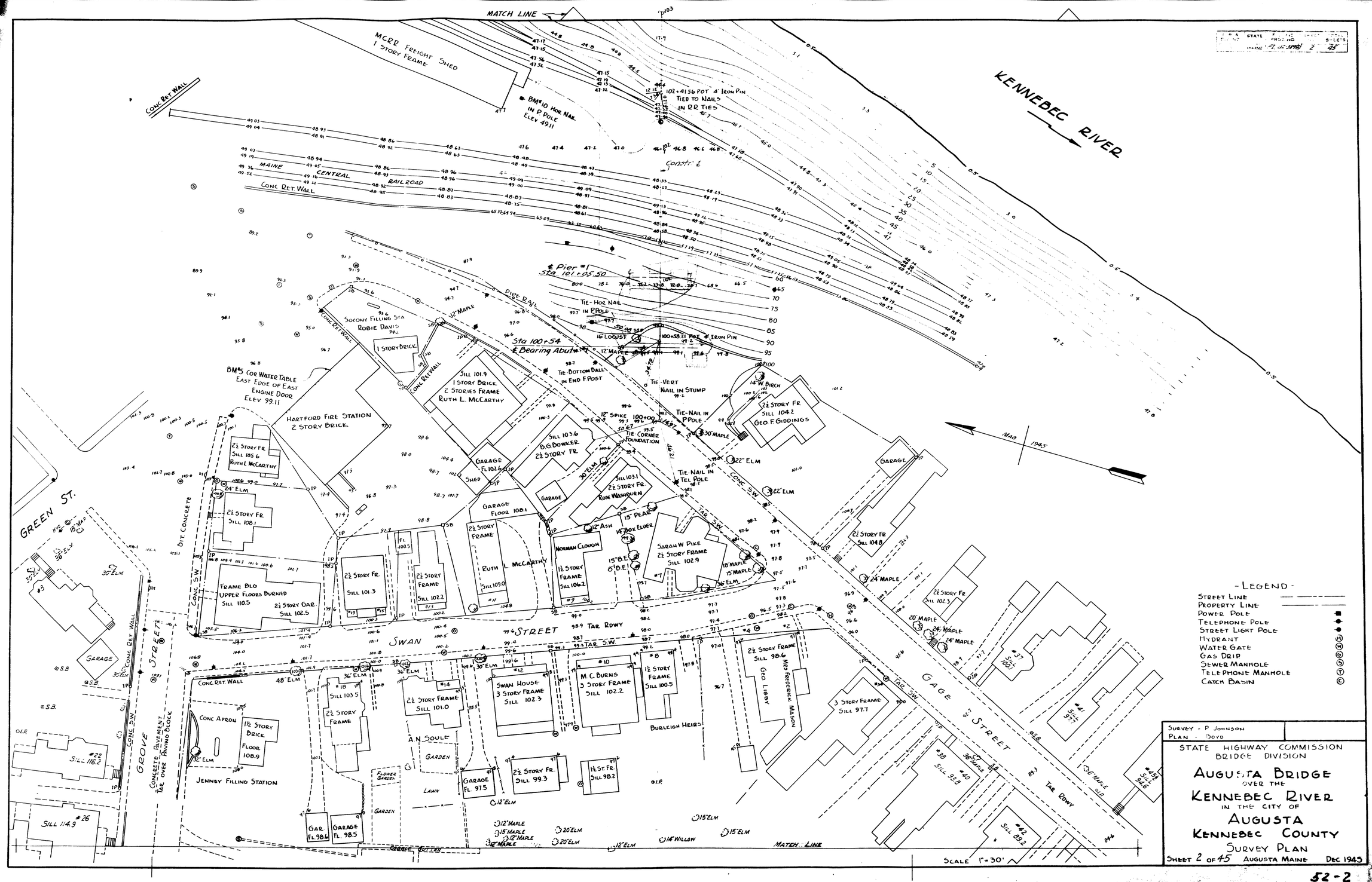
APPROVED DATE

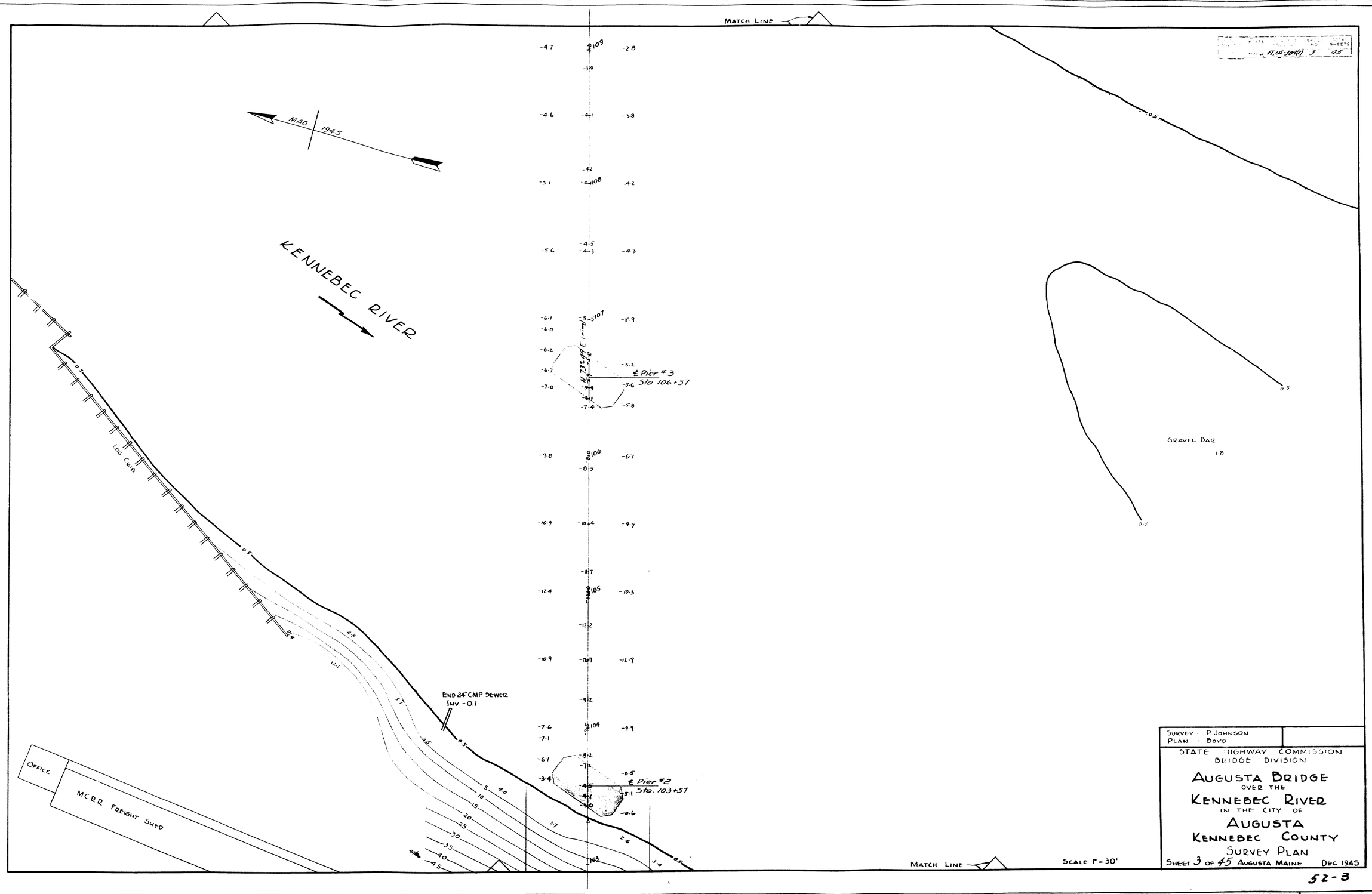
[redacted]

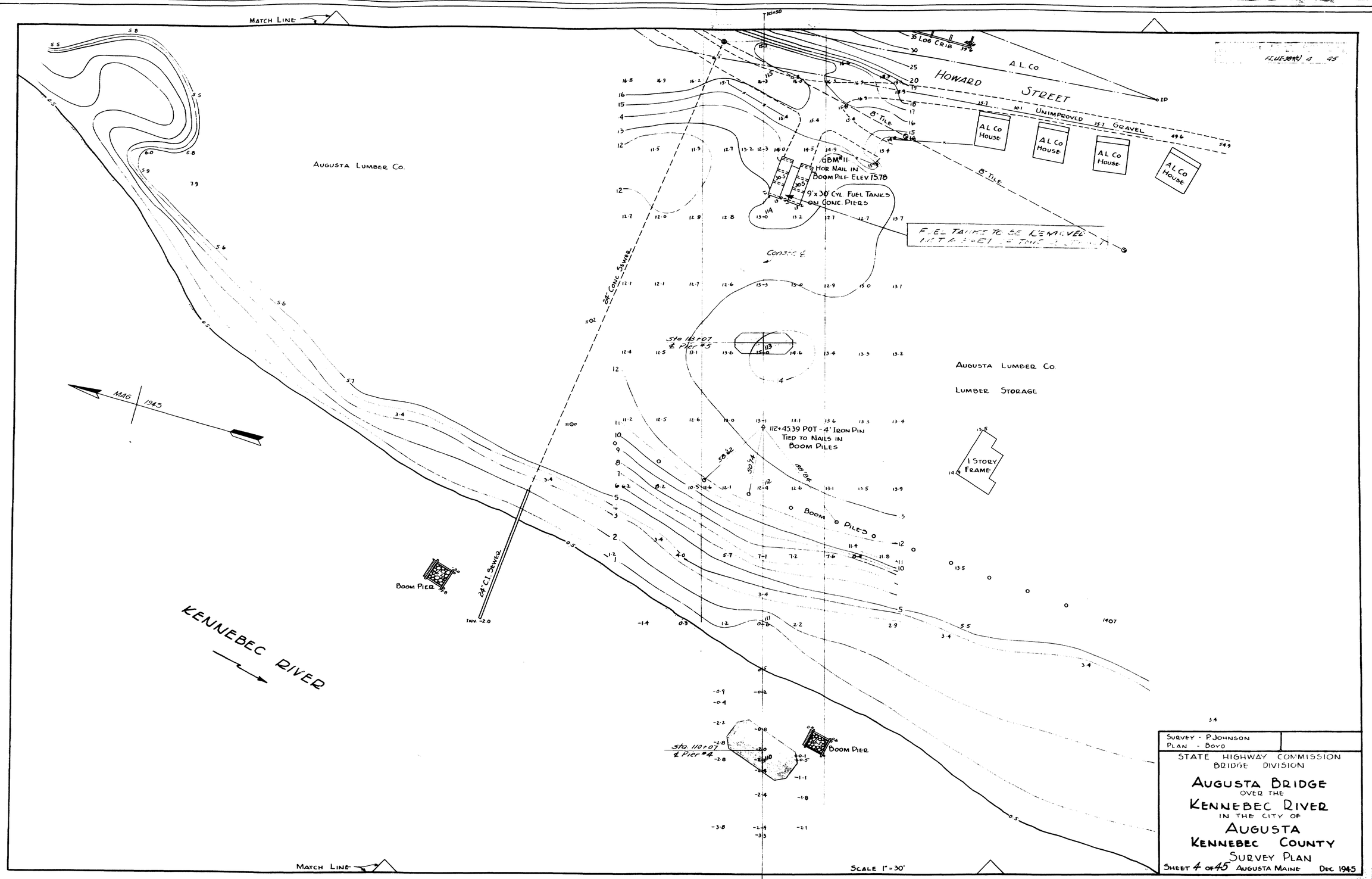
DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

2-1

0 1 2 3 4 5 INCHES


MATCH LINE
KENNEBEC RIVER
MCRR FREIGHT SHED
1 STORY FRAME
CONC RET WALL
BM#10 HOR NAIL IN P. POLE ELEV 49.11
102+41.56 POT 4' IRON PIN TIED TO NAILS IN RR TIES
MAINE CENTRAL RAILROAD
CONC RET WALL
℄ Pier #1
Sta 101+05.50
PIPE RAIL
TIE-HOR NAIL IN P POLE
16" LOCUST
100+58.21 POT 4' IRON PIN
Sta 100+54
℄ Bearing Abut
TIE-BOTTOM BALL IN END F POST
TIE-VERT NAIL IN STUMP
TIE-NAIL IN P POLE
TIE-CORNER FOUNDATION
TIE-NAIL IN TEL POLE
14" W BIRCH
2½ STORY FR SILL 104.2 GEO. F. GIDDINGS
30" MAPLE
22" ELM
SOCONY FILLING STA ROBIE DAVIS
1 STORY BRICK
12" MAPLE
BM#5 COR WATER TABLE EAST EDGE OF EAST ENGINE DOOR ELEV 99.11
HARTFORD FIRE STATION 2 STORY BRICK
SILL 101.9 1 STORY BRICK 2 STORIES FRAME RUTH L. McCARTHY
SILL 103.6 B.G. BOWKER 2½ STORY FR
SILL 103.1 2½ STORY FR. ROSE WASHBURN
GARAGE FL 102.6
SHED
GARAGE
GARAGE FLOOR 108.1
2½ STORY FRAME
RUTH L. McCARTHY
SILL 109.0
NORMAN CLOUGH
1½ STORY FRAME SILL 106.2
SARAH W PIKE 2½ STORY FRAME SILL 102.9
15" PEAR
14" BOX ELDER
12" ASH
15" B.E.
8" B.E.
18" MAPLE
15" MAPLE
36" ELM
2½ STORY FR SILL 104.8
24" MAPLE
2½ STORY FR SILL 102.3
20" MAPLE
24" MAPLE
24" MAPLE
GREEN ST.
BIT. CONCRETE
CONC SW
FRAME BLG UPPER FLOORS BURNED SILL 110.5
2½ STORY GAR. SILL 102.5
2½ STORY FR. SILL 101.3
2½ STORY FRAME SILL 102.2
SWAN STREET
TAR RDWY
TAR SW
GARAGE
CONC RET WALL
GROVE STREET
CONCRETE PAVEMENT TAR OVER PAVING BLOCK
CONC RET. WALL
48" ELM
36" ELM
30" ELM
CONC APRON
1½ STORY BRICK FLOOR 108.9
32" ELM
JENNEY FILLING STATION
SILL 103.5
2½ STORY FRAME
2½ STORY FRAME SILL 101.0
SWAN HOUSE 3 STORY FRAME SILL 102.3
M.C. BURNS 3 STORY FRAME SILL 102.2
1½ STORY FRAME SILL 100.5
BURLEIGH HEIRS
2½ STORY FRAME SILL 98.6
GEO LIBBY
MRS FREDERICK MASON
3 STORY FRAME SILL 97.7
GAGE STREET
A.N. SOULE
GARDEN
LAWN
FLOWER GARDEN
GARAGE FL. 97.5
2½ STORY FR. SILL 99.3
1½ ST. FR. SILL 98.2
GAR. FL. 98.6
GARAGE FL. 98.5
SILL 116.2
SILL 114.9
SILL 93.8
SILL 89.2
12" ELM
12" MAPLE
15" MAPLE
20" ELM
14" WILLOW
15" ELM
MATCH LINE
SCALE 1"=30'
MAG. 1945
- LEGEND -
STREET LINE
PROPERTY LINE
POWER POLE
TELEPHONE POLE
STREET LIGHT POLE
HYDRANT
WATER GATE
GAS DRIP
SEWER MANHOLE
TELEPHONE MANHOLE
CATCH BASIN
SURVEY - P JOHNSON
PLAN - BOYD
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SURVEY PLAN
SHEET 2 OF 45 AUGUSTA MAINE DEC 1945
52-2


MATCH LINE
MAG. 1945
KENNEBEC RIVER
LOG CRIB
END 24" CMP SEWER
INV. -0.1
OFFICE
MCRR FREIGHT SHED
℄ PIER #3
STA 106+57
℄ PIER #2
STA. 103+57
GRAVEL BAR
MATCH LINE
SCALE 1" = 30'
SURVEY - P. JOHNSON
PLAN - BOYD
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SURVEY PLAN
SHEET 3 OF 45 AUGUSTA MAINE DEC 1945
52-3



SURVEY - P. JOHNSON
PLAN - BOYD

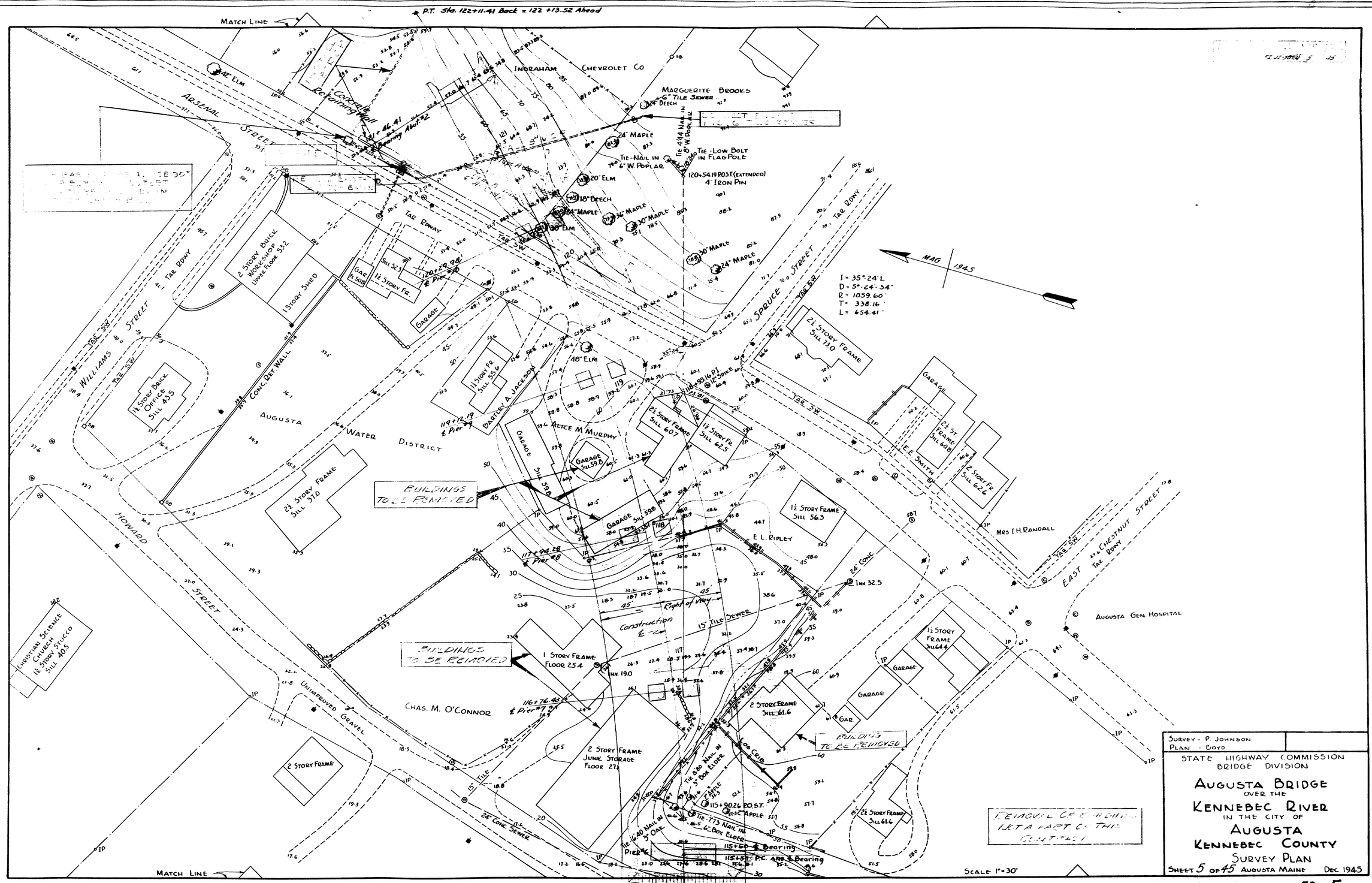
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SURVEY PLAN

SHEET 4 OF 45 AUGUSTA MAINE DEC 1945

52-4

0 1 2 3 4 5 INCHES



Survey - P. Johnson
Plan - Boyd

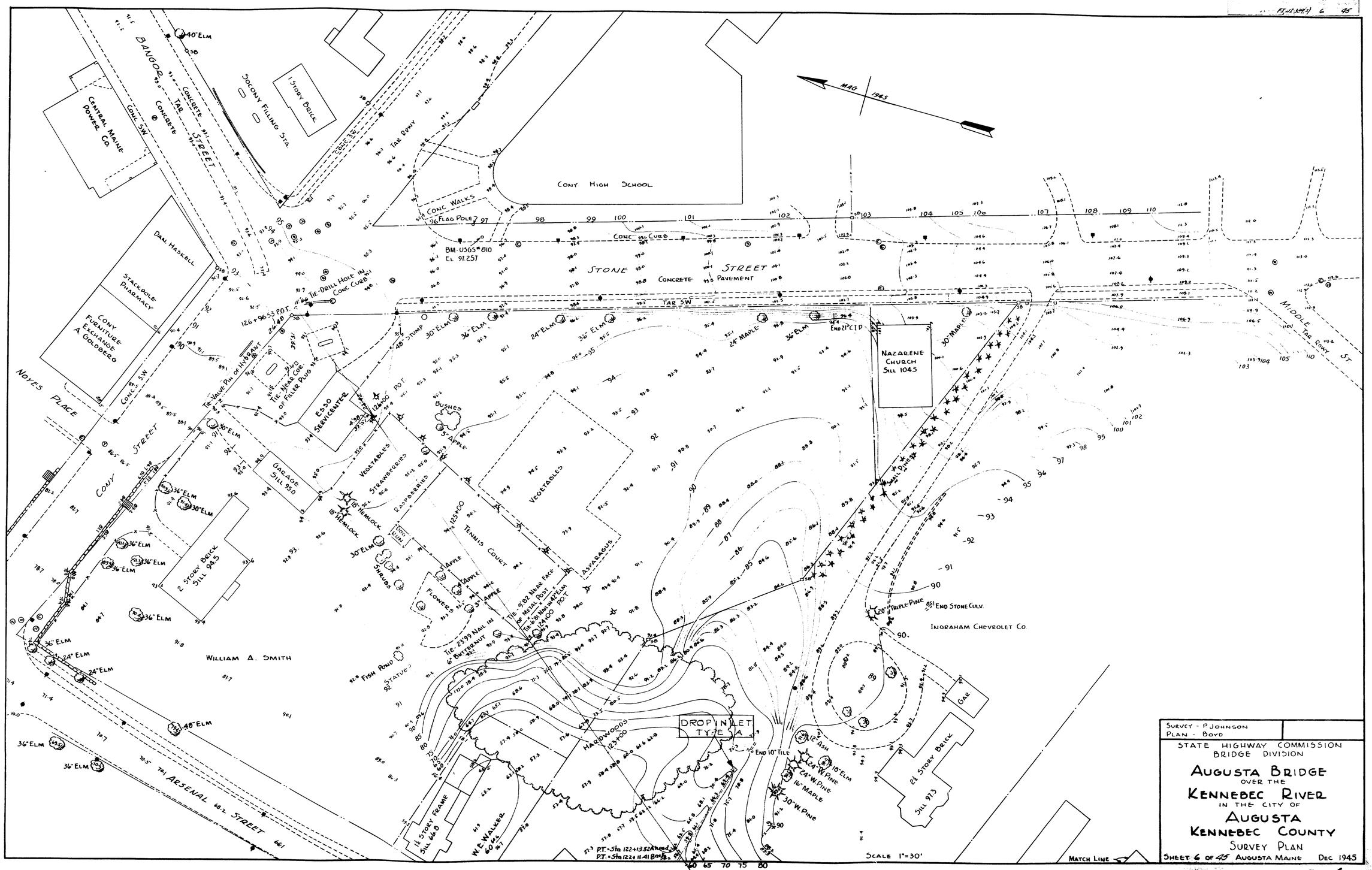
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SURVEY PLAN

SHEET 5 OF 45 AUGUSTA MAINE DEC 1945

52-5

0 1 2 3 4 5 INCHES



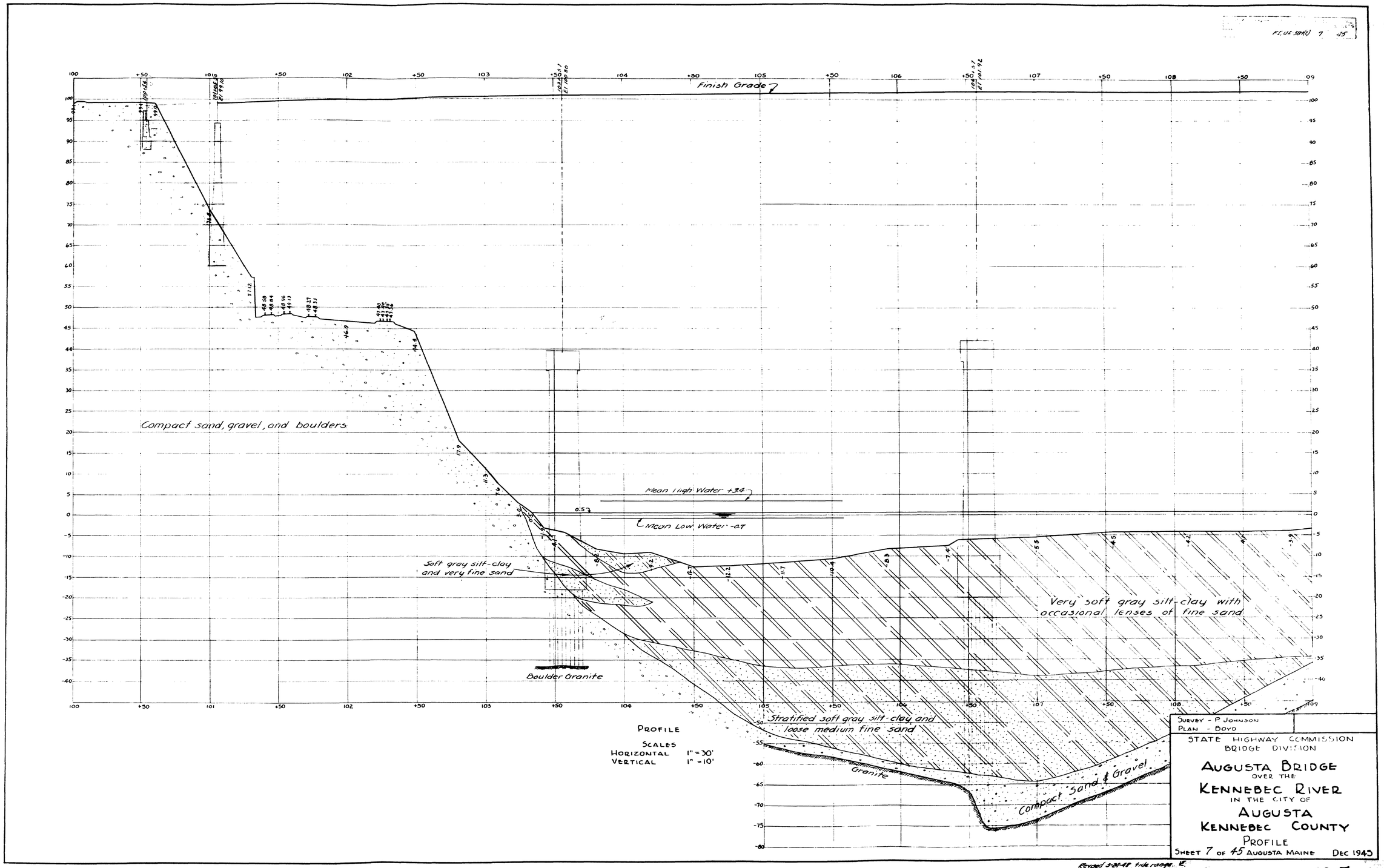
Survey - P Johnson
Plan - Boyd

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
SURVEY PLAN

SHEET 6 OF 45 AUGUSTA MAINE DEC 1945

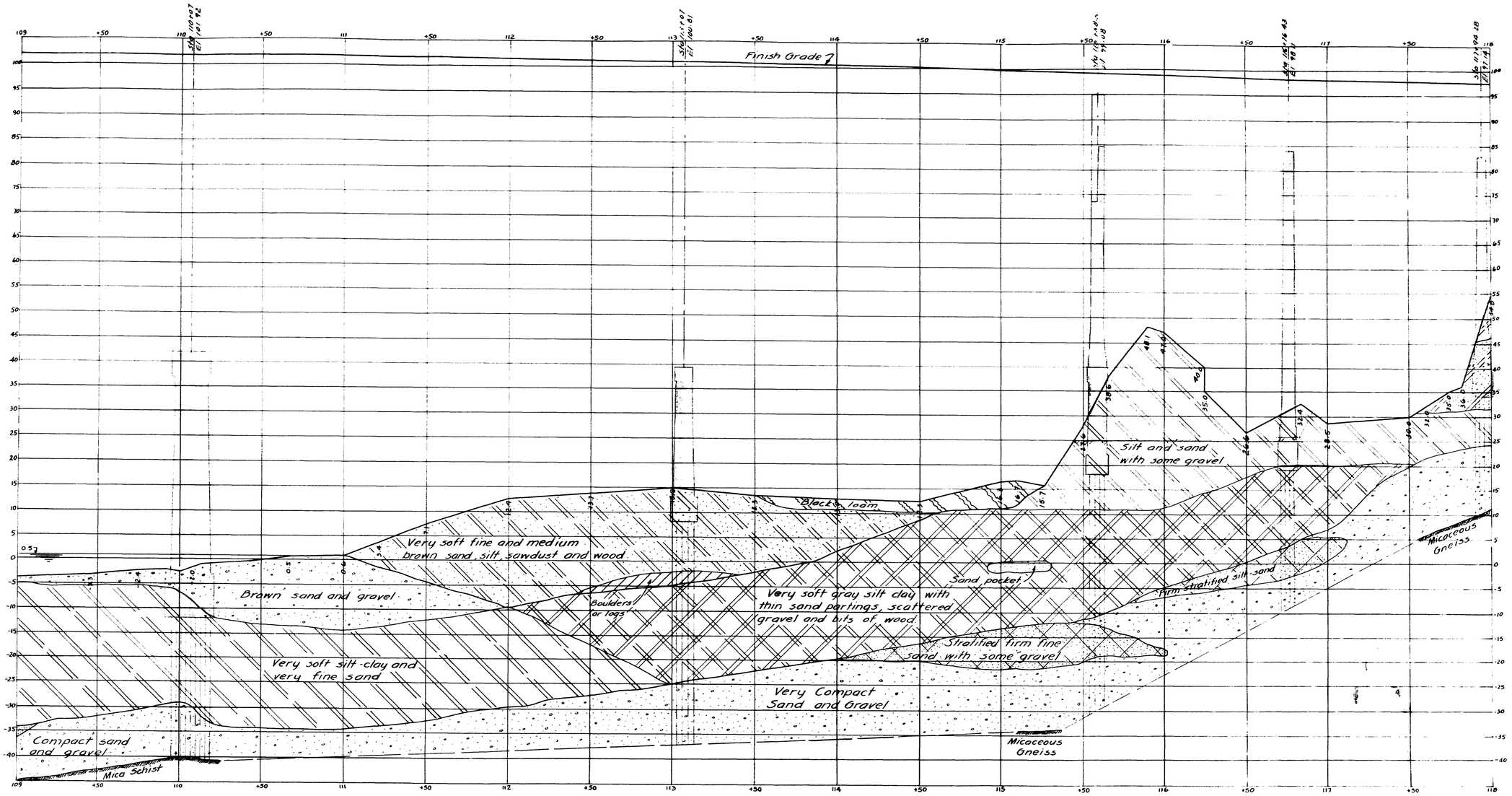
52-6



Revised 3-24-48 tide range. E.

52-7

0 1 2 3 4 5 INCHES



PROFILE

SCALES
HORIZONTAL 1" = 30'
VERTICAL 1" = 10'

SURVEY - P. JOHNSON
PLAN - BOYD

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

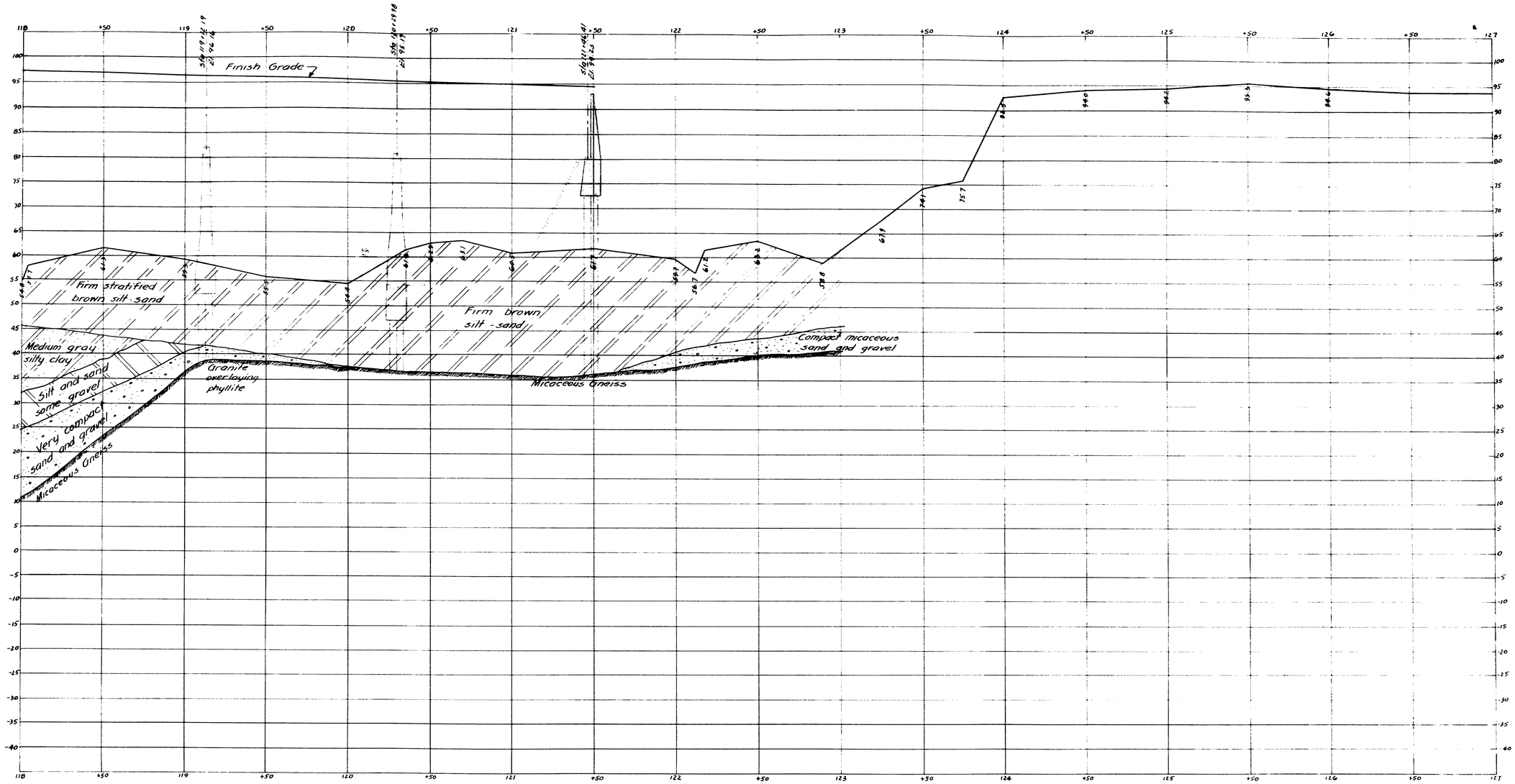
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

PROFILE

SHEET 8 OF 45 AUGUSTA MAINE DEC 1945

52-8

0 1 2 3 4 5 INCHES



PROFILE

SCALES
HORIZONTAL 1" = 30'
VERTICAL 1" = 10'

SURVEY - P. JOHNSON
PLAN - BOYD

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

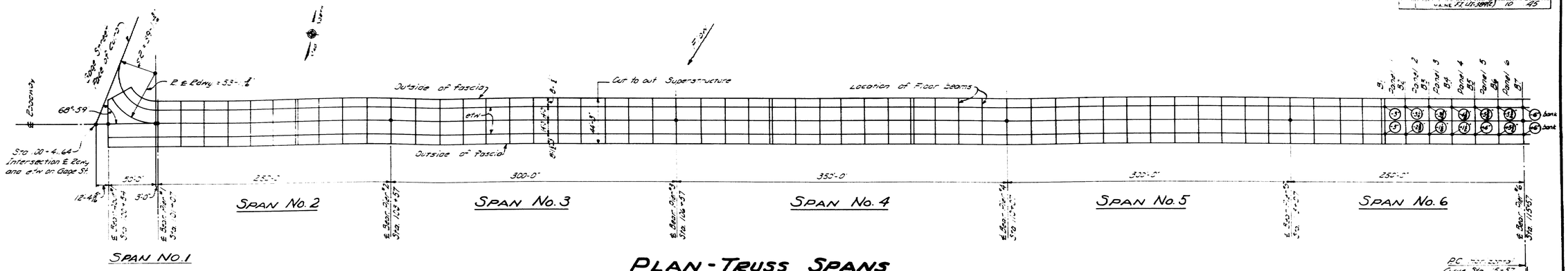
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PROFILE

SHEET 9 OF 45 AUGUSTA MAINE DEC 1945

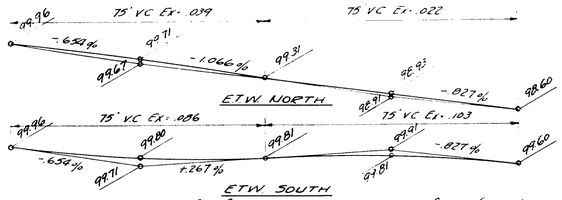
52-9

0 1 2 3 4 5 INCHES

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MAINE	FX (U.T.-39966)	10	45



PLAN - TRUSS SPANS

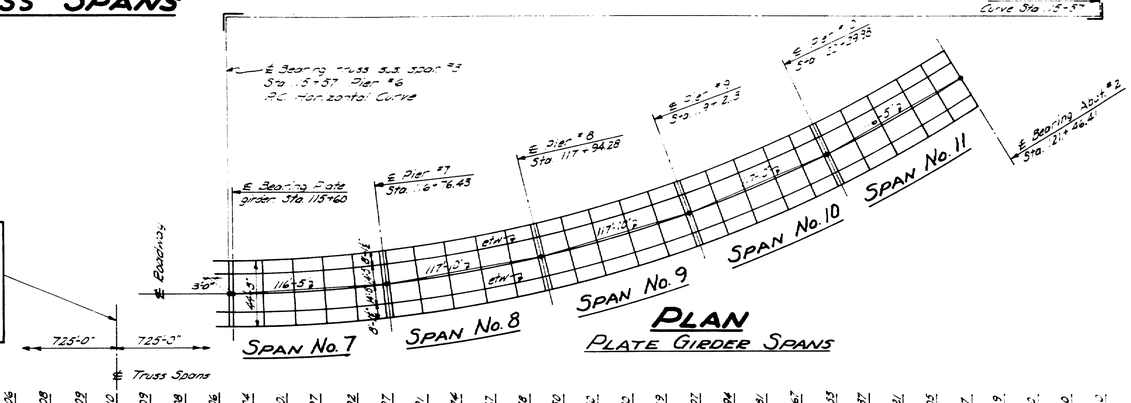


Control points for finish grades at ETW or face of curb in suspended span #3. This data to be used for setting sidewalk grades for rail posts in this span

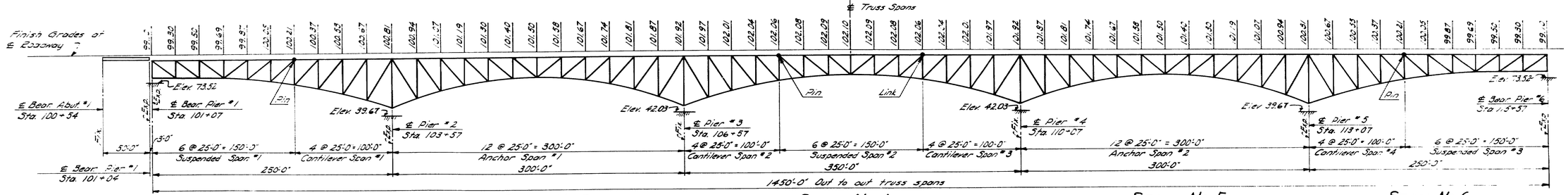
NOTE: Normal Crown of 3" (Sta. 101+07 to ℄ pin in Span #6) Crown at etw for suspended span #3 shown on "PLAN-Truss Spans." Crown for plate girder spans starting at Sta. 115+60 equals +6" outside of curve, -6" inside of curve. Crown is vertical distance from finish grade at ℄ Roadway to etw.

NOTE: Finish grades along center line of roadway are symmetrical about ℄ truss spans. Truss details symm. about this line except as follows:

1. Pin and link connections for suspended span #2 to cantilever spans #2 & #3.
2. Sidewalk stringers and connections to Floor beams in suspended span #3. See table sh. #27
3. Expansion dams.

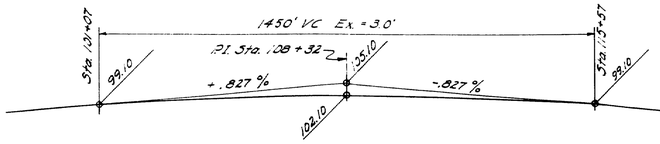


PLAN
PLATE GIRDER SPANS

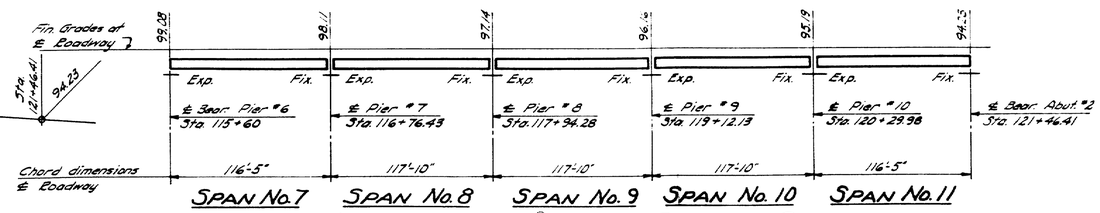


DOWN STREAM ELEV. - TRUSS SPANS
Scale: 1" = 50'-0"

MINIMUM UNDERCLEARANCE
Sus. Span #1 above top of rail = 26'-6
Span #10 over Arsenal Street = 27'-0"
Sus. Span #3 over Howard St. = 53'-6"



VERTICAL CURVE
Control points finish grades for structure



ELEVATION - PLATE GIRDER SPANS

DESIGN – EVERETT	TRACE – CLARK	BRIDGE – 5196
DETAIL – "	CHECK –	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
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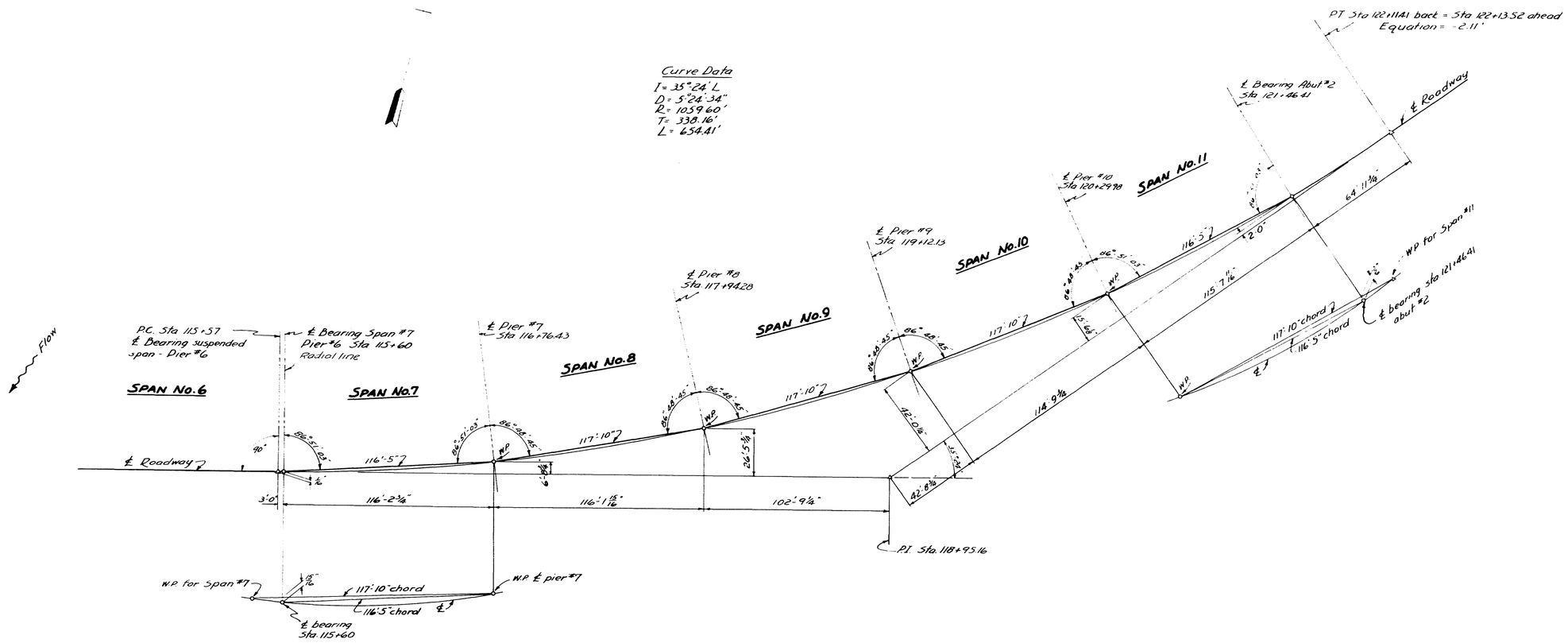
KENNEBEC COUNTY

GENERAL PLAN & ELEV. OF STRUCTURE
SHEET 10 OF 45 AUGUSTA, MAINE FEB. 1945

52-10

0 1 2 3 4 5 INCHES

FORM NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FLUX-389(2)	11	45



SUBSTRUCTURE LAYOUT
SPANS 7 TO 11
EAST APPROACH

DESIGN - EVERETT	TRACE - BOYD	BRIDGE - 5196
DETAIL - "	CHECK - [illegible]	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
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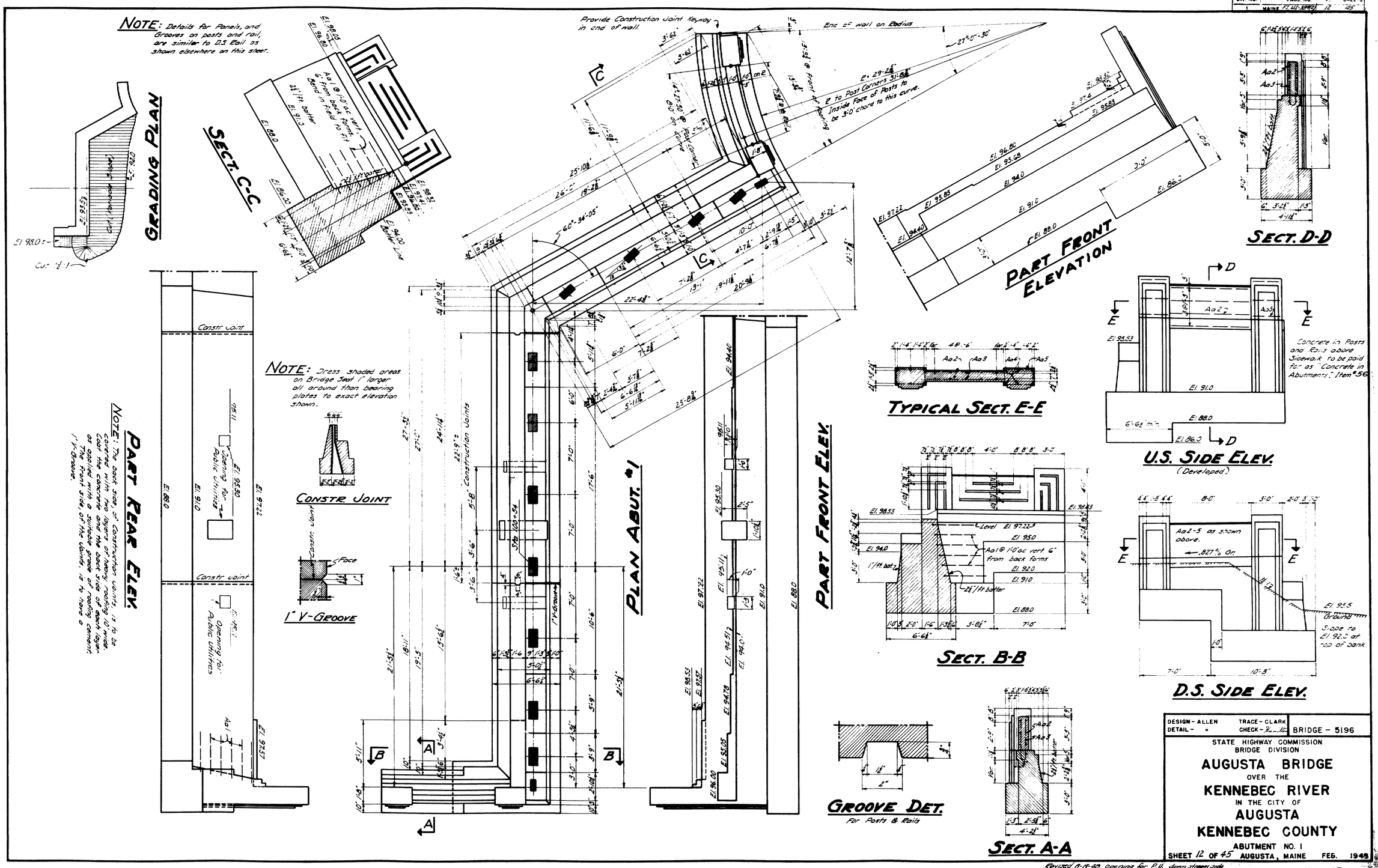
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

LAYOUT SUBSTRUCTURE - EAST APPROACH
SHEET 11 OF 45 AUGUSTA, MAINE FEB. 1948

52-11

0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI-UE-3[illegible]	12	45



DESIGN - ALLEN TRACE - CLARK
DETAIL - " CHECK - [illegible] BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
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AUGUSTA
KENNEBEC COUNTY

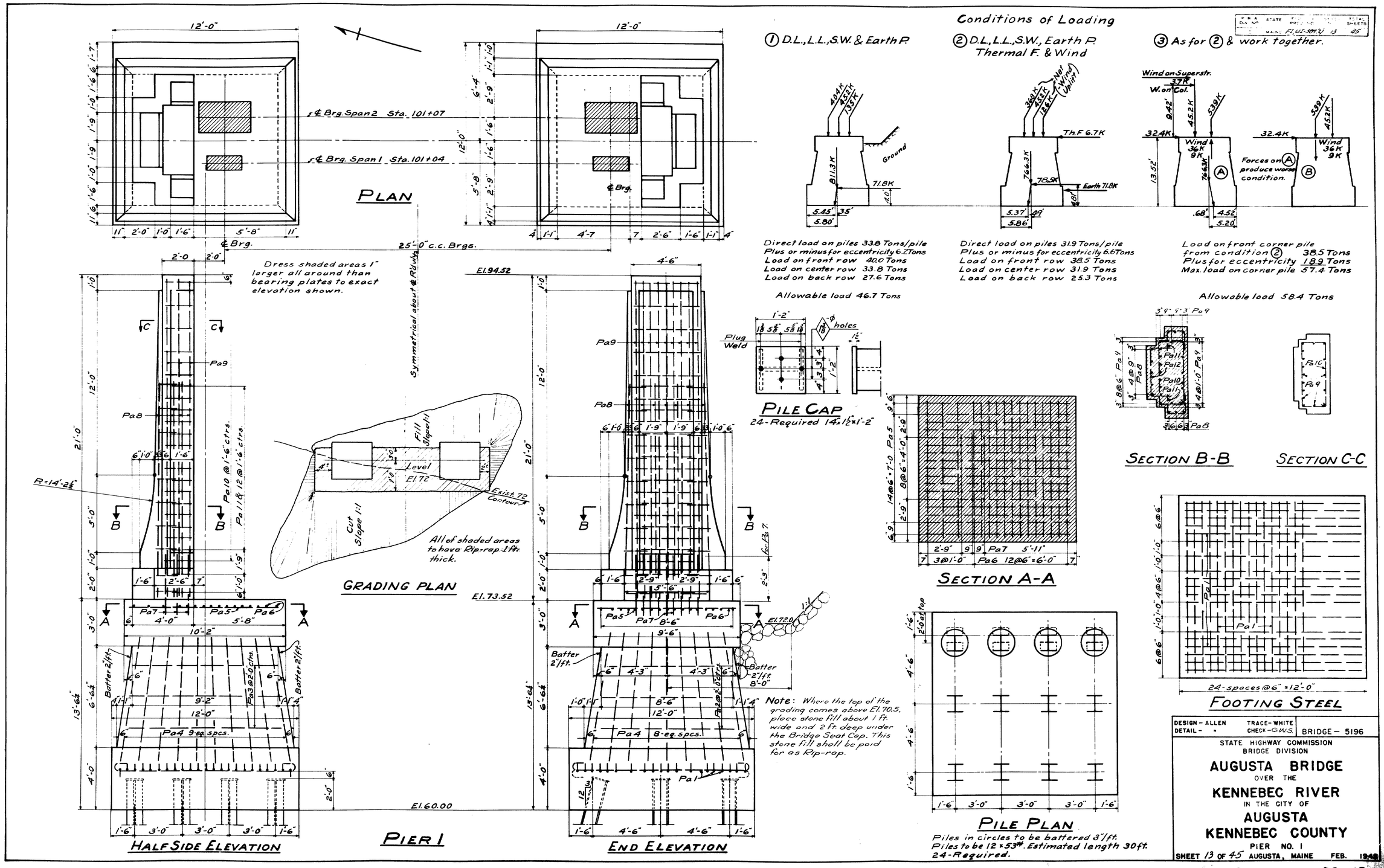
ABUTMENT NO. 1

SHEET 12 OF 45 AUGUSTA, MAINE FEB. 1948

Revised 8-19-48 opening for P.U. down stream side
" 9-30-48 " " " up " "

52-12

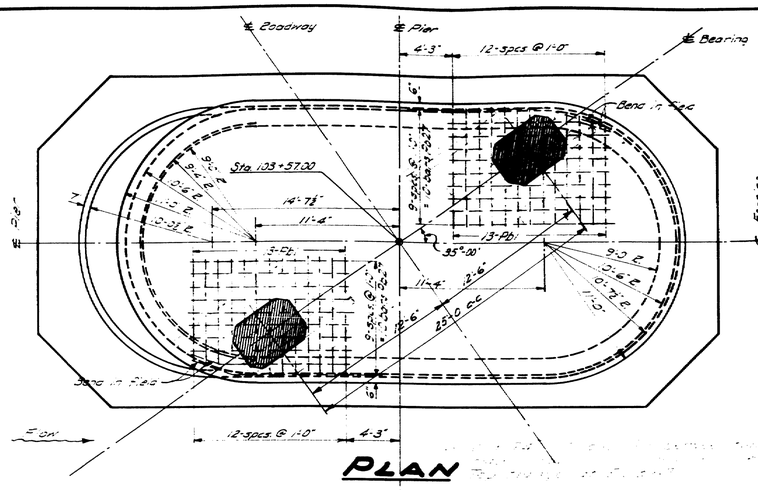
0 1 2 3 4 5 INCHES



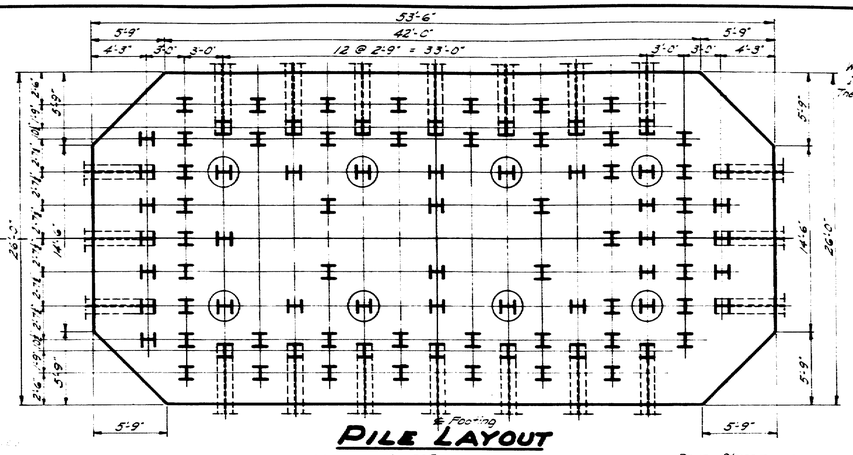
Conditions of Loading
① D.L., L.L., S.W. & Earth P.
② D.L., L.L., S.W., Earth P. Thermal F. & Wind
③ As for ② & work together.
Direct load on piles 33.8 Tons/pile
Plus or minus for eccentricity 6.2 Tons
Load on front row 40.0 Tons
Load on center row 33.8 Tons
Load on back row 27.6 Tons
Allowable load 46.7 Tons
Direct load on piles 31.9 Tons/pile
Plus or minus for eccentricity 6.6 Tons
Load on front row 38.5 Tons
Load on center row 31.9 Tons
Load on back row 25.3 Tons
Load on front corner pile from condition ② 38.5 Tons
Plus for eccentricity 18.9 Tons
Max. load on corner pile 57.4 Tons
Allowable load 58.4 Tons
PLAN
℄ Brg. Span 2 Sta. 101+07
℄ Brg. Span 1 Sta. 101+04
25'-0" c.c. Brgs.
Dress shaded areas 1" larger all around than bearing plates to exact elevation shown.
Symmetrical about ℄ R'd'wy.
GRADING PLAN
All of shaded areas to have Rip-rap 1 ft. thick.
Fill Slope 1:1
Cut Slope 1:1
Level El. 72
Exist. 72 Contour
HALF SIDE ELEVATION
PIER I
END ELEVATION
Note: Where the top of the grading comes above El. 70.5, place stone fill about 1 ft. wide and 2 ft. deep under the Bridge Seat Cap. This stone fill shall be paid for as Rip-rap.
PILE CAP
24-Required 14"x1½"x1'-2"
SECTION A-A
PILE PLAN
Piles in circles to be battered 3"/ft.
Piles to be 12 x 53#. Estimated length 30 ft.
24-Required.
SECTION B-B
SECTION C-C
FOOTING STEEL
24-spaces @ 6" = 12'-0"
DESIGN - ALLEN
DETAIL - "
TRACE - WHITE
CHECK - G.W.S.
BRIDGE - 5196
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 1
SHEET 13 OF 45 AUGUSTA, MAINE FEB. 1948
52-13

F. R. J. D-V No.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
		F.A. No. FF-01 (6)-(2)	14	45

NOTE: Dress shaded bearing areas 1" larger all around than masonry plates and to exact elevation. Space reinforcing 3" clear to edge anchor bolts.

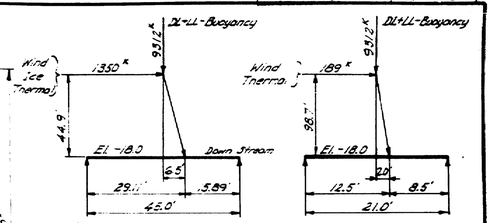


PLAN



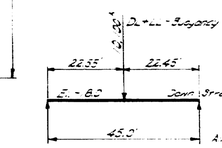
PILE LAYOUT

Required - 93 piles 4" H 89#
Estimated length, 45 ft. for piles ending in footing & 56 ft. for piles extending into shaft. Batterer piles 2 inches per foot.
Circled piles extend into shaft at Pier 3 ft. (See Side Elevation)



FORCES ON NOSE — FORCES ON SIDE

PILE LOAD



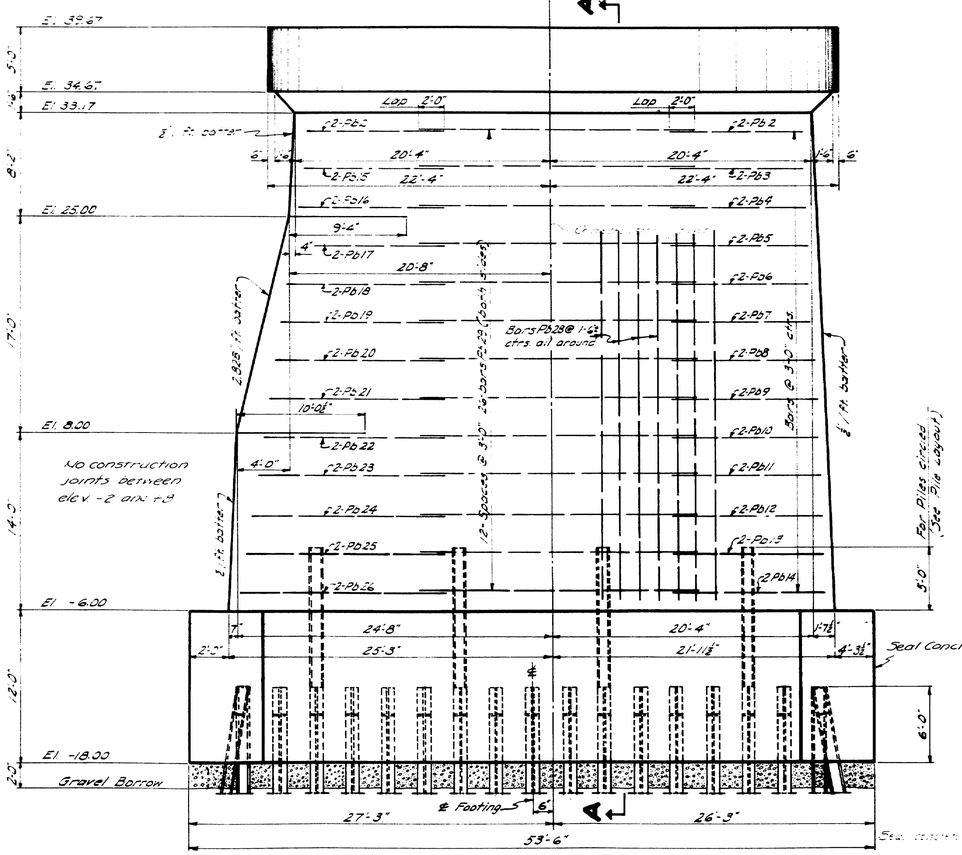
Allowable Pile Load 78.6 Tons

DIRECT PILE LOAD

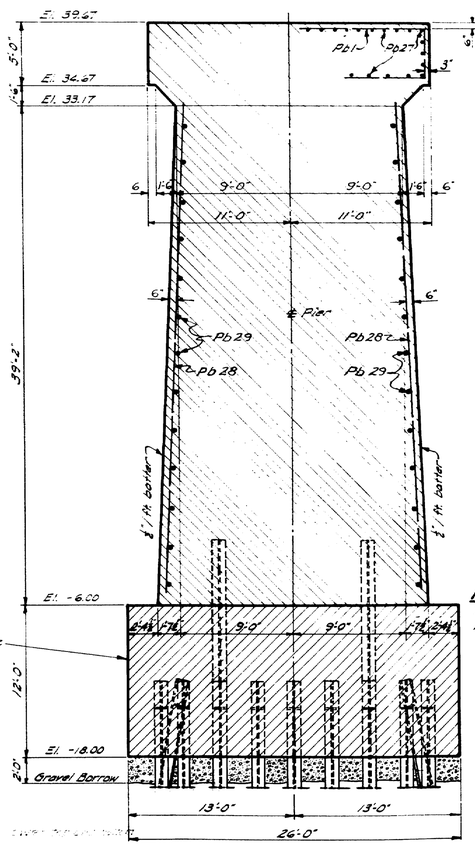
PILE SUMMARY

Direct Load	Combination
55 Tons	50.1 Tons Direct
	31.9 Forces on nose
	16.3 Forces on side
	98.3 Tons Total
	98.3 Tons

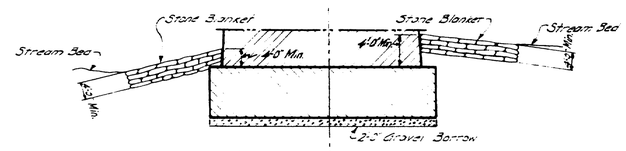
PIER ANALYSIS



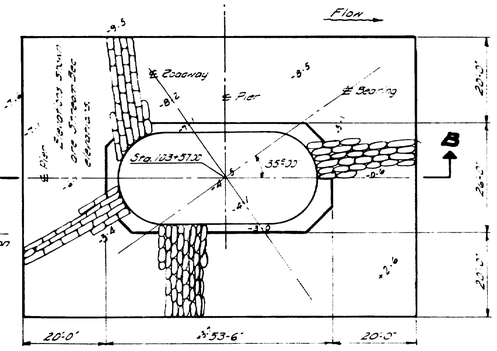
SIDE ELEVATION



SECTION A-A

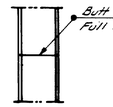


SECTION B-B



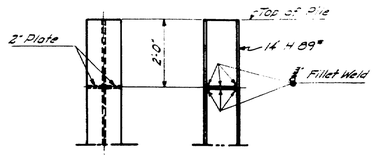
PLAN - STONE BLANKET

Scale: 1/16" = 1'-0"



PILE SPLICE

Typical for all piles.



PILE CAPS

For Piles ending in footing.
Pile point cut square

DESIGN - EVERETT	TRACE - CLARK	BRIDGE - 5196
DETAIL - WHITE	CHECK - [illegible]	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

PIER NO. 2

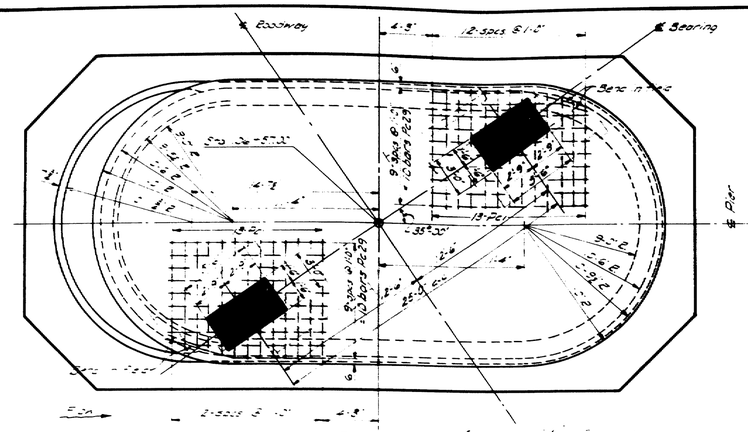
SHEET 14 OF 45 AUGUSTA, MAINE FEB. 19[illegible]

52-14

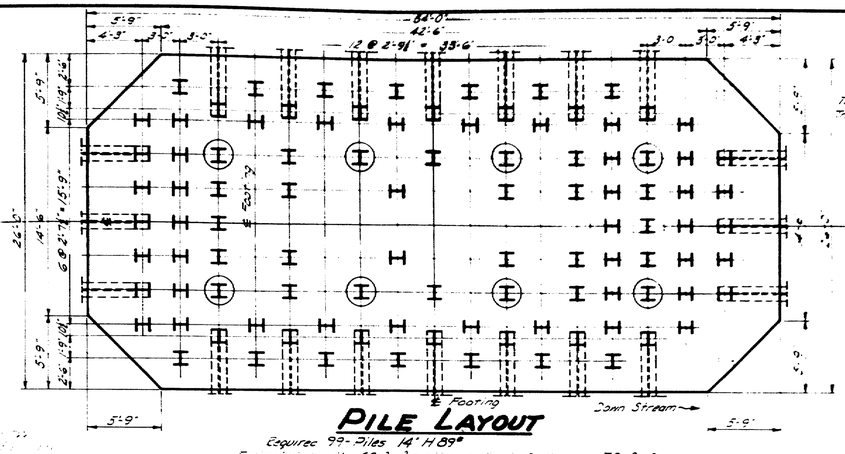
0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FA-U(3945)	15	45

NOTE: Piers 3 & 4 are based on 9 piles per footing. Pier 2 is based on 10 piles per footing. See Pier 2 plans for footing dimensions.

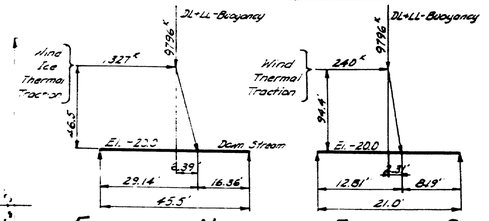


PLAN



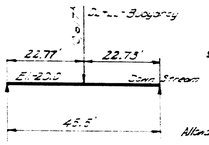
PILE LAYOUT

Required 99-Piles 14" H 89#
Estimated length, 60 ft for piles ending in footing, and 72 ft for piles extending into shaft. Battered piles 2 inches per foot. Circled piles extend into shaft of Pier 5 ft. (See Side Elevation)



FORCES ON NOSE — FORCES ON SIDE

PILE LOAD



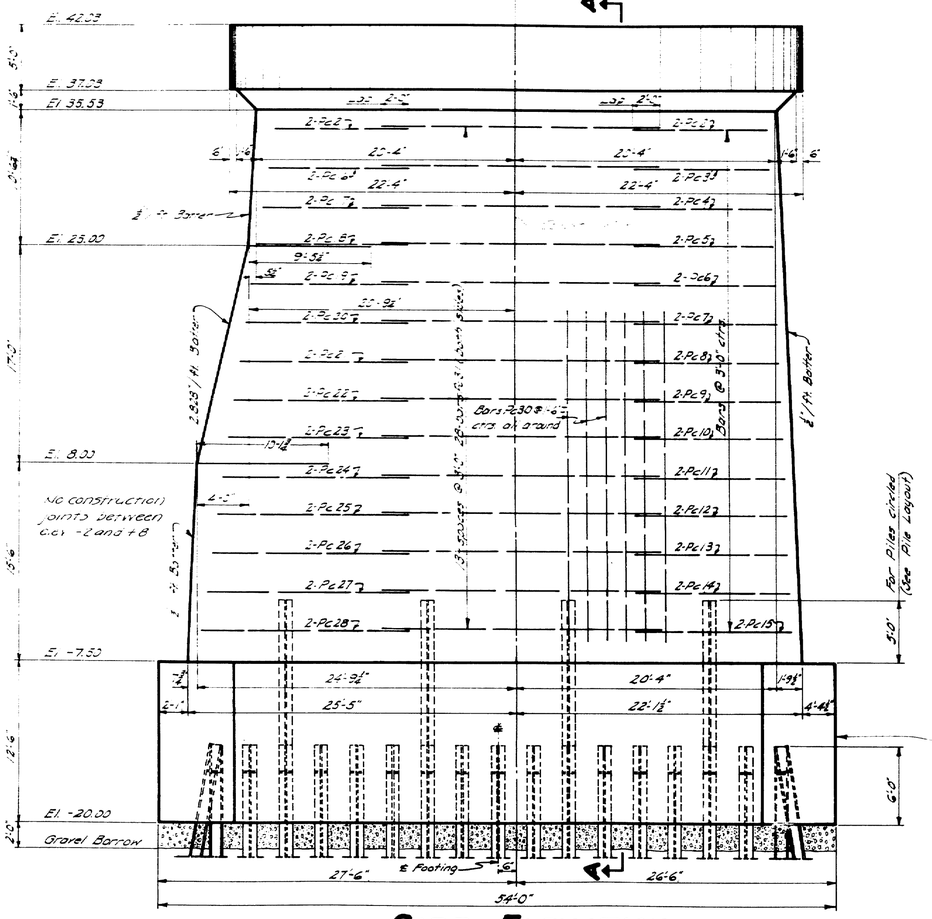
PILE SUMMARY

Direct: 38.0
Allowable Pile Load 75.6 T.
38.7 T.

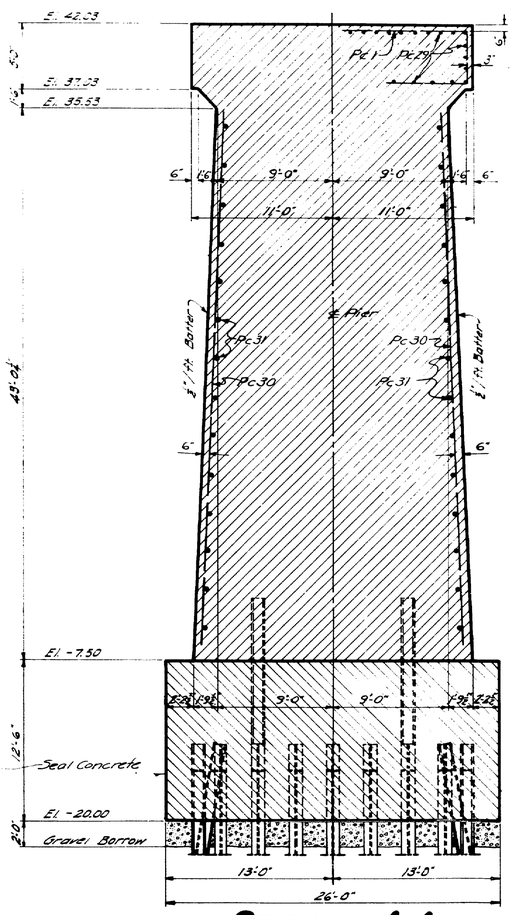
Combination
49.5 T. Direct
28.9 Tons on nose
9.6 " on side
98.0 Tons Total
98.3 Tons

DIRECT PILE LOAD

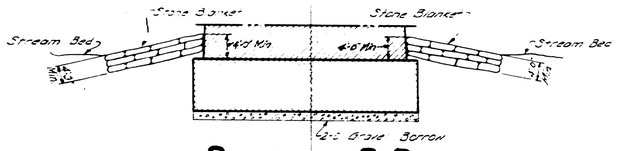
PIER ANALYSIS



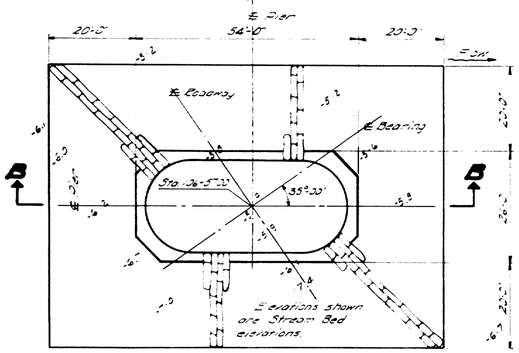
SIDE ELEVATION



SECTION A-A



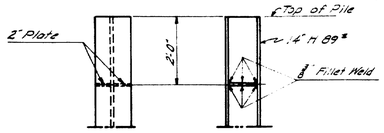
SECTION B-B



PLAN - STONE BLANKET

Scale: 1/8" = 1'-0"

NOTE: For typical pile splice see Pier #2



PILE CAPS

For Piles ending in footing. Point of Pile cut square

DESIGN - EVERETT	TRACE - CLARK	BRIDGE - 5196
DETAIL - WHITE	CHECK - CAB	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

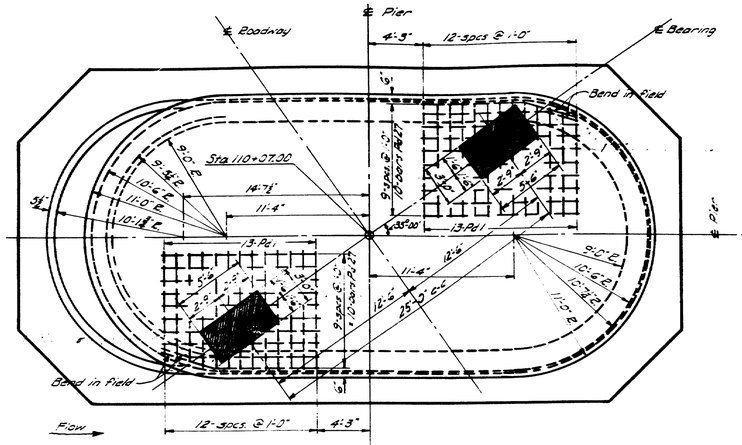
PIER NO. 3

SHEET 15 OF 45 AUGUSTA, MAINE FEB. 1948

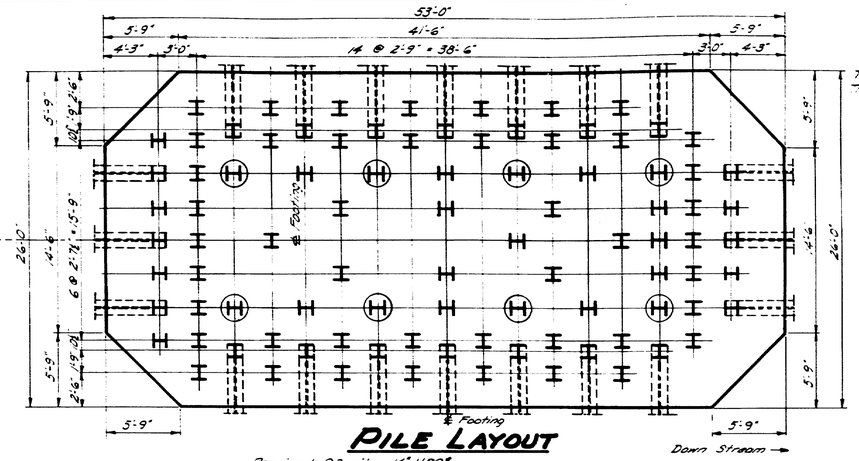
52-15

0 1 2 3 4 5 INCHES

NOTE: Piers to be poured bearing 0°00'00" on 12'-0" radius to a point 4'-0" from ℄ Pier, thence 12'-0" radius to ℄ Bearing.

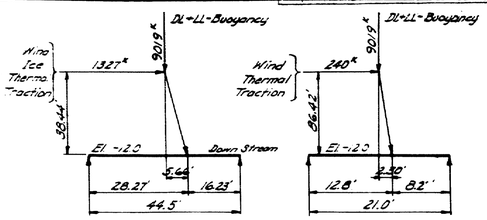


PLAN



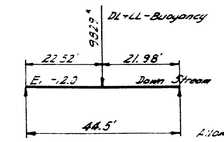
PILE LAYOUT

Required 92 piles 14" H 89#
Estimated length, 35 ft. for piles ending in Footing & 44 ft.
For piles extending into shaft. Battered piles 2 inches per foot.
Circled piles extend into shaft of pier 5 ft. (See side elevation)



FORCES ON NOSE — FORCES ON SIDE

PILE LOAD

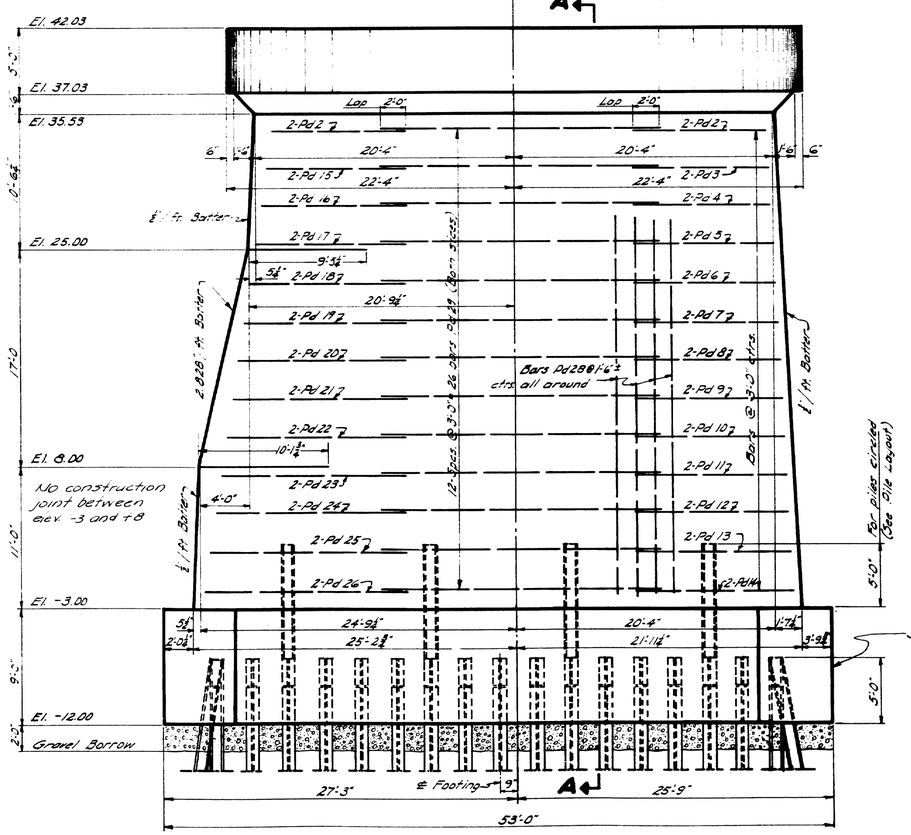


PILE SUMMARY

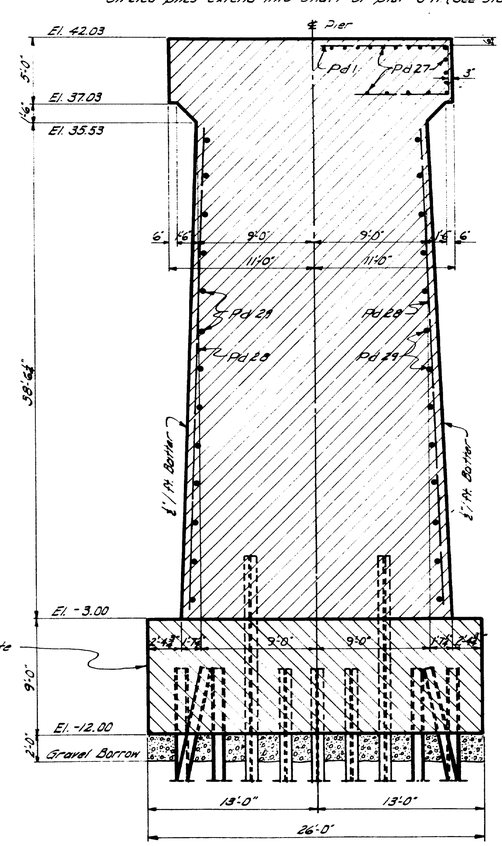
Direct Load	Combination
57.0 Tons	49.0 Tons Direct
	30.7 Forces on nose
	18.4 " on side
	98.1 Tons Total
Allowable Pile Load 78.6 Tons	98.3 Tons

DIRECT PILE LOAD

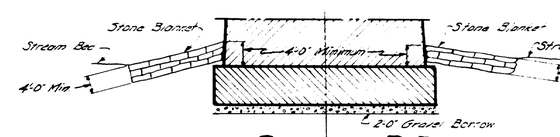
PIER ANALYSIS



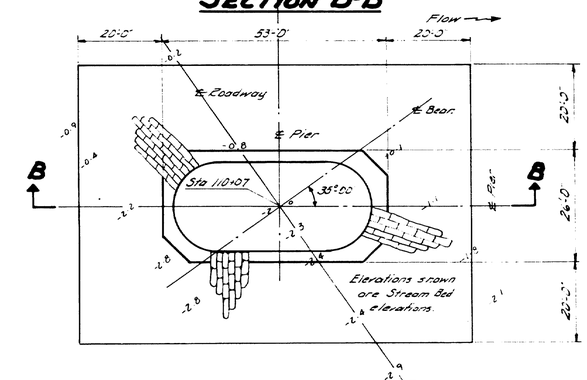
SIDE ELEVATION



SECTION A-A



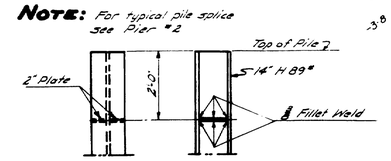
SECTION B-B



PLAN STONE BLANKET

Scale 1/4" = 1'-0"

NOTE: For typical pile splice see Pier #2



PILE CAPS

For piles ending in Footing.
Point of piles cut square

DESIGN - EVERETT	TRACE - CLARK	BRIDGE — 5196
DETAIL - WHITE	CHECK - [illegible]	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

PIER NO. 4

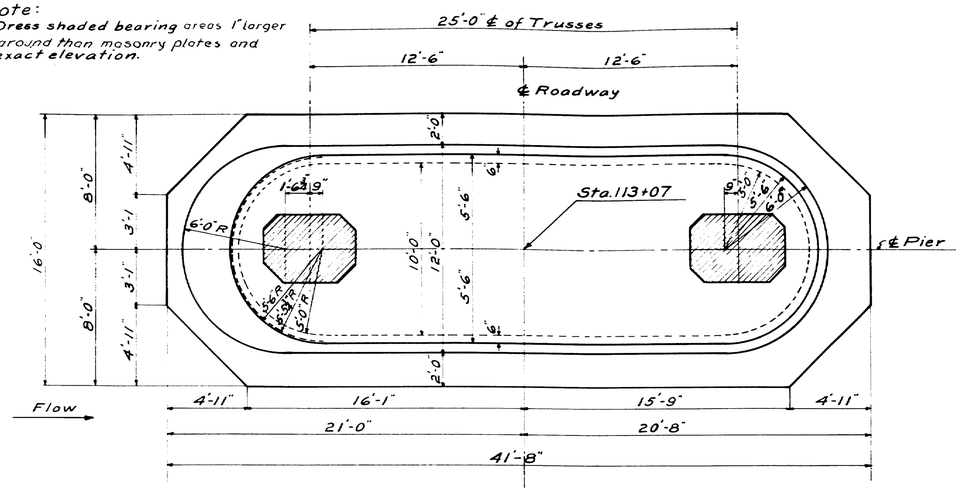
SHEET 16 OF 45 AUGUSTA, MAINE FEB. 1948

52-16

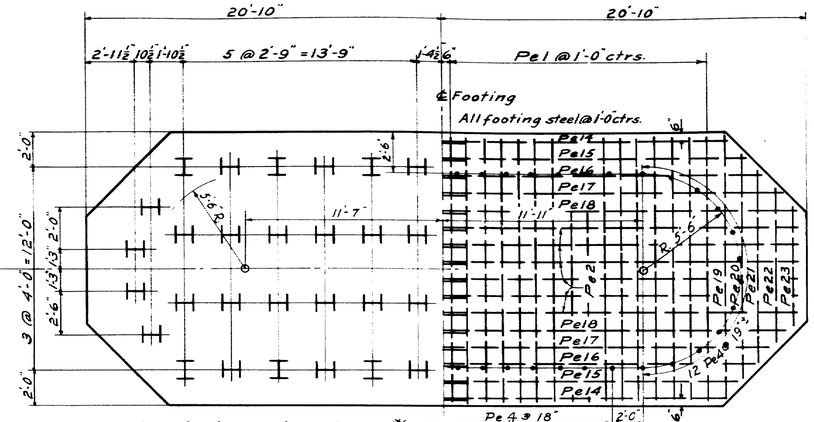
0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
			17	45

Note:
Dress shaded bearing areas 1" larger all around than masonry plates and to exact elevation.

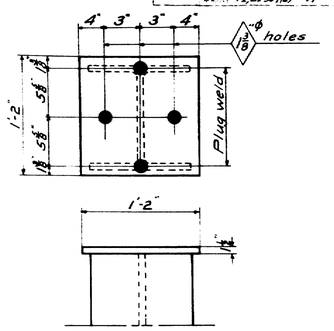


PLAN



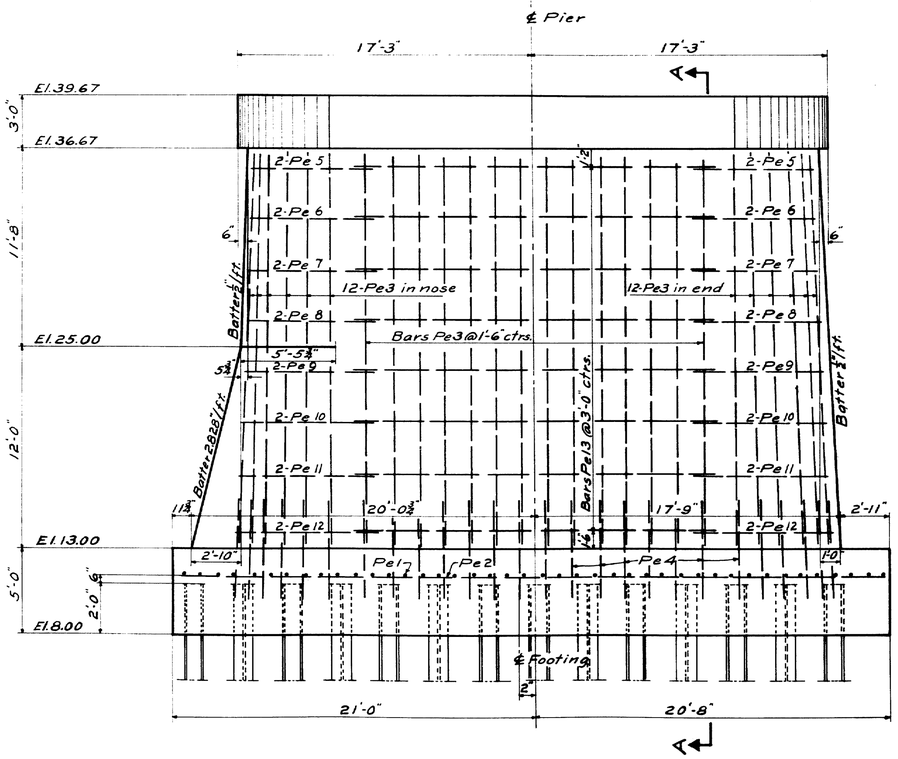
HALF PLAN PILE LAYOUT

HALF PLAN FOOTING REINFORCEMENT

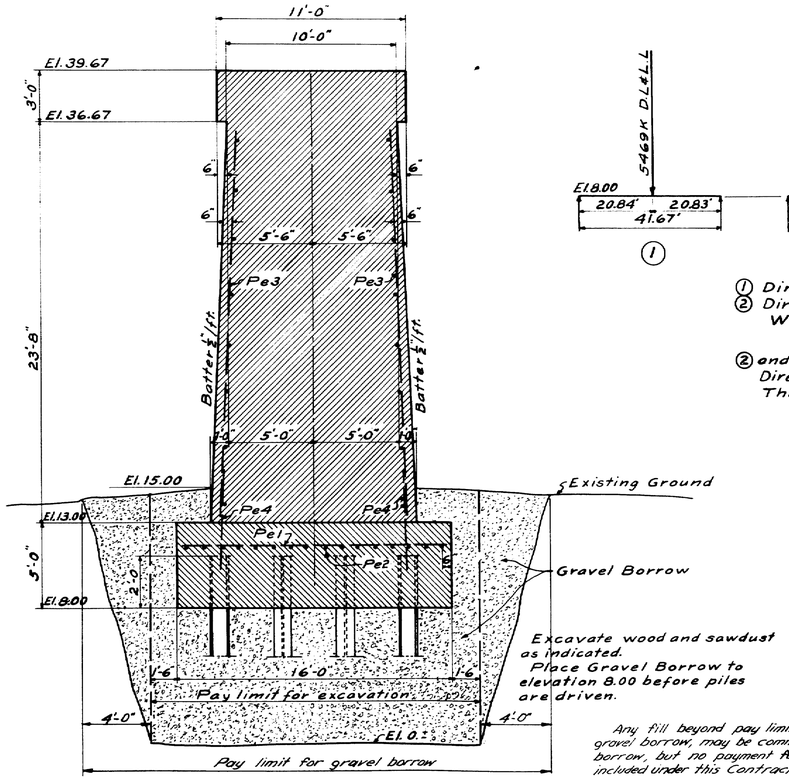


PILE CAP

Required 56 - Pls. 14 × 1½ × 1'-2"
Pile points cut square
See Pier #2 for Typical Pile Splice



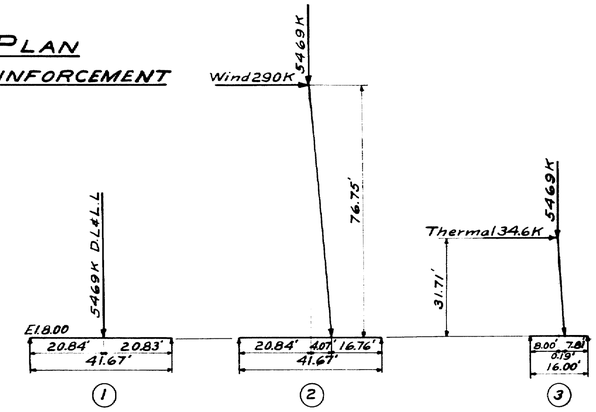
SIDE ELEVATION



SECTION A-A

Excavate wood and sawdust as indicated.
Place Gravel Borrow to elevation 8.00 before piles are driven.

Any fill beyond pay limit for gravel borrow, may be common borrow, but no payment for same is included under this Contract.



① Direct Load 48.8 Tons. Allowable 65.3T
② Direct Load 48.8 Tons
Wind 29.5 Tons
Total = 78.3 Tons. Allowable 81.6T

② and ③
Direct Load and Wind 78.3 Tons
Thermal 0.6 Tons
Total = 78.9 Tons. Allowable 81.6T

DESIGN - STANGEL	TRACE - WHITE	BRIDGE - 5196
DETAIL - "	CHECK - CAW	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

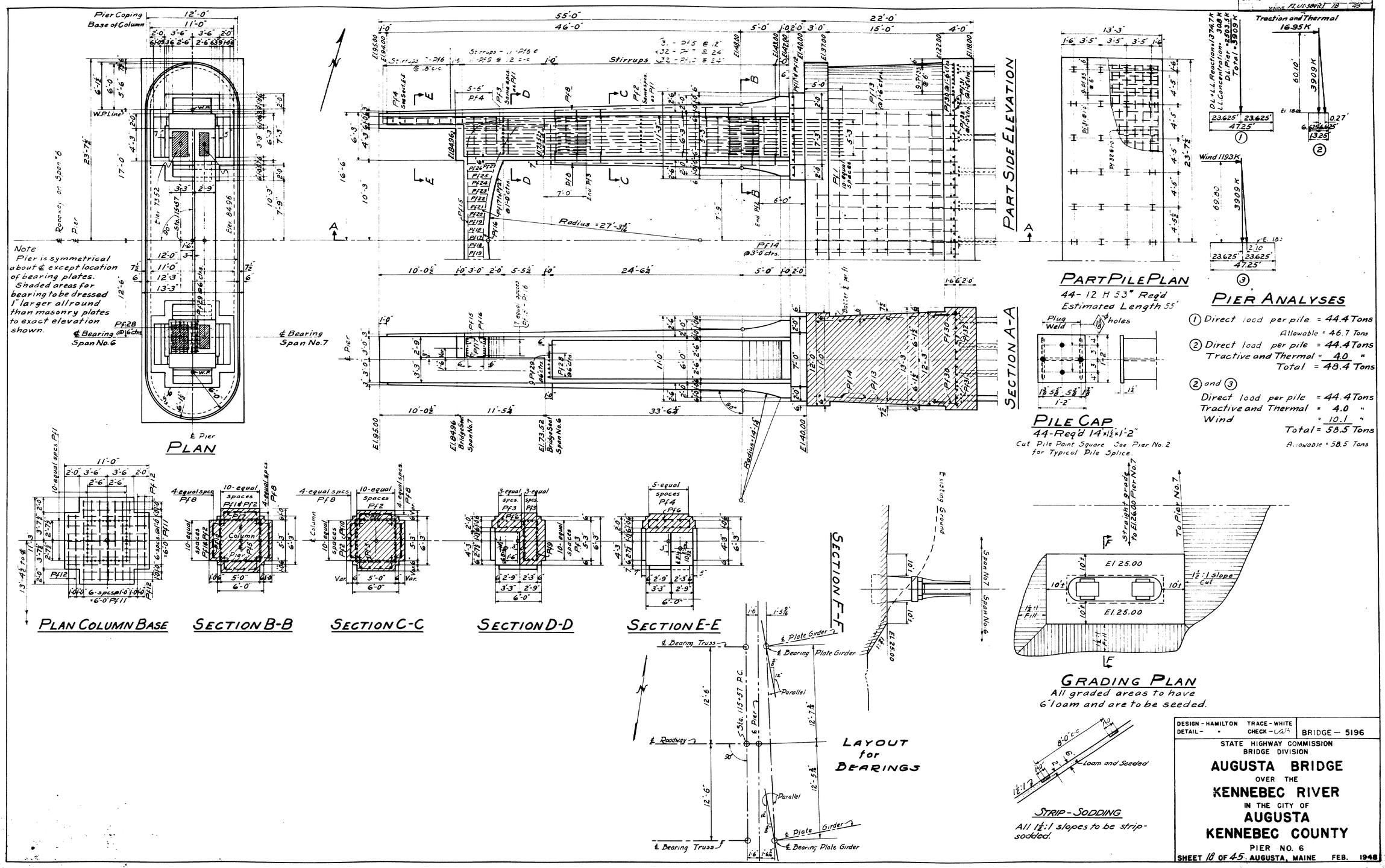
PIER NO. 5

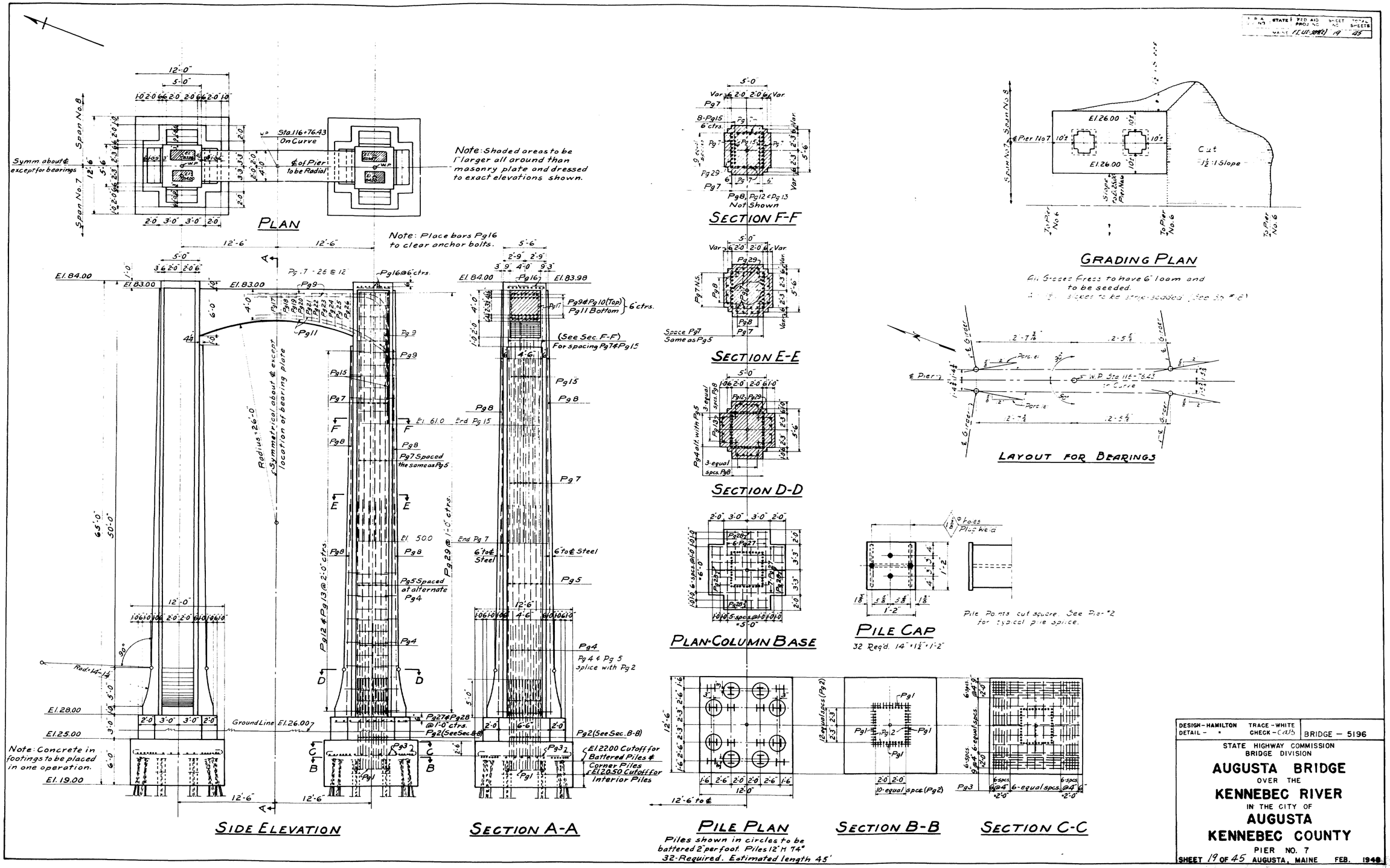
SHEET 17 OF 45 AUGUSTA, MAINE FEB. 1948

52-17

0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	F.A. NO. PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FLU-3918(1)	18	45





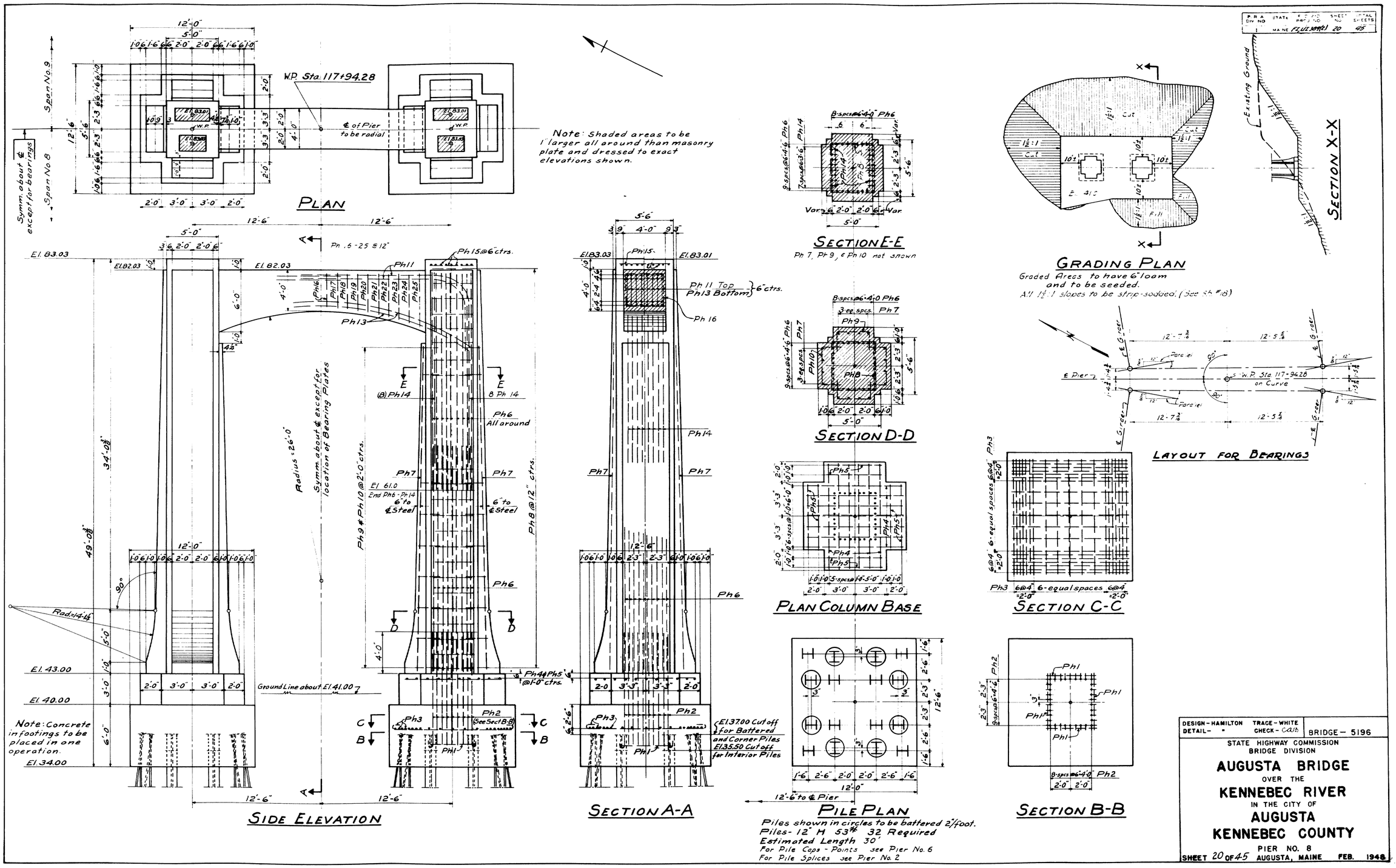
DESIGN - HAMILTON	TRACE - WHITE	BRIDGE - 5196
DETAIL - "	CHECK - CAB	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
PIER NO. 7

SHEET 19 OF 45 AUGUSTA, MAINE FEB. 1948

52-19



P.R.A. DIV. NO.	STATE	F.A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FI, U, X, 0016(1)	20	45

DESIGN - HAMILTON TRACE - WHITE
DETAIL - " CHECK - CAS.

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

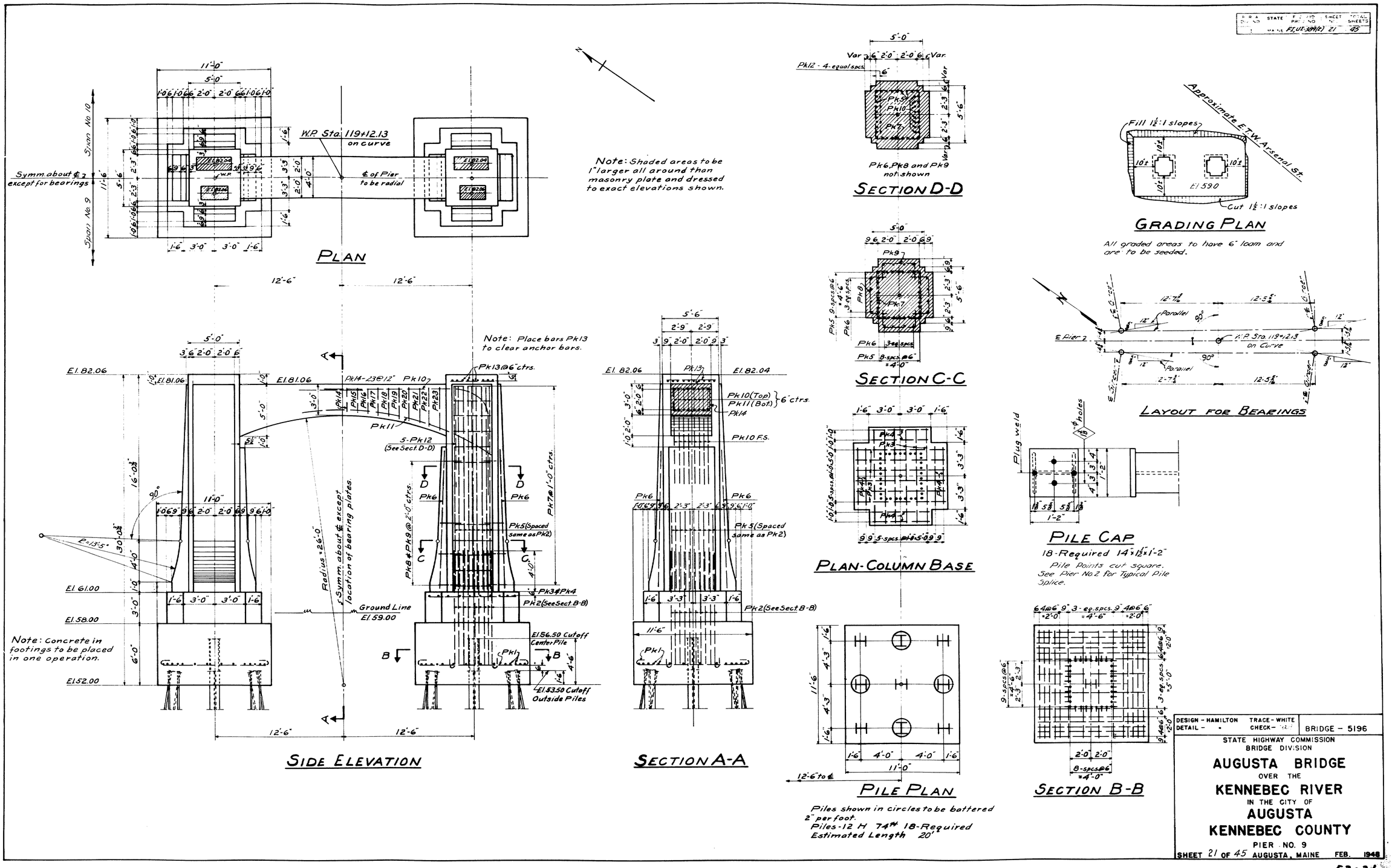
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

PIER NO. 8

SHEET 20 OF 45 AUGUSTA, MAINE FEB. 1948

52-20

0 1 2 3 4 5 INCHES



DESIGN - HAMILTON	TRACE - WHITE	BRIDGE - 5196		
DETAIL - "	CHECK -			

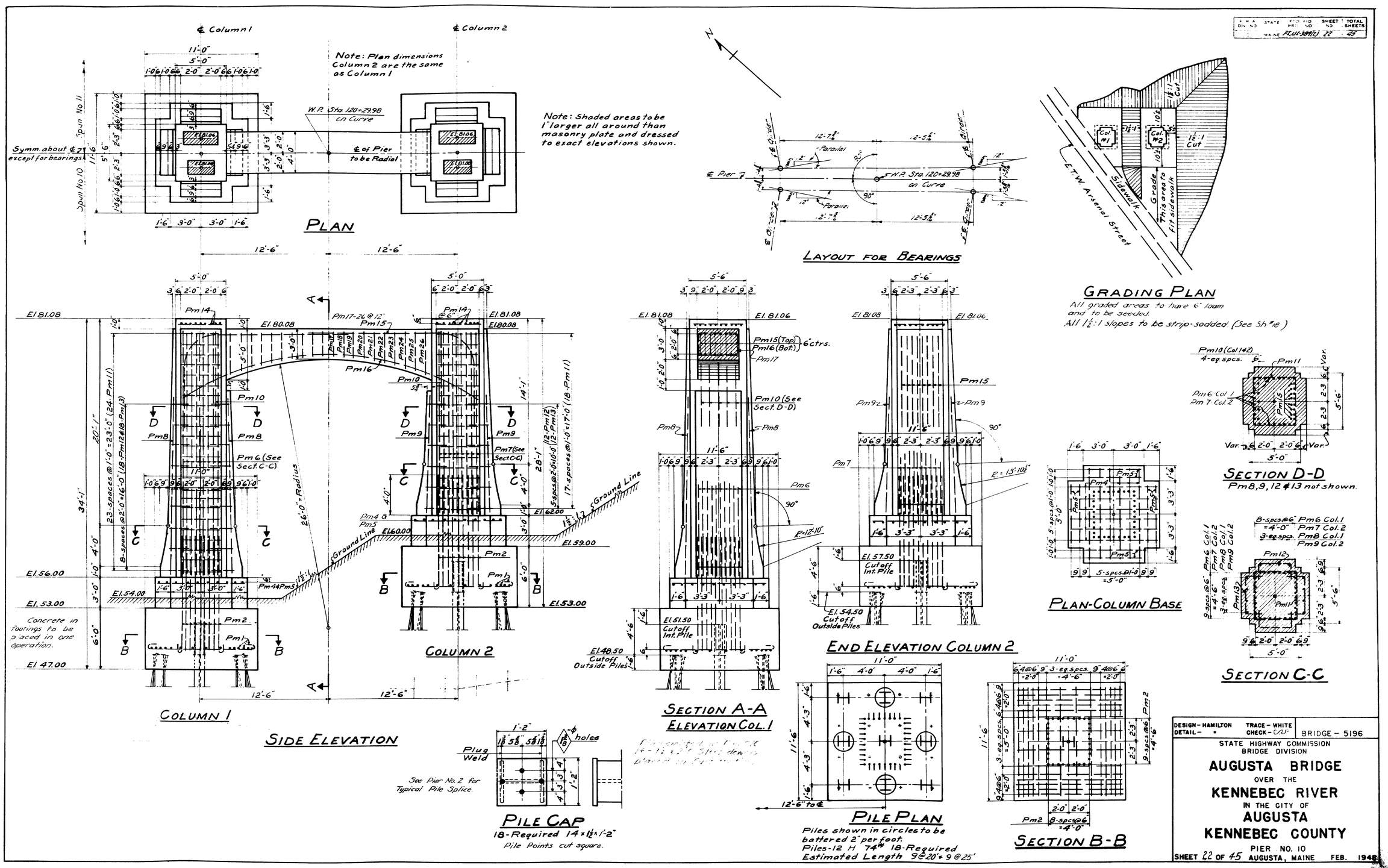
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

PIER NO. 9

SHEET 21 OF 45 AUGUSTA, MAINE FEB. 1948

52-21



P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FLU-389(2)	22	45

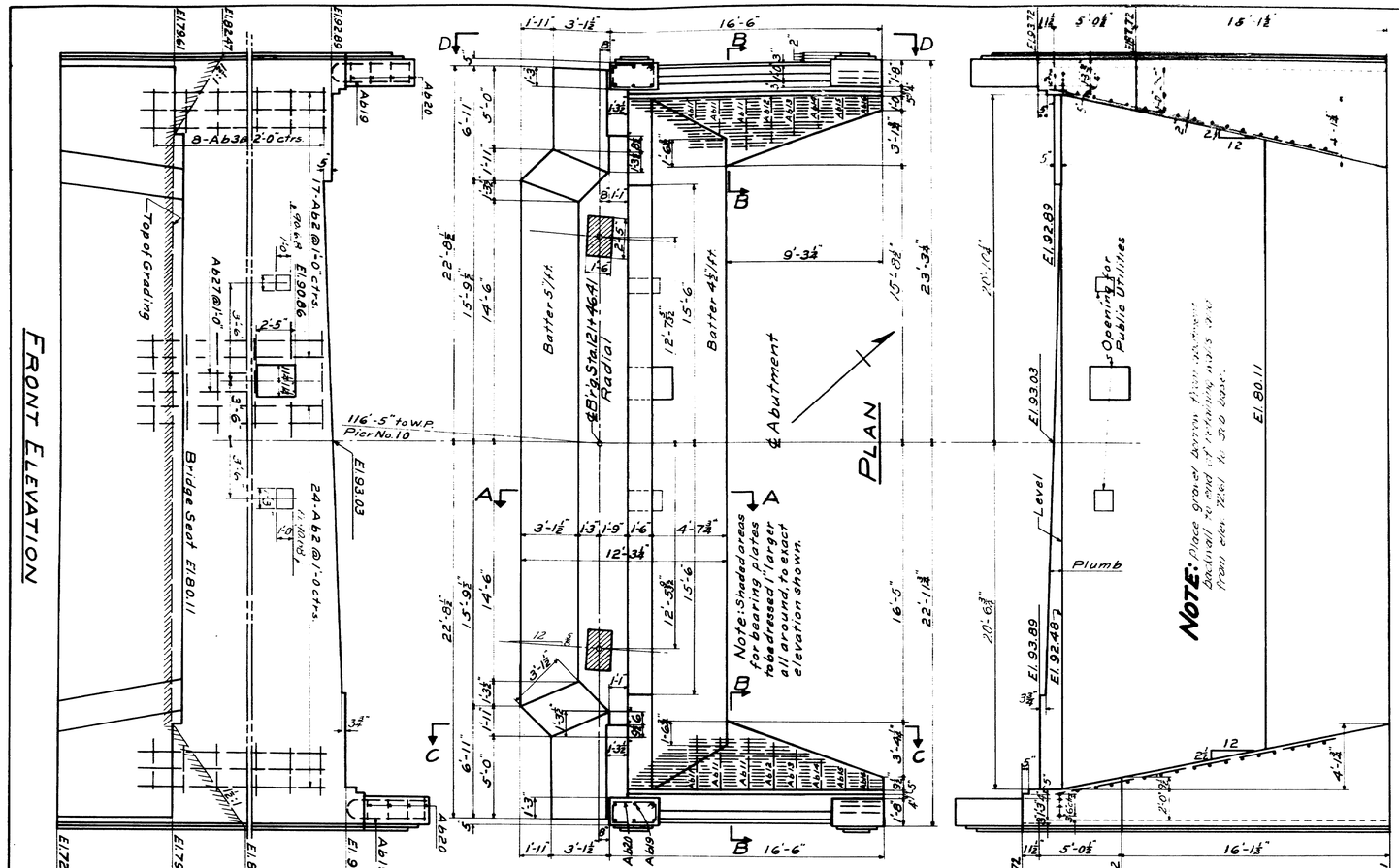
DESIGN - HAMILTON TRACE - WHITE
DETAIL - " CHECK - CAP
BRIDGE - 5196

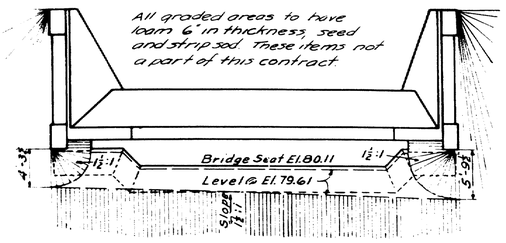
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

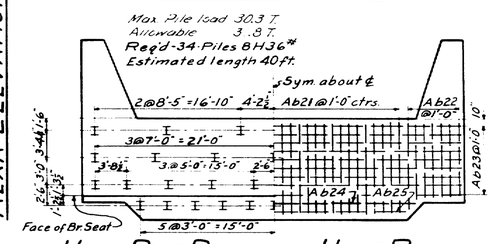
PIER NO. 10
SHEET 22 OF 45 AUGUSTA, MAINE FEB. 1948

52-22



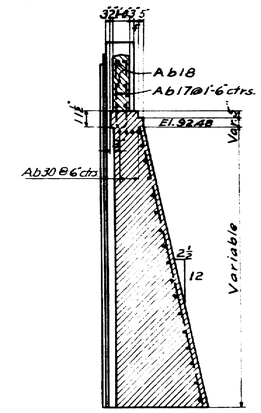


GRADING PLAN

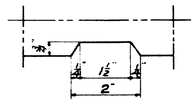


HALF PILE PLAN

HALF PLAN REIN. STEEL OVER PILES

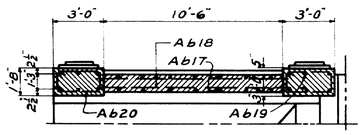


SECTION B-B

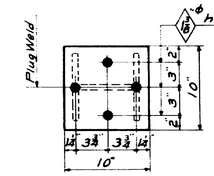


Inside face of Rail

GROOVE DETAIL

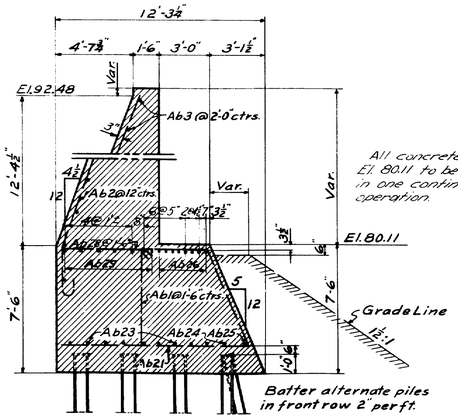


SECTION E-E



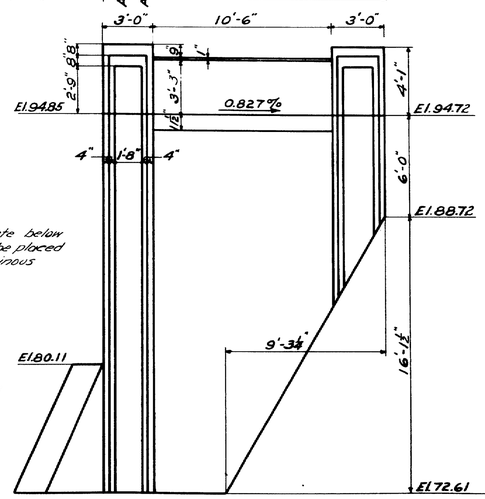
PILE CAP

34-Req'd 10 × ¾ × 0'-10"

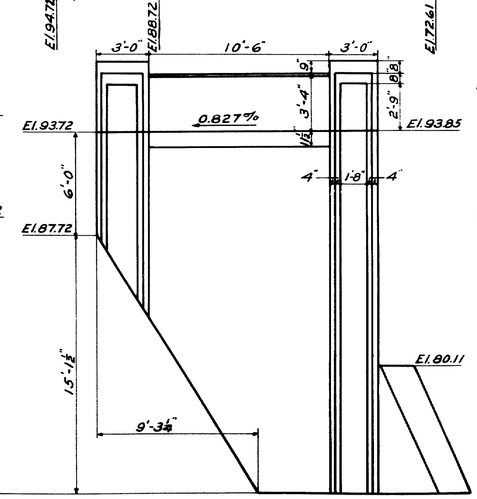


All concrete below El. 80.11 to be placed in one continuous operation.

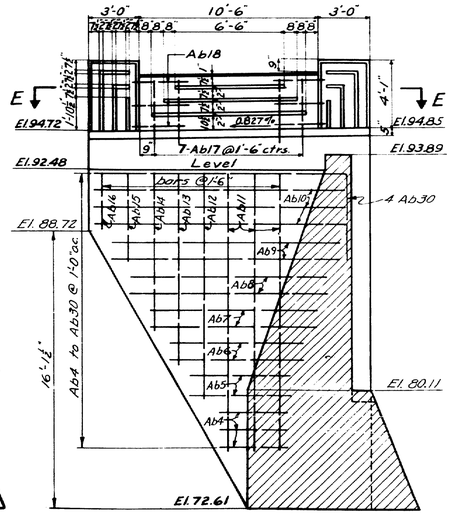
SECTION A-A



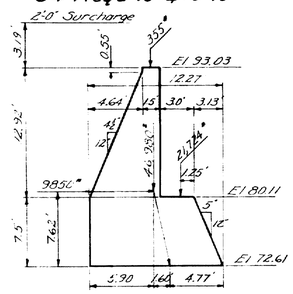
SIDE ELEVATION



SIDE ELEVATION D-D



SECTION C-C (OPP. RAIL SIMILAR)



ABUT. ANALYSIS

DESIGN - STANGEL DETAIL - "	TRACE - WHITE CHECK - Gea
BRIDGE - 5196	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

ABUTMENT NO. 2

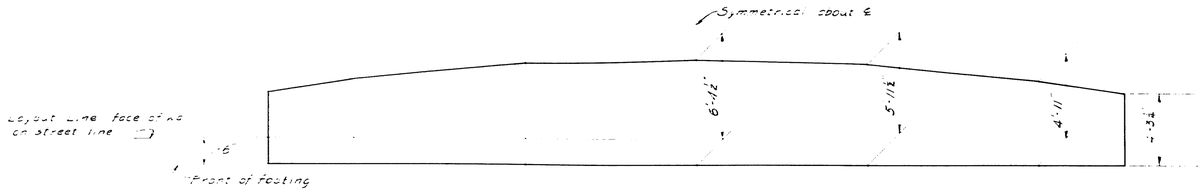
SHEET 23 OF 45 AUGUSTA, MAINE FEB. 1948

Revised 6-17-49 Opening for P.U. down stream side.
7-30-48

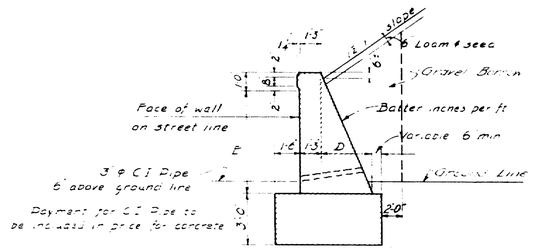
52-23

0 1 2 3 4 5 INCHES

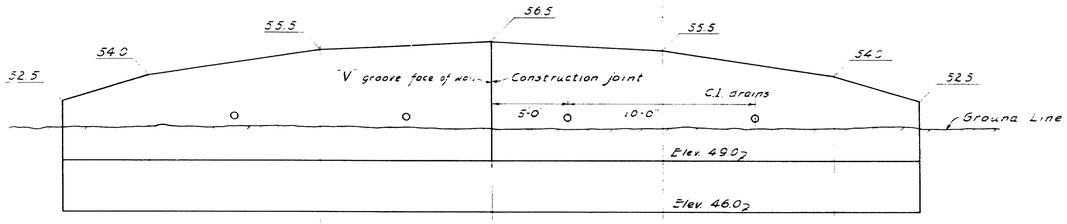
STATE	SHEET	TOTAL SHEETS
MAINE FL-U1-3(17)	24	45



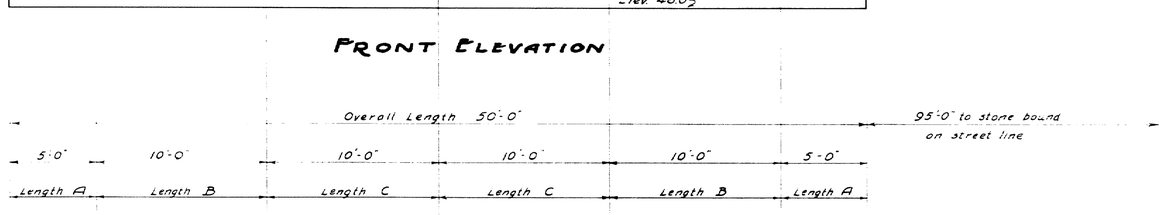
FOOTING PLAN

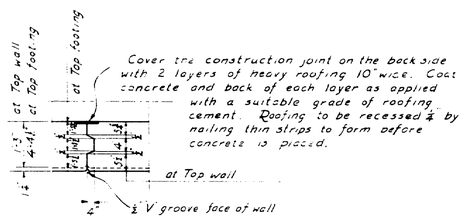


TYPICAL SECTION



FRONT ELEVATION





DETAIL CONSTRUCTION JOINT

SCHEDULE of DIMENSIONS

Length	Batter	D	E
A	3½"	1'-0½" to 1'-5½"	2'-6" to 4'-0"
B	4"	1'-8" to 2'-2"	4'-0" to 5'-6"
C	5"	2'-8½" to 3'-1½"	5'-6" to 6'-6"

DESIGN - EVERETT TRACE - FORTIER
DETAIL - " CHECK - G.V.S.

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

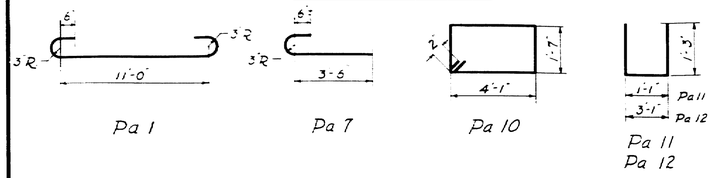
ARSENAL STREET RETAINING WALL

SHEET 24 OF 45 AUGUSTA, MAINE FEB. 1948

52-24

0 1 2 3 4 5 INCHES

PIER No. 1



BENT BARS

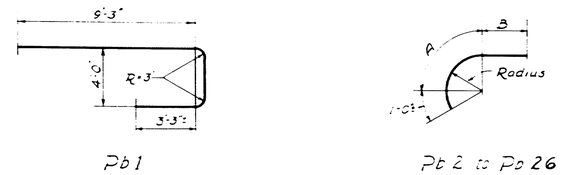
Mark	Size	No	Length	Location
Pa 1	3/8" ø	84	13'-7"	Footing
Pa 7	1/2" ø	32	4'-9	Pier Cap
Pa 10	3/8" ø	26	11'-8	Column
Pa 11	3/8" ø	40	3'-7	"
Pa 12	3/8" ø	20	5'-7	"

STRAIGHT BARS

Mark	Size	No.	Length	Location
Pa 2	1/2" ø	12	8'-6"	Pier Shaft
Pa 3	1/2" ø	12	9'-2"	"
Pa 4	1/2" ø	68	8'-6"	"
Pa 5	3/4" ø	34	9'-6"	" Cap
Pa 6	3/4" ø	32	9'-0"	"
Pa 8	1/2" ø	22	14'-0"	Column
Pa 9	5/8" ø	32	20'-6"	" "

L GWS

PIER No. 2



BENT BARS

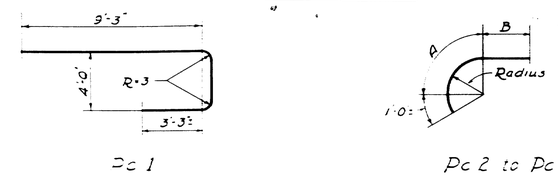
Mark	Size	No	Radius	A	B	Length	Location
Pb 1	3/4" ø	26	—	—	—	16'-9	Under bearing areas
Pb 2	1/2" ø	4	8'-7"	13'-6"	2'-0"	16'-6"	Pier Shaft (hor bars)
Pb 3	"	2	8'-8 1/2"	13'-8 1/2"	"	16'-8"	" "
Pb 4	"	2	8'-10"	13'-10 1/2"	"	16'-10"	" "
Pb 5	"	2	8'-11 1/2"	14'-1"	"	17'-1	" "
Pb 6	"	2	9'-1"	14'-3"	"	17'-3"	" "
Pb 7	"	2	9'-2 1/2"	14'-5 1/2"	"	17'-5"	" "
Pb 8	"	2	9'-4"	14'-8"	"	17'-8"	" "
Pb 9	"	2	9'-5 1/2"	14'-10 1/2"	"	17'-10	" "
Pb 10	"	2	9'-7"	15'-0 1/2"	"	18'-0"	" "
Pb 11	"	2	9'-8 1/2"	15'-3"	"	18'-3"	" "
Pb 12	"	2	9'-10"	15'-5 1/2"	"	18'-5"	" "
Pb 13	"	2	9'-11 1/2"	15'-7 3/4"	"	18'-8"	" "
Pb 14	"	2	10'-1"	15'-10 1/2"	2'-0"	18'-10	" "
Pb 15	"	2	8'-8 1/2"	13'-8 1/2"	2'-4"	17'-0"	" "

Mark	Size	No	Radius	A	B	Length	Location
Pb 16	1/2" ø	2	8'-0"	13'-0 1/2"	2'-8"	17'-6"	Pier Shaft, hor bars)
Pb 17	"	2	8'-11 1/2"	14'-1"	3'-0"	18'-1"	" "
Pb 18	"	2	9'-1"	14'-3"	3'-4"	18'-7"	" "
Pb 19	"	2	9'-2 1/2"	14'-5 1/2"	3'-8"	19'-1"	" "
Pb 20	"	2	9'-4"	14'-8"	4'-0"	19'-8"	" "
Pb 21	"	2	9'-5 1/2"	14'-10 1/2"	4'-4"	20'-2"	" "
Pb 22	"	2	9'-7"	15'-0 1/2"	4'-8"	20'-8"	" "
Pb 23	"	2	9'-8 1/2"	15'-3"	5'-0"	21'-3	" "
Pb 24	"	2	9'-10"	15'-5 1/2"	5'-4"	21'-9"	" "
Pb 25	"	2	9'-11 1/2"	15'-7 3/4"	5'-8"	22'-4"	" "
Pb 26	"	2	10'-1"	15'-10 1/2"	6'-0"	22'-10"	" "

STRAIGHT BARS

Mark	Size	No.	Length	Location
Pb 27	3/4" ø	36	12'-6"	Under bearing areas
Pb 28	"	72	38'-0"	Pier Shaft (vert. bars)
Pb 29	1/2" ø	26	21'-11"	" " (hor bars)

PIER No. 3



BENT BARS

Mark	Size	No	Radius	A	B	Length	Location
Pc 1	3/4" ø	26	—	—	—	16'-9"	Under bearing areas
Pc 2	1/2" ø	4	8'-7"	13'-6"	2'-0"	16'-6"	Pier Shaft (hor bars)
Pc 3	"	2	8'-8 1/2"	13'-8 1/2"	"	6'-8"	"
Pc 4	"	2	8'-10"	13'-10 1/2"	"	16'-10"	"
Pc 5	"	2	8'-11 1/2"	14'-1"	"	17'-	"
Pc 6	"	2	9'-1"	14'-3	"	7'-3"	"
Pc 7	"	2	9'-2 1/2"	14'-5 1/2"	"	17'-5"	"
Pc 8	"	2	9'-4"	14'-8"	"	7'-8	"
Pc 9	"	2	9'-5 1/2"	14'-10 1/2"	"	17'-0"	"
Pc 10	"	2	9'-7	15'-0 1/2"	"	18'-0"	"
Pc 11	"	2	9'-8 1/2"	15'-3	"	18'-3	"
Pc 12	"	2	9'-10	15'-5 1/2"	"	18'-5"	"
Pc 13	"	2	9'-11 1/2"	15'-7 3/4"	"	8'-8"	"
Pc 14	"	2	10'-1"	15'-10 1/2"	"	18'-10"	"
Pc 15	"	2	10'-2 1/2"	16'-0 1/2"	2'-0	19'-0"	
Pc 16	"	2	8'-8 1/2"	13'-8 1/2"	2'-4	7'-0"	

Mark	Size	No	Radius	A	B	Length	Location
Pc 17	1/2" ø	2	8'-10"	13'-0 1/2"	2'-8	17'-6"	Pier Shaft (hor bars)
Pc 18	"	2	8'-11 1/2"	14'-1"	3'-0	18'-1"	" "
Pc 19	"	2	9'-1"	14'-3	3'-4	18'-7	" "
Pc 20	"	2	9'-2 1/2"	14'-5 1/2"	3'-8"	19'-1"	" "
Pc 21	"	2	9'-4"	14'-8"	4'-0	19'-8"	" "
Pc 22	"	2	9'-5 1/2"	14'-10 1/2"	4'-4	20'-2"	" "
Pc 23	"	2	9'-7	15'-0 1/2"	4'-8"	20'-8"	" "
Pc 24	"	2	9'-8 1/2"	15'-3"	5'-0	21'-3	" "
Pc 25	"	2	9'-10"	15'-5 1/2"	5'-4"	21'-9	" "
Pc 26	"	2	9'-11 1/2"	15'-7 3/4"	5'-8"	22'-4"	" "
Pc 27	"	2	10'-1"	15'-10 1/2"	6'-0	22'-0"	" "
Pc 28	"	2	10'-2 1/2"	16'-0 1/2"	6'-4	23'-4"	" "

STRAIGHT BARS

Mark	Size	No	Length	Location
Pc 29	3/4" ø	36	12'-6"	Under bearing areas
Pc 30	3/4" ø	72	41'-0"	Pier Shaft (vert bars)
Pc 31	1/2" ø	28	21'-11	" " (hor bars)

PIER No. 4

BENT BARS

Mark	Size	No	Radius	A	B	Length	Location
Pd 1	3/8" ø	26	—	—	—	16'-9	Under bearing areas
Pd 2	1/2" ø	4	8'-7"	13'-	2'-0	16'-6"	Pier Shaft (hor bars)
Pd 3	"	2	8'-8 1/2"	13'-8 1/2"	"	16'-8	" "
Pd 4	"	2	8'-10	13'-10 1/2"	"	16'-10"	" "
Pd 5	"	2	8'-11 1/2"	14'-1"	"	17'-1"	" "
Pd 6	"	2	9'-1"	14'-3"	"	17'-3"	" "
Pd 7	"	2	9'-2 1/2"	14'-5 1/2"	"	17'-5"	" "
Pd 8	"	2	9'-4"	14'-8"	"	17'-8"	" "
Pd 9	"	2	9'-5 1/2"	14'-10 1/2"	"	17'-10"	" "
Pd 10	"	2	9'-7"	15'-0 1/2"	"	18'-0"	" "
Pd 11	"	2	9'-8 1/2"	15'-3"	"	18'-3"	" "
Pd 12	"	2	9'-10"	15'-5 1/2"	"	18'-5"	" "
Pd 13	"	2	9'-11 1/2"	15'-7 3/4"	"	18'-8"	" "
Pd 14	"	2	10'-1"	15'-10 1/2"	2'-0	18'-10"	" "
Pd 15	"	2	8'-8 1/2"	13'-8 1/2"	2'-4"	17'-0"	" "

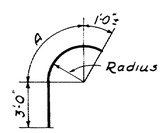
Mark	Size	No	Radius	A	B	Length	Location
Pd 16	1/2" ø	2	8'-10"	13'-10 1/2"	2'-8"	17'-6"	Pier Shaft (hor bars)
Pd 17	"	2	8'-11 1/2"	14'-1"	3'-0"	18'-1"	" "
Pd 18	"	2	9'-1"	14'-3"	3'-4"	18'-7"	" "
Pd 19	"	2	9'-2 1/2"	14'-5 1/2"	3'-8"	19'-1"	" "
Pd 20	"	2	9'-4"	14'-8"	4'-0"	19'-8"	" "
Pd 21	"	2	9'-5 1/2"	14'-10 1/2"	4'-4"	20'-2"	" "
Pd 22	"	2	9'-7"	15'-0 1/2"	4'-8"	20'-8"	" "
Pd 23	"	2	9'-8 1/2"	15'-3"	5'-0"	21'-3"	" "
Pd 24	"	2	9'-10"	15'-5 1/2"	5'-4"	21'-9"	" "
Pd 25	"	2	9'-11 1/2"	15'-7 3/4"	5'-8"	22'-4"	" "
Pd 26	"	2	10'-1"	15'-10 1/2"	6'-0"	22'-10"	" "

STRAIGHT BARS

Mark	Size	No.	Length	Location
Pd 27	3/4" ø	36	12'-6"	under bearing areas
Pd 28	"	72	38'-0"	Pier Shaft (vert. bars)
Pd 29	1/2" ø	26	21'-11"	" (hor. bars)

L CAB

PIER No. 5



BENT BARS

Mark	Size	No.	Radius	A	Length	Location
Pe 5	1/2" ø	4	4'-6 1/2"	7'-1 1/2"	11'-1"	Pier Shaft (hor bars)
Pe 6	"	4	4'-8"	7'-4"	11'-4"	" "
Pe 7	"	4	4'-9 1/2"	7'-6 1/2"	11'-6"	" "
Pe 8	"	4	4'-11"	7'-8 1/2"	11'-8"	" "
Pe 9	"	4	5'-0 1/2"	7'-11"	11'-11"	" "
Pe 10	"	4	5'-2"	8'-1 1/2"	12'-1"	" "
Pe 11	"	4	5'-3 1/2"	8'-3 3/4"	12'-4"	" "
Pe 12	"	4	5'-5"	8'-9"	12'-9"	" "

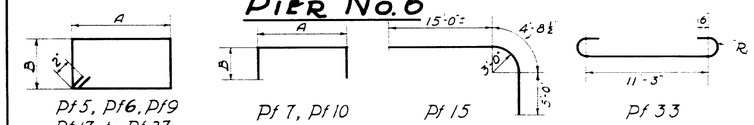
L CAB

STRAIGHT BARS

Mark	Size	No.	Length	Location
Pe 1	3/4" ø	32	15'-8"	Footing
Pe 2	"	12	21'-9"	" (Splice)
Pe 3	"	52	23'-7"	Pier Shaft (vert. bars)
Pe 4	"	52	6'-0"	Dowels in footing
Pe 13	1/2" ø	16	23'-6"	Pier Shaft (hor. bars)
Pe 14	3/4" ø	4	17'-5"	Footing (splice)
Pe 15	"	4	18'-5"	" "
Pe 16	"	4	19'-4"	" "
Pe 17	"	4	20'-5"	" "

Mark	Size	No.	Length	Location
Pe 18	3/4" ø	4	21'-4"	Footing (splice)
Pe 19	"	2	13'-6"	"
Pe 20	"	2	11'-6"	"
Pe 21	"	2	9'-6"	"
Pe 22	"	2	7'-6"	"
Pe 23	"	2	5'-6"	"

PIER No. 6



BENT BARS

Mark	Size	No.	A	B	Length	Location
Pf 5	1/2" ø	62	5'-4 1/2"	5'-1 1/2"	21'-4"	Pier Columns
Pf 6	"	36	5'-1 1/2"	1'-1 1/2"	12'-10"	" "
Pf 9	"	22	5'-4 1/2"	1'-10 1/2"	14'-10"	" "
Pf 7	"	54	4'-1 1/2"	1'-6"	7'-1"	" "
Pf 10	"	64	4'-4 1/2"	1'-6"	7'-4"	" "
Pf 15	1" ■	16	—	—	24'-8"	Strut
Pf 17	1/2" ø	1	2'-1 1/2"	2'-5 1/2"	9'-6"	" "
Pf 18	"	2	2'-1 3/8"	"	9'-6"	" "
Pf 19	"	2	2'-2 1/4"	"	9'-7"	" "
Pf 20	"	2	2'-3 3/8"	"	9'-10"	" "

Mark	Size	No	A	B	Length	Location
Pf 21	1/2" ø	2	2'-4 3/8"	2'-3 1/2"	10'-1"	Pier Strut
Pf 22	"	2	2'-6 3/8"	"	10'-5"	"
Pf 23	"	2	2'-9 3/8"	"	10'-10"	"
Pf 24	"	2	3'-0 1/4"	"	11'-3"	"
Pf 25	"	2	3'-3 3/8"	"	11'-10"	"
Pf 26	"	2	3'-7 1/2"	"	12'-6"	"
Pf 27	"	2	4'-0"	"	13'-3"	"
Pf 33	1" ■	18			15'-5"	Footing

L CAB

STRAIGHT BARS

Mark	Size	No	Length	Location
Pf 1	1" ■	80	15'-0"	Pier Shaft to Column
Pf 2	1" ø	80	26'-6"	Pier Column
Pf 3	"	68	18'-0"	"
Pf 4	"	24	15'-0"	"
Pf 8	3/4" ø	32	30'-0"	"
Pf 11	"	28	10'-6"	Column Base
Pf 12	"	16	6'-6"	"
Pf 13	"	46	17'-0	Pier Shaft
Pf 14	1/2" ø	12	34'-0"	"
Pf 16	1" ■	8	34'-0"	Strut
Pf 28	3/4" ø	14	4'-6"	Br. Seat
Pf 29	"	18	3'-6"	"
Pf 30	1" ■	46	4'-0	Footing (Top)
Pf 31	3/4" ø	37	13'-0"	"
Pf 32	"	26	25'-6"	"

Note: All dimensions to ℄ steel.

PLAN - WHITE
TRACE - FORTIER
CHECK - JJ Noted

BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

REINF. STEEL – PIERS 1 TO 6

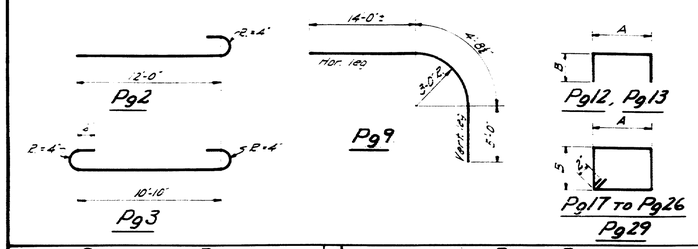
SHEET 25 OF 45 AUGUSTA, MAINE FEB. 1948

52-25

0 1 2 3 4 5 INCHES

F.A.P. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FI (U-30002)	26	45

PIER No. 7



STRAIGHT BARS

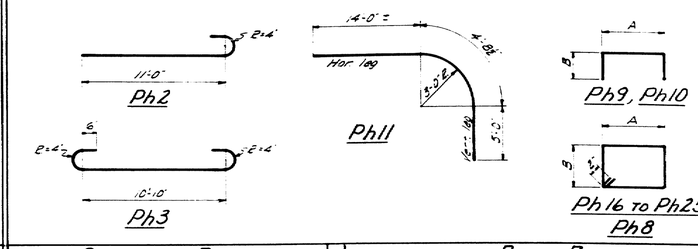
MARK	SIZE	NO.	LENGTH	LOCATION
Pg1	1" ■	8	6'-0"	Footing
Pg4	1/4" ■	44	12'-0"	Column
Pg5	1/4" ■	44	27'-0"	"
Pg7	1/2" ■	56	33'-0"	"
Pg8	3/8" ⊙	64	25'-0"	"
Pg11	1/4" ■	16	32'-0"	Strut to Column
Pg15	1/4" ■	32	22'-0"	Column
Pg16	3/8" ⊙	38	4'-6"	" " (Top)
Pg27	3/8" ⊙	26	9'-6"	" (Base)
Pg28	3/8" ⊙	16	5'-6"	" "

BENT BARS

MARK	SIZE	NO	A	B	LENGTH	LOCATION
Pg2	1 1/4" ■	88	—	—	13'-6"	Footing to Columns
Pg3	1" ■	76	—	—	14'-0"	Footing
Pg9	1 1/4" ■	32	—	—	23'-8"	Strut to Column
Pg12	1/2" ⊙	96	3'-2½"	1'-6"	6'-2"	Columns
Pg13	"	96	3'-8½"	1'-6"	6'-8"	"
Pg17	"	2	"	3'-2½"	14'-1"	Strut
Pg18	"	2	"	3'-3"	14'-2"	"
Pg19	"	2	"	3'-4"	14'-4"	"
Pg20	"	2	"	3'-5½"	14'-7"	"
Pg21	"	2	"	3'-7½"	14'-11"	"
Pg22	"	2	"	3'-9½"	15'-3"	"
Pg23	"	2	"	4'-2½"	15'-9"	"
Pg24	"	2	"	4'-5⅝"	16'-4"	"
Pg25	"	2	"	4'-7⅞"	16'-11"	"
Pg26	"	2	3'-8½"	4'-11⅛"	17'-8"	Strut
Pg29	1/2" ⊙	112	4'-8½"	4'-2½"	18'-1"	Columns

F.A.B.

PIER No. 8



STRAIGHT BARS

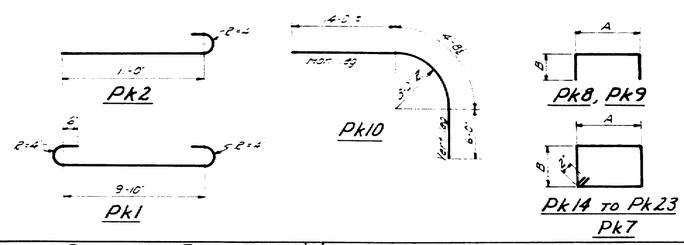
MARK	SIZE	NO	LENGTH	LOCATION
Ph1	1" ■	8	6'-0"	Footing
Ph4	3/8" ⊙	26	9'-6"	Column Base
Ph5	3/8" ⊙	16	5'-6"	" "
Ph6	1" ■	136	22'-0"	Column
Ph7	3/8" ⊙	32	31'-0"	"
Ph13	1 1/8" ■	16	32'-0"	Strut to Column
Ph14	1 1/8" ■	32	20'-0"	Column
Ph15	3/8" ⊙	38	4'-6"	" (Top)

BENT BARS

MARK	SIZE	NO	A	B	LENGTH	LOCATION
Ph2	1" ■	68	—	—	12'-6"	Footing to Column
Ph3	1" ■	76	—	—	14'-0"	Footing
Ph8	1/2" ⊙	80	4'-8½"	4'-2½"	18'-1"	Columns
Ph9	1/2" ⊙	64	3'-2½"	1'-6"	6'-2"	"
Ph10	1/2" ⊙	64	3'-8½"	1'-6"	6'-8"	"
Ph11	1 1/8" ■	32	—	—	23'-8"	Strut to Column
Ph16	3/8" ⊙	2	3'-8½"	3'-2½"	14'-1"	Strut
Ph17	"	2	"	3'-3"	14'-2"	"
Ph18	"	2	"	3'-4"	14'-4"	"
Ph19	"	2	"	3'-5½"	14'-7"	"
Ph20	"	2	"	3'-7½"	14'-11"	"
Ph21	"	2	"	3'-9½"	15'-3"	"
Ph22	"	2	"	4'-2½"	15'-9"	"
Ph23	"	2	"	4'-5⅝"	16'-4"	"
Ph24	"	2	"	4'-7⅞"	16'-11"	"
Ph25	1/2" ⊙	2	3'-8½"	4'-11⅛"	17'-8"	Strut

F.A.B.

PIER No. 9



STRAIGHT BARS

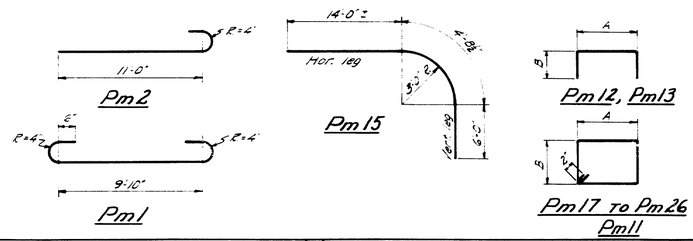
MARK	SIZE	NO	LENGTH	LOCATION
Pk3	3/8" ⊙	24	8'-6"	Column Base
Pk4	3/8" ⊙	16	5'-6"	" "
Pk5	1" ■	68	20'-4"	Columns
Pk6	3/8" ⊙	32	5'-6"	"
Pk11	1/4" ■	8	32'-0"	Strut
Pk13	1/4" ■	8	10'-0"	Columns
Pk15	3/8" ⊙	38	4'-6"	Columns (Top)

BENT BARS

MARK	SIZE	NO	A	B	LENGTH	LOCATION
Pk1	1" ■	56	—	—	13'-0"	Footing
Pk2	1" ■	68	—	—	12'-6"	Footing to Column
Pk7	1/2" ⊙	40	4'-8½"	4'-2½"	18'-1"	Columns
Pk8	"	28	3'-8½"	1'-6"	6'-8"	"
Pk9	"	28	3'-2½"	1'-6"	6'-2"	"
Pk12	1/4" ■	6	—	—	24'-8"	Strut
Pk14	1/2" ⊙	2	3'-8½"	2'-2½"	2'-	
Pk15	"	2	"	2'-3"	2'-2	
Pk16	"	2	"	2'-4"	2'-4	"
Pk17	"	2	"	2'-5½"	2'-7	"
Pk18	"	2	"	2'-7½"	2'-	"
Pk19	"	2	"	2'-9½"	3'-3"	"
Pk20	"	2	"	3'-2½"	3'-9	
Pk21	"	2	"	3'-3⅝"	4'-4"	
Pk22	"	2	"	3'-5⅝"	4'-	
Pk23	1/2" ⊙	2	3'-8½"	3'-11⅛"	5'-8	Strut

F.A.B.

PIER No. 10



STRAIGHT BARS

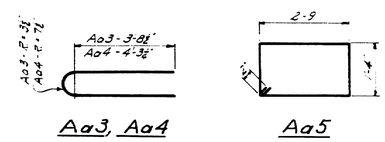
MARK	SIZE	NO.	LENGTH	LOCATION
Pm4	3/8" ⊙	24	8'-6"	Column Base
Pm5	3/8" ⊙	16	5'-6"	
Pm6	1" ⊙	32	24'-4"	Column "
Pm7	1" ⊙	34	18'-4"	" 2
Pm8	3/8" ⊙	16	17'-6"	" 1
Pm9	3/8" ⊙	16	11'-6"	" 2
Pm10	1 1/4" ■	10	10'-0"	" 1 & " 2
Pm14	3/8" ⊙	38	4'-6"	Columns (Top)
Pm16	1 1/4" ■	8	32'-0"	Strut

BENT BARS

MARK	SIZE	NO.	A	B	LENGTH	LOCATION
Pm1	1" ■	56	—	—	13'-0"	Footing
Pm2	1" ⊙	68	—	—	12'-6"	Footing to Column
Pm11	1/2" ⊙	42	4'-8½"	4'-2½"	18'-1"	Columns
Pm12	"	30	3'-8½"	1'-6"	6'-8"	"
Pm13	"	30	3'-2½"	1'-6"	6'-2"	"
Pm15	1 1/4" ■	16	—	—	24'-8"	Strut
Pm17	1/2" ⊙	2	3'-8½"	2'-2½"	12'-1"	"
Pm18	"	2	"	2'-3"	12'-2"	"
Pm19	"	2	"	2'-4"	12'-4"	"
Pm20	"	2	"	2'-5½"	12'-7"	"
Pm21	"	2	"	2'-7½"	12'-11"	"
Pm22	"	2	"	2'-9½"	13'-3"	"
Pm23	"	2	"	3'-0½"	13'-9"	"
Pm24	"	2	"	3'-3⅝"	14'-4"	"
Pm25	"	2	"	3'-7⅞"	14'-11"	"
Pm26	1/2" ⊙	2	3'-8½"	3'-11⅛"	15'-8"	Strut

F.A.B.

ABUTMENT No. 1



STRAIGHT BARS

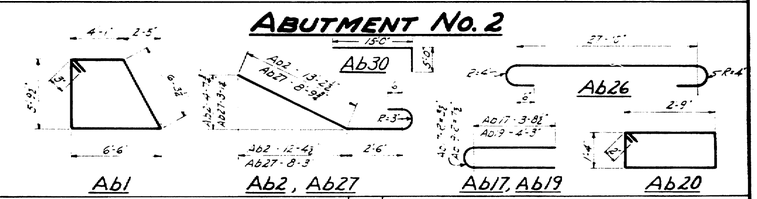
MARK	SIZE	NO.	LENGTH	LOCATION
Aa1	3/8" ⊙	12	8'-0"	Cor. Br. Wall
Aa2	3/8" ⊙	16	7'-6"	Ret. Wall Rail

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
Aa3	3/8" ⊙	10	8'-4"	Ret. Wall Rail
Aa4	3/8" ⊙	12	10'-6"	" " Post
Aa5	3/8" ⊙	12	8'-6"	" " "

V. Hamilton

ABUTMENT No. 2



STRAIGHT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
Ab3	3/8" ⊙	10	24'-2"	Retaining Wall
Ab4	3/8" ⊙	6	4'-2	" "
Ab5	"	4	6'-3"	" "
Ab6	"	4	8'-0	" "
Ab7	"	4	9'-6"	" "
Ab8	"	4	11'-6"	" "
Ab9	"	4	13'-3"	" "
Ab10	"	6	5'-0"	" "
Ab11	3/8" ⊙	2	16'-6"	" "
Ab12	"	2	14'-6"	" "
Ab13	"	2	12'-6"	" "
Ab14	"	2	8'-6"	" "
Ab15	"	2	6'-6"	" "
Ab16	"	2	4'-6"	" "
Ab18	"	6	10'-3"	Rail
Ab21	3/8" ⊙	31	11'-0"	Over Pile
Ab22	"	14	9'-0"	" " (Splice)
Ab23	"	18	24'-0"	" " "
Ab24	"	2	19'-0"	" " "
Ab25	"	2	17'-6"	" " "
Ab28	3/8" ⊙	31	5'-9"	Backwall Br. Seat

BENT BARS

MARK	SIZE	NO.	LENGTH	LOCATION
Ab1	3/8" ⊙	9	23'-2"	Bridge Seat
Ab2	3/8" ⊙	4	7'-0"	Backwall
Ab17	3/8" ⊙	14	5'-0"	Rail
Ab19	3/8" ⊙	12	5'-0	Rail Post
Ab20	3/8" ⊙	16	8'-6	
Ab26	1 1/4" ■	8	30'-	Bridge Seat
Ab27	3/8" ⊙	2	2'-7	Backwall
Ab30	3/8" ⊙	8	22'-0"	Ret. Wall

F.A.B.

Note: All dimensions to ℄ steel.

PLAN – WHITE TRACE – CLARK CHECK – As noted	BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

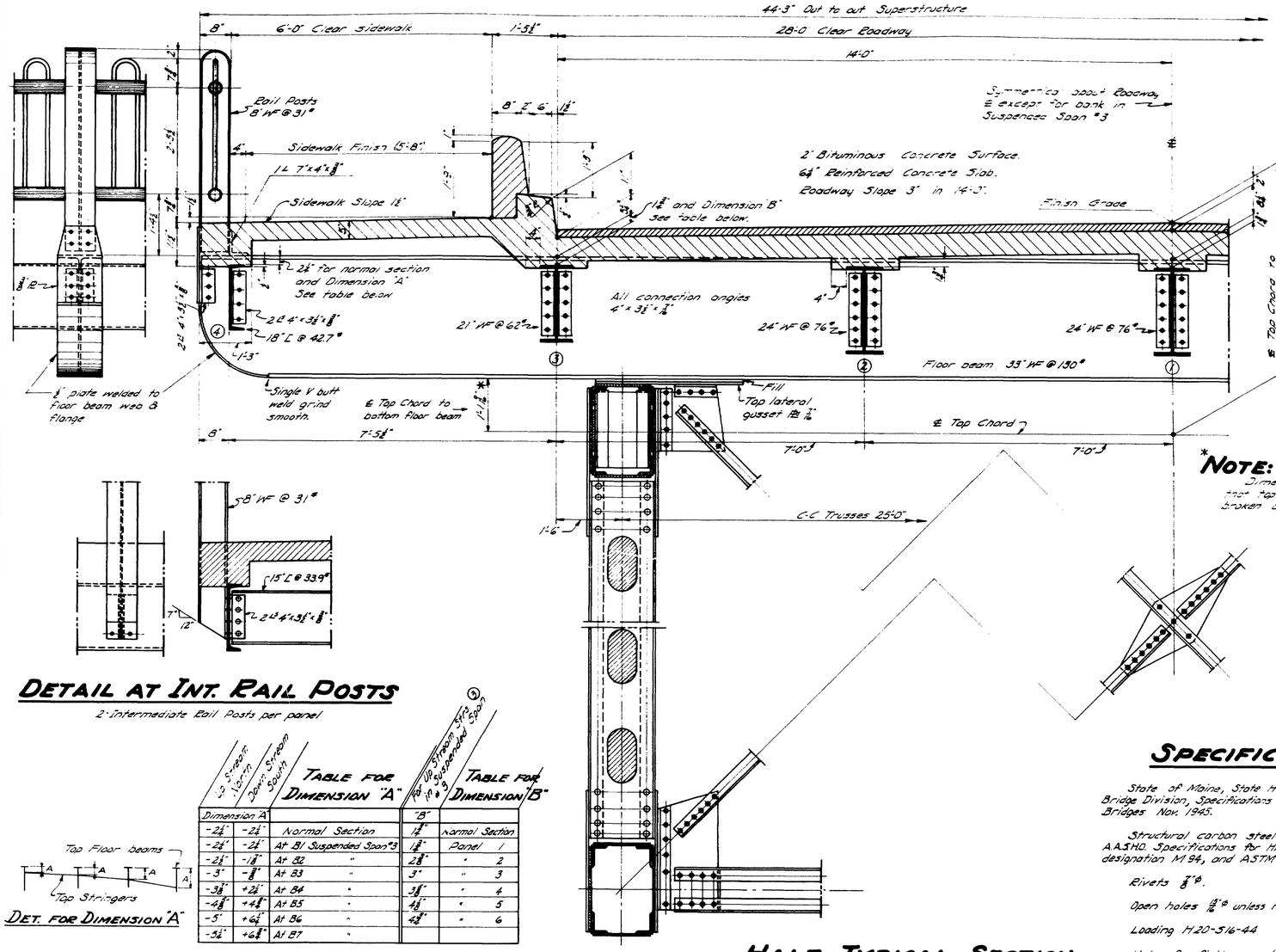
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

REINF. STEEL – ABUTS., & PIERS 7-8-9-10

SHEET 26 OF 45 AUGUSTA, MAINE FEB. 1948

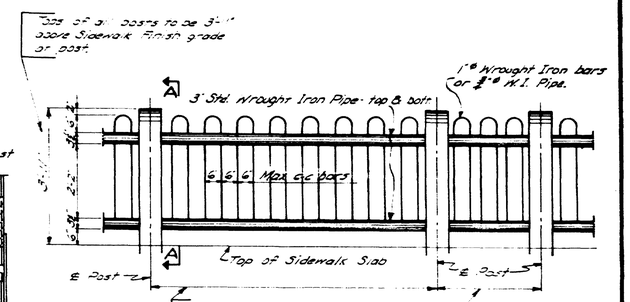
52-26

0 1 2 3 4 5 INCHES



Part Sect.

Down stream side of F87 Suspended Span #3



3 rail sections per panel on Truss & Plate Girder Spans. For spacing on I-Beam Span see dimensions elsewhere.
All rail sections to be straight except up stream side of Span #1 and Slope Street Rail. All post & caps to be vertical. All rail posts to be set normal to ℄.

Typical detail where floor beams occur at ends of Plate Girder Spans, at bins and lines on Truss Spans, and at ends of Truss & I-Beam Spans. For treatment of abutts & approach rail wall at abutt. see details elsewhere.

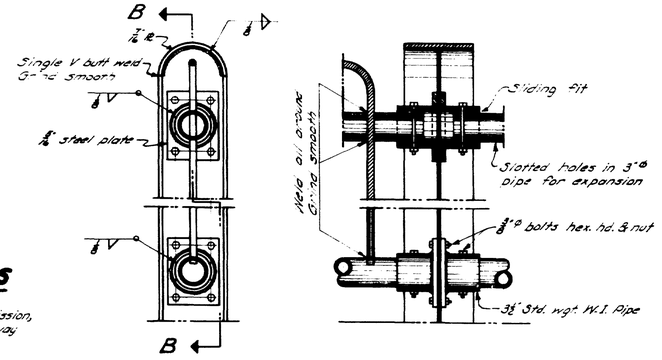
Part Rail Elevation

*Note:

Dimensions marked * assume that top chord of truss will be broken at truss panel points.

Detail at Int. Rail Posts

2' Intermediate Rail Posts per panel

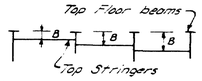


Sect. A-A Sect. B-B

Rail Details

Complete rail details to be furnished by the Contractor for approval before fabrication is started.
W.I. Pipe sleeves, steel plates and bolts for connecting rail sections to posts, shall be furnished with W.I. Rail.
Rail posts on Superstructure to be Structural Steel.

Det. for Dimension "A"



Det. for Dimension "B"

Up Stream North	Down Stream South	Table for Dimension "A"	For Up Stream Str. in Suspended Span #3	Table for Dimension "B"
Dimension "A"			"B"	
-2¼"	-2¼"	Normal Section	1¼"	Normal Section
-2¼"	-2¼"	At B1 Suspended Span #3	1⅜"	Panel 1
-2¼"	-1⅞"	At B2 "	2⅞"	" 2
-3"	-⅞"	At B3 "	3"	" 3
-3⅜"	+2¼"	At B4 "	3⅞"	" 4
-4⅝"	+4¼"	At B5 "	4⅞"	" 5
-5"	+6¼"	At B6 "	4⅞"	" 6
-5¼"	+6⅜"	At B7 "		

Table for Dimension "A" for location of sidewalk stringers, shows distance from top of floor beam to top of stringers. (+) = sidewalk stringer above floor beam, (-) = sidewalk stringer below floor beam. Top flange of floor beam to be coped whenever necessary. For floor beam designation see sheet "General Plan & Elevation".
Dimension "B", for location of stringers ③ in Suspended Span #3, is the distance from top of floor beam to top of stringer. Dimension "B" for stringers ③ on up stream or North side only.

Half Typical Section Truss Spans

Normal Section

Normal Section is for all truss Spans except Suspended Span #3 (See Dimensions "A" & "B")

Specifications

State of Maine, State Highway Commission, Bridge Division, Specifications Steel Highway Bridges Nov. 1945.

Structural carbon steel shall conform to A.A.S.H.O. Specifications for Highway Materials, designation M 94, and ASTM designation A.T.

Rivets ⅞" ⌀.

Open holes 15/16" ⌀ unless noted.

Loading H20-S16-44

Holes for field connections and field splices of Main Members, shall be sub-punched and reamed to a steel template or reamed while assembled.

Revised, Specification Reference, March, 1948

DESIGN - EVERETT	TRACE - CLARK
DETAIL - "	CHECK - C.L.P.
BRIDGE - 5196	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

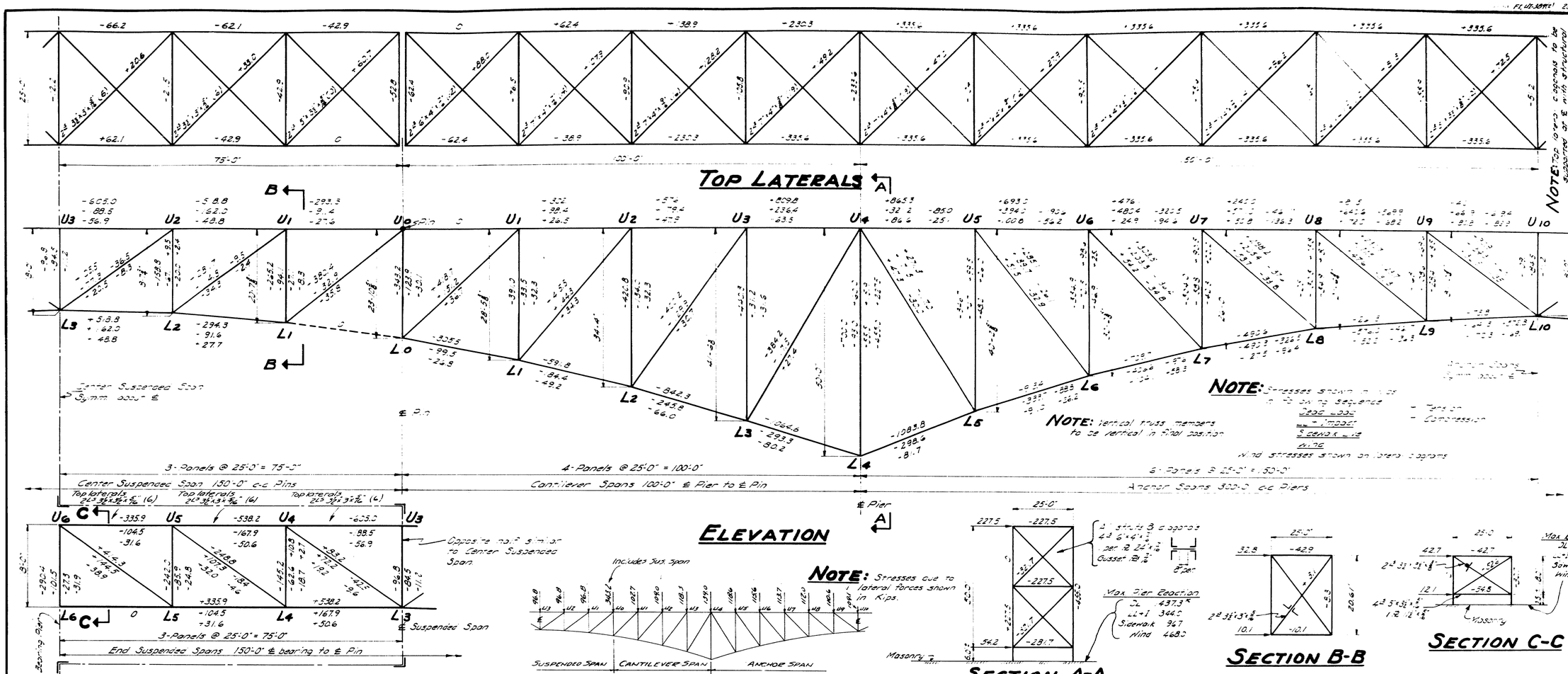
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

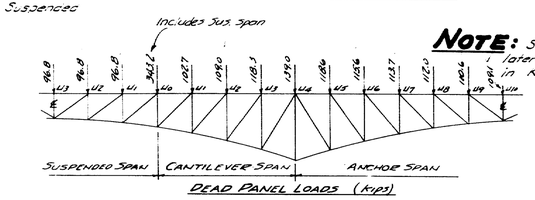
SUPERSTRUCTURE & RAIL DETAILS

SHEET 27 OF 45 AUGUSTA, MAINE FEB. 1948

52-27

0 1 2 3 4 5 INCHES

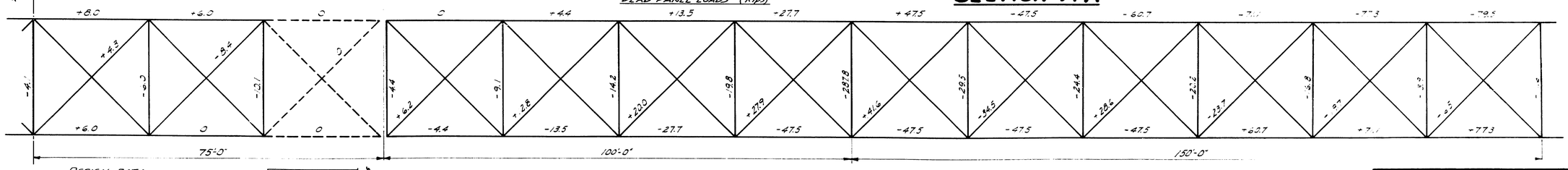




SECTION A-A

SECTION B-B

SECTION C-C

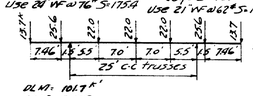


DESIGN DATA

INT. STRINGERS
DLM: 68.8 K'
LLM: 145.2
I: 43.6
257.6 K'
Req'd S: 172.6
Use 28" WF @ 76# S: 175.4

EXT. STRINGERS
DLM: 78.1 K'
LLM: 74.1
I: 22.2
S.W.: 18.3
192.7 K'
Req'd S: 129.1
Use 21" WF @ 62# S: 126.4

S.W. STRINGERS
M: 64.5 K'
Req'd S: 43.2
Use 18" @ 42.7# S: 61.0

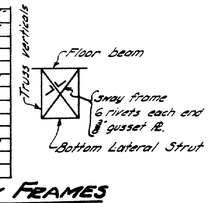


DLM: 101.7 K'
LLM: 375.4
I: 112.8
590.4 K'
Req'd S: 395.6
Use 33" WF @ 130# S: 404.8

TABLE FOR SWAY FRAMES

U0L0	C	2 Ls 3½"×3"×⅜"
U1L1	C	2 Ls 4"×3"×⅜"
U2L2	C	2 Ls 5"×3½"×⅜"
U3L3	C	2 Chs 6"×4"×⅜"
U5L5	A	do
U6L6	A	2 Ls 5"×3½"×⅜"
U7L7	A	2 Ls 5"×3"×⅜"
U8L8	A	do
U9L9	A	2 Ls 3"×3"×⅜"
U10L10	A	do
U1L1	S	2 Ls 3½"×3"×⅜"
U2L2	S	2 Ls 5"×3"×⅜"
U3L3	S	do

A = Anchor Span
C = Cantilever Span
S = Suspended Span



All Bottom lateral struts & diagonals except as noted.
Struts - 4 Ls 5"×3½"×⅜"
1 Pl. 11½"×½"

Bottom lateral gusset Pl. ⅜"

Diagonals - 2 Ls 3"×3"×⅜"
1 Pl. 11½"×⅜"

DESIGN - EVERETT	TRACE - CLARK
DETAIL - "	CHECK - C.L.P.

BRIDGE - 5196

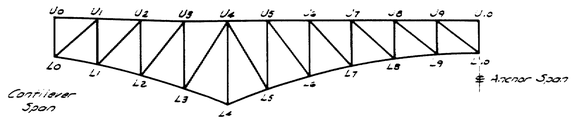
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

STRESSES - TRUSS SPANS

SHEET 28 OF 45 AUGUSTA, MAINE FEB. 1948

52-28



ANCHOR & CANTILEVER SPANS

Reference Sheet #10

U0U1
Use same section as U1U2

L0L1
Stress -43.8
Reqd. A 29.35"²
Gross A 43.75"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x½"
2 per ℞ 16"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U0L0
Stress -497.2
Reqd. A 33.76"²
Gross A 42.56"²
2 ⊏s 18"x.58"
2 per ℞ 17"x½"
8" per

L0U1
Stress +606.6
Net A reqd. 33.70"²
Net A 34.45"²
Gross A 44.09"²
Use same section as U1L2
8" per

U0U1
Stress -42.3
Reqd. A 28.03"²
Gross A 43.75"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x½"
2 per ℞ 15"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U3U4
Use same section as U2U3

U1U2
Stress +427.0
Net A reqd. 23.72"²
Net A 26.6"²
Gross A 34.76"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 per ℞ 5½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L1L2
Stress -825.4
Reqd. A 56.2"²
Gross A 56.44"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 per ℞ 16"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U1L1
Stress -556.8
Reqd. A 38.19"²
Gross A 38.24"²
2 ∠s 18"x.51.9#
2 per ℞ 17"x⅞"
8" per

L1U2
Stress -594.1
Net A reqd. 33.01"²
Net A 33.5"²
Gross A 42.96"²
2 ∠s 18"x.58#
2 per ℞ 17"x½"
8" per

U1U2
Stress -729.6
Reqd. A 49.60"²
Gross A 49.75"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 per ℞ 5½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U4U5
Stress -754.7
Reqd. A 51.45"²
Gross A 52.09"²
4 ∠s 6"x4"x½"
2 ⊏s 24"x½"
2 per ℞ 5½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U2U3
Stress +803.4
Net A reqd. 44.68"²
Net A 45.73"²
Gross A 61.32"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 per ℞ 5½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L2L3
Stress -1154.1
Reqd. A 78.69"²
Gross A 79.4"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x½"
2 ⊏s 12"x⅜"
2 per ℞ 16"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U2L2
Stress -587.1
Reqd. A 40.94"²
Gross A 41.84"²
2 ∠s 18"x.58#
2 per ℞ 17"x⅞"
8" per

L2U3
Stress +540.8
Net A reqd. 31.5"²
Net A 31.82"²
Gross A 40.7"²
2 ∠s 18"x.58#
2 per ℞ 17"x⅞"
8" per

U2U3
Stress -850.4
Reqd. A 57.83"²
Gross A 58.03"²
4 ∠s 6"x4"x½"
2 ⊏s 24"x⅜"
2 per ℞ 5½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U5U6
Stress -472.0
Reqd. A 32.09"²
Gross A 43.75"²
Use same section as U0U1 Suspension Span #2
7" per
8" o-o
24½" b-b ⊏s

U3U4
Stress -[illegible]
Net A reqd. 51.65"²
Net A 63.35"²
Gross A 85.14"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 ⊏s 12"x⅜"
2 per ℞ 15½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L3L4
Stress -1438.1
Reqd. A 97.9"²
Gross A 99.26"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x½"
2 ⊏s 12"x⅜"
2 per ℞ 16"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U3L3
Stress -603.1
Reqd. A 43.11"²
Gross A 44.09"²
2 ∠s 18"x.58#
2 per ℞ 17"x⅞"
8" per

L3U4
Stress +529.1
Net A reqd. 29.39"²
Net A 30.95"²
Gross A 39.59"²
2 ∠s 18"x.58#
2 per ℞ 17"x⅞"
8" per

L0L1
Stress 0
4 ∠s 4"x4"x⅜"
2 ⊏s 24"x⅜"
2 per ℞ 15½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L3L4
Stress -756.7
Net A reqd. 42.04"²
Net A 43.57"²
Gross A 58.75"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 per ℞ 5½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U5U6
Stress +12.87
Net A reqd. 67.71"²
Net A 67.87"²
Gross A 91.14"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x½"
2 ⊏s 12"x⅜"
2 per ℞ 15½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L4L5
Stress -1464.1
Reqd. A 99.6"²
Gross A 99.26"²
Use same section as L3L4
7" per
8" o-o
24½" b-b ⊏s

U4L4
Stress -1122.8
Reqd. A 80.29"²
Gross A 80.76"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 ⊏s 12"x⅜"
2 per ℞ 16"x⅜"
8" per
8" o-o
24½" b-b ⊏s

L4U5
Stress +490.1
Net A reqd. 27.23"²
Net A 28.07"²
Gross A 35.99"²
2 ∠s 18"x.51.9#
2 per ℞ 17"x⅞"
8" per

L1L2
Stress -4.36
Net A reqd. 22.98"²
Net A 24.29"²
Gross A 31.76"²
4 ∠s 4"x4"x⅜"
2 ⊏s 24"x⅜"
2 per ℞ 5½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L4L5
Stress +472.0
Net A reqd. 26.22"²
Net A 26.41"²
Gross A 34.75"²
4 ∠s 4"x4"x⅜"
2 ⊏s 24"x⅜"
2 per ℞ 15½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U4U5
Stress +1287.0
Net A reqd. 71.50"²
Net A 72.60"²
Gross A 97.14"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x½"
2 ⊏s 24"x½"
2 ⊏s 12"x⅜"
2 per ℞ 15½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L5L6
Stress -1338.1
Reqd. A 91.50"²
Gross A 92.64"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x½"
2 ⊏s 12"x⅜"
2 per ℞ 16"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U5L5
Stress -569.6
Reqd. A 40.70"²
Gross A 40.71"²
2 ∠s 18"x.58#
2 per ℞ 17"x⅞"
8" per

L5U6
Stress +526.3
Net A reqd. 29.24"²
Net A 29.82"²
Gross A 38.24"²
2 ∠s 18"x.51.9#
2 per ℞ 17"x⅞"
8" per

L2L3
Stress -729.6
Net A reqd. 40.53"²
Net A 40.6"²
Gross A 54.3"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 per ℞ 15½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L5L6
Use same section as L0L1 Suspension Span #2

U6U7
Stress +1300.6
-500.9
Net A reqd. 72.26"²
Net A 72.42"²
Gross A reqd. 34.13"²
Gross A 97.14"²
Use same section as U4U5
7" per
8" o-o
24½" b-b ⊏s

L6L7
Stress -1220.4
Reqd. A 83.2"²
Gross A 83.64"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 ⊏s 12"x⅜"
2 per ℞ 16"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U6L6
Stress -554.3
Reqd. A 38.57"²
Gross A 39.59"²
2 ∠s 18"x.58#
2 per ℞ 17"x⅞"
8" per

L6U7
Stress +561.0
Net A reqd. 31.17"²
Net A 31.82"²
Gross A 40.71"²
Use same section as L2U3
8" per

U1L1
Stress -386.4
Reqd. A 26.24"²
Gross A 29.03"²
2 ∠s 5"x.40#
2 per ℞ 17"x⅞"
8" per

U4L4
Stress -226.5
Reqd. A 15.37"²
Gross A 17.69"²
Use same section as U2L2 Suspension Span #2
8" per

U7U8
Stress -1346.2
-918.7
Net A reqd. 74.68"²
Net A 74.66"²
Gross A reqd. 82.56"²
Gross A 100.4"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 ⊏s 24"x⅜"
2 ⊏s 12"x⅜"
2 per ℞ 15½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L7L8
Stress -1148.2
+1192.3
Net A reqd. 64.69"²
Net A 58.82"²
Gross A reqd. 78.28"²
Gross A 79.4"²
Use same section as L2L3
7" per
8" o-o
24½" b-b ⊏s

U7L7
Stress -505.1
Reqd. A 34.51"²
Gross A 35.99"²
2 ∠s 18"x.51.9#
2 per ℞ 17"x⅞"
8" per

L7U8
Stress +557.3
Net A reqd. 30.96"²
Net A 30.95"²
Gross A 39.39"²
2 ∠s 18"x.58#
2 per ℞ 17"x⅞"
8" per

U2L2
Stress -245.9
Reqd. A 16.71"²
Gross A 17.69"²
2 ∠s 12"x.20.7#
2 per ℞ 17"x⅞"
8" per

U5L5
Stress -352.7
Reqd. A 23.82"²
Gross A 29.03"²
Use same section as U1L1 Suspension Span #2
8" per

U8U9
Stress +390.4
-2.99
Net A reqd. 77.24"²
Net A 78.09"²
Gross A reqd. 83.09"²
Gross A 104.64"²
4 ∠s 6"x4"x⅜"
4 ⊏s 24"x⅜"
2 ⊏s 12"x⅜"
2 per ℞ 15½"x⅜"
7" per
8" o-o
24½" b-b ⊏s

L8L9
Stress -1197.1
+622.7
Net A reqd. 34.39"²
Net A 61.13"²
Gross A reqd. 81.49"²
Gross A 82.14"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 ⊏s 12"x½"
2 per ℞ 16"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U8L8
Stress -416.3
Reqd. A 28.16"²
Gross A 30.59"²
2 ∠s 18"x.427#
2 per ℞ 17"x⅞"
8" per

U8L9
Stress +455.8
Net A reqd. 25.32"²
Net A 26.06"²
Gross A 33.51"²
2 ∠s 18"x.45.8#
2 per ℞ 17"x⅞"
8" per

U3L3
Stress -192.5
Reqd. A 13.07"²
Gross A 17.69"²
Use same section as U2L2 Suspension Span #2
8" per

U6L6
Stress -419.2
Reqd. A 28.31"²
Gross A 29.03"²
Use same section as U1L1 Suspension Span #2
8" per

U9U10
Stress -1397.0
-1370.2
Net A reqd. 77.61"²
Net A 78.09"²
Gross A reqd. 93.33"²
Gross A 104.64"²
Use same section as U8U9
7" per
8" o-o
24½" b-b ⊏s

L9L10
Stress -1232.5
+1035.3
Net A reqd. 57.52"²
Net A 63.44"²
Gross A reqd. 83.87"²
Gross A 85.14"²
4 ∠s 6"x4"x⅜"
2 ⊏s 24"x⅜"
2 ⊏s 12"x⅜"
2 per ℞ 16"x⅜"
7" per
8" o-o
24½" b-b ⊏s

U9L9
Stress -300.1
Reqd. A 20.29"²
Gross A 25.43"²
2 ∠s 15"x.33.9#
2 per ℞ 17"x⅞"
8" per

U9L10
Stress +332.0
-130.9
Net A reqd. 18.44"²
Net A 19.05"²
Gross A reqd. 10.53"²
Gross A 25.43"²
2 ∠s 15"x.33.9#
2 per ℞ 17"x⅞"
8" per

U0L1
Stress +549.1
Net A reqd. 30.51"²
Net A 30.95"²
Gross A 39.59"²
Use same section as L3U4 Cantilever Span.
8" per

U10L10
Stress -204.8
Reqd. A 13.82"²
Gross A 25.43"²
Use same section as U9L9
8" per

L4U5
Stress +388.1
Net A reqd. 21.56"²
Net A 23.75"²
Gross A 30.59"²
2 ∠s 18"x.42.7#
2 per ℞ 17"x⅞"
8" per

U1L2
Stress +430.8
Net A reqd. 23.93"²
Net A 25.19"²
Gross A 32.39"²
2 ∠s 18"x.45.8#
2 per ℞ 17"x⅞"
8" per

L3U4
Stress +174.6
Net A reqd. 9.70"²
Net A 19.05"²
Gross A 25.43"²
Use same section as U9L10 Anchor Span
8" per

L5U6
Stress +597.7
Net A reqd. 33.21"²
Net A 33.37"²
Gross A 42.96"²
Use same section as L1U2 Cantilever Span
8" per

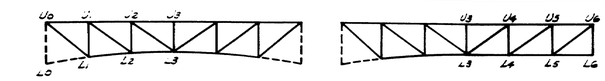
U2L3
Stress +203.3
Net A reqd. 11.29"²
Net A 19.05"²
Gross A 25.43"²
Use same section as U9L10 Anchor Span.
8" per

NOTE: All members are designed for allowable unit stresses as follows; Tension = 18,000 #/□"
Compression = 15,000 - ½ (L²/r²)

Gross areas shown include gross area of perforated plates less area of the perforation. (per. = perforation)

Minimum stagger for net section = 1½ inches.

All stresses shown in Kips.



Suspended Span #2 — Suspended Spans #1 & #3

SUSPENDED SPANS

Reference Sheet #10

DESIGN - EVERETT TRACE - CLARK
DETAIL - " CHECK - C L P
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

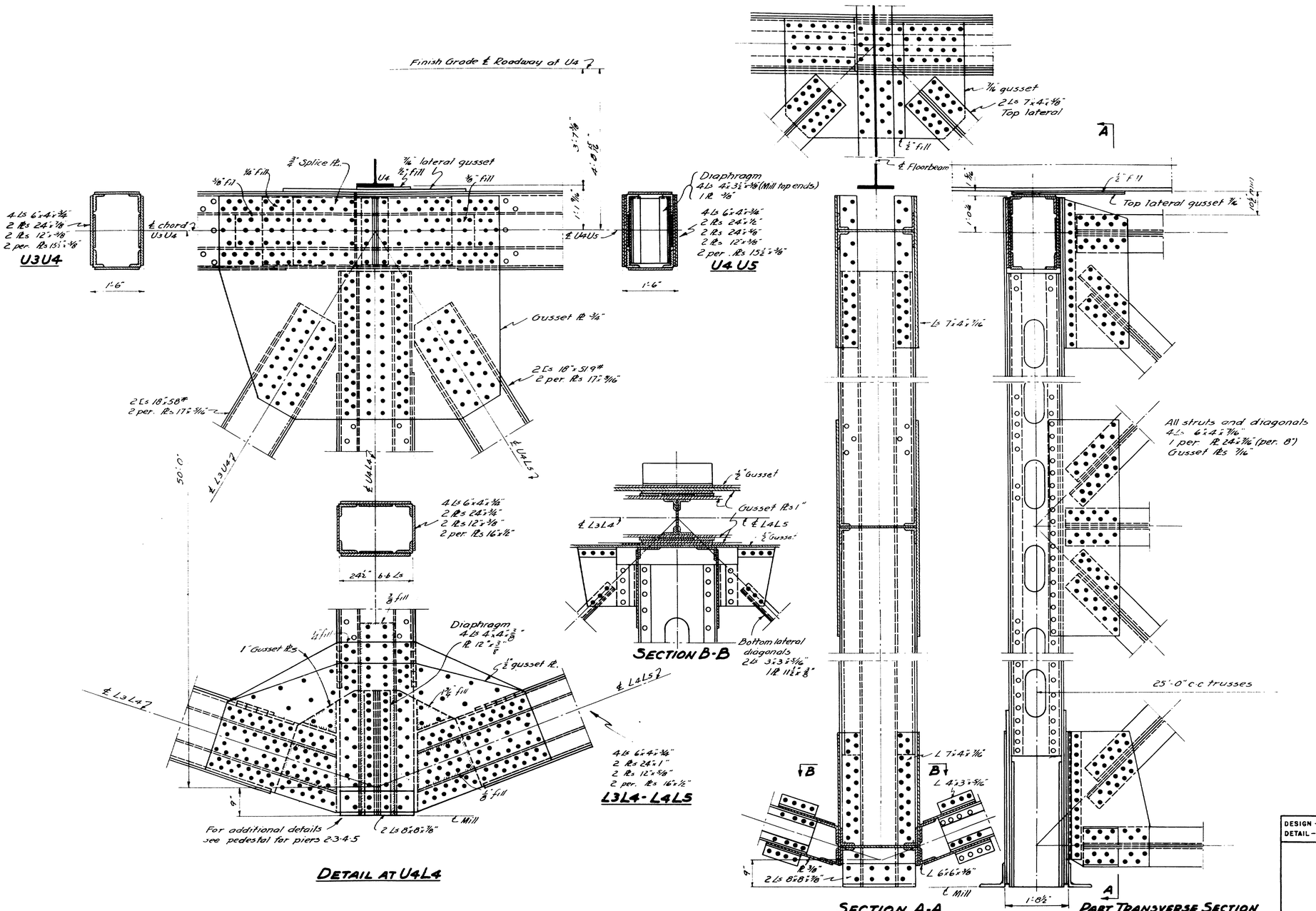
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

MAKE-UP OF MEMBERS

SHEET 29 OF 45 AUGUSTA, MAINE FEB. 1948

52-29

0 1 2 3 4 5 INCHES



DESIGN - EVERETT TRACE - BOYD DETAIL - " CHECK - C.L.P.	BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

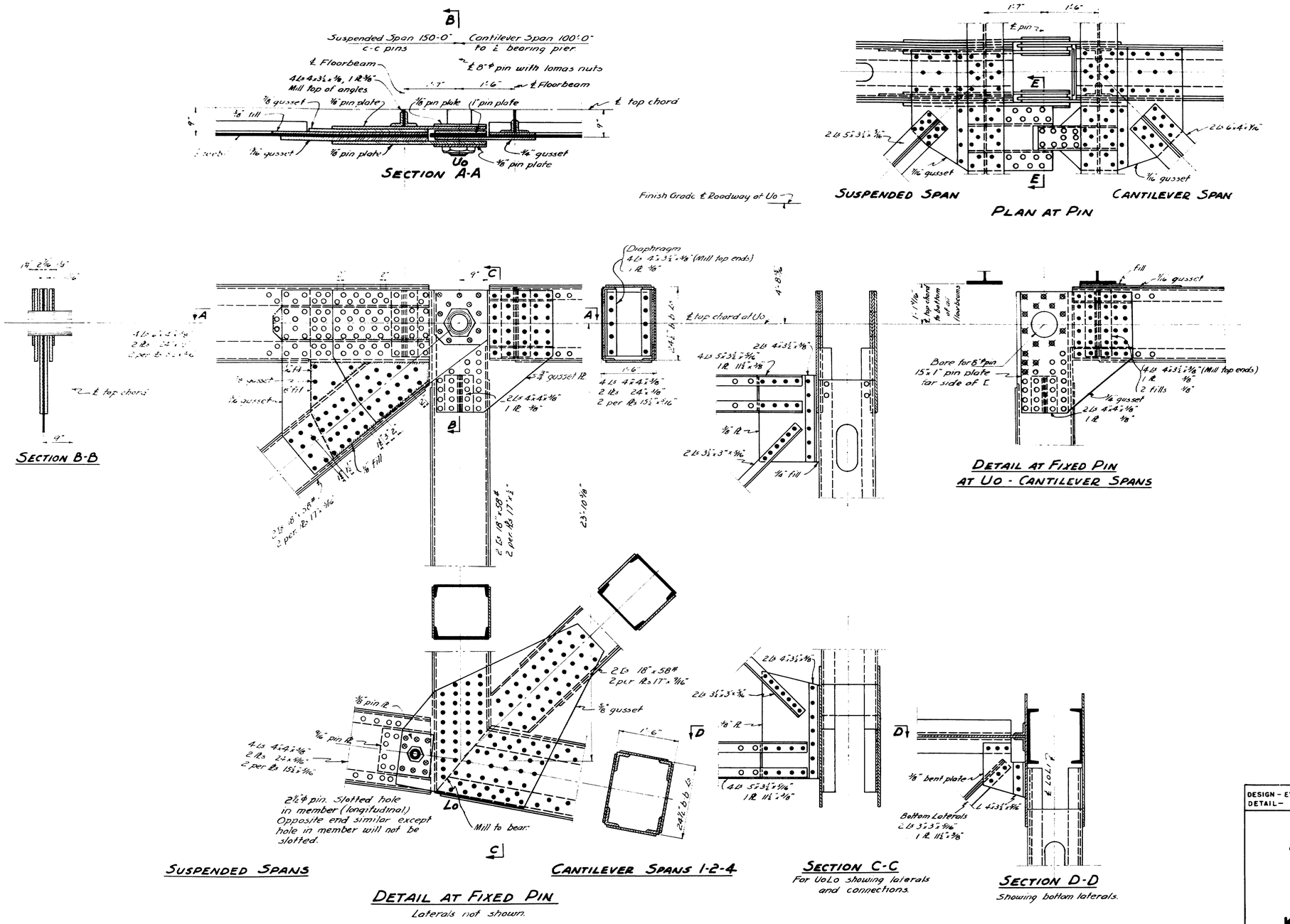
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

STRUCTURAL STEEL DETAILS AT U4L4

SHEET 30 OF 45 AUGUSTA, MAINE FEB. 1948

52-30

0 1 2 3 4 5 INCHES



DESIGN - EVERETT TRACE - BOYD DETAIL - " CHECK - C.L.P.	BRIDGE - 5196

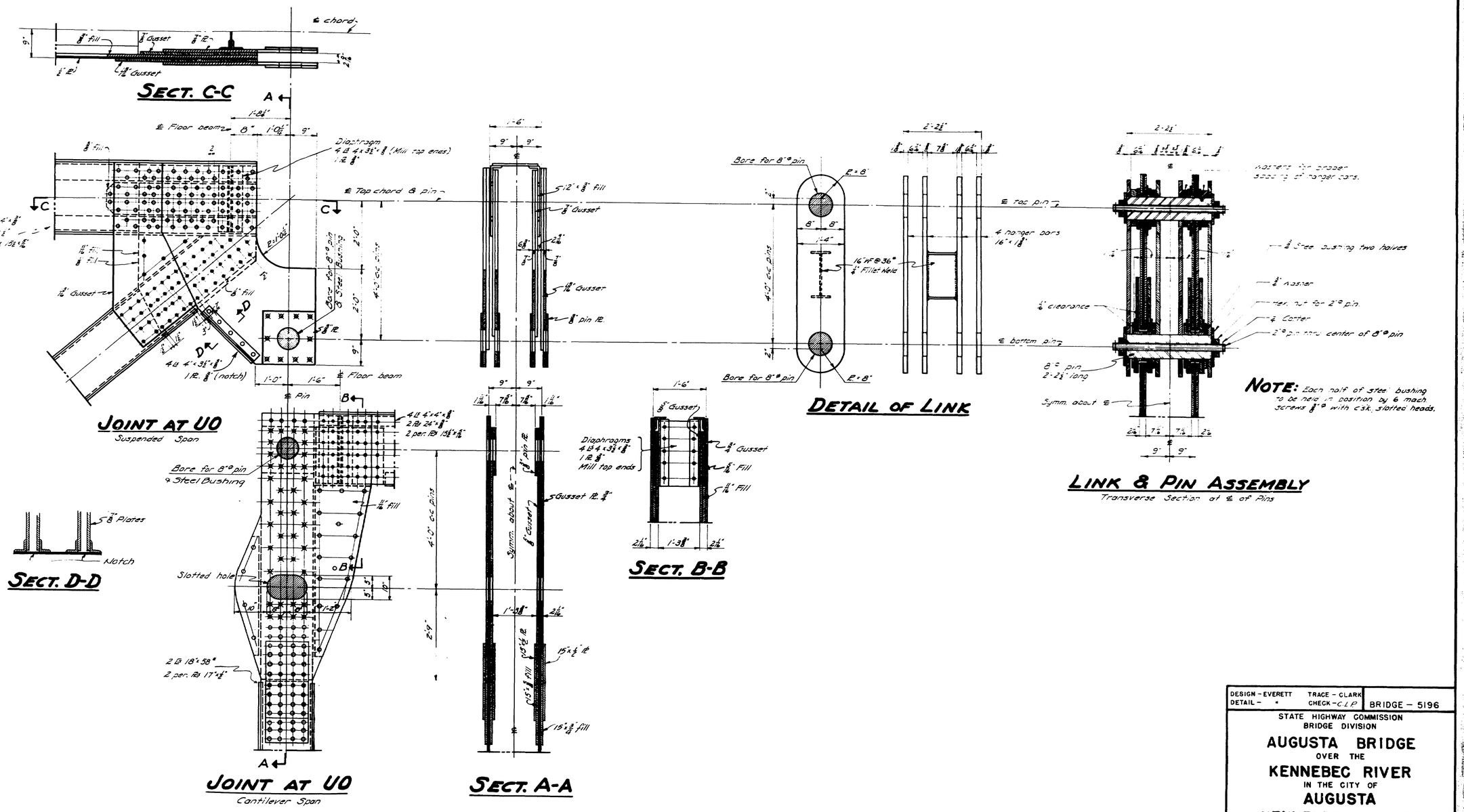
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

DETAIL AT FIXED PIN - CANT. & SUS. SPANS

SHEET 31 OF 45 AUGUSTA, MAINE FEB. 1948

52-31



DESIGN – EVERETT	TRACE – CLARK
DETAIL – "	CHECK – C.L.P.

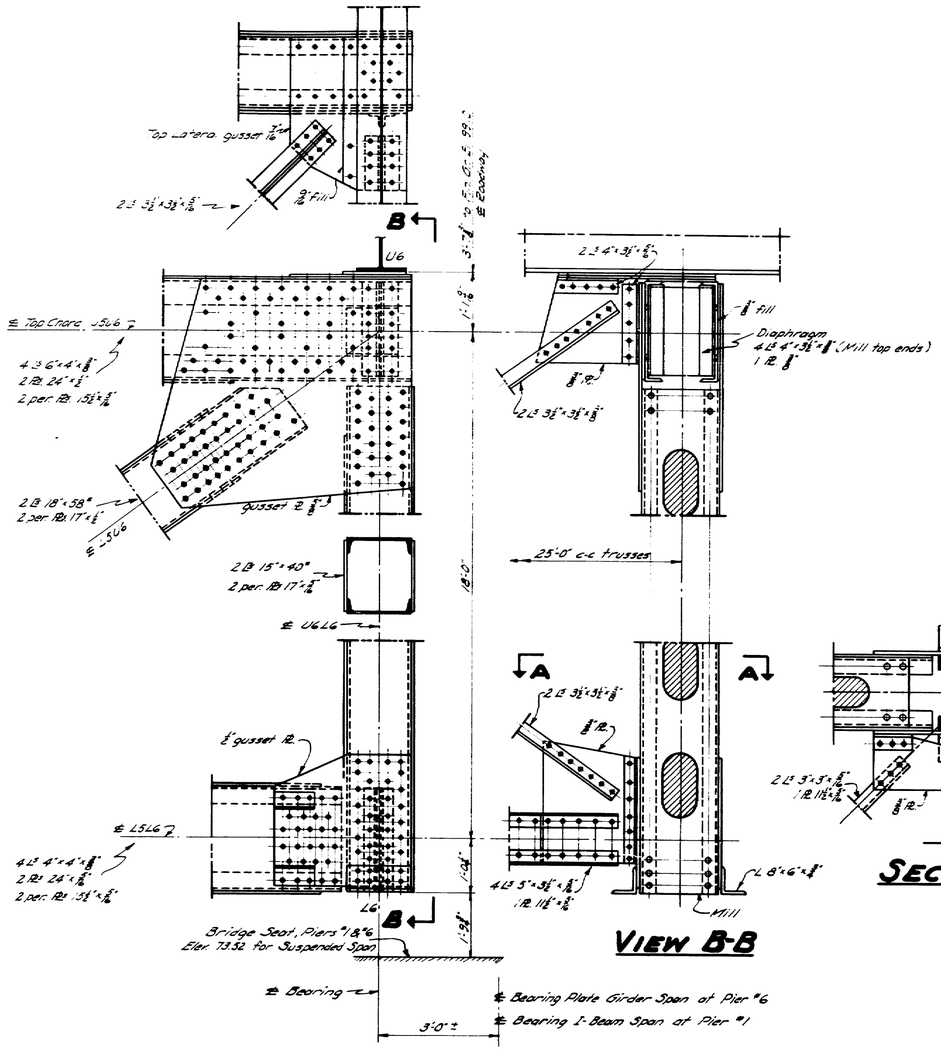
BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

DETAIL – PIN & LINK

SHEET 32 OF 45 AUGUSTA, MAINE FEB. 194

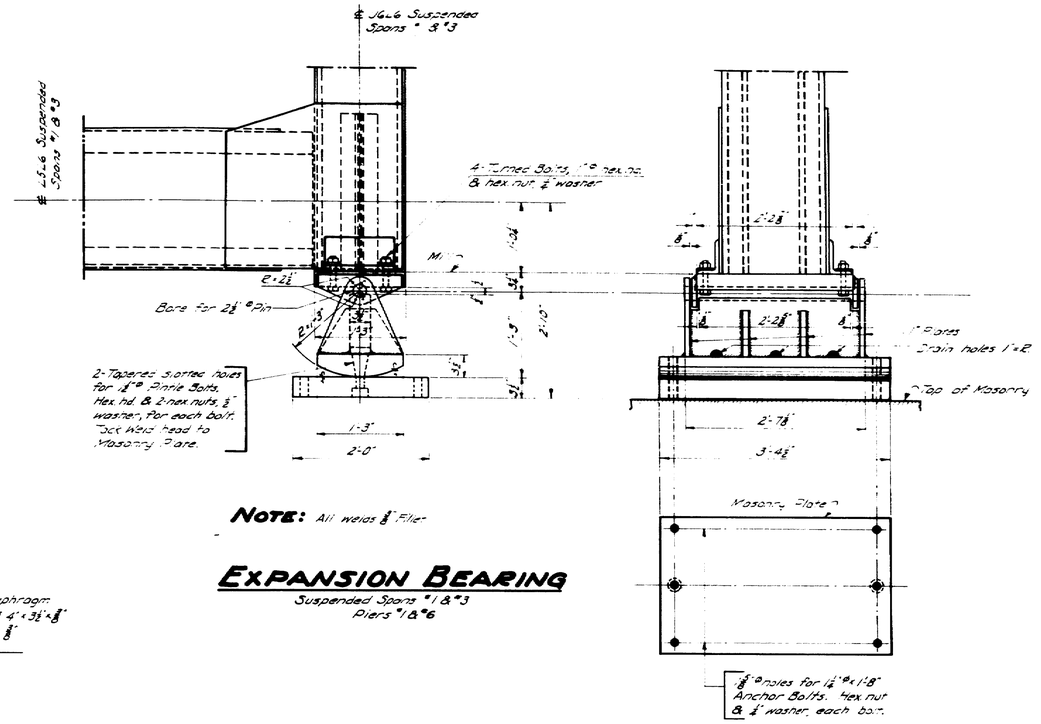


DETAIL AT U6L6

Suspended Spans #1 & #3

VIEW B-B

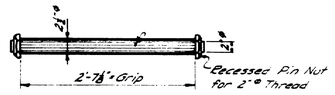
SECT. A-A



NOTE: All welds ⅜" Fillet

EXPANSION BEARING

Suspended Spans #1 & #3
Piers #1 & #6



PIN

4-Req'd. (Piers #1 & #6)

DESIGN – EVERETT TRACE – CLARK DETAIL – WHITE CHECK – Cals	BRIDGE – 5196

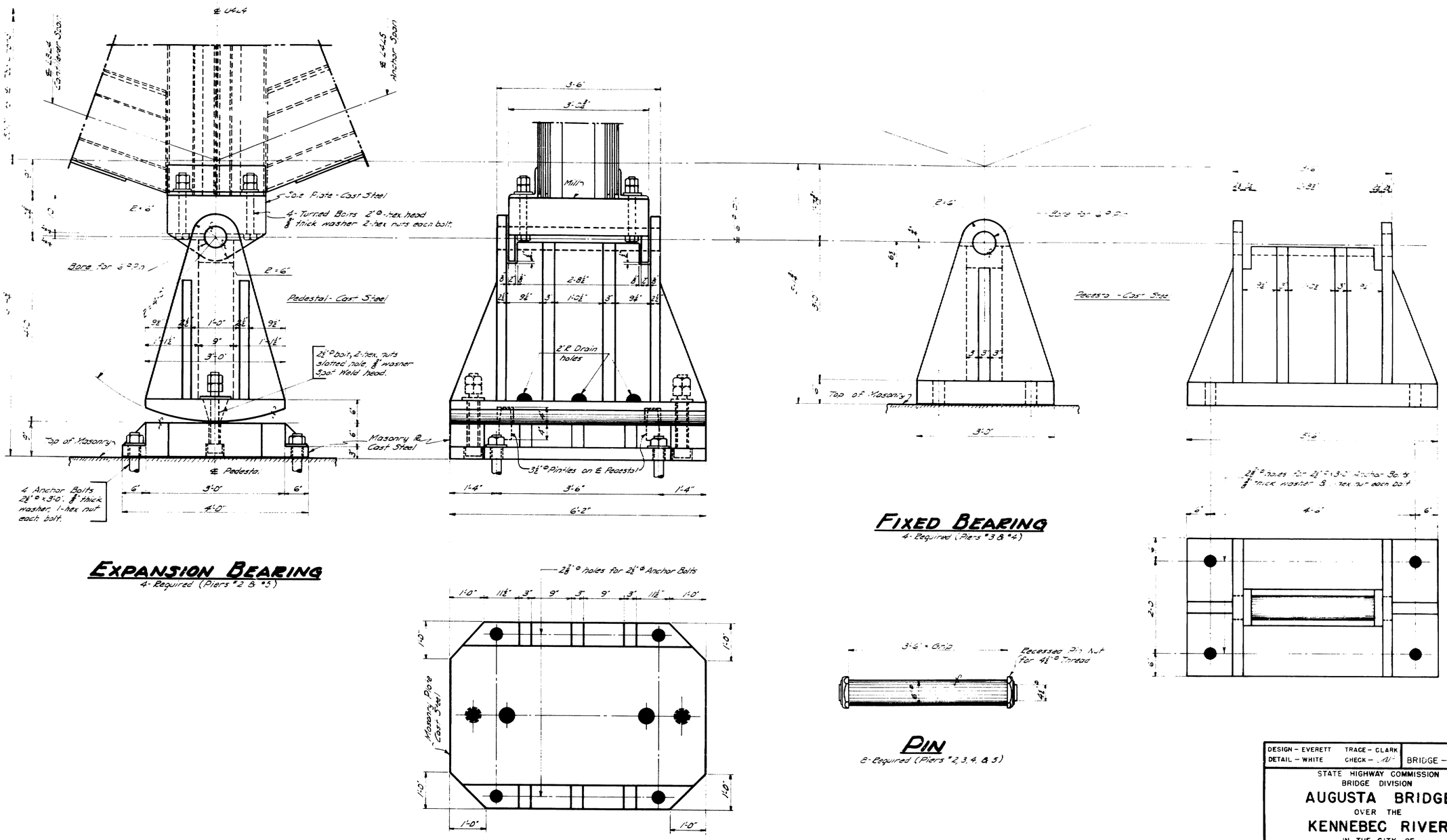
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

STEEL & BEARING DETAILS – PIERS 1 & 6

SHEET 33 OF 45 AUGUSTA, MAINE FEB. 1948

0 1 2 3 4 5 INCHES



EXPANSION BEARING
4-Required (Piers #2 & #5)

FIXED BEARING
4-Required (Piers #3 & #4)

PIN
8-Required (Piers #2, 3, 4, & 5)

DESIGN – EVERETT	TRACE – CLARK	BRIDGE – 5196
DETAIL – WHITE	CHECK –	

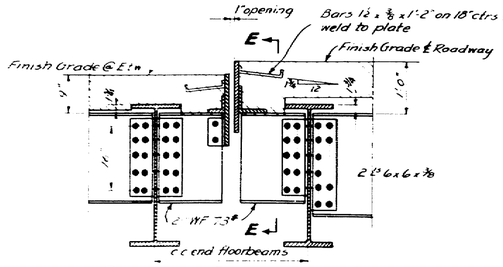
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

EXP. & FIX. BEARINGS-TRUSS SPANS-PIERS 2,3,4,5
SHEET 34 OF 45 AUGUSTA, MAINE FEB. 1948

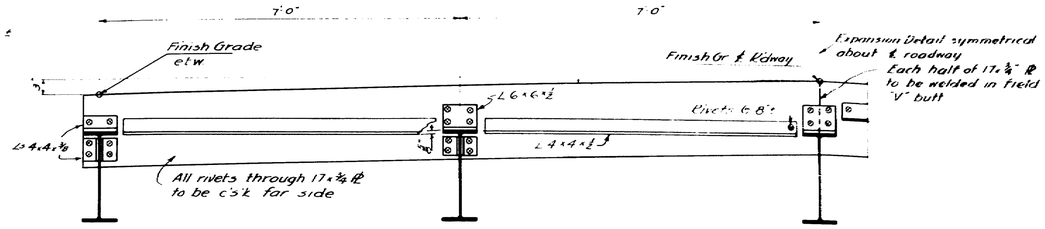
52-34

0 1 2 3 4 5 INCHES

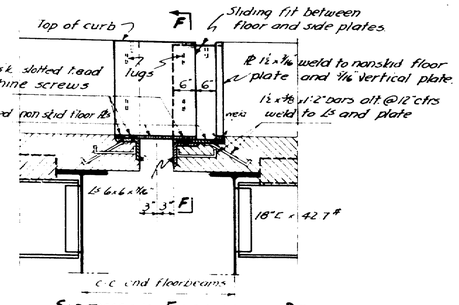


ROADWAY EXPANSION DETAIL

at fixed pins between (Cantilever span #1 Suspended span #1
" " 2 " " 2
" " 4 " " 3

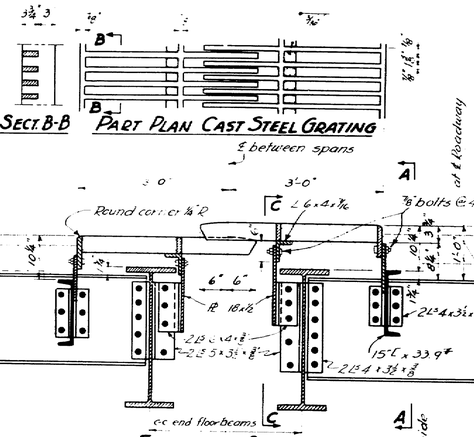


SECTION E-E



SIDEWALK EXPANSION DETAIL

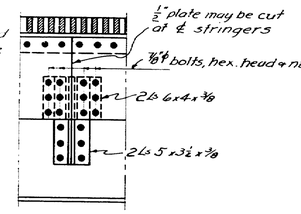
Detail at link and between spans at pier #1 and pier #6.
Sidewalk expansion joints for all spans to be fabricated and furnished by the Structural Steel Contractor and erected by the Sidewalk Concrete Contractor.



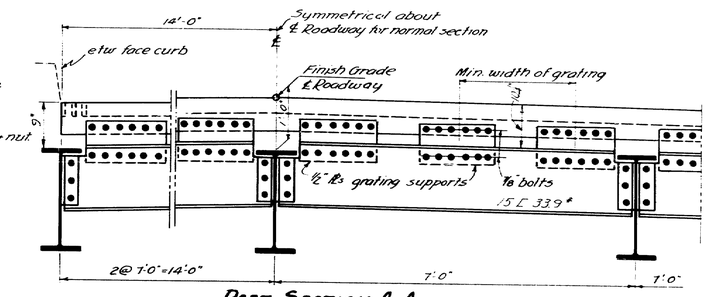
Note: Steel grating may be cast in sections. Min widths to be c-c. of grating supports. Ends of sections to engage at least three bolts in grating supports. Sections to be welded together after field erection. Make one rough machine cut over tops of all castings.

EXPANSION DETAIL

Normal section at link and at pier #1 for span #1 and suspended span #1

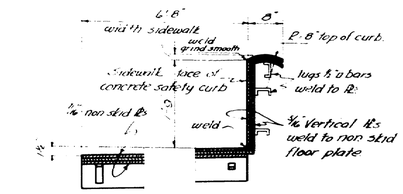


VIEW C-C



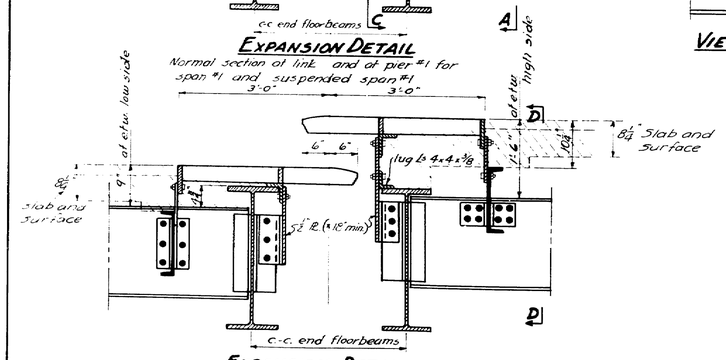
PART SECTION A-A

Normal section at link and at span #1 and suspended span #1



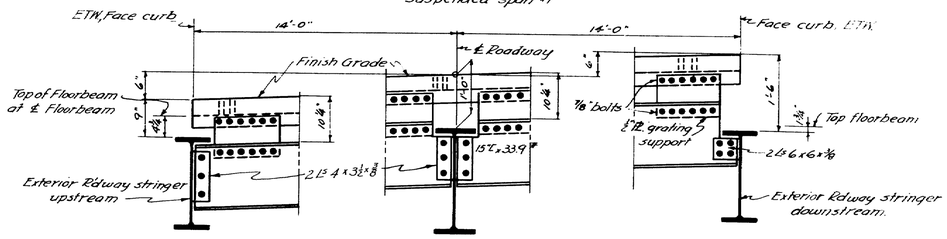
PART SECTION F-F

Note: For sidewalk expansion details between
Cantilever span #1 + suspended span #1
" " 2 " " 2
" " 4 " " 3
see details for sidewalk expansion dam sheet #40



EXPANSION DETAIL

At pier #6 for suspended span #3 and plate girder span #7.



PART SECTION D-D

Bank section at pier end of suspended span #3 and plate girder span #7.

DESIGN – EVERETT TRACE – BOYD DETAIL – " CHECK – CAB	BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

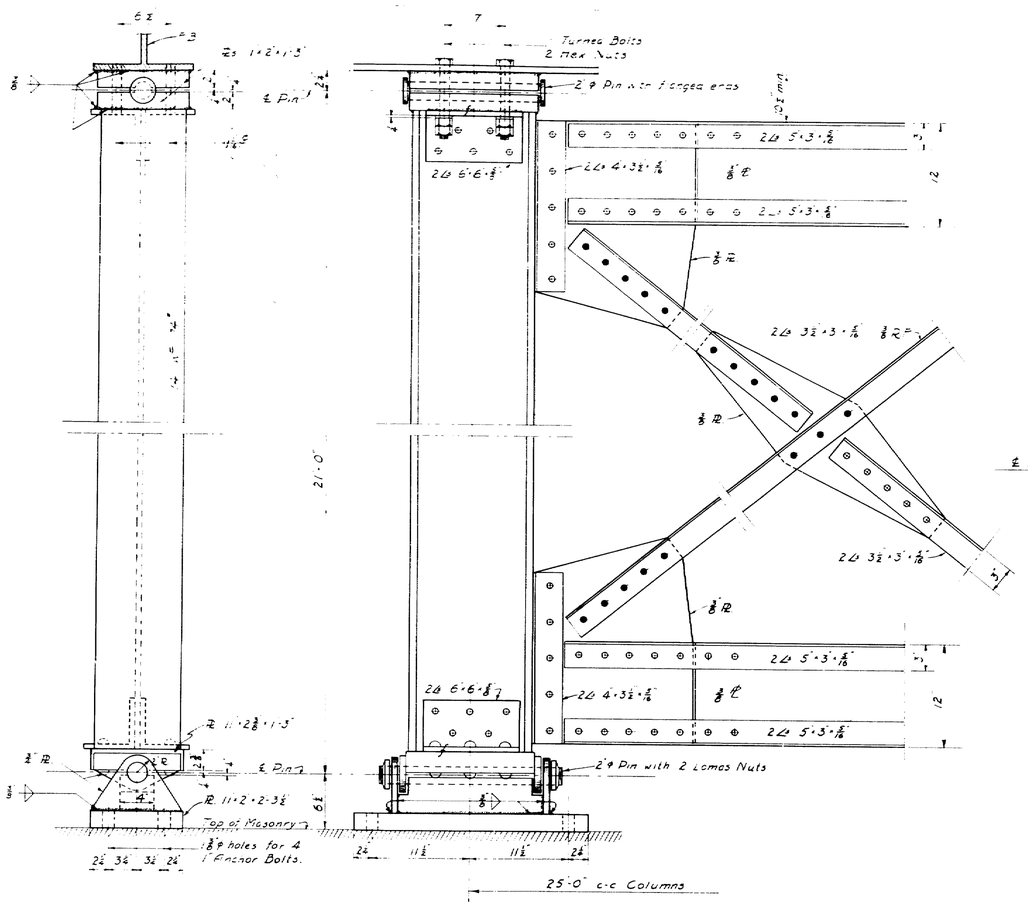
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

FLOOR EXPANSION DETAILS

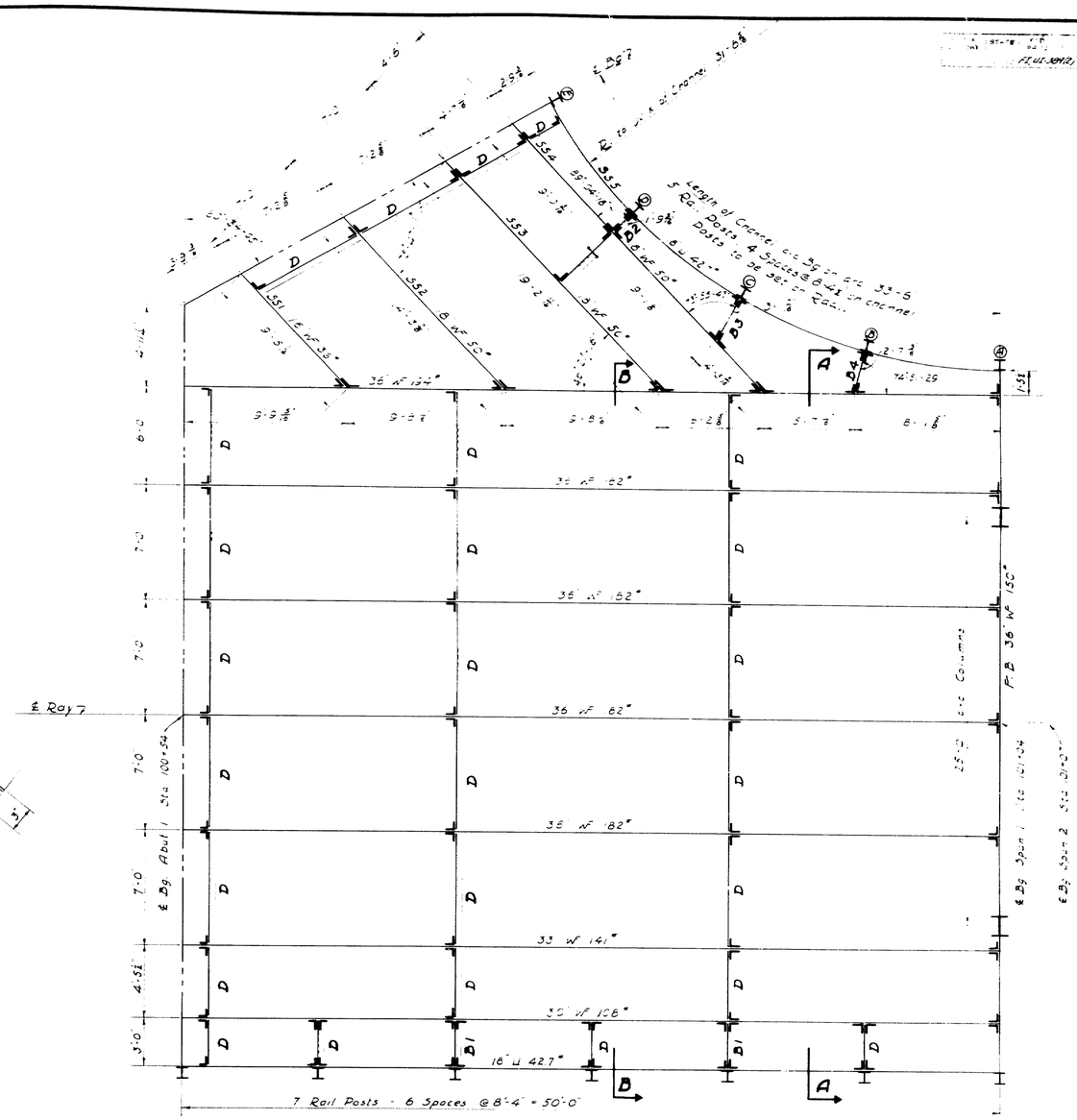
SHEET 35 OF 45 AUGUSTA, MAINE FEB. 1948

52-35

0 1 2 3 4 5 INCHES



COLUMN DETAILS AT PIER 1 FOR SPAN 1



LAYOUT SPAN 1

B indicates Bracket
D indicates Diaphragm

Work this Sheet with Sheet # 37

DESIGN – ALLEN DETAIL – "	TRACE – FORTIER CHECK –	BRIDGE – 5196

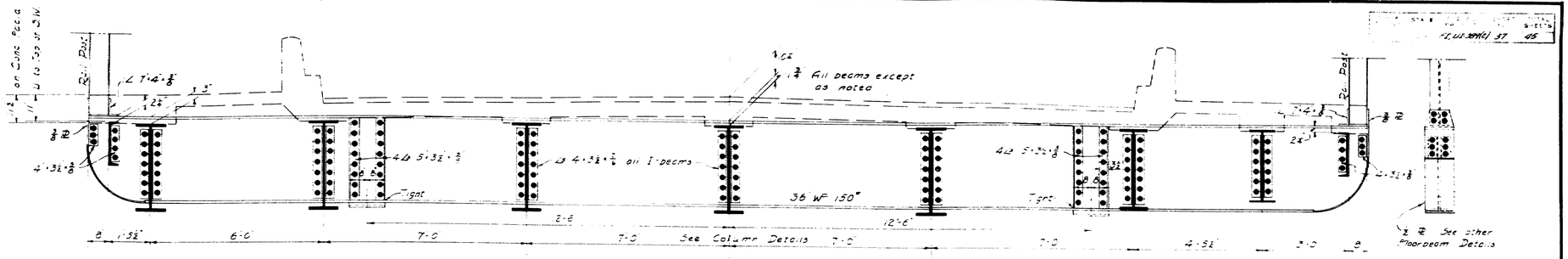
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

STEEL DETAILS - SPAN NO. 1

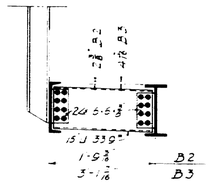
SHEET 36 OF 45 AUGUSTA, MAINE FEB. 1948

52-36

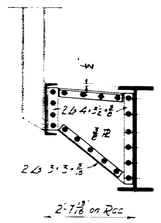


FLOORBEAM

See Detail on Sheet "36" for Diaphragms used with Expansion Joints

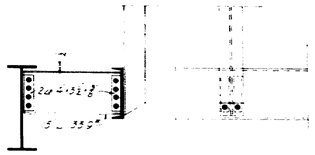


BRACKETS B2-B3

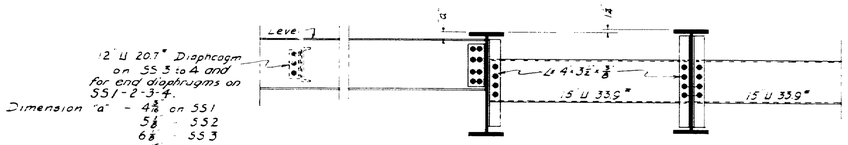


BRACKET B4

PART SECTION A-A

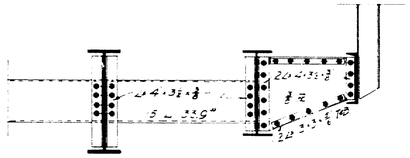


SW DIAPHRAGM

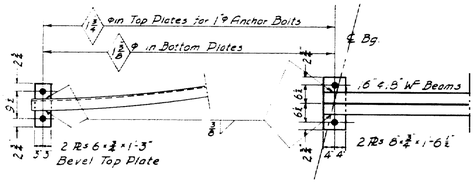


STRINGERS SS 1-2-3-4

PART SECTION B-B

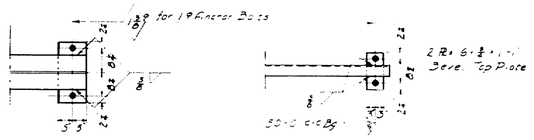


SW BRACKET B1



BEARING PLATES for SIDE SPAN CHANNEL

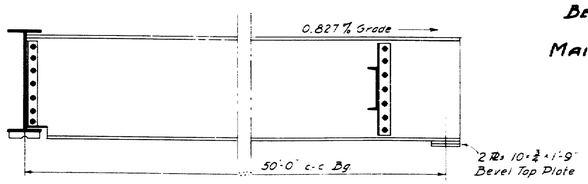
BEARING PLATES for SIDE SPAN I-BEAMS



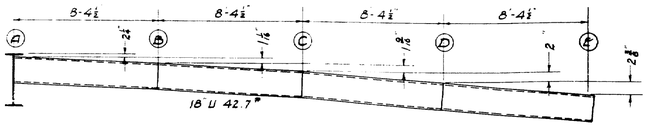
BEARING PLATES for MAIN SPAN I-BEAMS

BEARING PLATES for MAIN SPAN CHANNEL

WORK THIS SHEET WITH SHEET No. 36



TYPICAL STRINGERS



STRINGER SS5

Developed & connections not shown

NOTE: Rail Posts at Ⓐ Ⓑ Ⓒ Ⓓ & Ⓔ are to be set vertical and the top of the posts to be 4'-10" above the top of the channel at these points.

DESIGN – ALLEN	TRACE – FORTIER	BRIDGE – 5196
DETAIL – "	CHECK –	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

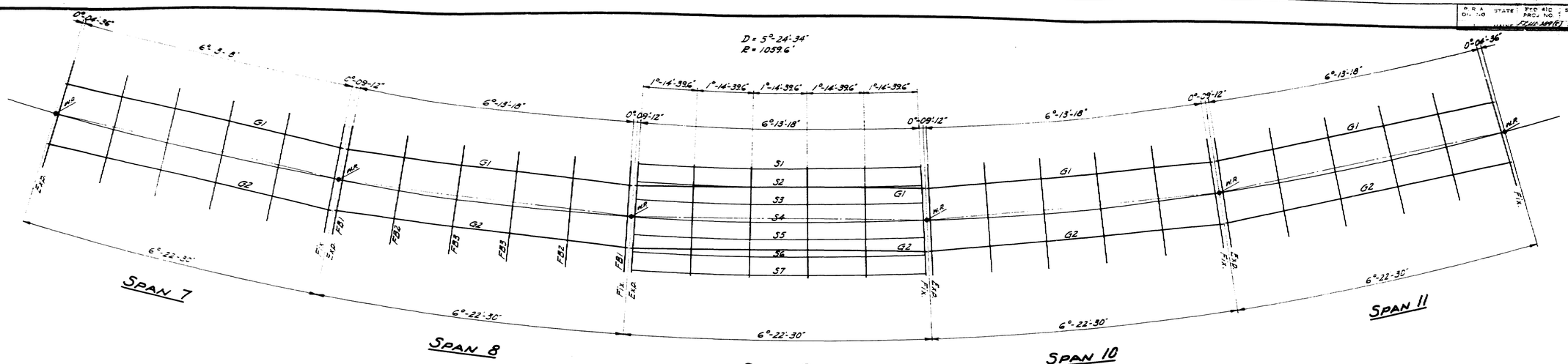
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

STEEL DETAILS – SPAN NO. 1

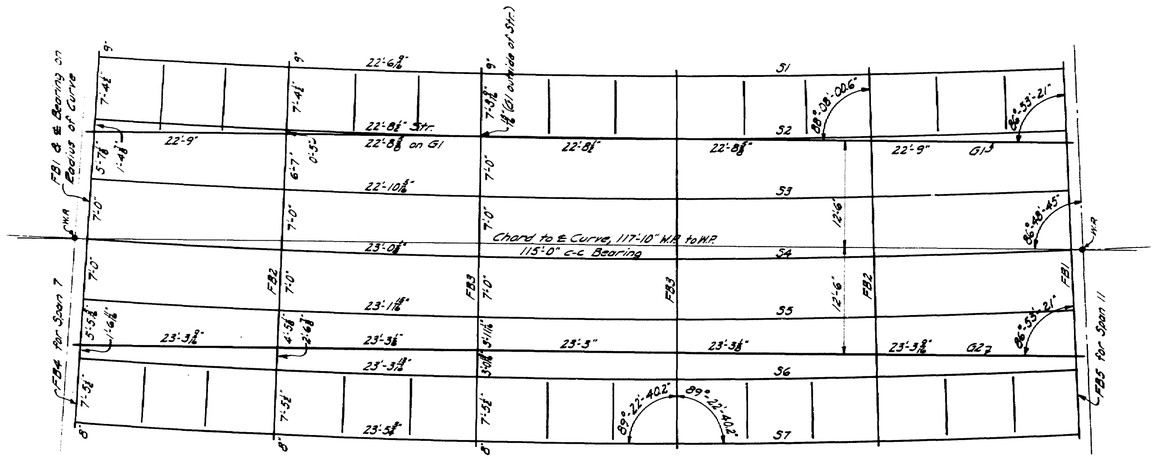
SHEET 37 OF 45 AUGUSTA, MAINE FEB. 1948

52-37

0 1 2 3 4 5 INCHES

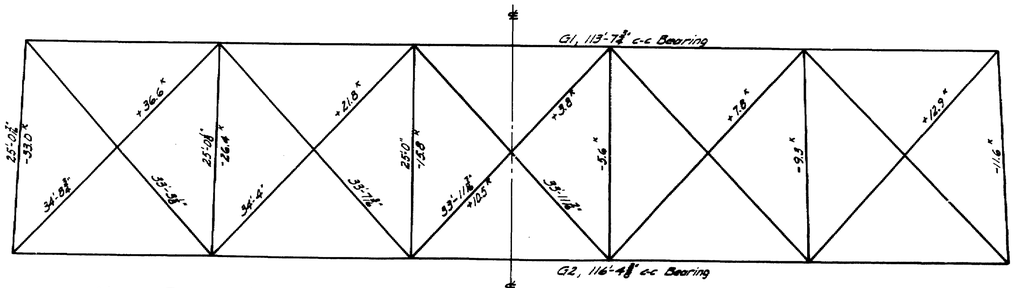


NOTE: All floor beams placed normal to Curve



SPANS 7 TO 11

(alike except for End FB spans 7 & 11)



HALF PLAN - TOP LATERALS **HALF PLAN - BOTTOM LATERALS**

DESIGN DATA

STRINGERS

S1-7

M = 653'-K Reqd. S = 36.3
Use 18" WF 42.7# S = 61

S2-6

DLM + SW = 1113'-K
LLM = 800'-K
I = 240'-K
2153'-K Reqd. S = 119.6
Use 21" WF 62# S = 126.4

S3

DLM = 699'-K
LLM = 1537'-K
I = 461'-K
2637'-K Reqd. S = 146.5
Use 21" WF 73# S = 150.7

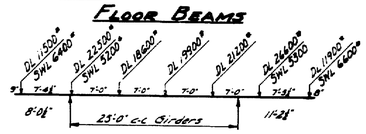
S4

DLM = 687'-K
LLM = 1546'-K
I = 464'-K
2697'-K Reqd. S = 149.8
Use 21" WF 73# S = 150.7

S5

DLM = 736'-K
LLM = 1557'-K
I = 467'-K
2760'-K Reqd. S = 153.3
Use 21" WF 73# S = 150.7

FLOOR BEAMS



FB3

– Cant. Mom.		* Mom. ℄ F.B.	
DL Con. + SWL	293.1'-K	DL Con.	74.1'-K
DL Un.	8.2'-K	DL Un.	4.0'-K
LL + I	33.5'-K	LL + I	470.0'-K
	334.8'-K		548.1'-K

Reqd. S = 365.4
Use 33" WF 130# S = 404.8
Use the same for all FB.

GIRDERS

	G1	G2
Loads LL Un	665.6%	800%
SWLL	55%	55%
Con Shear	27040#	32500#
Con Mom.	18720#	22600#
DL Un., Girder	700%	790%
Max. Mom.	7350'-K	9900'-K
Use 4 Fl.	8"×8"×5/8"	4 Fl. 8"×8"×5/8"
Web 1 Pl.	102"×1/2"	1 Pl. 102"×1/2"
Cov Pl.	2 Pl. 20"×5/8"	2 Pl. 20"×5/8"
	2 Pl. 20"×1/2"	4 Pl. 20"×5/8"
Net I	266400"⁴	356400"⁴

DESIGN - ALLEN TRACE - CLARK
DETAIL - " CHECK - [illegible] BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

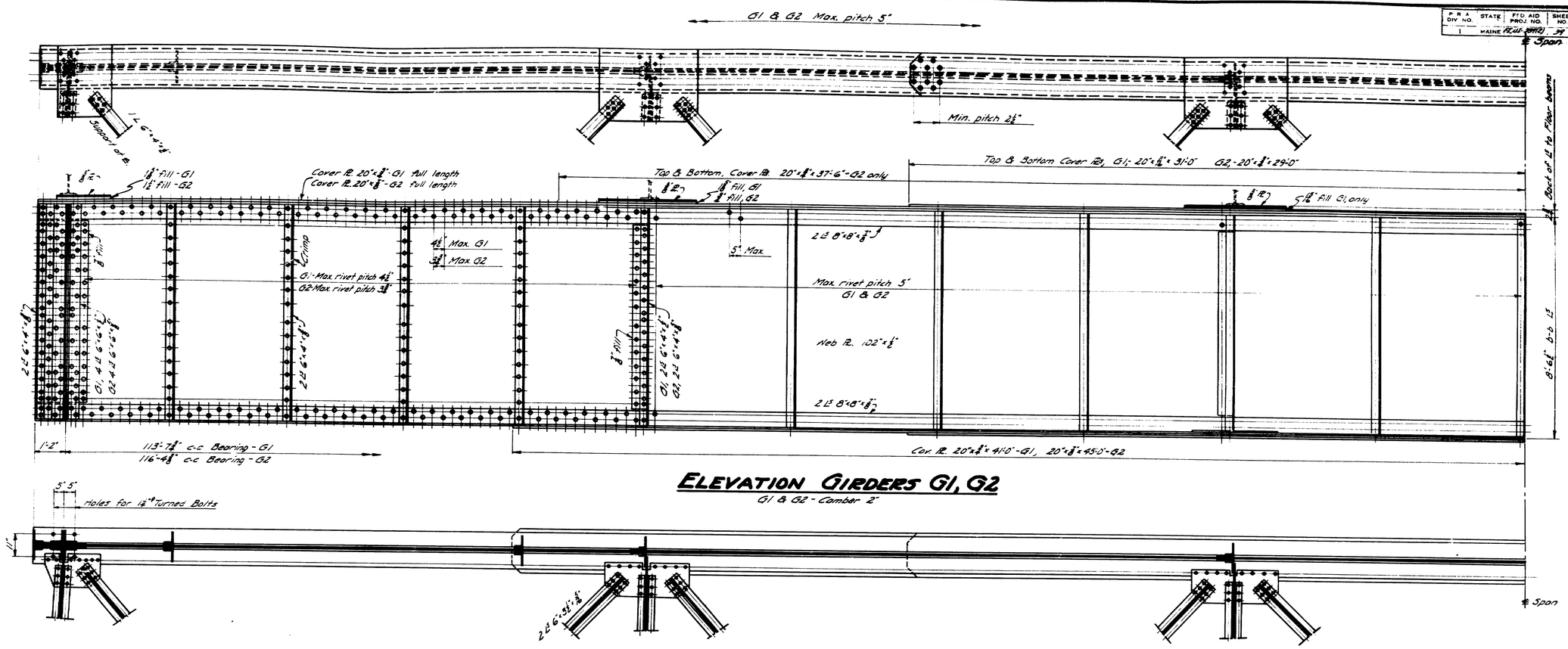
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

STRESSES & LAYOUT PLATE GIRDER SPANS
SHEET 30 OF 45 AUGUSTA, MAINE FEB. 1948

52-38

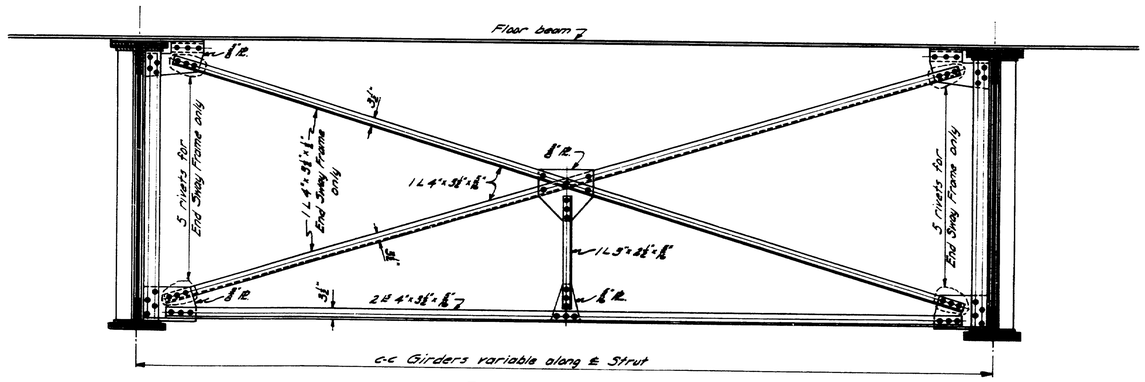
0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FR.US-[illegible]	39	45



ELEVATION GIRDERS G1, G2

G1 & G2 - Camber 2"



SWAY FRAME LOWER STRUT

DESIGN - ALLEN TRACE - CLARK
DETAIL - " CHECK - [illegible]

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

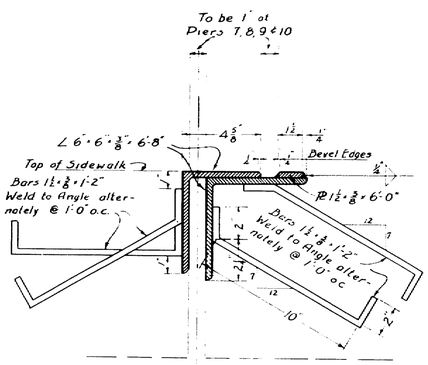
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

PLATE GIRDER DETAILS

SHEET 39 OF 45 AUGUSTA, MAINE FEB. 1948

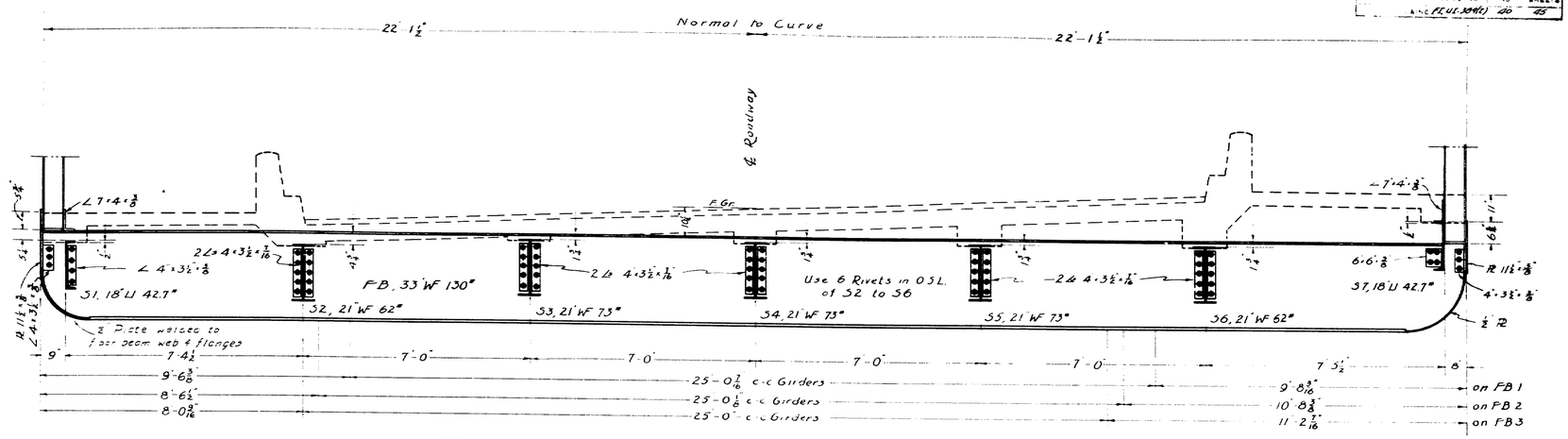
52-39

0 1 2 3 4 5 INCHES

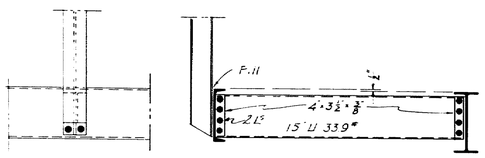


Sidewalk Expansion Dam

Note: The top angle and the 1 1/2" bar to have a non-skid surface by bead welding to an area, depth and pattern of an approved non-skid plate.

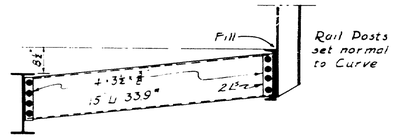


Typical Section Floor Beam

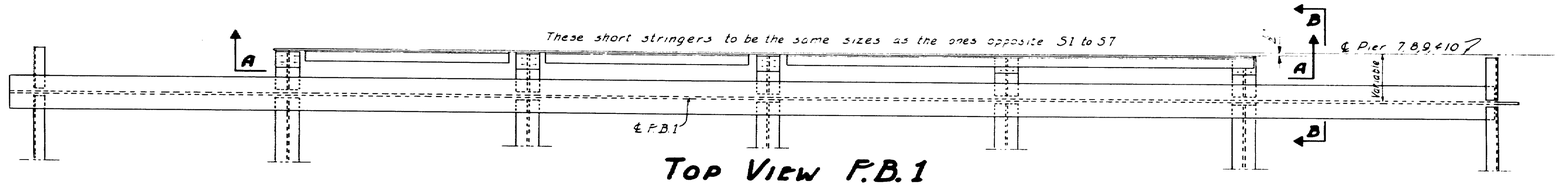


Diaphragm at Int. Rail Posts

Note:
Rail Posts to be set plumb
Two int. Rail Posts between Floor beams on both sides, set at three equal spaces.

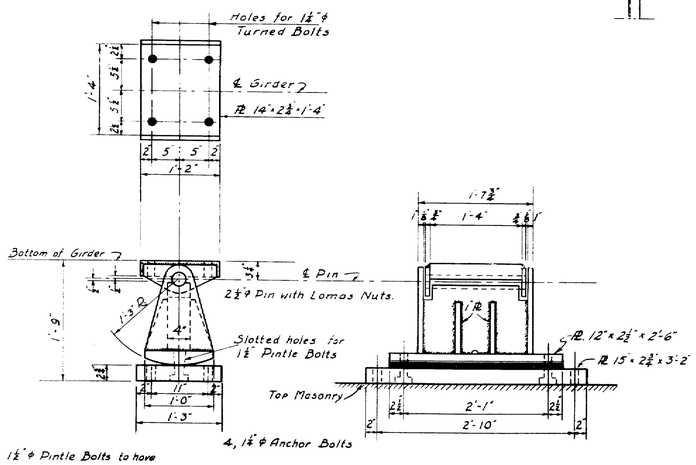


Diaphragm at Int. Rail Posts

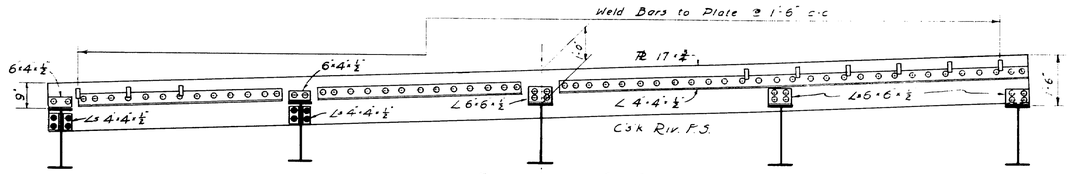


Top View F.B.1

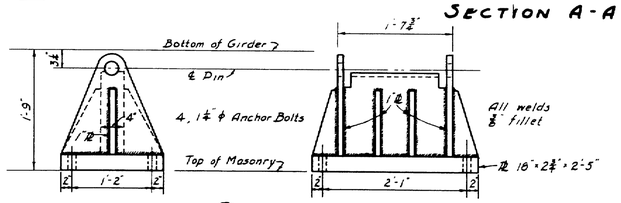
For F.B.4 see sheet # 35 Expansion Details at Pier 6
F.B.5 will be similar to F.B.1 without short stringer brackets.



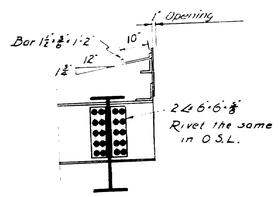
Expansion



Section A-A



Fixed



Section B-B

Pedestals for Plate Girder Spans

DESIGN – ALLEN	TRACE – FORTIER	BRIDGE – 5196
DETAIL – "	CHECK –	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

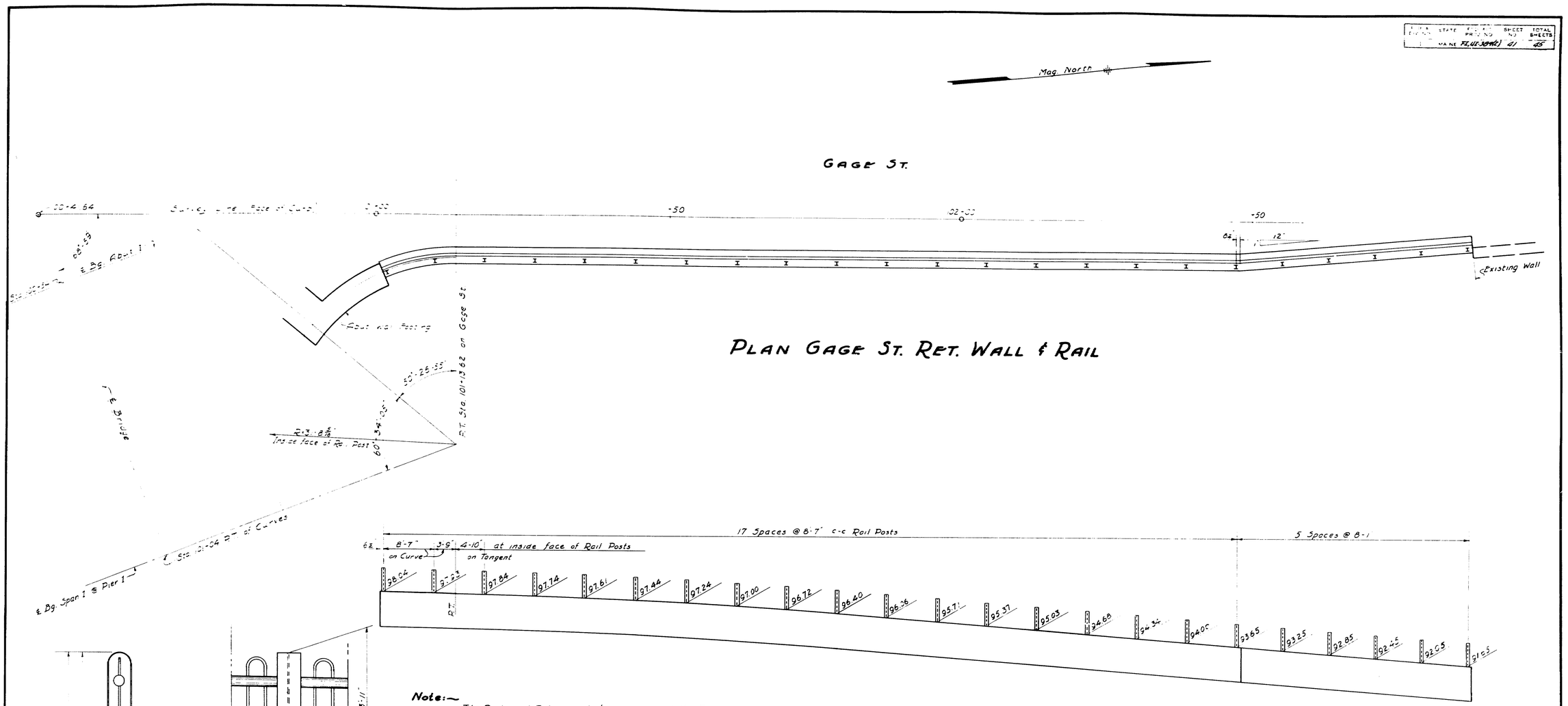
PLATE GIRDER DETAILS

SHEET 40 OF 45 AUGUSTA, MAINE FEB. 1948

52-40

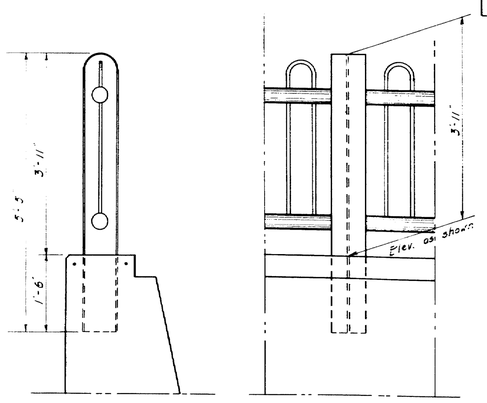
0 1 2 3 4 5 INCHES

FORM NO.	STATE	FEDERAL PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FL-UL-38(42)	41	45



PLAN GAGE ST. RET. WALL & RAIL

RAIL ELEVATION



TYPICAL RAIL POST DETAIL

For all Details not shown see Sheet #27 of Bridge Rail

Note:—

The Posts and Poles are to be vertical and the Posts are to be normal to the curve or tangent shown in Plan View.

The steel rail posts and the wrought iron rail on this wall shall be furnished and delivered by the Structural Steel Contractor.

The construction of the concrete retaining wall and the erection of the rail and posts shall be done by the Bridge Floor Contractor.

DESIGN – ALLEN TRACE – FORTIER
DETAIL – " CHECK – [illegible]
BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

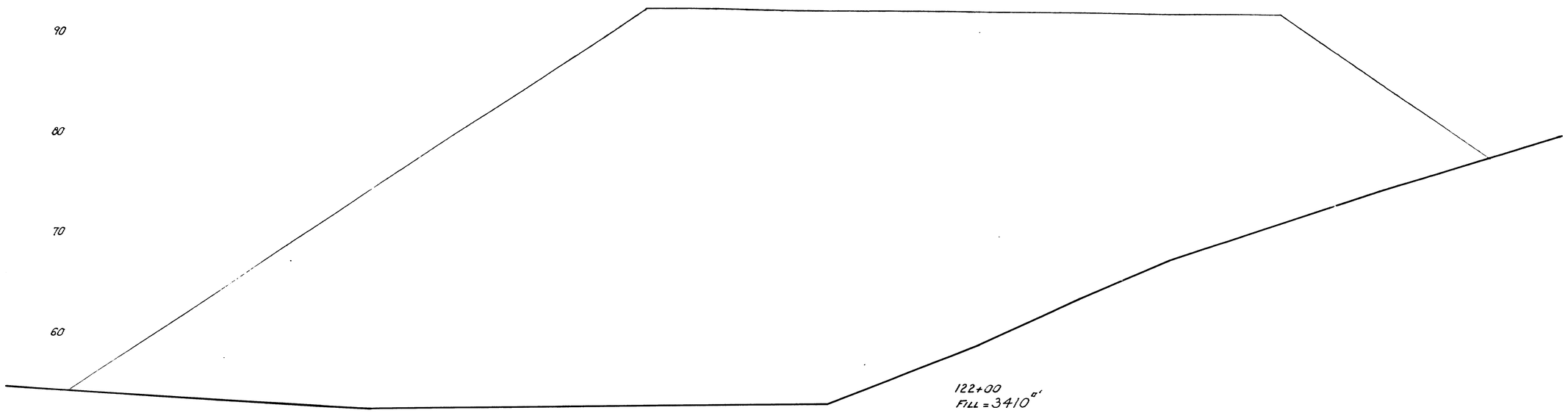
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
GAGE STREET RAIL

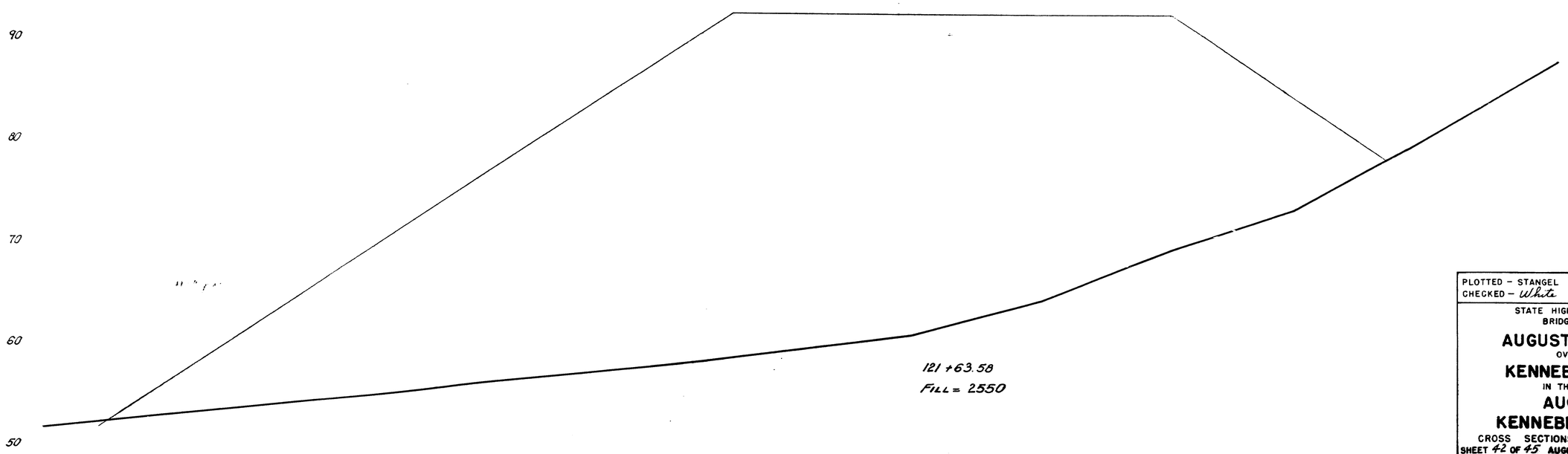
SHEET 41 OF 45 AUGUSTA, MAINE FEB. 1948

52-41

0 1 2 3 4 5 INCHES

Equation = -2.11'





0 1 2 3 4 5 INCHES

PLOTTED - STANGEL
CHECKED - White

BRIDGE - 5196

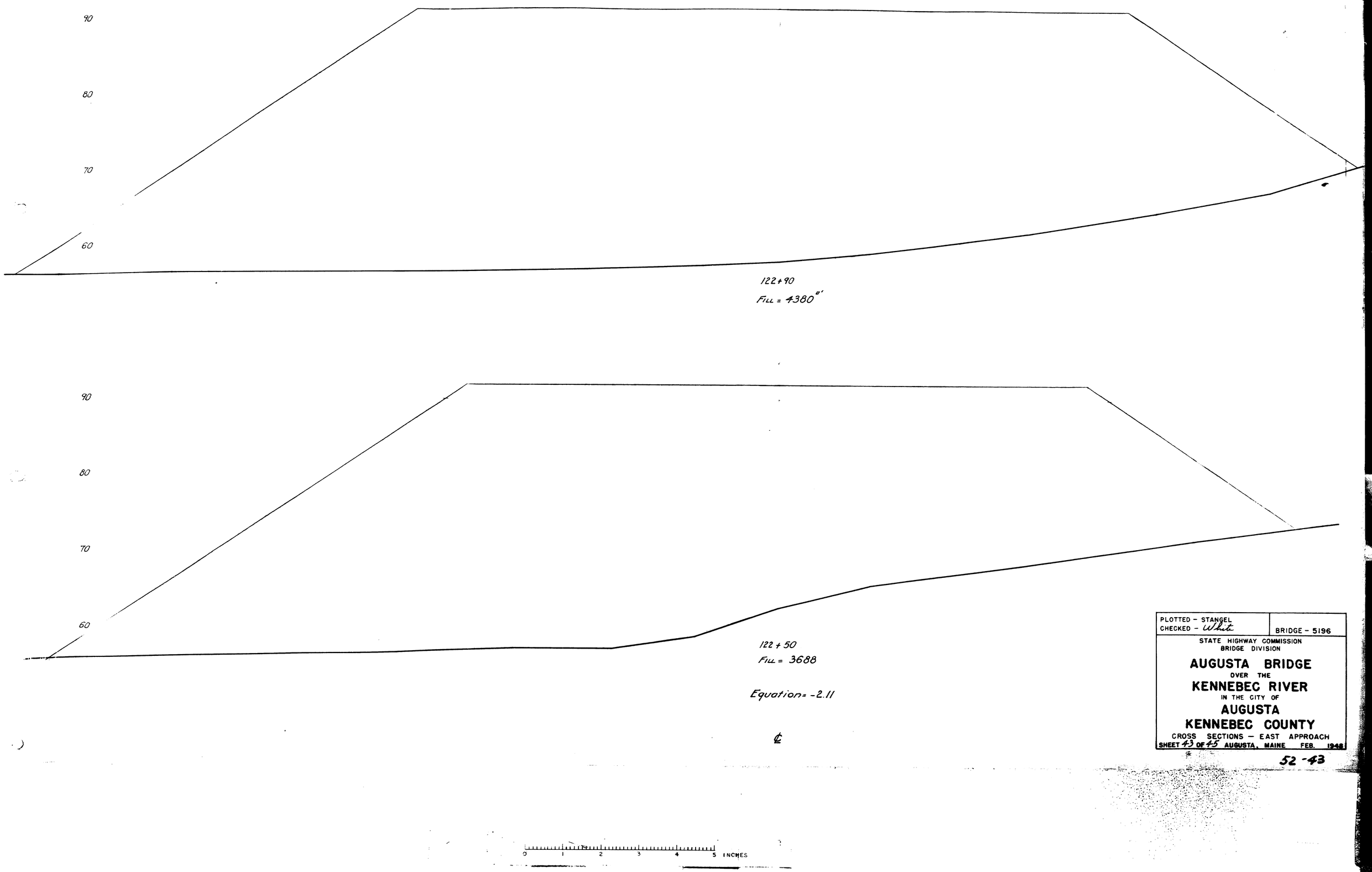
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

CROSS SECTIONS - EAST APPROACH

SHEET 42 OF 45 AUGUSTA, MAINE FEB. 1948

52-42



PLOTTED - STANGEL
CHECKED - White

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

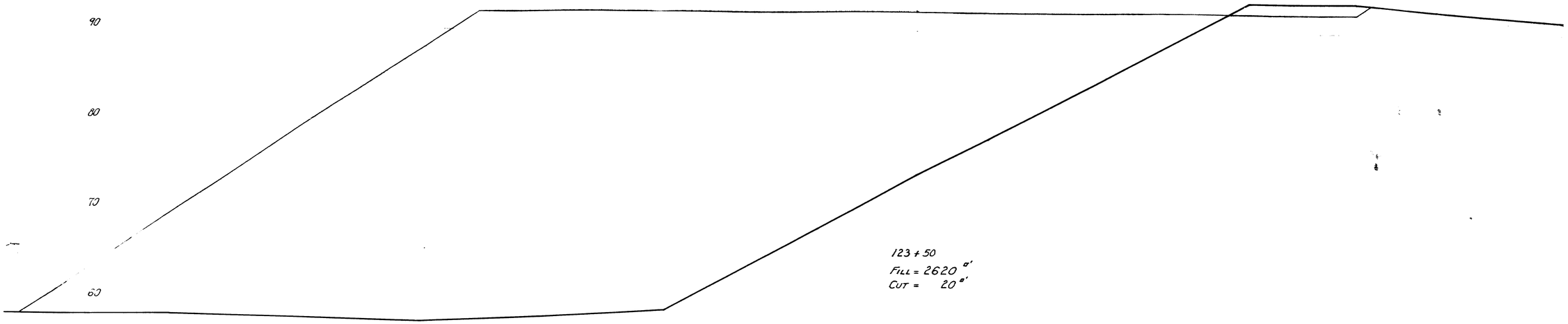
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

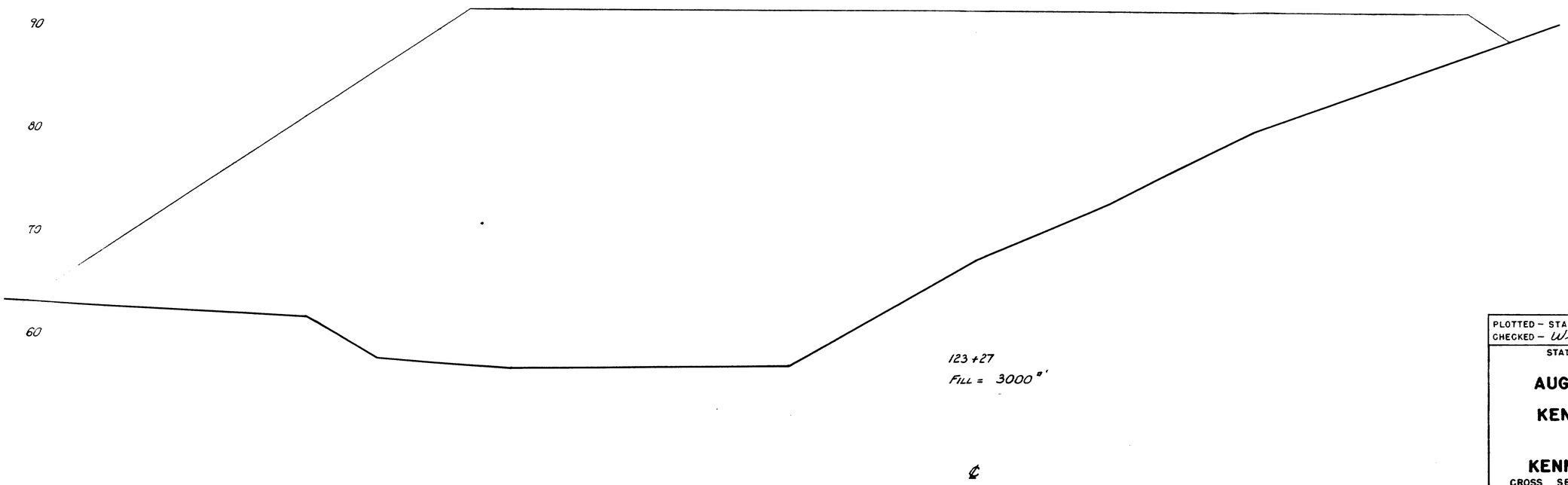
CROSS SECTIONS — EAST APPROACH

SHEET 43 OF 45 AUGUSTA, MAINE FEB. 1948

52-43

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FLUE-309(2)	44	45





PLOTTED – STANGEL
CHECKED – White

BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

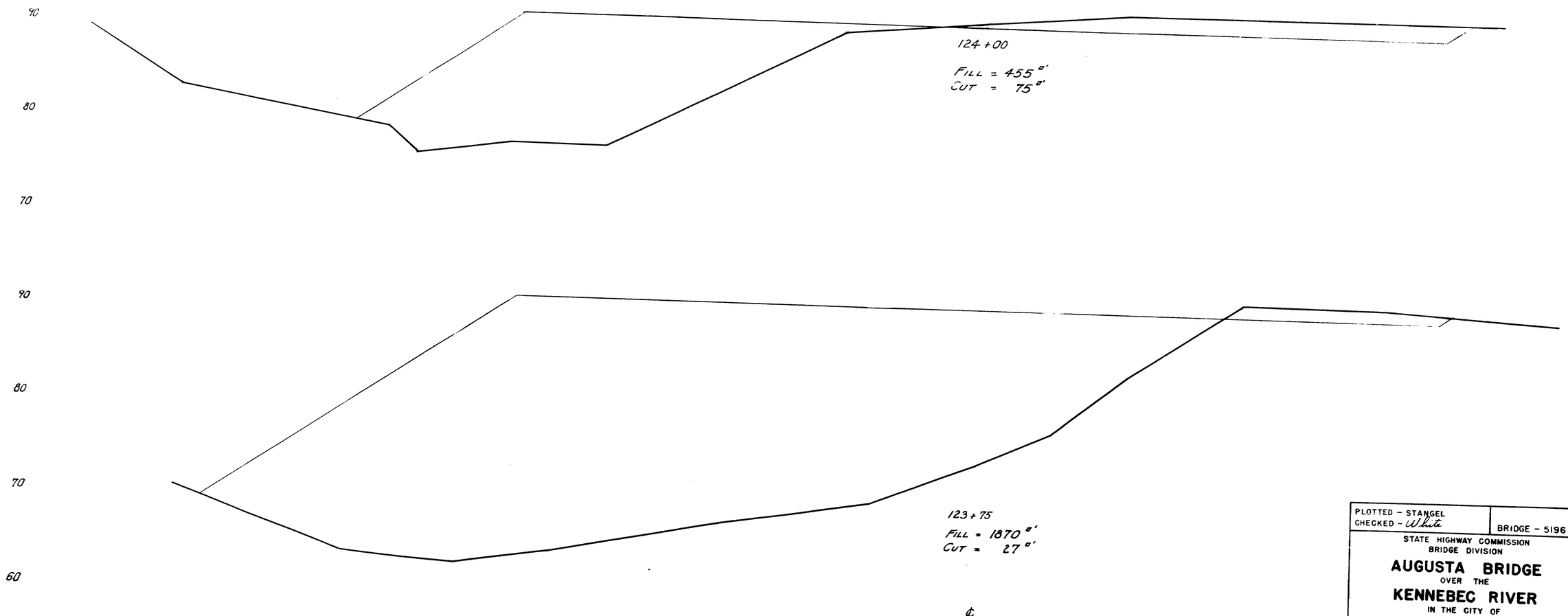
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

CROSS SECTIONS – EAST APPROACH

SHEET 44 OF 45 AUGUSTA, MAINE FEB. 1948

52-44

0 1 2 3 4 5 INCHES



PLOTTED - STANGEL
CHECKED - White

BRIDGE - 5196

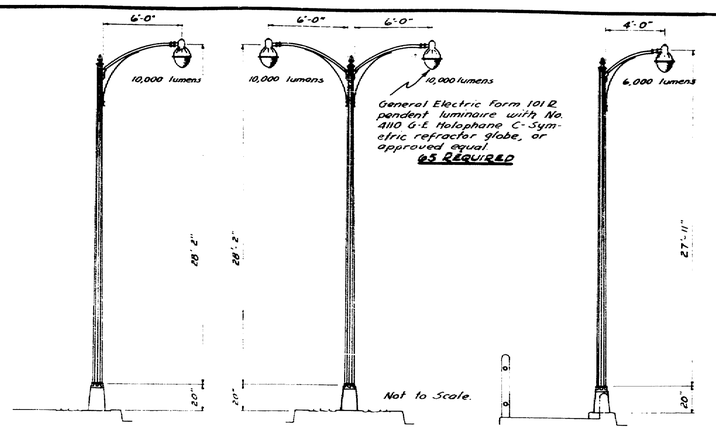
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

CROSS SECTIONS - EAST APPROACH
SHEET 45 OF 45 AUGUSTA, MAINE FEB. 1948

52-45

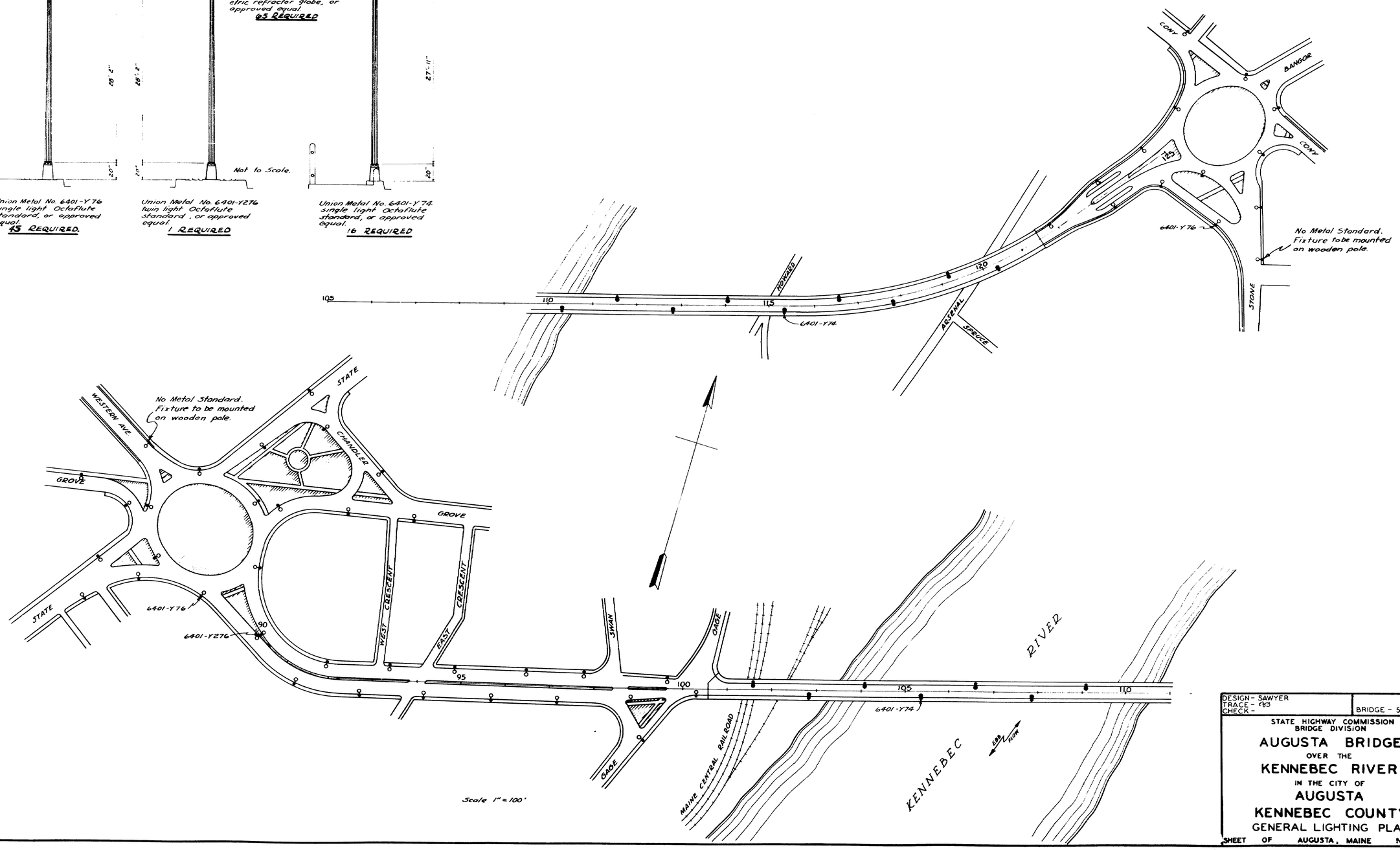
0 1 2 3 4 5 INCHES



Union Metal No. 6401-Y76 single light Octaflute standard, or approved equal.
45 REQUIRED.

Union Metal No. 6401-Y276 twin light Octaflute standard, or approved equal.
1 REQUIRED

Union Metal No. 6401-Y74 single light Octaflute standard, or approved equal.
16 REQUIRED



DESIGN - SAWYER TRACE - 193 CHECK -			BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

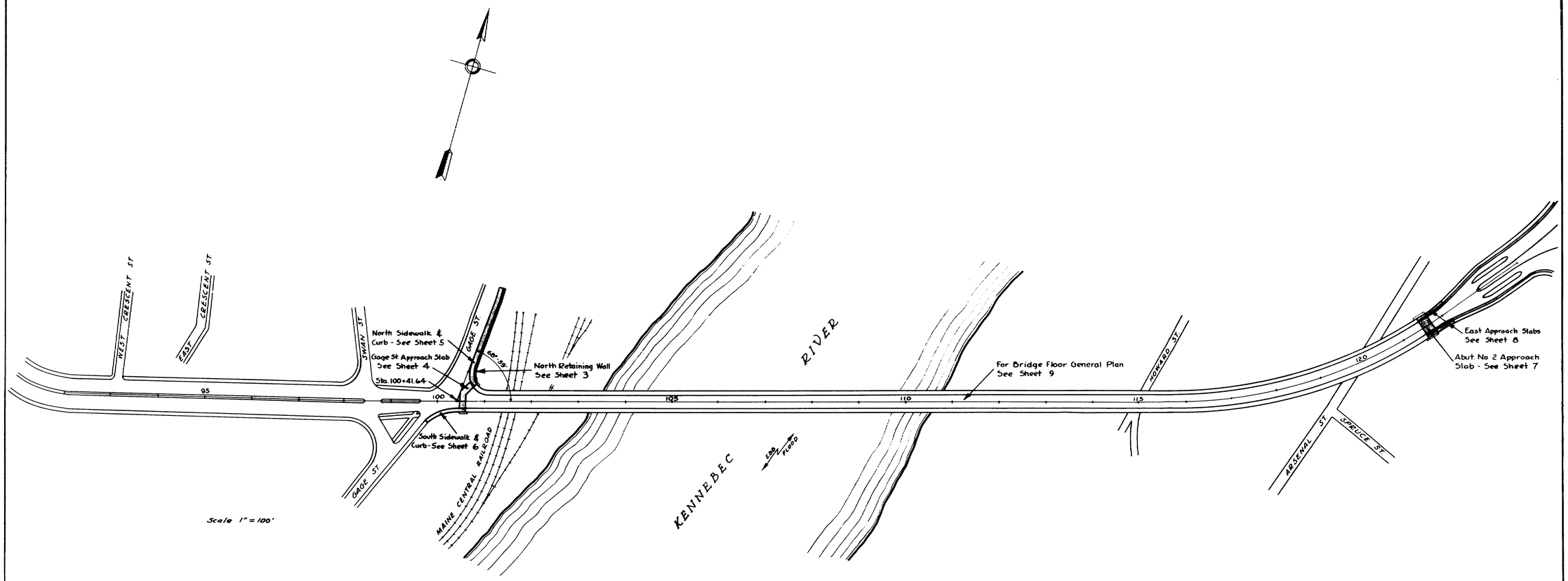
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
GENERAL LIGHTING PLAN

SHEET OF AUGUSTA, MAINE NOV. 1948

52-46

0 1 2 3 4 5 INCHES

P R & DIV NO	STATE	FED AID PRC NO	SHEET NO	TOTAL SHEETS
1	MAINE	FLUI-389(2)	2	19



PLAN - BOYD
CHECK - [illegible]

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE

OVER THE

KENNEBEC RIVER

IN THE CITY OF

AUGUSTA

KENNEBEC COUNTY

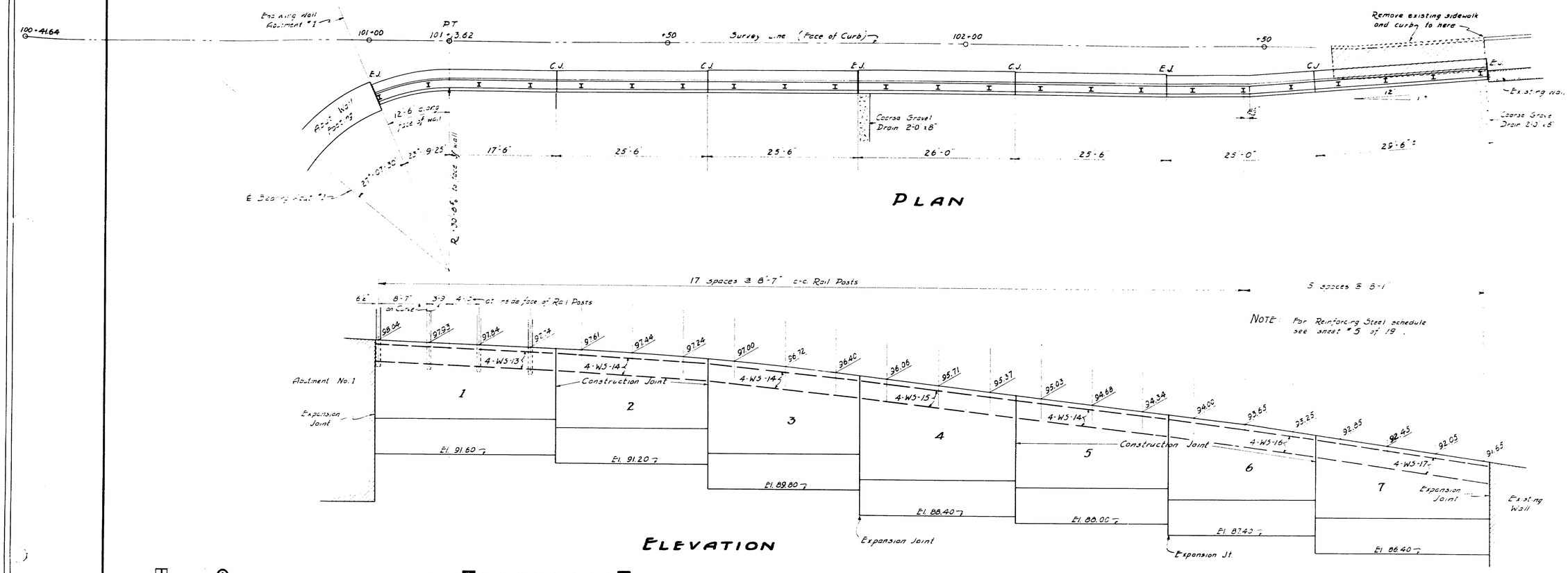
GENERAL LAYOUT

SHEET 2 OF 19 AUGUSTA, MAINE APRIL 1949

52-47

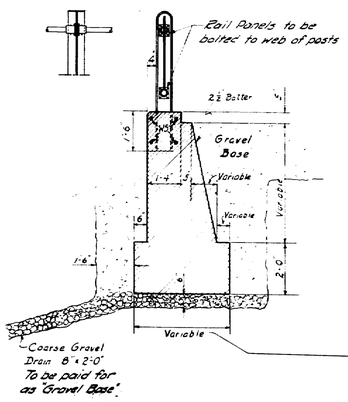
0 1 2 3 4 5 INCHES

F.H.A. DIV. NO.	STATE	ROAD PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FLUI-389(2)	3	19

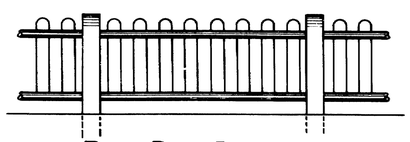


NOTE: For Reinforcing Steel schedule see sheet #5 of 19.

ELEVATION



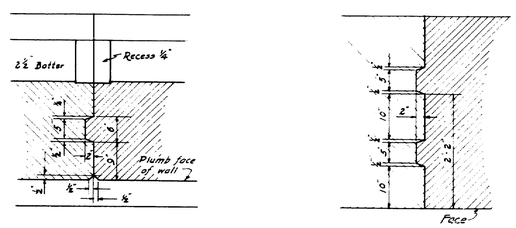
TYPICAL SECTION



PART RAIL ELEVATION

The rail along the wall consisting of Structural Steel Posts and Wrought Iron Rail Panels will be furnished and delivered by the Contractor for the steel superstructure. It will be erected as part of this contract.

Sect. of Wall	Footing Width
1	3'-7"
2	3'-7"
3	3'-9½"
4	3'-10½"
5	3'-9"
6	3'-7¾"
7	3'-7¾"



WALL DETAIL — FOOTING DETAIL

Both Details at Const. Joints

NOTE: Expansion Joints same except for addition of ½" Expansion Joint Filler. Key to start 9" below top of wall.

NOTE: Construction Joints — The back side of Construction Joints is to be covered with two layers of heavy roofing 10" wide. Coat the concrete and the back side of each layer as applied with a suitable grade of roofing cement. The front side of the joint is to have a 1" V-groove. Break the bond with a coat of suitable grade roofing cement. Recess back of joint ¼" for roofing.

Expansion Joints — Use ½" Premoulded Expansion Joint Filler. Recess back of joint ¼" and treat same as for construction joint. Make 1" V-groove on front side.

DESIGN-FORTIER	TRACE-FORTIER	BRIDGE – 5196
DETAIL- "	CHECK-Cotton	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

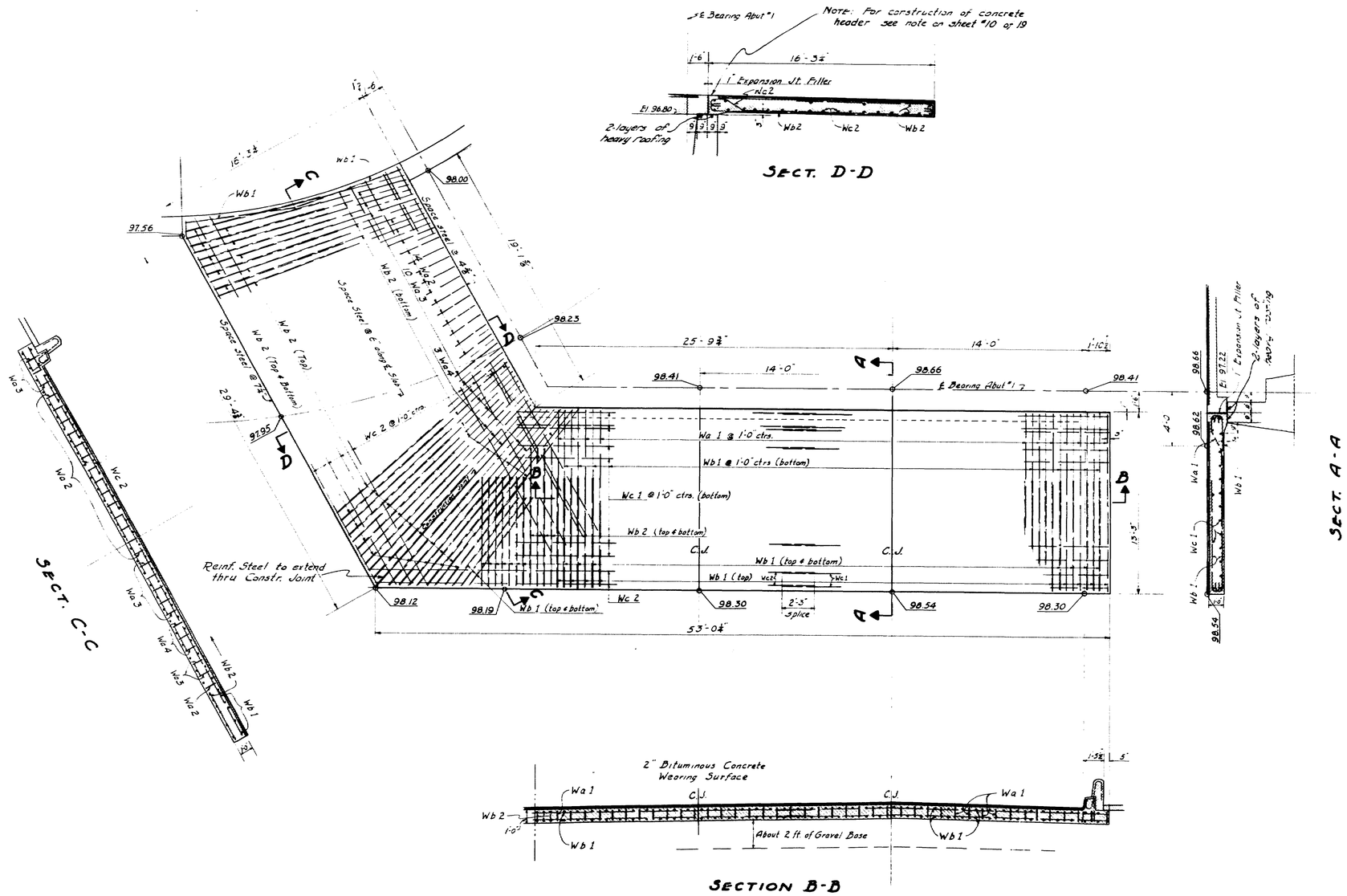
NORTH RETAINING WALL DETAILS-GAGE ST.

SHEET 3 OF 19 AUGUSTA, MAINE JAN. 1949

52-48

0 1 2 3 4 5 INCHES

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MAINE	FI,UE-389(2)	4	19



NOTE: For Reinf. Steel Schedule see sheet #5 of 19.

DESIGN - FORTIER	TRACE - FORTIER	BRIDGE - 5196
DETAIL - "	CHECK - Cotton	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
APPROACH SLAB — GAGE ST.

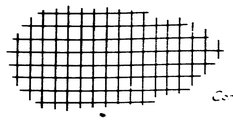
SHEET 4 OF 19 AUGUSTA, MAINE FEB. 1949

52-49

0 1 2 3 4 5 INCHES

PROJECT	NO	SHEET NO	SHEETS
F.A.(U)-389(2)	5	19	

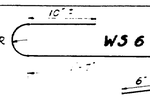
REINF. STEEL for WALL, SIDEWALK & CURB



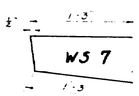
WS-1

Contract Item "7"

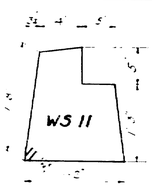
Mark	Quantity	Size	Location
WS-1	1816 sq.ft.	6" x 6" x 6 gage	Wire Mesh Panels "5 Sections Panels "5 thru "25 N & Curb & Sidewalk



WS 6

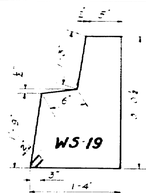


WS 7



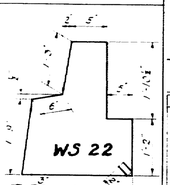
WS 11

Mark	No.	Size	Length	Location	
WS-6	17	½" ø	4'-5"	Curb & Wing Walls	N & S
WS-7	22		3'-0"	Curbs	N & S
WS-11	127		5'-0"	Curbs Sect. 5 thru 25	N



WS-19

W320

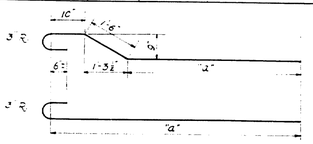


WS 22

Mark	No.	Size	Length	Location	
WS-19	30	⅜" ø	8'-7½"	Curbs Sect. 2 & 3	S
WS-20	46	"	5'-"	Curb Sect. 3, 4 & 5	S
WS-22	10		9'-5½"	Curb Sect. 3 & 4	N

STRAIGHT STEEL

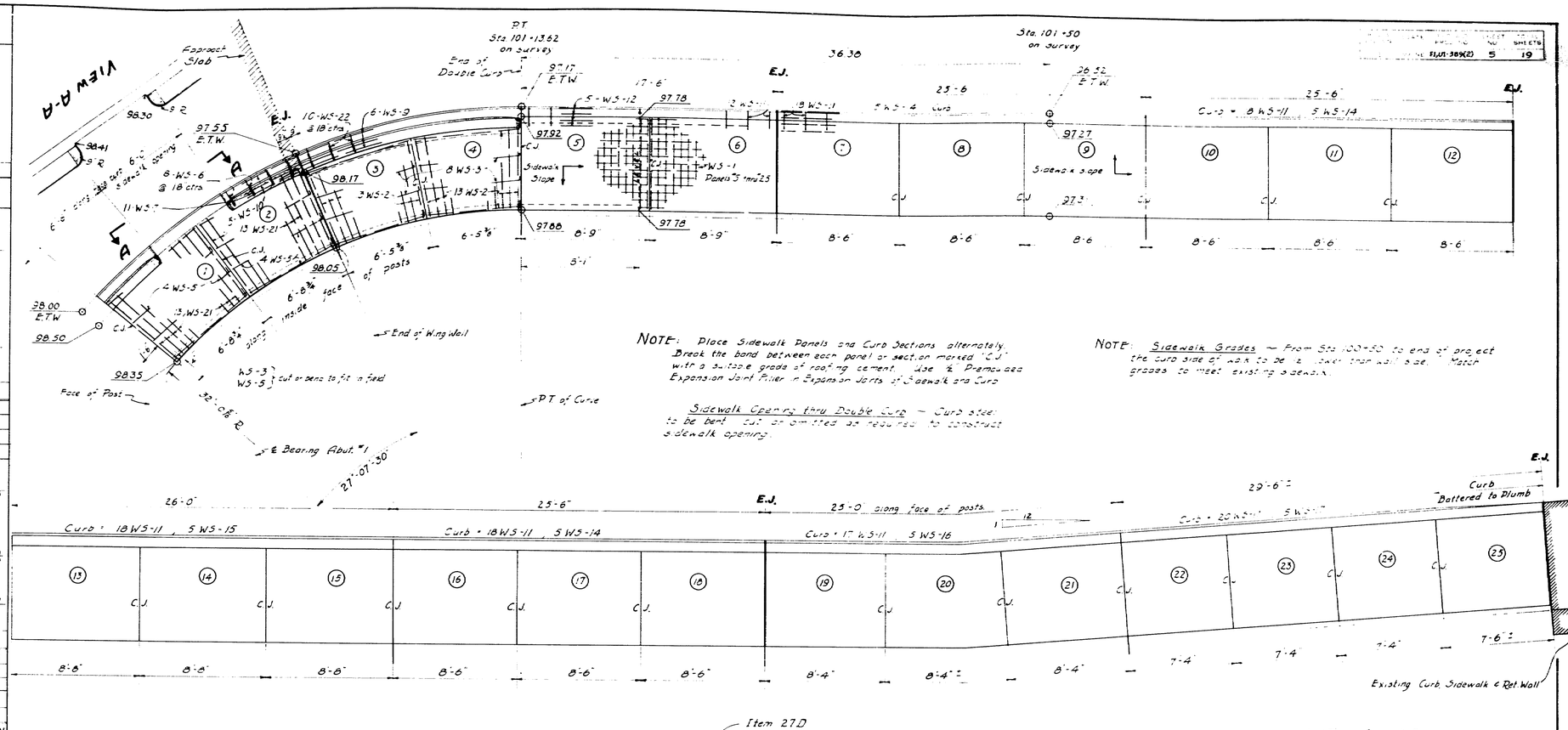
Mark	No.	Size	Length	Location	
WS-2	26	½" ø	5'-5"	Sidewalk Panels "3 & 4	Transverse N
WS-3	8	"	7'-5"	" " "3 & 4	Longitudinal N
WS-5	8	"	7'-9"	" " "1 & 2	" N
WS-9	6	"	15'-3"	Curbs at Sidewalk Panels "3 & 4	N
WS-10	5	"	16'-4"	" " " "1 & 2	N
WS-12	5	"	17'-3"	" " " "5 & 6	N
WS-13	4	"	29'-8"	Retaining Wall - Section "1	N
WS-14	27	"	25'-3"	Ret. Wall and Curb at Wall Sects. "2, 3, & 5	N
WS-15	9	"	25'-9"	" " " "4	N
WS-16	9	"	24'-9"	" " " "6	N
WS-17	9	"	29'-3"	" " " "7	N
WS-18	15	"	28'-0"	Curb Sect. "2, 3, 4 & 5	S
WS-21	26	"	6'-0"	S.W. Panels "1 & 2 Trans.	N
WS-4	7	"	13'-0"	Curbs Sect. "1	S
WS-8	5	½" ø	15'-6"	" " "3	S
Wa 1	33	⅝" ø	23'-9"	Approach Slab - Abut. "1 - Trans.	
Wb 2	24	"	30'-6"	" " " "	



Wa 1, 2, 3, 4

Wb 1, 2

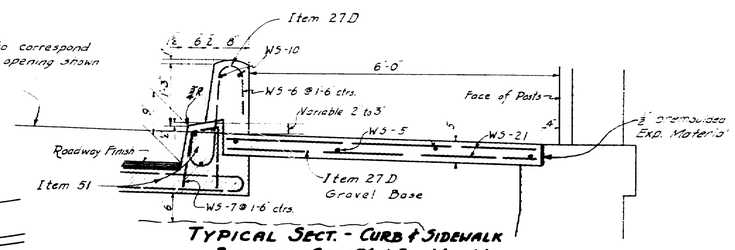
Mark	No.	Size	"a"	Total Length	Location	
Wa 1	41	¾" ø	10'-7"	14'-3"	Approach Slab - Abut. "1	Longit.
Wa 2	15	"	13'-10½"	17'-6"	" "	"
Wa 3	10	"	14'-1½"	17'-9"	" "	"
Wa 4	3	"	14'-4½"	18'-0"	" "	"
Wb 1	183	"	7'-9"	9'-0"	" "	"
Wb 2	24	"	9'-9"	11'-0"	" "	"



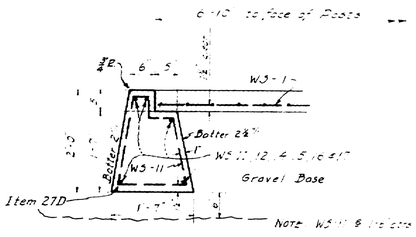
NOTE: Place Sidewalk Panels and Curb Sections alternately. Break the bond between each panel or section marked "C.J." with a suitable grade of roofing cement. Use ½" Premoulded Expansion Joint Filler in Expansion Joints of Sidewalk and Curb.

NOTE: Sidewalk Grades — From Sta. 100+50 to end of project the curb side of walk to be ½" lower than wall side. Match grades to meet existing sidewalk.

Sidewalk Opening thru Double Curb — Curb steel to be bent, cut or omitted as required to construct sidewalk opening.

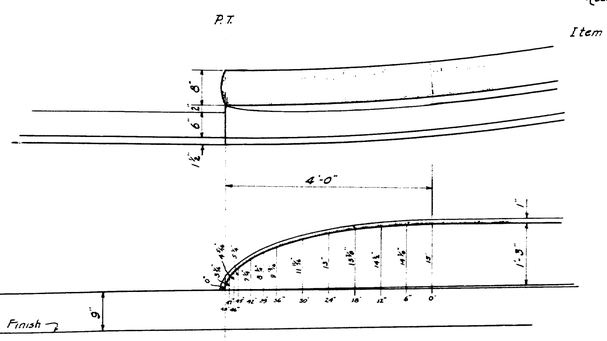


TYPICAL SECT. - CURB & SIDEWALK BETWEEN ABUT. "1 & END WING WALL

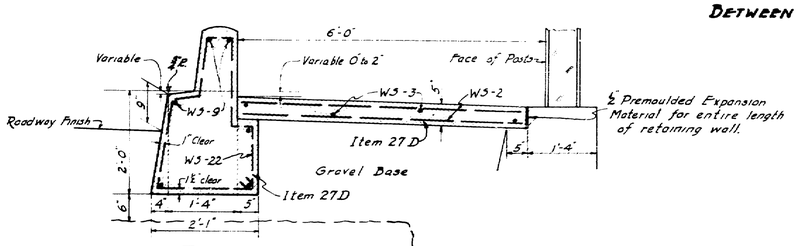


TYPICAL SECT. - CURB & SIDEWALK BETWEEN P.T. & END OF PROJECT

NOTE: Outside Curb opposite S.W. Panel "4 — Warp top of curb to fit sidewalk slope at P.T.



DETAIL - END OF DOUBLE CURB



TYPICAL SECT. - CURB & SIDEWALK BETWEEN END WING WALL & P.T.

DESIGN - FORTIER TRACE - FORTIER
DETAIL - " CHECK - Cotton

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

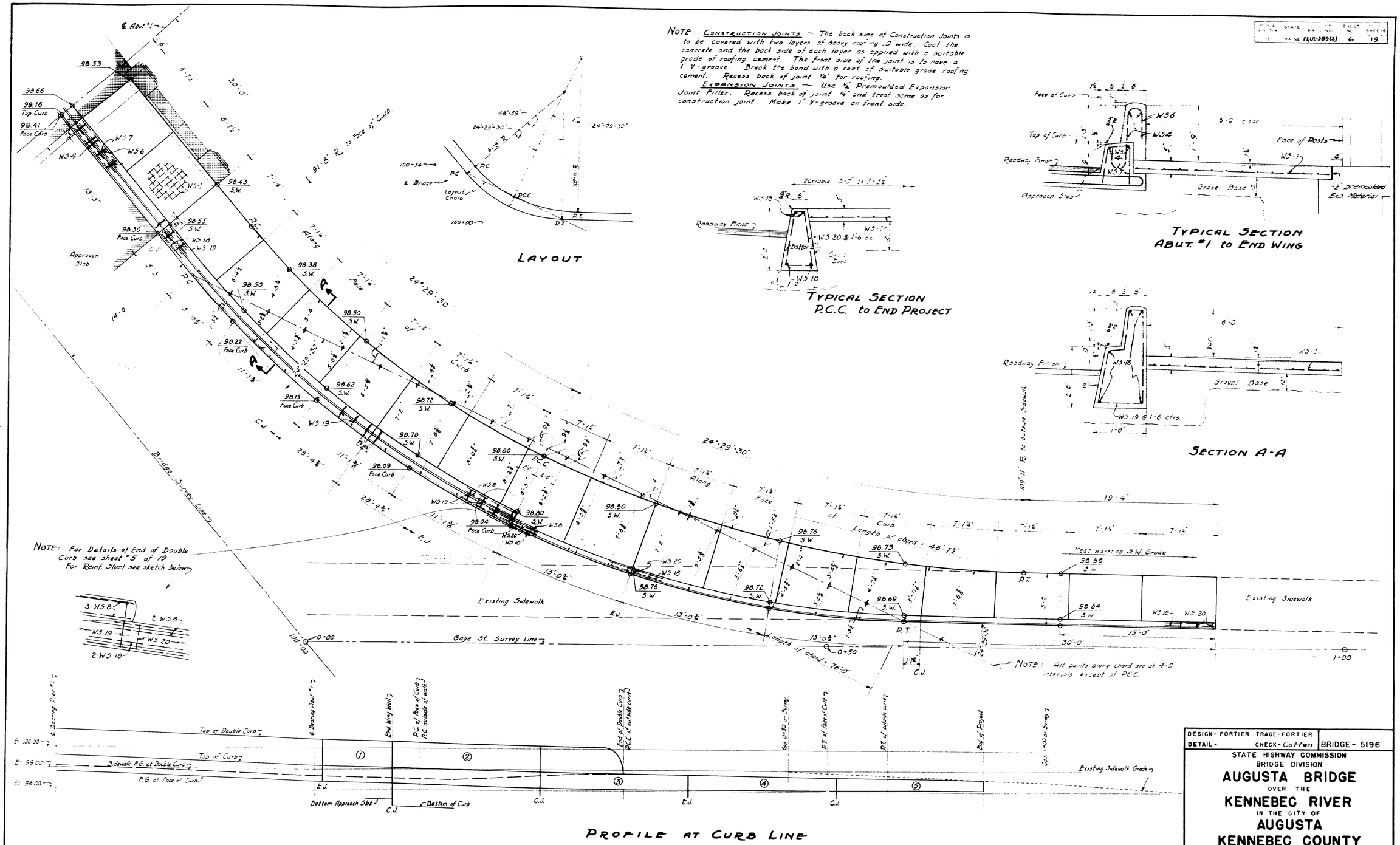
N. SIDEWALK & CURB DETAILS — GAGE ST.

SHEET 5 OF 19 AUGUSTA, MAINE JAN. 1949

	STATE	PROJ. NO.	SHEET NO.	SHEETS
1	MAINE	FI,UR-589(2)	6	19

NOTE: CONSTRUCTION JOINTS — The back side of Construction Joints is to be covered with two layers of heavy roofing 10 wide. Coat the concrete and the back side of each layer as applied with a suitable grade of roofing cement. The front side of the joint is to have a 1" V-groove. Break the bond with a coat of suitable grade roofing cement. Recess back of joint ¼" for roofing.

EXPANSION JOINTS — Use ½" Premoulded Expansion Joint Filler. Recess back of joint ¼" and treat same as for construction joint. Make 1" V-groove on front side.



DESIGN - FORTIER TRACE - FORTIER	BRIDGE - 5196
DETAIL - CHECK - Cotton	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

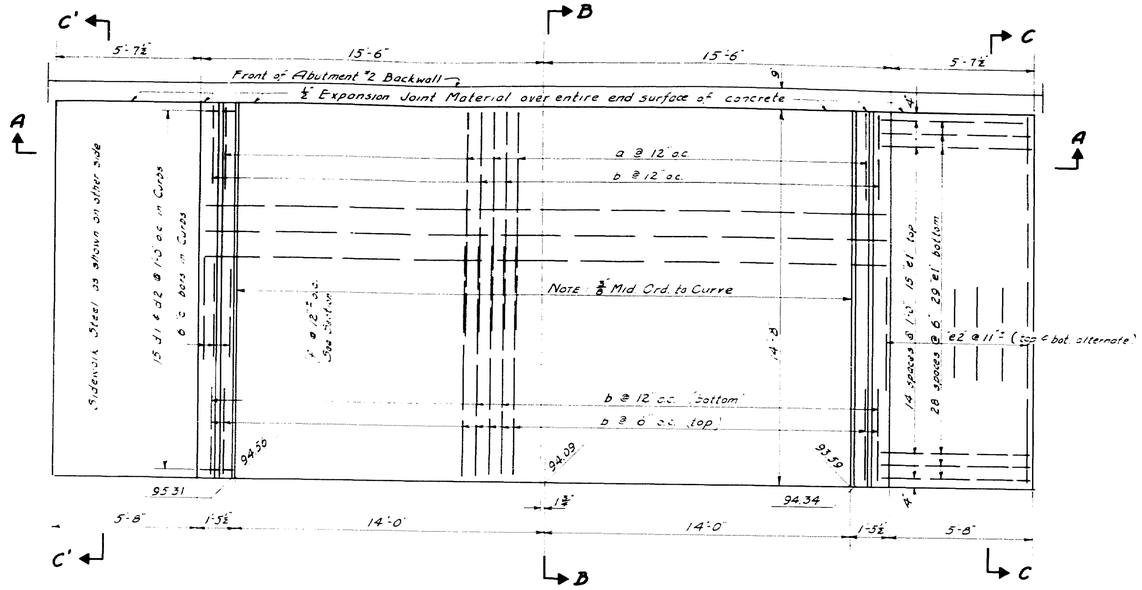
SOUTH SIDEWALK & CURB - GAGE ST.

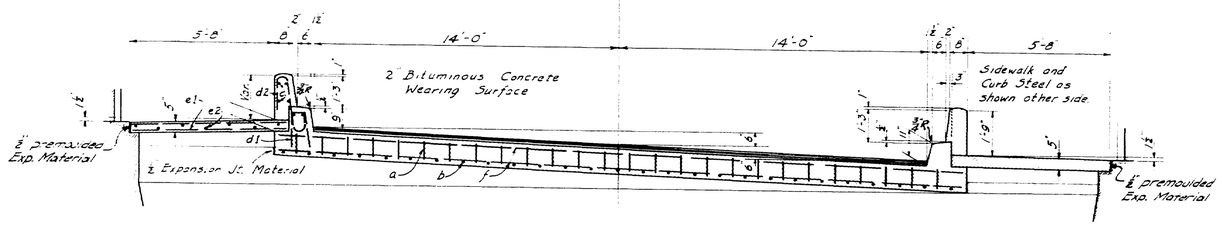
SHEET 6 OF 19 AUGUSTA, MAINE FEB. 1949

52-51

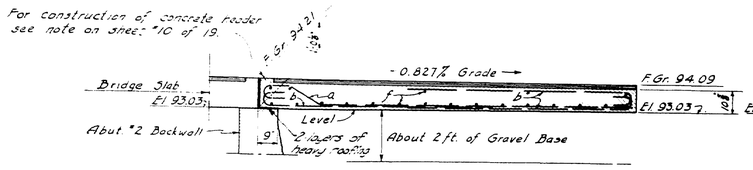
0 1 2 3 4 5 INCHES

F.A. DIV. NO.	STATE	FED. RD. PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FJJR-389(2)	7	19

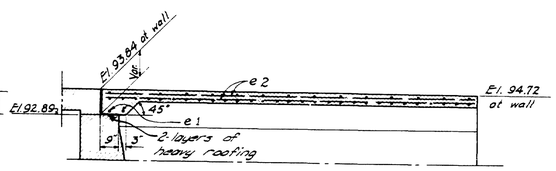




SECTION A-A



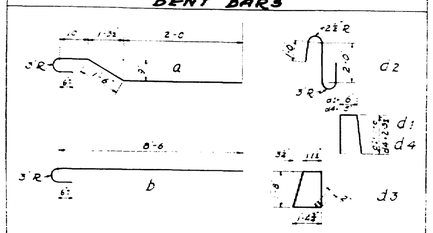
SECTION B-B



SECTION C-C

Section C'-C' the same except for Elevations

REINFORCING STEEL
EAST APPROACH SLAB, CURB & SIDEWALKS
BENT BARS



Mark	Size	No.	Length	Location
a	¾"φ	30	15'-7"	Rdy. Slab - Long
b	¾"φ	122	9'-9"	" " "
d1	⅜"φ	30	3'-6"	Curbs
d2	⅜"φ	30	4'-11"	"
d3	⅜"φ	80	6'-3"	Approach Curbs
d4	⅜"φ	80	5'-0"	" "

STRAIGHT BARS

c	½"φ	12	14'-6"	Curbs
e1	"	92	5'-10"	S.W. Slab - Transverse
e2	"	14	14'-6"	" " - Longitudinal
f	⅜"φ	20	30'-8"	Rdy. Slab - Transverse
c2	½"φ	28	19'-6"	Approach Curbs
E1		58	5'-10"	" S.W. - Trans.
E2		58	6'-1"	" " "
E3		58	6'-4"	" " "
E4	"	58	6'-7"	" " "
E5	½"φ	56	9'-6"	" " Long.

DESIGN - ALLEN TRACE-FORTIER
DETAIL - " CHECK - Cotton
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

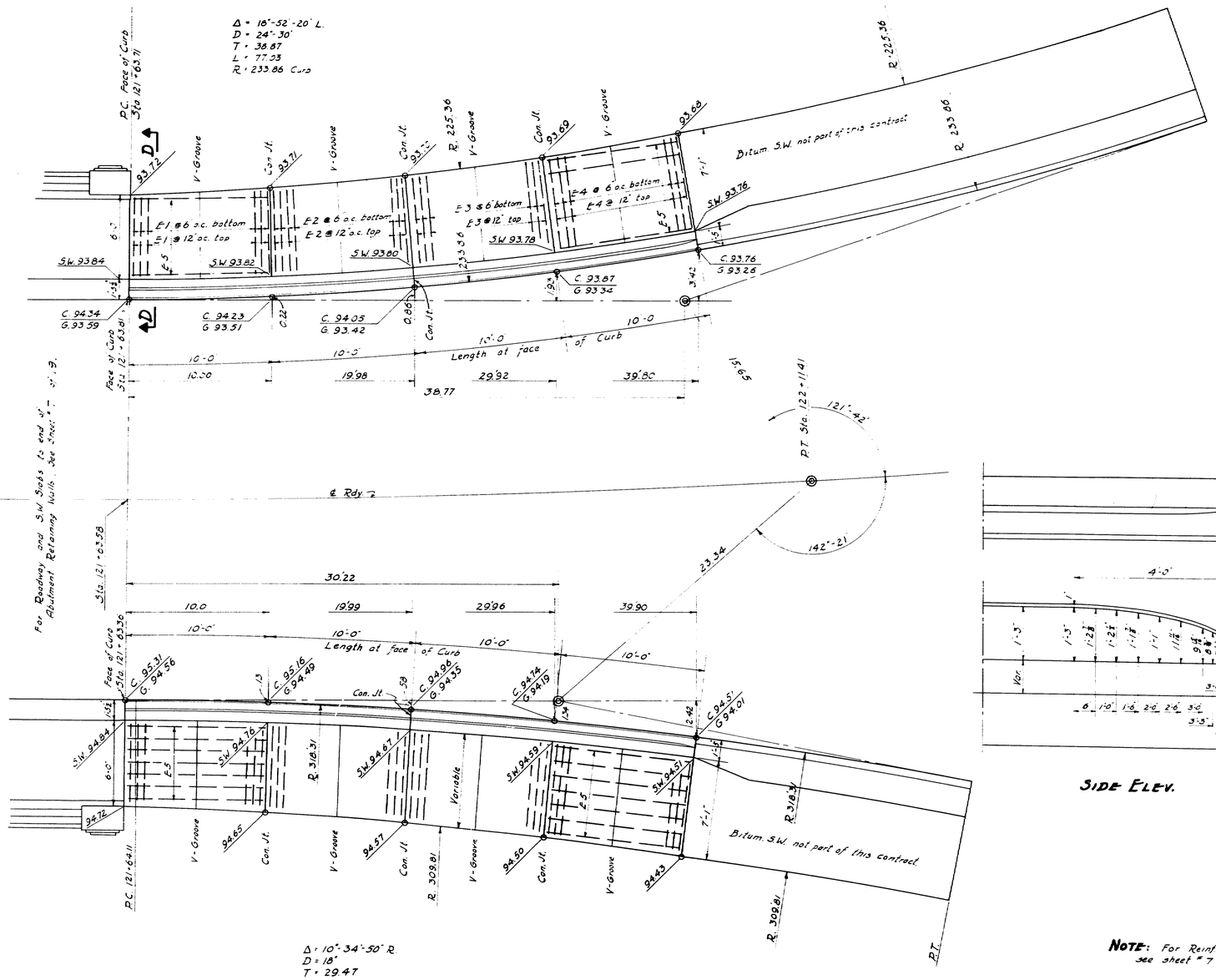
APPROACH SLAB - ABUT. 2.

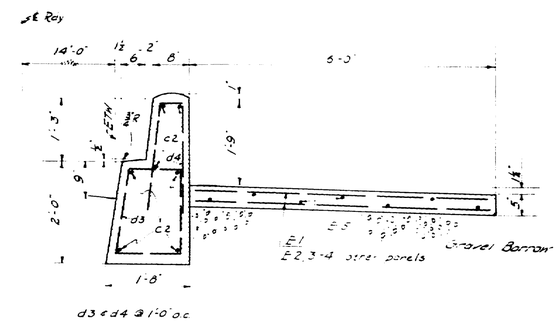
SHEET 7 OF 19 AUGUSTA, MAINE FEB. 1949

52-52

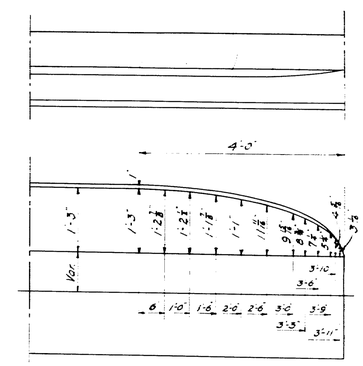
0 1 2 3 4 5 INCHES

F.P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FT.UI-3091(2)	8	19

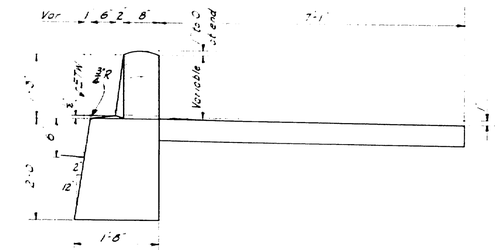




SECTION D-D



SIDE ELEV.



END ELEV.

U.S. CURB

D.S. Curb similiar except for Elevations

NOTE: For Reinf. Steel Schedule see sheet #7 of 19.

DESIGN - ALLEN TRACE - FORTIER DETAIL - " CHECK - Cotton	BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

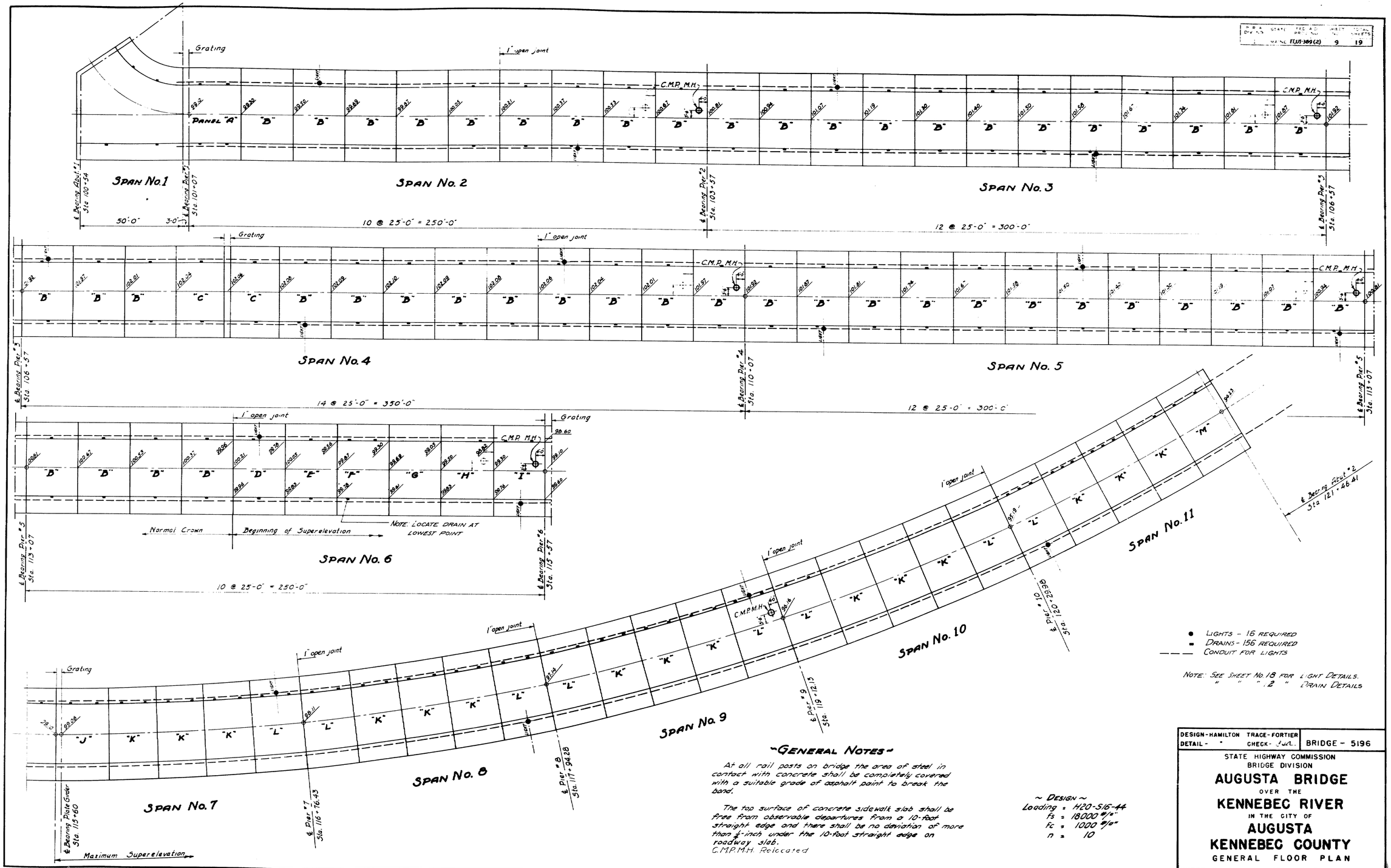
EAST APPROACH SLABS

SHEET 8 OF 19 AUGUSTA, MAINE FEB. 1949

52-53

0 1 2 3 4 5 INCHES

P.R.A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FI,UI-309(2)	9	19



~GENERAL NOTES~

At all rail posts on bridge the area of steel in contact with concrete shall be completely covered with a suitable grade of asphalt paint to break the bond.

The top surface of concrete sidewalk slab shall be free from observable departures from a 10-foot straight edge and there shall be no deviation of more than ¼-inch under the 10-foot straight edge on roadway slab.

C.M.P.M.H. Reincoated

~ DESIGN ~

Loading : H20-S16-44
fs : 18000 #/□"
fc : 1000 #/□"
n : 10

DESIGN - HAMILTON	TRACE - FORTIER	BRIDGE - 5196
DETAIL - "	CHECK - JWL	

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

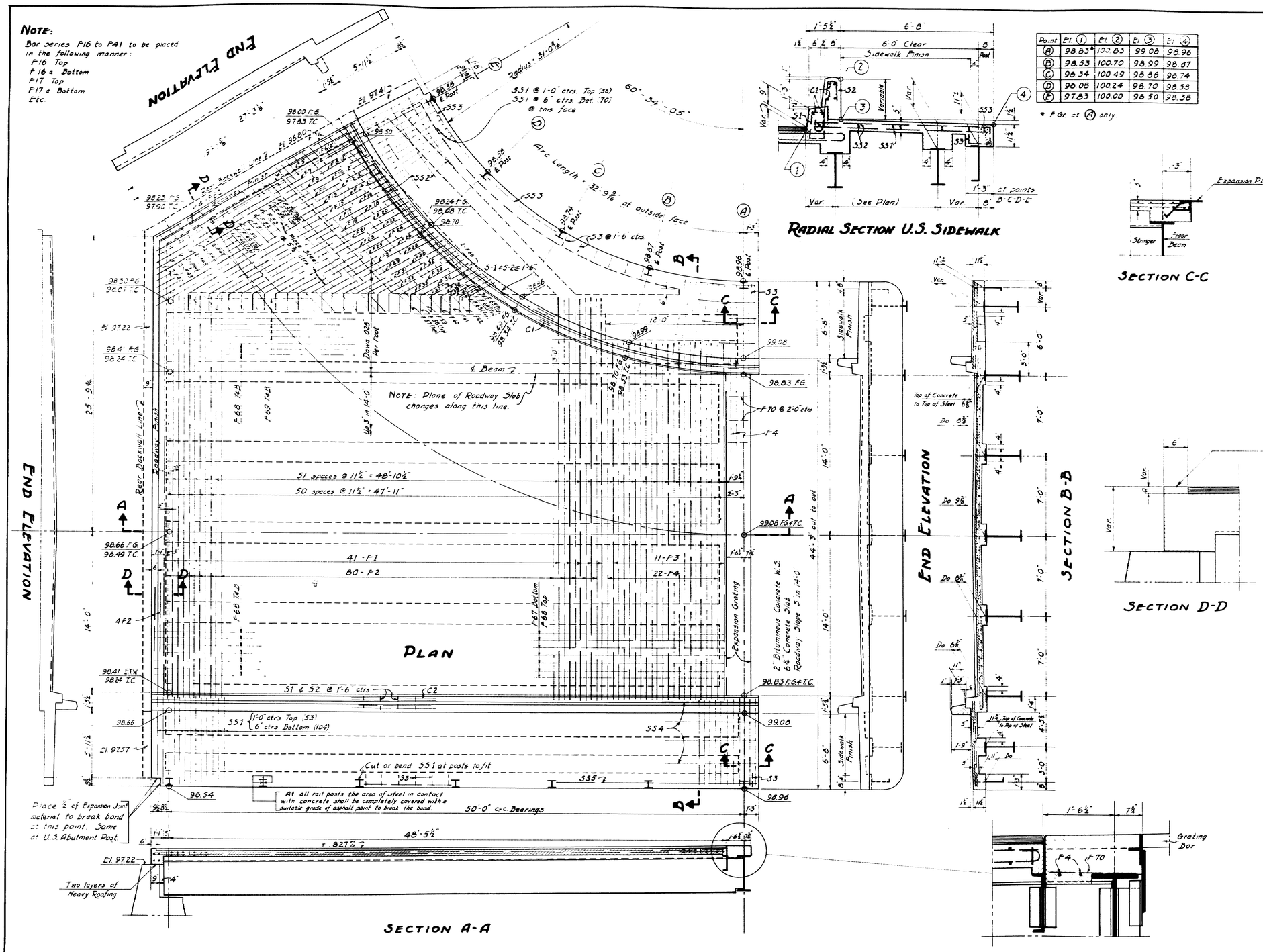
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
GENERAL FLOOR PLAN

SHEET 9 OF 19 AUGUSTA, MAINE JAN. 1949

52-54

0 1 2 3 4 5 INCHES

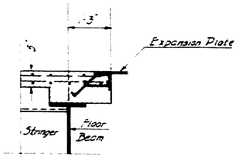
NOTE:
Bar series F16 to F41 to be placed in the following manner:
F16 Top
F16 a Bottom
F17 Top
F17 a Bottom
Etc.



RADIAL SECTION U.S. SIDEWALK

Point	El. ①	El. ②	El. ③	El. ④
Ⓐ	98.83*	100.83	99.08	98.96
Ⓑ	98.53	100.70	98.99	98.87
Ⓒ	98.34	100.49	98.86	98.74
Ⓓ	98.08	100.24	98.70	98.58
Ⓔ	97.83	100.00	98.50	98.38

* F.Gr. at Ⓐ only.



SECTION C-C

SECTION D-D

NOTE: It is important that work at this point shall be carefully done; the following method is suggested

This portion of the concrete dam (a x 6") may be omitted when the slab is placed provided the top surface is left rough and this said portion is placed as soon as it is possible to work on the slab without damage to it, and further provided that small steel dowels, ½"ø x 3" min. of 2'-0" centers, are placed in the slab before the concrete takes its initial set, and the (a x 6") concrete portion shall be in position before the slab concrete takes final set.

Payment for ½"ø x 3" Dowels, if used, to be included in the Contract Unit Price for Concrete.

DESIGN-HAMILTON TRACE-FORTIER DETAIL- " CHECK- Allen	BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

FLOOR DETAILS – SPAN No. 1

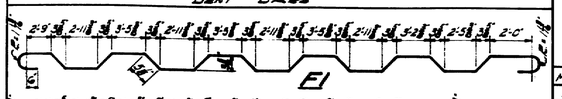
SHEET 10 OF 19 AUGUSTA, MAINE JAN. 1949

52-55

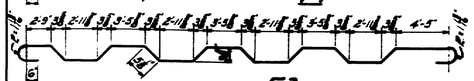
0 1 2 3 4 5 INCHES

SPAN No. 1

BENT BARS

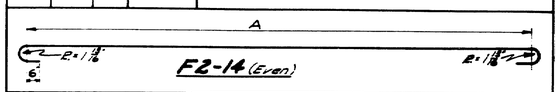


F1



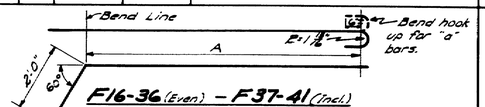
F3

MARK	No.	SIZE	LENGTH	LOCATION
F1	41	1" ϕ	38'-9"	Main Slab
F3	11	"	34'-8"	" "



F2-14 (Even)

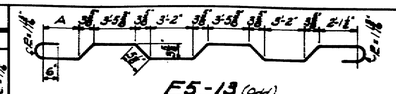
MARK	No	SIZE	A	LENGTH	LOCATION
F2	84	1" ϕ	35'-6"	37'-5"	Main Slab
F4	24	"	31'-8	32'-7"	" "
F6	2	"	20'-1"	22'-0"	" " U.S.
F8	2	"	21'-1"	23'-0"	" " "
F10	2	"	21'-9"	23'-8"	" " "
F12	2	"	22'-6"	24'-5"	" " "
F14	2	"	23'-3"	25'-2"	" " "



F16-36 (Even) – F37-41 (Incl.)

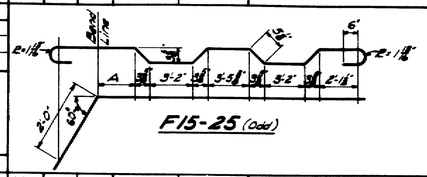
F16a-36a (Even) – F37a-41a (Incl.)

MARK	No.	SIZE	A	LENGTH	LOCATION
F16	1	1" ϕ	19'-6"	22'-6"	Top Main Slab U.S.
F16a	1	"	19'-6"	"	Bot. " " "
F18	1	"	18'-0"	21'-0"	Top " " "
F18a	1	"	18'-0"	"	Bot. " " "
F20	1	"	16'-6"	19'-6"	Top " " "
F20a	1	"	16'-6"	"	Bot. " " "
F22	1	"	15'-0"	18'-0"	Top " " "
F22a	1	"	15'-0"	"	Bot. " " "
F24	1	"	13'-6"	16'-6"	Top " " "
F24a	1	"	13'-6"	"	Bot. " " "
F26	1	"	12'-0"	15'-0"	Top " " "
F26a	1	"	12'-0"	"	Bot. " " "
F28	1	"	10'-6"	13'-6"	Top " " "
F28a	1	"	10'-6"	"	Bot. " " "
F30	1	"	9'-0"	12'-0"	Top " " "
F30a	1	"	9'-0"	"	Bot. " " "
F32	1	"	7'-6"	10'-6"	Top " " "
F32a	1	"	7'-6"	"	Bot. " " "
F34	1	"	6'-0"	9'-0"	Top " " "
F34a	1	"	6'-0"	"	Bot. " " "
F36	1	"	4'-6"	7'-6"	Top " " "
F36a	1	"	4'-6"	"	Bot. " " "
F37	1	"	4'-0"	7'-0	Top " " "
F37a	1	"	4'-0"	"	Bot. " " "
F38	1	"	3'-6"	6'-6"	Top " " "
F38a	1	"	3'-6"	"	Bot. " " "
F39	1	"	3'-0"	6'-0"	Top " " "
F39a	1	"	3'-0"	"	Bot. " " "
F40	1	"	2'-6"	5'-6"	Top " " "
F40a	1	"	2'-6"	"	Bot. " " "
F41	1	"	2'-0"	5'-0"	Top " " "
F41a	1	"	2'-0"	"	Bot. " " "



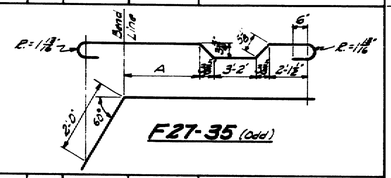
F5-13 (Odd)

MARK	No.	SIZE	A	LENGTH	LOCATION
F5	1	1" ϕ	3'-1"	22'-6"	Main Slab U.S.
F7	1	"	3'-10"	23'-3"	" " "
F9	1	"	4'-8"	24'-1"	" " "
F11	1	"	5'-6"	24'-11"	" " "
F13	1	"	6'-3"	25'-8"	" " "



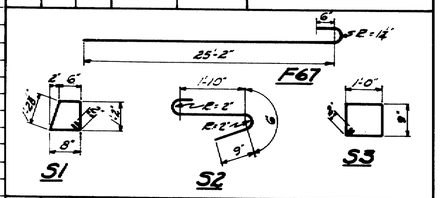
F15-25 (Odd)

MARK	No	SIZE	A	LENGTH	LOCATION
F15	1	1" ϕ	7'-3"	24'-9"	Main Slab U.S.
F17	1	"	5'-6"	23'-0"	" " "
F19	1	"	4'-3"	21'-9"	" " "
F21	1	"	2'-9"	20'-3"	" " "
F23	1	"	1'-6"	19'-0"	" " "
F25	1	"	0'-6"	18'-0"	" " "



F27-35 (Odd)

MARK	No.	SIZE	A	LENGTH	LOCATION
F27	1	1" ϕ	5'-9"	15'-10"	Main Slab U.S.
F29	1	"	4'-3"	14'-4"	" " "
F31	1	"	2'-6"	12'-7"	" " "
F33	1	"	1'-3"	11'-4"	" " "
F35	1	"	0'-6"	10'-7"	" " "



MARK	No.	SIZE	LENGTH	LOCATION
F67	31	1" ϕ	26'-0"	Main Slab U.S.
S1	63	1" ϕ	3'-10"	U.S. & D.S. Curbs
S2	63	"	4'-1"	" " " "
S3	62	"	3'-10"	" " " "

STRAIGHT BARS

MARK	No.	SIZE	LENGTH	LOCATION
F42	2	1/2" ϕ	6'-0"	Roadway Slab U.S.
F43	2	"	8'-0"	" " "
F44	2	"	9'-0"	" " "
F45	2	"	10'-0"	" " "
F46	2	"	11'-0"	" " "
F47	2	"	11'-6"	" " "
F48	1	"	12'-6"	" " "
F49	1	"	13'-0"	" " "
F50	1	"	13'-6"	" " "
F51	1	"	13'-9"	" " "
F52	1	"	14'-6"	" " "
F53	1	"	14'-9"	" " "
F54	1	"	15'-0"	" " "

MARK	No.	SIZE	LENGTH	LOCATION
F55	1	1/2" ϕ	15'-3"	Roadway Slab U.S.
F56	1	"	15'-6"	" " "
F57	1	"	17'-6"	" "
F58	1	"	18'-0"	" " "
F59	1	"	18'-3"	" " "
F60	1	"	18'-9"	" " "
F61	1	"	19'-0"	" " "
F62	5	"	20'-0"	" " "
F63	1	"	20'-3"	" " "
F64	1	"	20'-9"	" " "
F65	1	"	21'-3"	" " "
F66	2	"	22'-0"	" "
F68	69	"	25'-9"	Main Roadway Slab
F69	6	"	39'-0"	" "
F70	14	"	2'-0"	" " " at Grating
S31	269	1/2" ϕ	7'-6"	Sidewalk Slab U.S. & D.S.
S32	16	"	22'-0"	" " " " (Splice)
S33	12	"	8'-1"	" " " "
S34	16	"	27'-2"	" " " " (Splice)
S35	18	"	8'-3"	" " " "
C1	12	1/2" ϕ	22'-10"	Sidewalk Curbs U.S. (Splice)
C2	12	"	27'-0"	" " D.S. (Splice)

FI, UT-389(3) 11 19

NOTE: Dimensions to ℄ of steel

DESIGN-HAMILTON TRACE-CLARK
DETAIL - " CHECK- "C.A."

BRIDGE – 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

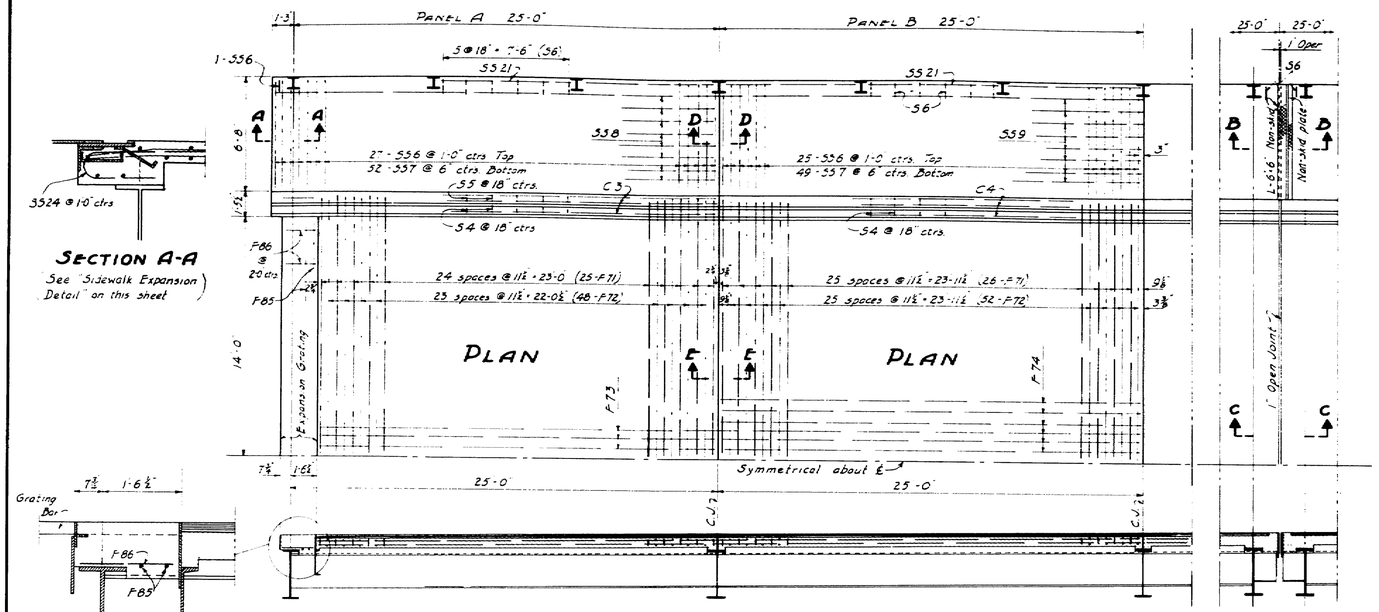
REINFORCING STEEL SPAN No. 1

SHEET 11 OF 19 AUGUSTA, MAINE. JAN. 1942

52-56

0 1 2 3 4 5 INCHES

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MAINE	FI(UI-389(2)	12	19

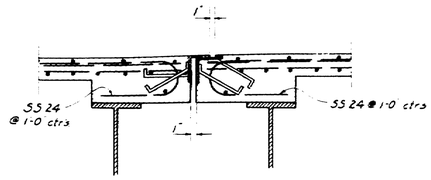


SECTION A-A

See "Sidewalk Expansion Detail" on this sheet

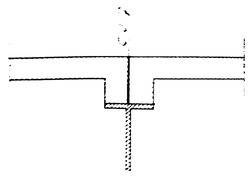
PART LONGITUDINAL SECTION

NOTE: Reinforcing steel to be placed the same in panels adjacent to 1" open joint as that shown for Panel "B", except one additional S6

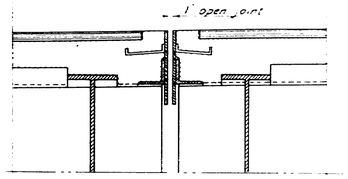


SECTION B-B

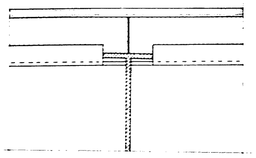
NOTE: Sidewalk Expansion Plates to be furnished by Structural Steel Contractor and erected by Floor Contractor.



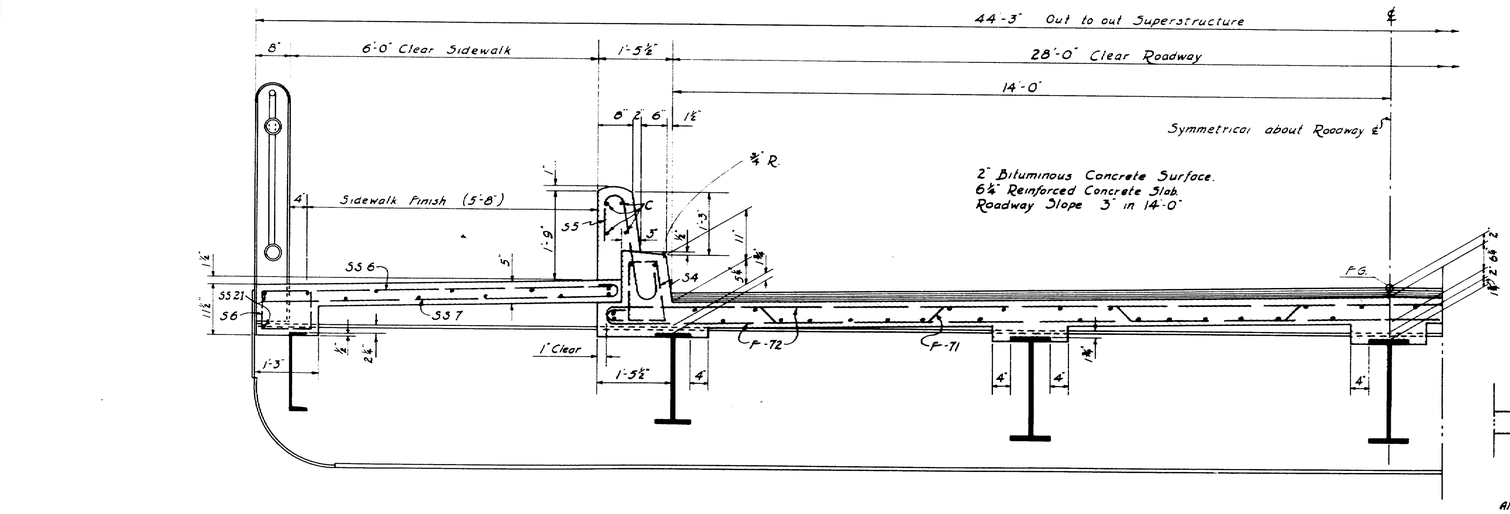
SECTION D-D



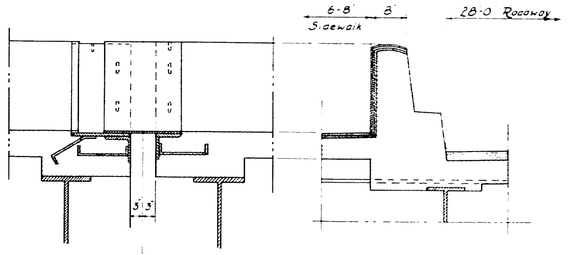
SECTION C-C



SECTION E-E

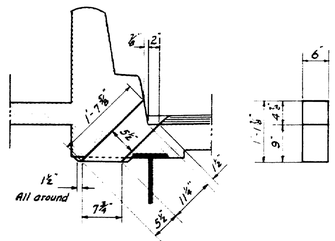


HALF TRANSVERSE SECTION



SIDEWALK EXPANSION DETAIL

Note: Sidewalk Expansion Plates to be furnished by Structural Steel Contractor and erected by Floor Contractor



DRAIN DETAILS

#24 GAGE GALV. IRON (156" REQ'D)

See Sheet #9 of 19 for Location

DESIGN - HAMILTON TRACE - FORTIER DETAIL - " CHECK -	BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

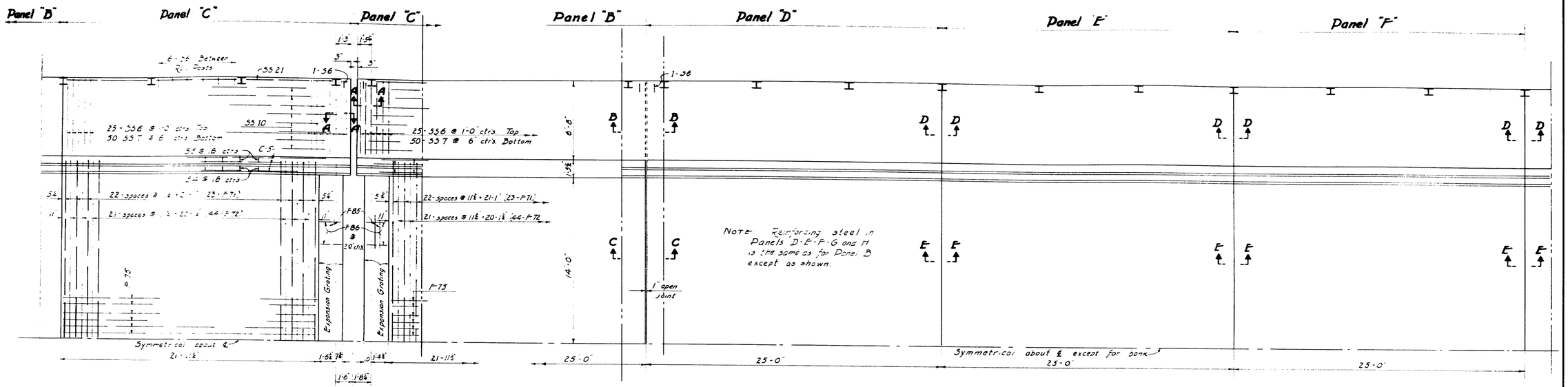
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

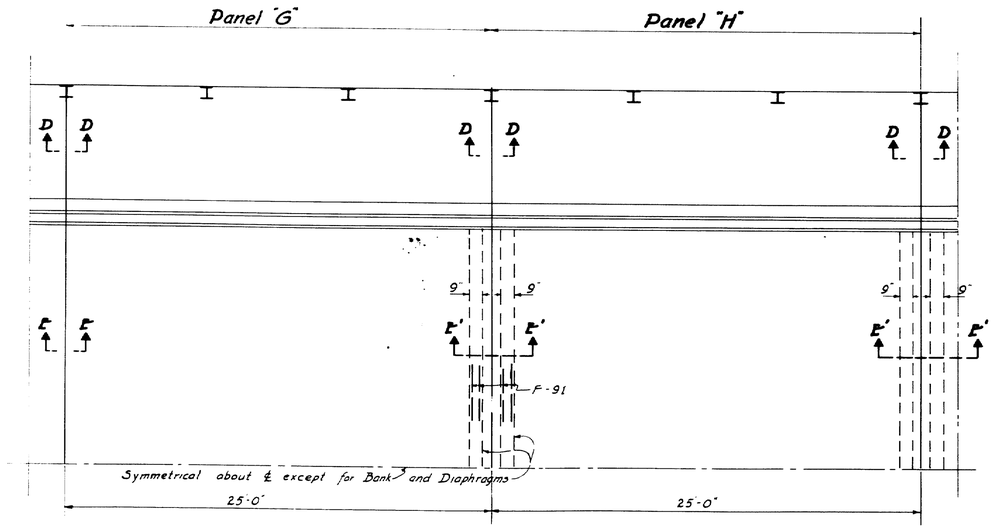
FLOOR DETAILS
PANELS—"A" and "B"

SHEET 12 OF 19 AUGUSTA, MAINE JAN. 1949

52-57

0 1 2 3 4 5 INCHES





Note: See sheets 58 & 16 for sections A-A, B-B, C-C, D-D, E-E, E'-E'

DESIGN - HAMILTON TRACE - FORTIER DETAIL - " CHECK - Aller	BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

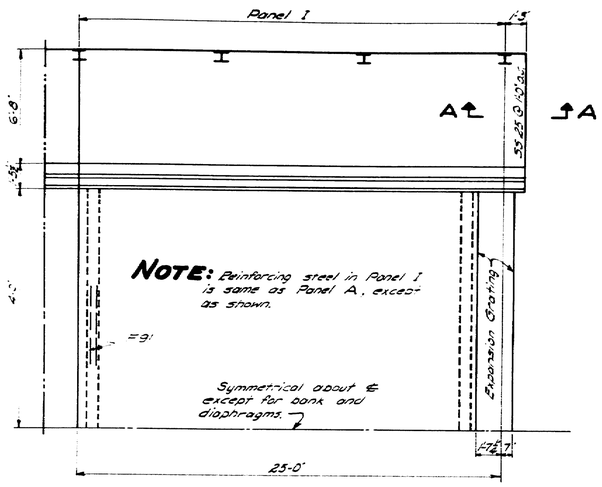
FLOOR DETAILS
PANELS - C-D-E-F-G-H

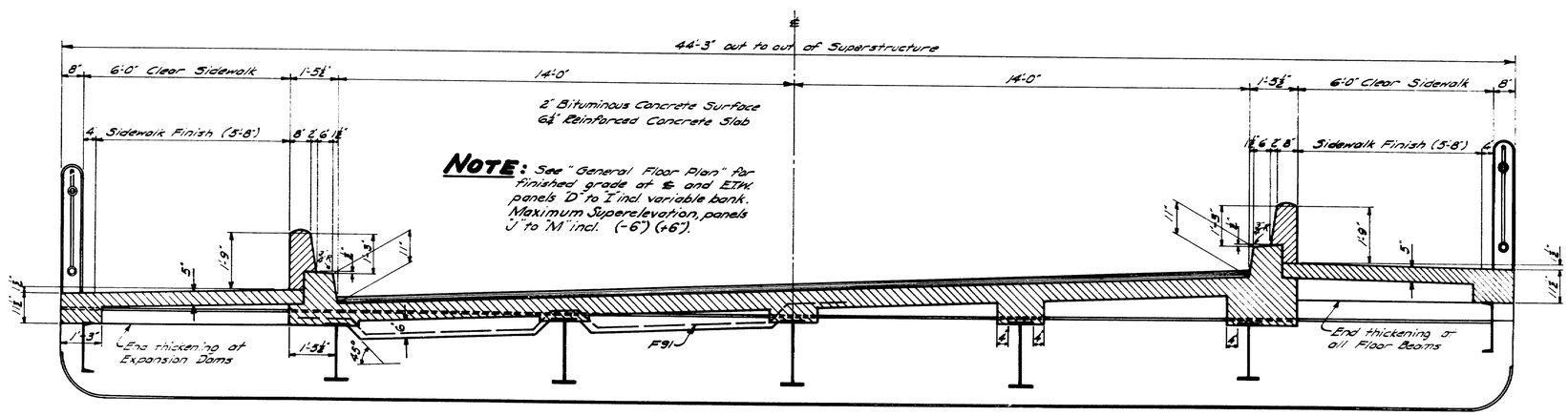
SHEET 13 OF 19 AUGUSTA, MAINE JAN. 1949

52-58

0 1 2 3 4 5 INCHES

F.I.U.I-389(2) 14 19





NOTE: See sheet #16 for Sect. A-A

SUPERELEVATED TRANSVERSE SECT.

Panels "D" to "M"

DESIGN - HAMILTON TRACE - CLARK
DETAIL - " CHECK - [illegible]
BRIDGE - 5196

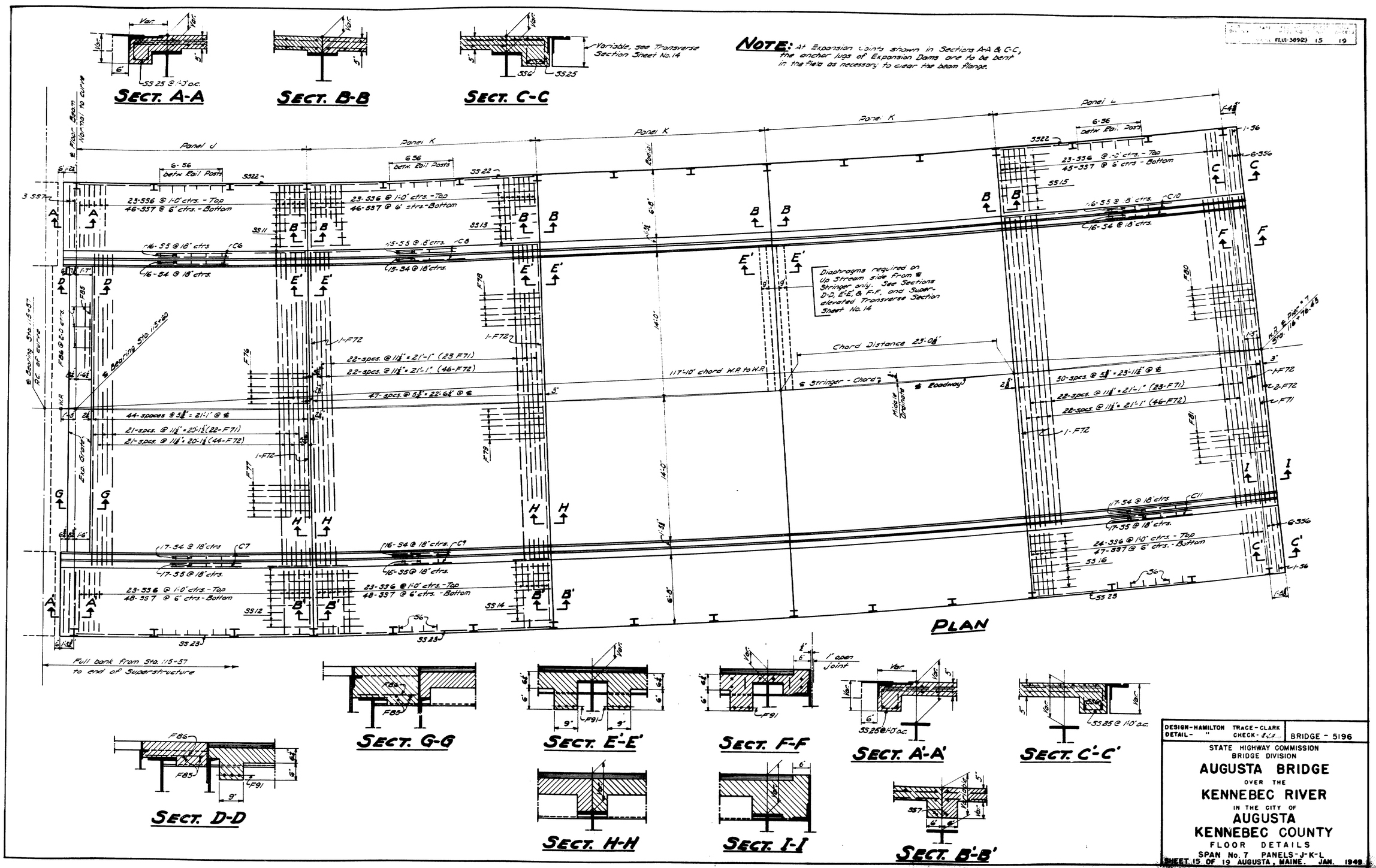
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

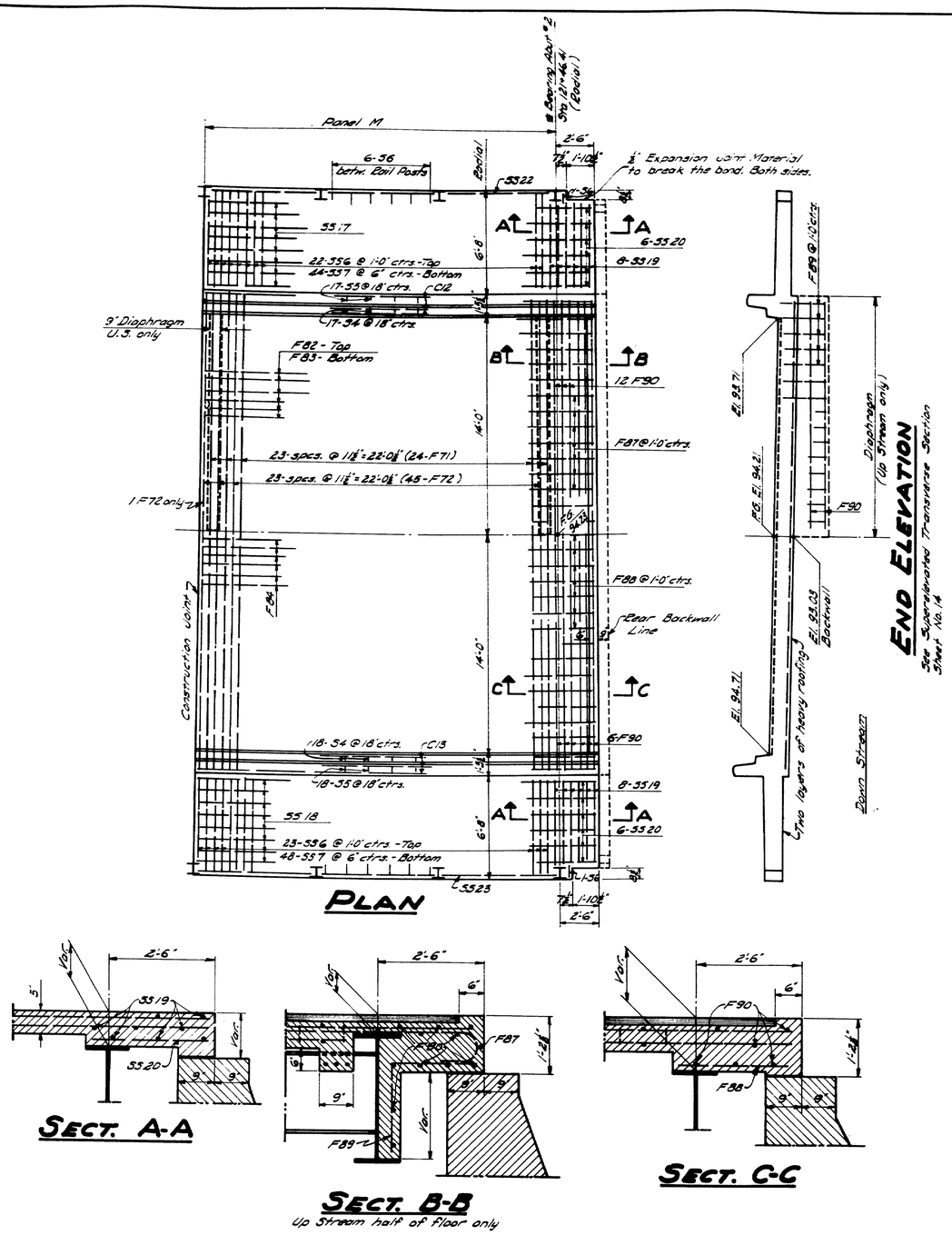
FLOOR DETAILS - PANEL No. I
SUPERELEVATED TRANSVERSE SECTION
SHEET 14 OF 19 AUGUSTA, MAINE JAN. 1949

52-59

0 1 2 3 4 5 INCHES


SECT. A-A
SECT. B-B
SECT. C-C
Variable, see Transverse Section Sheet No. 14
NOTE: At Expansion Joints shown in Sections A-A & C-C, the anchor lugs of Expansion Dams are to be bent in the field as necessary to clear the beam flange.
Panel J
Panel K
Panel L
6'-56 betw. Rail Posts
23-556 @ 1'-0" ctrs. - Top
46-557 @ 6" ctrs. - Bottom
16-55 @ 18" ctrs.
16-54 @ 18" ctrs.
Diaphragms required on Up Stream side From ℄ Stringer only. See Sections D-D, E'-E', & F-F, and Superelevated Transverse Section Sheet No. 14
Chord Distance 23'-0⅛"
117'-10" chord W.P. to W.P.
℄ Stringer - Chord
℄ Roadway
22-spcs. @ 11⅛" = 21'-1" (23-F71)
22-spcs. @ 11⅛" = 21'-1" (46-F72)
47-spcs. @ 5⅛" = 22'-6⅛" @ ℄
44-spcs. @ 5⅛" = 21'-1" @ ℄
21-spcs. @ 11⅛" = 20-1⅛" (22-F71)
21-spcs. @ 11⅛" = 20-1⅛" (44-F72)
30-spcs. @ 5⅛" = 23-11⅛" @ ℄
26-spcs. @ 11⅛" = 21'-1" (46-F72)
24-556 @ 1'-0" ctrs. - Top
47-557 @ 6" ctrs. - Bottom
1" open Joint
Full bank from Sta. 115+57 to end of Superstructure
PLAN
SECT. G-G
SECT. E'-E'
SECT. F-F
SECT. A'-A'
SECT. C'-C'
SECT. D-D
SECT. H-H
SECT. I-I
SECT. B'-B'
DESIGN-HAMILTON TRACE-CLARK
DETAIL- " CHECK-
BRIDGE - 5196
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
FLOOR DETAILS
SPAN No. 7 PANELS-J-K-L
SHEET 15 OF 19 AUGUSTA, MAINE. JAN. 1949
52-60
0 1 2 3 4 5 INCHES

P.R.A. DWG. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	FBUI-389(2)	16	19



PLAN

END ELEVATION

See Superimposed Transverse Section Sheet No. 14

SECT. A-A

SECT. B-B

Up Stream half of Floor only

SECT. C-C

DESIGN - HAMILTON TRACE - CLARK
DETAIL - " CHECK - J.H.
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

FLOOR DETAILS
PANEL - "M"

SHEET 16 OF 19 AUGUSTA, MAINE JAN. 1948

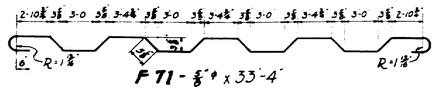
52-61

0 1 2 3 4 5 INCHES

F.A.P. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
	MAINE	FLUI-389(2)	17	19

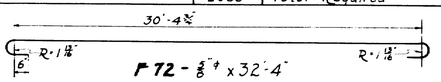
SPANS # 2-3-4-5-6-7-8-9-10-11

BENT BARS (ROADWAY)



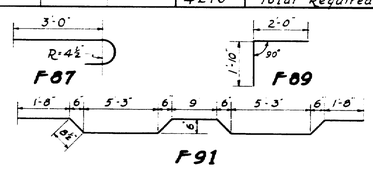
F 71 - ⅝"φ x 33'-4"

Panel	No per Panel	No. Panels	Totals	Location
A	25	1	25	Roadway Slab
B	26	49	1274	"
C	23	2	46	"
D	26	1	26	"
E	26	1	26	"
F	26	1	26	"
G	26	1	26	"
H	26	1	26	"
I	25	1	25	"
J	22	1	22	"
K	23	15	345	"
L	24	8	192	"
M	24	1	24	"
			2083	Total Required



F 72 - ⅝"φ x 32'-4"

Panel	No per Panel	No. Panels	Totals	Location
A	48	1	48	Roadway Slab
B	52	49	2548	"
C	44	2	88	"
D	52	1	52	"
E	52	1	52	"
F	52	1	52	"
G	52	1	52	"
H	52	1	52	"
I	48	1	48	"
J	45	1	45	"
K	48	15	720	"
L	51	8	408	"
M	45	1	45	"
			4210	Total Required

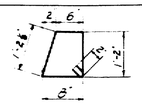


Mark	No.	Size	Length	Location
F87	15	½"φ	4'-8"	Panel "M" Span # 11
F89	15	"	3'-10"	" " "
F91	165	3/16"φ	17'-5"	Panels "G" to "M" (Diaphragms)

STRAIGHT BARS (ROADWAY)

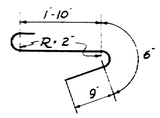
Mark	No per panel	Size	Length	Panel	No. Panels	Totals	Location
F73	48	½"φ	23'-4"	A	1	48	Roadway Slab
F74	"	"	24'-10"	B	49	2352	"
F75	"	"	21'-10"	C	2	96	"
F74	"	"	24'-10"	D	1	48	"
F74	"	"	24'-10"	E	1	43	"
F74	"	"	24'-10	F	1	48	"
F74	"	"	24'-10	G	1	48	"
F74	"	"	24'-10"	H	1	48	"
F73		"	23'-4"	I	1	48	"
F76	24	"	21'-0"	J	1	24	"
F77	24	"	21'-4"	J	1	24	"
F78	24	"	22'-6"	K	15	360	"
F79	24	"	22'-10"	K	15	360	"
F80	24	"	23'-10"	L	8	192	"
F81	24	"	24'-2"	L	8	192	"
F82	12	"	24'-9	M	1	12	"
F83	12	"	21'-6"	M	1	12	"
F84	24	"	25'-0"	M	1	24	"
F85	2	½"φ	30'-8"	A	1	2	Roadway Slab at Gratings
F86	16	"	1'-10"	A	1	16	"
F85	2	"	30'-8"	C	2	4	"
F86	16	"	1'-10"	C	2	32	"
F85	2	"	30'-8"	I	1	2	"
F86	16	"	1'-10"	I	1	16	"
F85	2	"	30'-8"	J	1	2	"
F86	16	"	1'-10"	J	1	16	"
F88	16	½"φ	2'-6"	M	1	16	Roadway Slab
F90	18	"	15'-2"	M	1	18	"

BENT BARS (SIDEWALK AND CURBS)



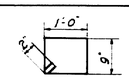
S4 - ⅜"φ x 3'-10"

Panel	No per Panel	No. Panels	Totals	Location
A	36	1	36	Curbs
B	34	49	1666	"
C	34	2	68	"
D	34	1	34	"
E	34	1	34	"
F	34	1	34	"
G	34	1	34	"
H	34	1	34	"
I	36	1	36	"
J	33	1	33	"
K	31	15	465	"
L	33	8	264	"
M	35	1	35	"
			2773	Total Required



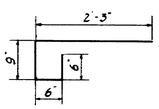
S5 - ⅜"φ x 4'-1"

Panel	No per Panel	No Panels	Totals	Location
A	36	1	36	Curbs
B	34	49	1666	"
C	34	2	68	"
D	34	1	34	"
E	34	1	34	"
F	34	1	34	"
G	34	1	34	"
H	34	1	34	"
I	36	1	36	"
J	33	1	33	"
K	31	15	465	"
L	33	8	264	"
M	35	1	35	"
			2773	Total Required



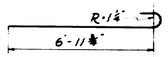
S6 - ⅜"φ x 3'-10"

Panel	No. per Panel	No Panels	Totals	Location
A	38	1	38	Sidewalk Fascia
B	36	49	1774	" 10 Extra @ Expansion Jts.
C	38	2	76	"
D	38	1	38	"
E	36	1	36	"
F	36	1	36	"
G	36	1	36	"
H	36	1	36	"
I	38	1	38	"
J	38	1	38	"
K	36	15	540	"
L	38	8	304	"
M	38	1	38	"
			3028	Total Required



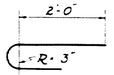
S325 - ½"φ x 4'-0"

Panel	No. per Panel	No. Panels	Total	Location
I	14	1	14	Sidewalks
J	14	1	14	"
L	14	8	112	"
			140	Total Required



S57 - ½"φ x 7'-10"

Panel	No per Panel	No Panels	Totals	Location
A	104	1	104	Sidewalk Slab U.S. & D.S.
B	98	49	4802	"
C	100	2	200	"
D	98	1	98	"
E	98	1	98	"
F	98	1	98	"
G	98	1	98	"
H	98	1	98	"
I	104	1	104	"
J	100	1	100	"
K	94	15	1410	"
L	92	8	736	"
M	92	1	92	"
			8038	Total Required



S324 - ½"φ x 4'-2"

Panel	No. per Panel	No Panels	Totals	Location
A	14	1	14	Sidewalk Slab U.S. & D.S. at Ends
B	14	5	70	"
C	14	2	28	"
D	14	1	14	"
			126	Total Required

STRAIGHT BARS (SIDEWALK)

Mark	No per Panel	Size	Length	Panel	No Panels	Totals	Location
S3-6	54	½"φ	7'-1"	A	1	54	Sidewalk Slab U.S. & D.S.
"	50	"	"	B	49	2450	"
"	50	"	"	C	2	100	"
"	50	"	"	D	1	50	"
"	50	"	"	E	1	50	"
"	50	"	"	F	1	50	"
"	50	"	"	G	1	50	"
"	50	"	"	H	1	50	"
"	54	"	"	I	1	54	"
"	46	"	"	J	1	46	"
"	46	"	"	K	15	690	"
"	59	"	"	L	8	472	"
"	45	"	"	M	1	45	"
						4161	Total Required
C3	12	½"φ	26'-0"	A	1	12	Sidewalk Slab U.S. & D.S.
C4	12	"	24'-9"	B	49	588	"
C5	12	"	24'-6"	C	2	24	"
C4	12	"	24'-9"	D	1	12	"
C4	12	"	24'-9"	E	1	12	"
C4	12	"	24'-9"	F	1	12	"
C4	12	"	24'-9"	G	1	12	"
C4	12	"	24'-9"	H	1	12	"
C3	12	"	26'-0"	I	1	12	"
C6	6	"	23'-6"	J	1	6	Sidewalk Slab U.S.
C7	6	"	24'-3"	J	1	6	" " D.S.
C8	6	"	22'-6"	K	15	90	" " U.S.
C9	6	"	23'-0"	K	15	90	" " D.S.
C-10	6	"	23'-10"	L	8	48	" " U.S.
C-11	6	"	24'-5"	L	8	48	" " D.S.
C-12	6	"	25'-0"	M	1	6	" " U.S.
C-13	6	"	25'-6"	M	1	6	" " D.S.

Mark	No per Panel	Size	Length	Panel	No Panels	Totals	Location
S3-8	20	½"φ	26'-0"	A	1	20	Sidewalk Slab U.S. & D.S.
S3-9	20	"	24'-9"	B	49	980	"
S3-10	20	"	24'-6"	C	2	40	"
S3-9	20	"	24'-9"	D	1	20	"
S3-9	20	"	24'-9"	E	1	20	"
S3-9	20	"	24'-9"	F	1	20	"
S3-9	20		24'-9"	G	1	20	"
S3-9	20	"	24'-9"	H	1	20	"
S3-8	20	"	26'-0"	I	1	20	"
S3-11	10		23'-6"	J	1	10	" U.S.
S3-12	10	"	24'-3"	J	1	10	" D.S.
S3-13	10	"	22'-3"	K	15	150	" U.S.
S3-14	10	"	23'-0"	K	5	150	" D.S.
S3-15	10	"	23'-8	L	8	80	" U.S.
S3-16	10	"	24'-6	L	8	80	" D.S.
S3-17	10	"	24'-6	M	1	10	" U.S.
S3-18	10	"	25'-3	M	1	10	" D.S.
S3-19	16	"	6'-3	M	1	16	" U.S.
S3-20	12		2'-9	M	1	12	" D.S.
S5-21	12	½"φ	8'-2	A	1	12	Sidewalk Slab U.S. & D.S.
"	12	"	"	B	49	588	"
"	12	"	"	C	2	24	"
"	12	"	"	D	1	12	"
"	12	"	"	E	1	12	"
"	12	"	"	F	1	12	"
"	12	"	"	G	1	12	"
"	12	"	"	H	1	12	"
"	12	"	"	I	1	12	"
S5-22	6	"	7'-4"	J	1	6	" U.S.
S5-23	6	"	7'-8"	J	1	6	" D.S.
S5-22	6	"	7'-4"	K	15	90	" U.S.
S5-23	6	"	7'-8"	K	15	90	" D.S.
S5-22	6	"	7'-4"	L	8	48	" U.S.
S5-23	6	"	7'-8"	L	8	48	" D.S.
S5-22	6	"	7'-4"	M	1	6	" U.S.
S5-23	6	"	7'-8"	M	1	6	" D.S.

NOTE: Dimensions to ℄ of steel.

DESIGN - HAMILTON	TRACE - FORTIER
DETAIL - "	CHECK - Allen
BRIDGE - 5196	

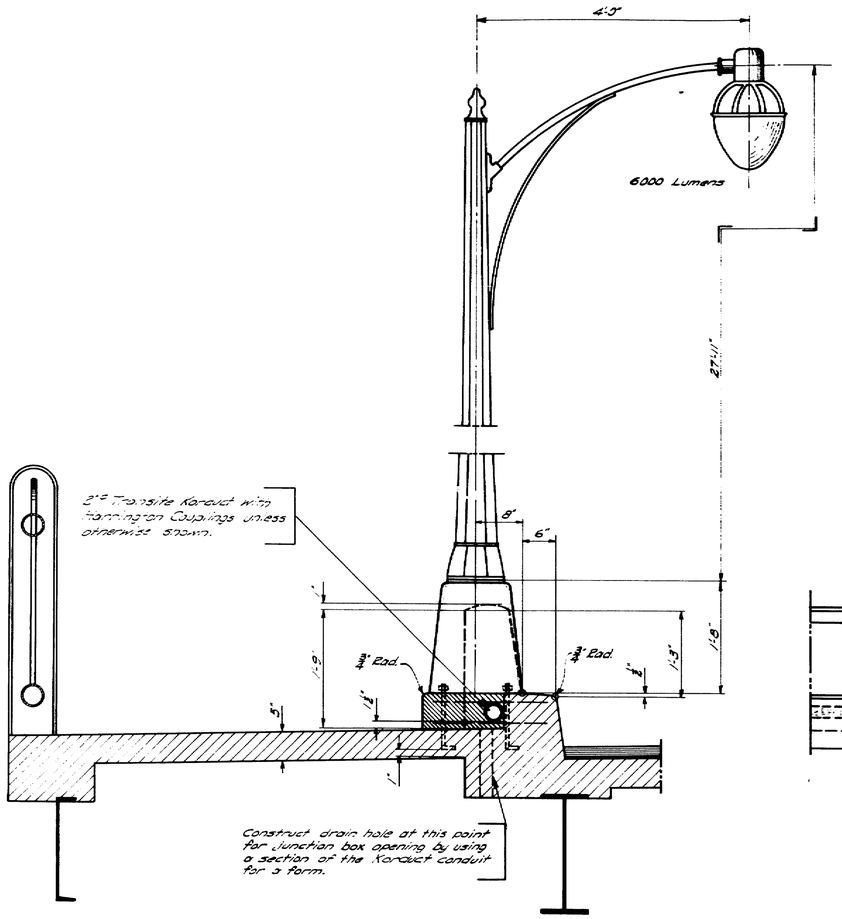
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

REINFORCING STEEL
SPANS-2-3-4-5-6-7-8-9-10-11
PANELS-A-B-C-D-E-F-G-H-I-J-K-L-M
SHEET 17 OF 19 AUGUSTA, MAINE JAN. 1966

52-C

0 1 2 3 4 5 INCHES

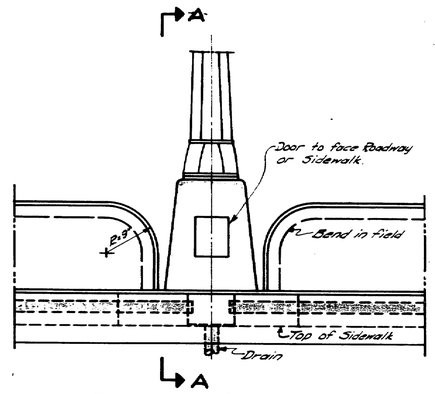


SECTION A-A

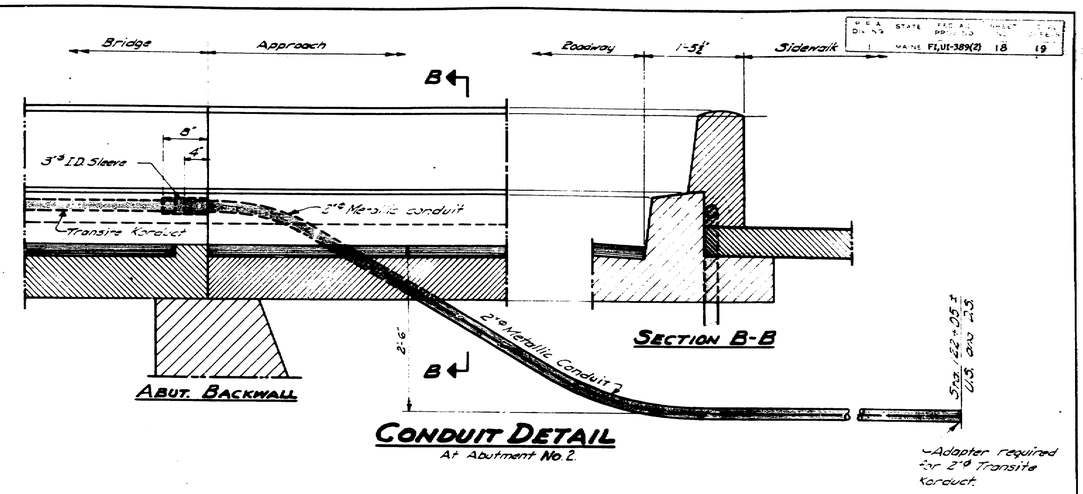
See sheet No. 9 for location of lights

Union Metal No. 6401-Y74 single light Octaflute standard, or approved equal. 16- Required.

NOTE: Base, standard and bracket to be furnished by the State and installed by the Contractor.
Luminare transformer and cable to be furnished and installed by others.



FRONT ELEVATION

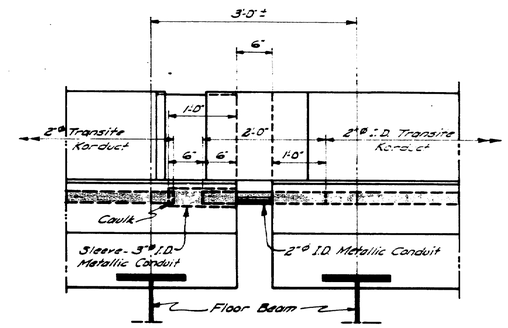


ABUT. BACKWALL

SECTION B-B

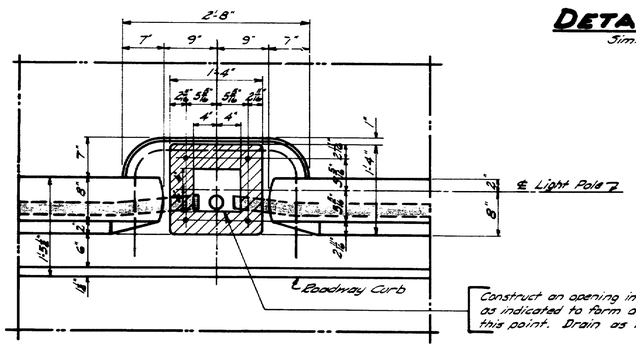
CONDUIT DETAIL

At Abutment No. 2.



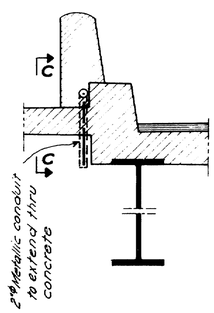
DETAIL AT EXPANSION JOINTS

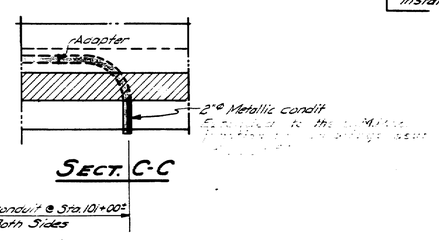
Similar at 1" open joints and at Abutment



PLAN

Curb steel to be bent, cut or omitted as required to construct opening for light standard.
Concrete base for light standard to be cast with roadway curb.





SECT. C-C

SPAN No. 1.

DESIGN - HAMILTON TRACE - CLARK DETAIL - " CHECK - J.C.	BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

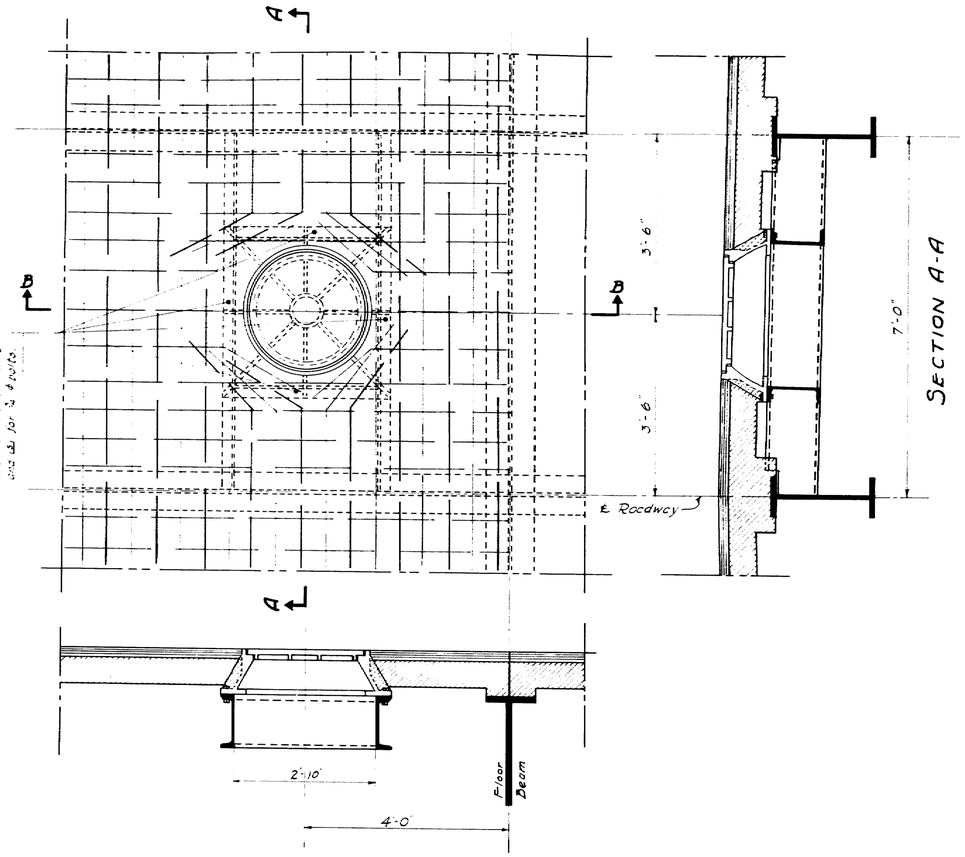
LIGHTING DETAILS

SHEET 18 OF 19 AUGUSTA, MAINE FEB. 1949

52-63

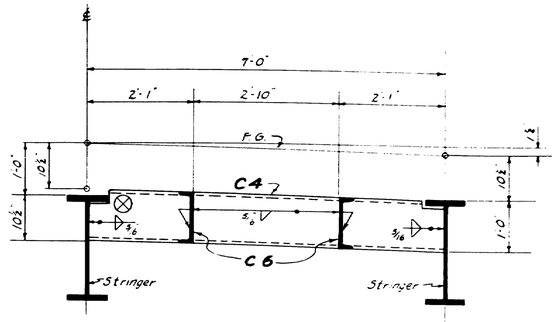
0 1 2 3 4 5 INCHES

SHEET NO. 19 TOTAL SHEETS 19
FI,UI-389(2)

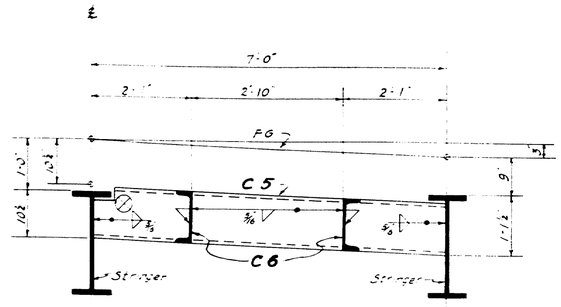


SECTION A-A

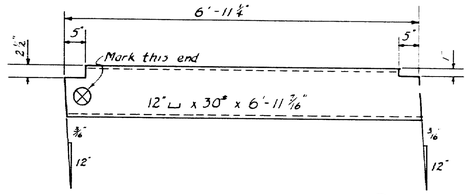
SECTION B-B



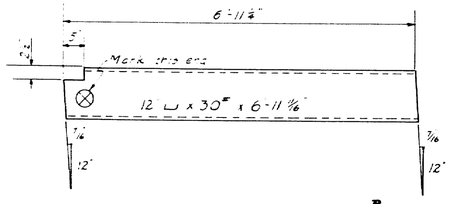
TRANSVERSE SECTION
at
PANEL "B" SPAN #2
" " " 3
" " " 4
" " " 5



TRANSVERSE SECTION
at
PANEL "I" SPAN #6
" "E" " 9



C.M.P. M.H. SUPPORT C4 R/L
C4 R as shown
C4 L opp. hand



C.M.P. M.H. SUPPORT C5 R/L
C5 R as shown
C5 L opp. hand

NOTE: Cut and bend Reinforcing Steel as indicated to clear Manhole Frame
Central Maine Power Co. Standard Manhole Frame and Cover 26" opening.
6 - Required.

BILL of MATERIALS			
Mark	No.	Description	Remarks
C4 R	4	12" ⊔ x 30# x 6'-11 7/16"	Shop Work - as shown
C4 L	4	Do	" " " "
C5 R	2	12" ⊔ x 30# x 6'-11 11/16"	" " " "
C5 L	2	Do	" " " "
C6	12	12" ⊔ x 30# x 2'-10"	No Shop work

Manhole Frames, Covers and Struct. Steel Supports not part of this Contract; to be Furnished and Erected by others.

NOTE:
See Sheet #9 for Location of Manholes

DESIGN - HAMILTON TRACE - FORTIER
DETAIL - " CHECK - Allen
BRIDGE - 5196

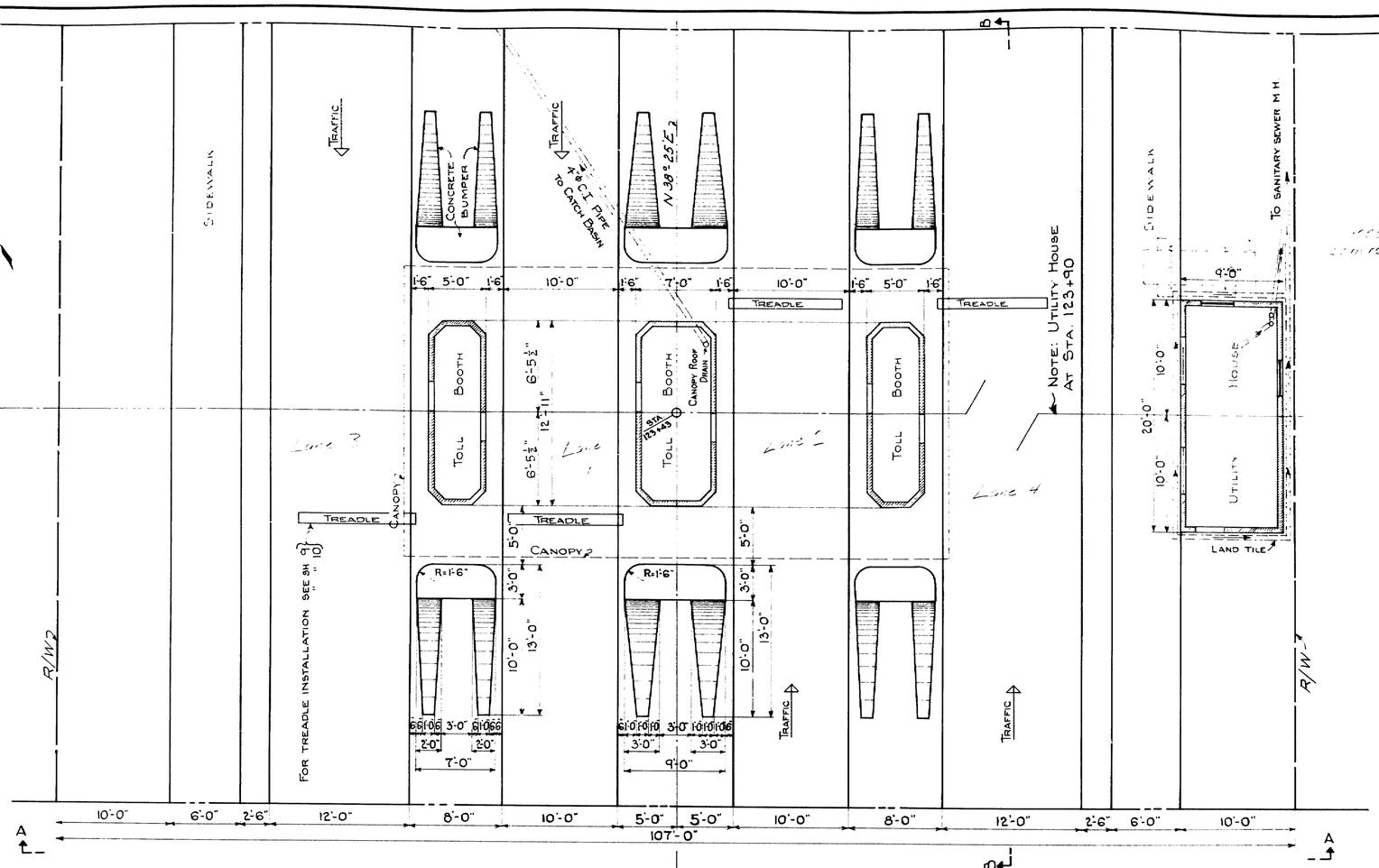
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

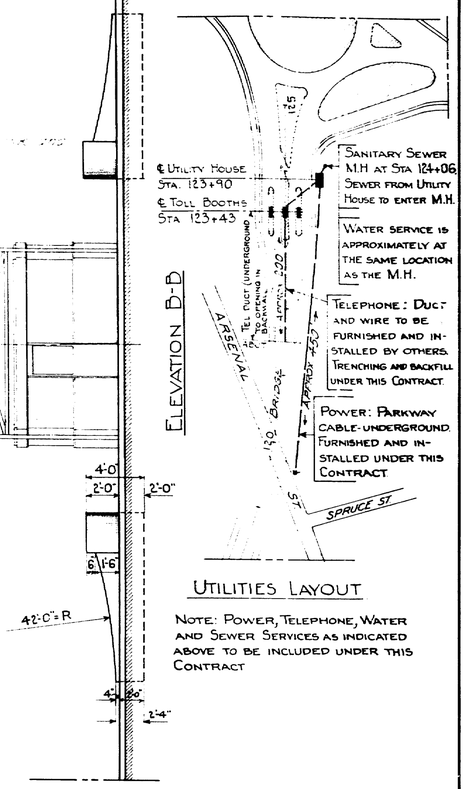
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

C. M. P. Co. - MANHOLE SUPPORT DETAILS
SHEET 19 OF 19 AUGUSTA, MAINE JAN. 1949

52-64

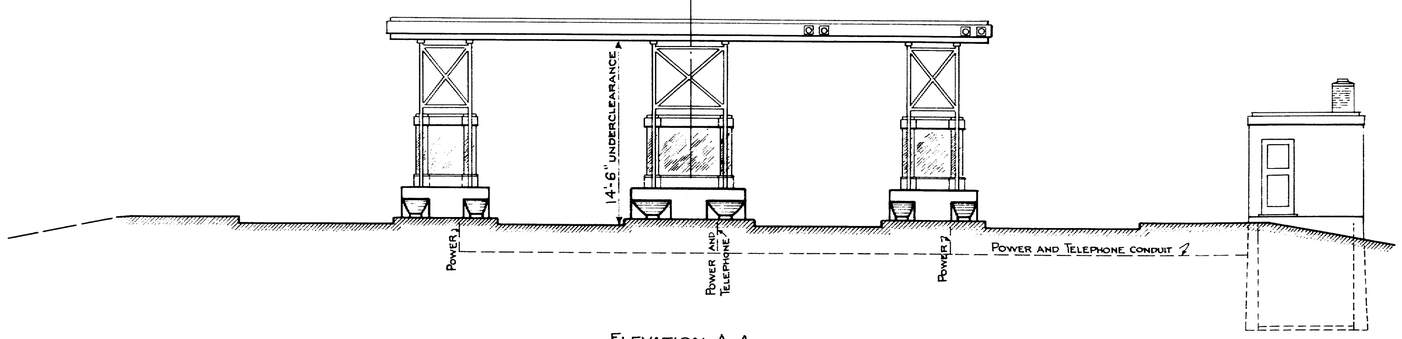
0 1 2 3 4 5 INCHES





UTILITIES LAYOUT

NOTE: POWER, TELEPHONE, WATER AND SEWER SERVICES AS INDICATED ABOVE TO BE INCLUDED UNDER THIS CONTRACT



ELEVATION A-A

- GENERAL NOTES -

POWER AND TELEPHONE LINE SERVICES TO BE IN UTILITY HOUSE.

TELEPHONE TO BE IN CENTER TOLL BOOTH WITH AN EXTENSION IN THE UTILITY HOUSE OFFICE.

ALL CONDUITS TO BE UNDERGROUND.

TOLL EQUIPMENT, EXCEPTING CONDUIT AND CABLES NOTED ON SH # 8 TO BE FURNISHED BY THE STATE HIGHWAY COMMISSION AND TO BE INSTALLED UNDER THIS CONTRACT.

PLAN - [illegible]
CHECK - [illegible]

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

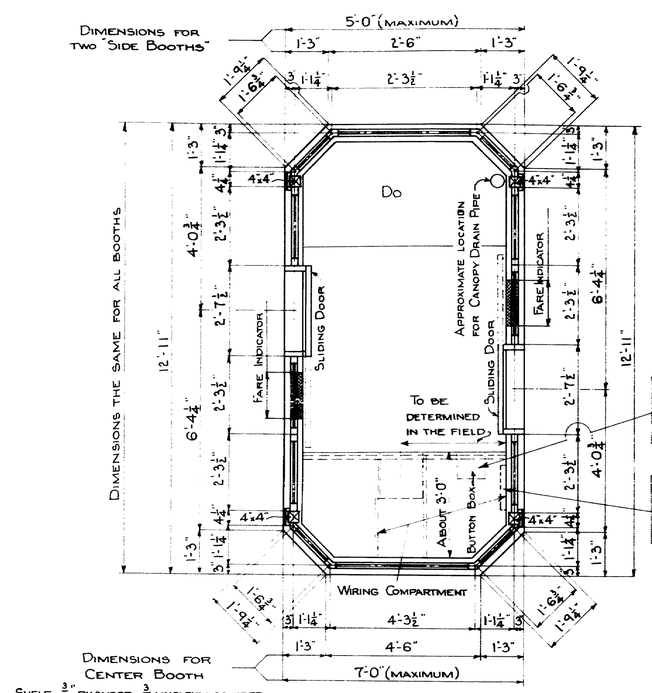
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

GENERAL PLAN TOLL HOUSE

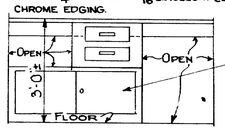
SHEET 1 OF 10 AUGUSTA, MAINE JAN. 1949

52-65

0 1 2 3 4 5 INCHES



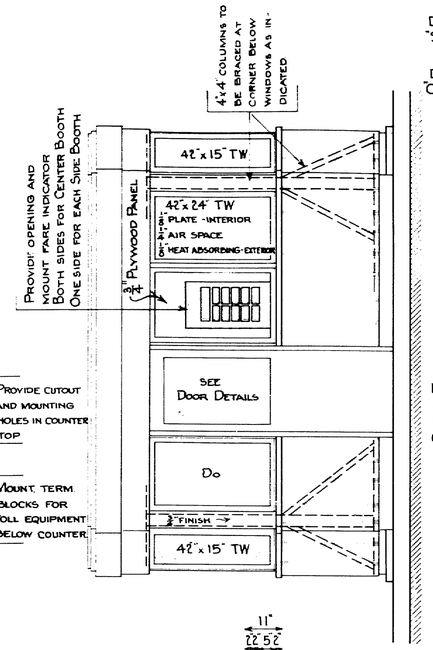
Plan

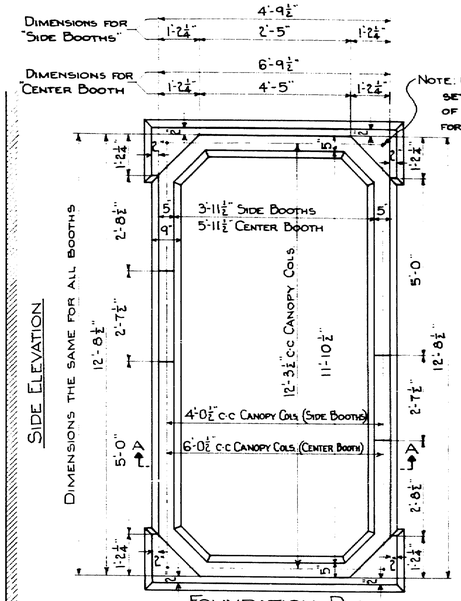


Front Elevation-Shelves

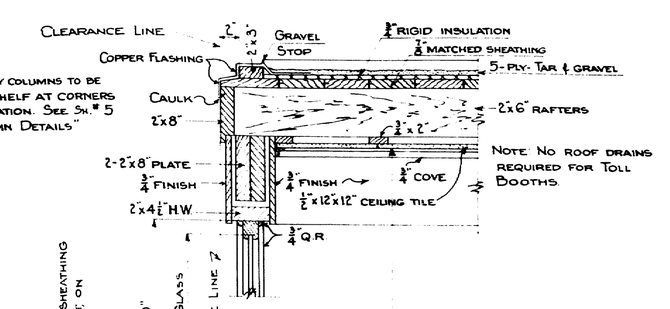
Two drawers to be built as indicated. Size - 1'-3"x1'-3"x4" with drawer pulls.

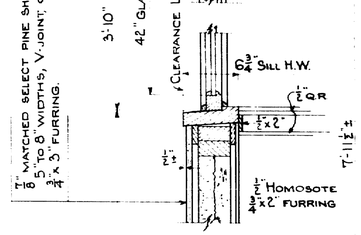
Wiring compartment: locked door; provide barrier to prevent access when drawers are removed. Use 3/4" plywood.

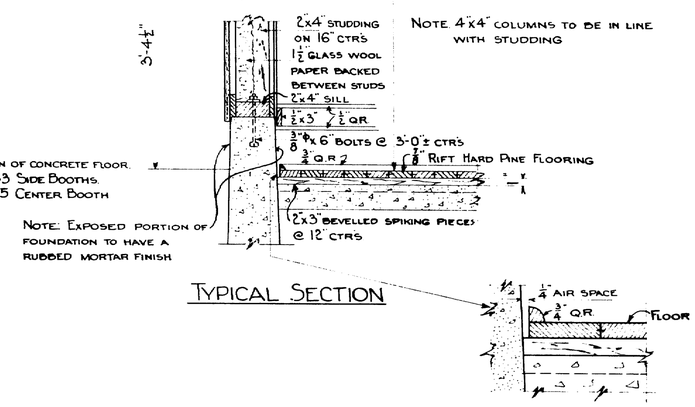




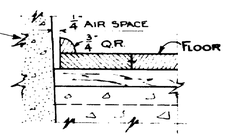
Foundation Plan

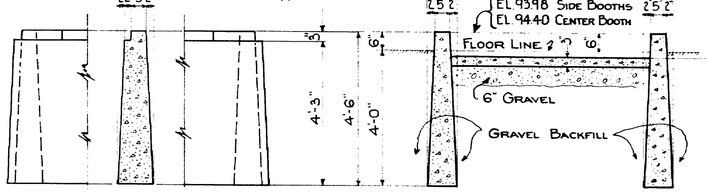






Typical Section

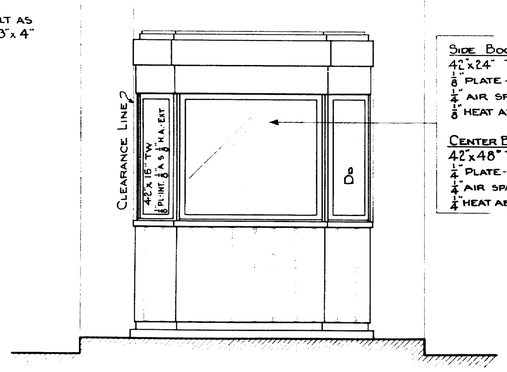




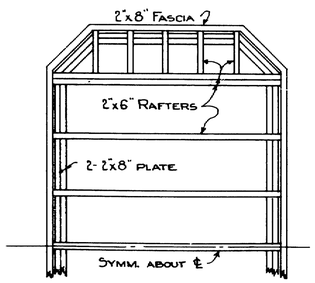
End Elevation

Section A-A

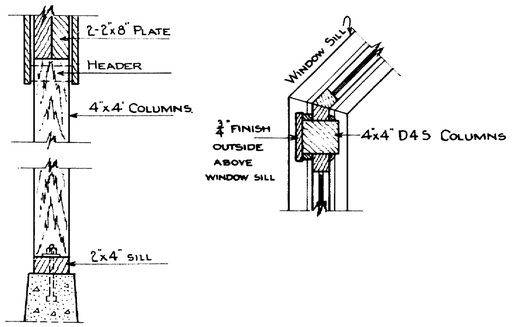
Note: See "Heating Layout Sk # 7" for trench in 3" floor slab under door for return pipe.



End Elevation



Half Roof Framing Plan



Column Details

PLAN - Hamilton CHECK - RB	BRIDGE - 5196

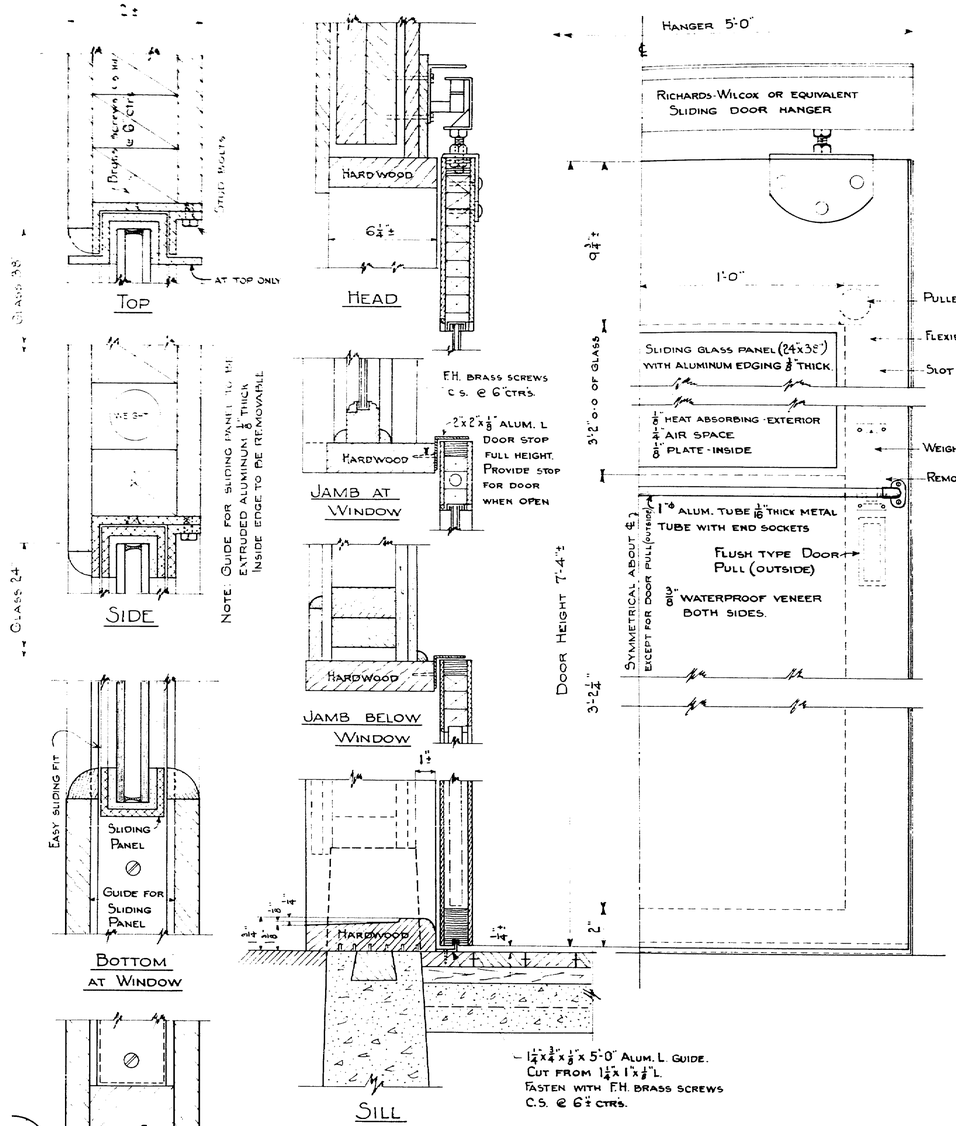
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
TOLL BOOTHS

SHEET 2 OF 10 AUGUSTA, MAINE JAN. 1949

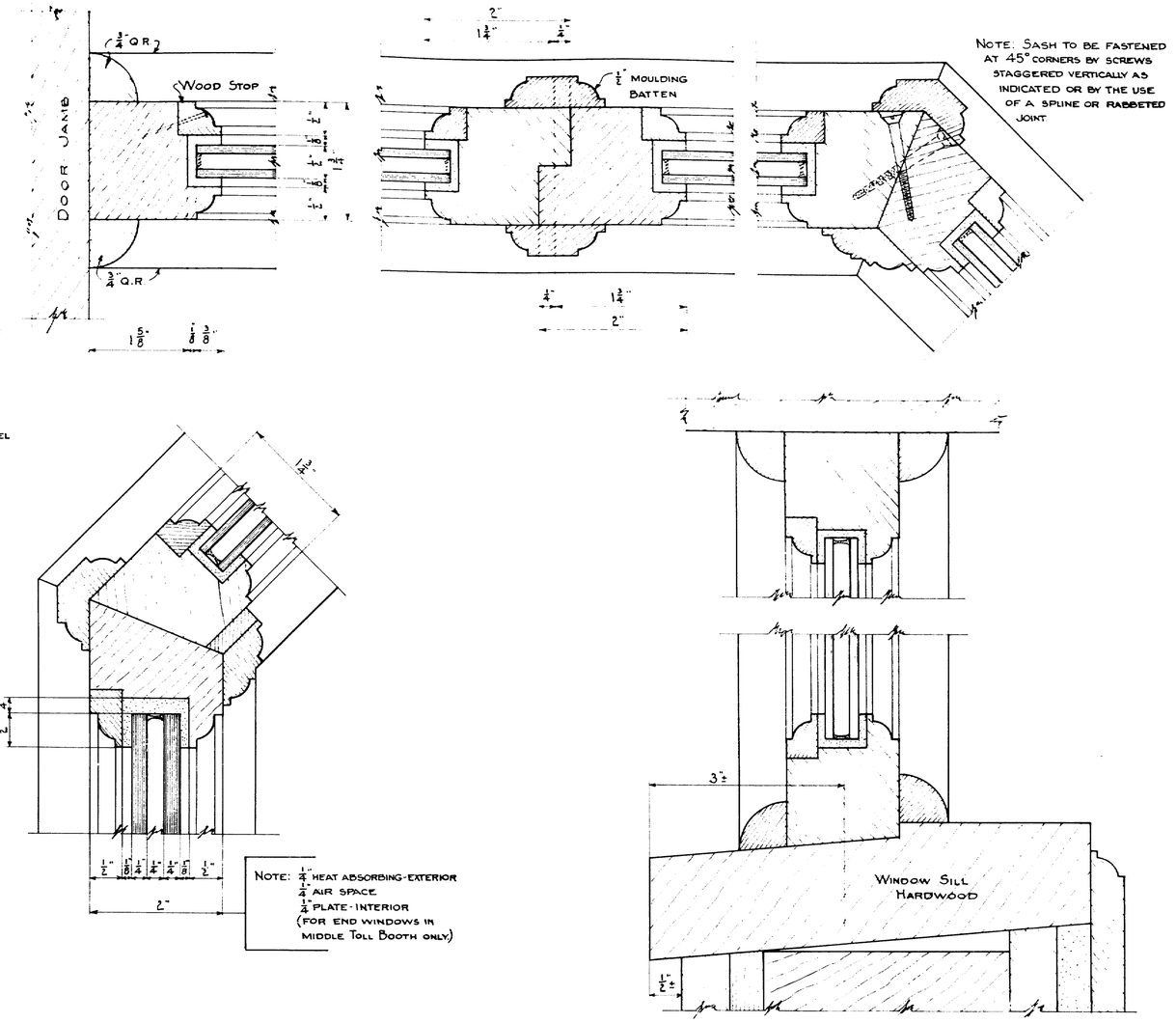
52-66

0 1 2 3 4 5 INCHES



Note: Entire door to be weather-stripped with felt. Details shown above are typical only. Any other method or type which includes the essential features as indicated may be used if approved by the Engineer.

All steel, bolts, screws, etc, used in constructing the door for strength and rigidity shall be concealed.



Typical Window Installation for Toll Booths

Note: Details shown above are typical only.
Glass manufacturers glazing instruction to be followed.
Window sash and trim to be hardwood.

PLAN - Hamilton CHECK - 1983	BRIDGE 5196

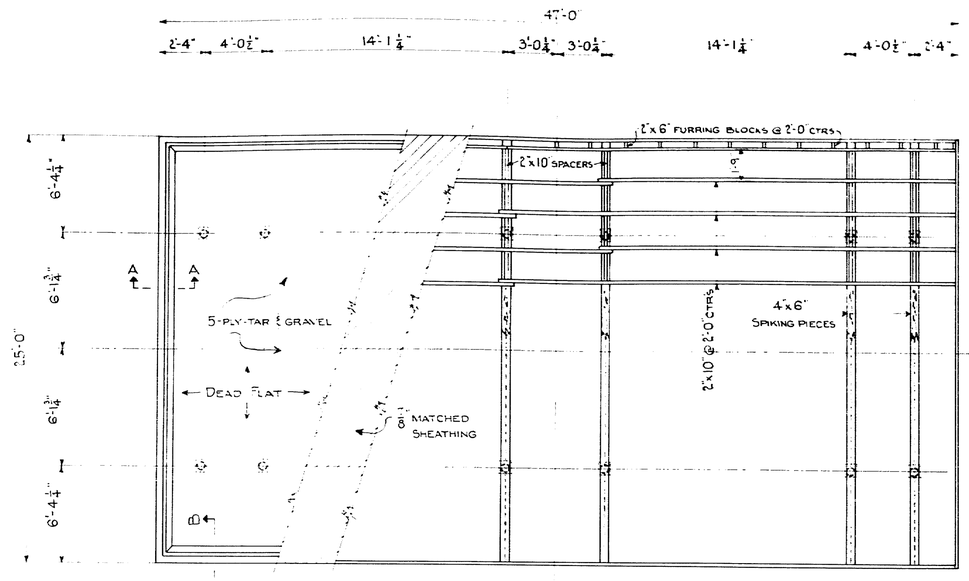
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
TOLL BOOTH DETAILS

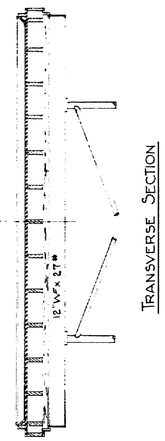
SHEET 3 OF 10 AUGUSTA, MAINE JAN. 1949

52-67

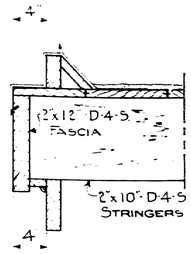
0 1 2 3 4 5 INCHES



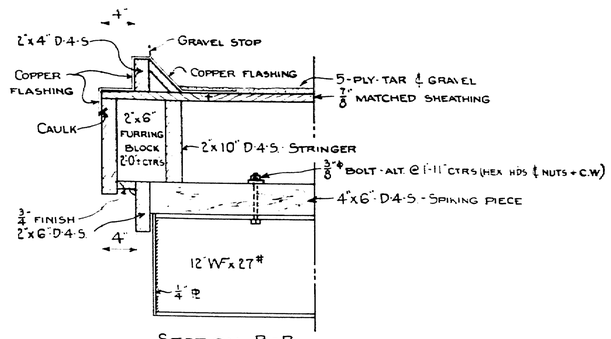
PLAN



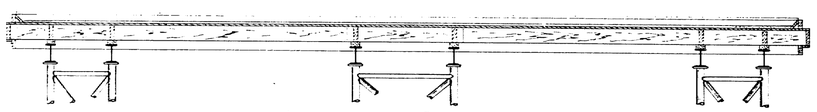
TRANSVERSE SECTION



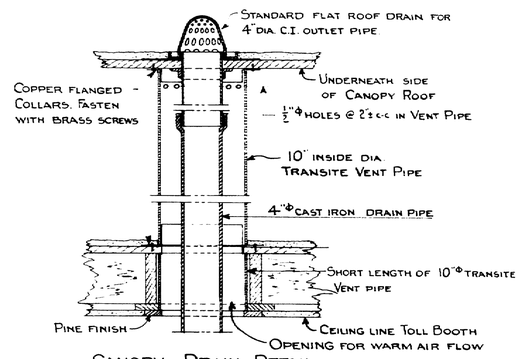
SECTION A-A



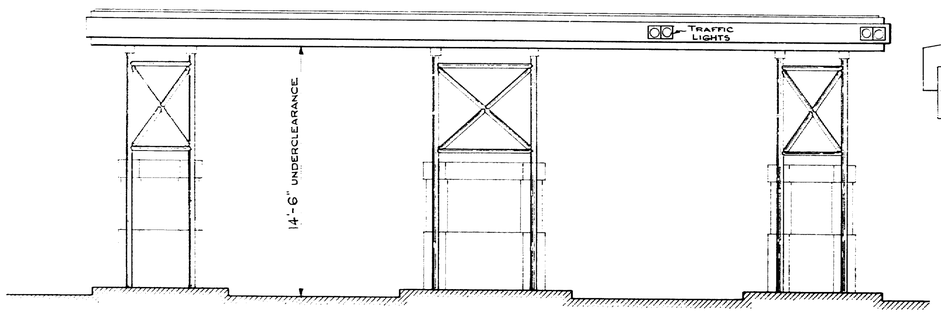
SECTION B-B



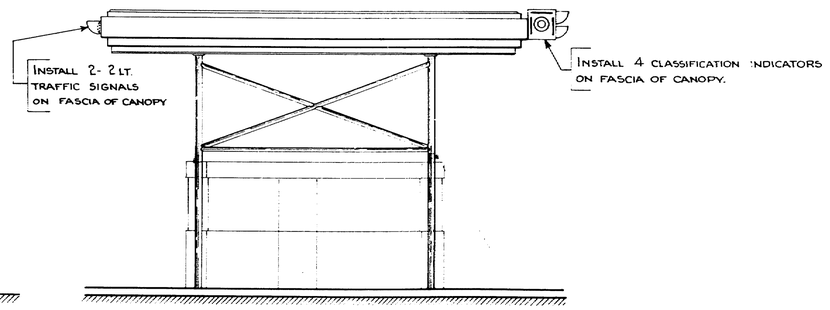
LONGITUDINAL SECTION



CANOPY DRAIN DETAIL



SIDE ELEVATION



END ELEVATION

PLAN - [illegible]
CHECK - [illegible]
BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

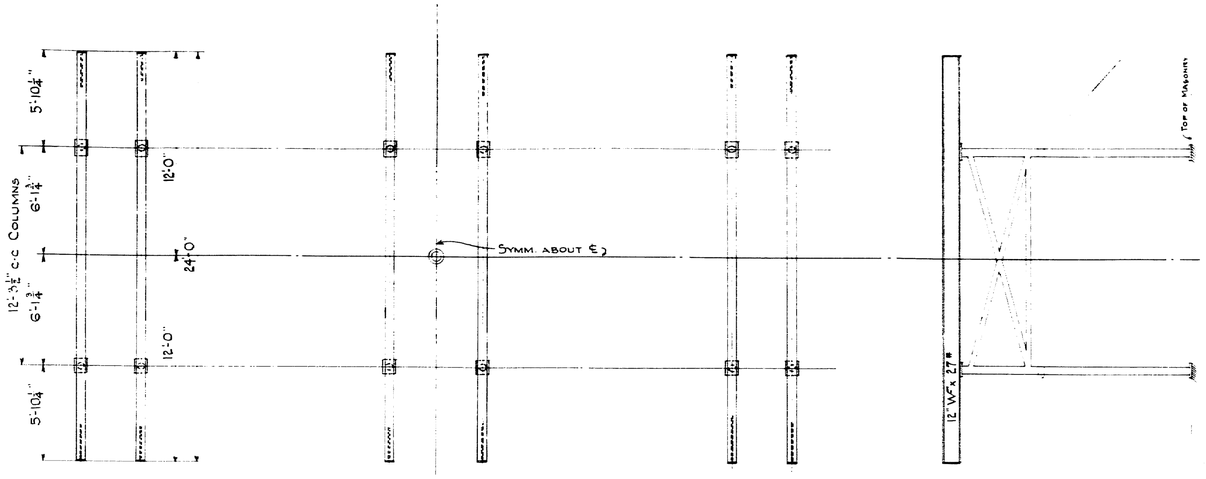
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

CANOPY DETAILS

SHEET 4 OF 10 AUGUSTA, MAINE JAN. 1949

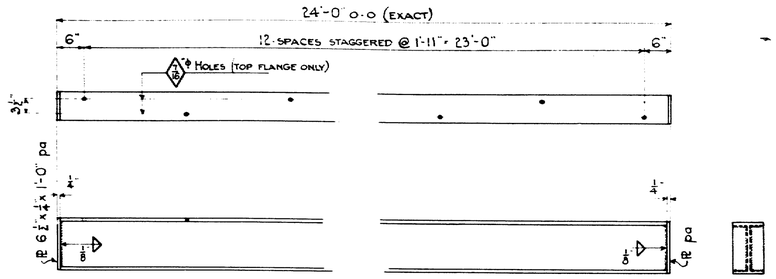
52 - 68

0 1 2 3 4 5 INCHES

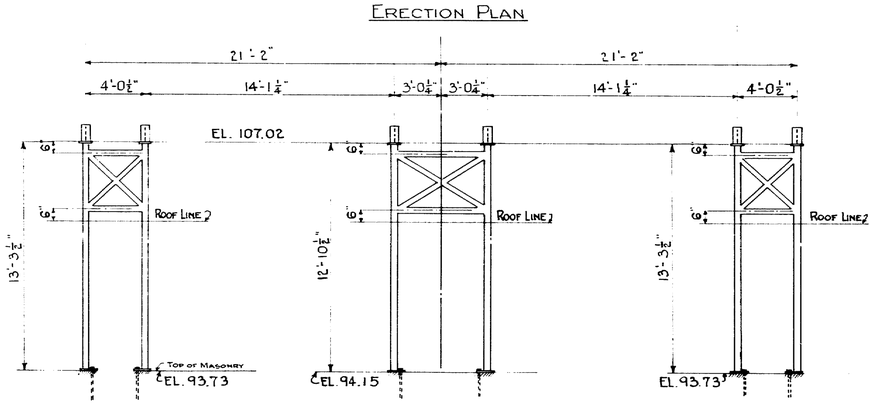


Erection Plan

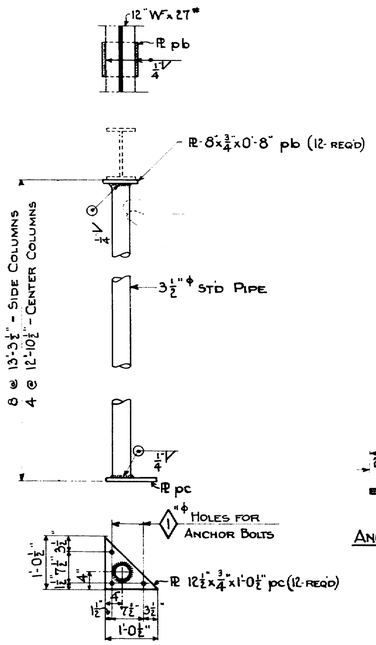
End Elevation



12" WF x 27# x 23'-11½" B1 - 6 - Req'd

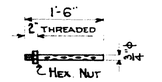


Side Elevation



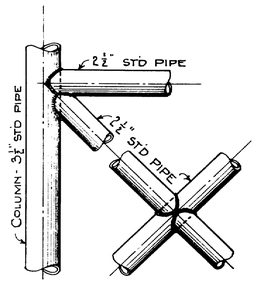
Column Details

12 - Req'd



Anchor Bolt AB1

36 - Req'd



Bracing Details

Field welds ¼" fillet

PLAN - [illegible]
CHECK - [illegible]
BRIDGE - 5196

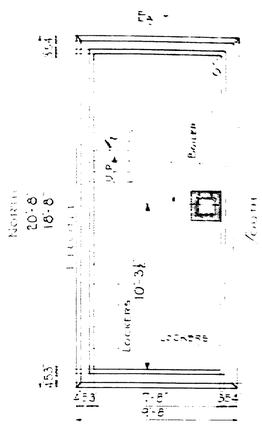
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
CANOPY SUPPORT DETAILS

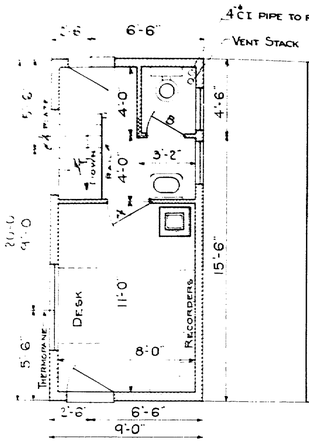
SHEET 5 OF 10 AUGUSTA, MAINE JAN. 1949

52-69

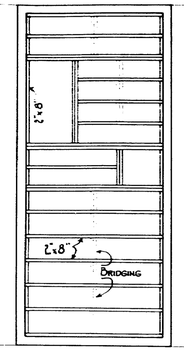
0 1 2 3 4 5 INCHES



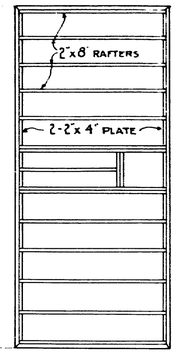
FOUNDATION PLAN
EL 93.47 TOP OF WALL



FLOOR PLAN
NOTE INSIDE PARTITIONS 4" THICK



FRAMING PLAN - FLOOR

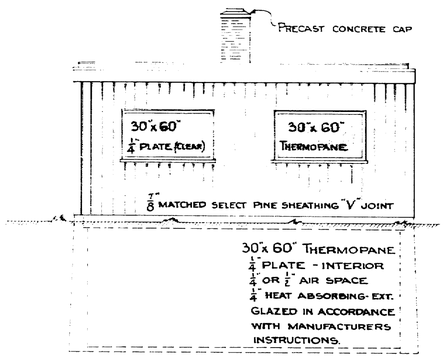


FRAMING PLAN - ROOF

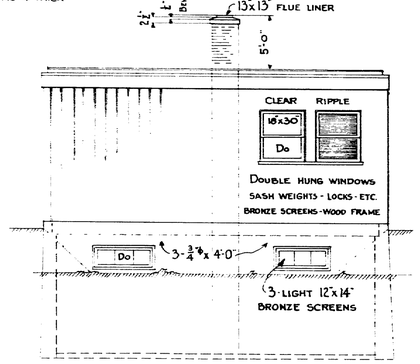
NOTE "HOLT-BARRETT" OR EQUIVALENT TYPE ROOF DRAIN FOR BUILT UP FLAT TAR & GRAVEL ROOF

4" C.I. PIPE TO ROOF

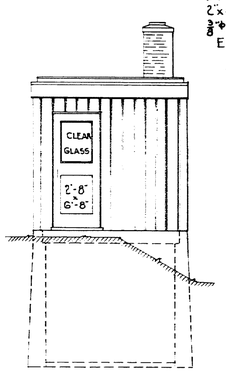
VENT STACK



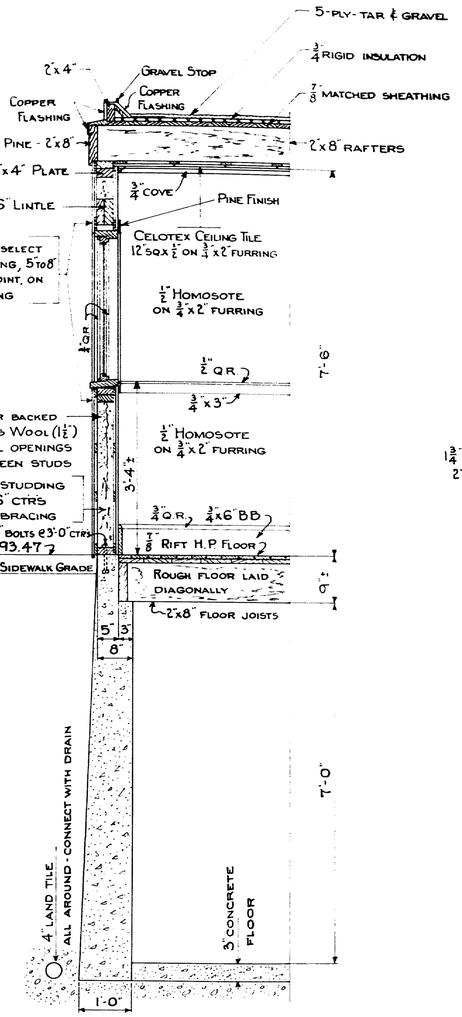
FRONT ELEVATION



REAR ELEVATION

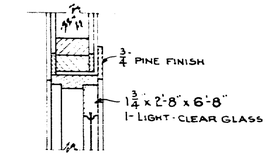


END ELEVATION (WEST)
EAST ELEVATION IS SIMILAR



PART CROSS SECTION

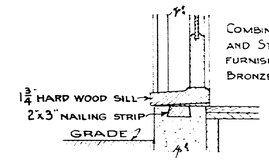
NOTE: EXPOSED PORTION OF FOUNDATION, OUTSIDE FACE ONLY, TO HAVE A RUBBED MORTAR FINISH.



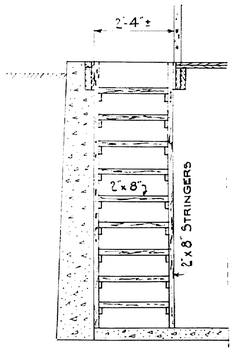
TYPICAL FOR HEAD & JAMB

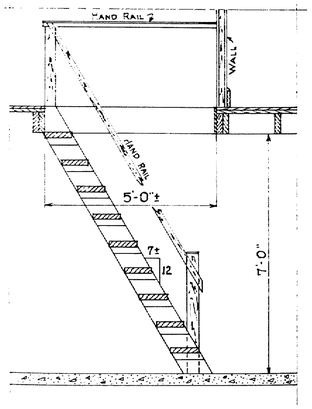
INSIDE DOORS
A - 1-REQ'D - 2'-6"x6'-8"x1¾" PANELED
B - 1-REQ'D - 2'-4"x6'-8"x1¾" PANELED

HARDWARE: BRONZE
ALL NECESSARY HARDWARE FOR DOORS AND WINDOWS INCLUDING LOCKS FOR OUTSIDE DOORS AND INSIDE DOORS

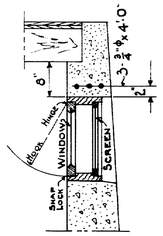


OUTSIDE DOOR DETAIL
2-REQUIRED





STAIR DETAIL



BASEMENT WINDOW

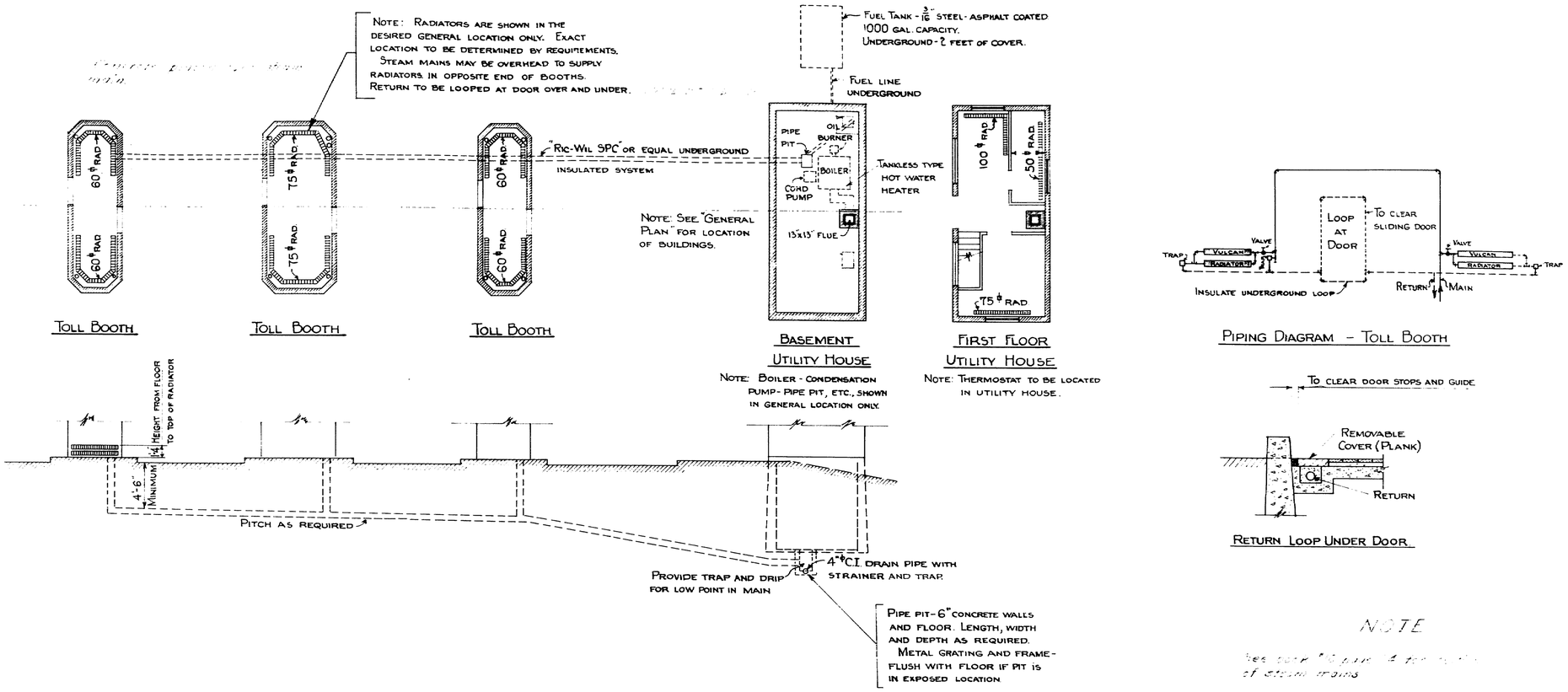
PLAN - Hamilton CHECK - RB3	BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
UTILITY HOUSE
SHEET 6 OF 10 AUGUSTA, MAINE JAN 1949

52-70

0 1 2 3 4 5 INCHES



PIPING DIAGRAM - TOLL BOOTH

RETURN LOOP UNDER DOOR

NOTE

See book #10 page 4 for [illegible] of steam mains

PLAN - Hamilton CHECK - [illegible]	BRIDGE - 5196

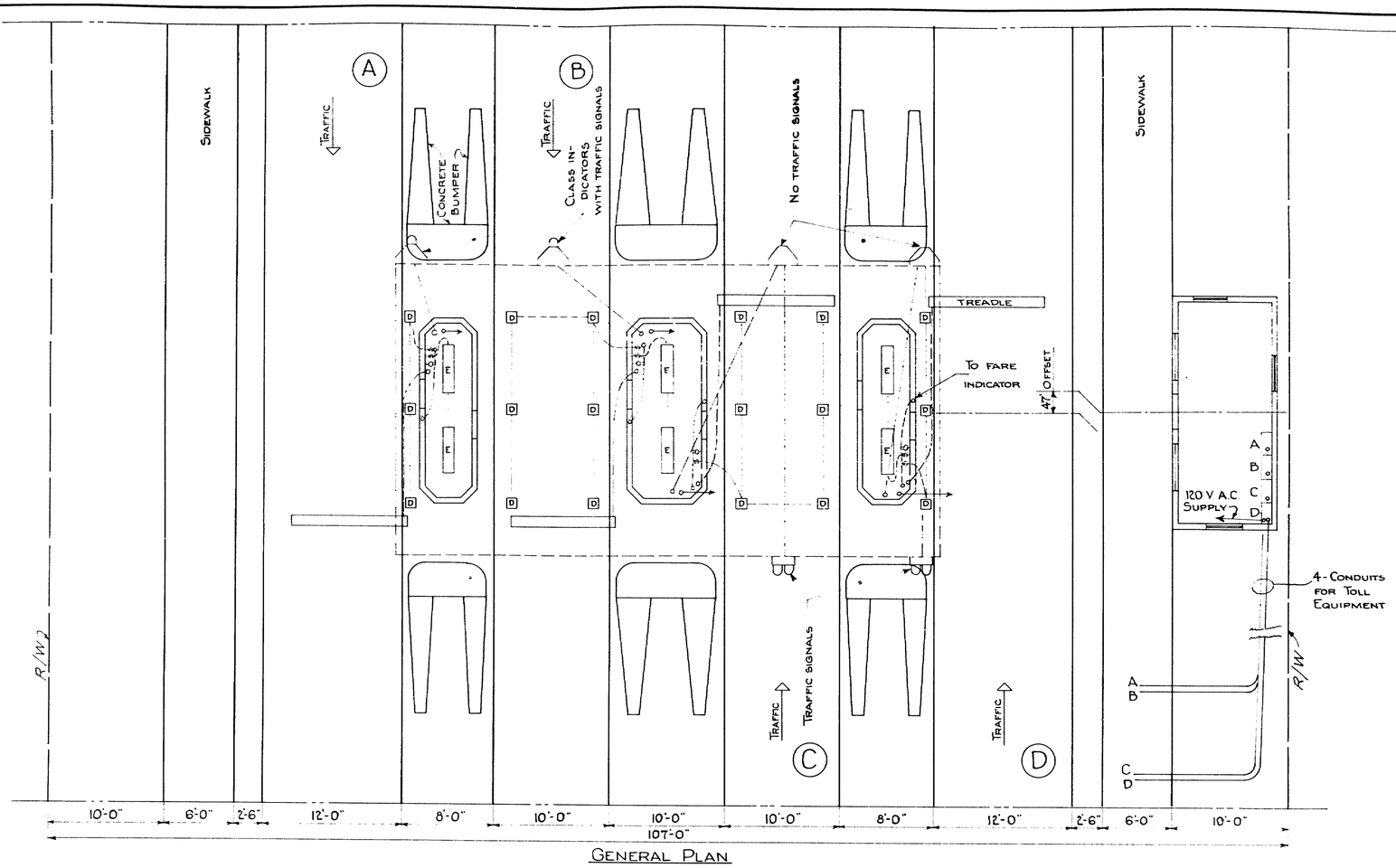
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
HEATING LAYOUT

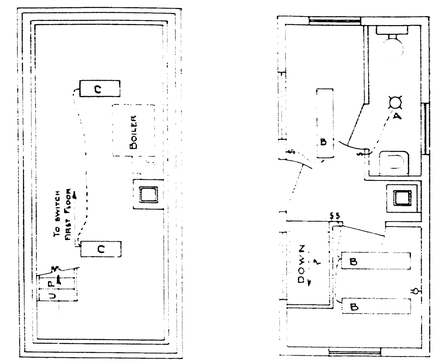
SHEET 7 OF 10 AUGUSTA, MAINE JAN. 1949

52-71

0 1 2 3 4 5 INCHES



GENERAL PLAN



UTILITY HOUSE

FOUNDATION PLAN FLOOR PLAN

~ LEGEND ~

UTILITY HOUSE:
A - WESTINGHOUSE # 1218051 WITH 150 WATT LAMP
B - SMITHCRAFT # D-2 WITH 40 WATT T-12 LAMPS
C - WESTINGHOUSE # 2 FBR - 40 WATT LAMPS

CANOPY:
D - HOLOPHANE # F.1748 WITH 150 WATT LAMPS.

TOLL BOOTHS:
E - SMITHCRAFT # D-2 WITH 40 WATT T-12 LAMPS

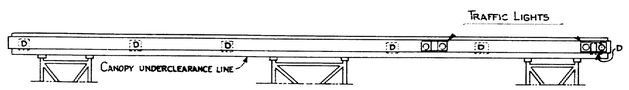
NOTE: UNITS TO BE AS LISTED OR EQUIVALENT

$ - WALL SWITCH

8 - DOUBLE WALL OUTLET

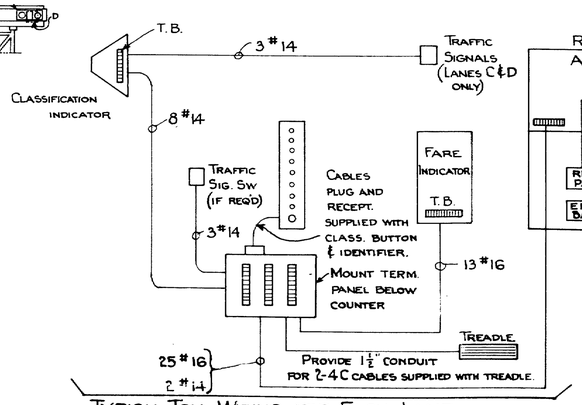
UNDERGROUND CONDUIT FROM UTILITY HOUSE TO TOLL BOOTHS

TOLL WIRING MAY BE INDIVIDUAL CONDUCTORS OR CABLE FOR 120V SERVICE. PROVIDE CONDUIT OF ADEQUATE SIZE AND NECESSARY PULL BOXES AS REQUIRED.

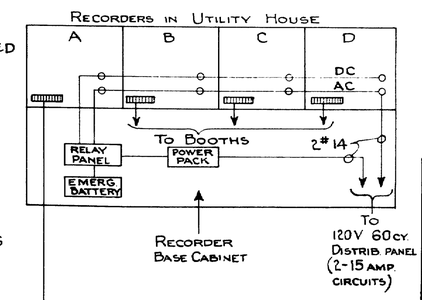


PART ELEVATION

See Book for page 15 for location of [illegible]



TYPICAL TOLL WIRING FOR EACH LANE



SCHEMATIC ARRANGEMENT TOLL EQUIP. WIRING.

PLAN - Hamilton
CHECK - RCB

BRIDGE - 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

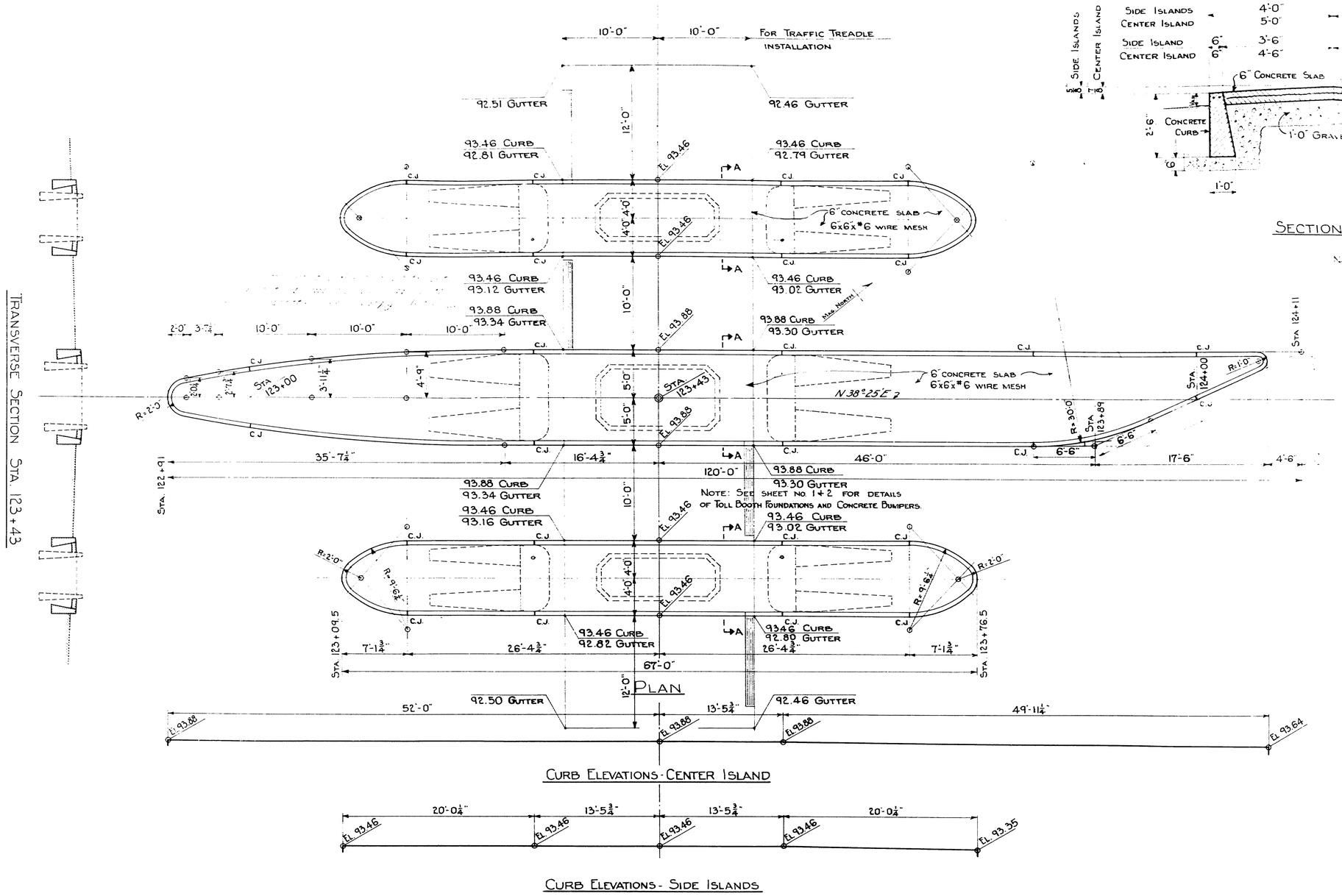
AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

ELECTRICAL LAYOUT

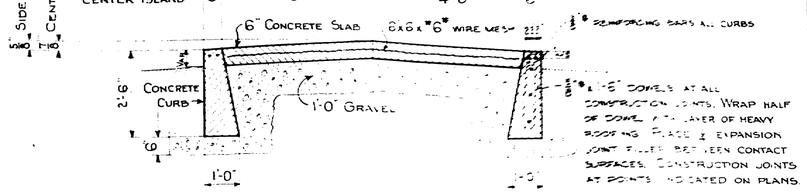
SHEET 8 OF 10 AUGUSTA, MAINE JAN. 1949

52-72

0 1 2 3 4 5 INCHES



Side Islands	4'-0"	4'-0"
Center Island	5'-0"	5'-0"
Side Island	3'-6"	3'-6"
Center Island	4'-6"	4'-6"



Section A-A

Note: Exposed surfaces of curb to have a ribbed mortar finish.
Slab to have sidewalk finish.

PLAN - Hamilton	BRIDGE - 5196
CHECK - RBB	

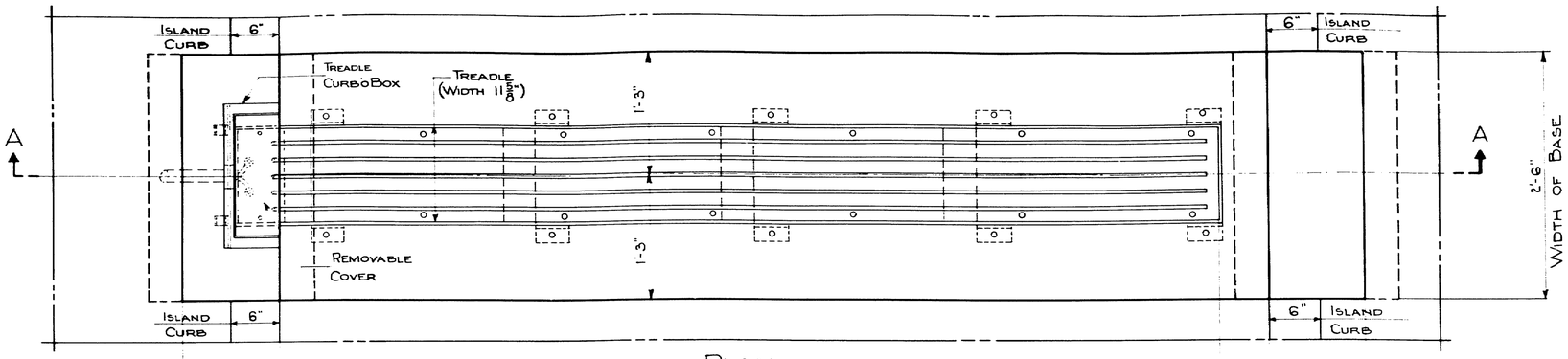
STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY
TRAFFIC ISLANDS

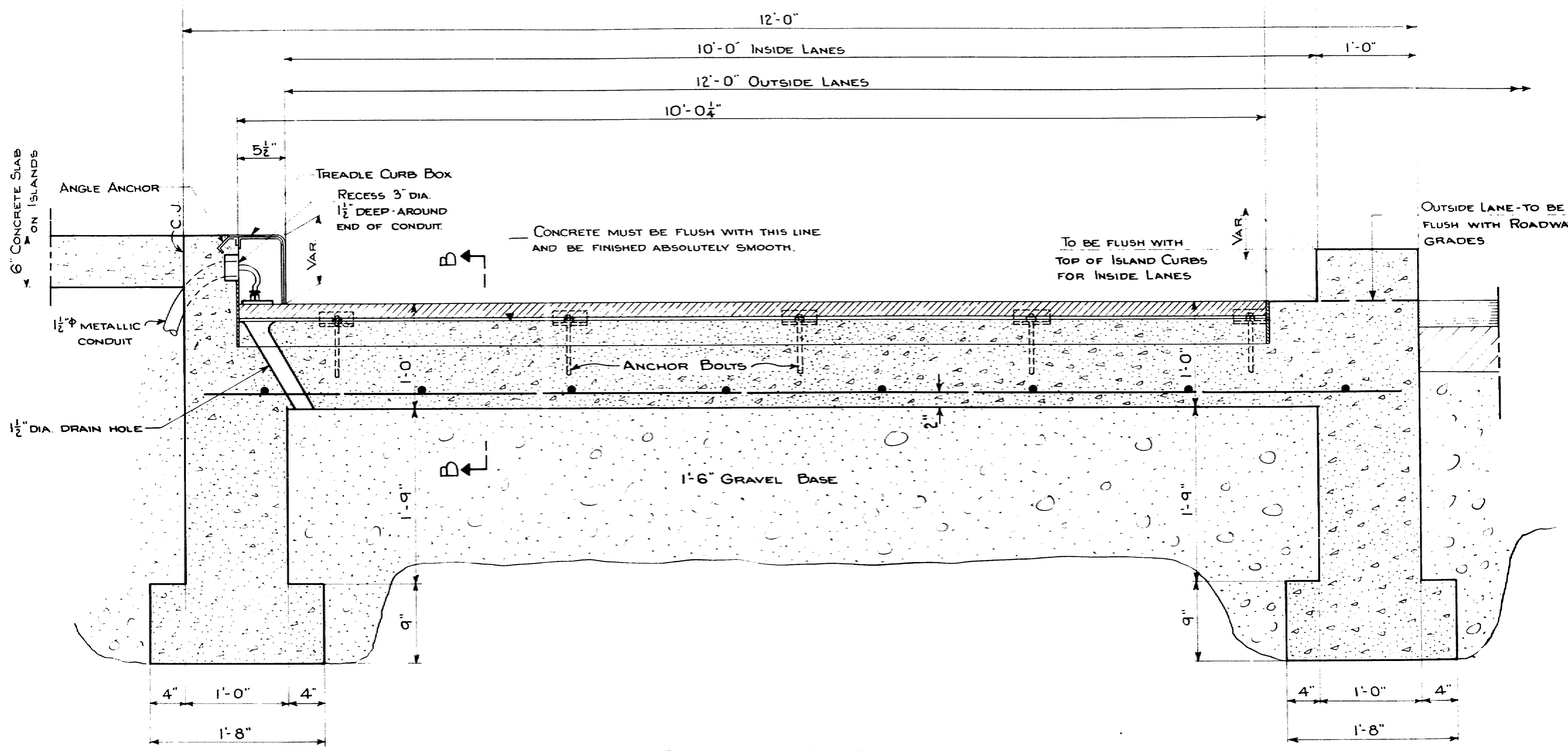
SHEET 9 OF 10 AUGUSTA, MAINE JAN 1949

52-73

0 1 2 3 4 5 INCHES

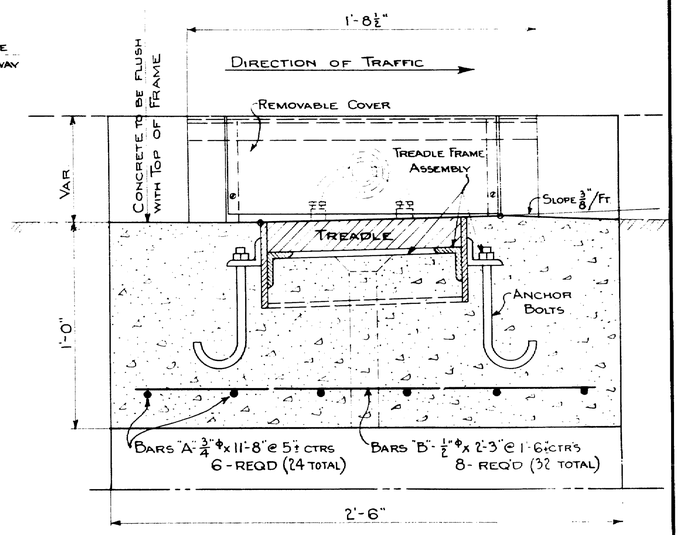


PLAN



SECTION A-A

NOTE: SEE SH. #9 FOR LOCATION OF TREADLES AND HEIGHT OF CURBS.



SECTION B-B

GENERAL NOTES

TREADLE, TREADLE FRAME, ETC, TO BE FURNISHED BY THE STATE HIGHWAY COMMISSION. INSTALLATION UNDER THIS CONTRACT.

PLAN - Hamilton CHECK -	BRIDGE 5196

STATE HIGHWAY COMMISSION
BRIDGE DIVISION

AUGUSTA BRIDGE
OVER THE
KENNEBEC RIVER
IN THE CITY OF
AUGUSTA
KENNEBEC COUNTY

CONCRETE TREADLE BASE

SHEET 10 OF 10 AUGUSTA MAINE JULY 1949

52-74

0 1 2 3 4 5 INCHES