

P. R. A.	STATE	FED. AID	SHEET	TOTAL
DIV. NO.	MAINE	PROJ. NO.	NO.	SHEETS
1		IN-01-100	54	240

SHEET NO.	INDEX
54	General Plan and Elevation
55	North Abutment
56	North Abutment Wing Walls
57	South Abutment
58	South Abutment Wing Walls
59	Pier Details
60	Framing Plan and Details
61	Cross Section and Details
62	Miscellaneous Bridge Details

ESTIMATE OF QUANTITIES		
NO.	ITEMS	QUANTITIES
204-12	Structural Earth Excavation, Abut. and Ret. Walls	130 Cu. Yds.
204-14	Structural Earth Excavation, Piers	100 Cu. Yds.
405-20	Reinforced Portland Cement Conc. Approach Slab	75 Sq. Yds.
701-33	Portland Cement Conc. Abut. and Retaining Walls	550 Cu. Yds.
701-37	Portland Cement Conc. Substructure Cols. Col. Bases, Benls, Collision Walls, Girders, Struts, Etc.	85 Cu. Yds.
701-40	Portland Cement Conc., Roadway and Sidewalk Slabs on Steel Bridges	170 Cu. Yds.
701-47	Portland Cement	1090 Barrels
702-103	Structural Steel, Fabricated and Delivered	165,000 Lbs.
702-104	Structural Steel, Erection	165,000 Lbs.
703-9	Bronze or Copper Alloy Bearing and Expansion Plates, Delivered	230 Lbs.
703-10	Bronze or Copper Alloy Bearing and Expansion Plates, Placing	230 Lbs.
705-13	Reinforcing Steel, Delivered	79,000 Lbs.
705-14	Reinforcing Steel, Placing	79,000 Lbs.
705-17	Shear Connectors	Lump Sum
708-21	Cast-in-place Concrete Piles	3100 Lin. Ft.
700-1	Membrane Waterproofing	485 Sq. Yds.
710-1	Dampproofing	255 Sq. Yds.
804-6	French Drains	250 Cu. Yds.
805-9	Bridge Rail, Delivered and Erected	440 Lin. Ft.
805-37	Bridge Anchorage	4 Each
913-7	Bituminous Treated Stone Slope Protection	110 Sq. Yds.

### GENERAL NOTES

- Design is in accordance with the following specifications:  
State of Maine, State Highway Commission  
Bridge Division Specifications, Revision of 1956  
A. A. S. H. O. 1933 Edition
  - Live Load - H-20-44
  - Concrete shall be as follows:  
Footings, Piers, Abutments - Class B' All  
Concrete Decks & Approach Slabs - Class A'  
Elsewhere as noted on plans.
  - All reinforcement to conform to A. S. T. M. Specification A-15 and deformations to A. S. T. M. Specification A-305. All reinforcing steel to be intermediate grade new billet steel.
  - All steel with welded cover plates to conform to A. S. T. M. Spec. A-373. All other steel shall conform to A. S. T. M. Spec. A-373 or A-7.
  - All elevations are referred to a base which is 0.00 Mean Sea Level.
  - Allowable stresses:  
Reinforcing Steel - 20,000 p.s.i.  
Structural Steel - 18,000 p.s.i.
- B All piles to be 30 ton cast in place concrete.  
9. For Boring Log see Information Drawing, Sheet No. 1 of 1  
10. Location of Borings shown thus \*50.

STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

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FREEPORT BYPASS

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BRIDGE STRUCTURE  
AT MERRILL ROAD INTERCHANGE

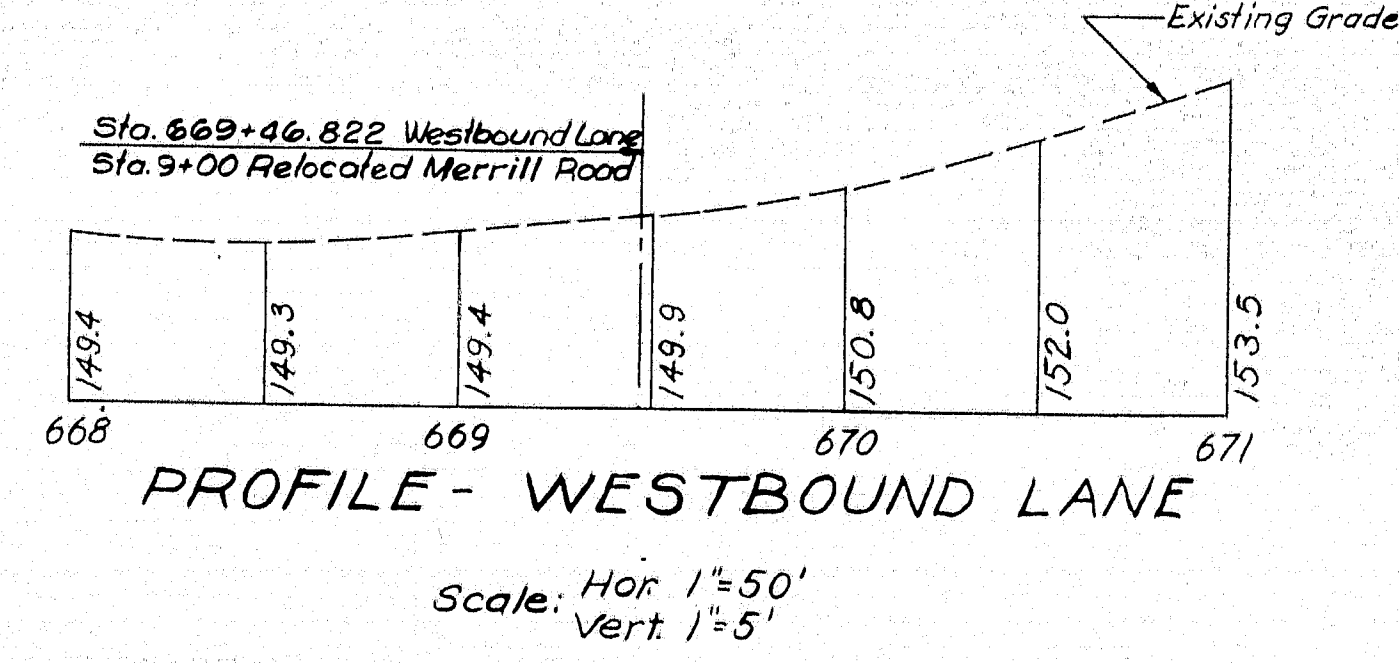
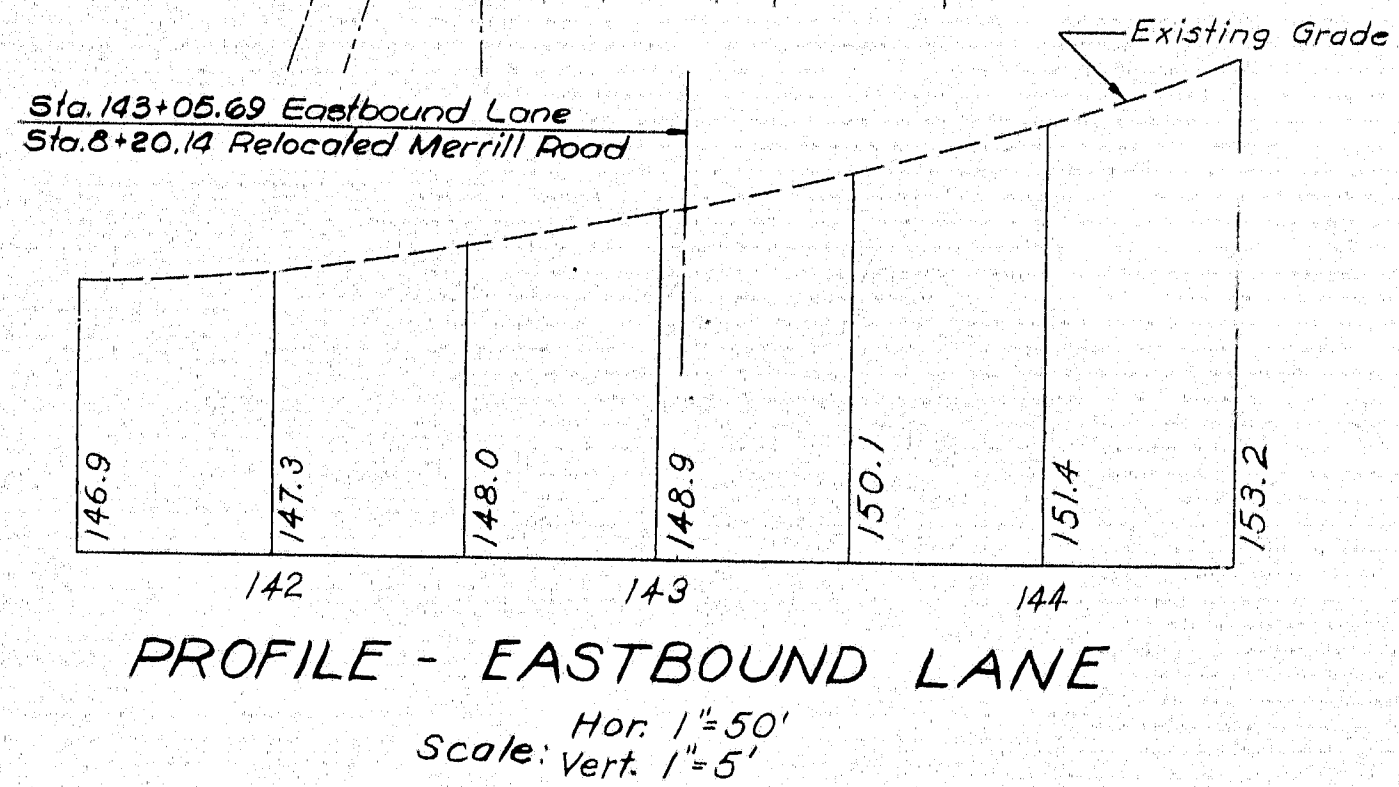
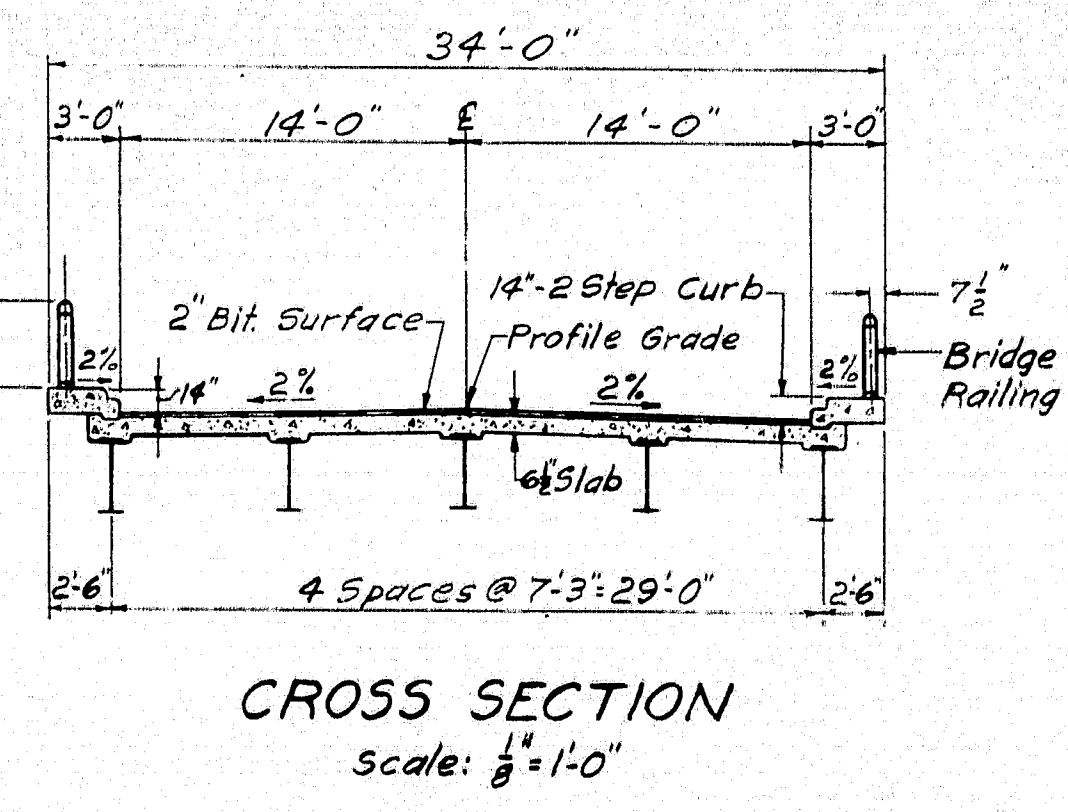
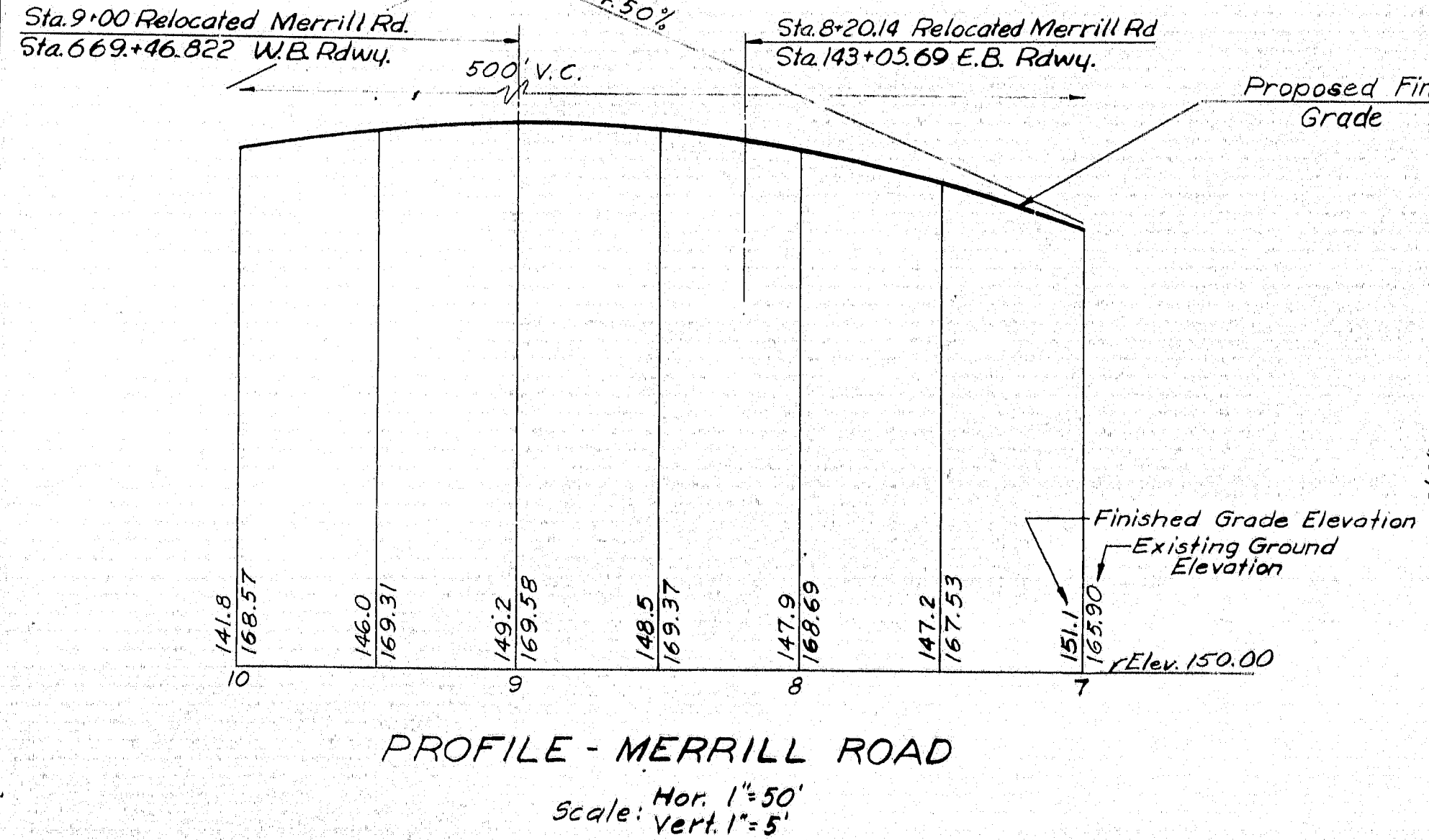
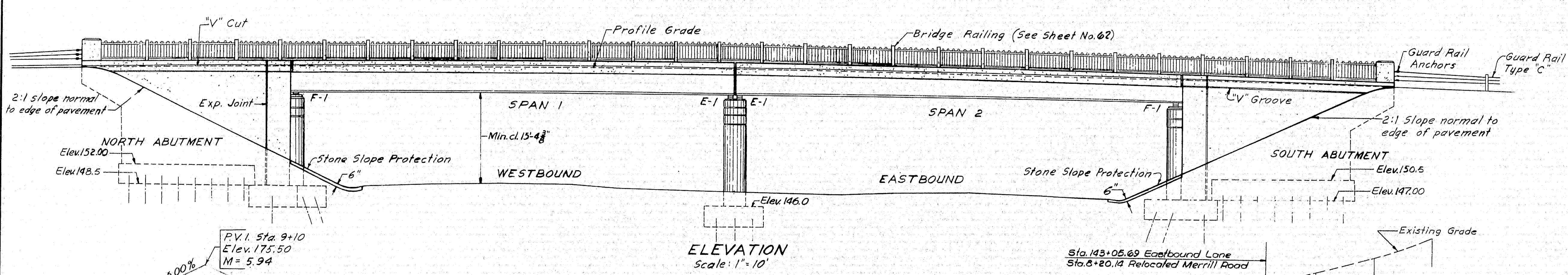
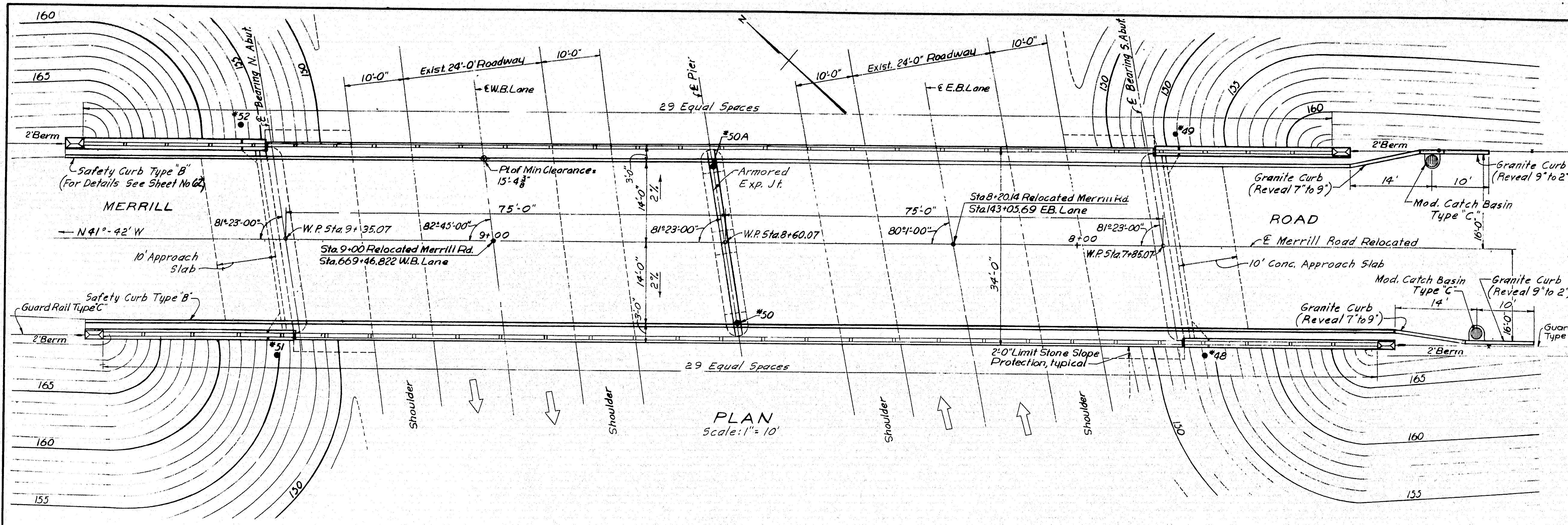
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**GENERAL PLAN  
AND ELEVATION**

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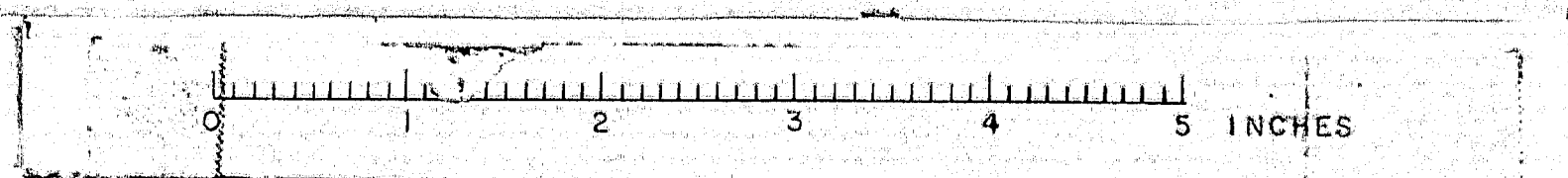
SHEET NO. 54 OF 240    SCALES AS NOTED    AUG. 1956

FAY, SPOFFORD & THORNDIKE, INC.  
ENGINEERS



Qm-12  
G5

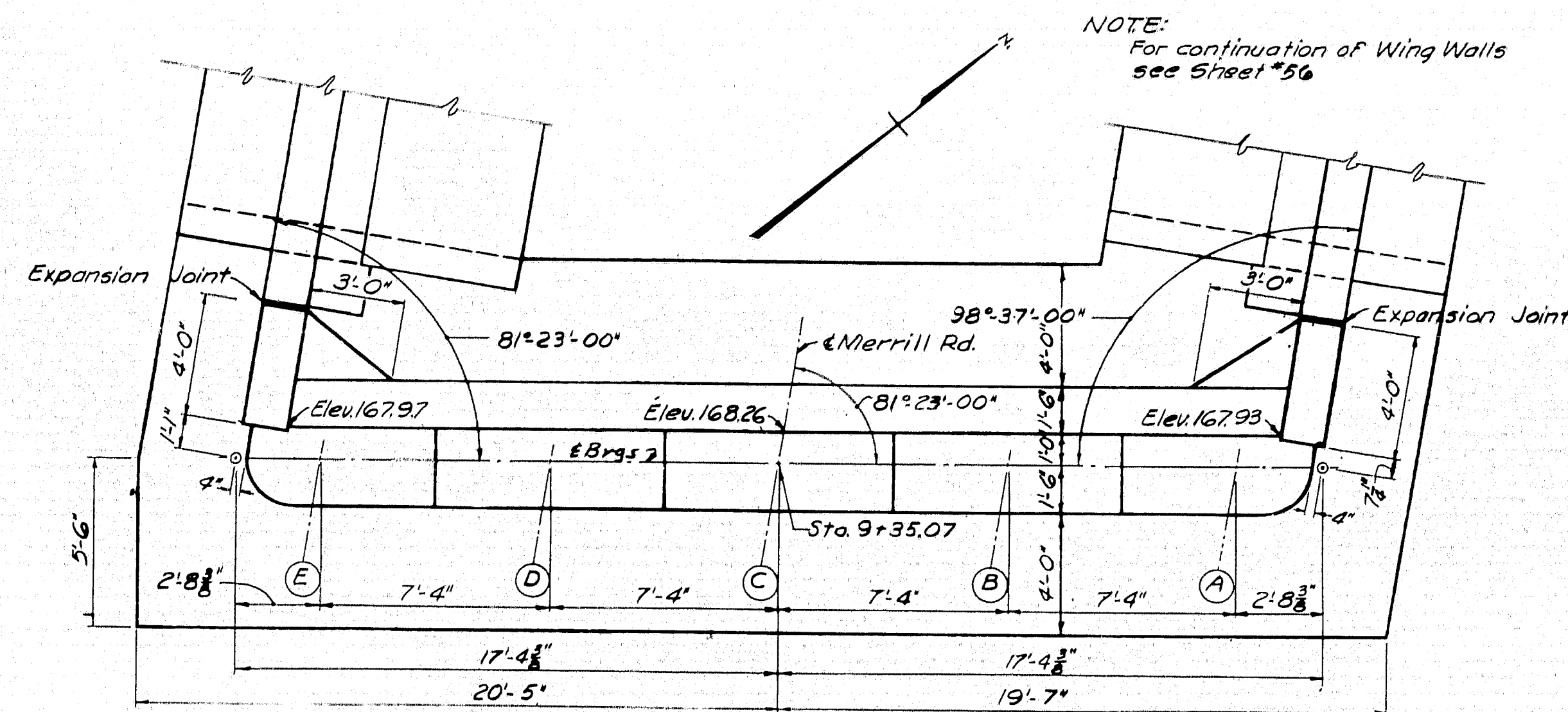
DES.	H. K. M. A.
DR.	J. J. S.
TR.	J. J. S.
CNC.	G. C. B.
APPD.	H. J. W.



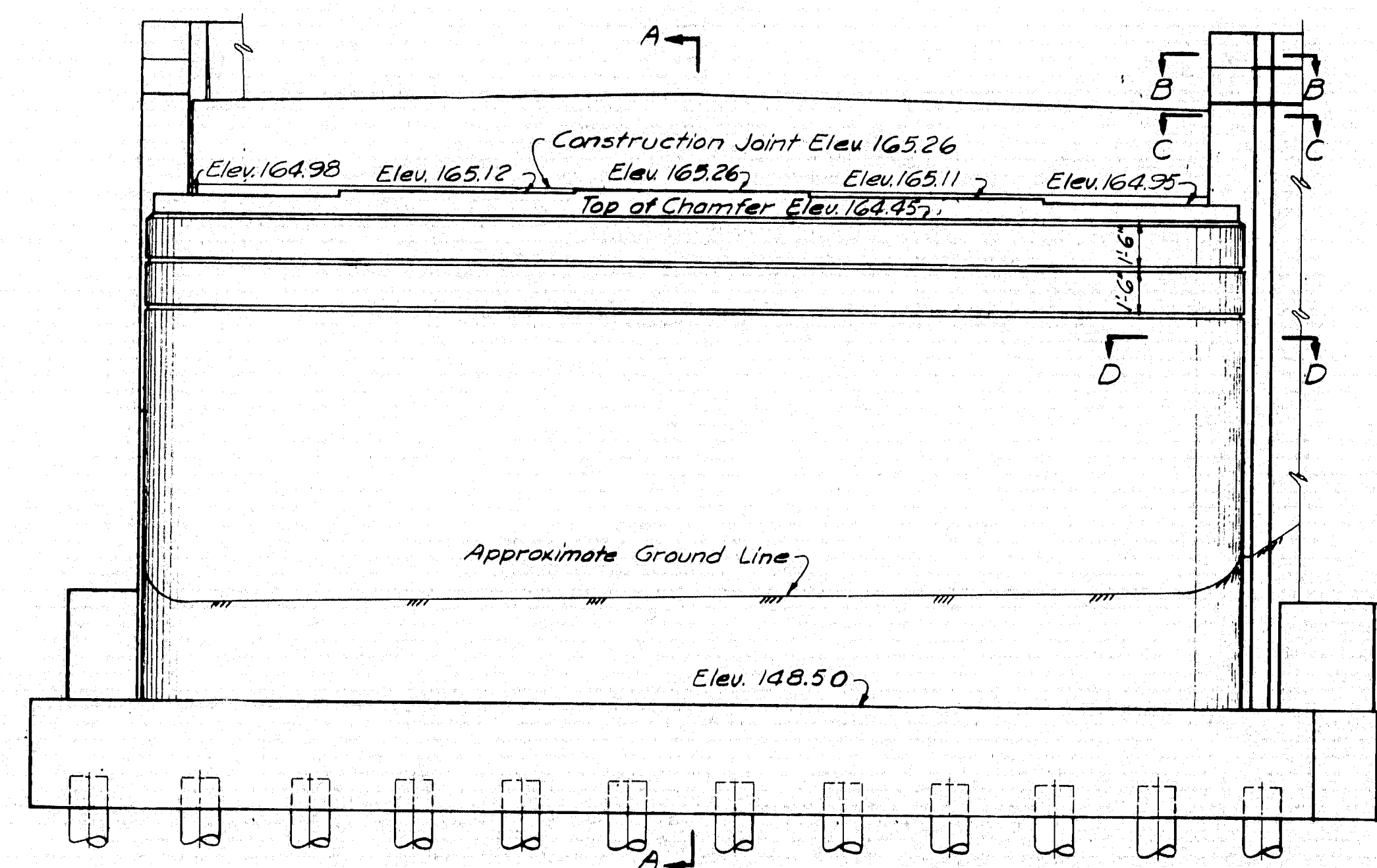
M-901



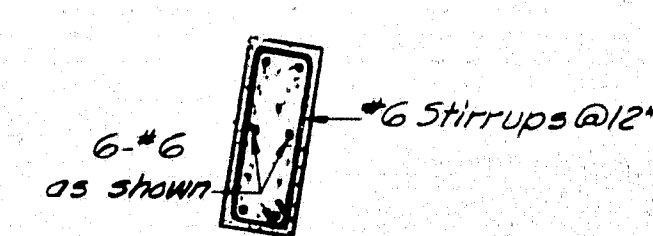
R. R. A.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	IN-01-1(0)	55	240



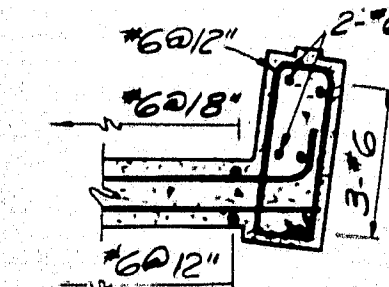
PLAN  
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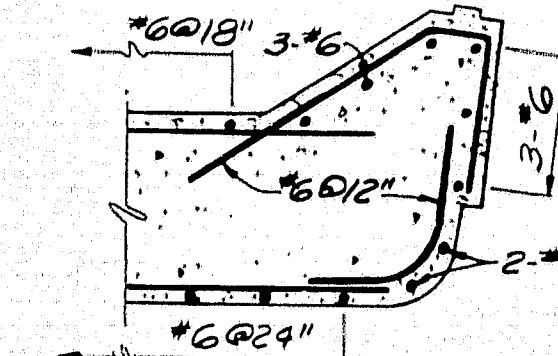
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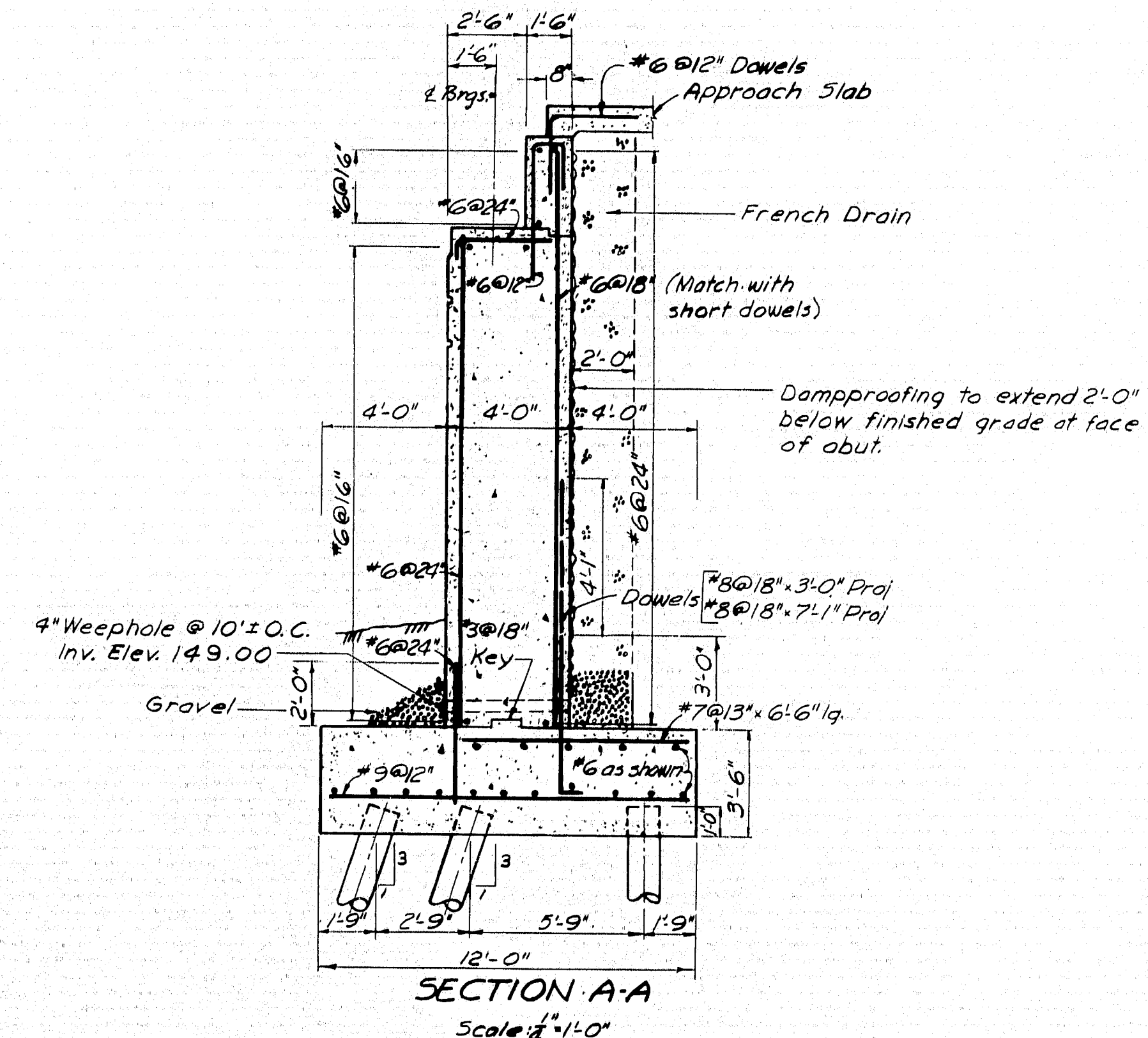
SECTION B-B  
Scale: 1/4" = 1'-0"



SECTION C-C  
Scale: 1/4" = 1'-0"



SECTION D-D  
Scale: 1/4" = 1'-0"



#### CONSTRUCTION NOTES

1. All exposed corners to have a 3/4" chamfer unless otherwise noted.
2. Provide 3 1/2" min. concrete cover for reinforcing steel on rusticated surfaces, otherwise use 2" clear, except as noted.
3. Reinforcing steel to be positioned to avoid interference with swedge anchor bolts.
4. Stringer bearing seats to be cast monolithically with piers and abutments and to be of sufficient height to permit bush-hammering to the proper elevation.
5. For location of swedge anchor bolts, see Sheet No. 60.
6. For Sections and notes not shown see Sheet No. 57.
7. For location of piles see Sheet No. 57.

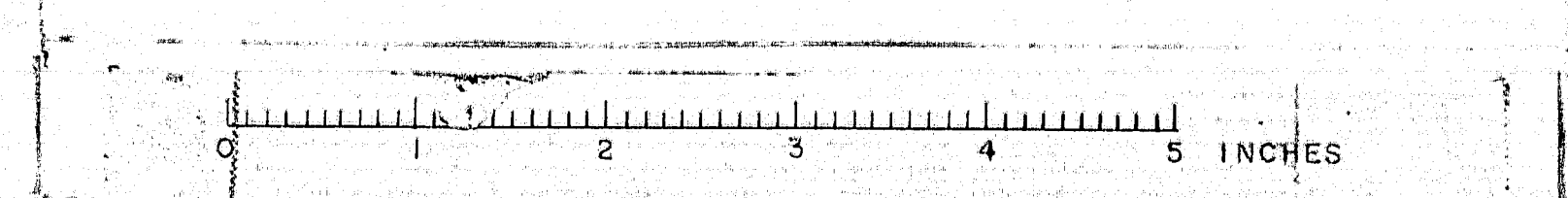
Qm-12  
66

DES.	M. M.
DR.	S. H.
TR.	S. H.
CHK.	G. C. B.
APP.	H. J. W.

STATE HIGHWAY COMMISSION AUGUSTA, MAINE	
FREEPORT BYPASS	
BRIDGE STRUCTURE AT MERRILL ROAD INTERCHANGE	
NORTH ABUTMENT	
SHEET NO. 55 OF 240	SCALES AS NOTED
AUG. 1956	

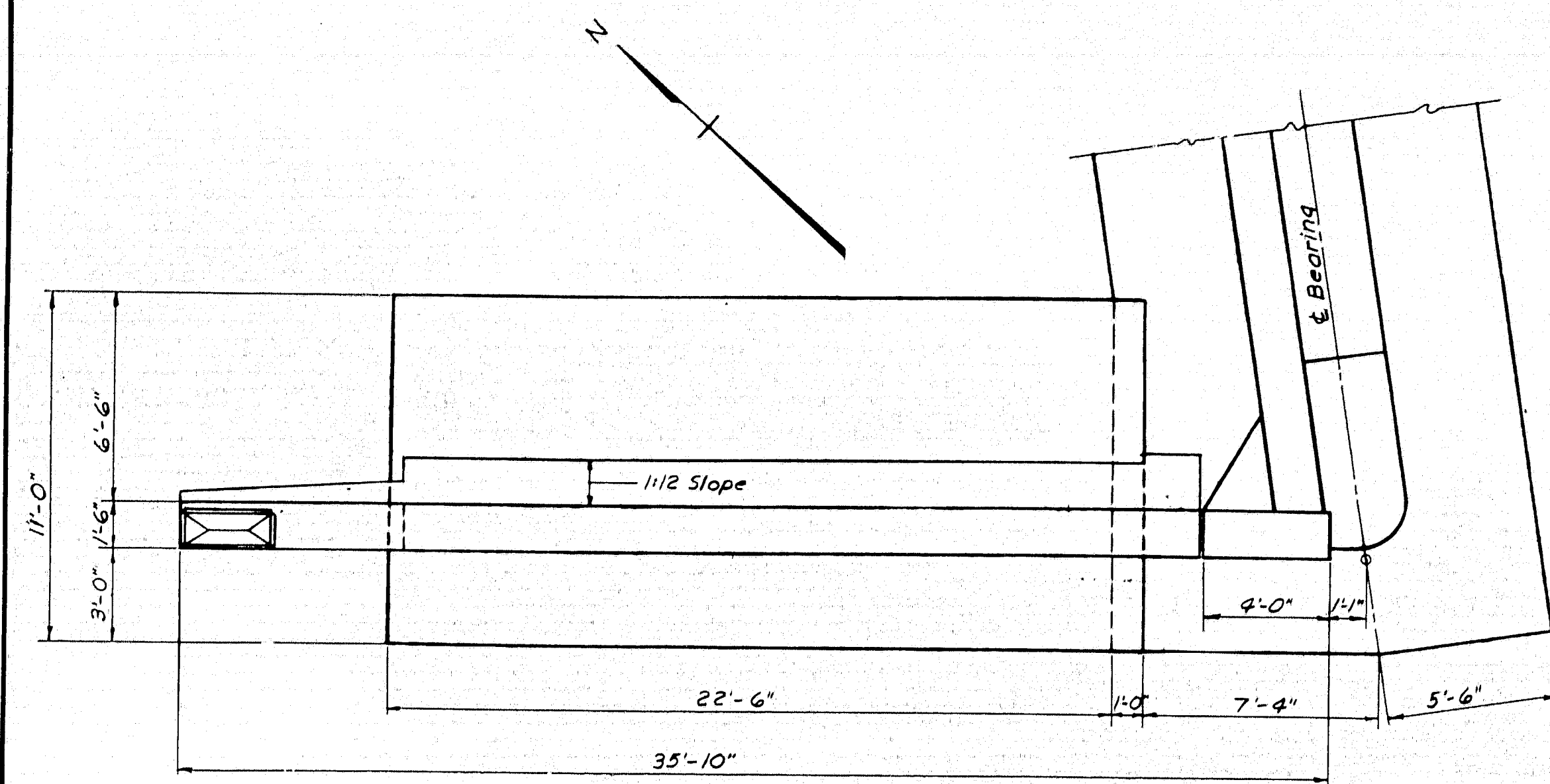
FAY, SPOFFORD & THORNDIKE, INC.  
ENGINEERS

M-902

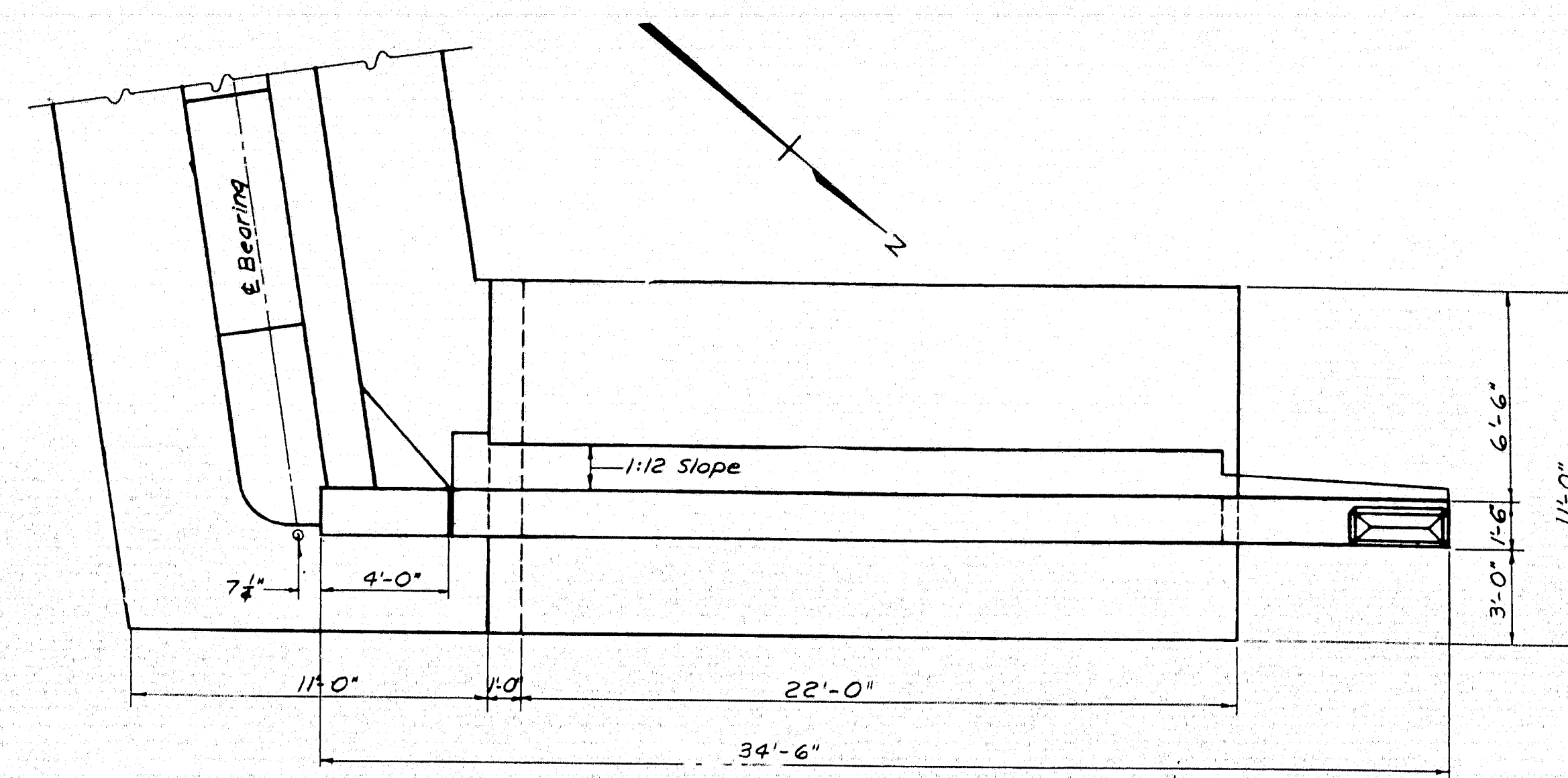




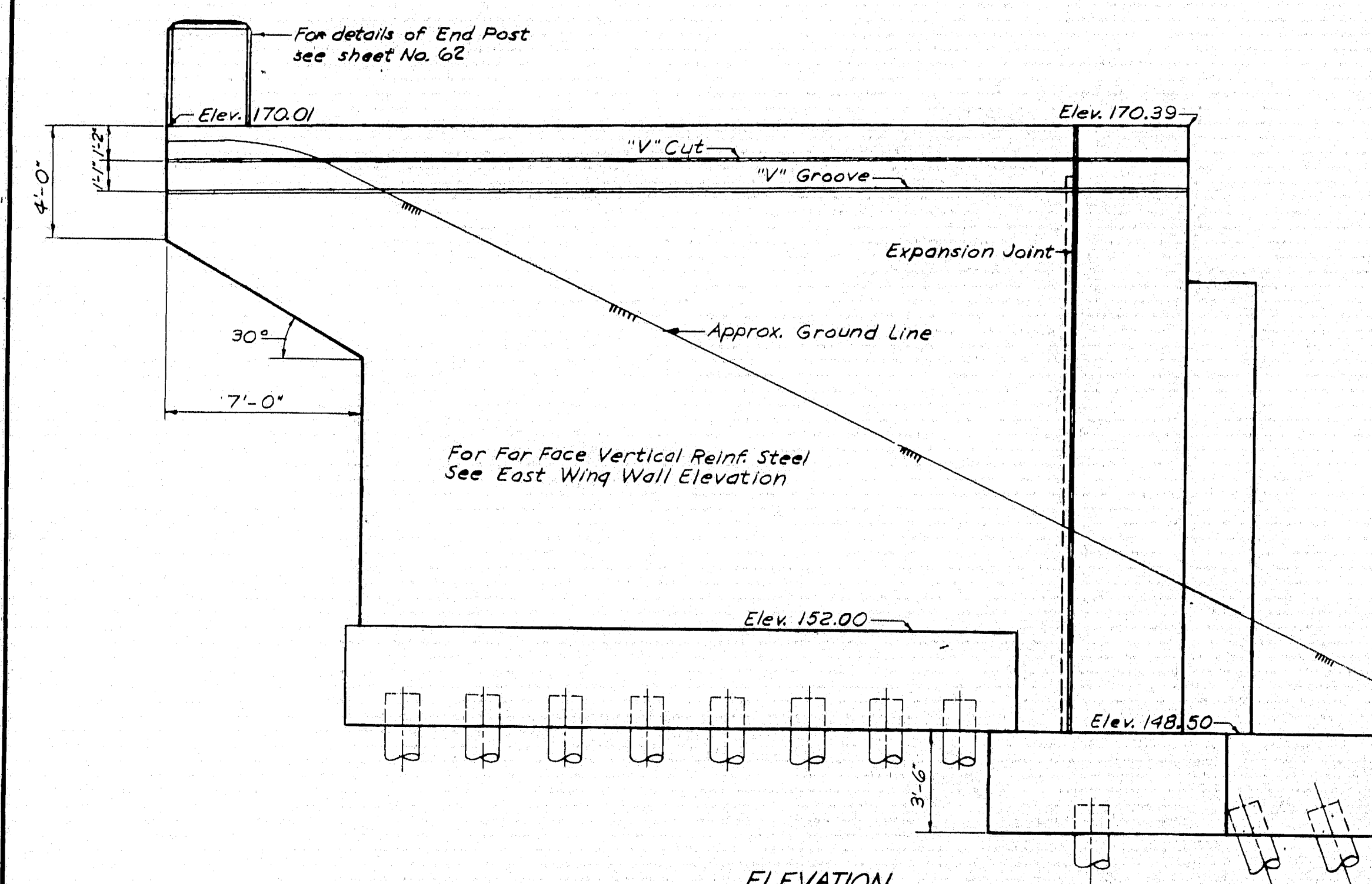
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1	MAINE	IN-01-K(15)	56	240



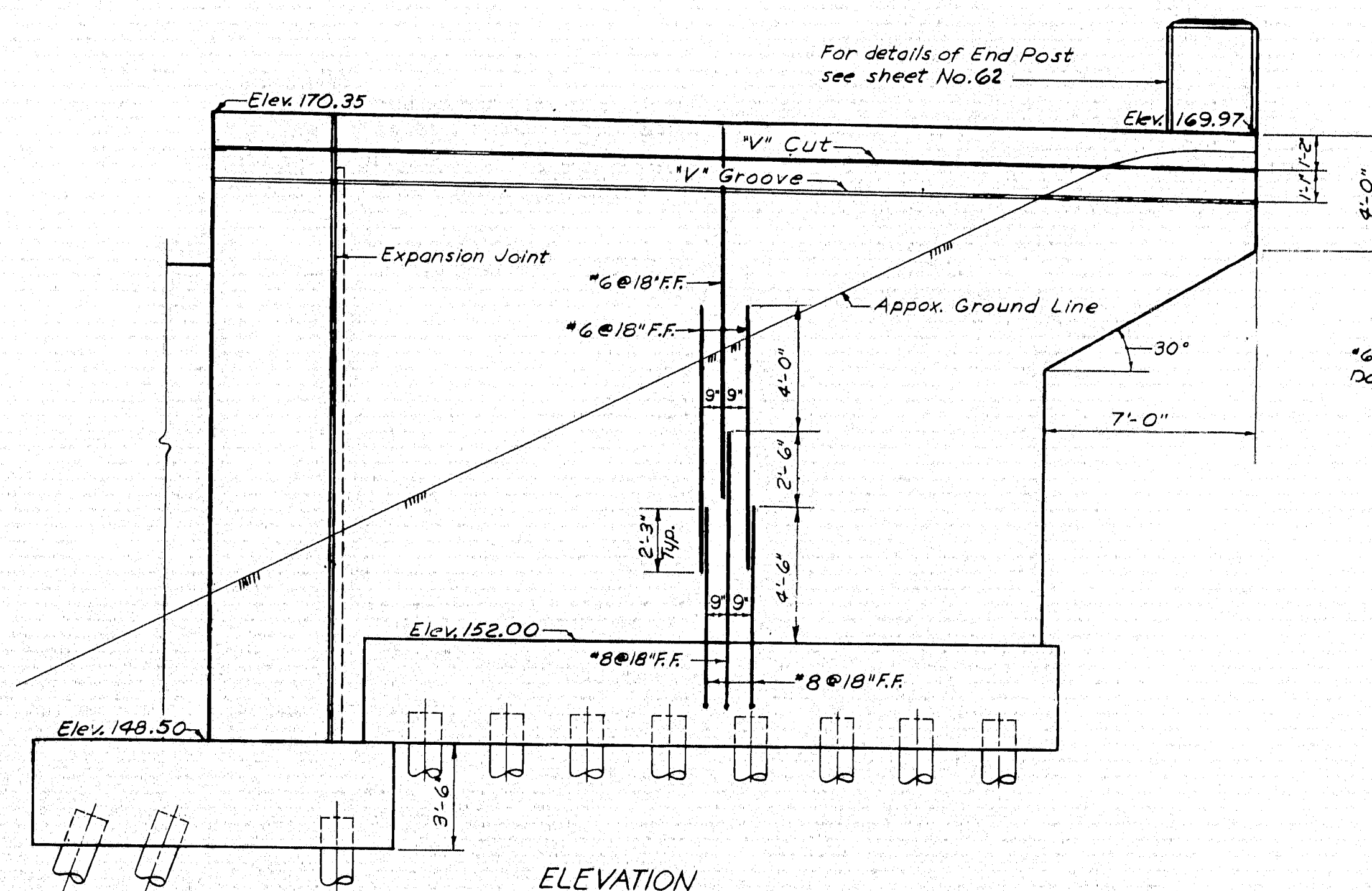
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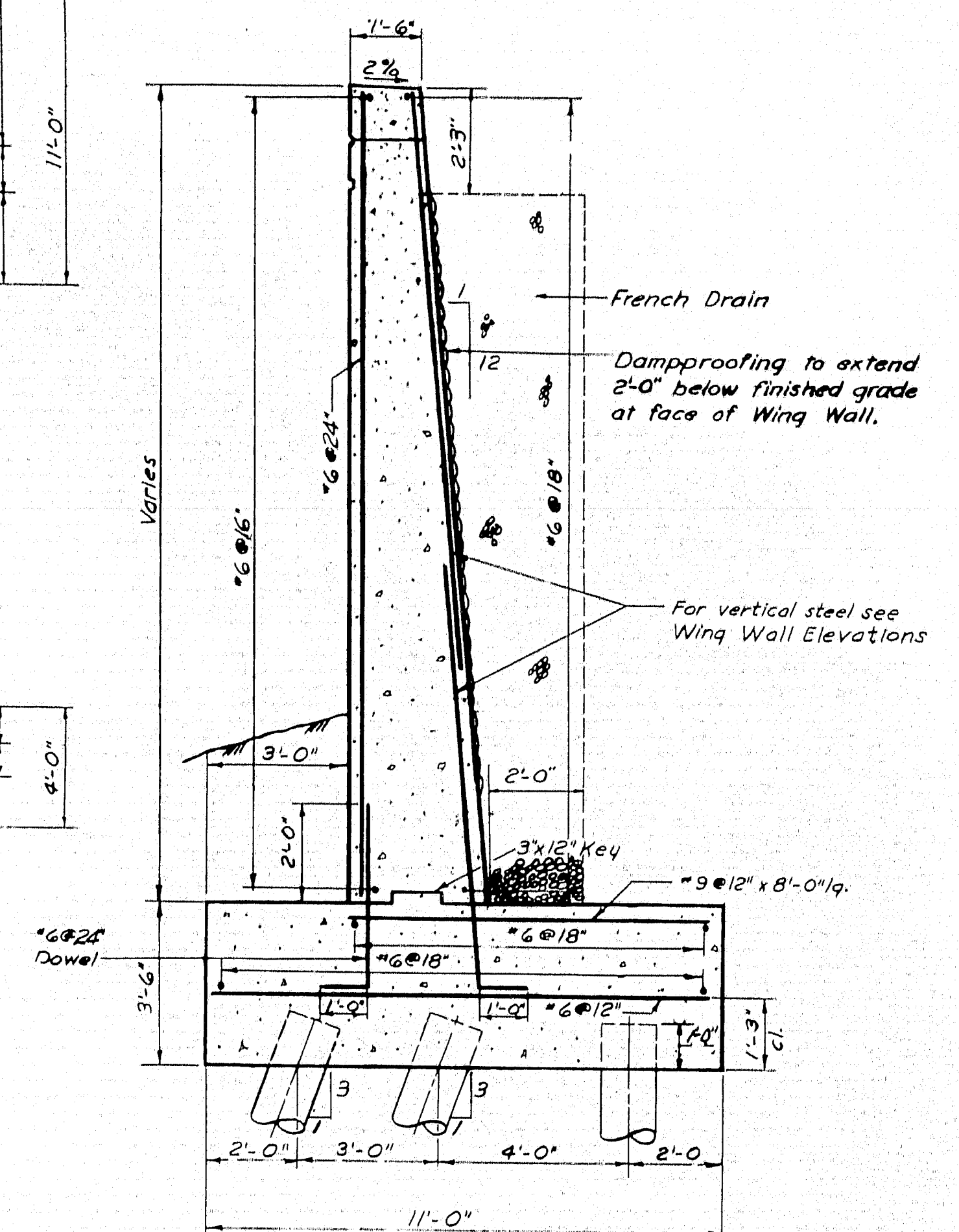
PLAN  
Scale:  $\frac{1}{4}" = 1' - 0"$



ELEVATION  
Scale:  $\frac{1}{4}" = 1' - 0"$   
WEST WING WALL



ELEVATION  
Scale:  $\frac{1}{4}" = 1'-0"$   
EAST WING WALL



TYPICAL WING WALL SECTION  
Scale:  $\frac{3}{8}'' = 1' - 0''$

Note: For location of Piles, see sheet No. 57  
See Sheets 55 & 57 for Sections and  
Notes not shown.

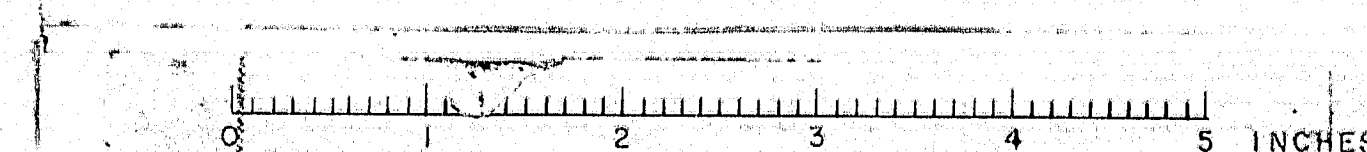
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67

DES	M.M.
DR	SH
TR	-
CHK	G.C.B.
APPD	H.J.W.

STATE HIGHWAY COMMISSION AUGUSTA, MAINE		
FREEPORT BYPASS		
BRIDGE STRUCTURE AT MERRILL ROAD INTERCHANGE NORTH ABUTMENT WING WALLS		
SHEET NO. 56 OF 240	SCALES AS NOTED	AUG. 1950

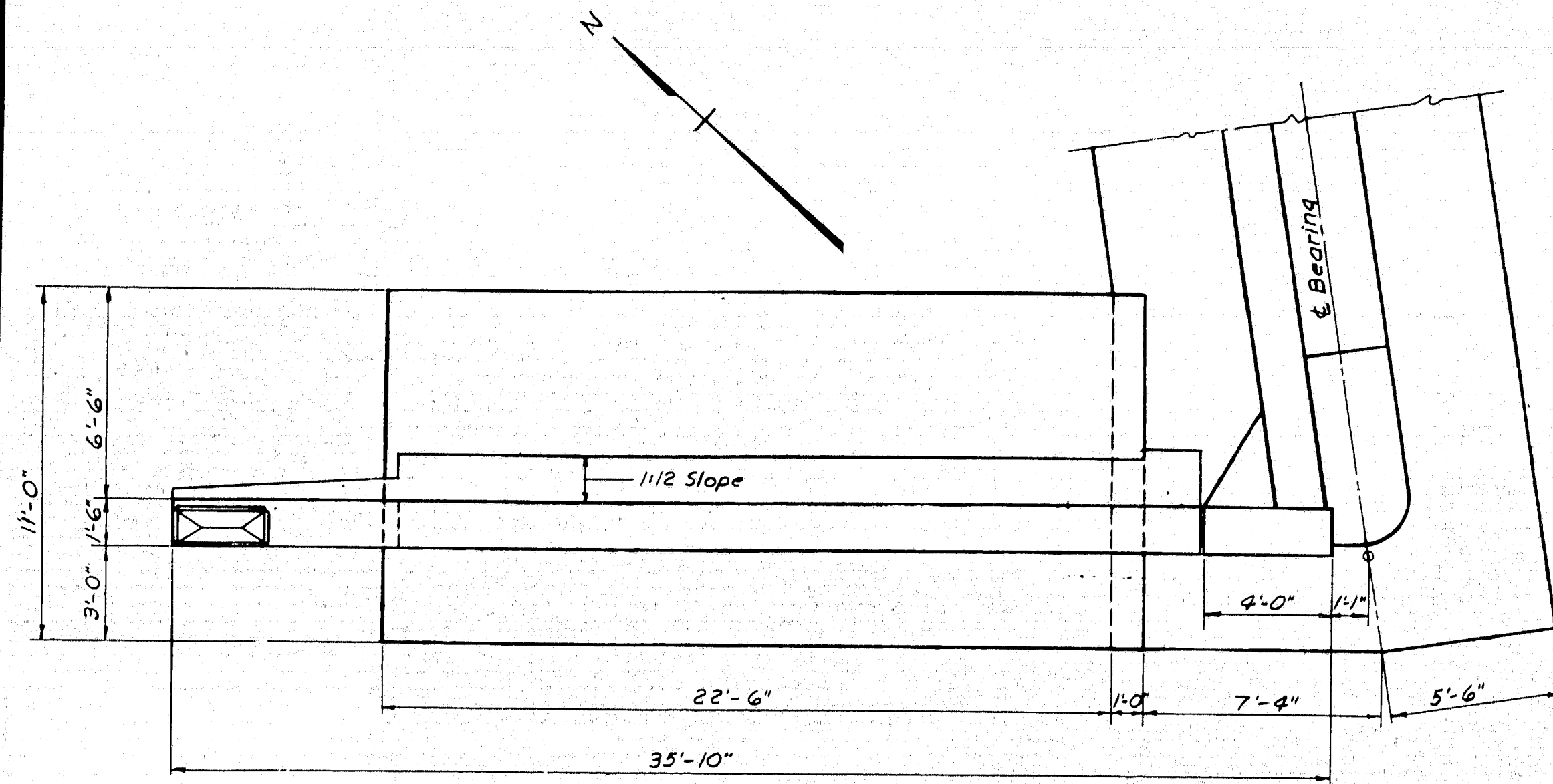
**FAY, SPOFFORD & THORNDIKE, INC.**  
**ENGINEERS**

M-903

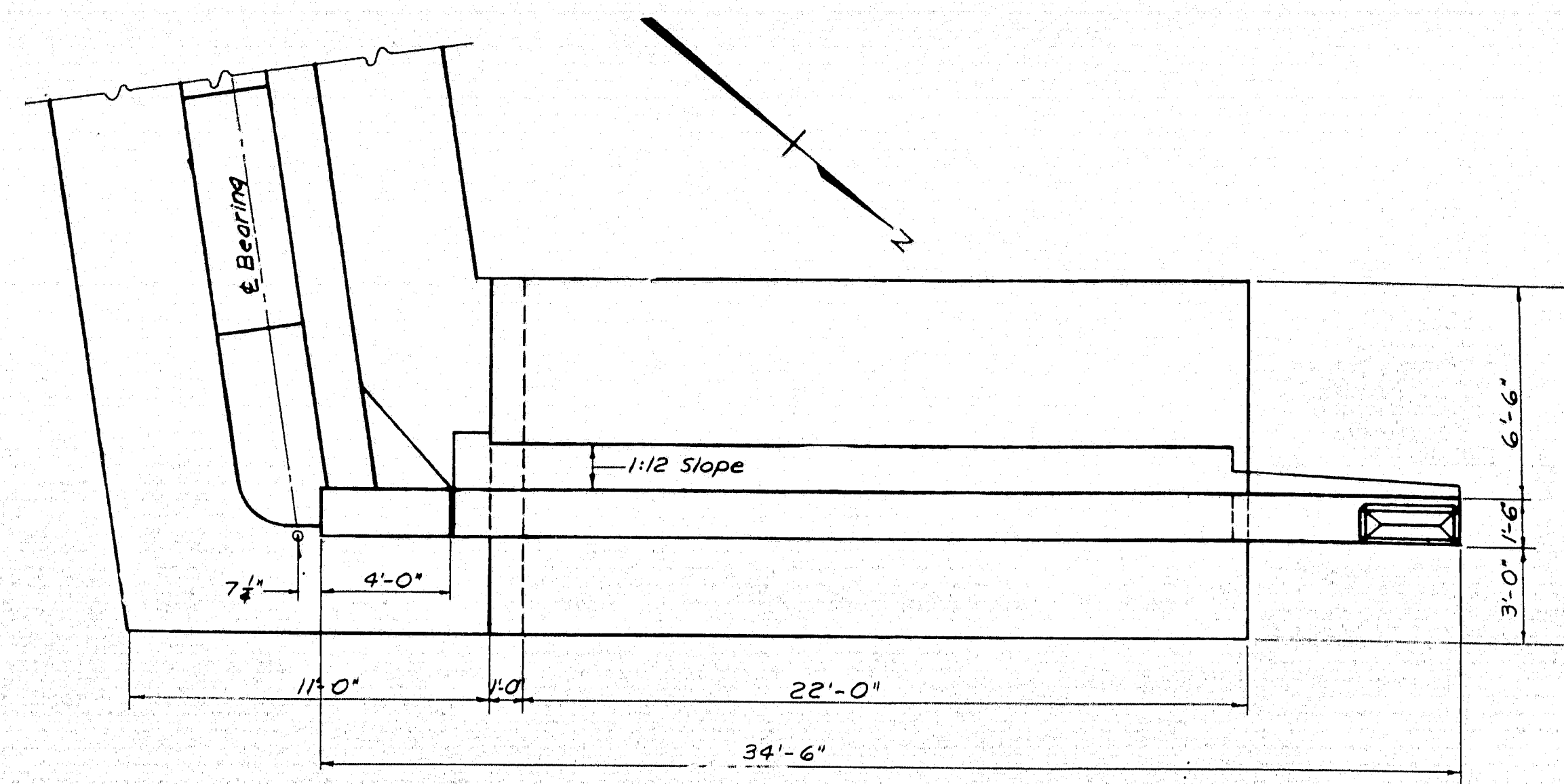




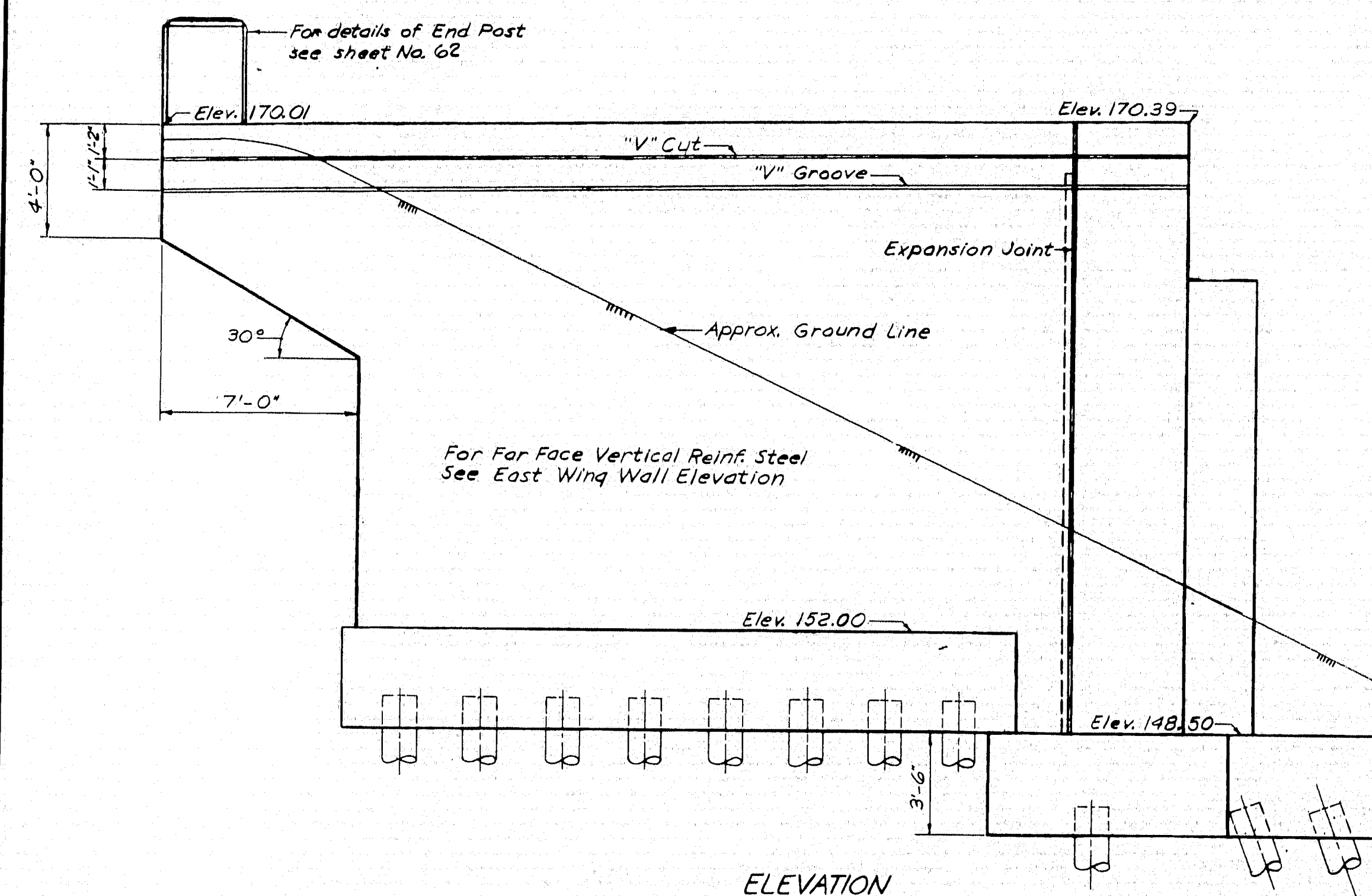
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1	MAINE	IN-01-(8)	56	240



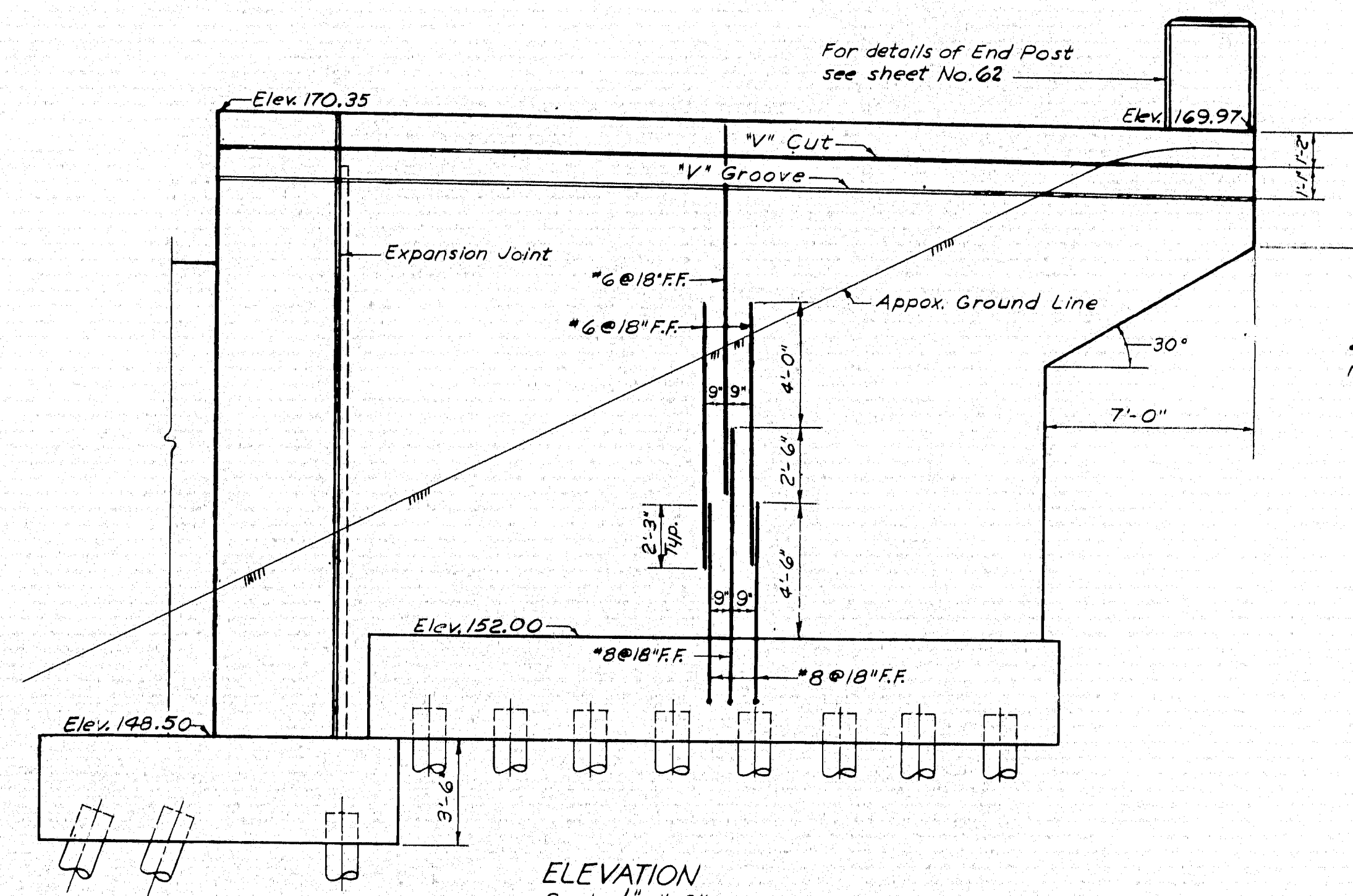
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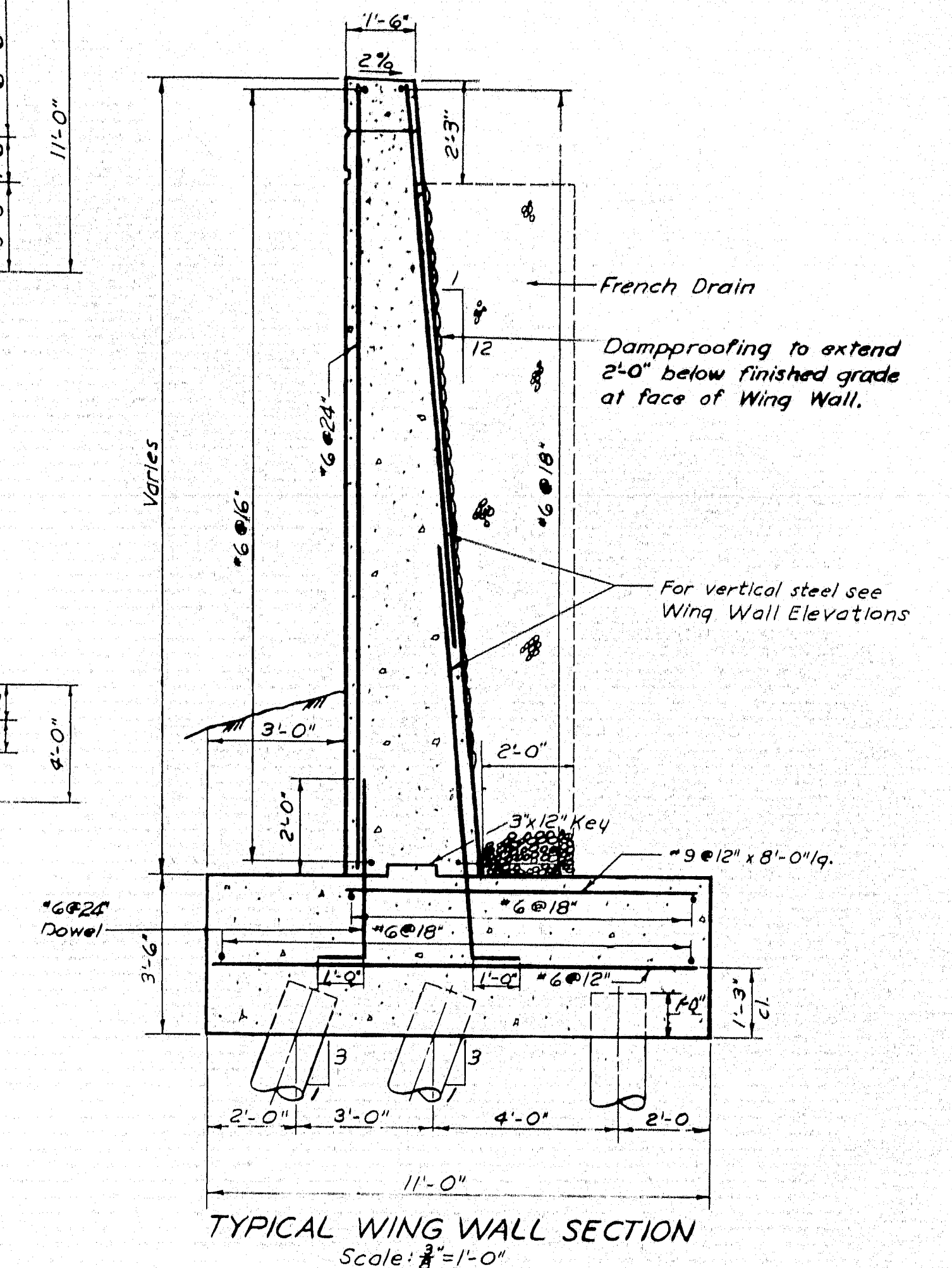
PLAN  
Scale:  $\frac{1}{4}$ " = 1'-0"



ELEVATION  
Scale:  $\frac{1}{4}$ " = 1'-0"  
WEST WING WALL



ELEVATION  
Scale:  $\frac{1}{4}$ " = 1'-0"  
EAST WING WALL



Note: For location of Piles, see sheet No. 57  
See Sheets 55 & 57 for Sections and  
Notes not shown.

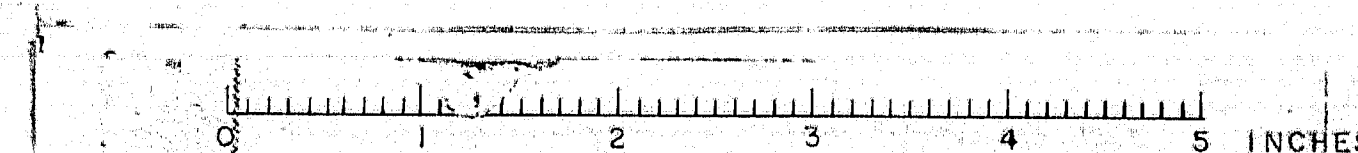
STATE HIGHWAY COMMISSION AUGUSTA, MAINE	
FREEPORT BYPASS	
BRIDGE STRUCTURE AT MERRILL ROAD INTERCHANGE	
NORTH ABUTMENT WING WALLS	
SHEET NO. 56 OF 240	SCALES AS NOTED
AUG. 1956	

FAY, SPOFFORD & THORNDIKE, INC.  
ENGINEERS

M-903

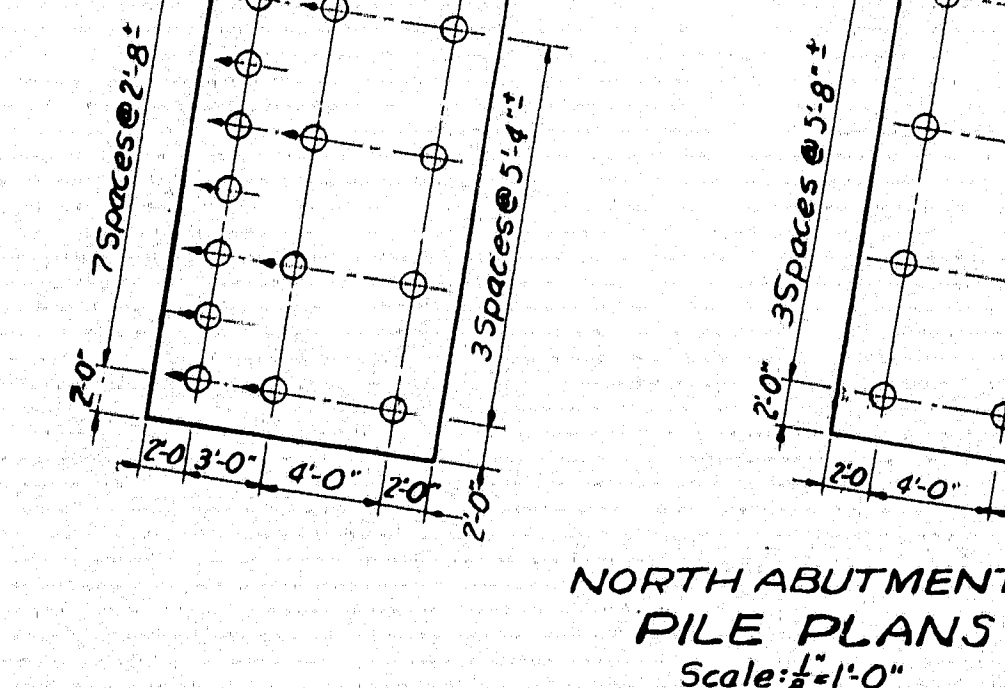
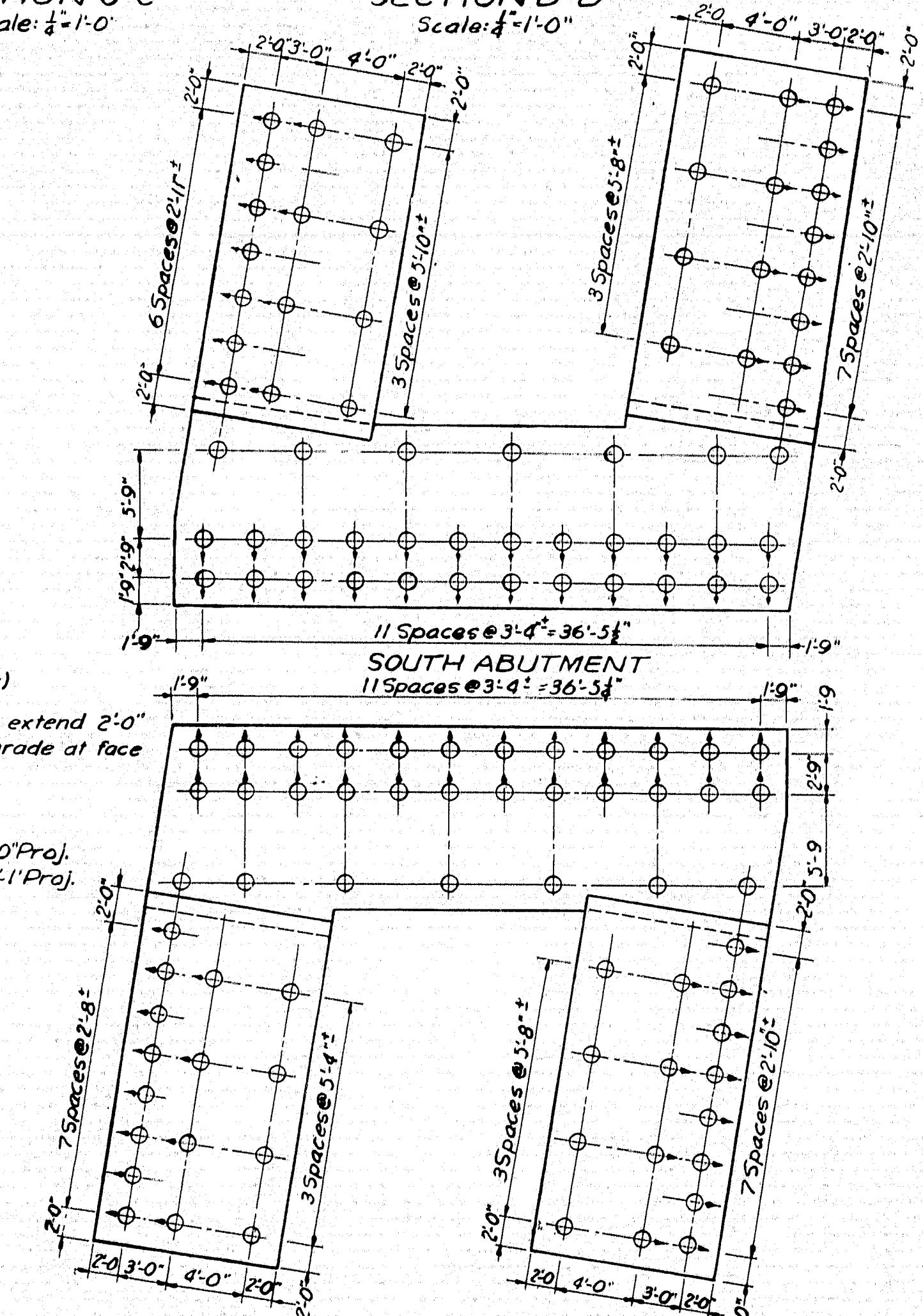
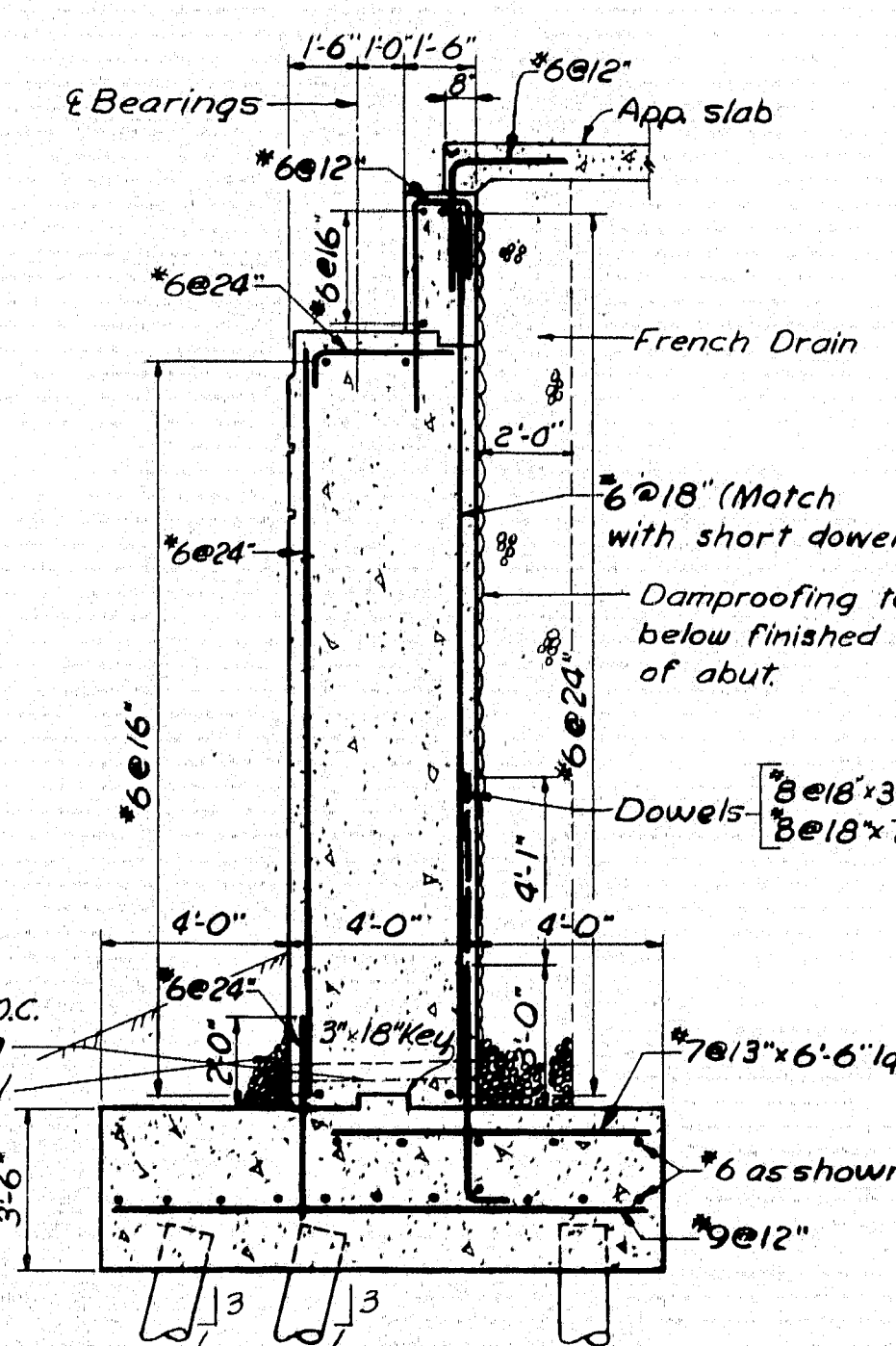
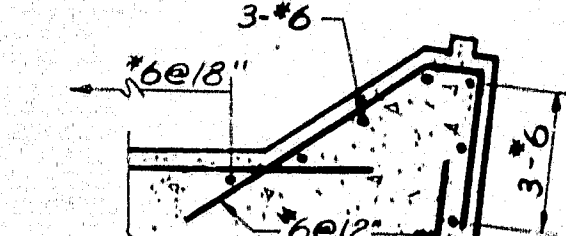
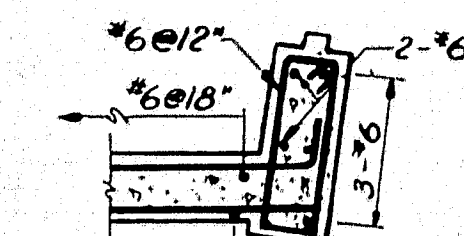
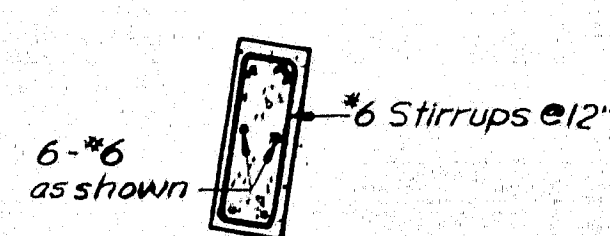
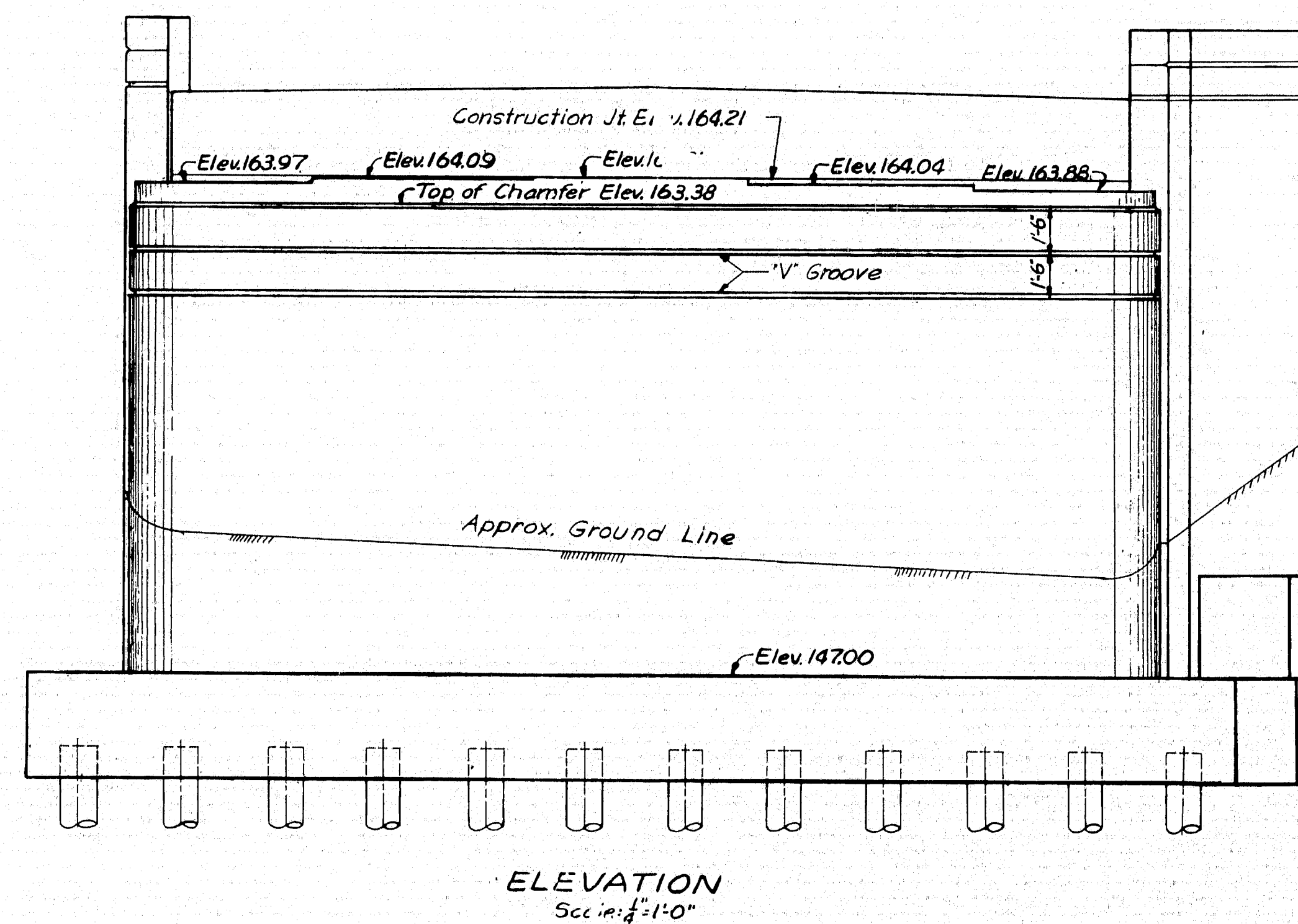
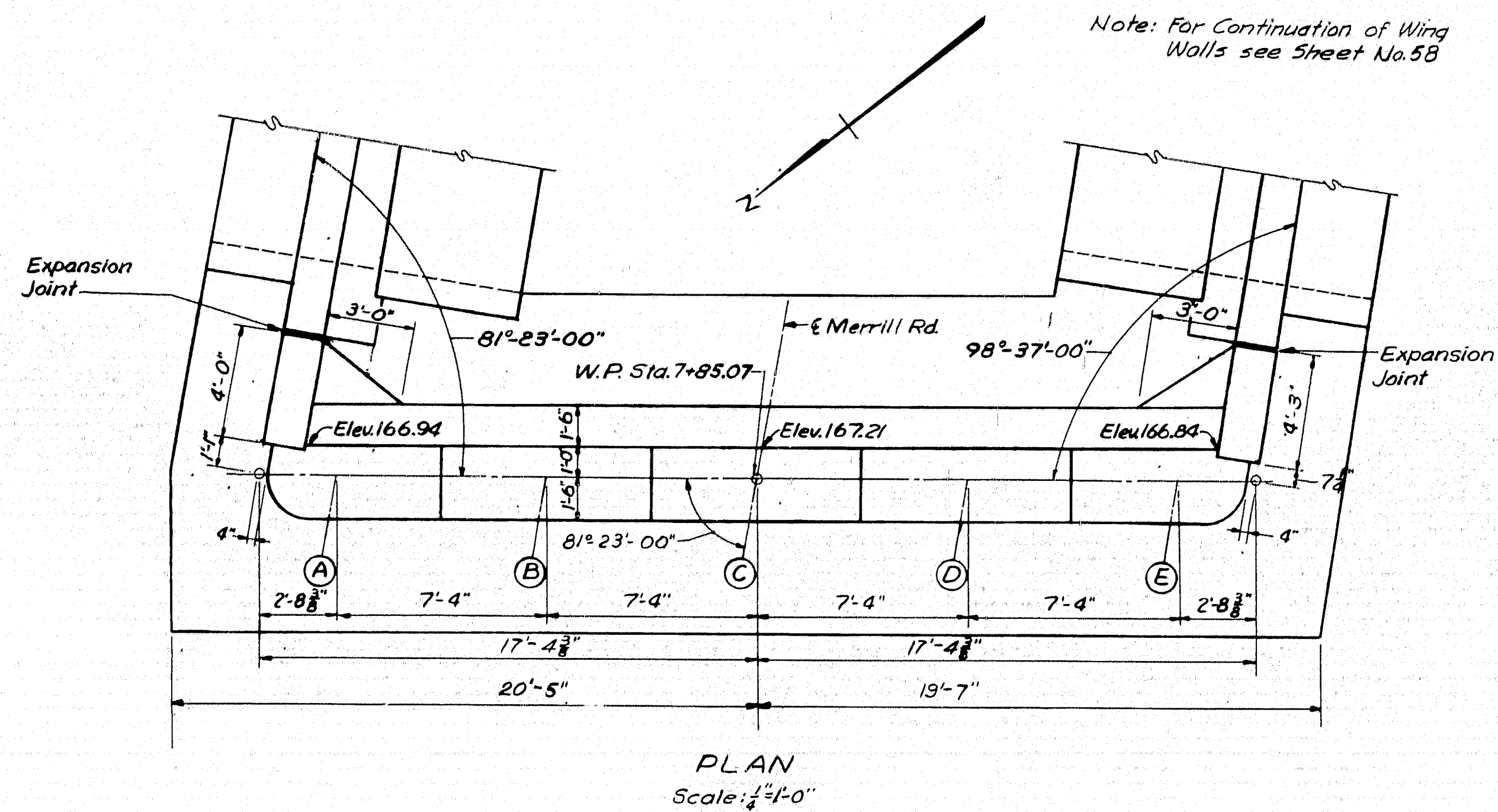
Qm-12  
67

DES	M.M.
DR	S.H.
TR	-
CHK	G.C.B.
APP	H.J.W.

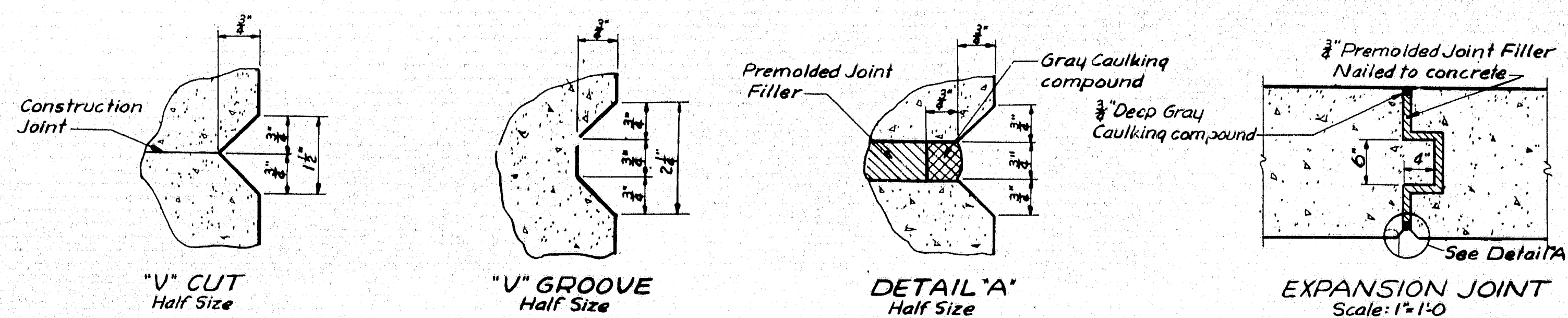




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1	MAINE	IN-01-1(15)	57	240



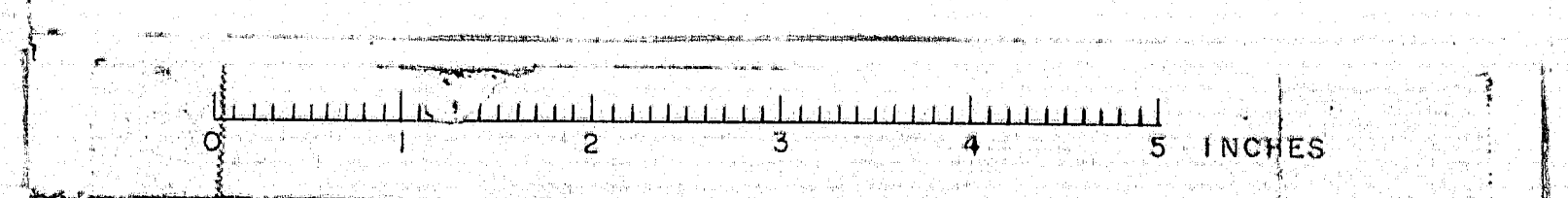
Note: See Sheet No. 58 for Notes & Detail not shown.



Note: All piles to be 30 Ton cast-in-place concrete piles. All piles shown thus  $\odot$  battered 1:3

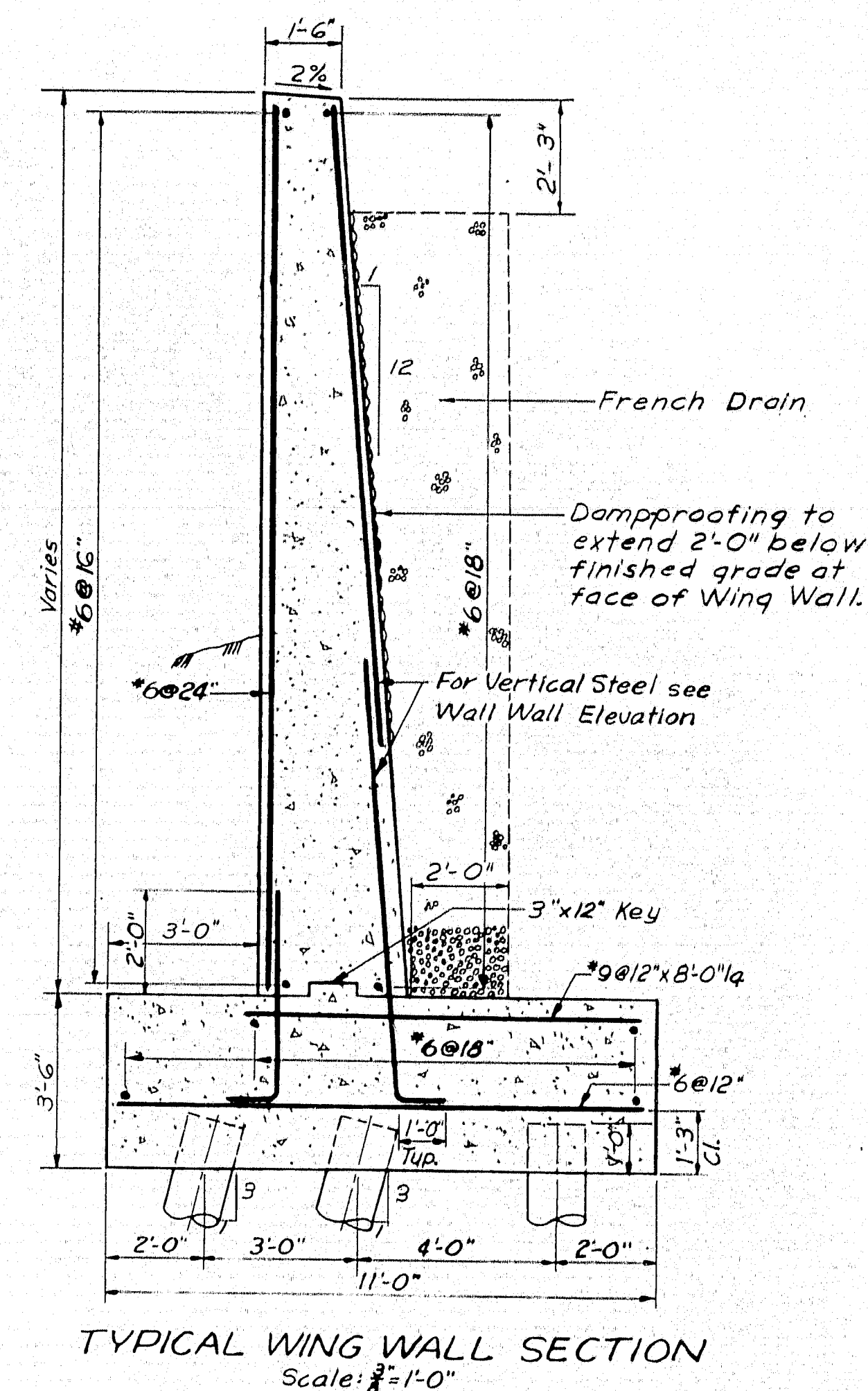
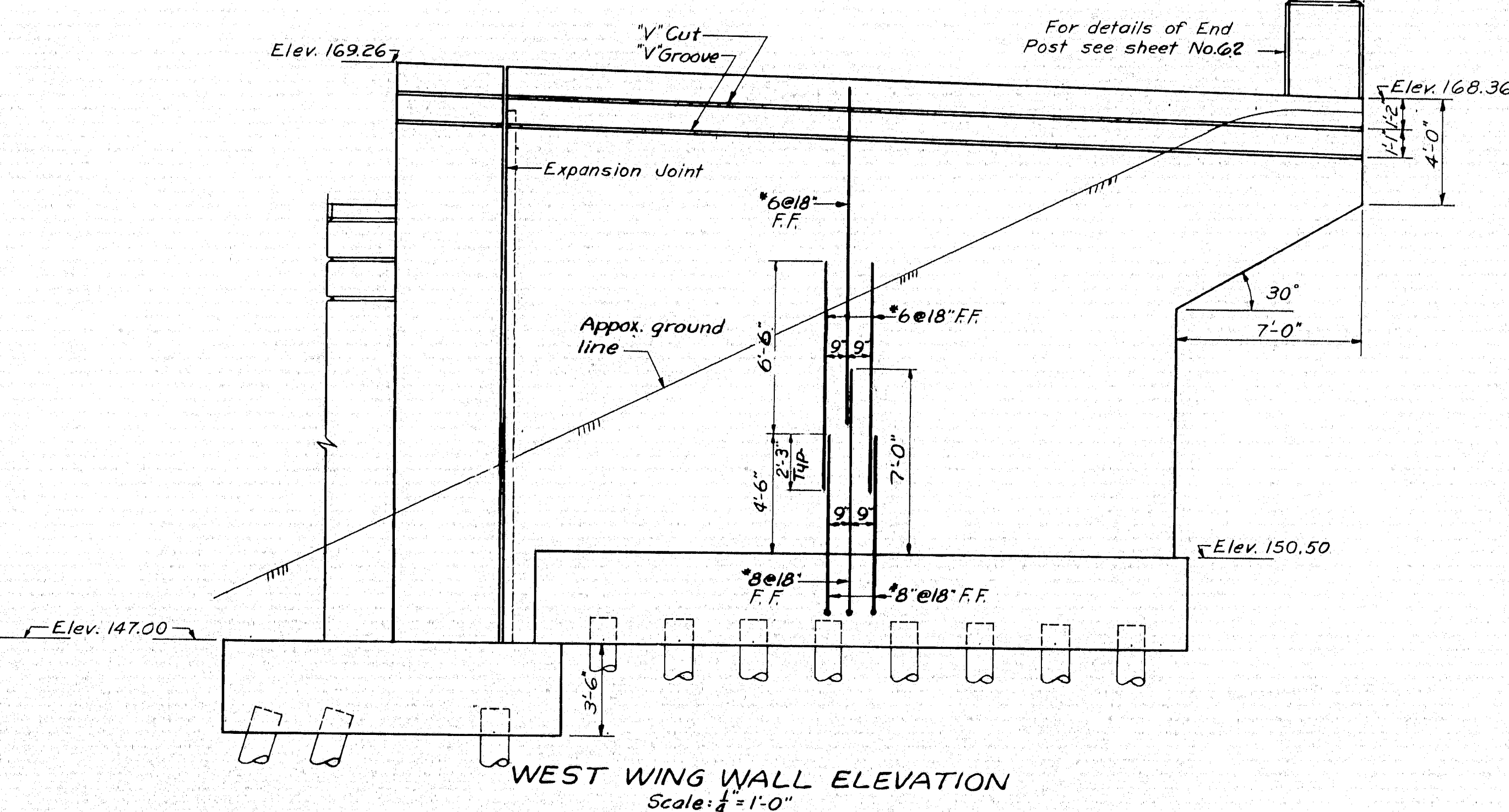
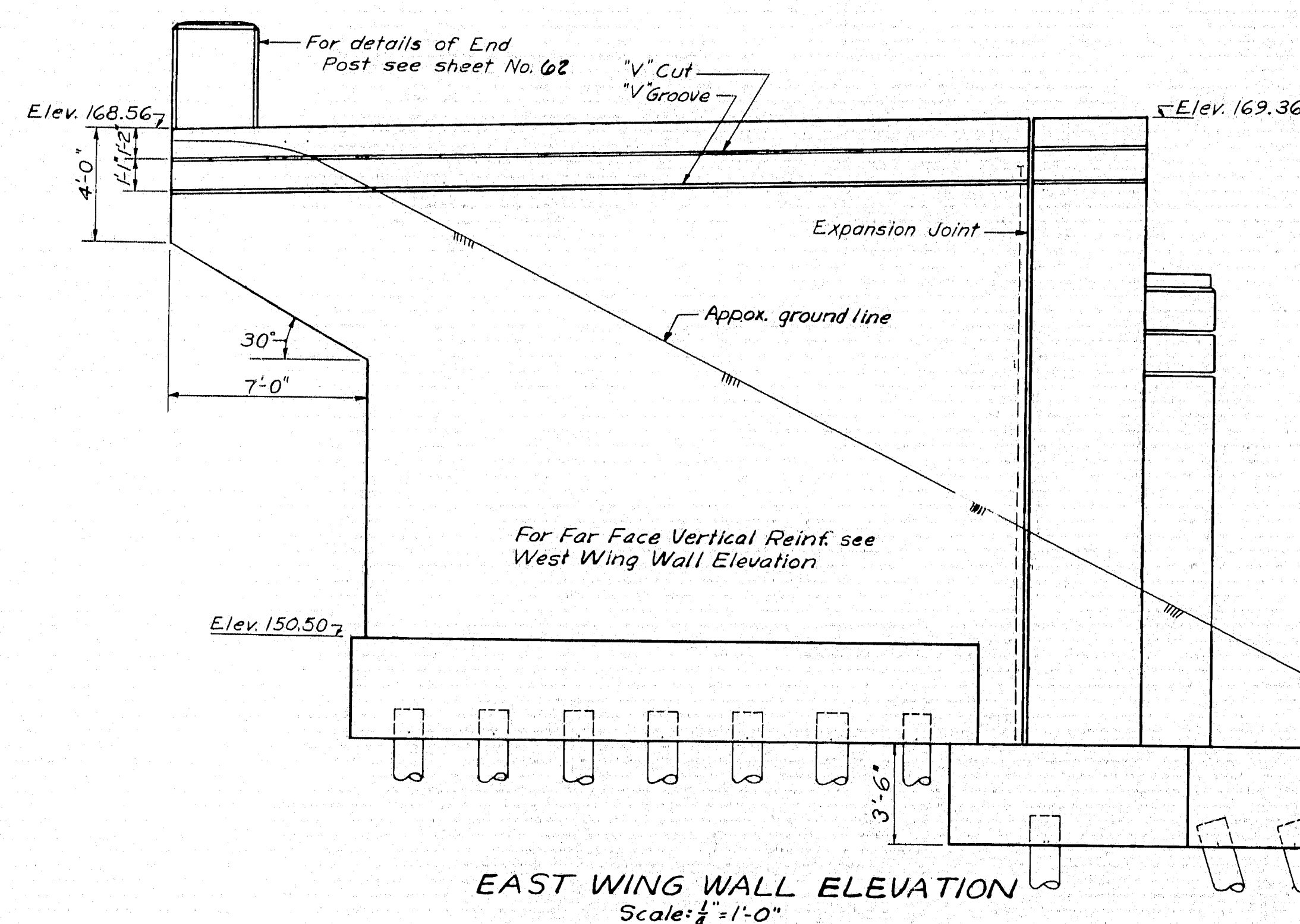
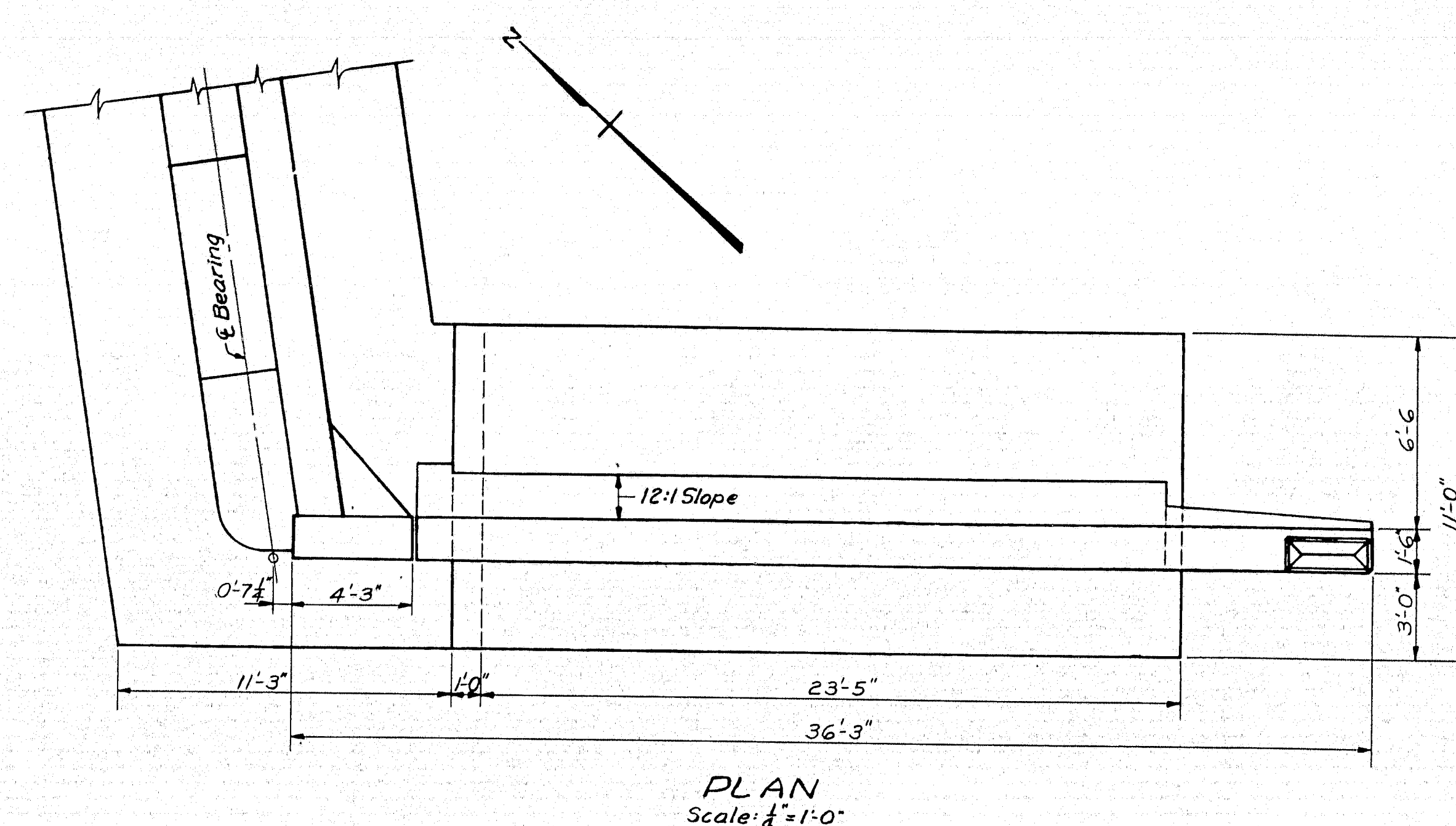
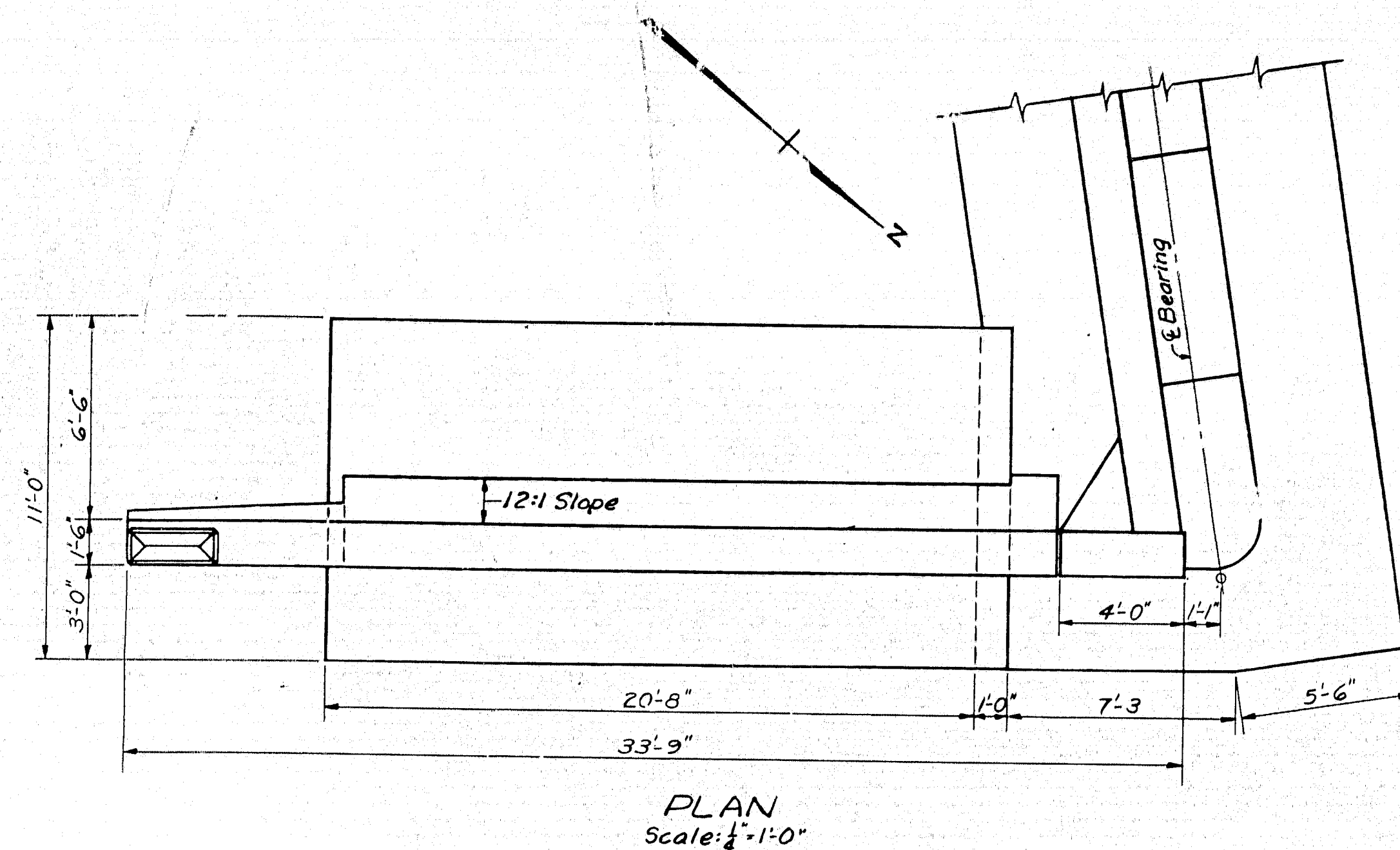
STATE HIGHWAY COMMISSION AUGUSTA, MAINE
FREEPORT BYPASS
BRIDGE STRUCTURE AT MERRILL ROAD INTERCHANGE
SOUTH ABUTMENT
SHEET NO. 57 OF 240 SCALES AS NOTED AUG. 1956
FAY, SPOFFORD & THORNDIKE, INC. ENGINEERS

M-904





P. R. A.	STATE	FED. AID	SHEET	TOTAL
DIV. NO.	PROJ. NO.	NO.	NO.	SHEETS
1	MAINE IN-01-1(19)	58	240	



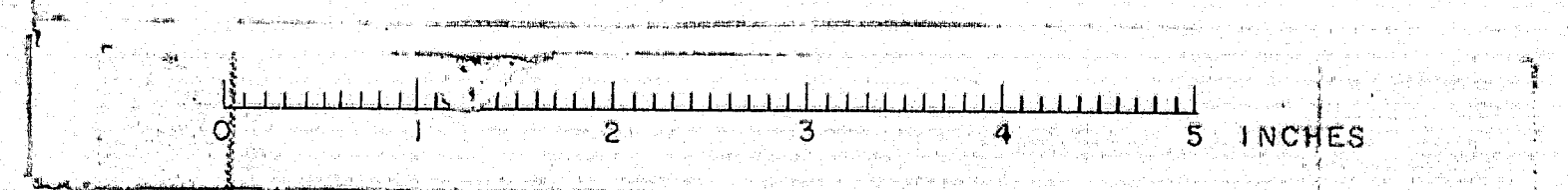
Note: For location of Piles, see sheet No. 57.  
See sheet Nos. 53 & 57 for Notes & Details.

Qm-12  
69

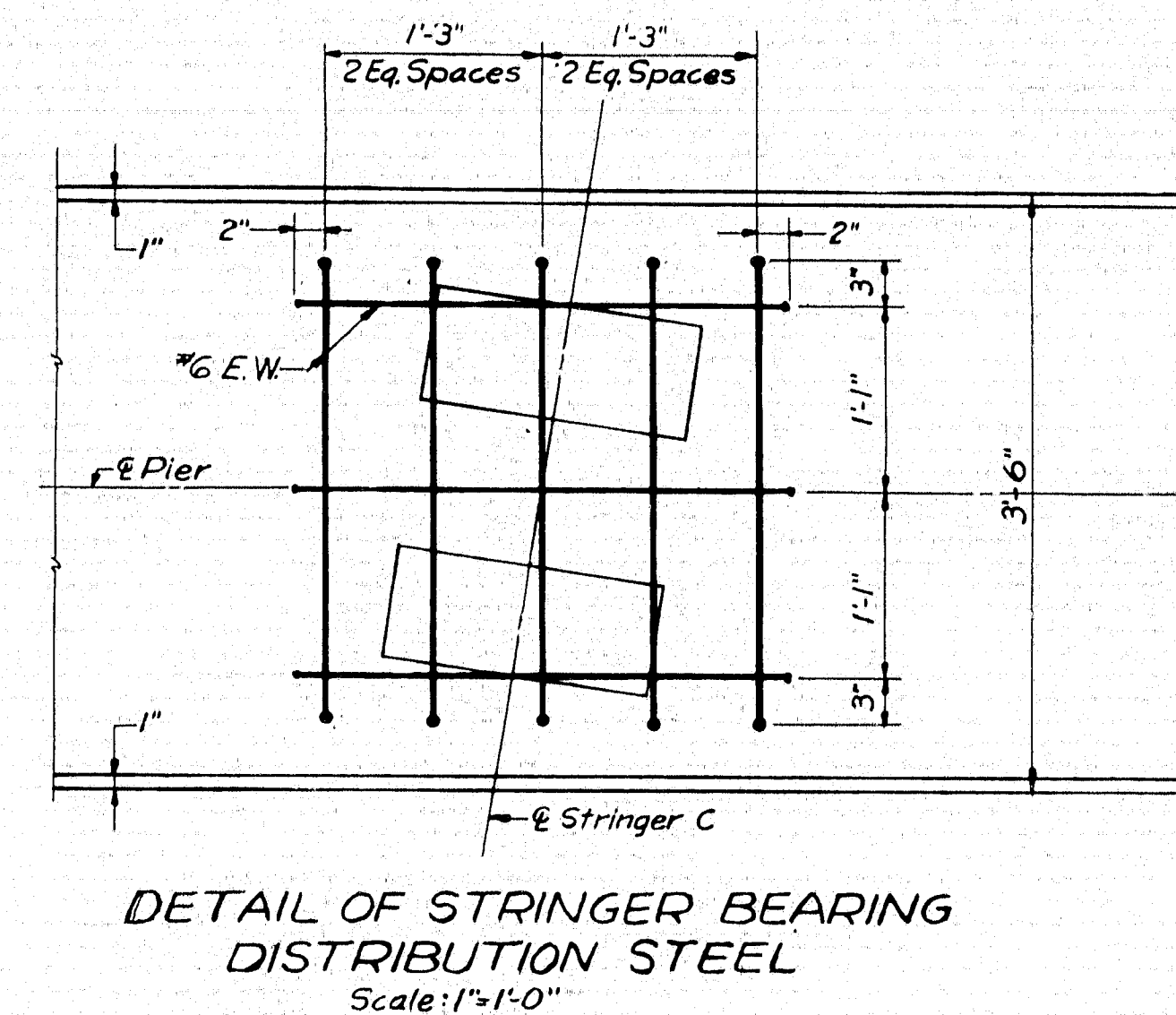
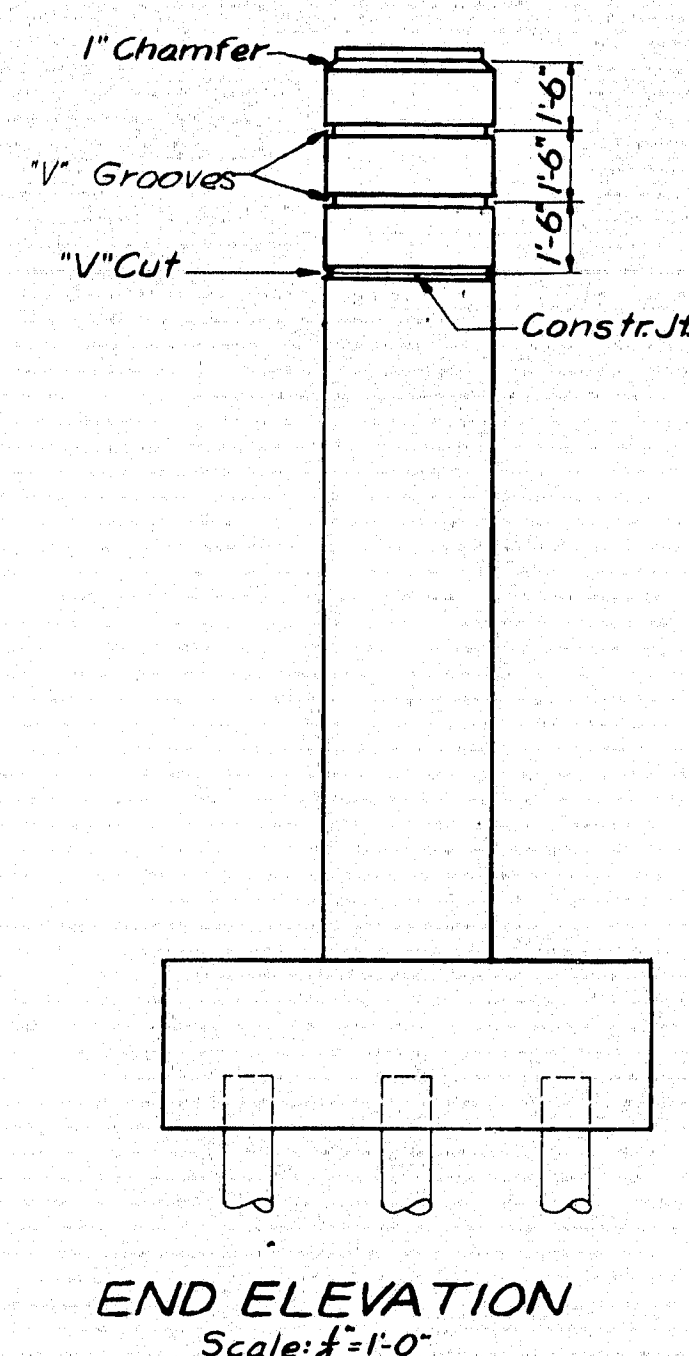
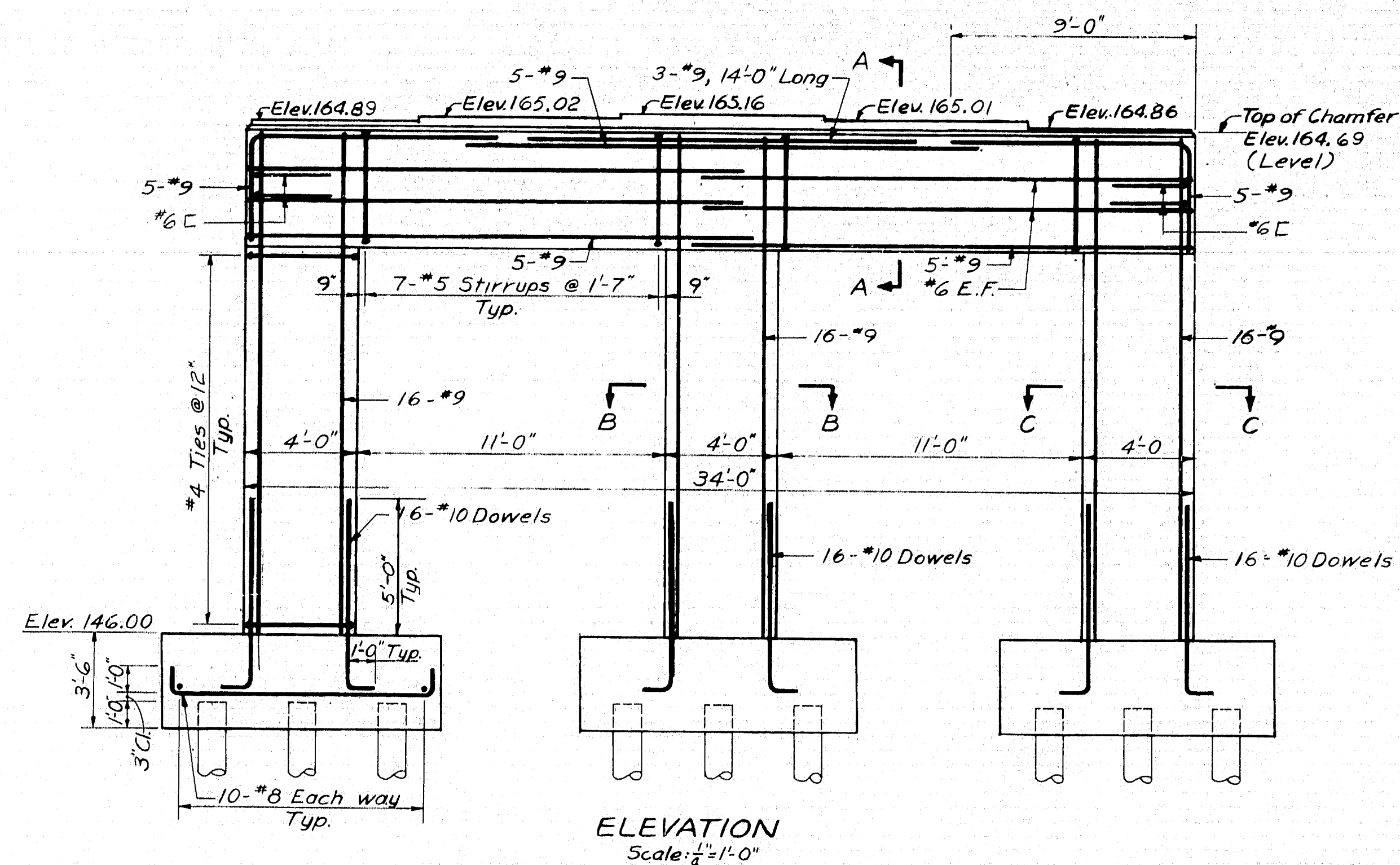
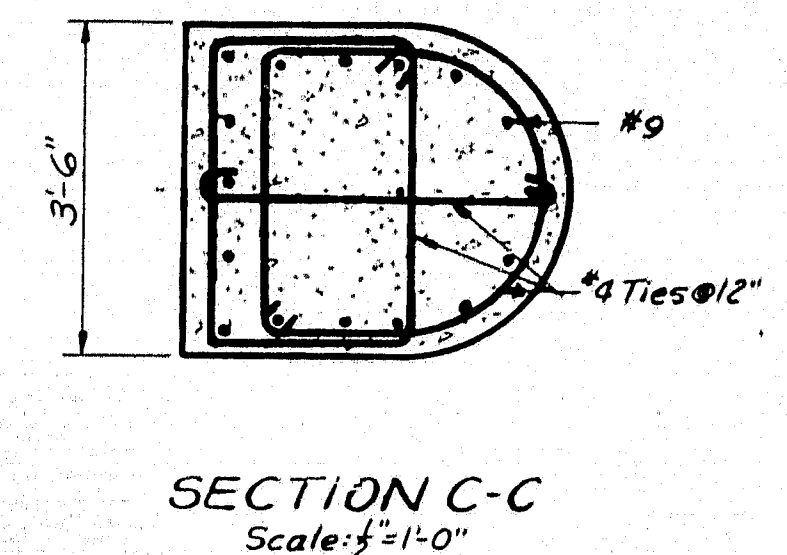
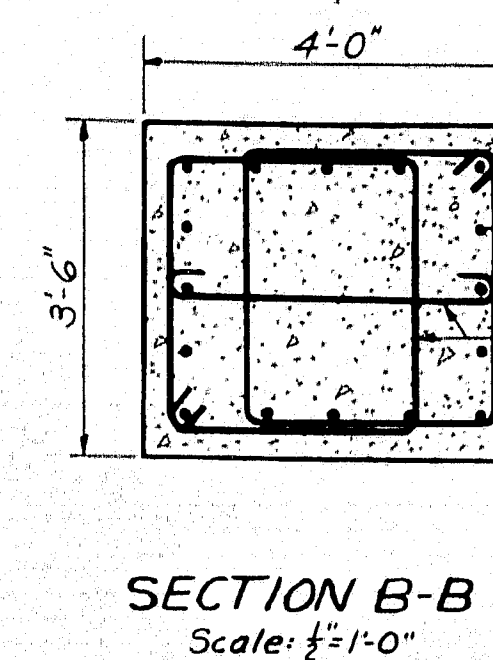
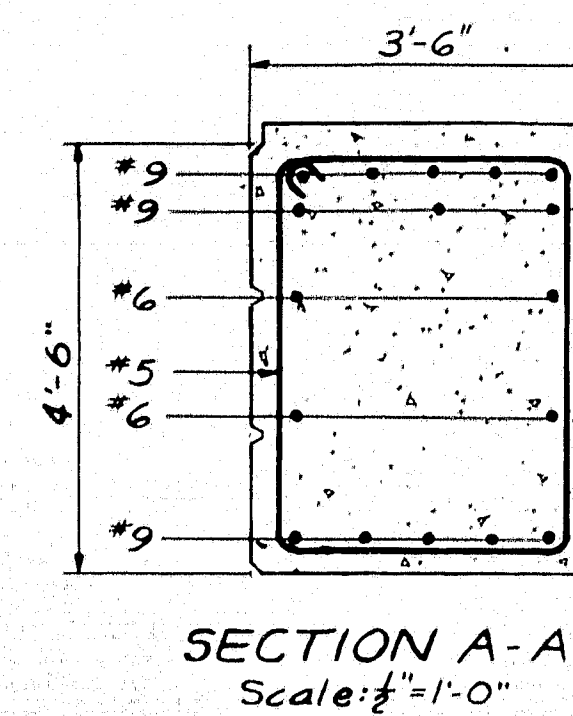
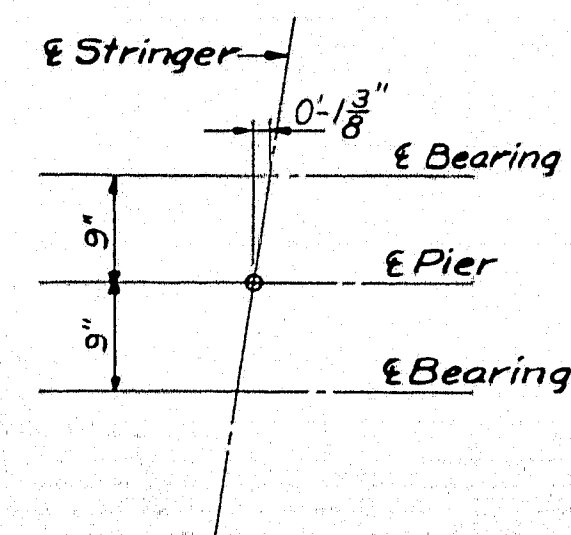
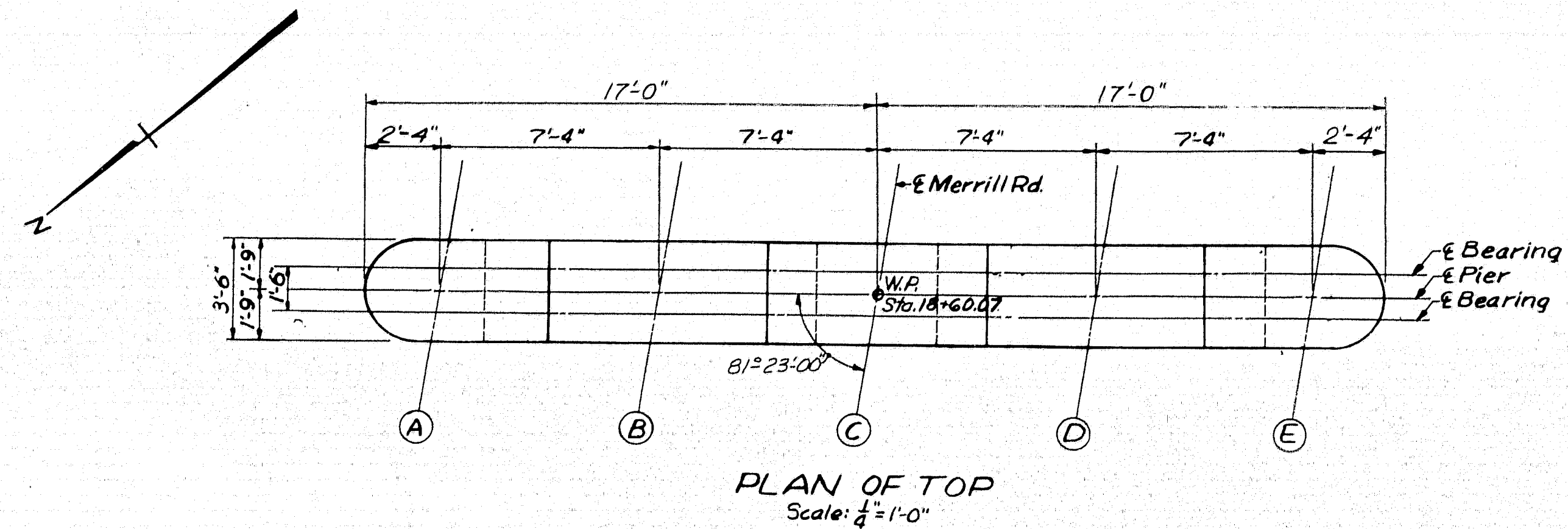
DES	M.M.
DR	H.K.F.
TR	
CHK	G.C.B.
APP	H.J.W.

STATE HIGHWAY COMMISSION AUGUSTA, MAINE	
FREEPORT BYPASS	
BRIDGE STRUCTURE AT MERRILL ROAD INTERCHANGE	
SOUTH ABUTMENT WING WALLS	
SHEET NO. 58 OF 240	SCALES AS NOTED
	AUG. 1952
FAY, SPOFFORD & THORNDIKE, INC. ENGINEERS	

M-905

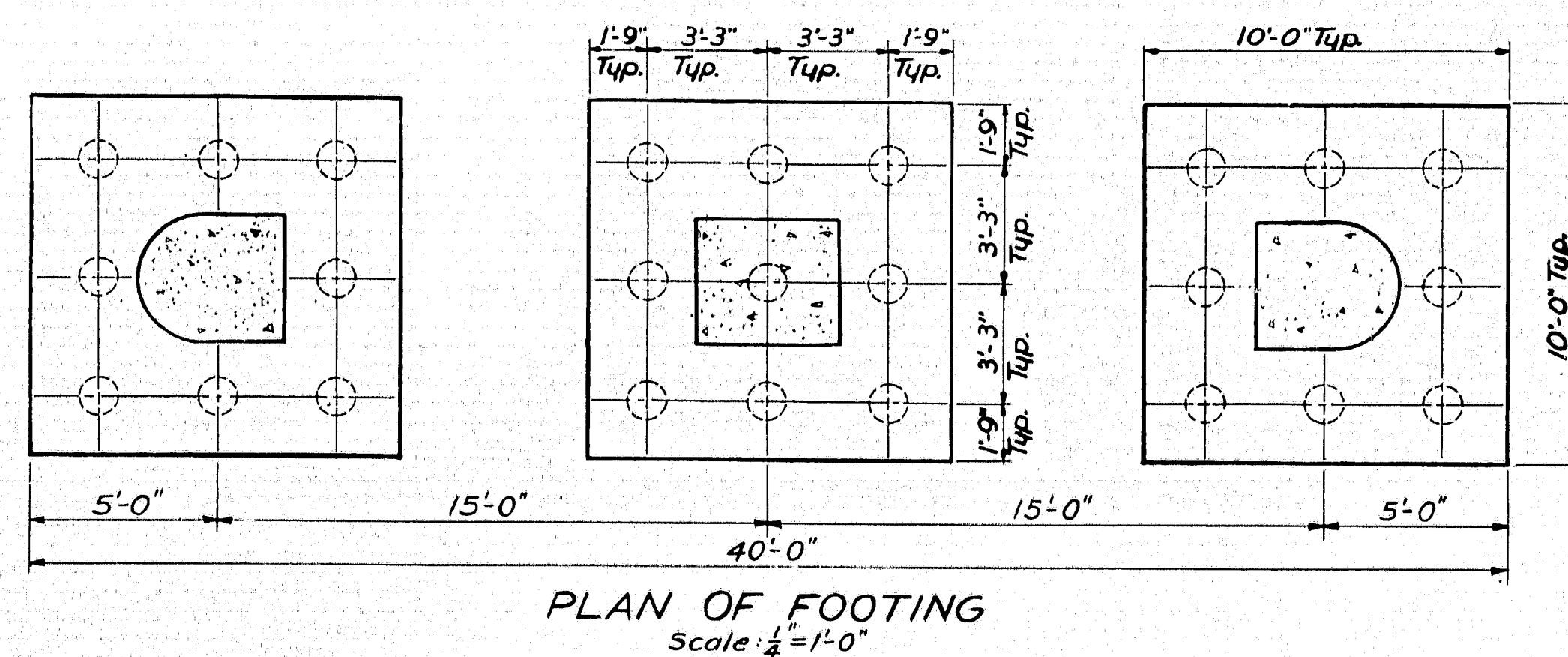






Note:

1. Distribution steel is to be placed under stringer shoe at Stringer C only.
2. Ends of distribution steel to extend 1'-0" into pier cap.
3. Minimum cover 2" clearance.



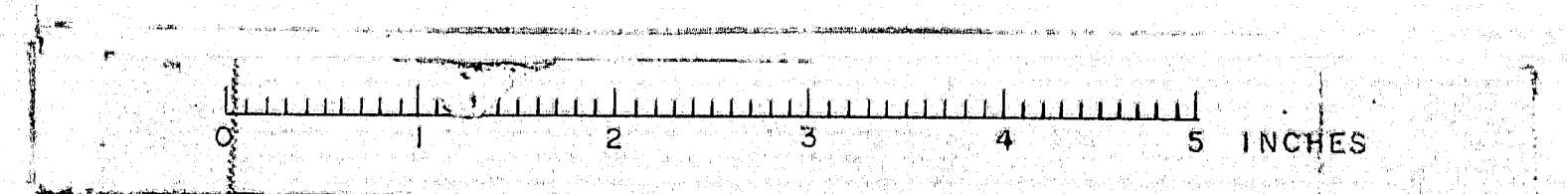
Qm-12  
70

DES. HKE  
DR. HKE  
TR. HKE  
CHK. GCB  
APP'D. H. J. W.

STATE HIGHWAY COMMISSION AUGUSTA, MAINE
FREEPORT BYPASS
BRIDGE STRUCTURE AT MERRILL ROAD INTERCHANGE
PIER DETAILS
SHEET NO. 59 OF 240 SCALES AS NOTED AUG. 1956

FAY, SPOFFORD & THORNDIKE, INC.  
ENGINEERS

M-906

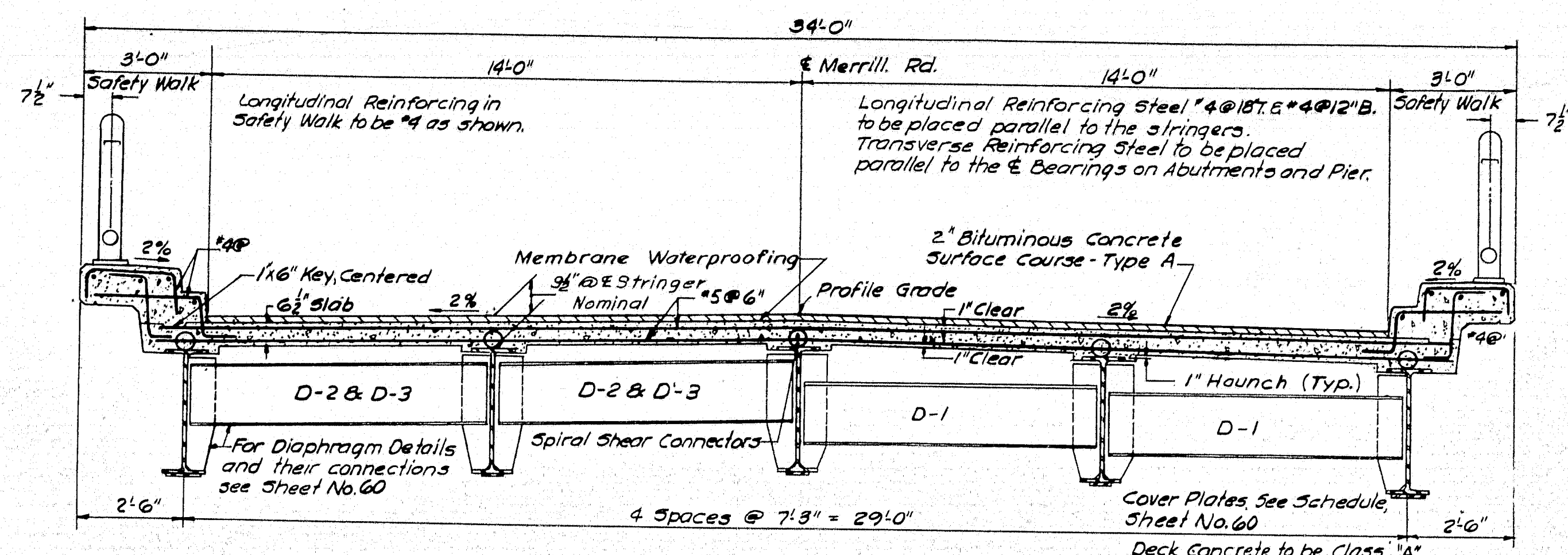




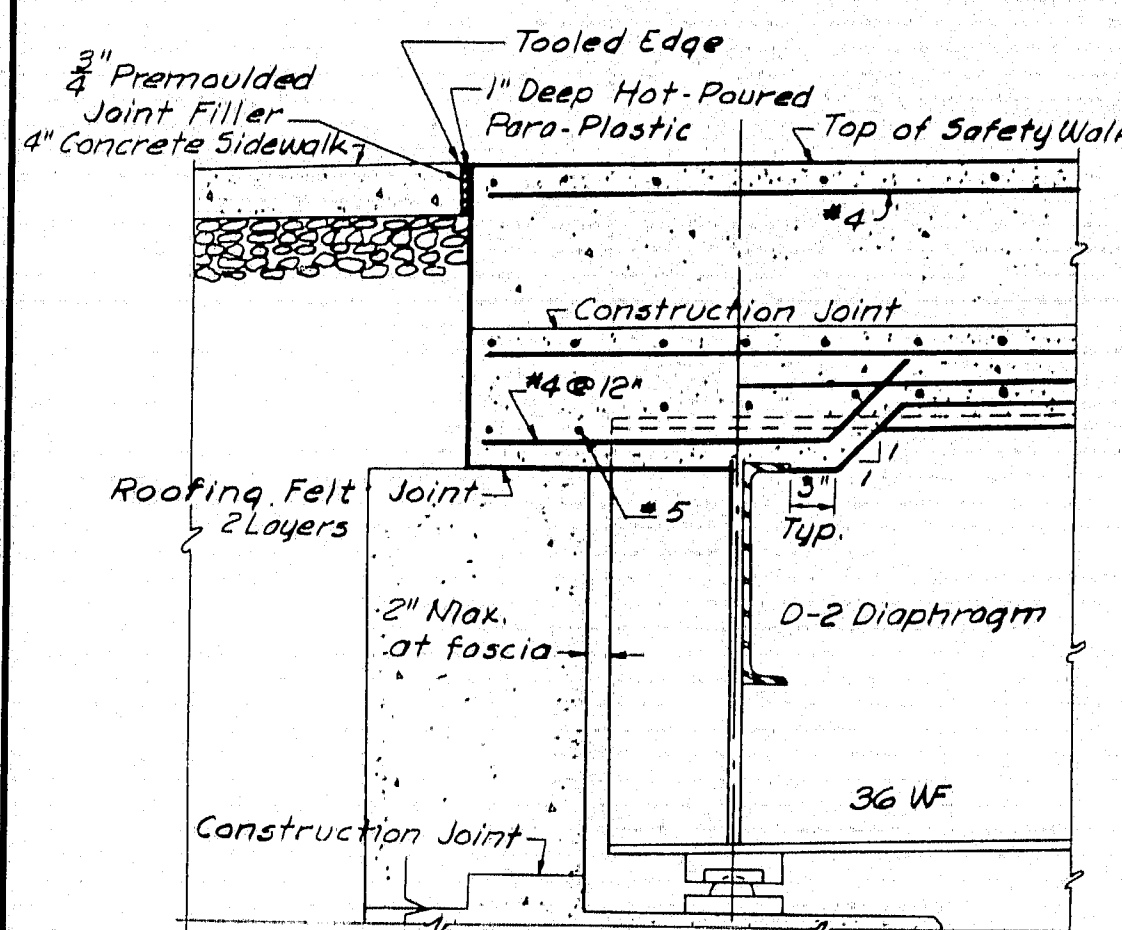
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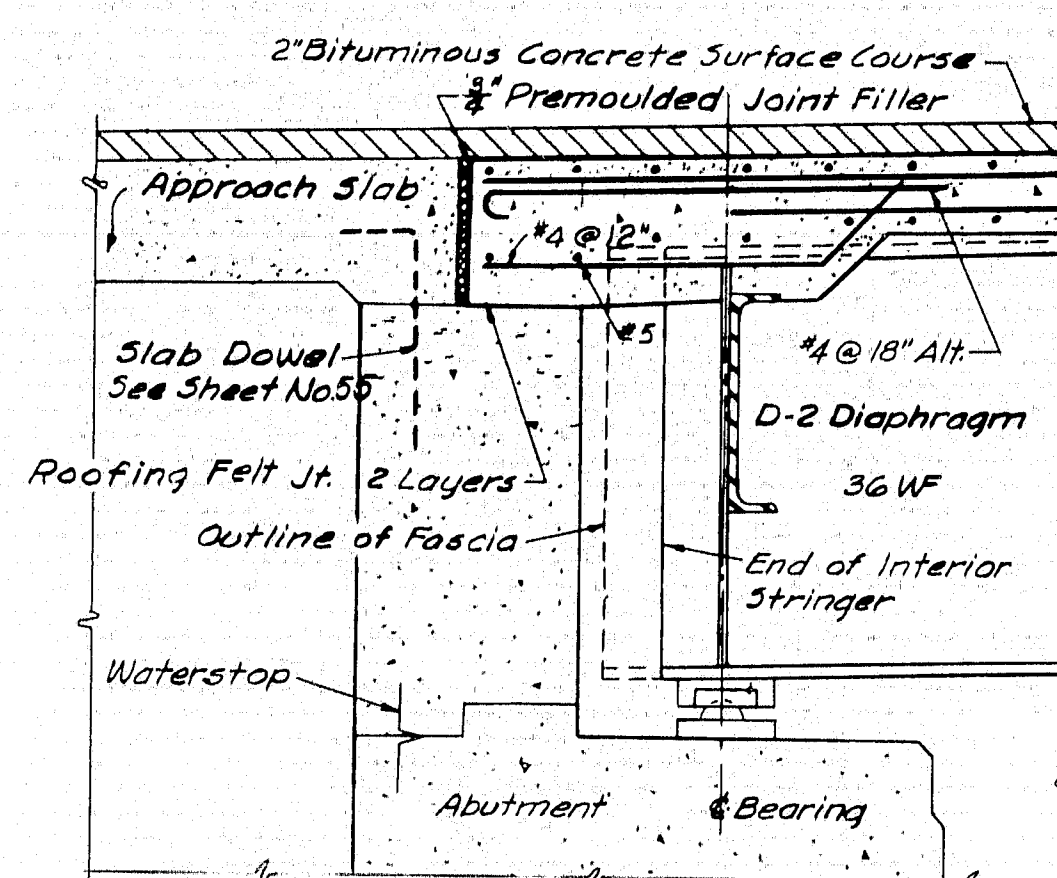
F. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	IN-01-105	61	240



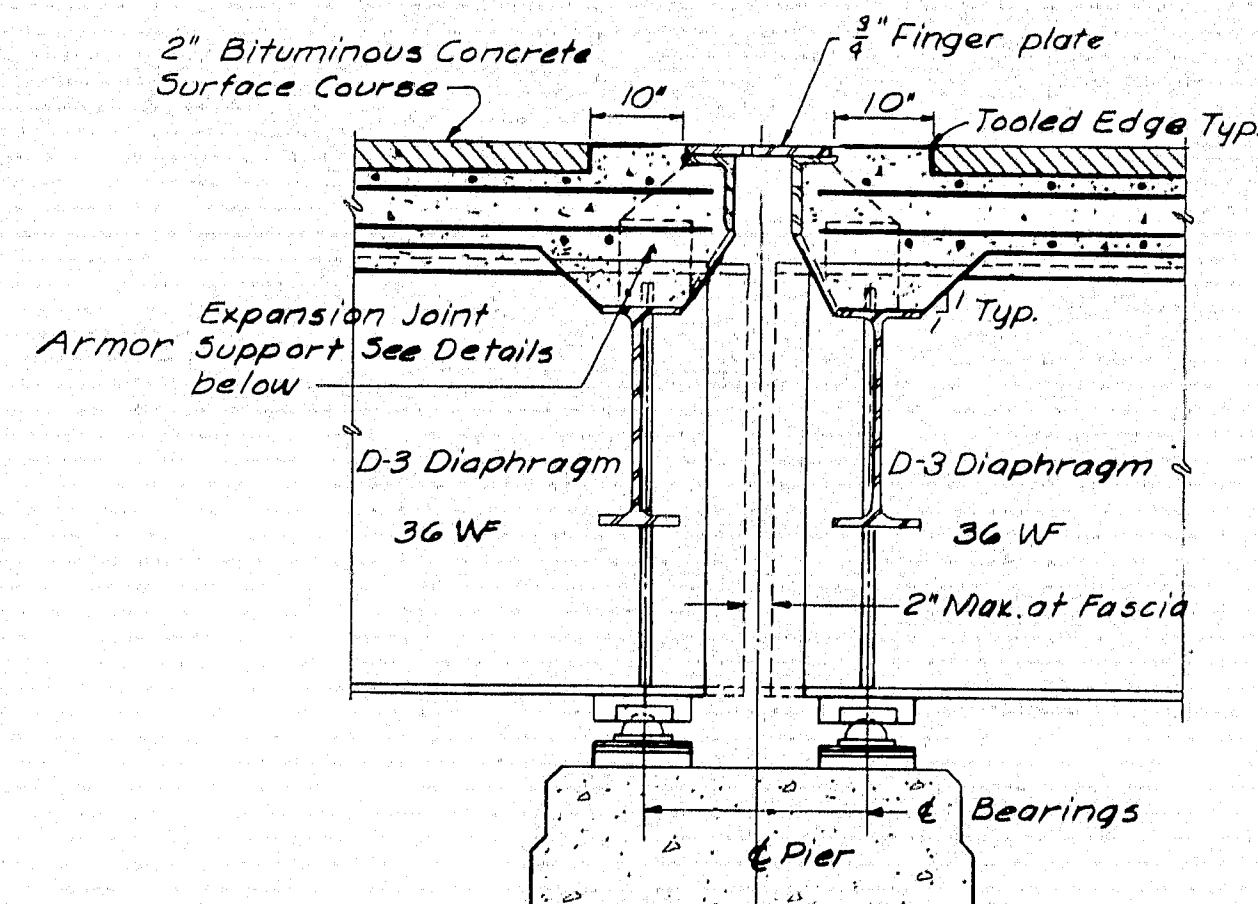
DECK CROSS SECTION A-A  
Scale:  $\frac{3}{8}$ "=1'-0"



SECTION B-B  
(AT ABUTMENTS THRU SAFETY WALK)  
Scale:  $\frac{3}{8}$ "=1'-0"

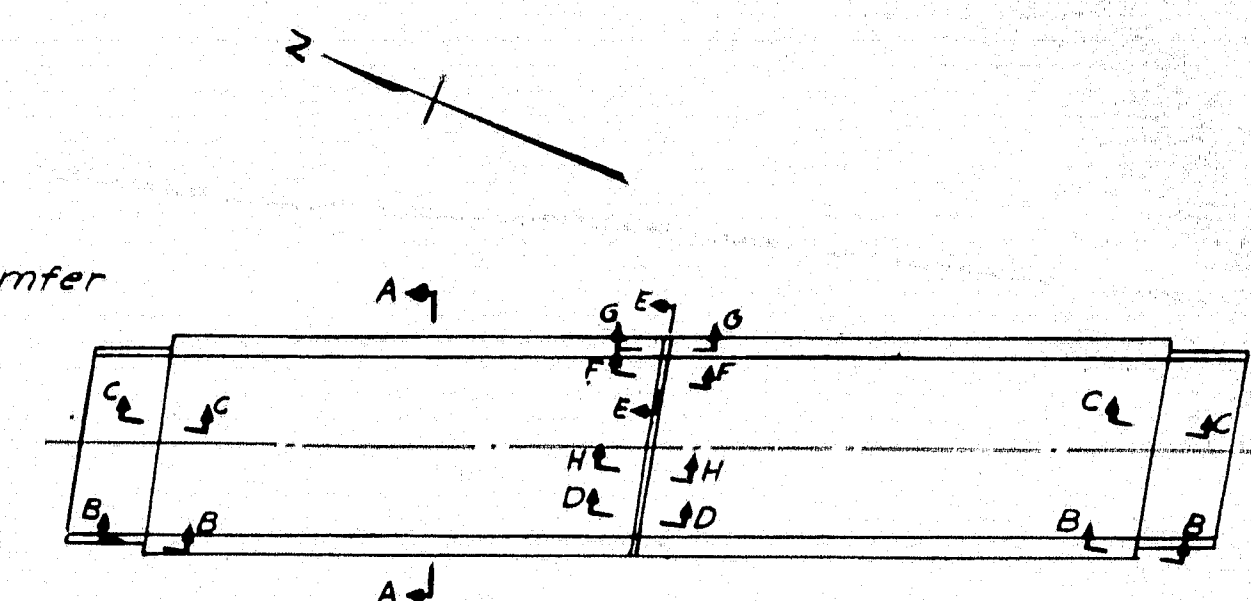
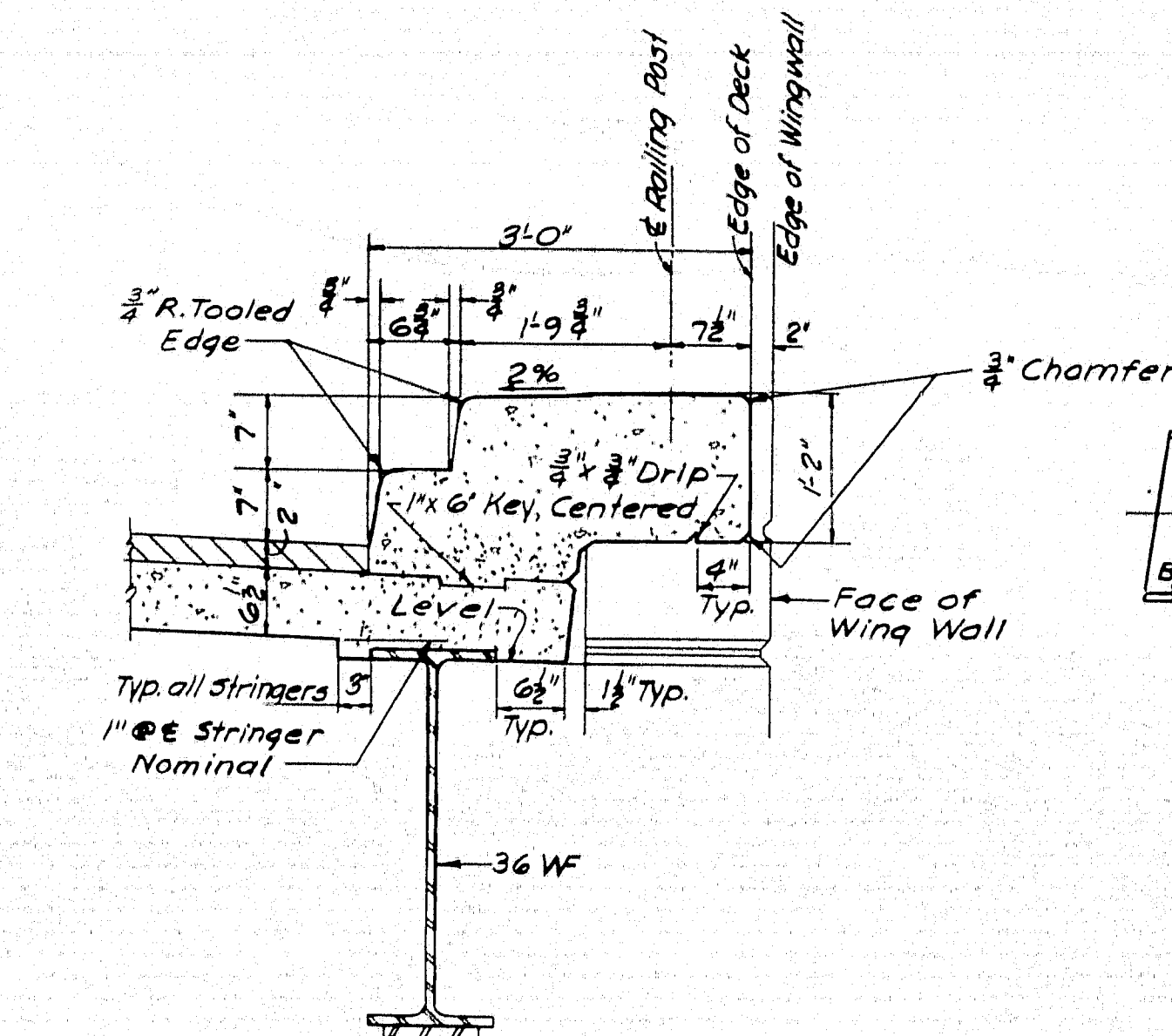


SECTION C-C  
(AT ABUTMENTS THRU ROADWAY)  
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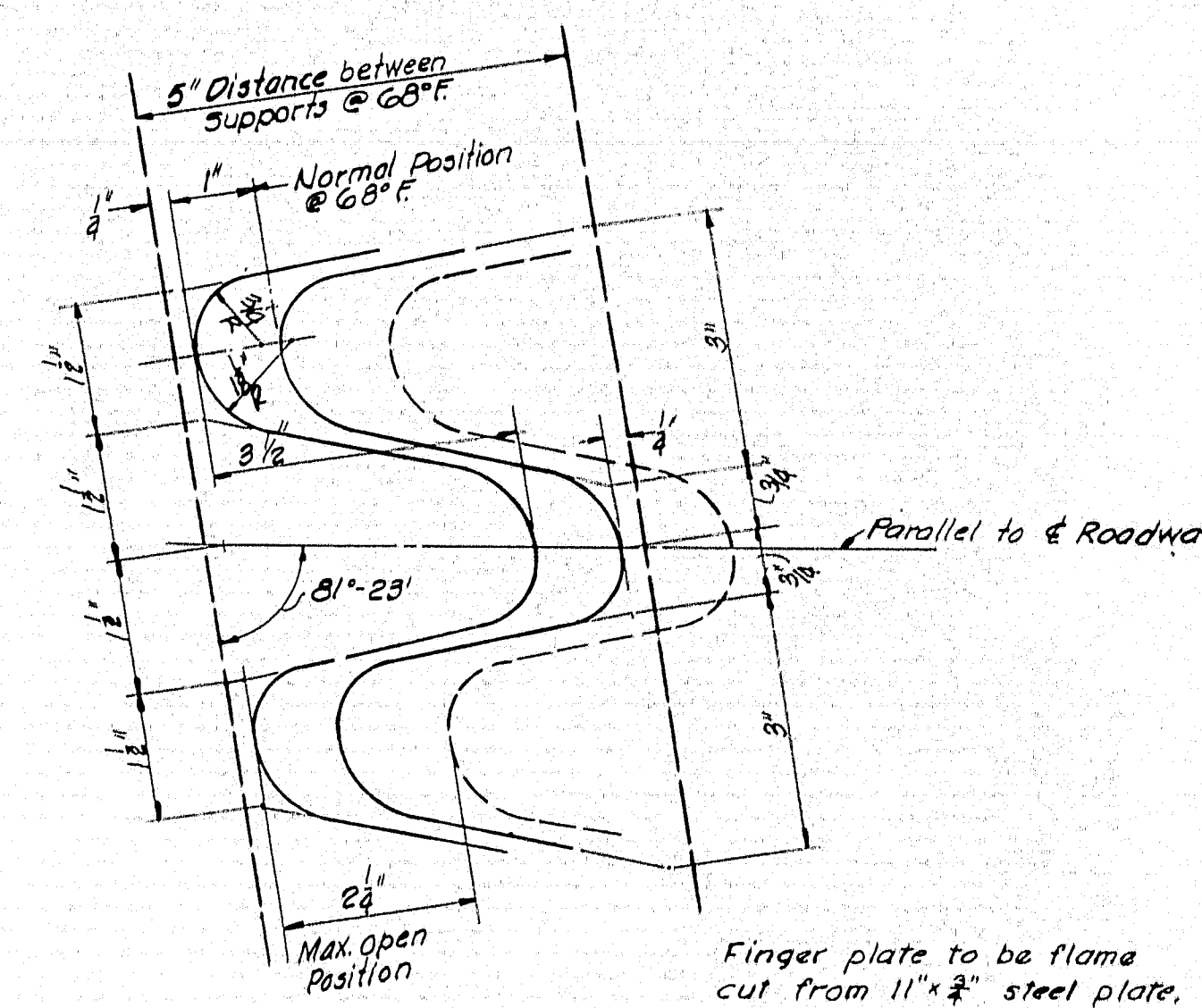


SECTION D-D  
(AT PIER)  
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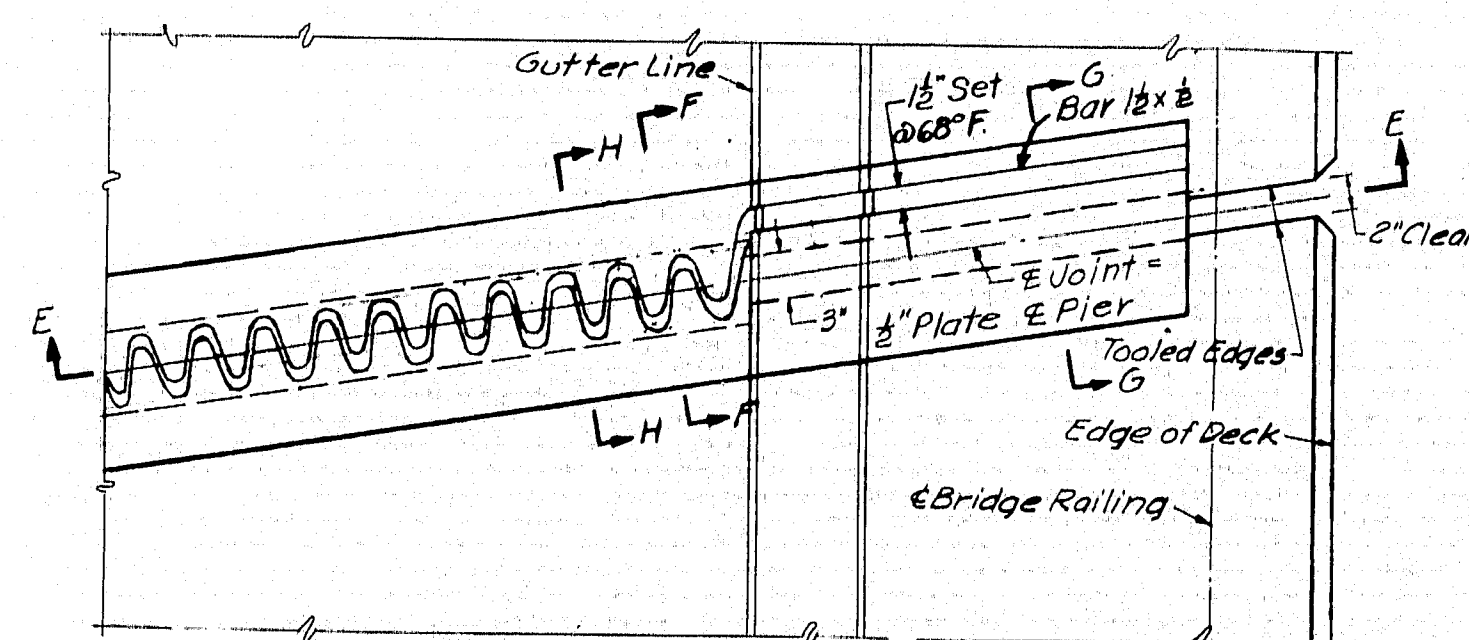
DETAIL OF CURB AND SAFETY WALK  
Scale:  $\frac{3}{8}$ "=1'-0"



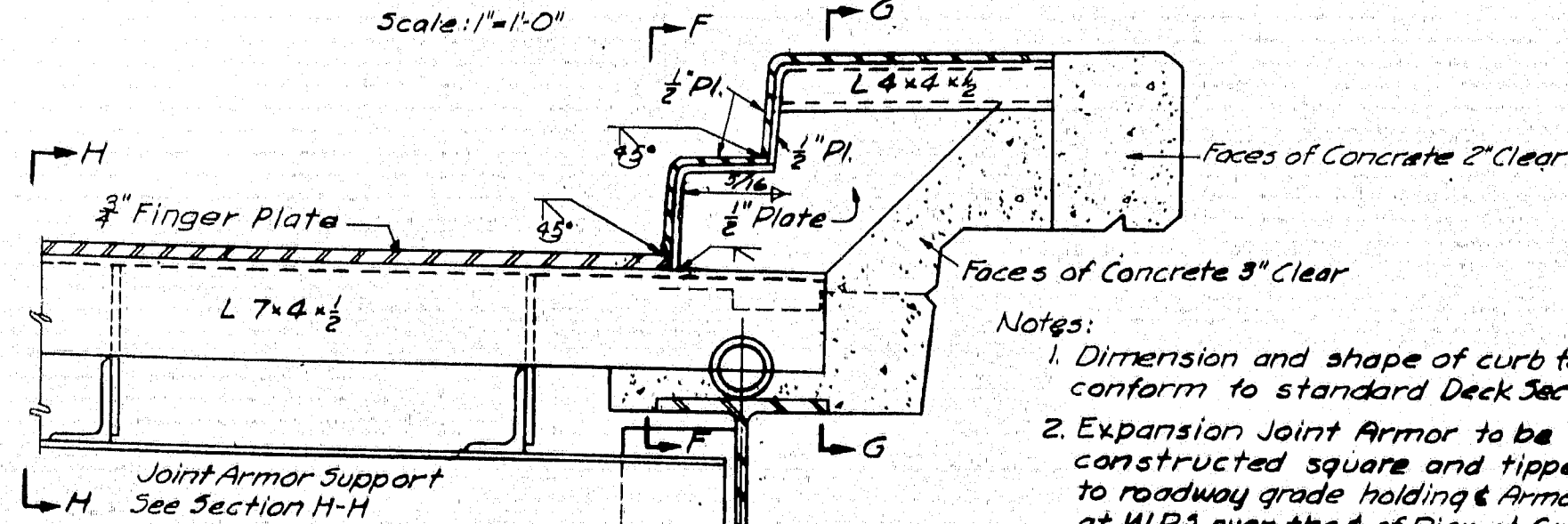
KEY PLAN OF SECTIONS



DETAIL OF FINGER JOINT  
Half Size

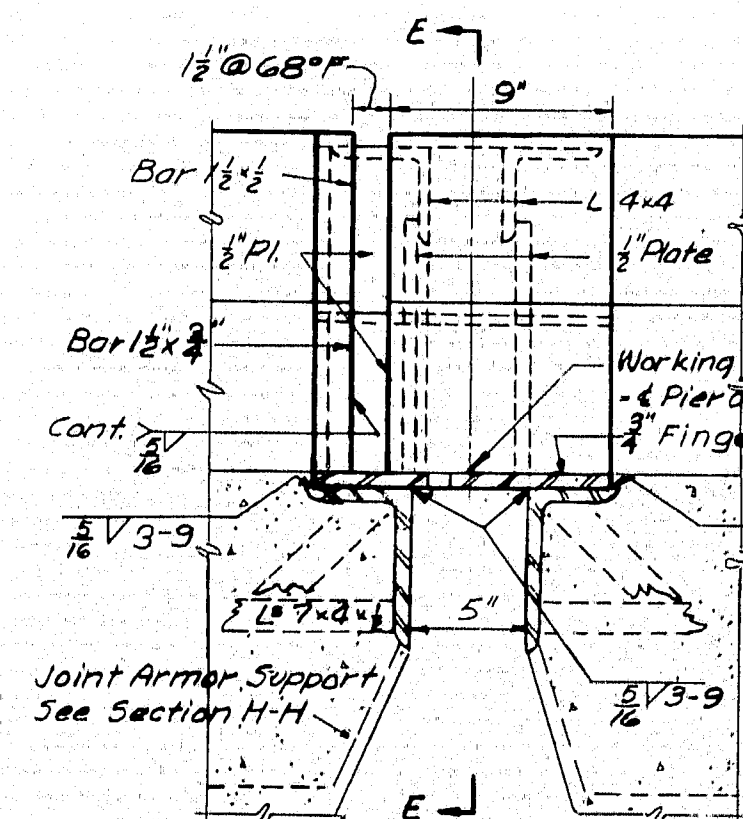


PLAN  
Scale: 1"=1'-0"

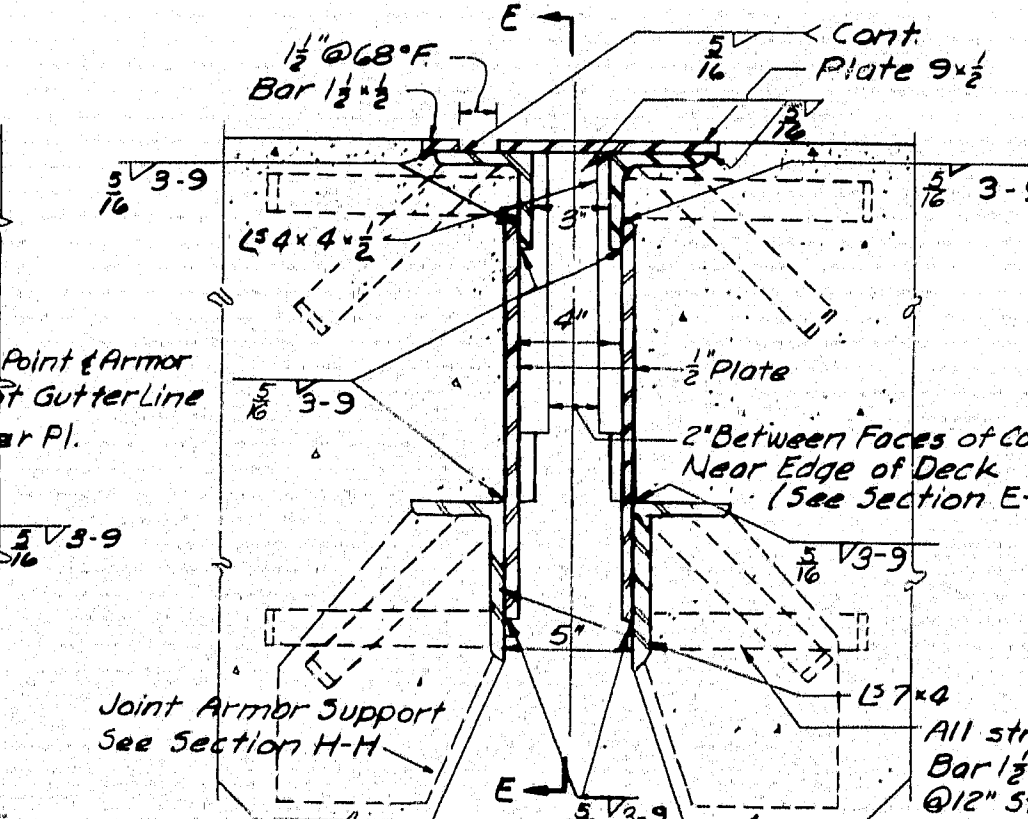


SECTION E-E  
Scale: 1"=1'-0"

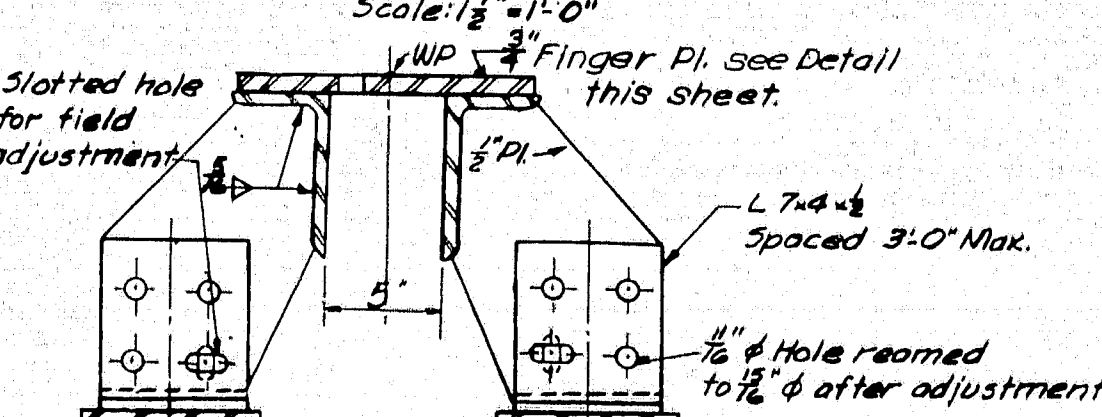
DETAILS OF EXPANSION JOINT ARMOR



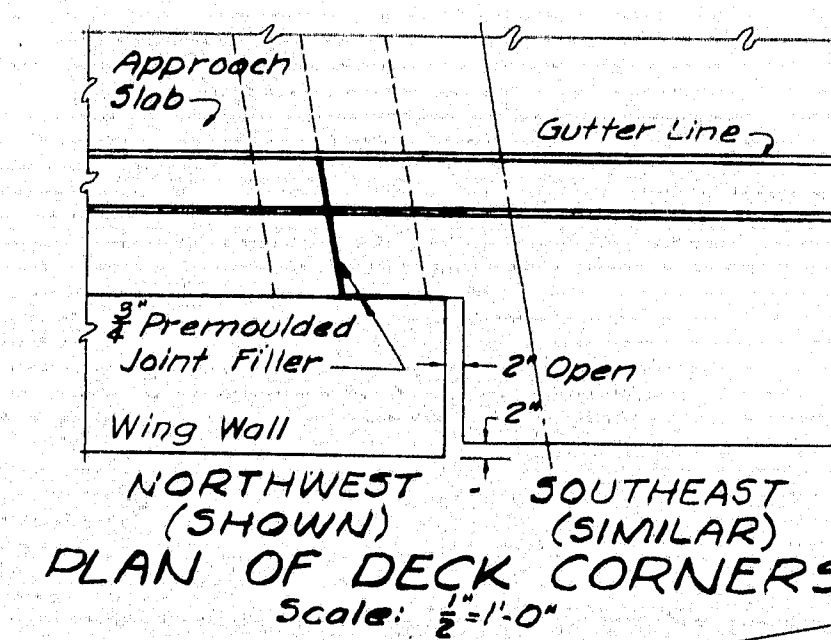
SECTION F-F  
(THRU ROADWAY)  
Scale:  $1\frac{1}{2}$ "=1'-0"



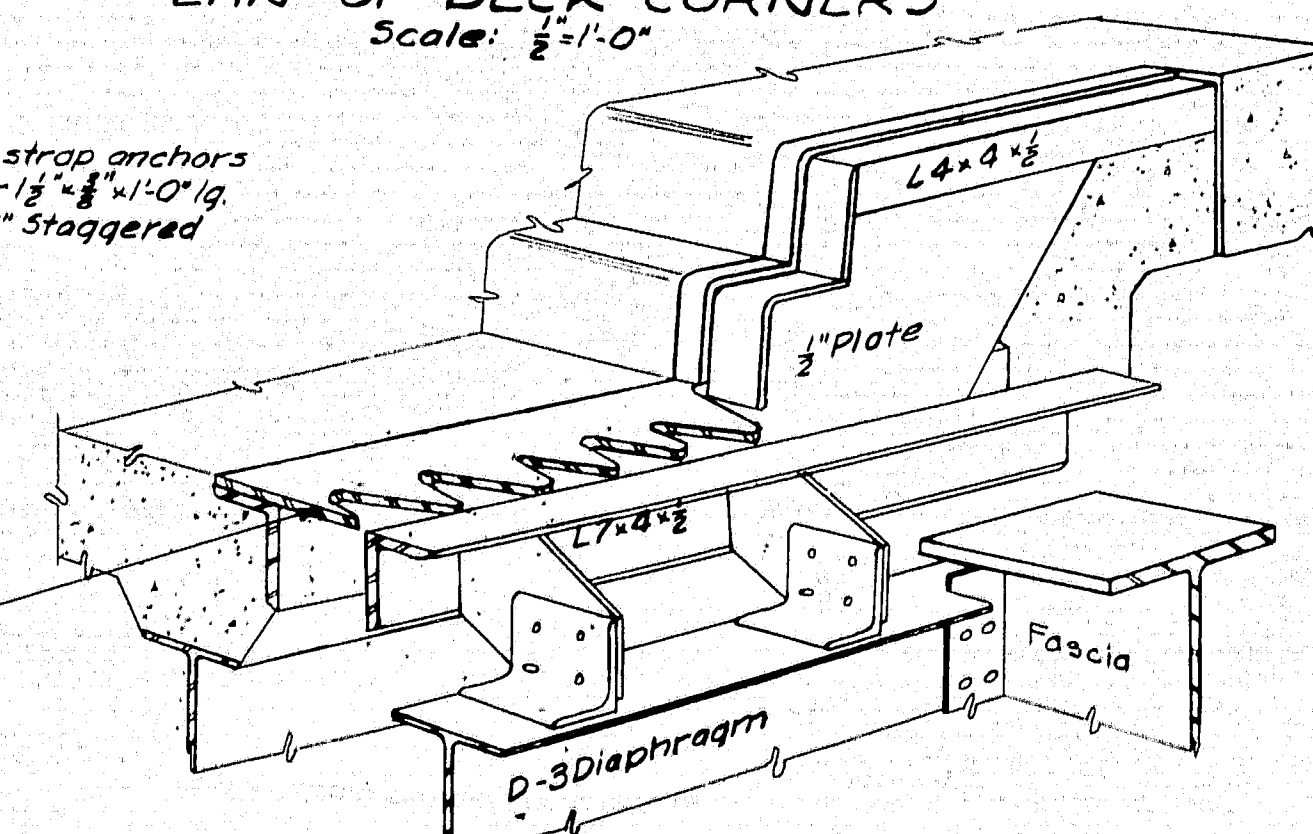
SECTION G-G  
(THRU SAFETY WALK)  
Scale:  $1\frac{1}{2}$ "=1'-0"



SECTION H-H  
(SHOWING TYP. SUPPORT)  
Scale:  $1\frac{1}{2}$ "=1'-0"



PLAN OF DECK CORNERS  
Scale:  $1\frac{1}{2}$ "=1'-0"



ISOMETRIC SHOWING  
PARTIAL EXPANSION DAM  
Scale: 1"=1'-0"

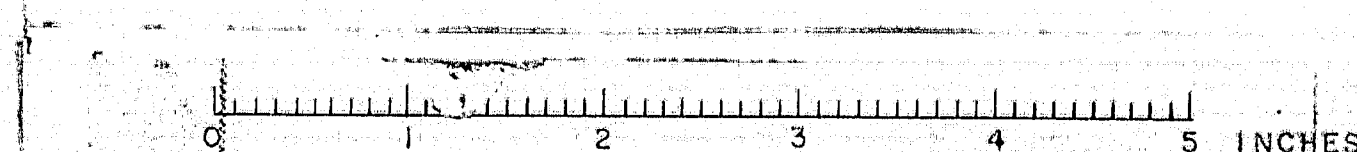
NOTE:  
After structural steel has been erected, levels are to be run on top flanges of stringers. Screeds for slab are to be set on the basis of these levels corrected for  $\frac{1}{8}$ " of the dead load deflection shown on sheet no. 60 and for any vertical curve.

STATE HIGHWAY COMMISSION AUGUSTA, MAINE	
FREEPORT BYPASS	
BRIDGE STRUCTURE AT MERRILL ROAD INTERCHANGE	
CROSS SECTION AND DETAILS	
SHEET NO. 61 OF 240	SCALE AS NOTED
AUG. 1956	
FAY, SPOFFORD & THORNDIKE, INC. ENGINEERS	

M-908

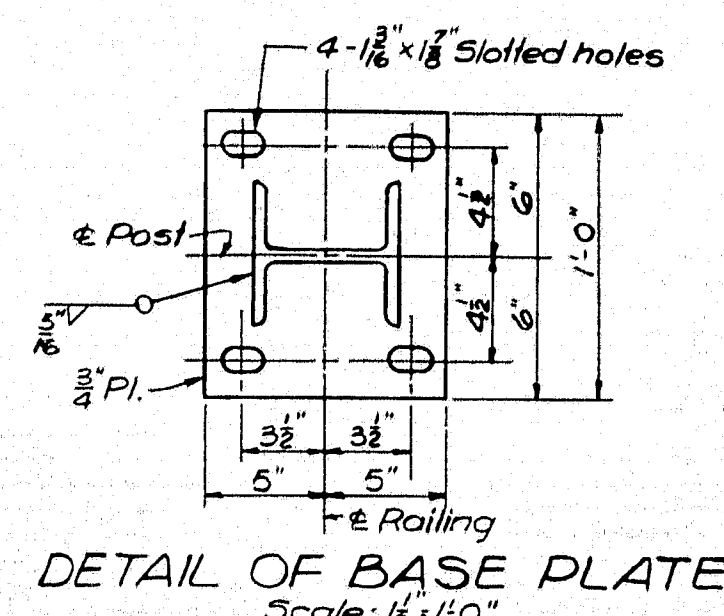
Qm-12  
72

DES. H.V.M.H.  
DR. L.A.L.  
IN. L.A.L.  
CHK. S.C.B.  
APPD. H.J.W.

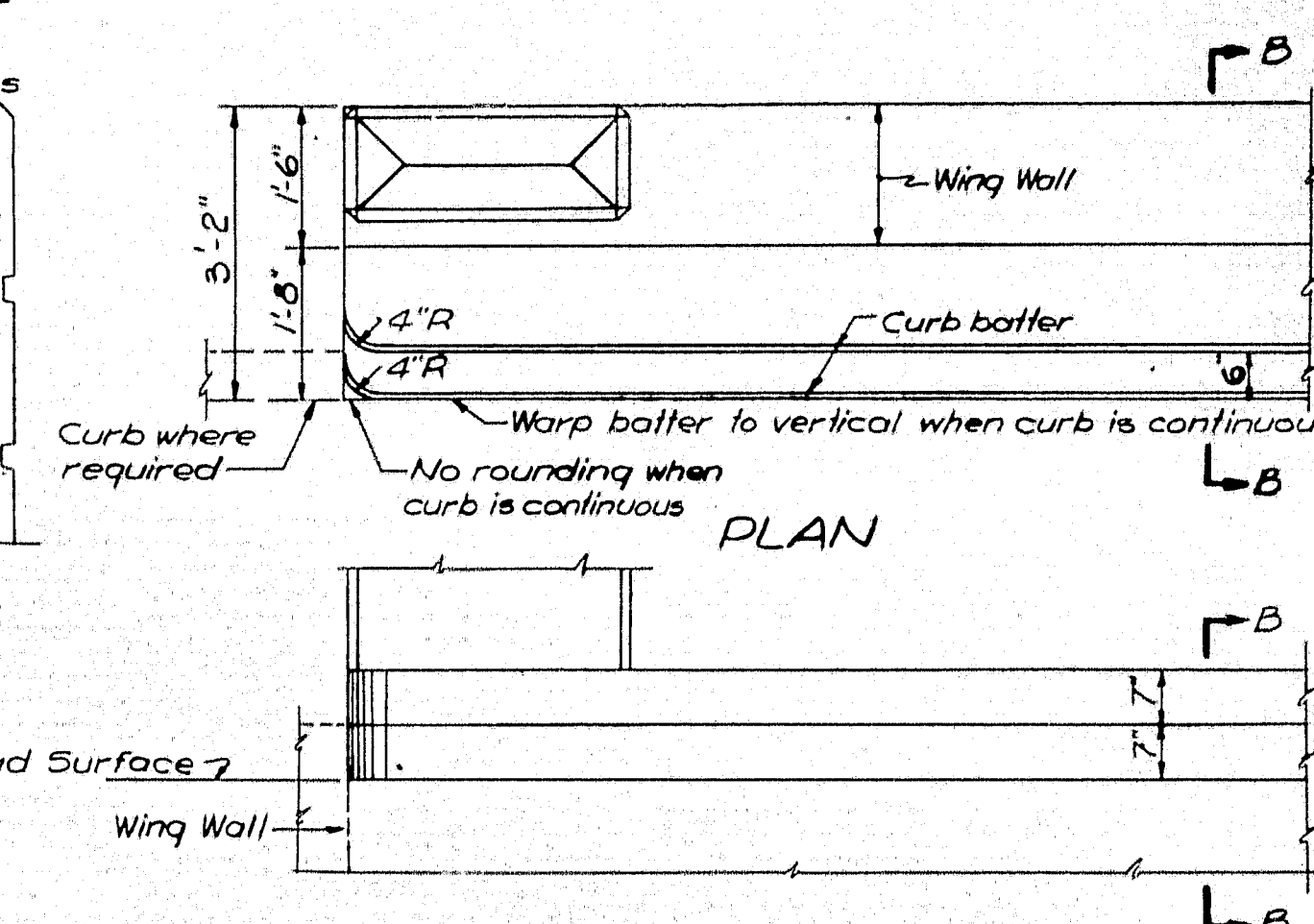




Dimension A not to exceed 6'

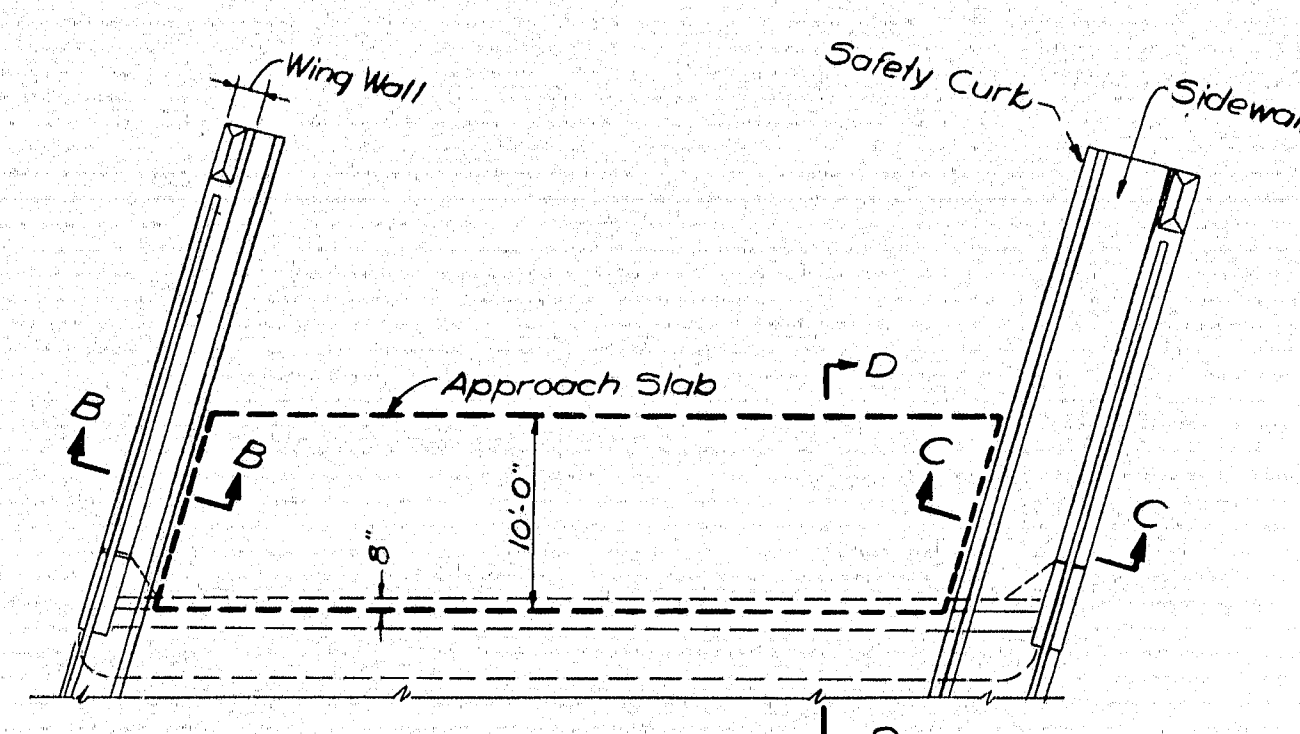


DETAIL OF BASE PLATE  
Scale: 1/4" = 1'-0"



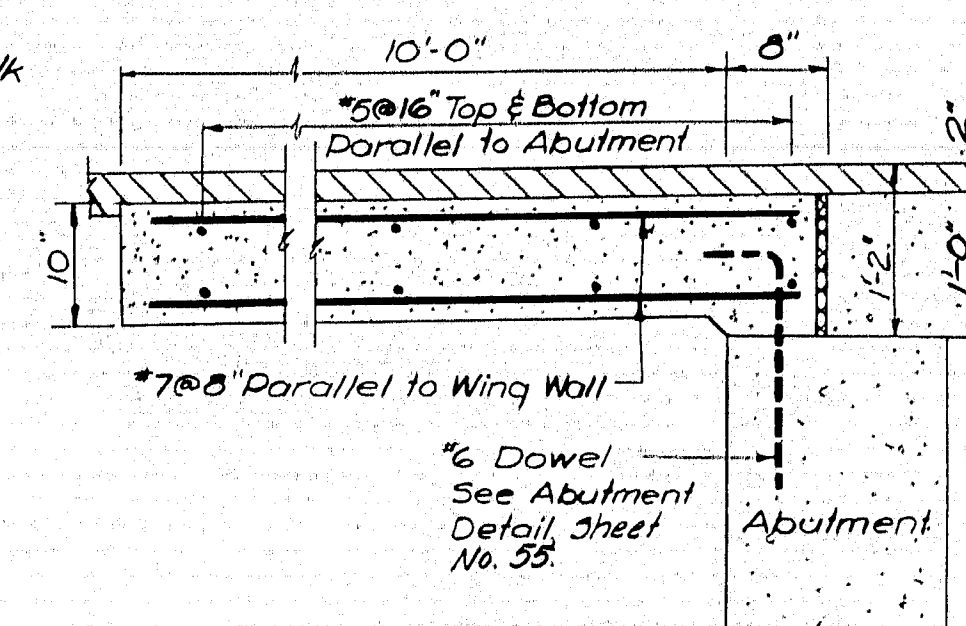
SECTION C-C  
Scale: 1"=1'-0"

ELEVATION  
TRANSITION CURB DETAILS  
Scale: 1"=1'-0"

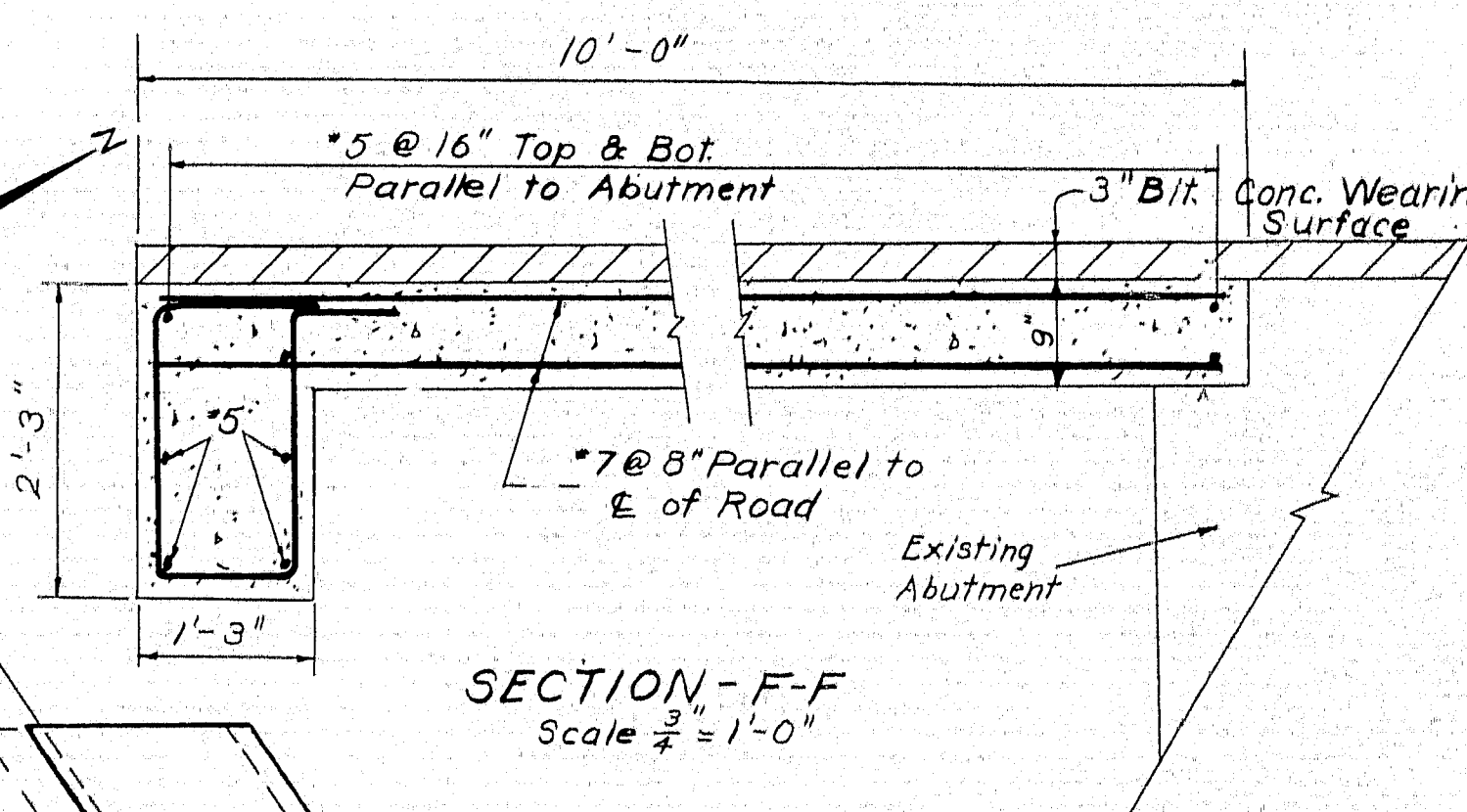


PLAN  
Scale: 1"=10'

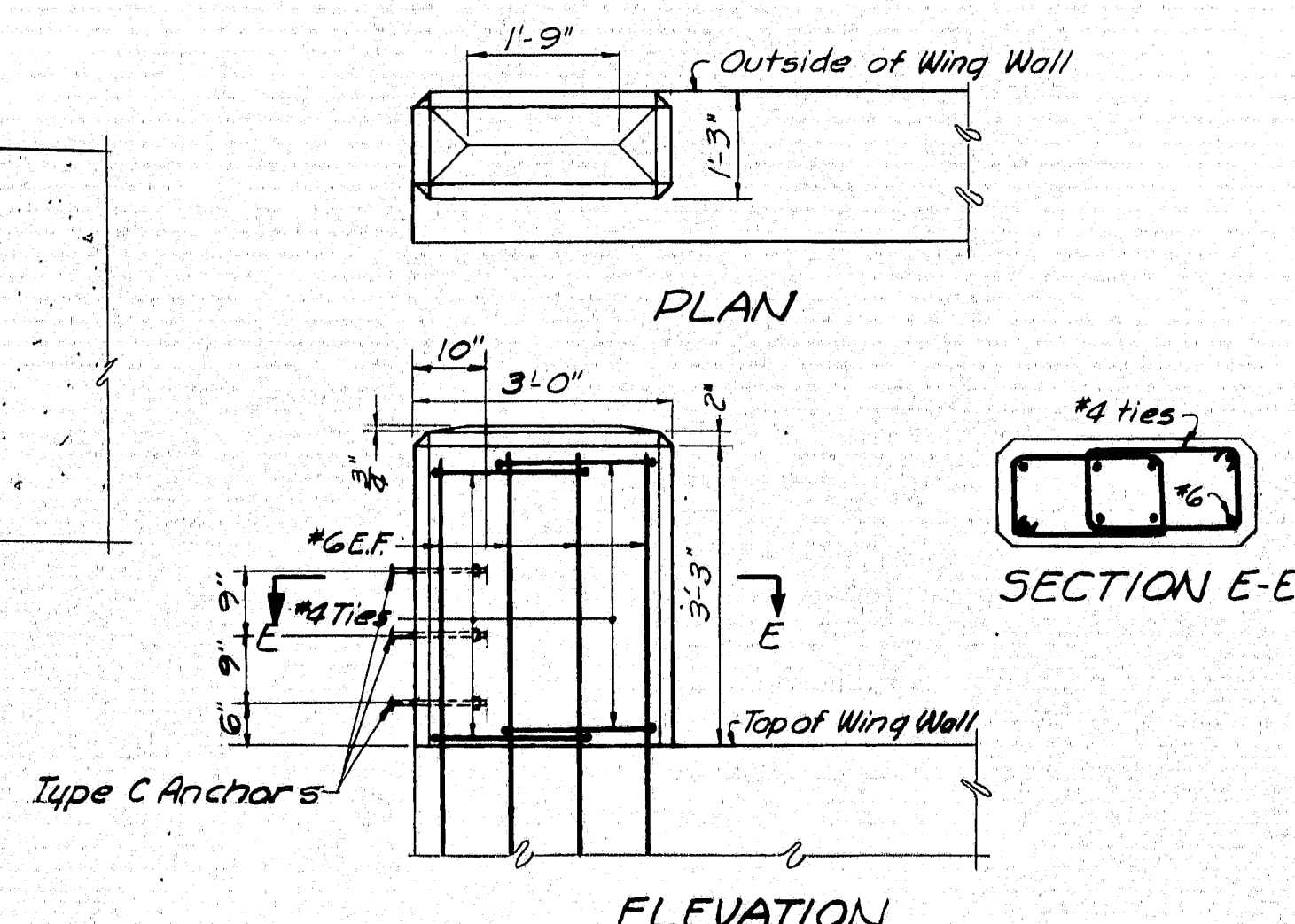
### DETAILS OF APPROACH SLAB



SECTION D-D  
Scale: 3"=1'-0"



SECTION - F-1  
Scale  $\frac{3}{8}'' = 1'-0''$

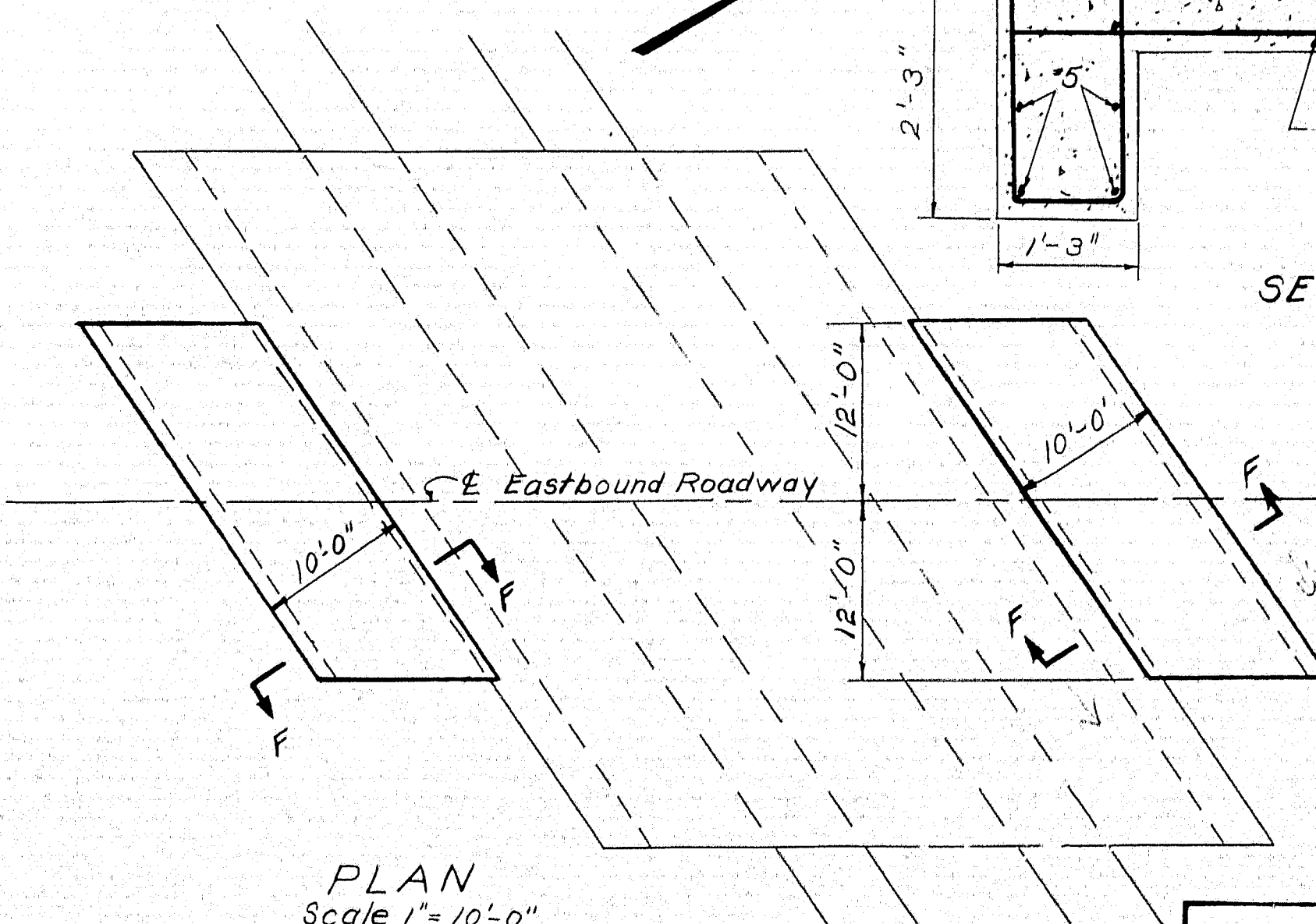


END RAILING POST DETAILS  
Scale:  $\frac{1}{8}'' = 1'-0''$

- ## NOTES
1. All materials for Bridge Railing shall be wrought iron or low alloy structural steel unless otherwise indicated.
  2. All bolted connections shall have washers, hexagonal heads and nuts. Bolt threads shall be burred after erection.
  3. All Railing Posts and web members shall be truly vertical.
  4. All Post Base Plates shall be parallel to Roadway Profile.
  5. Expansion Posts to be used each side of deck joint at pier and at one side of expansion joint in Wing Wall.
  6. Anchor Bolts shall be cut  $\frac{1}{2}$ " above tightened nut and upset in such a manner to present a smooth surface and neat appearance.
- ## METAL BRIDGE RAILING DETAILS

Surface and neat appearance.

METAL BRIDGE RAILING DETAILS



NEW APPROACH SLABS-  
EXISTING RAILROAD BRIDGE,  
EASTBOUND ROADWAY

SHEET NO. 62 OF 240	SCALES AS NOTED	AUG. 1956
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**FAY, SPOFFORD & THORNDIKE, INC.**  
**ENGINEERS**

M-909

DES	J.B.M.
DR	L.A.L.
TR	L.A.L.
CHK	G.C.B.
APPD	H.J.W.



F.R.A.	STATE	FED. AID	SHEET	TOTAL
DIV. NO.	NO.	PROJ. NO.	NO.	SHEETS
1	MAINE	IN-01-1(8)	65	240

SHEET NO.	INDEX
63	General Plan and Elevation
64	North Abutment
65	South Abutment
66	South Abutment Wing Walls
67	Pier Details
68	Framing Plan and Details
69	Cross Section and Details

NO.	ITEMS	QUANTITIES
204-12	Structural Earth Excavation, Abutts and Ret Walls	150 Cu Yds
204-14	Structural Earth Excavation, Piers	270 Cu Yds
204-15	Structural Rock Excavation, Piers	25 Cu Yds
405-20	Reinforced Portland Cement Conc. Approach Slab	110 Sq. Yds.
701-33	Portland Cement Concrete, Abutts & Ret. Walls	700 Cu Yds.
701-37	Portland Cement Concrete, Substructure Columns, Column Bases, Benis, Collision Wall, Girders, Struts, etc.	110 Cu Yds.
701-40	Portland Cement Concrete, Roadway & Sidewalk Slabs on Steel Bridges	235 Cu Yds.
701-47	Portland Cement	1520 Bbls.
701-50	Portland Cement Concrete Fill	80 Cu Yds.
702-103	Structural Steel, Fabricated & Delivered	207,000 lbs.
702-104	Structural Steel, Erection	207,000 lbs.
708-9	Bronze or Copper Alloy Bearing and Expansion Plates, Delivered	330 lbs.
708-10	Bronze or Copper Alloy Bearing and Expansion Plates, Placing	330 lbs.
708-13	Reinforcing Steel, Delivered	29,000 lbs.
708-14	Reinforcing Steel, Placing	29,000 lbs.
708-17	Shear Connectors	Lump Sum
708-21	Cast-in-place Concrete Piles	300 Lin. Ft.
709-1	Membrane Waterproofing	645 Sq. Yds.
710-1	Damp Proofing	270 Sq. Yds.
804-6	French Drains	250 Cu Yds.
805-8	Bridge Rail, Delivered and Erected	400 Lin. Ft.
908-37	Bridge Anchorage	4 Each.
913-7	Bit-Treated Stone Slope Protection	250 Sq. Yds.

- GENERAL NOTES**
- Design is in accordance with the following specifications:  
State of Maine, State Highway Commission  
Bridge Division Specifications - Revision of 1956  
A.A.S.H.O. 1953 Edition
  - Live Load - H-20-44
  - Concrete shall be as follows:  
Footings, Piers, Abutments - Class "B" All  
Concrete Decks & Approach Slabs - Class "A"  
Elsewhere as noted on plans.
  - All reinforcement to conform to A.S.T.M. Specification A15 and deformations to A.S.T.M. Specification A305. All reinforcing steel to be intermediate grade new billet steel.
  - All steel with welded cover plates to conform to A.S.T.M. Spec. A373. All other steel shall conform to A.S.T.M. Spec. A373 or A7.
  - All elevations are referred to a base which is 0.00 Mean Sea Level.
  - Allowable stresses:  
Reinforcing Steel - 20,000 p.s.i.  
Structural Steel - 18,000 p.s.i.

- Location of Borings shown thus "B"
- For Log of Borings see Information Drawing Sheet No. 1 of 1
- Footings to rest on sound unweathered rock. If sound unweathered rock is below the Elev. of footing class "B" concrete fill shall be used from top of rock to bottom of footing.
- Footing Elev., south abutment and pier, may be modified by Engineer to suit local conditions.

STATE HIGHWAY COMMISSION  
AUGUSTA, MAINE

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FREEPORT BYPASS

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BRIDGE STRUCTURE  
AT APPROACH ROAD INTERCHANGE

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**GENERAL PLAN  
AND ELEVATION**

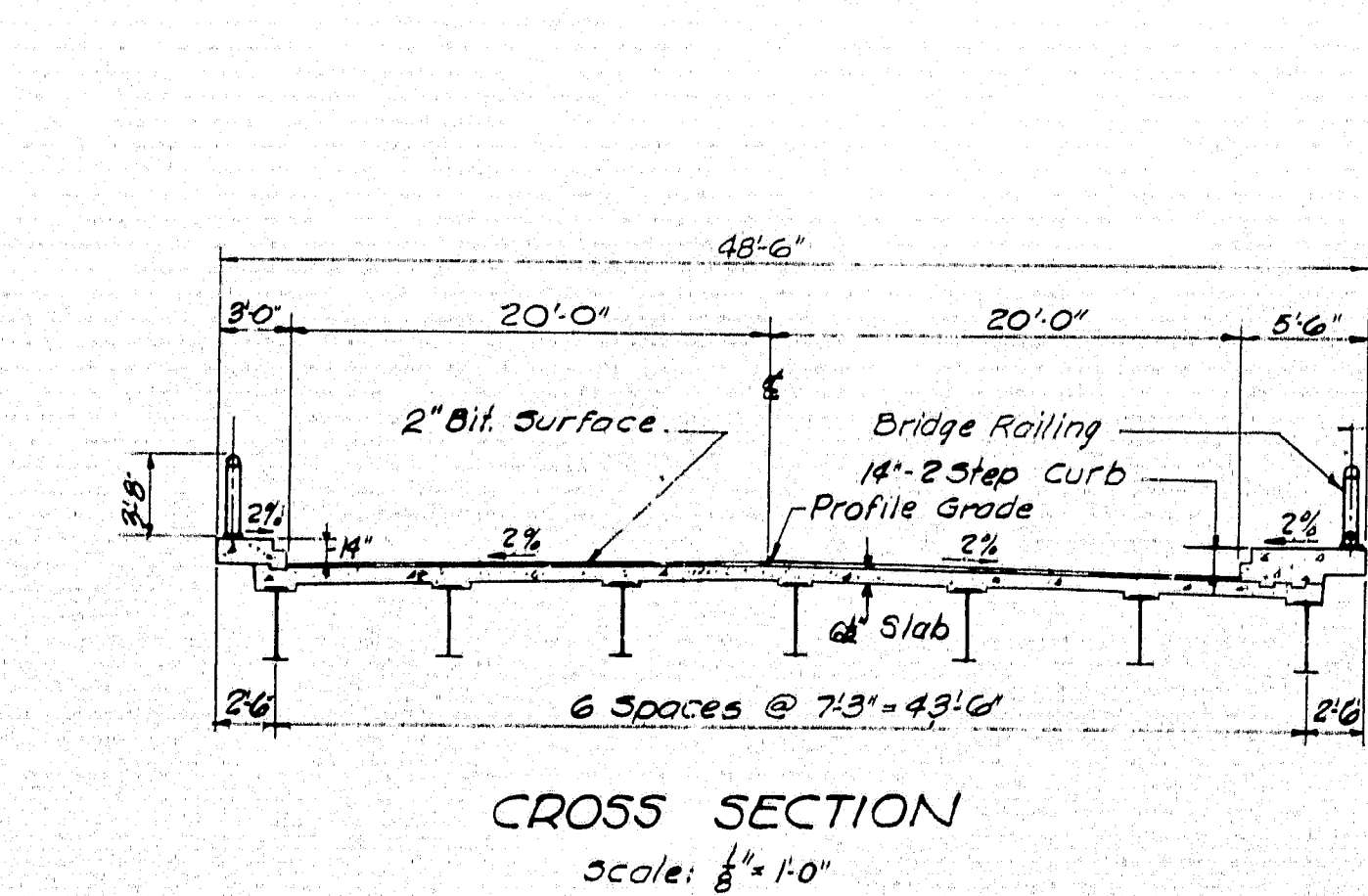
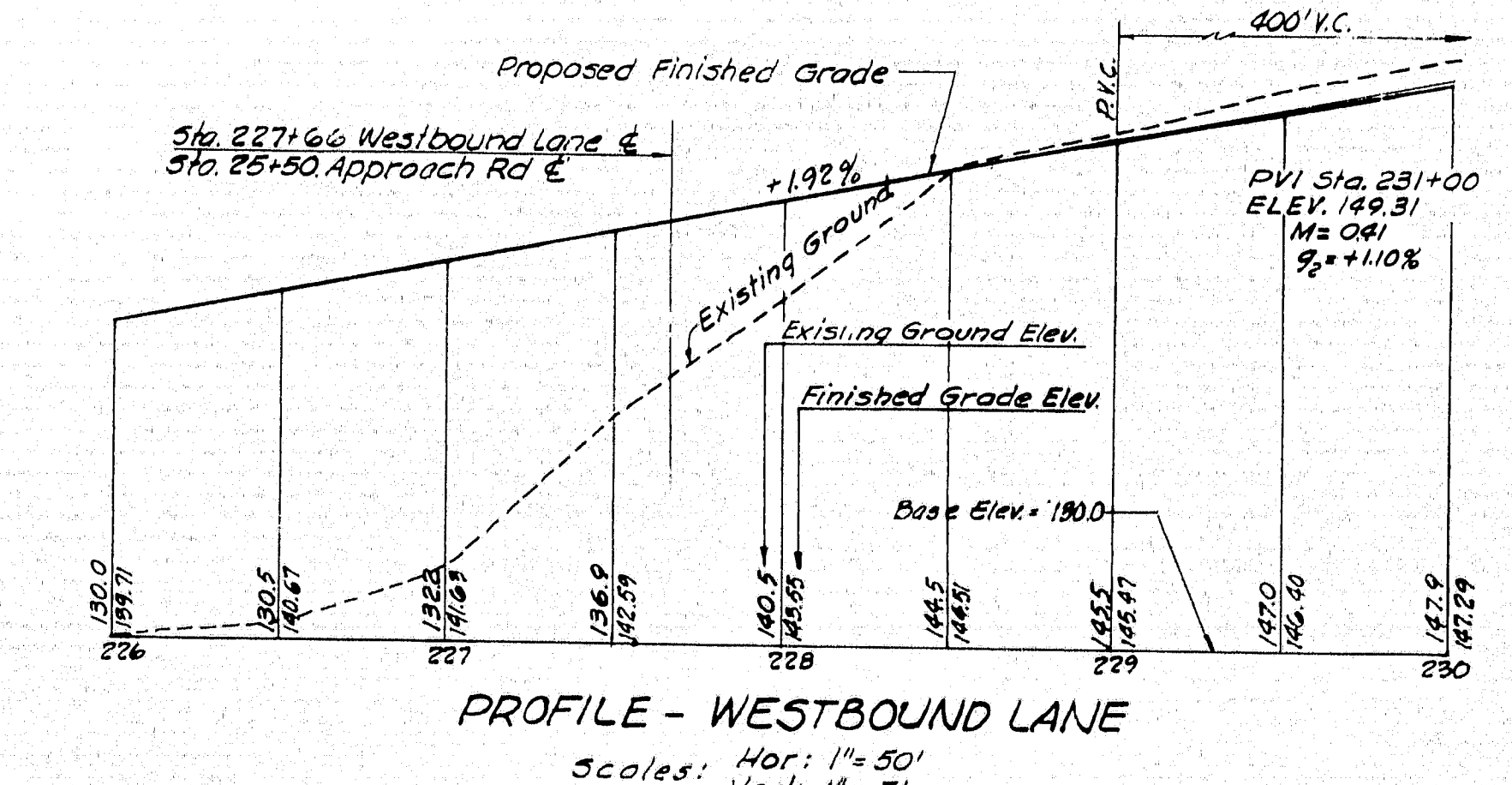
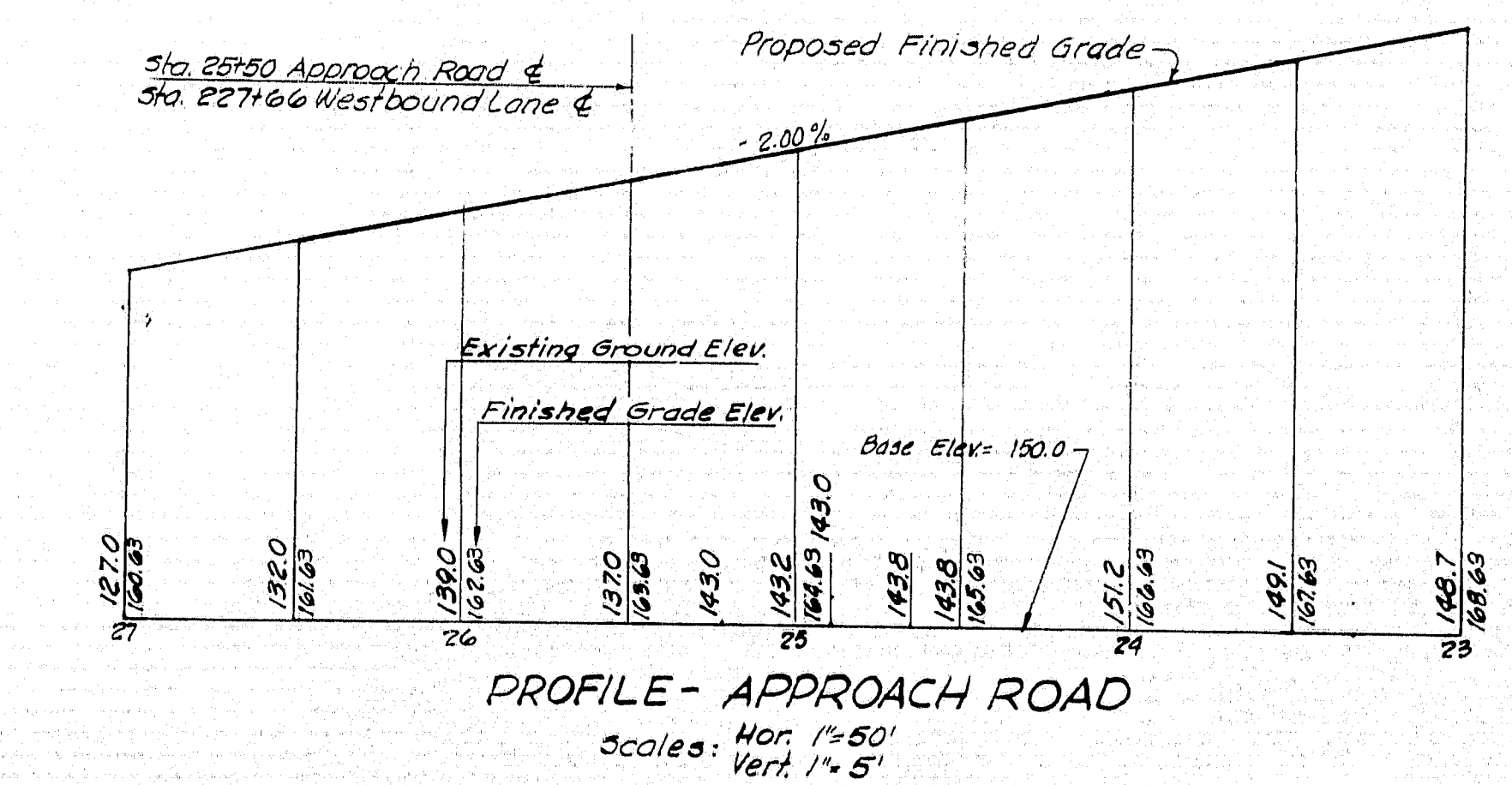
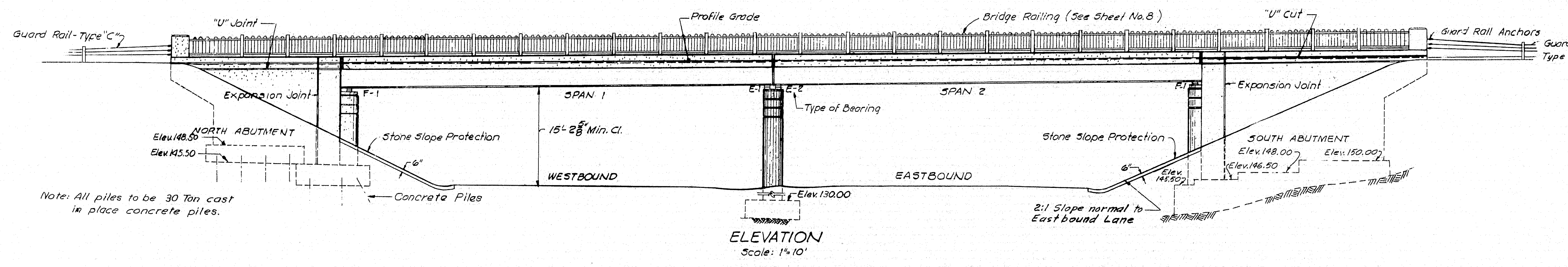
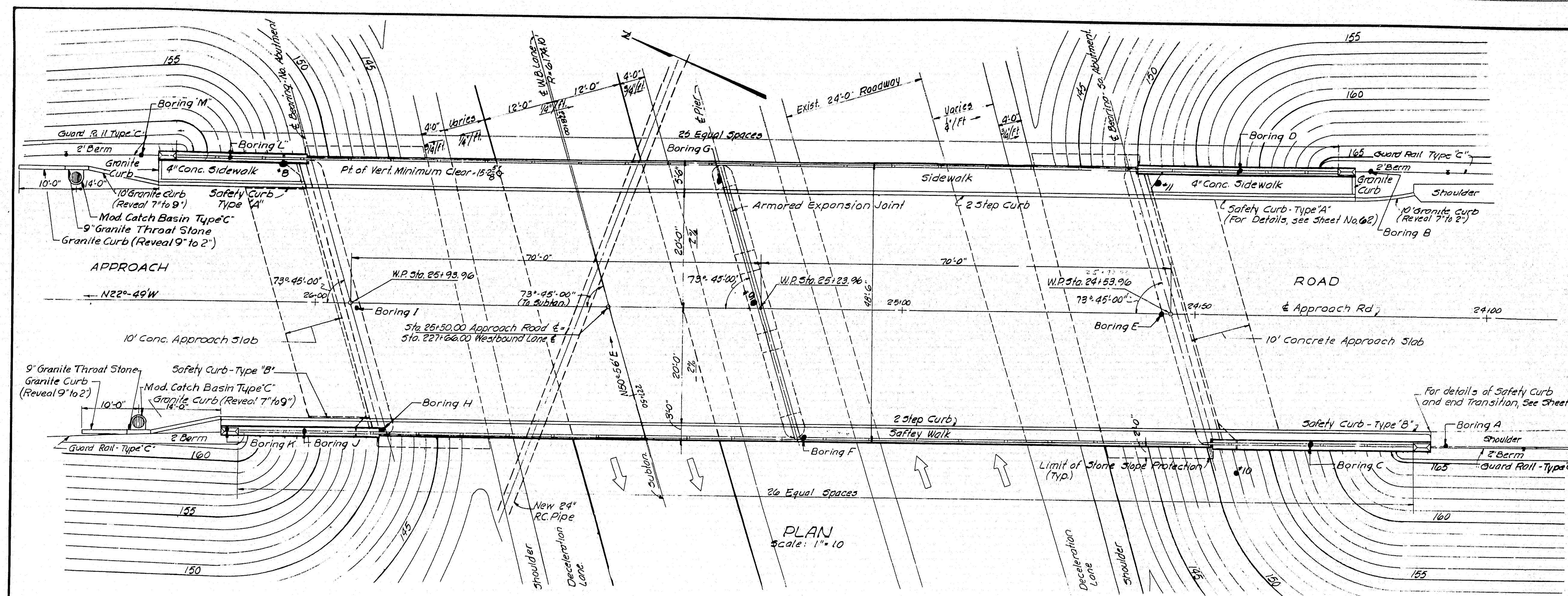
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SHEET NO. 65 OF 240    SCALES AS NOTED    AUG. 1956

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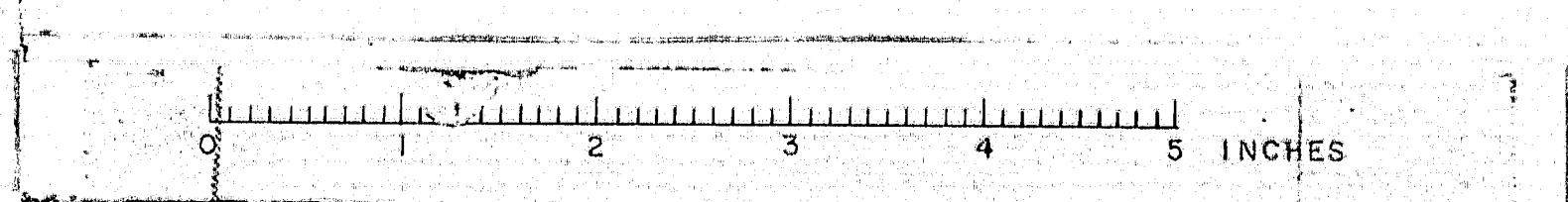
FAY, SPOFFORD & THORNDIKE, INC.  
ENGINEERS

M-910



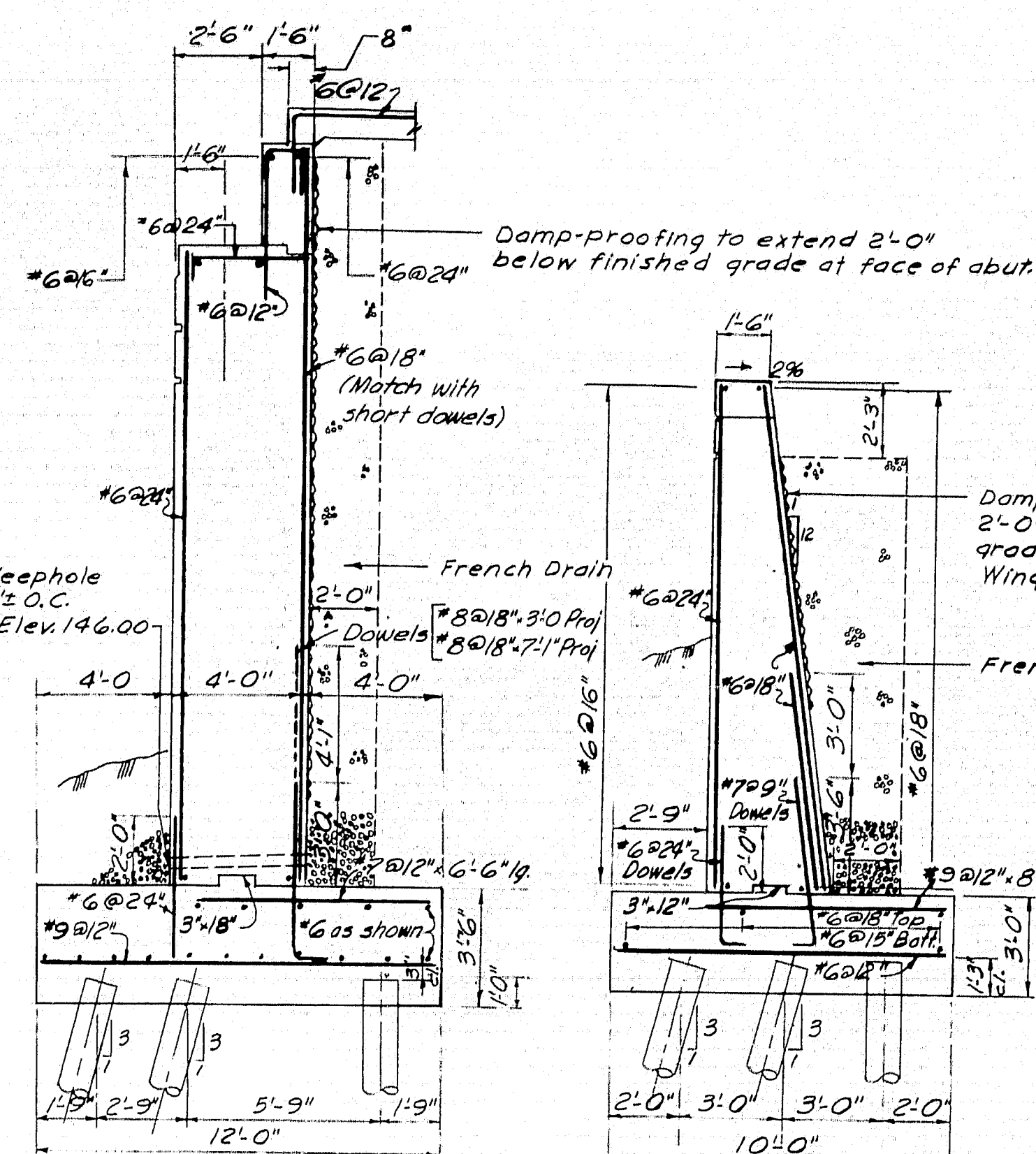
Qm-12  
74

DES. H.W.M.A.  
DR. J.M.S.G.  
TR. J.M.S.G.  
CHK. C.C.B.  
APPD. H.W.M.A.



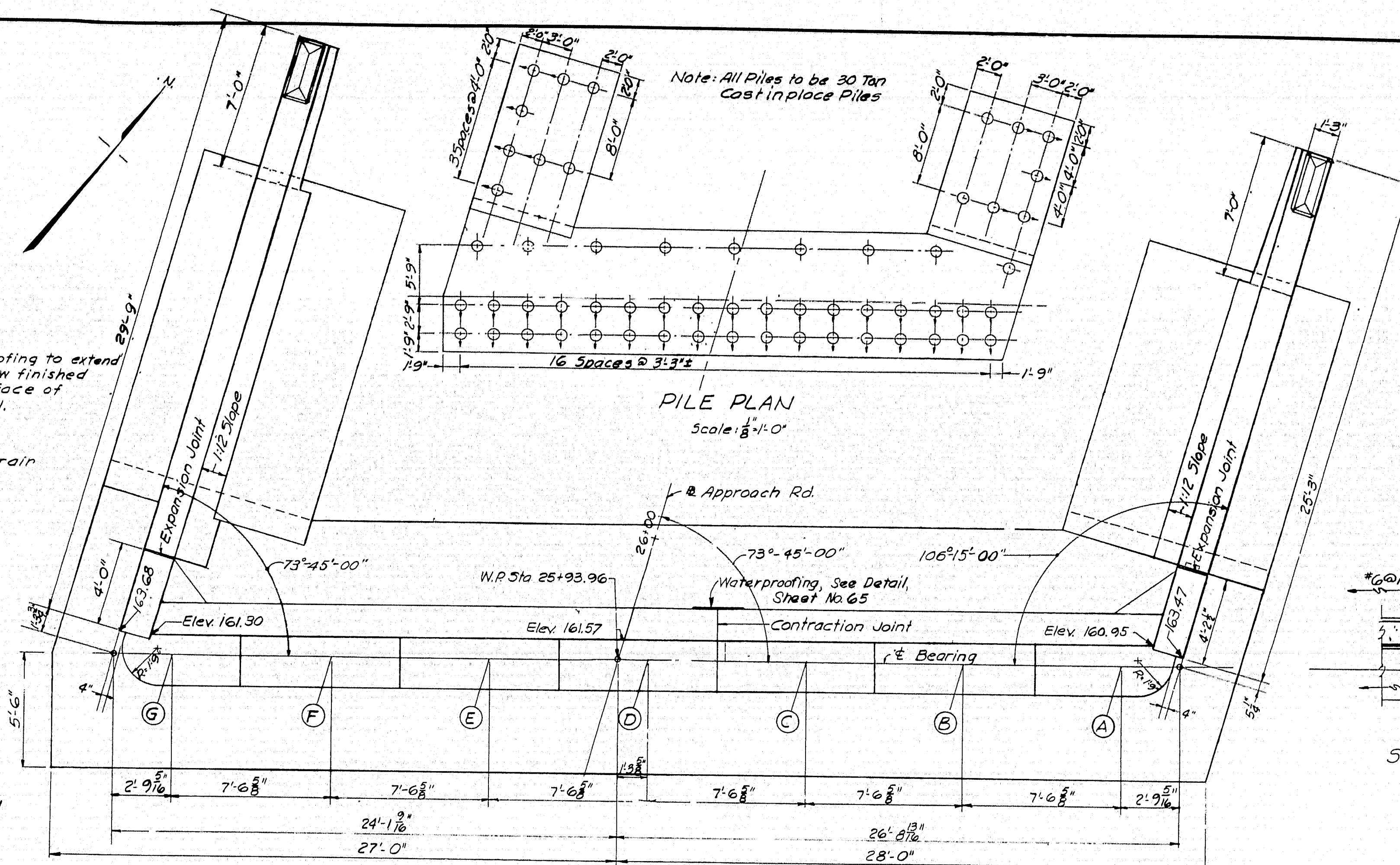


R. R. A.	STATE	FED. AID	SHEET	TOTAL
DIV. NO.	MAINE	PROJ. NO.	NO.	SHEETS
1	IN-01-1(18)	64	240	

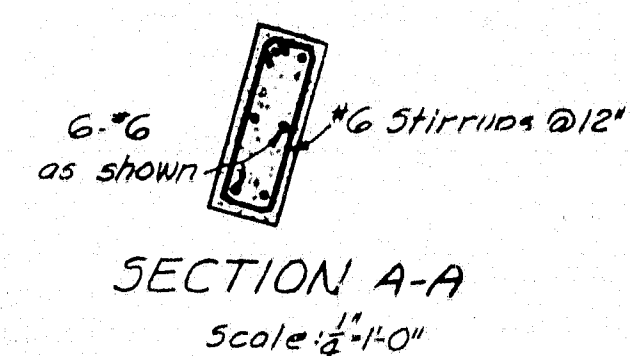


SECTION D-D  
Scale: 1/4"=1'-0"

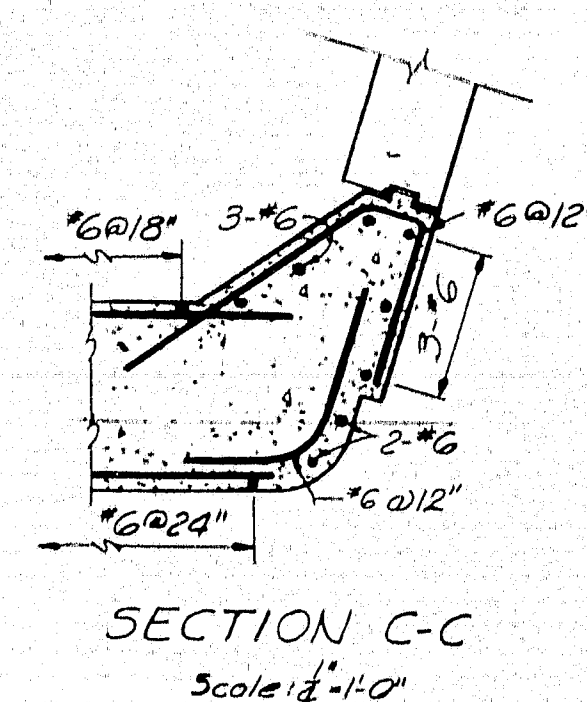
TYPICAL WING WALL SECTION  
Scale: 1/4"=1'-0"



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

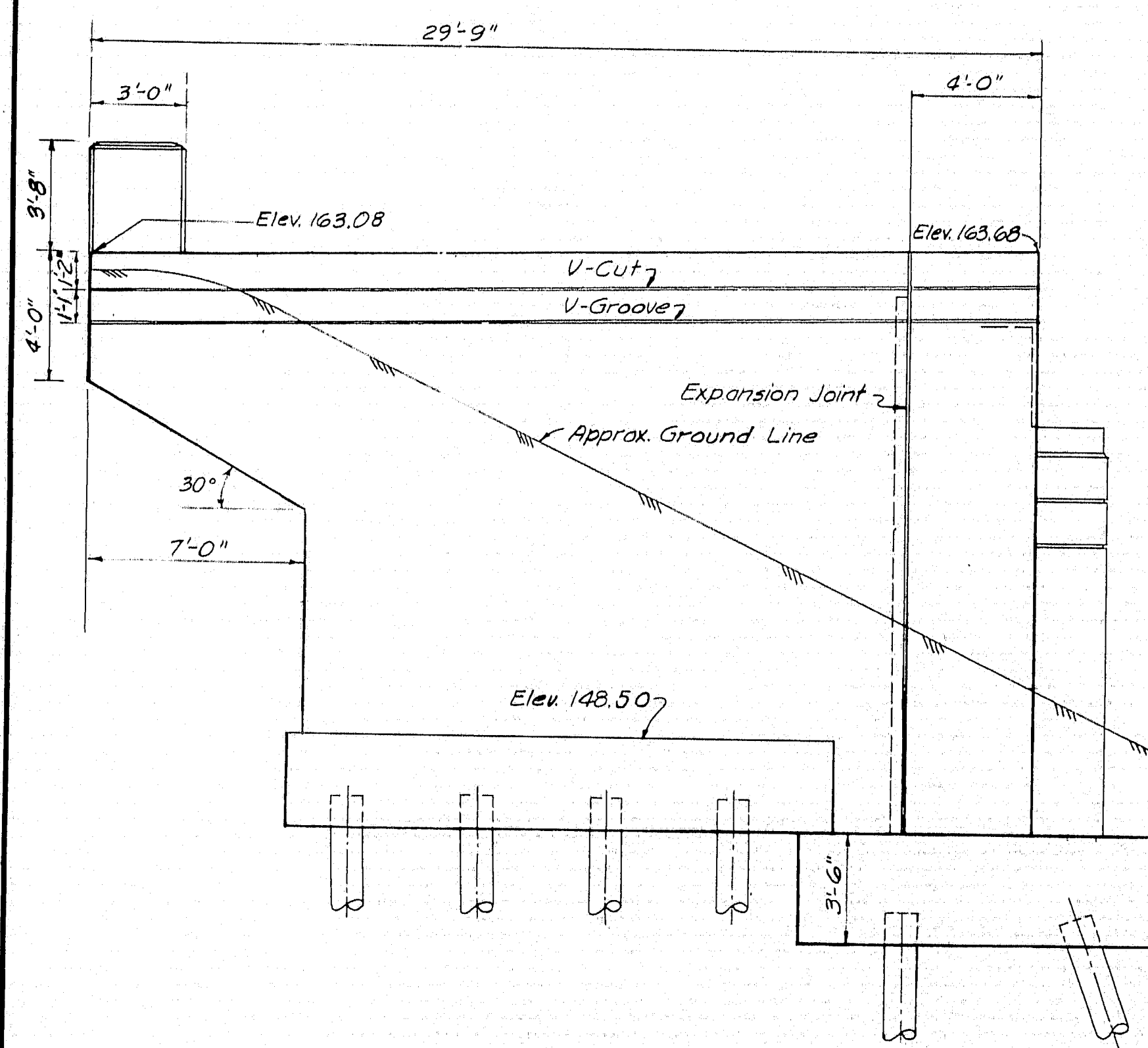


SECTION A-A  
Scale: 1/4"=1'-0"

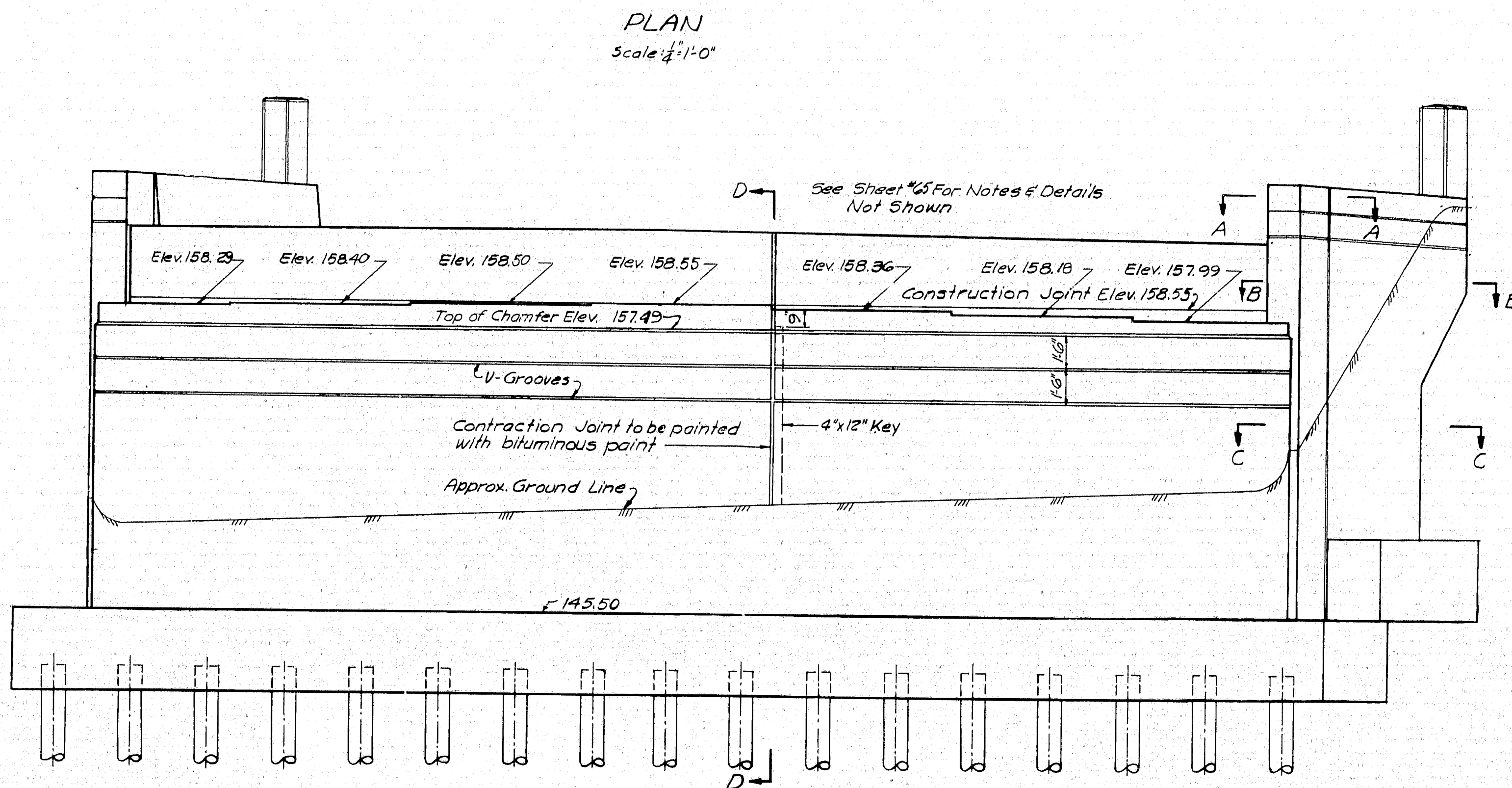


SECTION B-B  
Scale: 1/4"=1'-0"

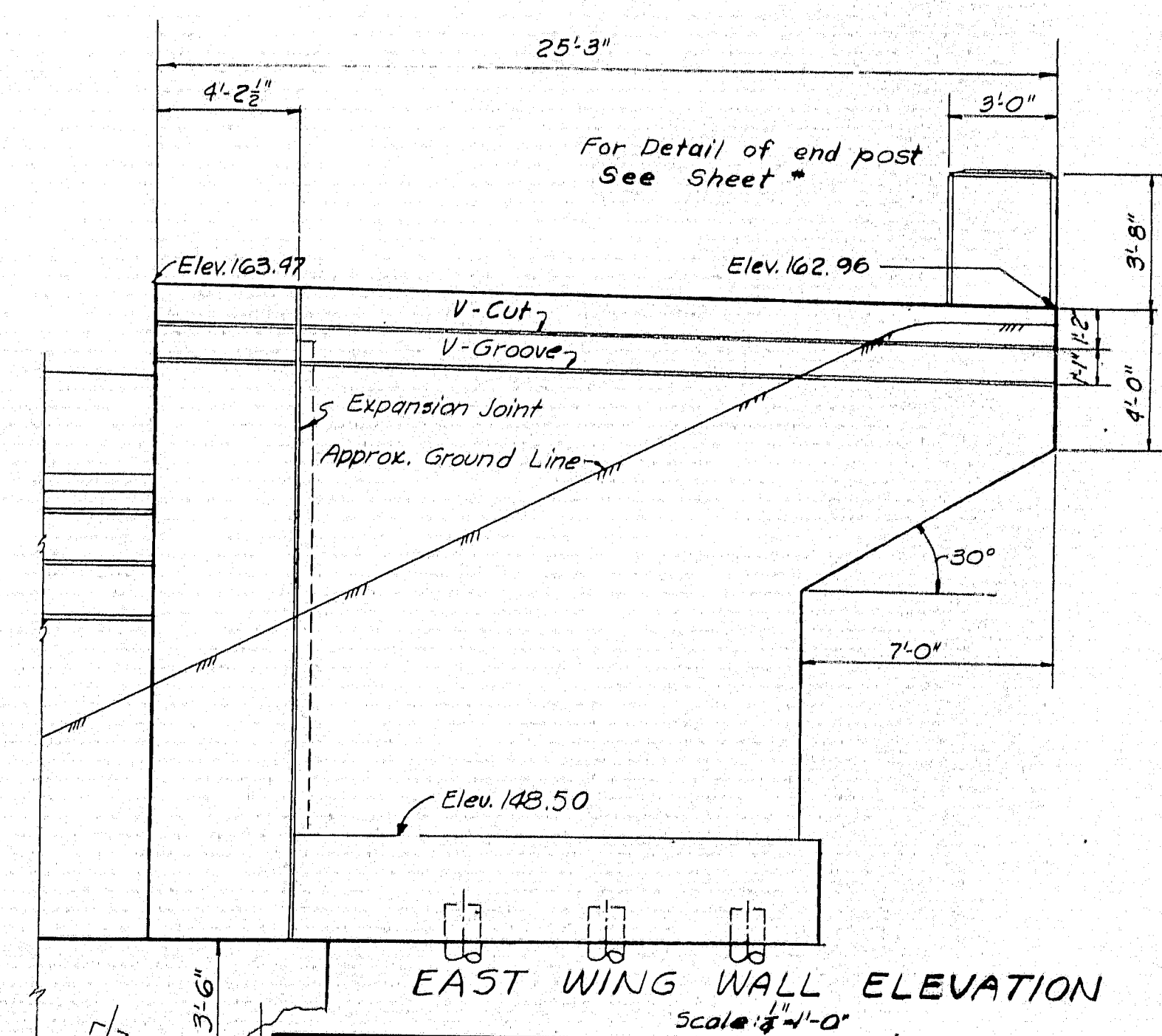
SECTION C-C  
Scale: 1/4"=1'-0"



WEST WING WALL ELEVATION  
Scale: 1/4"=1'-0"



ELEVATION  
Scale: 1/4"=1'-0"

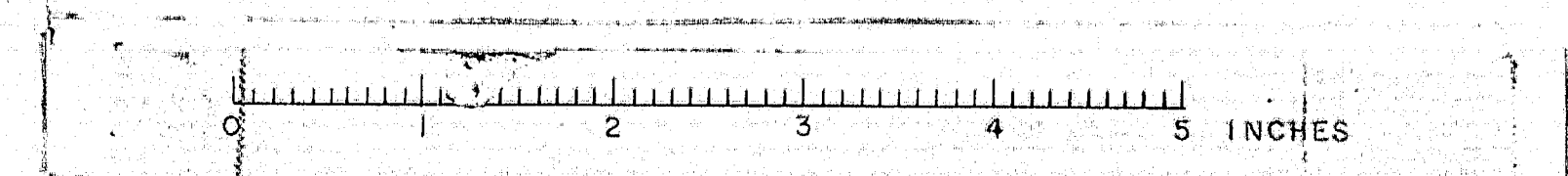


EAST WING WALL ELEVATION  
Scale: 1/4"=1'-0"

STATE HIGHWAY COMMISSION AUGUSTA, MAINE		
FREEPORT BYPASS		
BRIDGE STRUCTURE AT APPROACH ROAD INTERCHANGE		
NORTH ABUTMENT		
SHEET NO. 64 OF 240	SCALES AS NOTED	AUG. 1956

FAY, SPOFFORD & THORNDIKE, INC.  
ENGINEERS

M-911

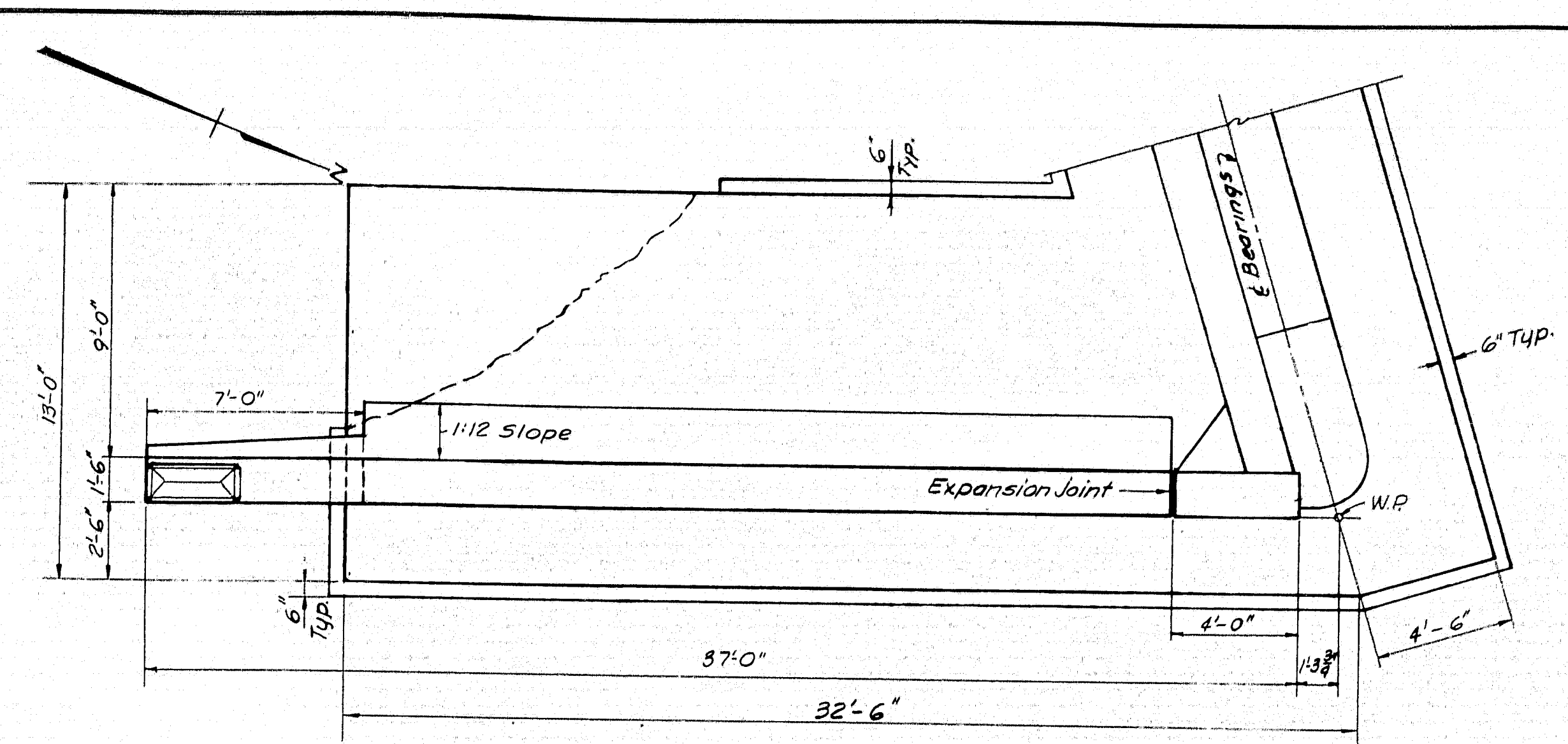




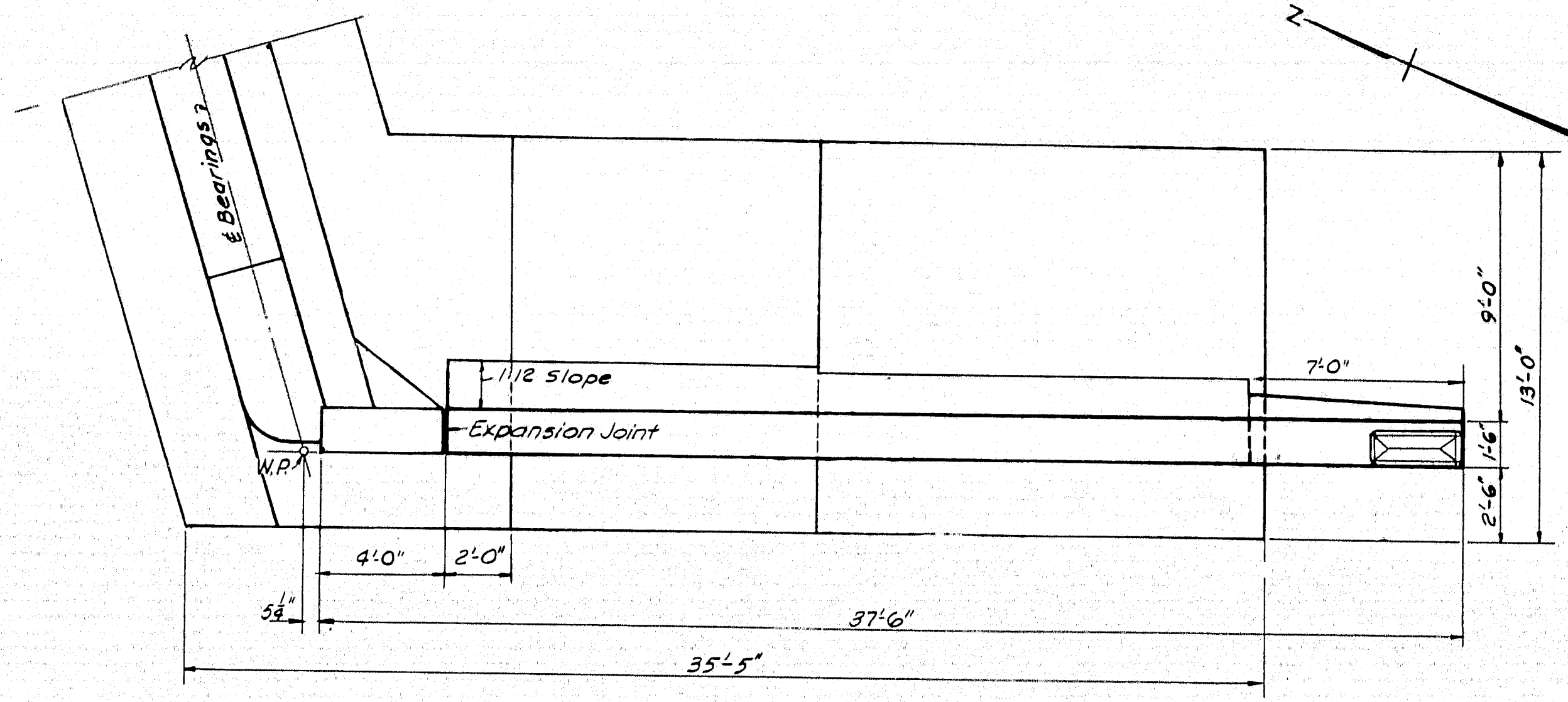




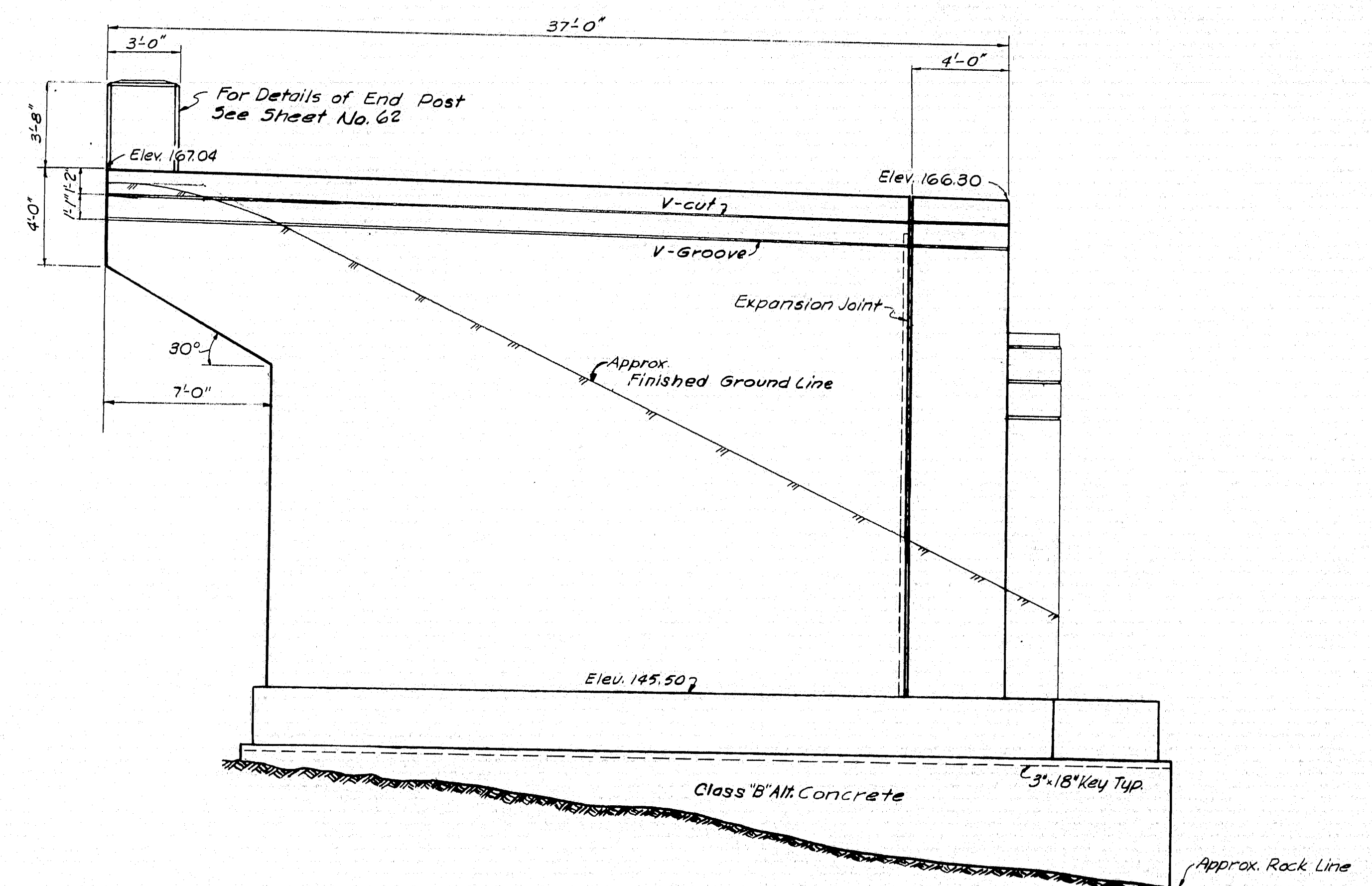
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DIV. NO.	PROJ. NO.	NO.	SHEETS	
1	MAINE IN-01-108	66	240	



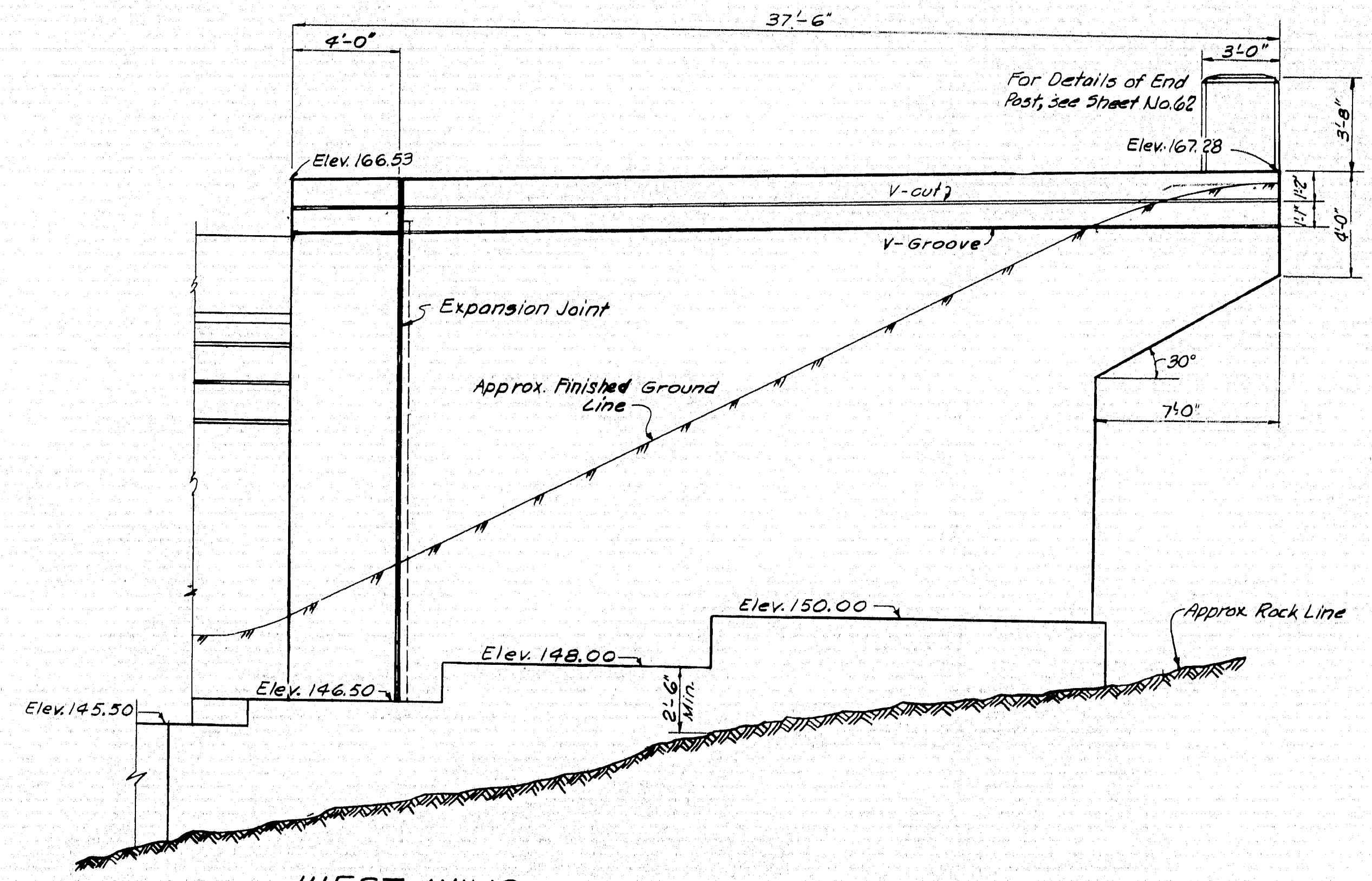
EAST WING WALL - PLAN  
Scale: 1/4"=1'-0"



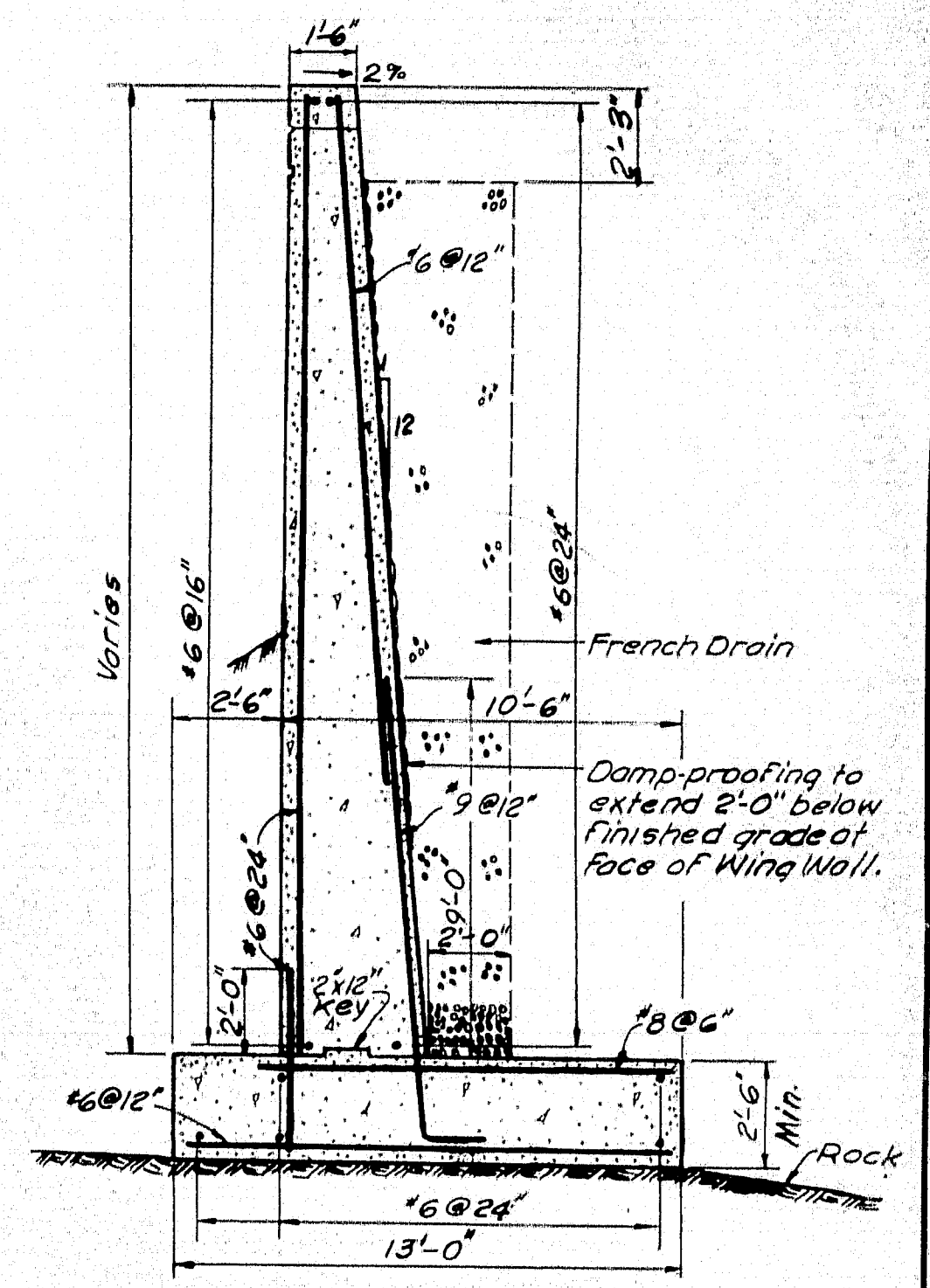
WEST WING WALL - PLAN  
Scale: 1/4"=1'-0"



EAST WING WALL - ELEVATION  
Scale: 1/4"=1'-0"



WEST WING WALL - ELEVATION  
Scale: 1/4"=1'-0"



TYPICAL WING WALL SECTION  
Scale: 1/4"=1'-0"

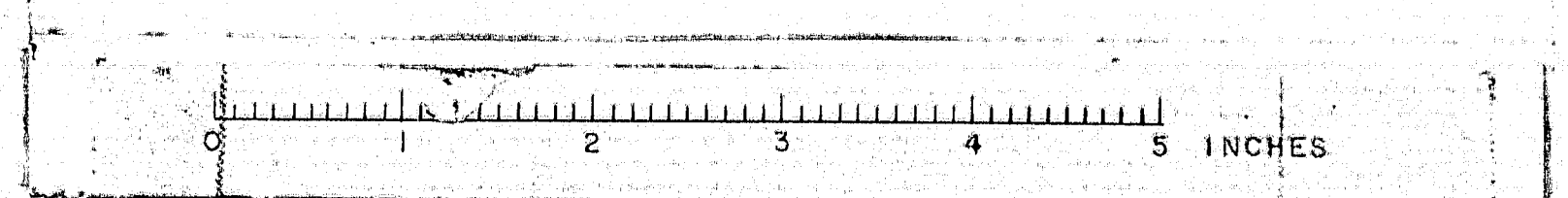
Note: Tie Bars to be placed parallel to rock surface. See Sheet 65 for notes and details not shown.

Qm-12  
77

DES	M.M.
DR	J.M.G.
TR	J.M.G.
CHK	E.C.B.
APPD	H.W.W.

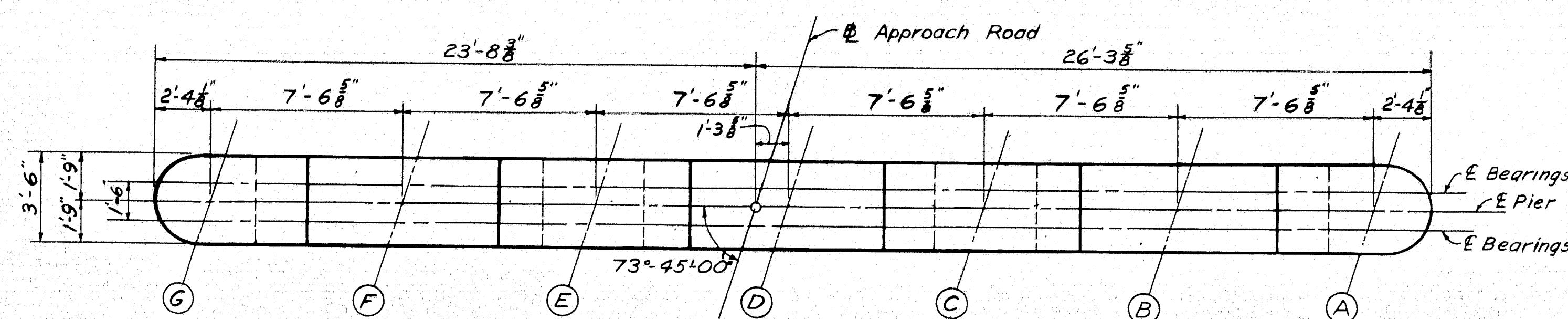
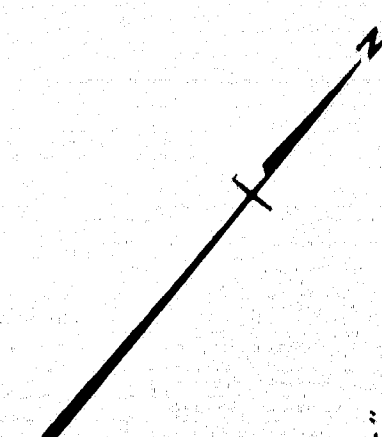
STATE HIGHWAY COMMISSION AUGUSTA, MAINE	
FREEPORT BYPASS	
BRIDGE STRUCTURE AT APPROACH ROAD INTERCHANGE SOUTH ABUTMENT WING WALLS	
SHEET NO. 66 OF 240	SCALES AS NOTED
AUG. 1956	
FAY, SPOFFORD & THORNDIKE, INC. ENGINEERS	

M-913

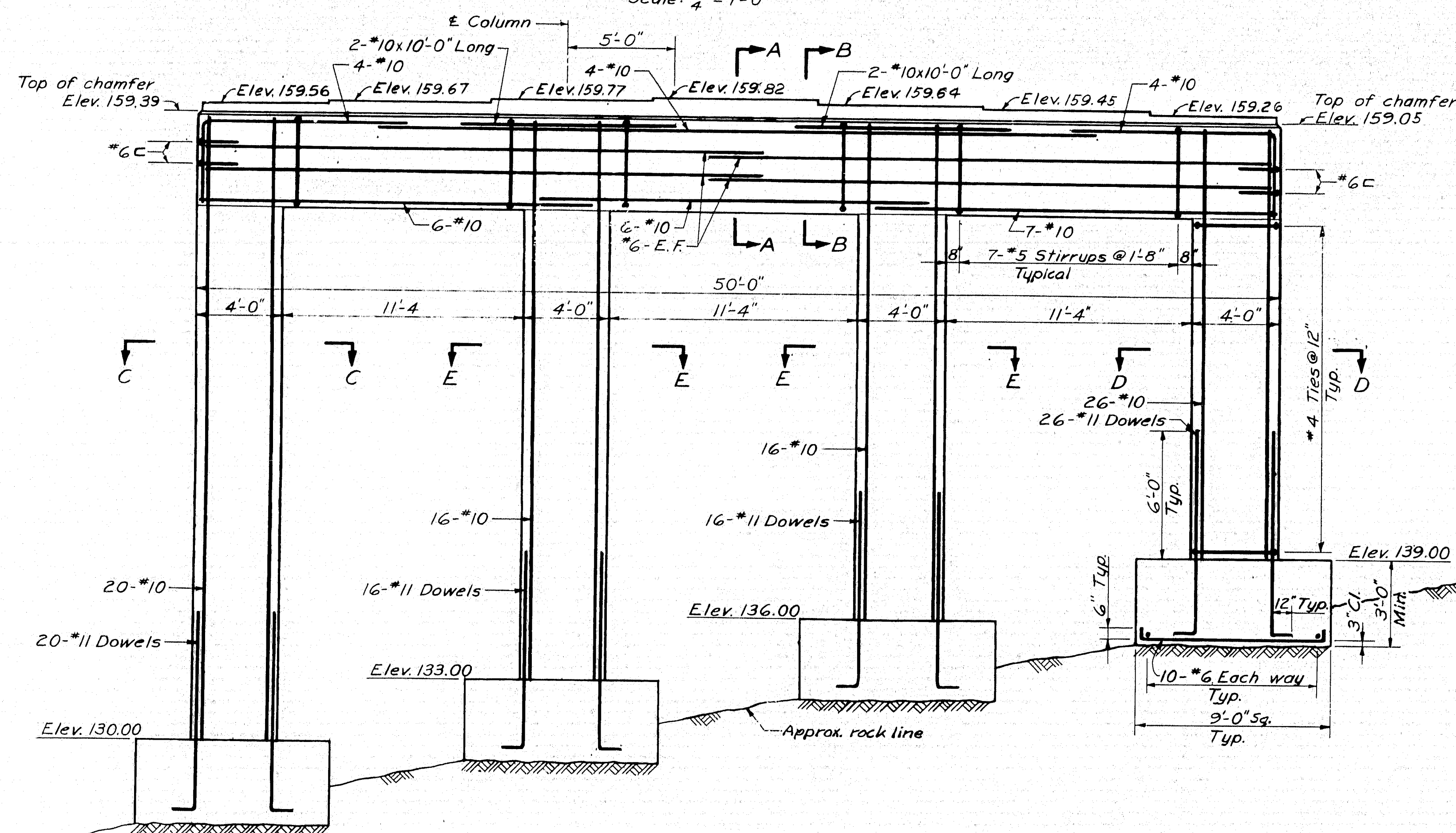




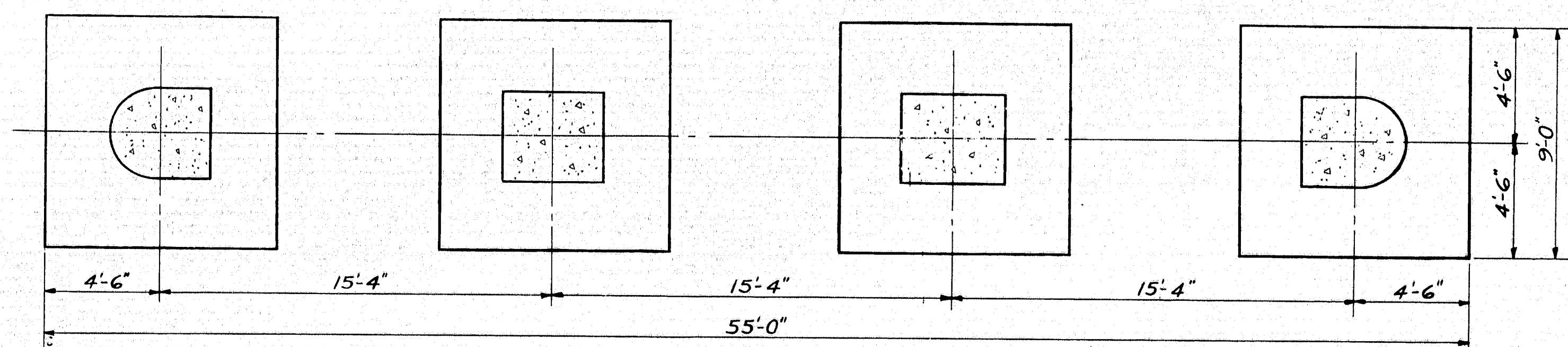
P. R. A.	STATE	FED. AID	SHEET	TOTAL
DIV. NO.	MAINE	PROJ. NO.	NO.	SHEETS
1		M-07-1(B)	67	240



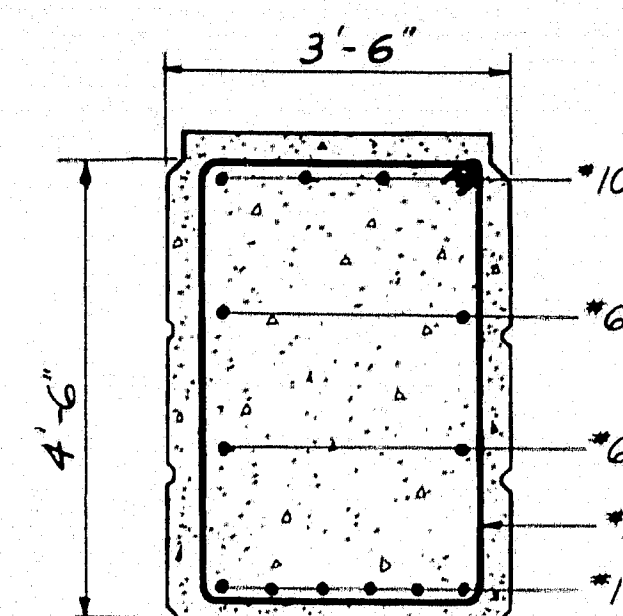
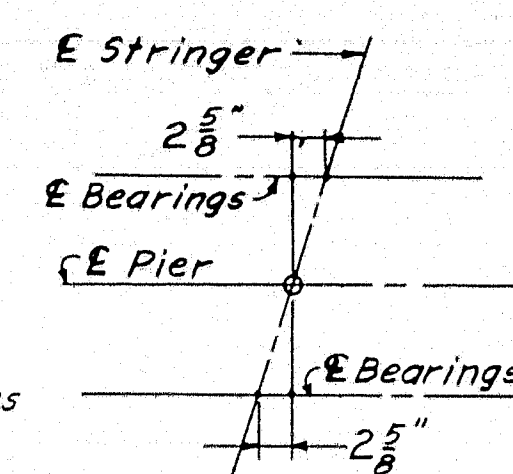
PLAN OF TOP  
Scale:  $\frac{1}{4}$ " = 1'-0"



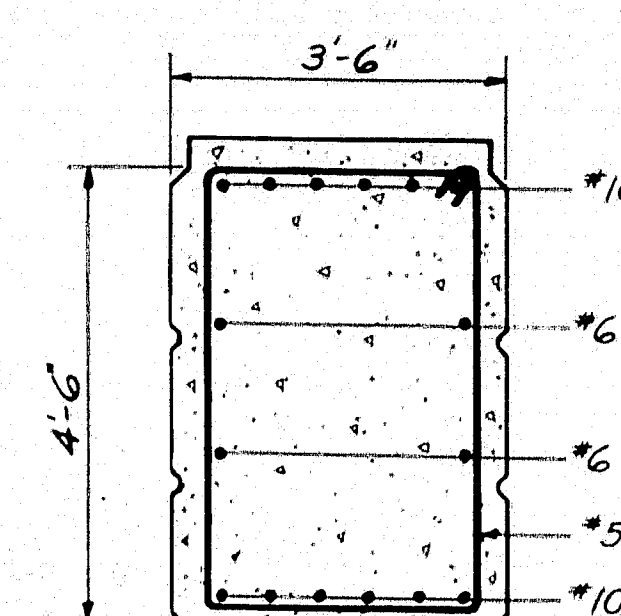
ELEVATION  
Scale:  $\frac{1}{4}$ " = 1'-0"



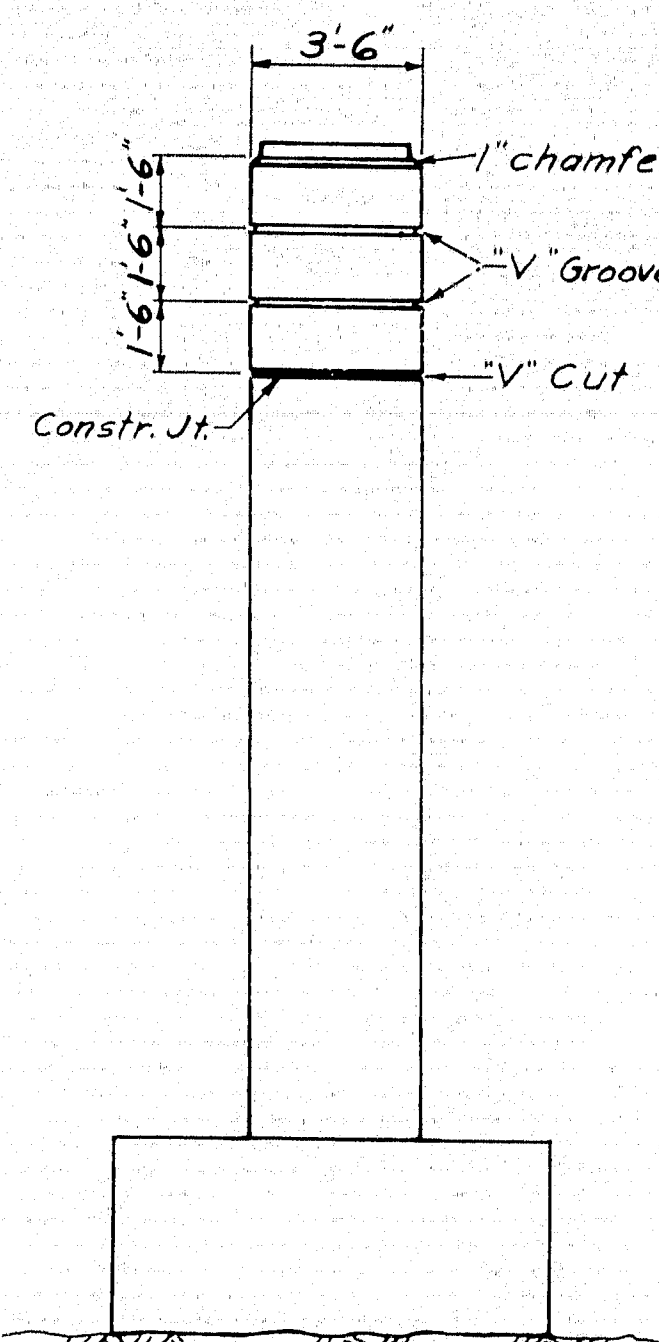
PLAN OF FOOTING  
Scale:  $\frac{1}{4}$ " = 1'-0"



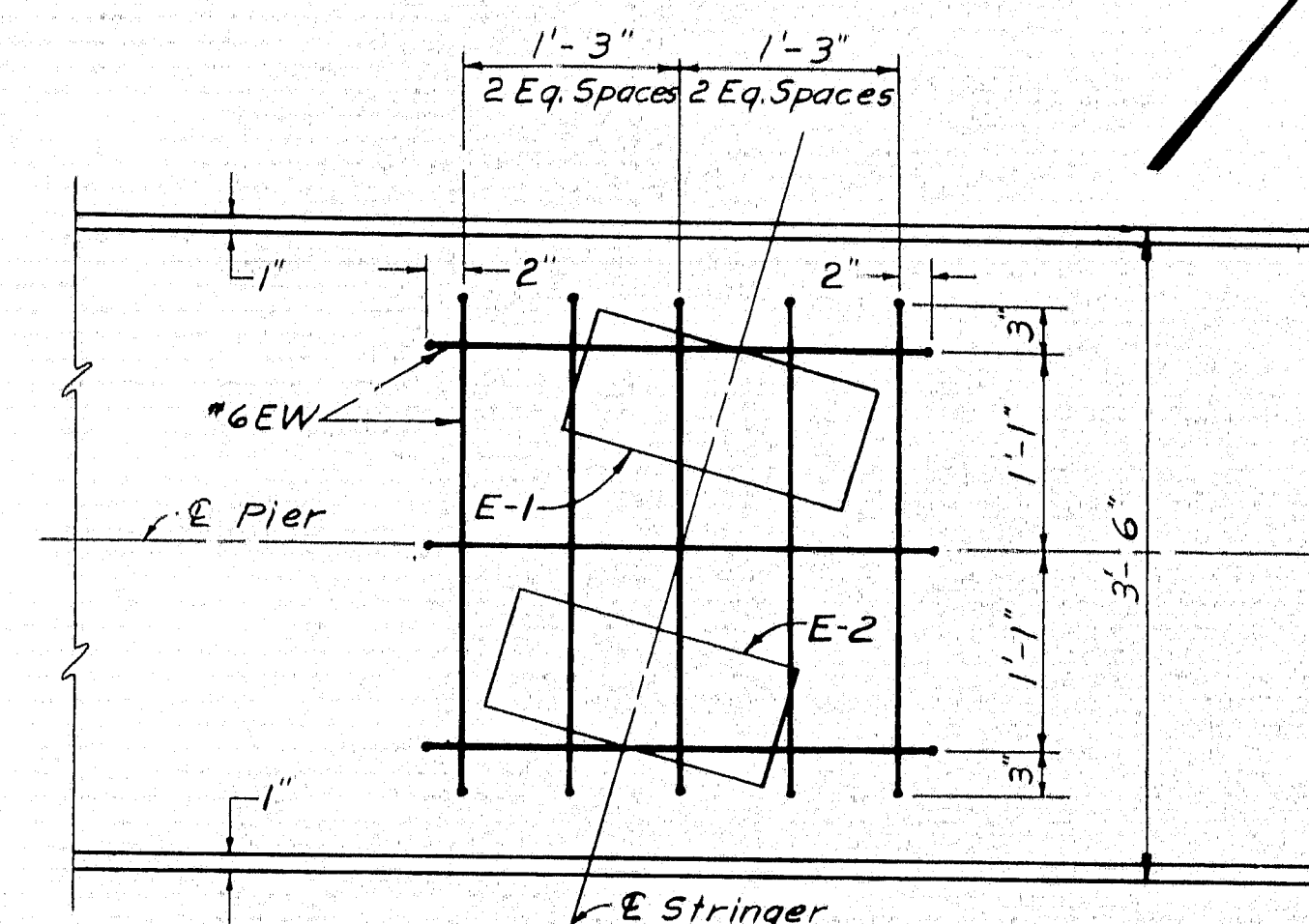
SECTION A-A  
Scale:  $\frac{1}{2}$ " = 1'-0"



SECTION B-B  
Scale:  $\frac{1}{2}$ " = 1'-0"

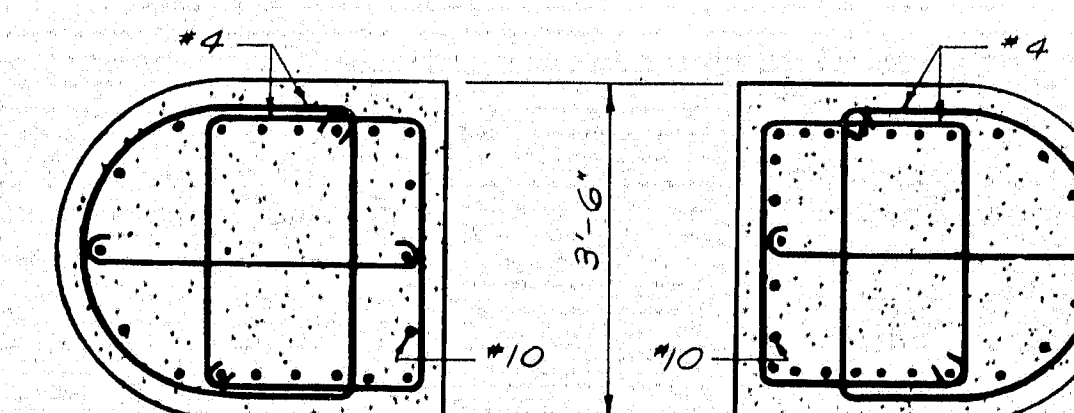


END ELEVATION  
Scale:  $\frac{1}{4}$ " = 1'-0"



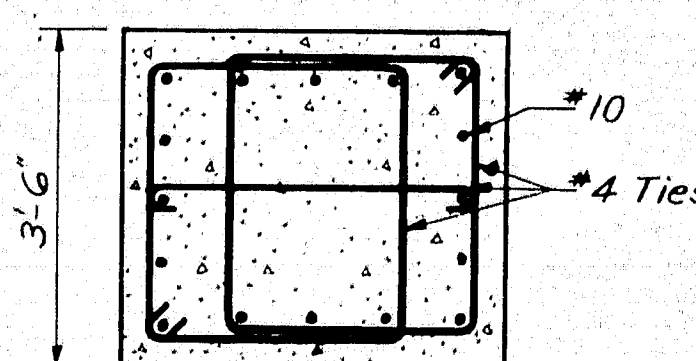
DETAIL OF STRINGER BEARING  
DISTRIBUTION STEEL  
Scale: 1" = 1'-0"

- Note:
1. Distribution steel is to be placed under stringer shoes only where seats are more than 4" above the 1" chamfer.
  2. Ends of distribution steel to extend 1'-0" into pier cap.
  3. Minimum reinf. cover 2" clearance.
  4. For construction note see sh. #65



SECTION C-C  
Scale:  $\frac{1}{2}$ " = 1'-0"

SECTION D-D  
Scale:  $\frac{1}{2}$ " = 1'-0"



SECTION E-E  
Scale:  $\frac{1}{2}$ " = 1'-0"

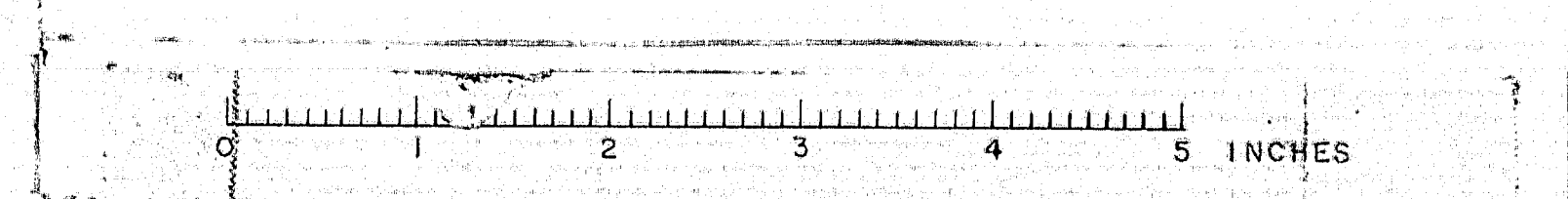
Qm-12  
78

DES	G.C.B.
DR	J.J.S.
TR	J.J.S.
CHE	G.C.B.
APPD	H.J.W.

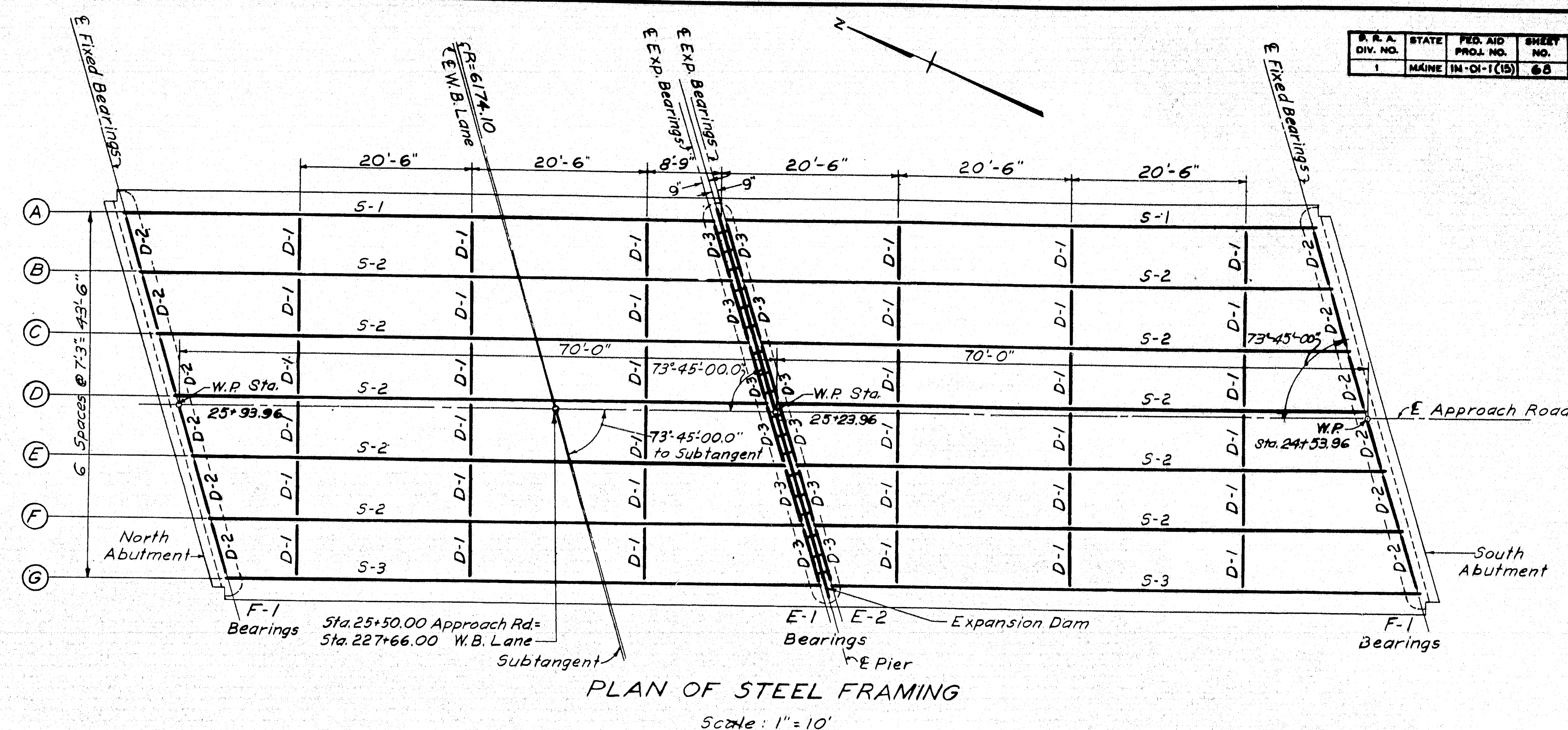
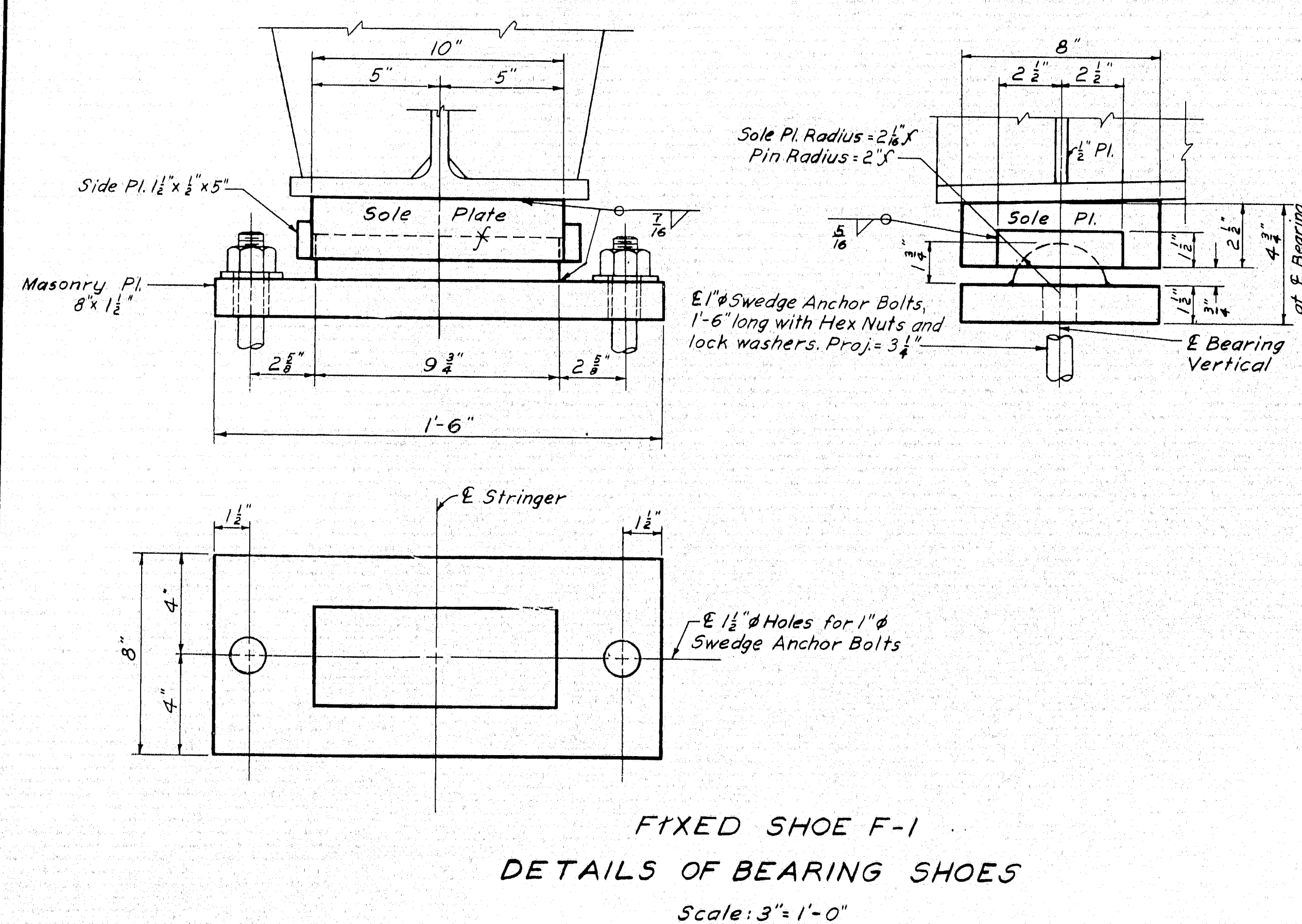
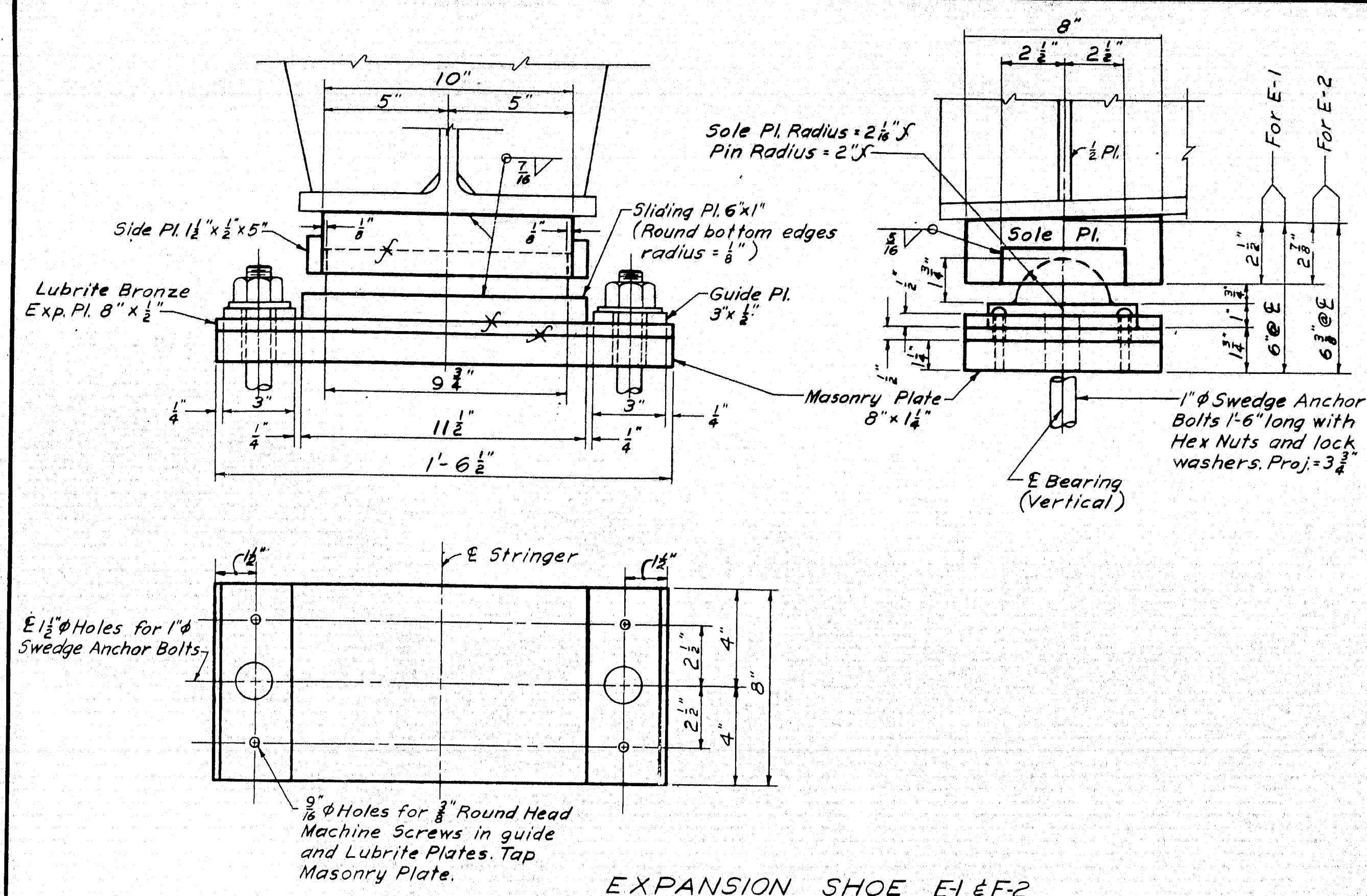
STATE HIGHWAY COMMISSION AUGUSTA, MAINE		
FREEPORT BYPASS		
BRIDGE STRUCTURE AT APPROACH ROAD INTERCHANGE		
PIER DETAILS		
SHEET NO. 67 OF 240	SCALES AS NOTED	AUG. 1956

FAY, SPOFFORD & THORNDIKE, INC.  
ENGINEERS

M-914







SCHEDULE FOR STRINGERS, COVER PLATES AND SPIRAL SHEAR CONNECTORS

NO.	SIZE	COVER PLATE	CAMBER	SPIRAL SHEAR CONNECTORS			
				SPIRAL 'A'	SPIRAL 'B'	SPIRAL 'C'	SPIRAL 'D'
				LENGTH	PITCH	LENGTH	PITCH
S-1	36 WF 150	10" x 7/16"	FULL LENGTH 18"	10'-0"	8"	8'-0"	12"
S-2	36 WF 150	10" x 7/16"	52'	10'-0"	6"	7'-6"	9"
S-3	36 WF 150	8" x 3/4"	FULL LENGTH 18"	9'-0"	9"	10'-0"	12"

Note: Full length Cover Plates to extend within 6" of Sole Plates

NOTES

SPIRAL

- All spirals are 3/4" round bars having a mean diameter of 4 1/2".
- Spirals are to be welded to stringers with 2-9/16" welds, 2 1/4" long at each point of contact.
- Spirals are not and do not include laps of 1/2 the smaller pitch.
- Stud shear connectors may be substituted for spirals with the approval of the Engineer.

CAMBER

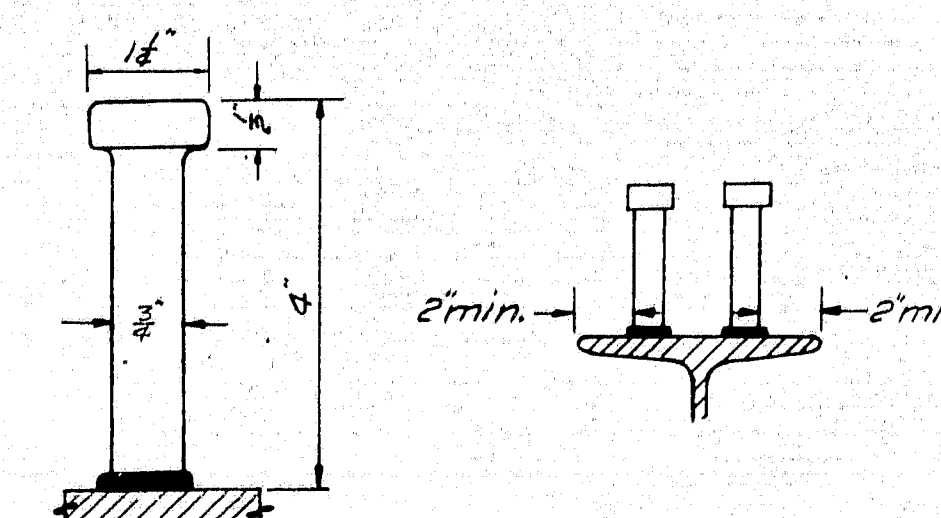
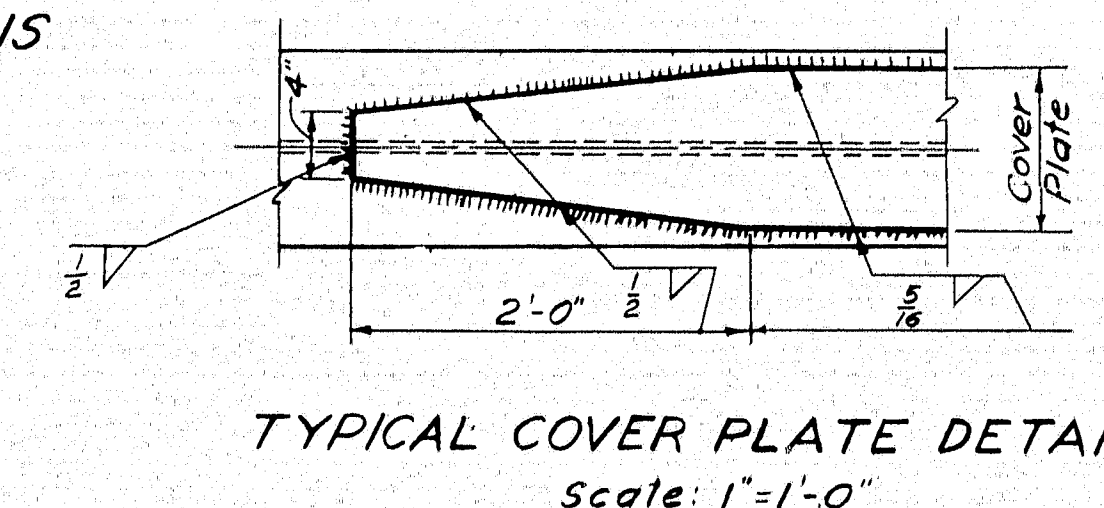
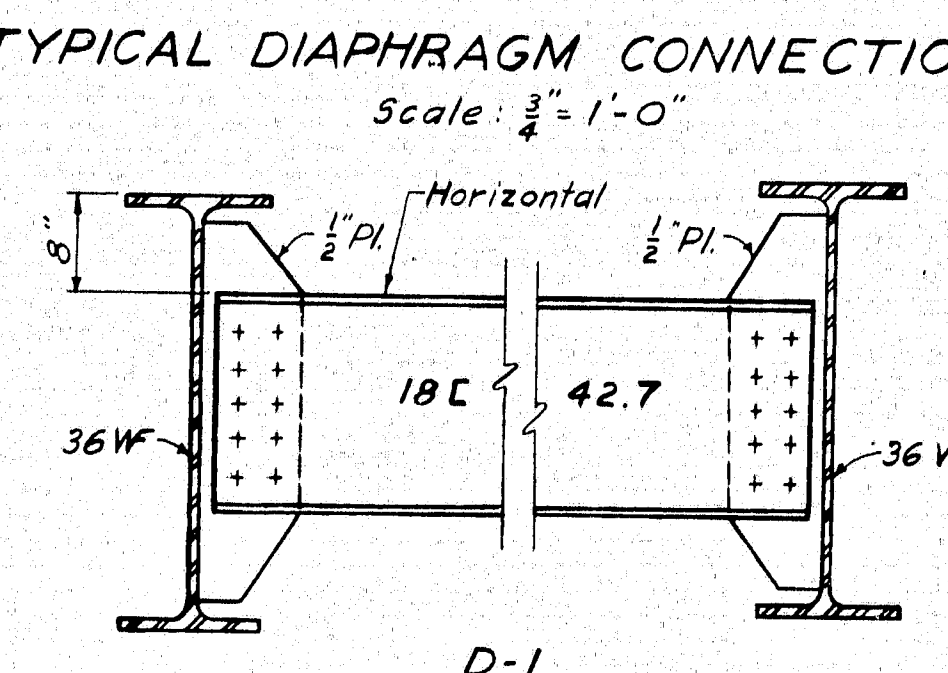
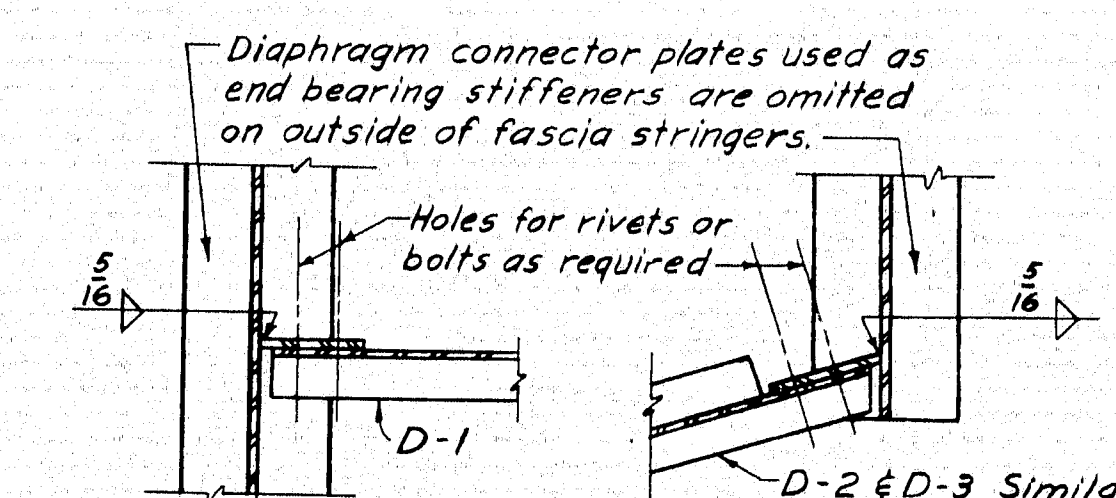
- Where the camber required is less than the minimum likely to remain permanent, the beam shall be cambered for such minimum.

ALIGNMENT

- All dimensions shown on 'Plan of Steel Framing' are horizontal.
- All W.P.s (Working Points) are on the E of Approach Road.
- Abutments are parallel to Subtangent or W.B. Lane.
- Stringers are parallel to the E Approach Road.

DIAPHRAGM

- Intermediate diaphragms are horizontal.
- End diaphragms at bearings slope with roadway.
- Diaphragms to be connected with 1" rivets, or high tensile strength bolts.



NOTE:

For an alternate 2 1/2" studs as detailed above maybe substituted for each spiral pitch.

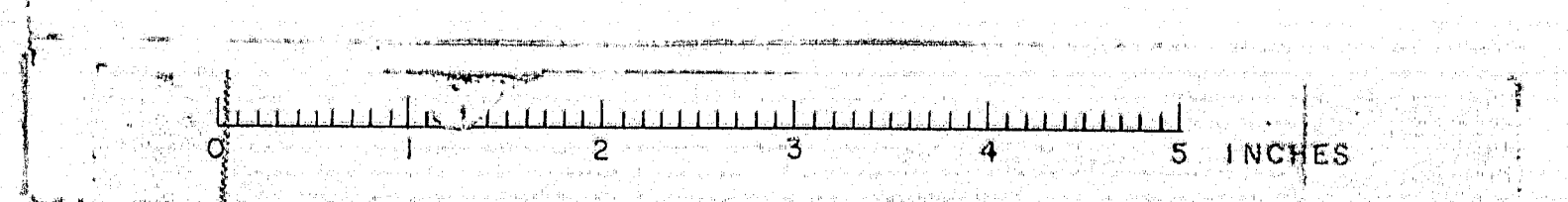
STATE HIGHWAY COMMISSION AUGUSTA, MAINE	
FREEPORT BYPASS	
BRIDGE STRUCTURE AT APPROACH ROAD INTERCHANGE	
FRAMING PLAN AND DETAILS	
SHEET NO. 68 OF 240	SCALES AS NOTED
AUG. 1955	

FAY, SPOFFORD & THORNDIKE, INC.  
ENGINEERS

M-915

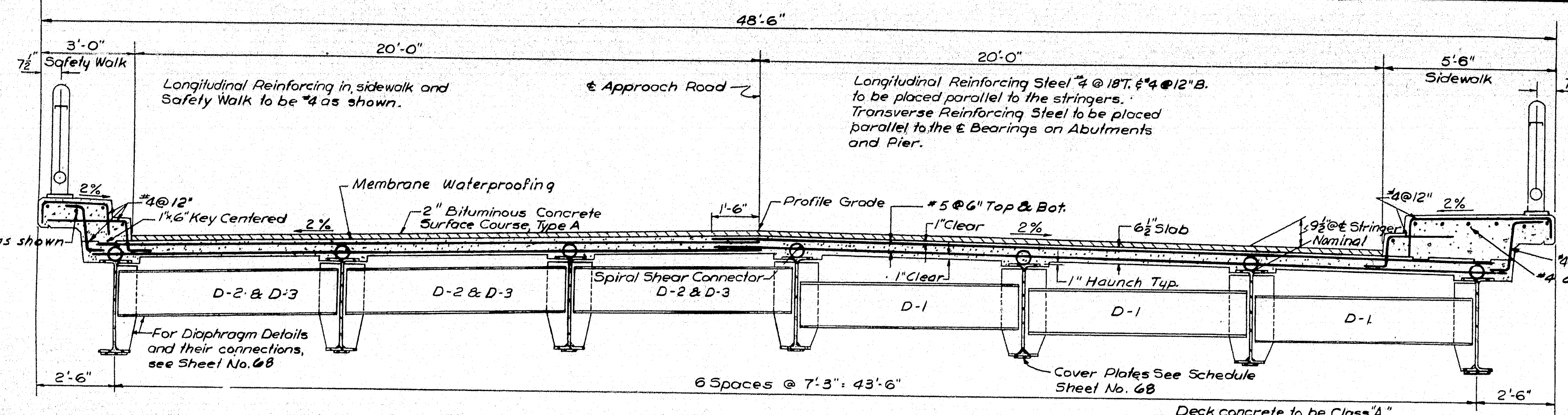
Qm-12  
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DES.	M.M.
DR.	J.J.S.
TR.	J.J.S.
CHK.	C.C.B.
APP.	H.J.W.

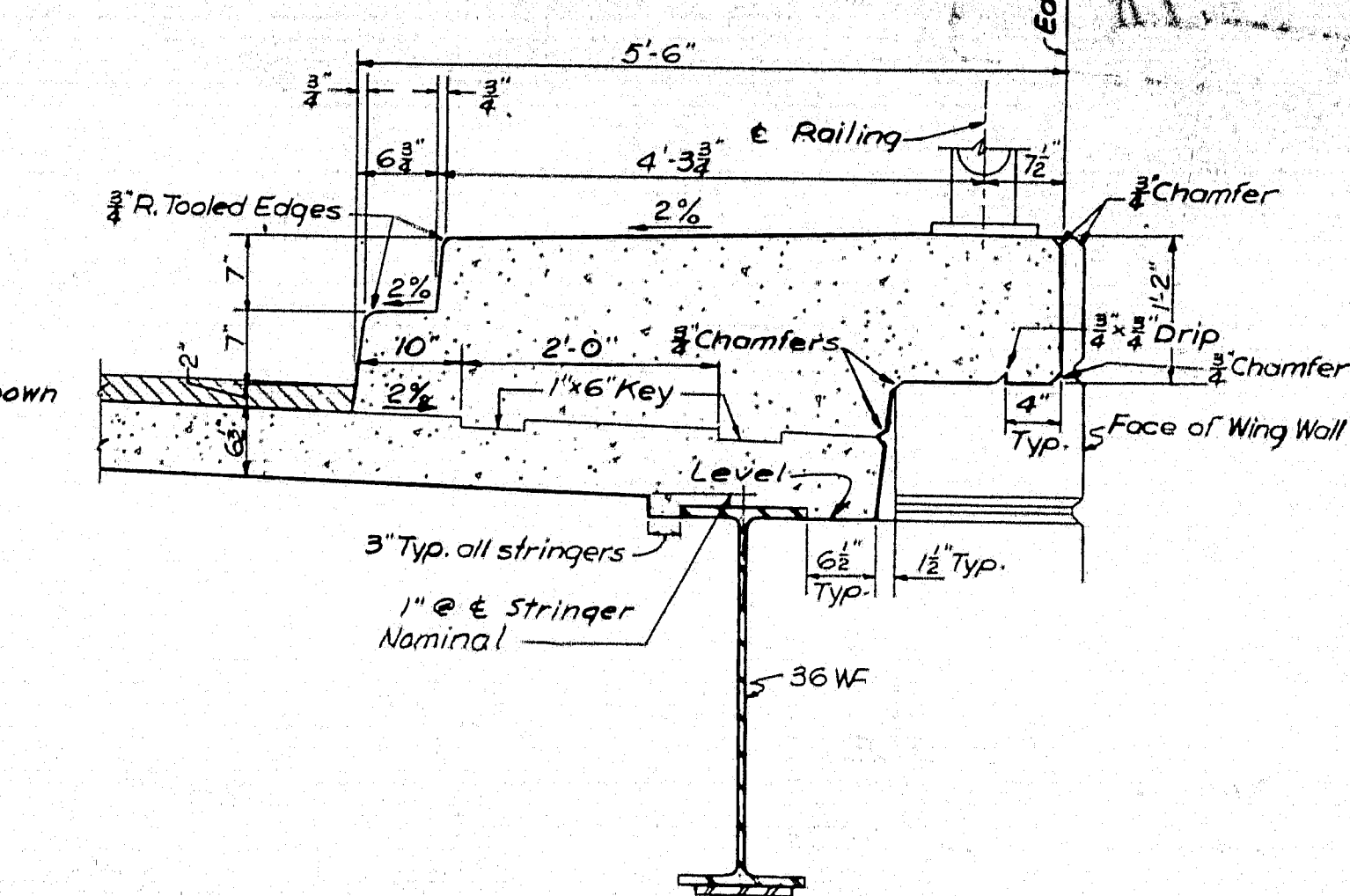




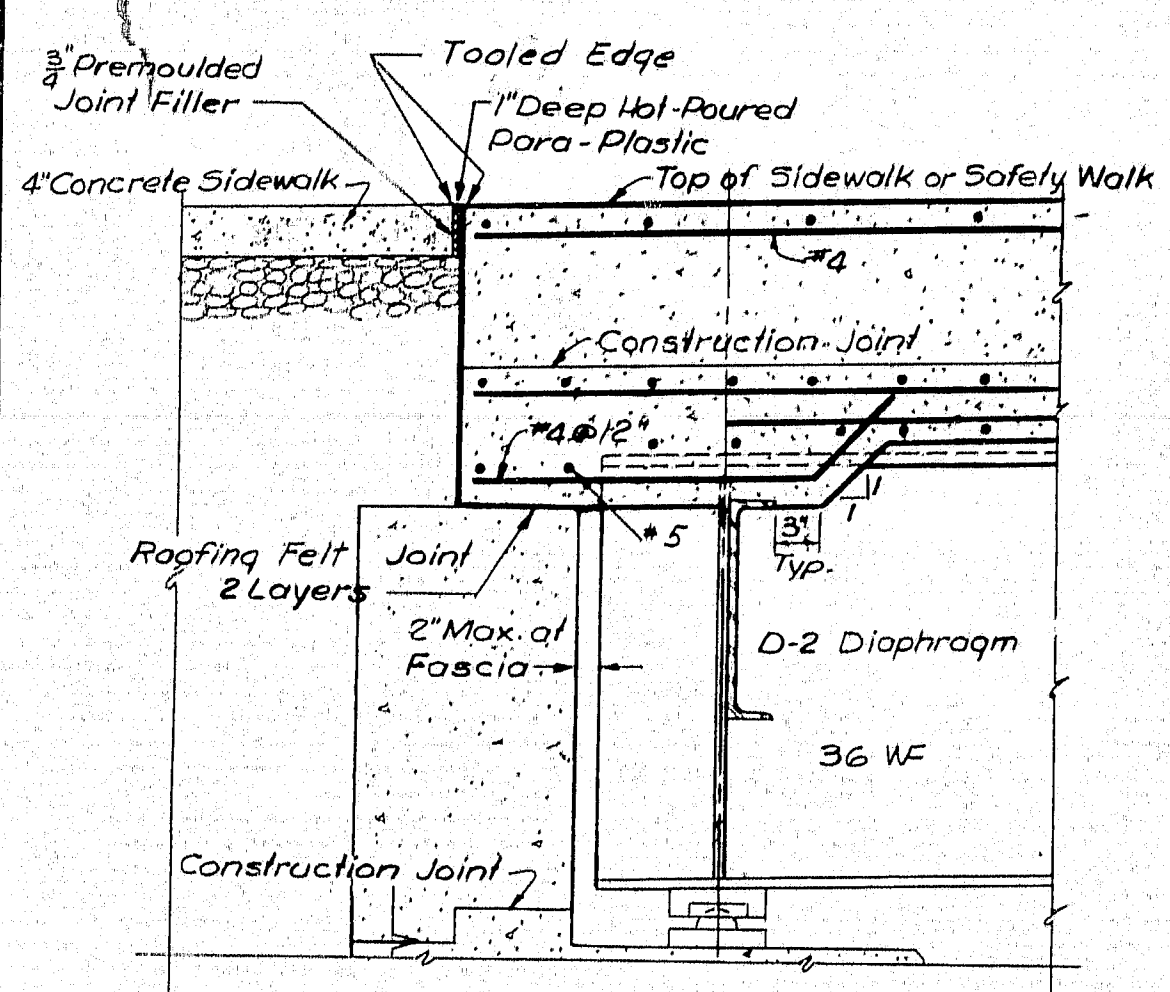
P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	IN-01-1(15)	69	240



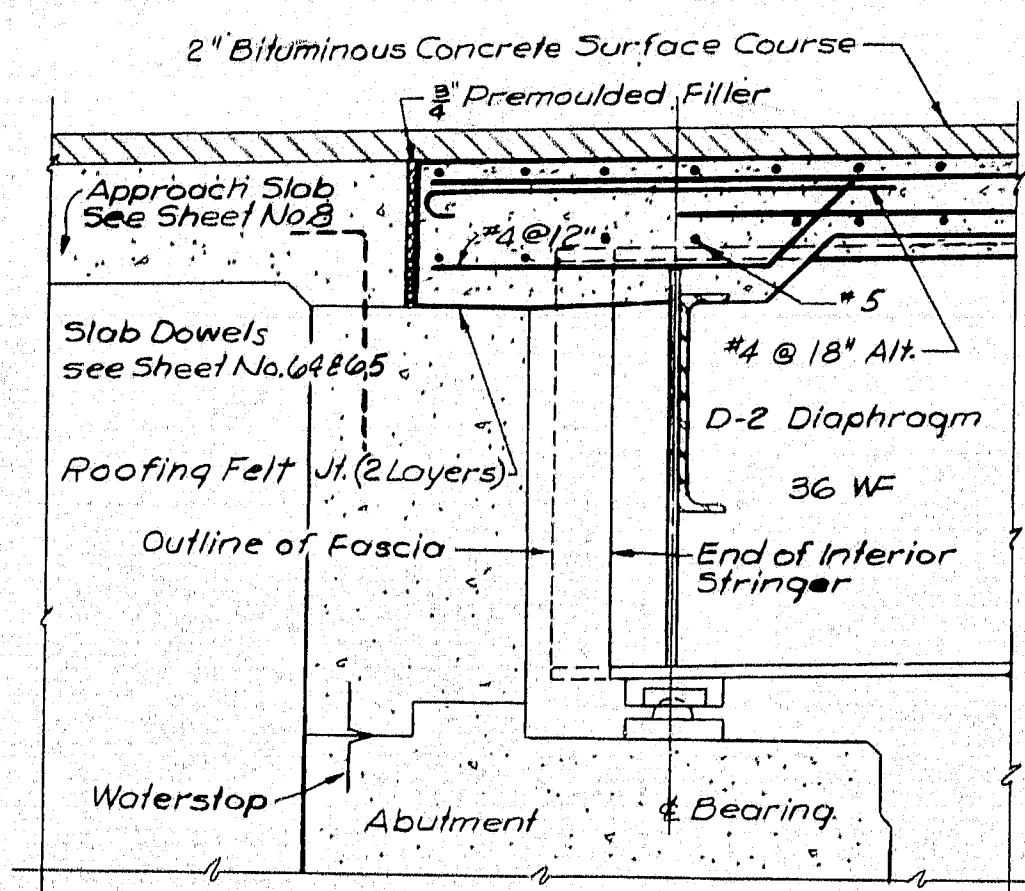
DECK CROSS SECTION A-A  
Scale: 3/8"=1'-0"



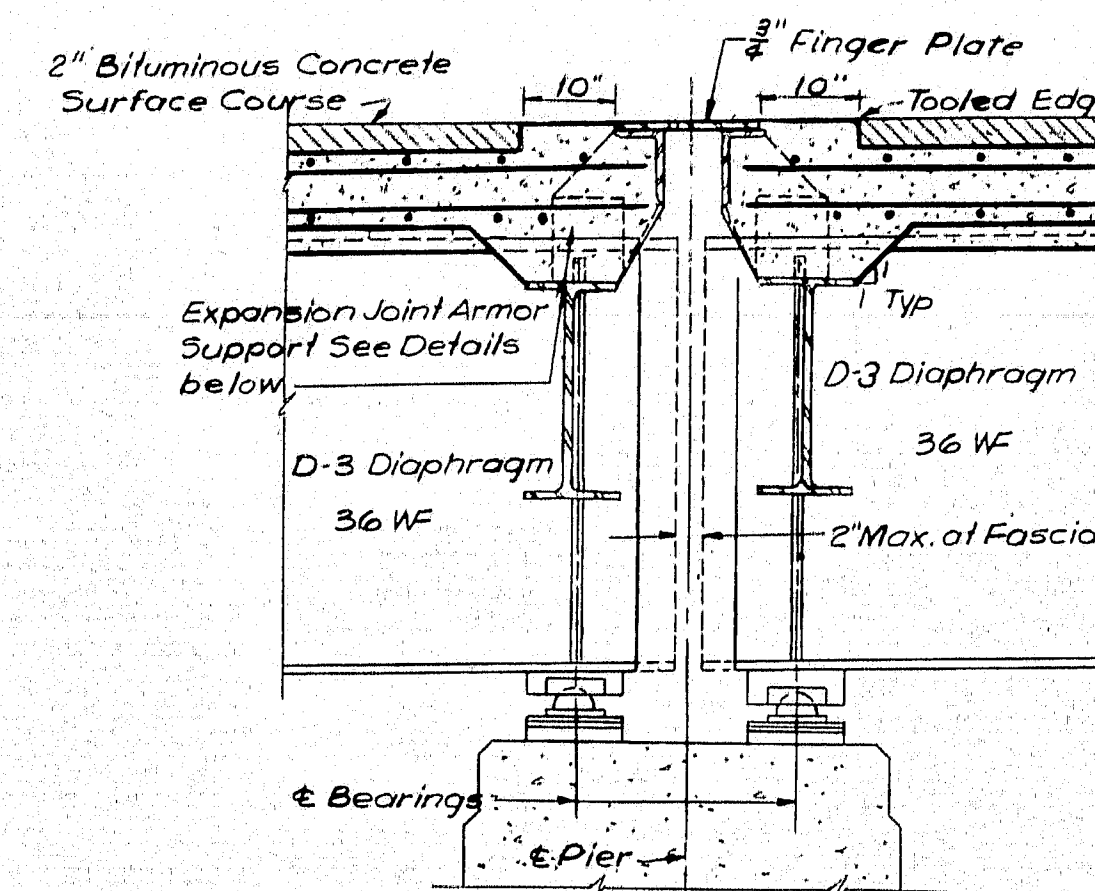
DETAIL OF CURB AND SIDEWALK  
(SAFETY CURB SIMILAR)  
Scale: 3/8"=1'-0"



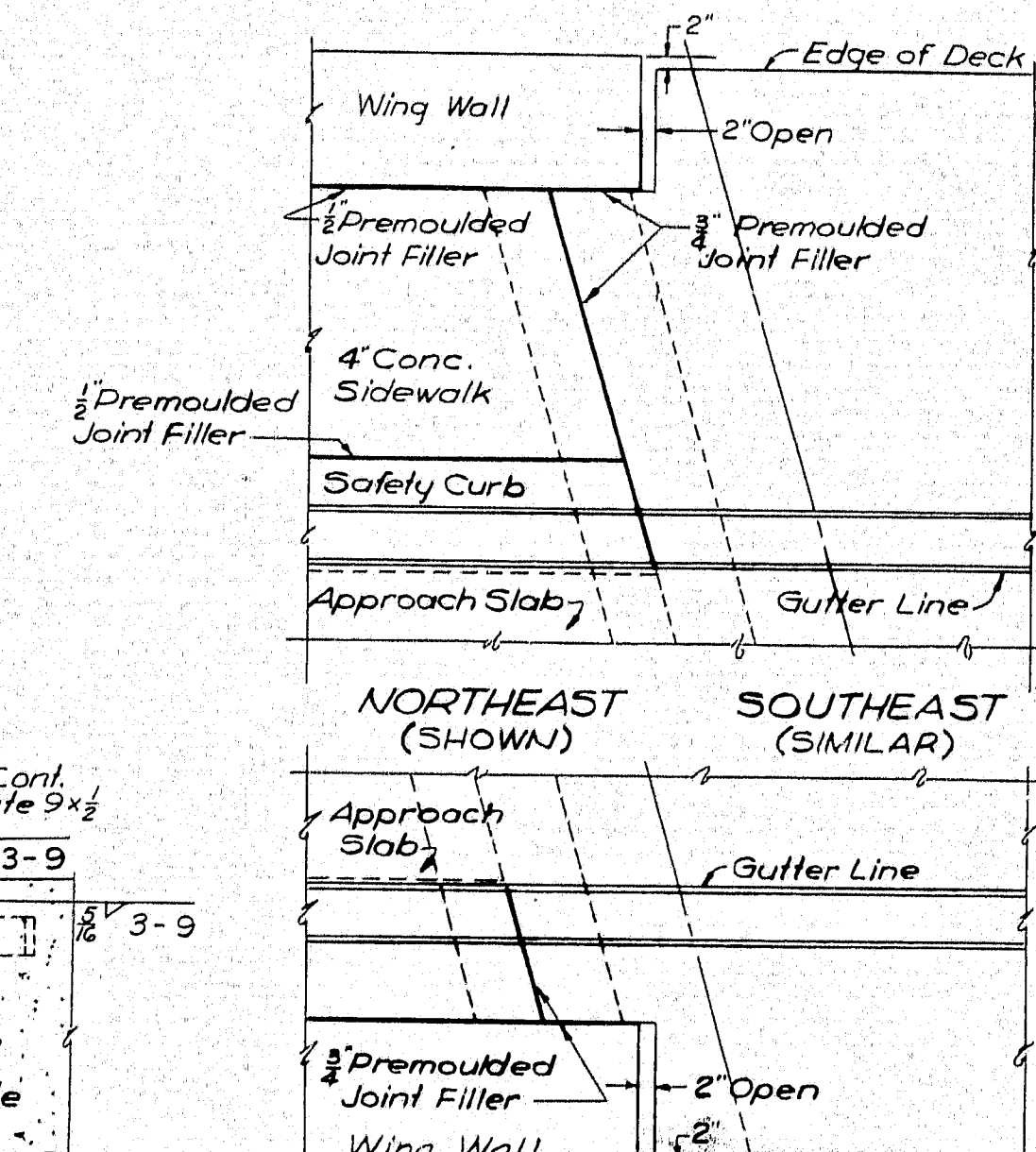
SECTION B-B  
(AT ABUTMENTS THRU SIDEWALK)  
OR SAFETY CURB  
Scale: 3/8"=1'-0"



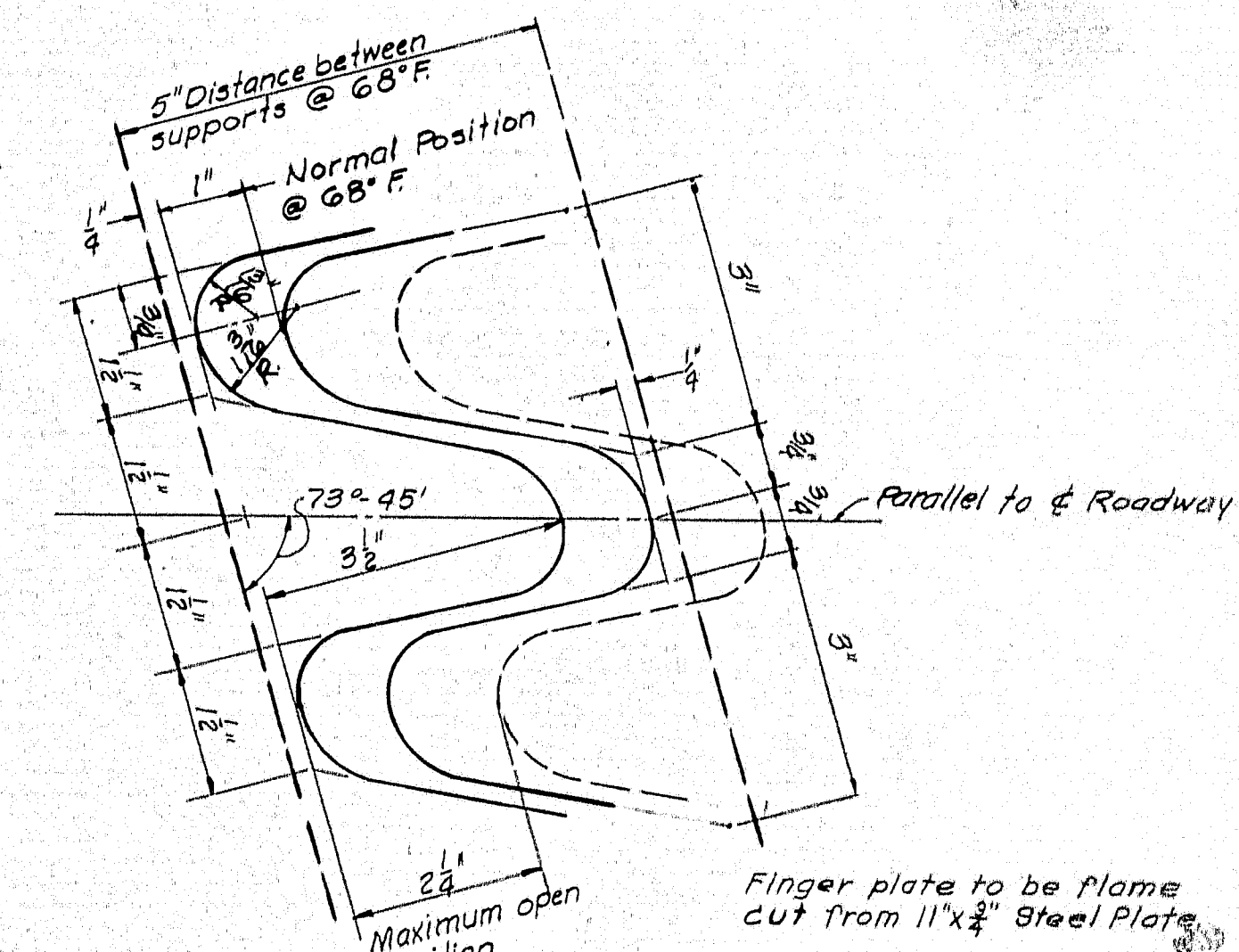
SECTION C-C  
(AT ABUTMENTS THRU ROADWAY)  
Scale: 3/8"=1'-0"



SECTION D-D  
(AT PIER)  
Scale: 3/8"=1'-0"

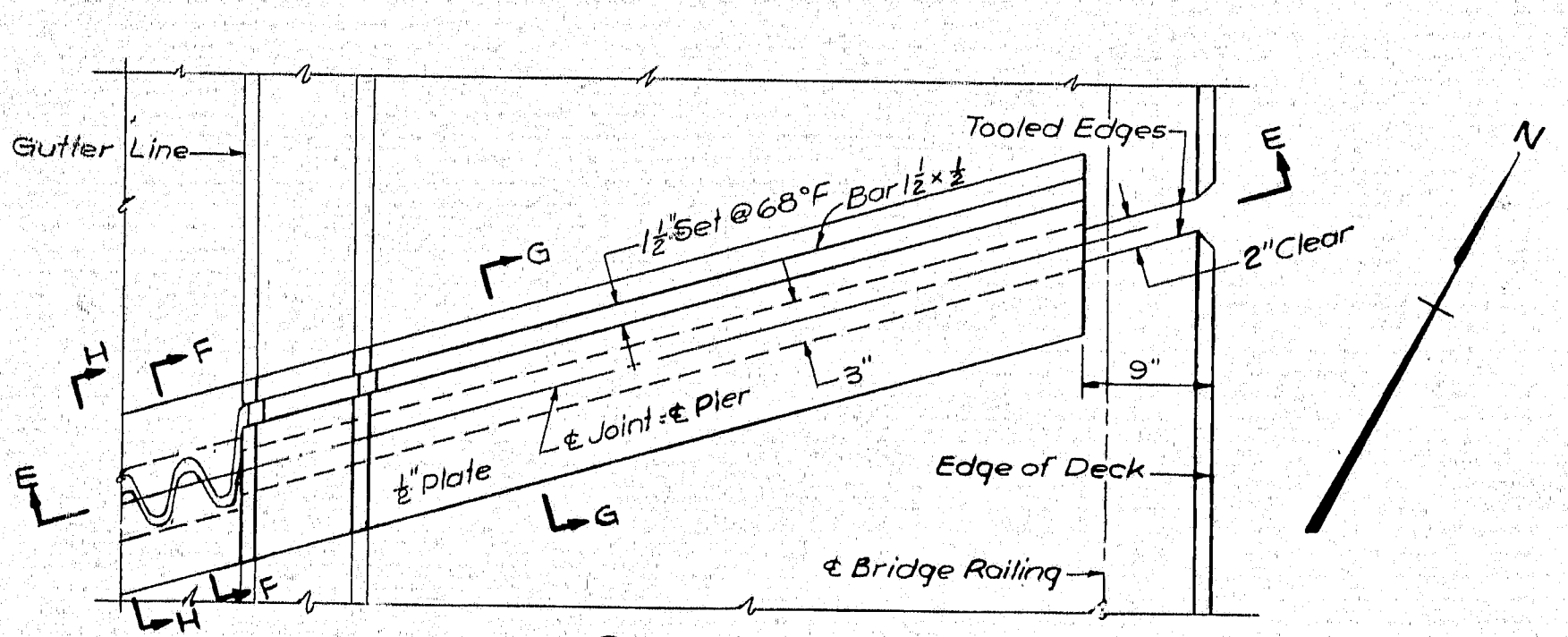


PLAN OF DECK CORNERS  
Scale: 1/2"=1'-0"

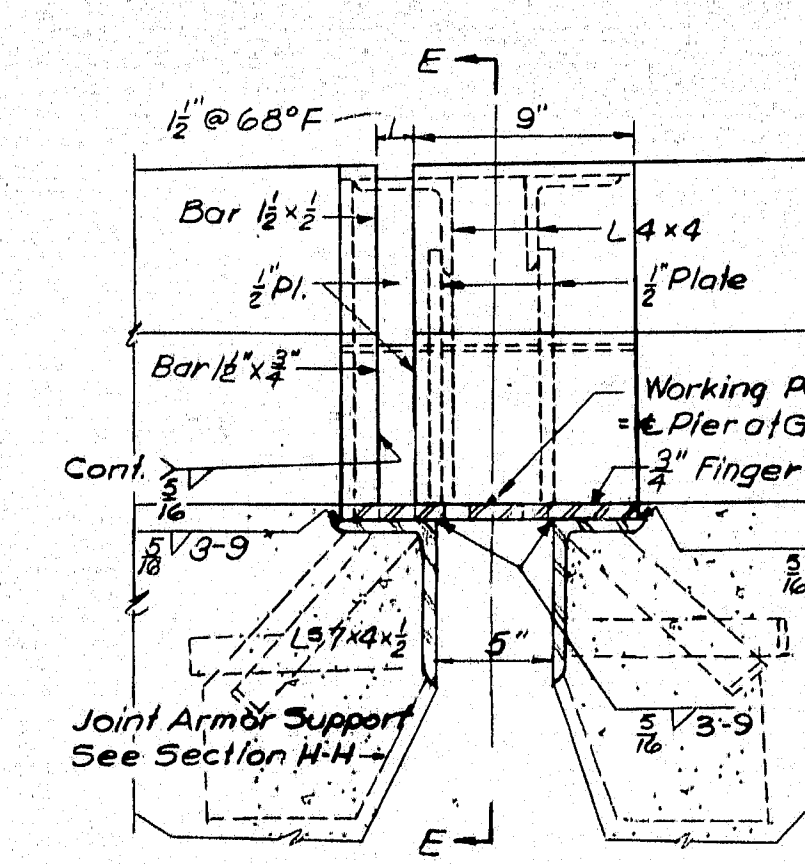


DETAIL OF FINGER JOINT  
Half Size

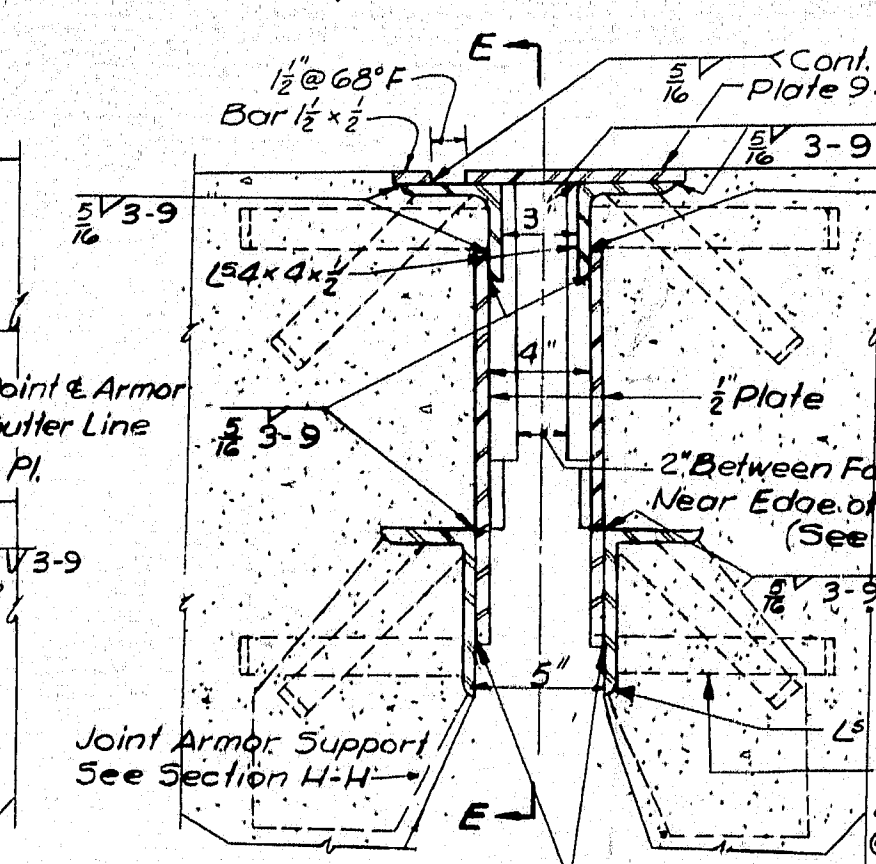
NOTE:  
After structural steel has been erected, levels are to be run on top flanges of stringers. Screeds for slab are to be set on the basis of these levels corrected for 3/4" of the dead load deflection shown on sheet no. 68 and for any vertical curve.



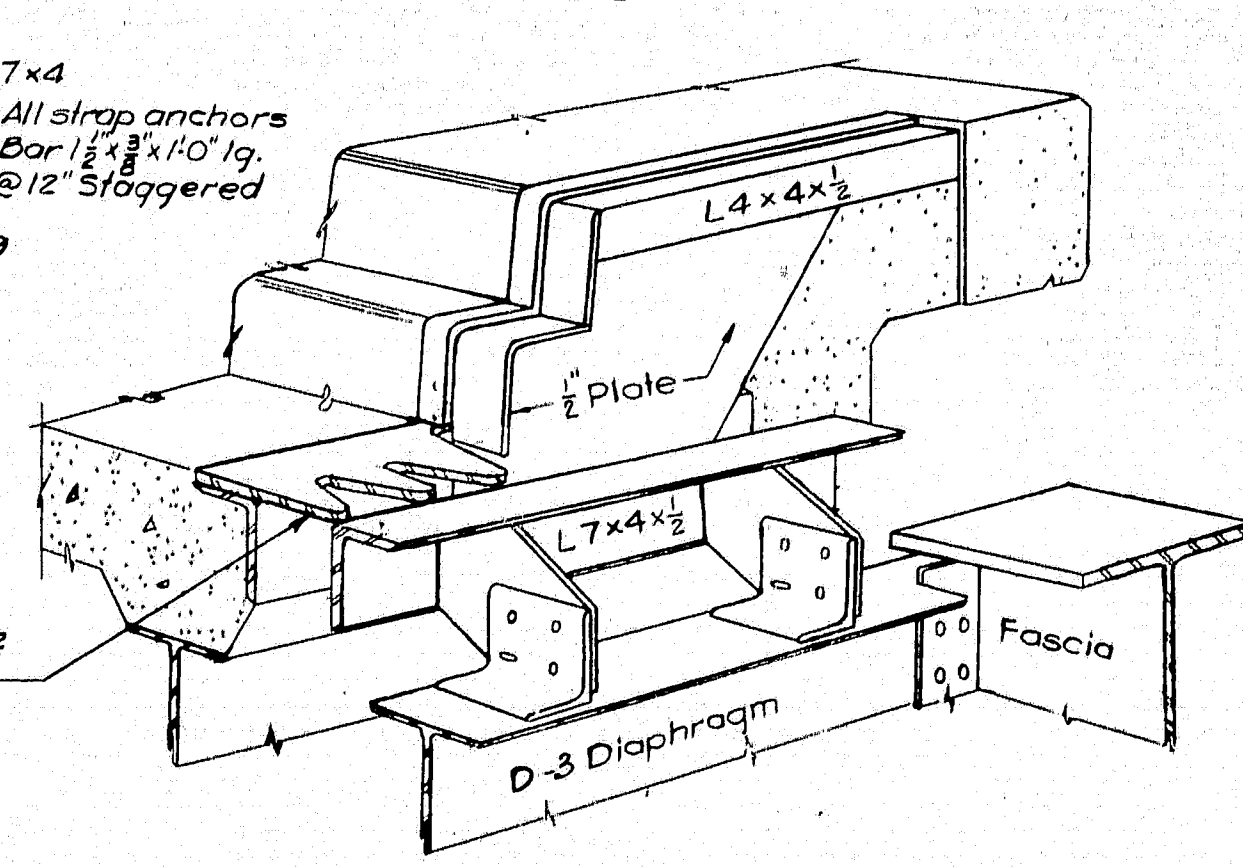
PLAN  
Scale: 1/4"=1'-0"



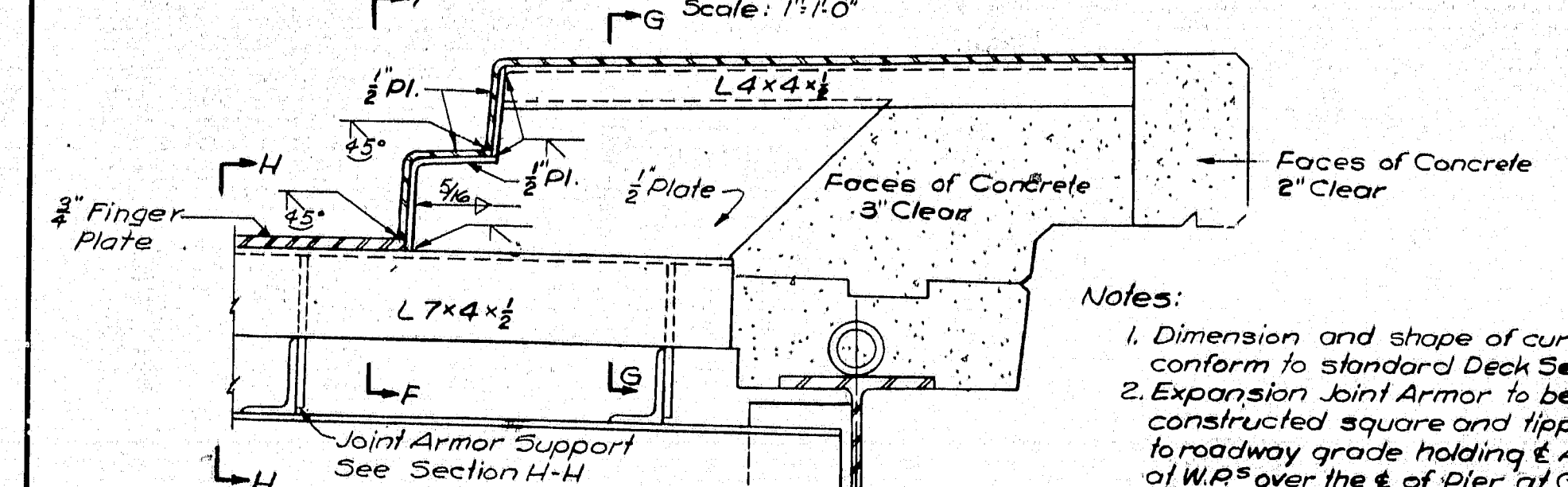
SECTION F-F  
(THRU ROADWAY)  
Scale: 1/2"=1'-0"



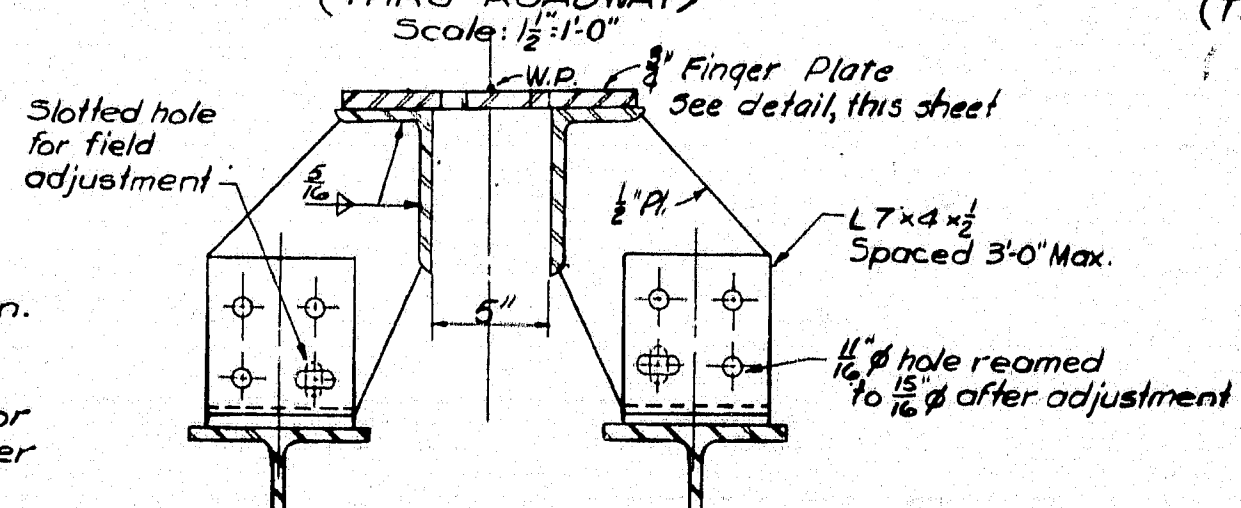
SECTION G-G  
(THRU SIDEWALK)  
Scale: 1/2"=1'-0"



ISOMETRIC SHOWING  
PARTIAL EXPANSION DAM  
(LOOKING NORTH FROM SPAN 2)  
Scale: 1/4"=1'-0"



SECTION E-E  
Scale: 1"=1'-0"

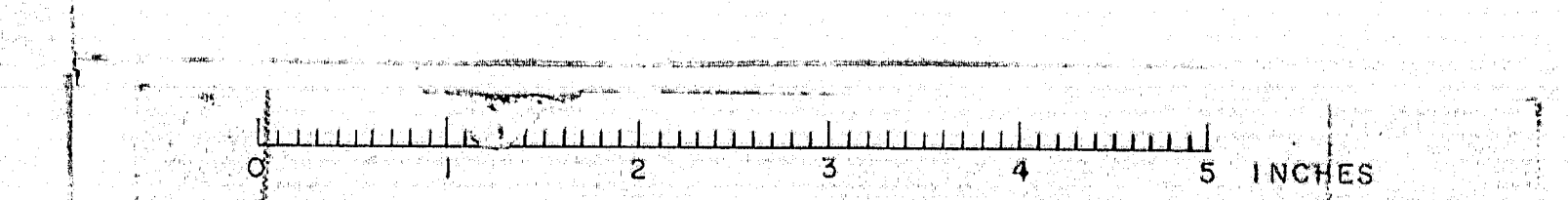


SECTION H-H  
(SHOWING TYP. SUPPORT)  
Scale: 1/2"=1'-0"

DETAILS OF EXPANSION JOINT ARMOR

- Notes:
1. Dimension and shape of curb to conform to standard Deck Section.
  2. Expansion Joint Armor to be constructed square and tipped to roadway grade holding & armor of W.R. over the & of Pier at Gutter Lines.

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STATE HIGHWAY COMMISSION AUGUSTA, MAINE		
FREEPORT BYPASS		
BRIDGE STRUCTURE AT APPROACH ROAD INTERCHANGE CROSS SECTION AND DETAILS		
SHEET NO. 69 OF 240	SCALES AS NOTED	AUG. 1956
FAY, SPOFFORD & THORNDIKE, INC. ENGINEERS		