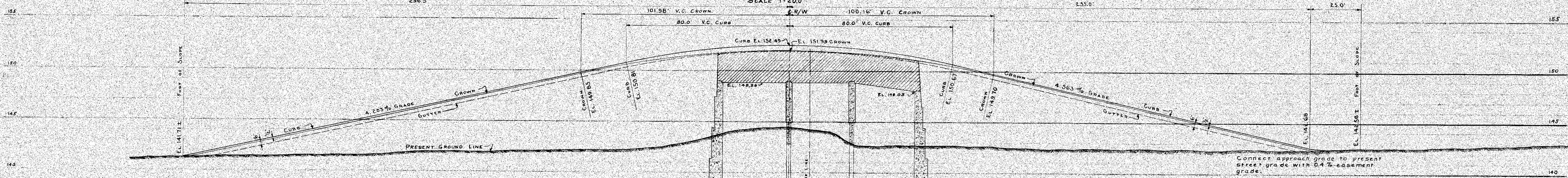
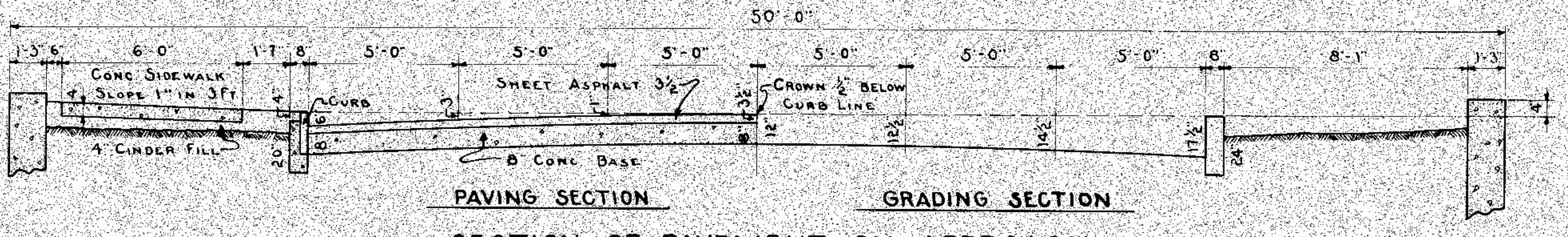


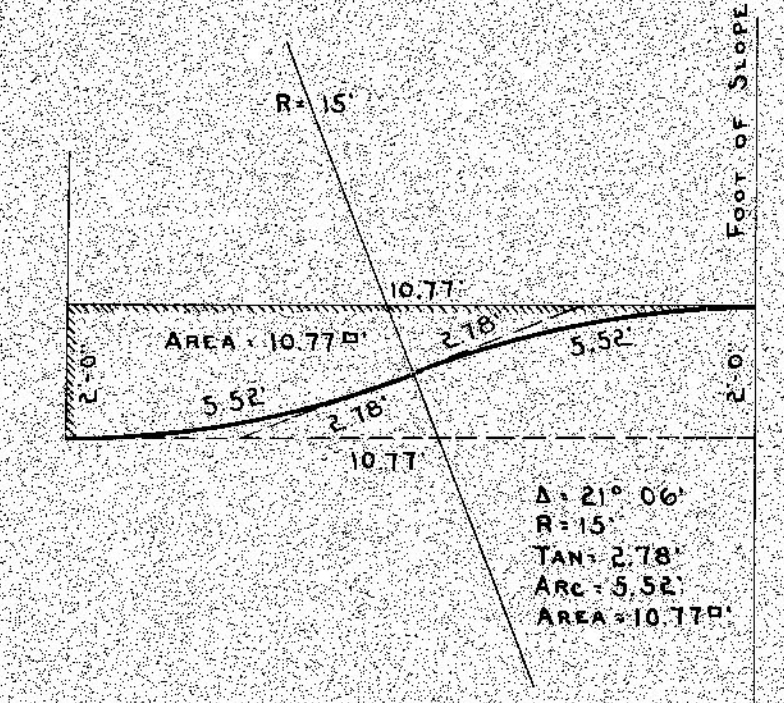
GENERAL PLAN.
SCALE 1"=200'



PROFILE.
VERTICAL 1"=4.0 FT.
HORIZONTAL 1"=200 FT.



SECTION OF PAVEMENT ON APPROACH
SCALE: 1/4"=1 FT.
TO BE USED FROM FOOT OF SLOPE TO A POINT 100.16 FT EAST OF C. OF R/W
101.98 FT WEST

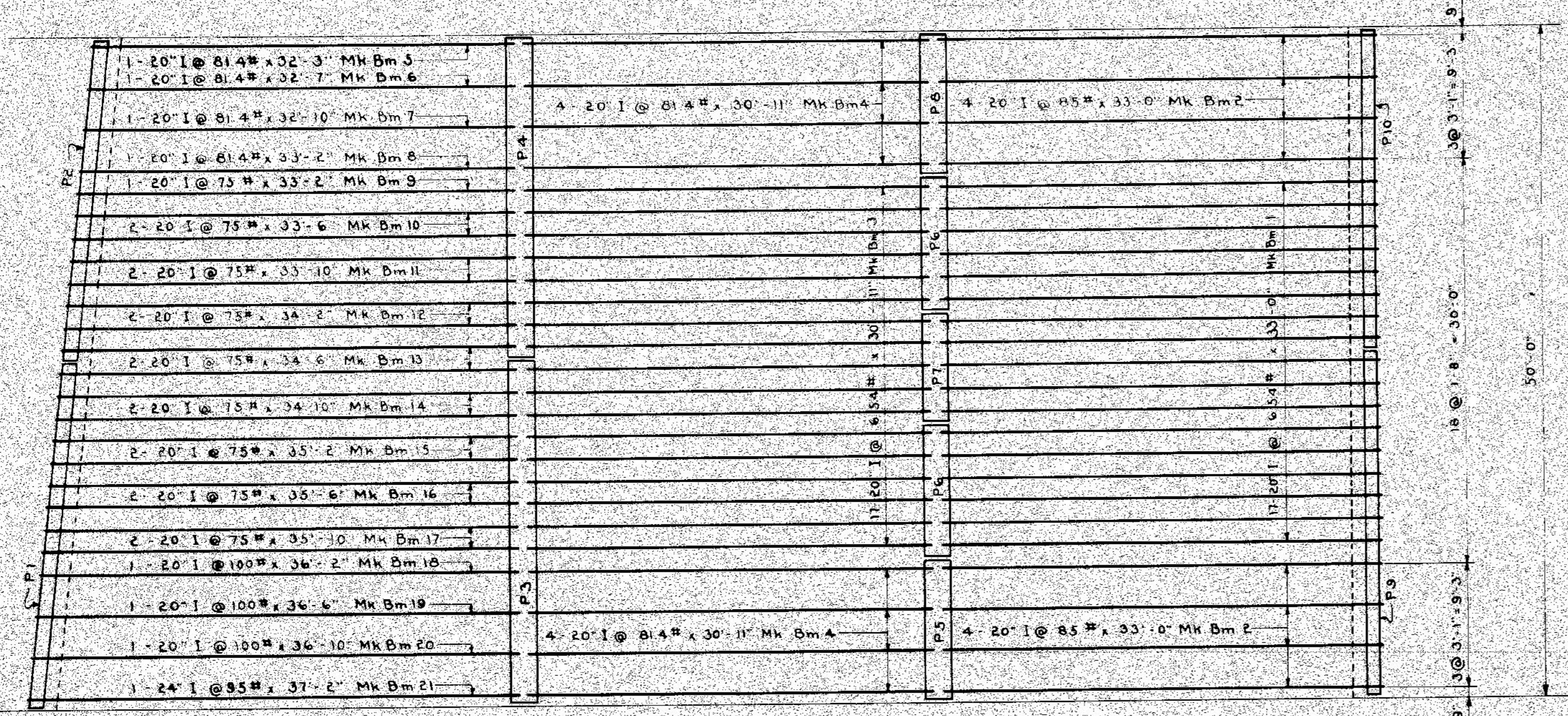


DETAILS OF REVERSE CURVE AT WIDENING OF PAVEMENT FROM 26 FT. TO 30 FT.
SCALE: 1"=3 FT.

Approved: *[Signature]*
Chief Engineer D. G. H. & M. Ry.
Approved: *[Signature]*
City Engineer

**GRAND TRUNK RAILWAY SYSTEM
WESTERN LINES.
DEQUINDRE GRADE SEPARATION.
DETROIT, MICHIGAN.
GENERAL PLAN & PROFILE-ALFRED ST.**
SCALE AS NOTED.

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CH. L.S. JANUARY 30, 1929. FILE



DECK STEEL PLAN
Scale - 1/4" = 1'-0"

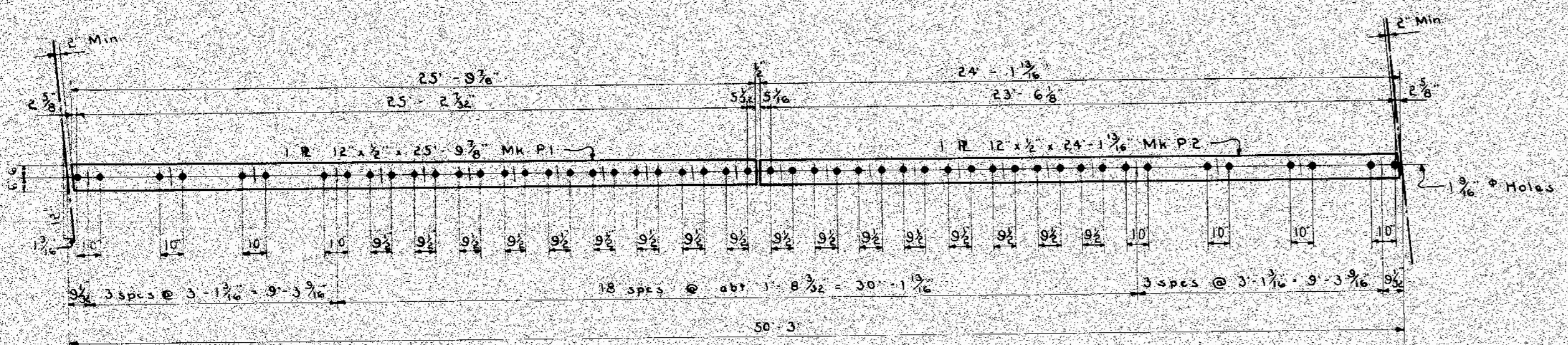
BILL OF STRUCTURAL STEEL					
DECK FLOOR BEAMS					
Location	No.	Mark	Size	Length	Remarks
Roadway - East Span	17	Bm 1	20" I @ 81.4"	33'-0"	B3 No Fabrication
Sidewalk - East Span	8	Bm 2	20" I @ 81.4"	33'-0"	B2
Roadway - Center Span	17	Bm 3	20" I @ 81.4"	30'-11"	B3
Sidewalk - Center Span	8	Bm 4	20" I @ 81.4"	30'-11"	B2
Sidewalk - West Span	1	Bm 5	20" I @ 81.4"	32'-3"	B2
	1	Bm 6	20" I @ 81.4"	32'-7"	B2
	1	Bm 7	20" I @ 81.4"	32'-10"	B2
	1	Bm 8	20" I @ 81.4"	33'-2"	B2
Roadway - West Span	1	Bm 9	20" I @ 75"	33'-2"	B3
	2	Bm 10	20" I @ 75"	33'-6"	B3
	2	Bm 11	20" I @ 75"	33'-10"	B3
	2	Bm 12	20" I @ 75"	34'-2"	B3
	2	Bm 13	20" I @ 75"	34'-6"	B3
	2	Bm 14	20" I @ 75"	34'-10"	B3
	2	Bm 15	20" I @ 75"	35'-2"	B3
	2	Bm 16	20" I @ 75"	35'-6"	B3
	2	Bm 17	20" I @ 75"	35'-10"	B3
Sidewalk - West Span	1	Bm 18	20" I @ 100"	36'-2"	B2
	1	Bm 19	20" I @ 100"	36'-6"	B2
	1	Bm 20	20" I @ 100"	36'-10"	B2
	1	Bm 21	24" I @ 95"	37'-2"	B1

BEARING PLATES					
Location	No.	Mark	Size	Length	Remarks
West Abutment	1	P1	12" x 1/2"	23'-3 3/4"	Punch per Detail
	1	P2	12" x 1/2"	24'-1 1/2"	
West Bent	1	P3	24" x 1/2"	25'-1 1/2"	
	1	P4	24" x 1/2"	25'-11 1/2"	
East Bent	1	P5	24" x 1/2"	10'-7 1/2"	Punch and Machine per Detail
	2	P6	24" x 1/2"	9'-11 1/2"	
	1	P7	24" x 1/2"	8'-3 1/2"	
	1	P8	24" x 1/2"	10'-7 1/2"	
East Abutment	1	P9	12" x 1/2"	23'-7 1/2"	Punch per Detail
	1	P10	12" x 1/2"	23'-11 1/2"	

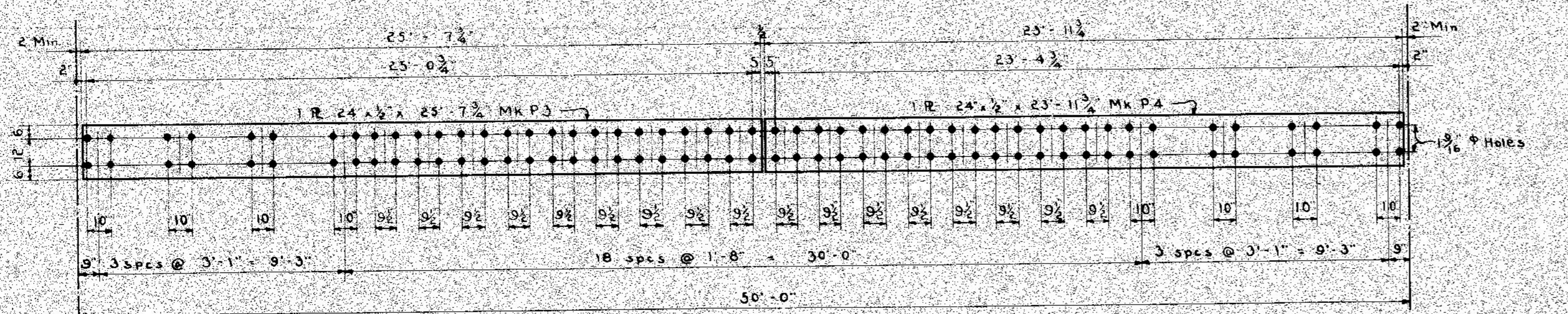
MISCELLANEOUS STEEL					
Item	No.	Size	Length	Description	
Anchor Bolts	300	3/4"	1'-6"	Swedge Bolts with Hex Nuts and Washers	
Grips	300	-	-	See Detail	

BILL OF REINFORCING STEEL					
ABUTMENT					
Location	No.	Mark	Size	Length	Bending Diagram
Abutment Footings	200	d1	3/4"	7'-6"	Straight
"	8	d2	3/4"	24'-0"	"

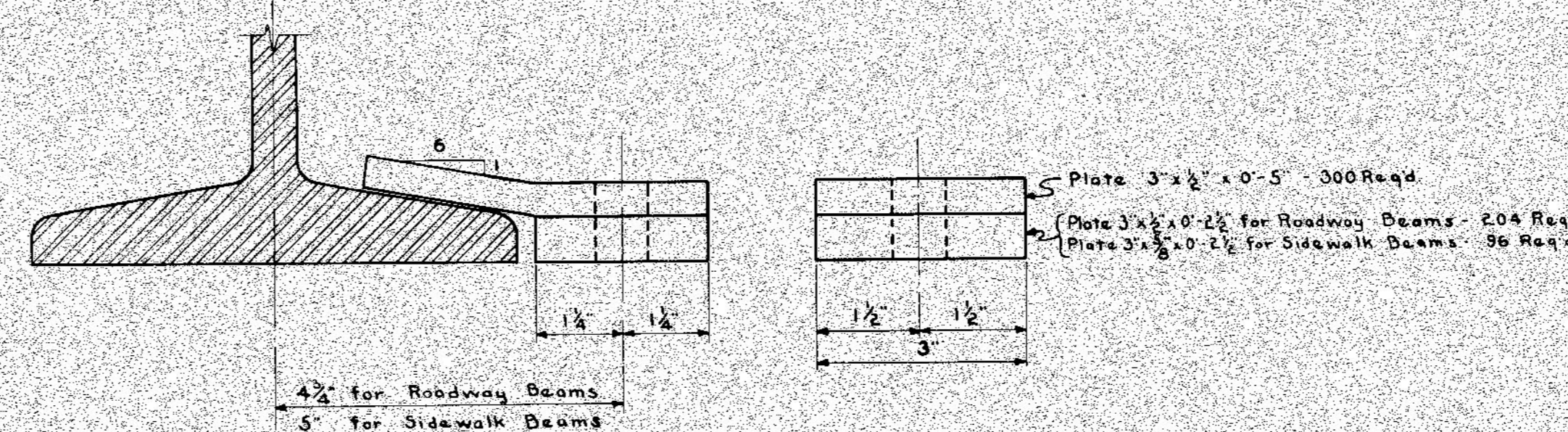
BENT					
Location	No.	Mark	Size	Length	Bending Diagram
Bottom Bent Footing	120	b1	3/4"	3'-0"	
"	16	b2	1"	27'-3"	
Top Bent Footing	16	b3	3/4"	21'-0"	
Bottom Arch Beam	16	b4	3/4"	15'-6"	
Top Arch Beam	16	b5	3/4"	26'-11"	
Footing Beam	32	d1	3/4"	27'-4"	
Arch Beam	72	d8	3/4"	26'-8"	
Columns	162	c1	3/8"	23'-0"	Straight
Ties End Columns	66	c2	3/8"	10'-2"	
Ties Interior Columns	66	c3	3/8"	7'-10"	



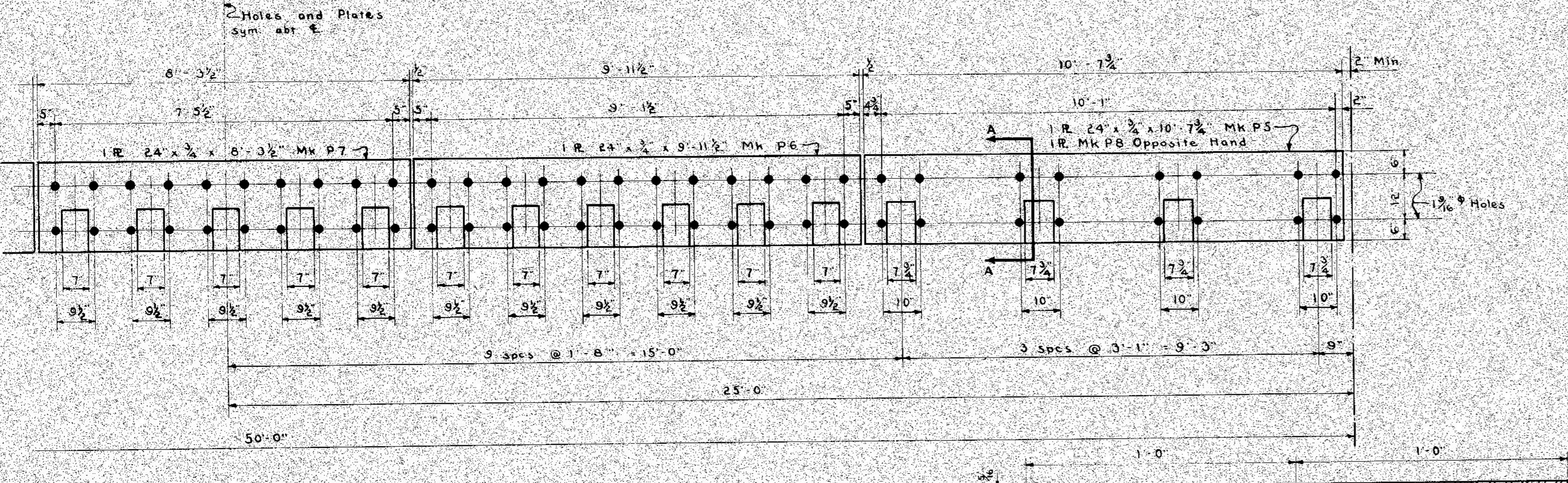
BEARING PLATE DETAIL WEST ABUTMENT
Scale - 1/4" = 1'-0"



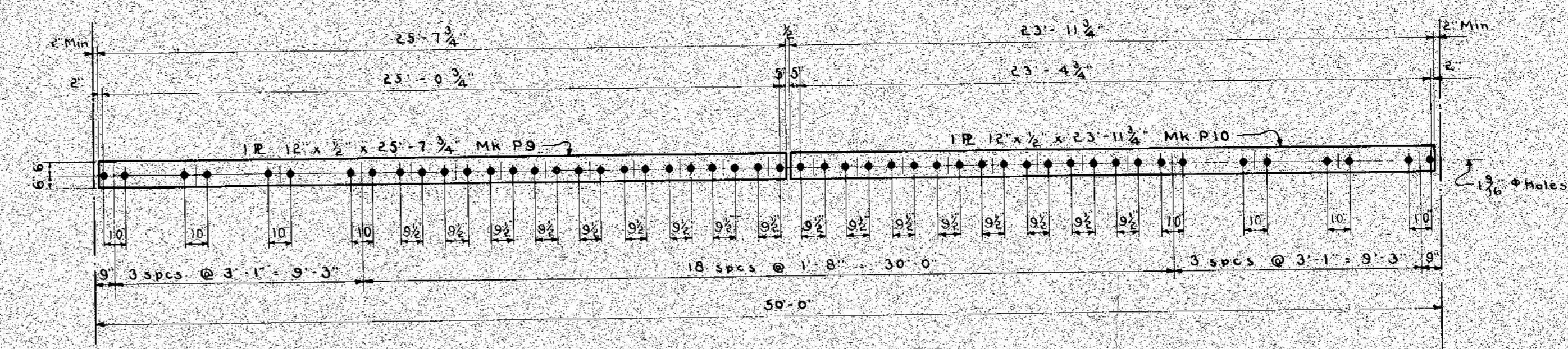
BEARING PLATE DETAIL WEST BENT
Scale - 1/4" = 1'-0"



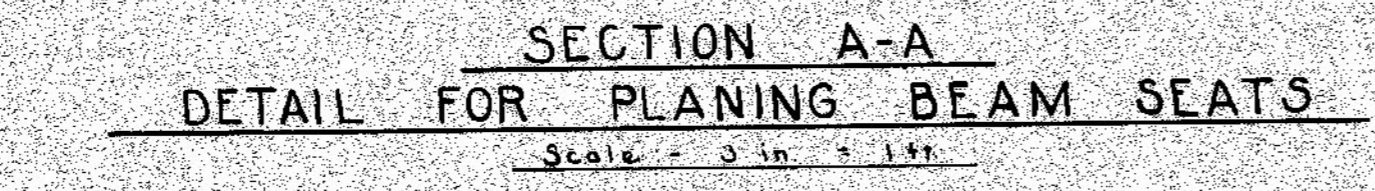
DETAIL OF I-BEAM CLIPS
Scale - 1/2" = 1'-0"



BEARING PLATE DETAIL EAST BENT
Scale - 1/4" = 1'-0"



BEARING PLATE DETAIL EAST ABUTMENT
Scale - 1/4" = 1'-0"



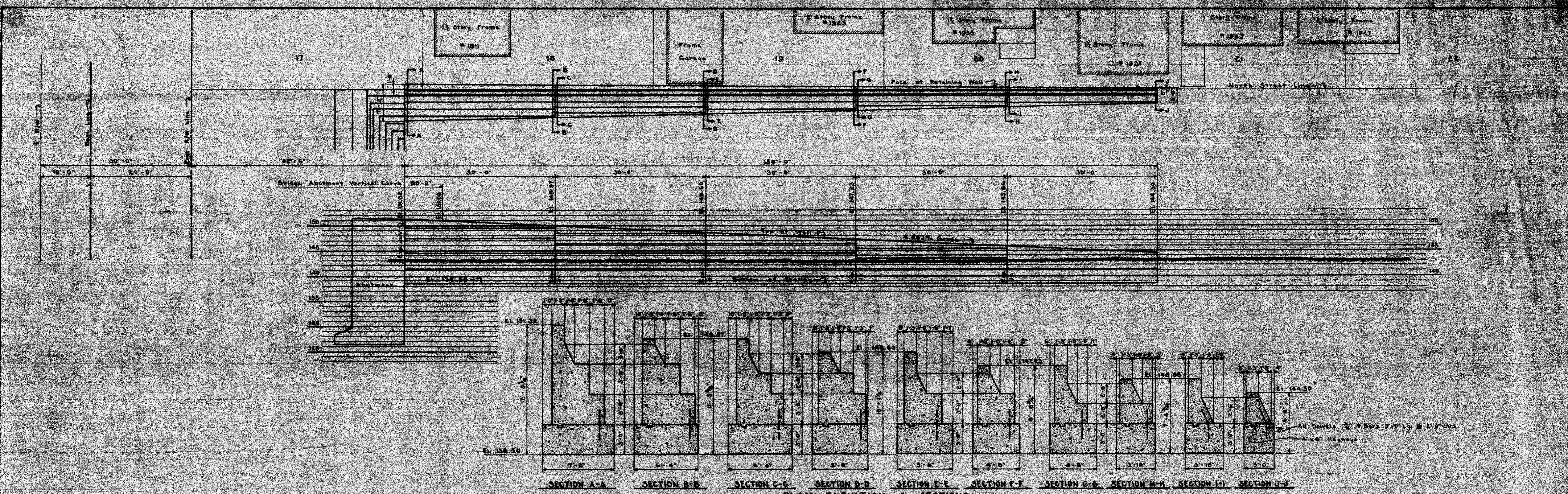
SECTION A-A DETAIL FOR PLANING BEAM SEATS
Scale - 3/8" = 1'-0"

DECK					
Location	No.	Mark	Size	Length	Bending Diagram
Roadway Deck	126	d1	3/4"	18'-0"	Straight
Sidewalk Deck	104	d2	3/4"	10'-11"	
"	306	d3	3/4"	11'-1"	
"	72	d4	3/4"	10'-10"	
"	24	d5	3/4"	11'-0"	
Sidewalk Slab	408	d6	3/8"	7'-10"	Straight - To be cut in field
"	120	d7	3/8"	6'-4"	"
Post Dowels	52	d8	3/4"	6'-6"	Straight
Vertical Reinforcing	60	d9	3/8"	3'-6"	"
Railing	30	d10	3/8"	13'-8"	"
"	40	d11	3/8"	12'-10"	"
"	60	d12	3/8"	13'-8"	"
"	6	d13	3/8"	10'-8"	"
"	8	d14	3/8"	9'-10"	"
"	16	d15	3/8"	10'-8"	"
Railing to Post Dowels	32	d16	3/8"	3'-6"	"
"	24	d17	3/8"	4'-0"	"

Approved: *J. H. Hanson*
Chief Engineer D. G. M. & M. Ry.
Approved: *Harold E. ...*
City Engineer

GRAND TRUNK RAILWAY SYSTEM
WESTERN LINES
DEQUINDRE GRADE SEPARATION
DETROIT, MICHIGAN
BRIDGE - ALFRED STREET
SCALE - AS SHOWN

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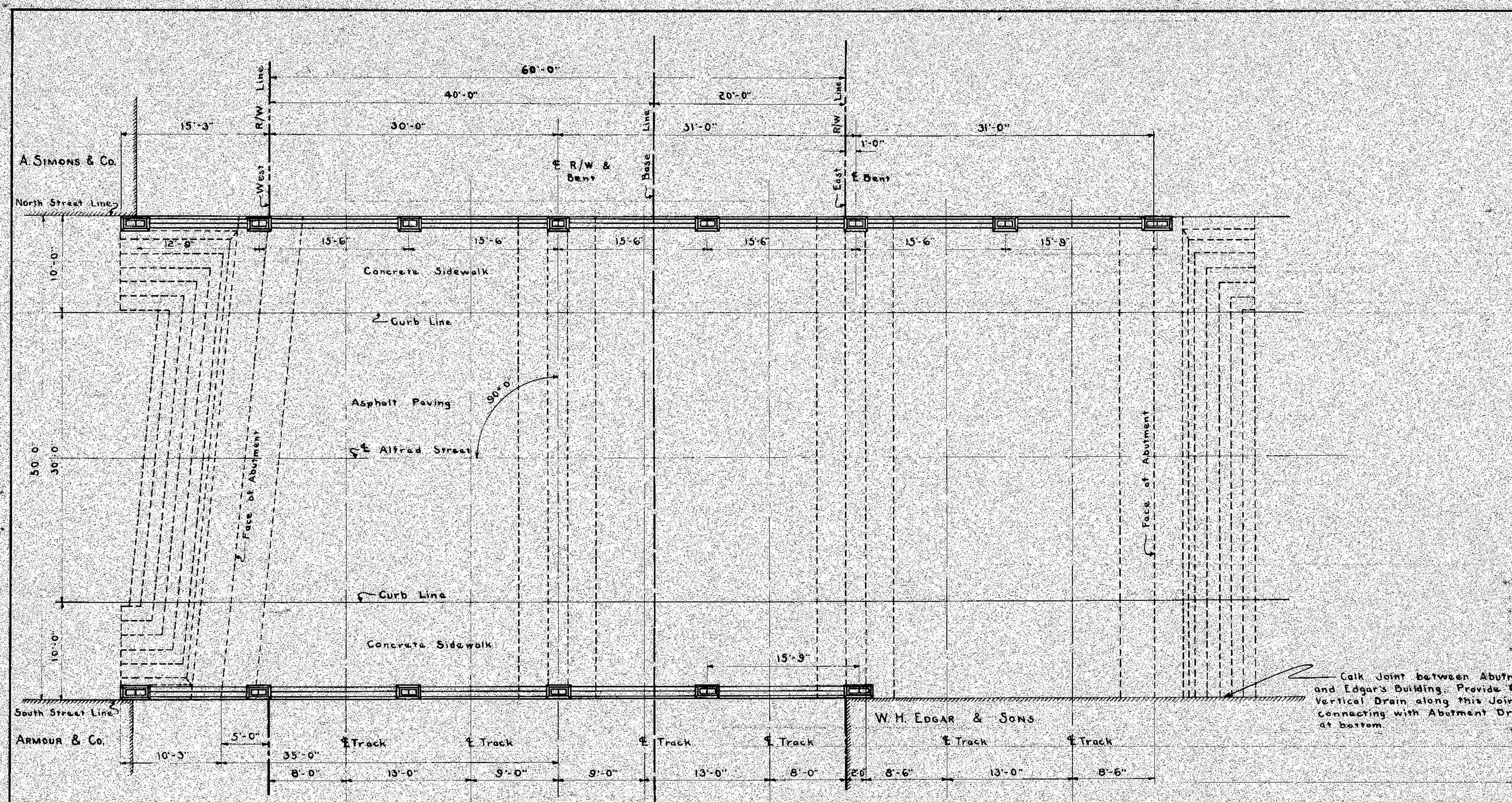
SECTION A-A SECTION B-B SECTION C-C SECTION D-D SECTION E-E SECTION F-F SECTION G-G SECTION H-H SECTION I-I SECTION J-J
PLAN ELEVATION & SECTIONS
 NORTH SIDE - EAST OF R/W
 Scale: Plan & Elevation - 1/8" = 1'-0"
 Sections - 1/4" = 1'-0"

Approved: *[Signature]*
 Chief Engineer D. G. M. & M. Ry.
 Approved: *[Signature]*
 City Engineer

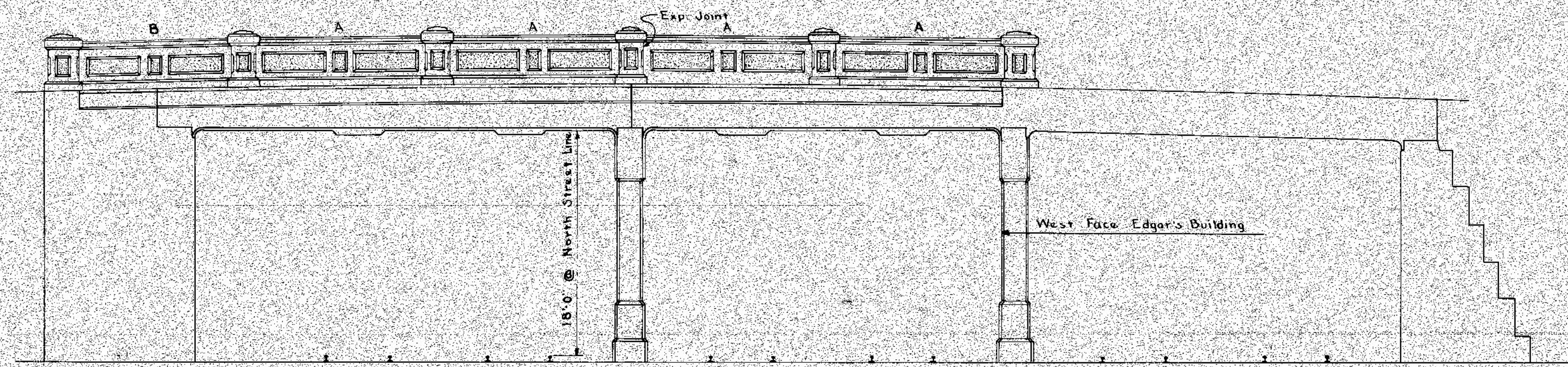
GRAND TRUNK RAILWAY SYSTEM
 WESTERN LINES
 DEQUINDRE GRADE SEPARATION
 DETROIT, MICHIGAN
 RETAINING WALLS - ALFRED STREET
 SCALE - AS SHOWN

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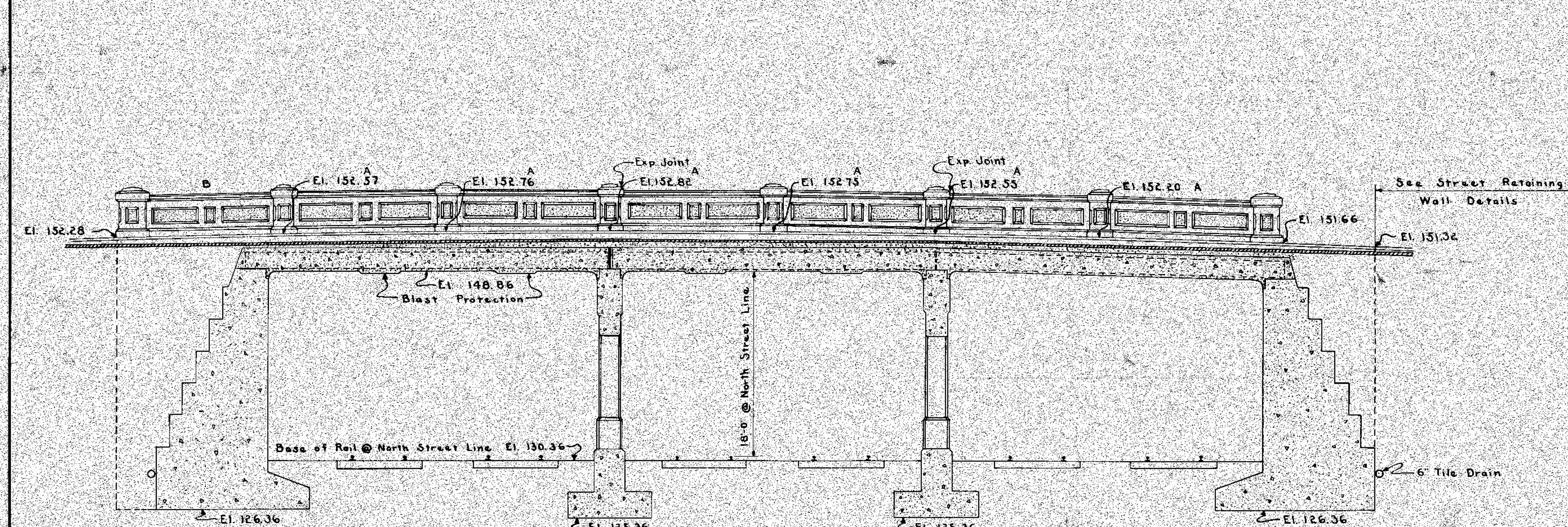
SHEET NO. 1 OF 2



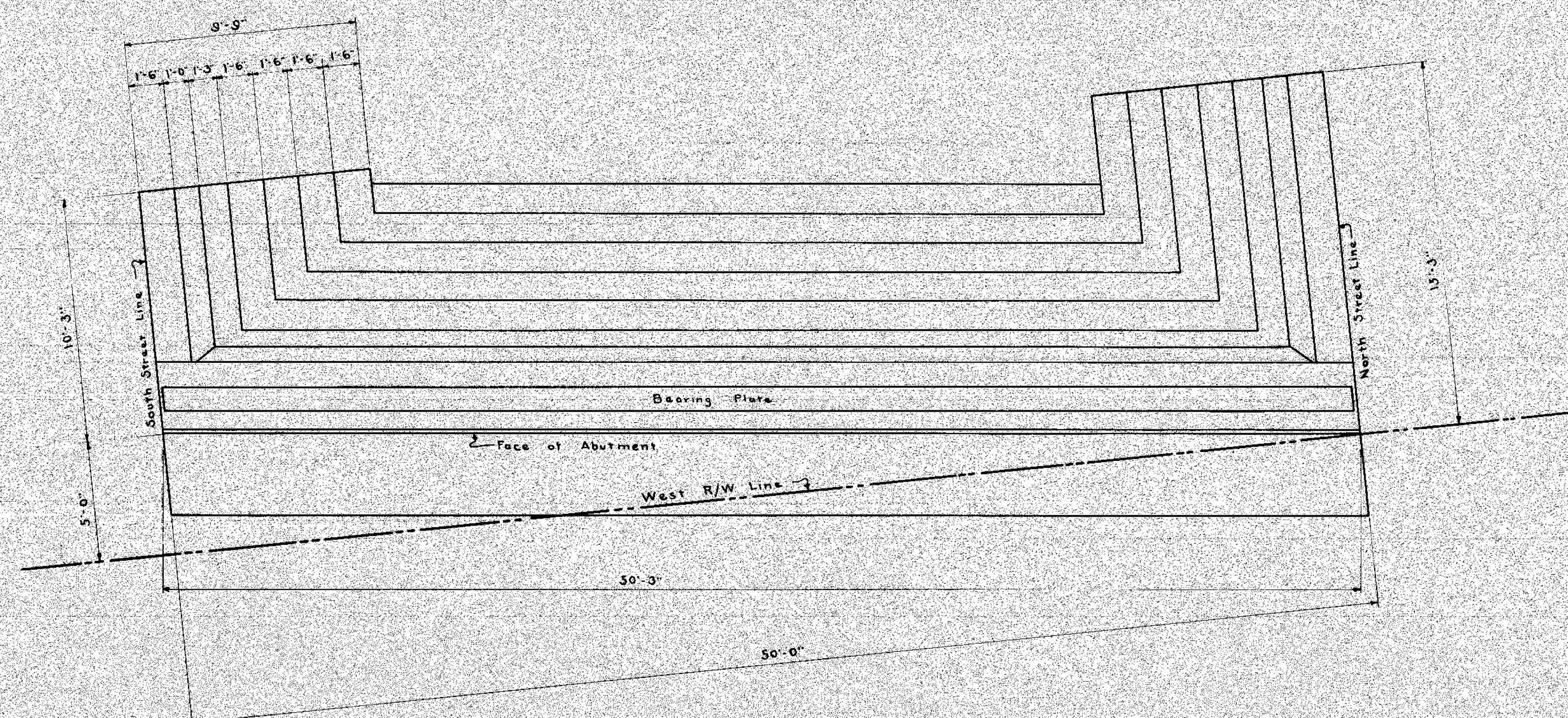
PLAN
Scale: 1/4" = 1'-0"



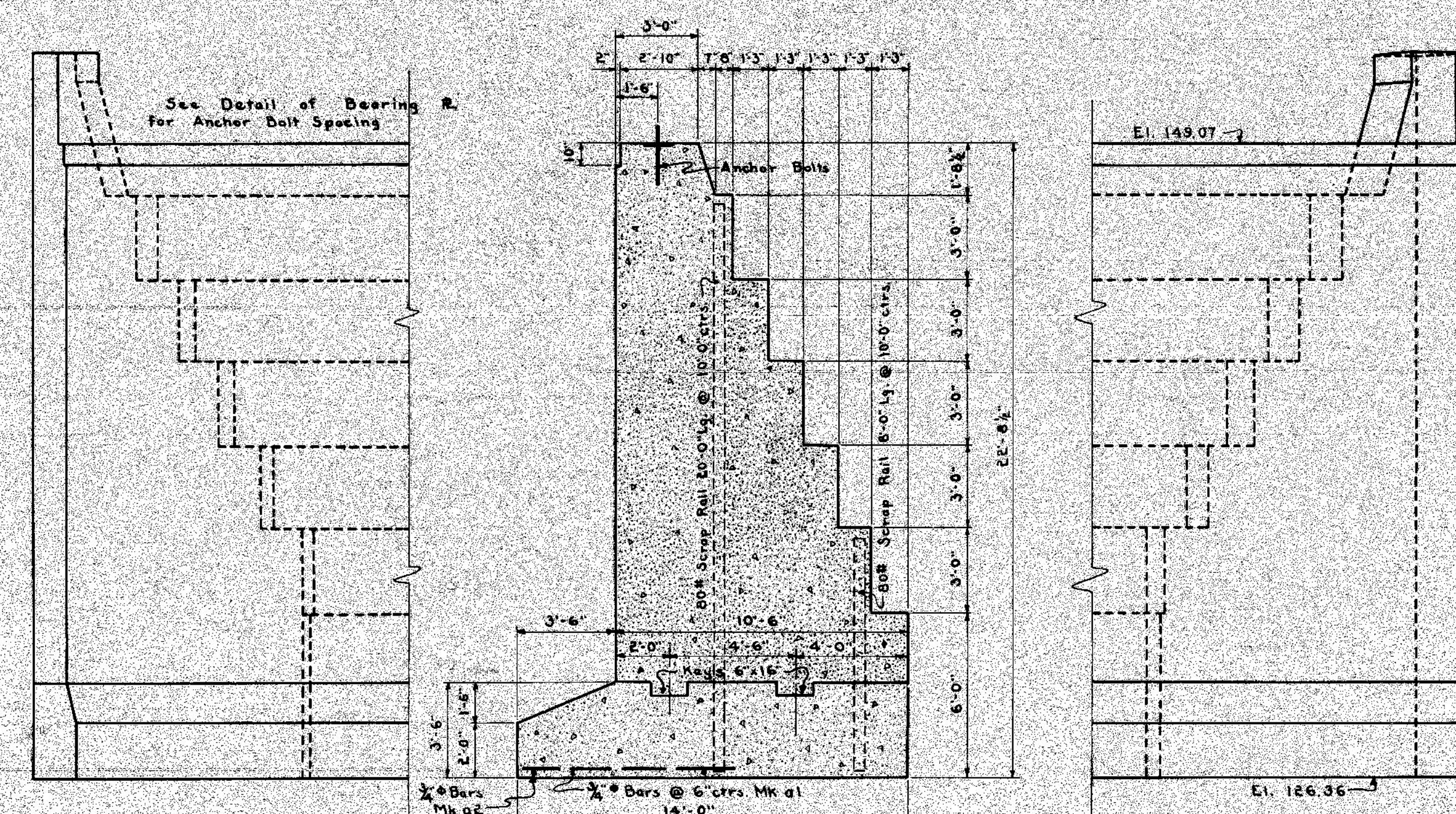
SOUTH ELEVATION



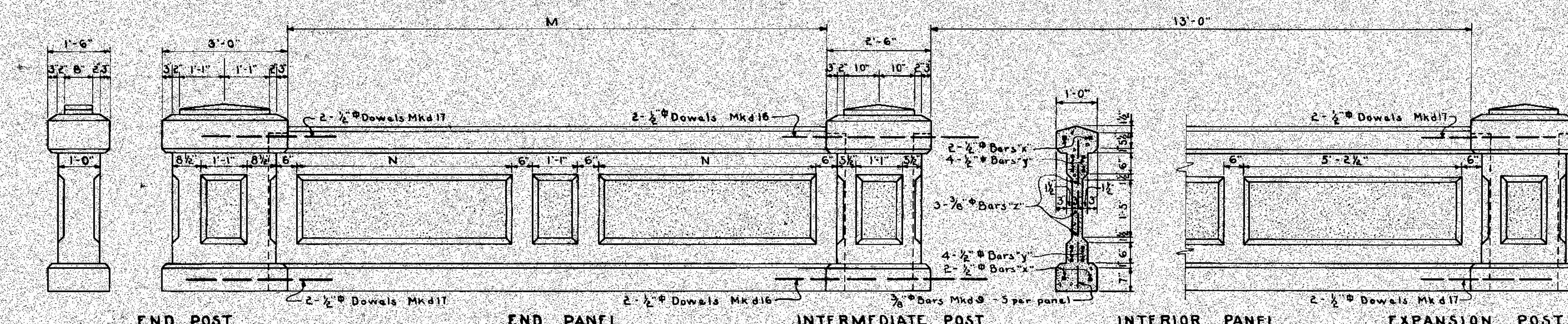
LONGITUDINAL SECTION



PLAN OF WEST ABUTMENT



ELEVATION & SECTION OF WEST ABUTMENT
Scale: 1/4" = 1'-0"



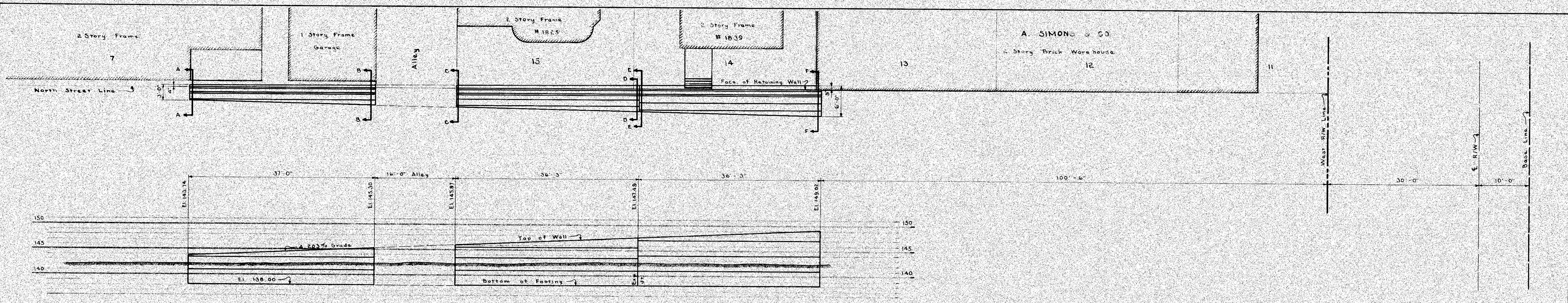
RAILINGS DETAILS
Scale: 1/4" = 1'-0"

Panel	M	N	1/2" Bars	3/4" Bars	1" Bars
End Panel A	13'-0"	5'-2 1/2"	Mkd 11 - 32'-10" Lg.	Mkd 12 - 13'-0" Lg.	Mkd 10 - 13'-8" Lg.
End Panel B	10'-0"	3'-8 1/2"	Mkd 11 - 31'-10" Lg.	Mkd 13 - 10'-8" Lg.	Mkd 13 - 10'-8" Lg.
Interior Panels	17'-0"	3'-2 1/2"	Mkd 11 - 12'-10" Lg.	Mkd 12 - 13'-8" Lg.	Mkd 10 - 13'-8" Lg.

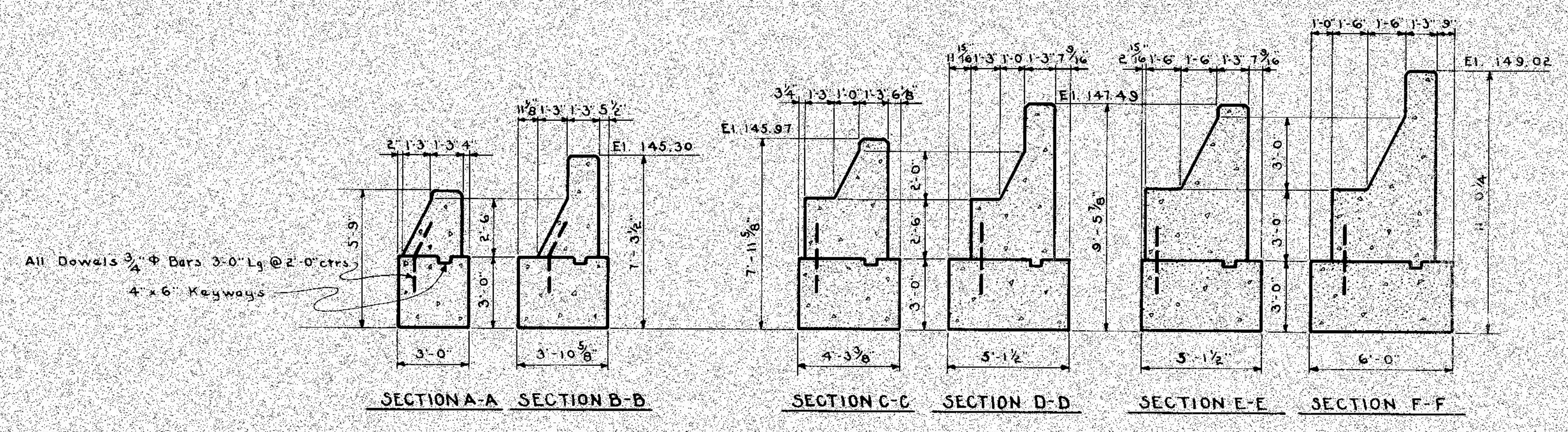
Approved: *[Signature]*
Chief Engineer D.G.H. & M. Ry.
Approved: *[Signature]*
City Engineer

GRAND TRUNK RAILWAY SYSTEM
WESTERN LINES
DEQUINDRE GRADE SEPARATION
DETROIT, MICHIGAN
BRIDGE - ALFRED STREET
SCALE: AS SHOWN

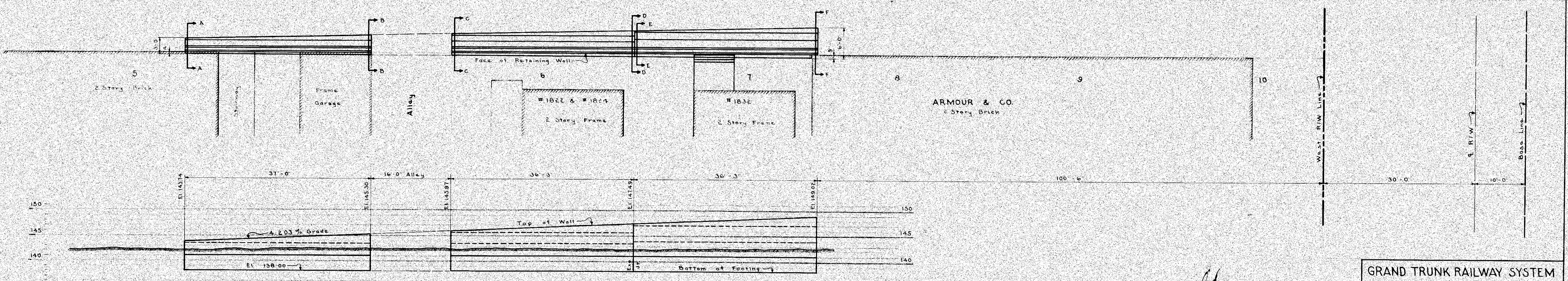
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PLAN & ELEVATION
NORTH SIDE - WEST OF R/W
Scale - 1/8" in = 1 ft.



WALL SECTIONS
Scale - 1/8" in = 1 ft.



PLAN & ELEVATION
SOUTH SIDE - WEST OF R/W
Scale - 1/8" in = 1 ft.

Approved: *[Signature]*
Chief Engineer D. G. H. & M. Ry
Approved: *[Signature]*
City Engineer

GRAND TRUNK RAILWAY SYSTEM
WESTERN LINES
DEQUINDRE GRADE SEPARATION
DETROIT, MICHIGAN
RETAINING WALLS - ALFRED STREET
SCALE - AS SHOWN

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SHEET NO 2 OF 2