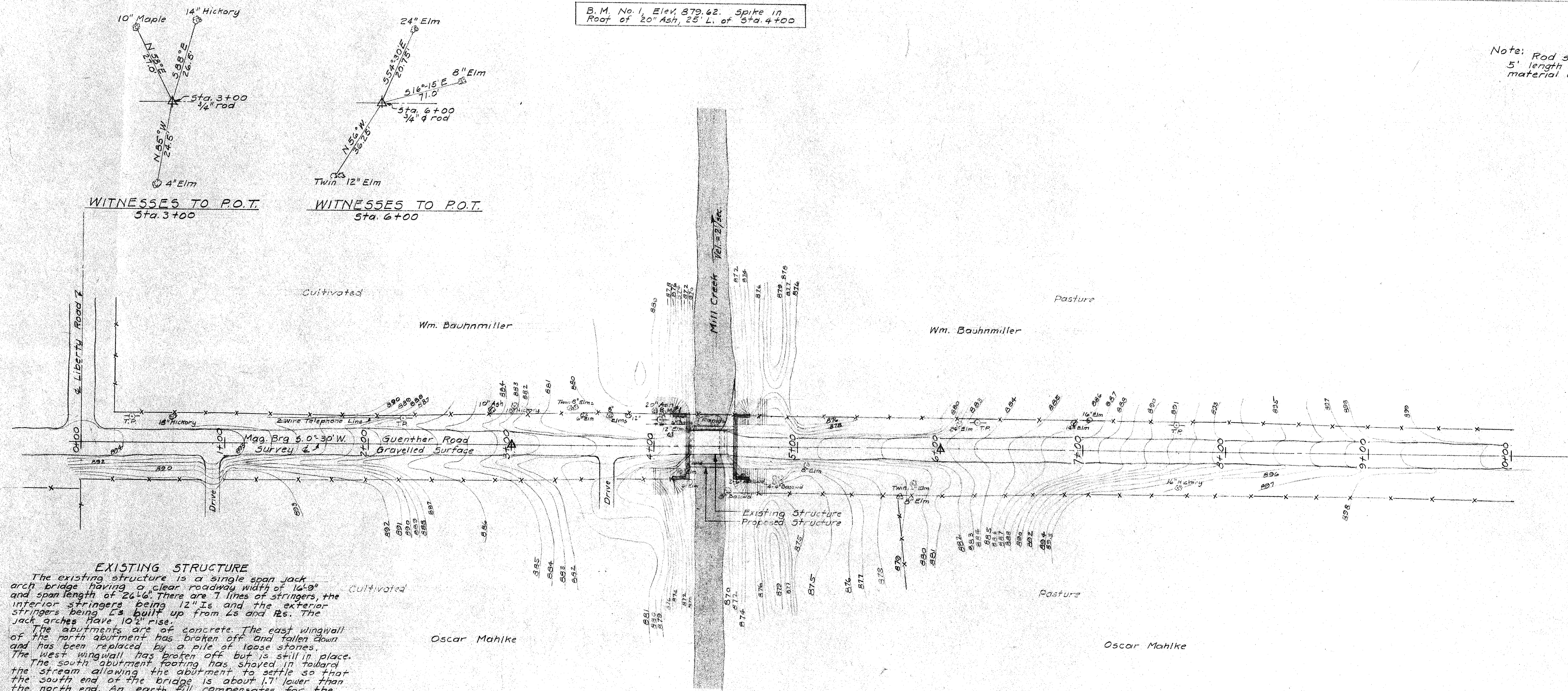


B. M. No. 1, Elev. 879.62. Spike in
Roof of 20' Ash, 25' L. of Sta. 4+00

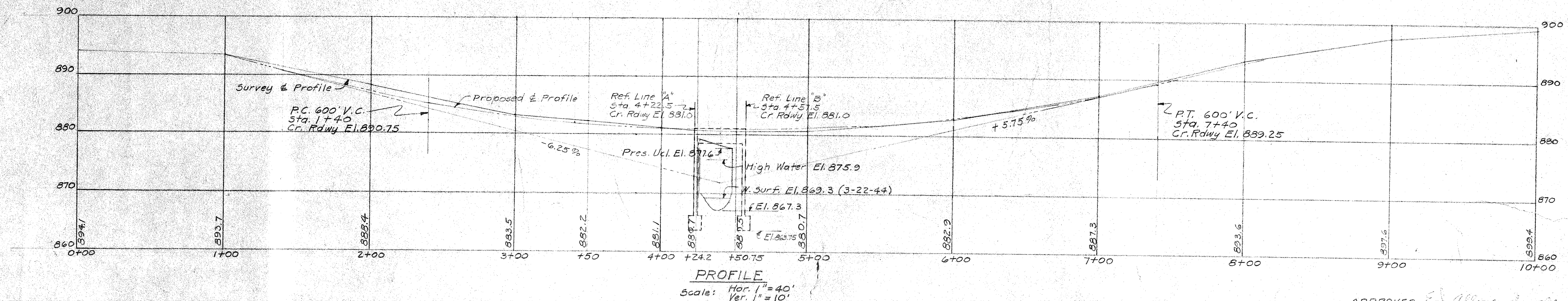
Note: Rod soundings and a test made by driving a
5' length of 1" pipe indicated clay foundation
material at the site.

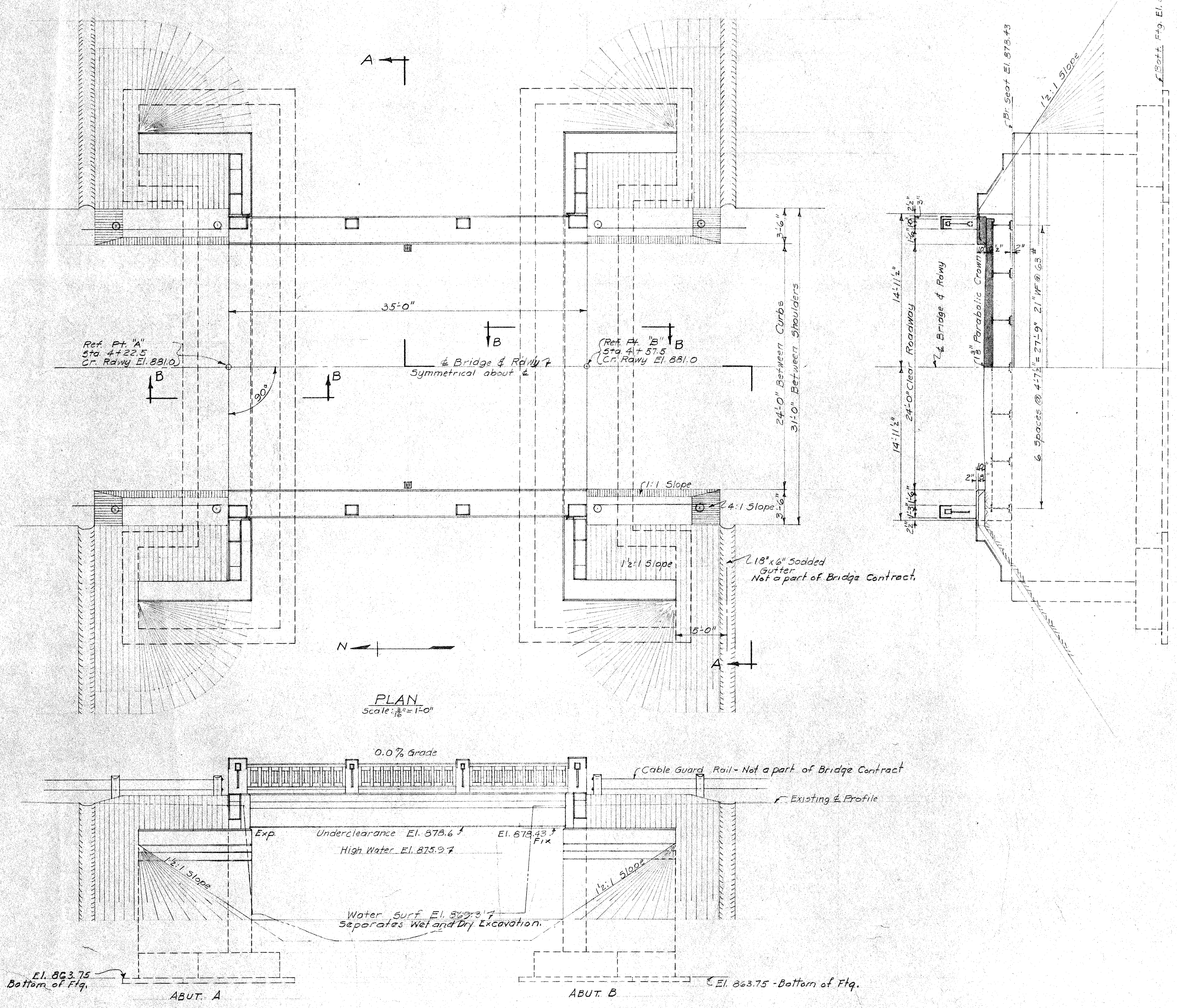


EXISTING STRUCTURE
The existing structure is a single span jack
arch bridge having a clear roadway width of 14' 0"
and span length of 24' 6". There are 7 lines of stringers, the
interior stringers being 12" is and the exterior
stringers being 12" built up from 12s and 12s. The
jack arches have 102' rise.
The abutments are of concrete. The east wingwall
of the north abutment has broken off and fallen down
and has been replaced by a pile of loose stones.
The west wingwall has broken off but is still in place.
The south abutment footing has settled in toward
the stream allowing the abutment to settle so that
the south end of the bridge is about 17' lower than
the north end. An earth fill compensates for the
difference in elevation.

STREAM DATA
Water Surface Elev. 869.3 (3-22-44)
High Water Elev. 875.9
Velocity - 2/sec.

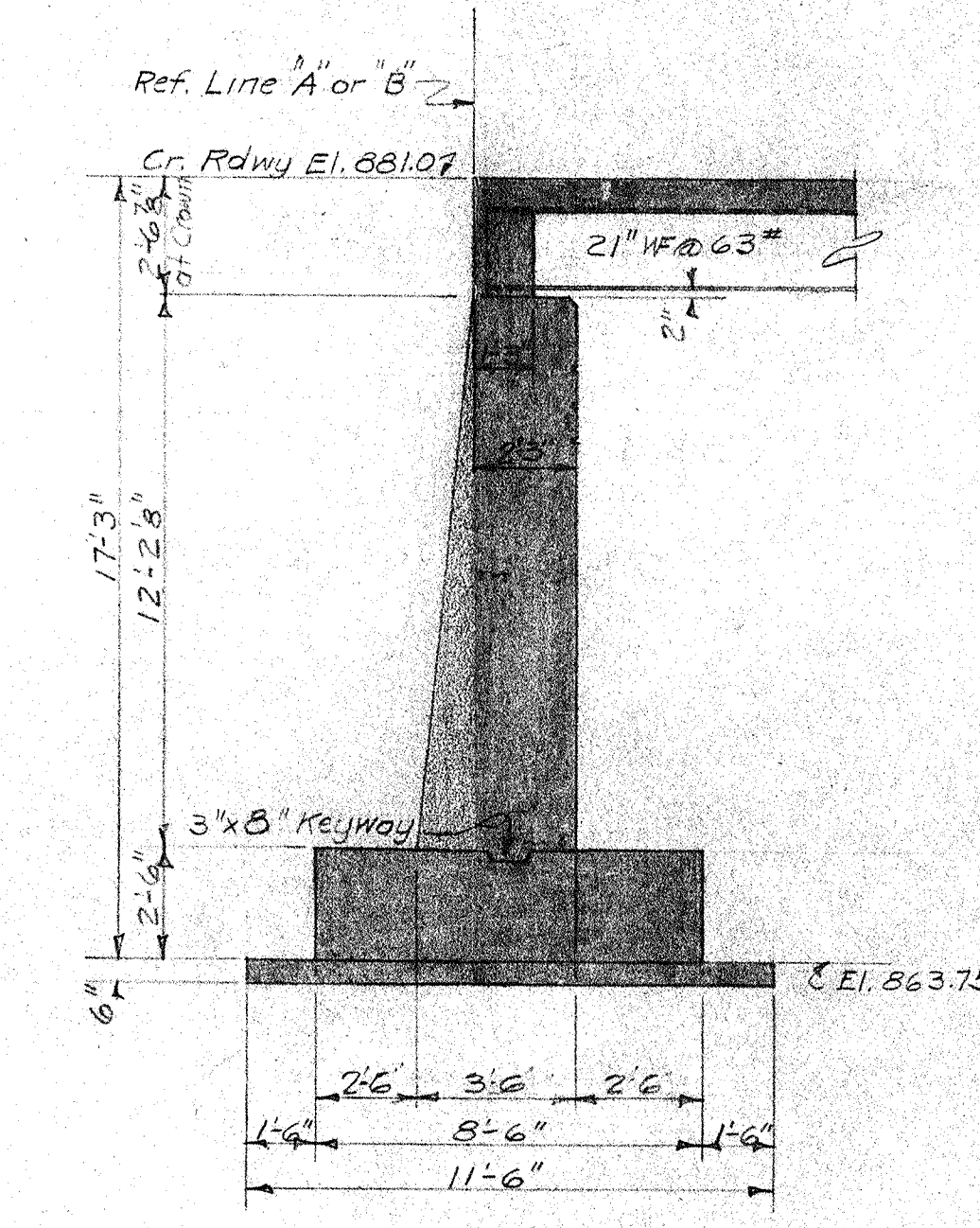
PLAN OF SITE
Scale: 1" = 40'





BILL OF MATERIAL		
ITEM	UNIT	
1. Removal of Existing Structure	Lump Sum	
2. Wet Excavation	Cu Yds.	325.0
3. Dry Excavation	Cu Yds.	425.0
4. Grade B Concrete Substructure	Cu Yds.	277.0
5. Grade B Concrete Superstructure	Cu Yds.	36.7
6. Structural Steel Fabricate & Erect	Lbs.	17685
7. Steel Reinforcement	Lbs.	10208
8. Cement	Bbl.	410
9. 1" Joint Filler	Sq Ft.	80
10. Joint Waterproofing	Sq Ft.	172
11. Rubbed Surface Finish	Sq Ft.	1655
12. Bridge Railing	Lin Ft.	70
13. Sand Gravel Fill	Cu Yds.	160
14. Field Painting Structural Steel	Lump Sum	
15. Channel Excavation	Cu Yds.	35

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

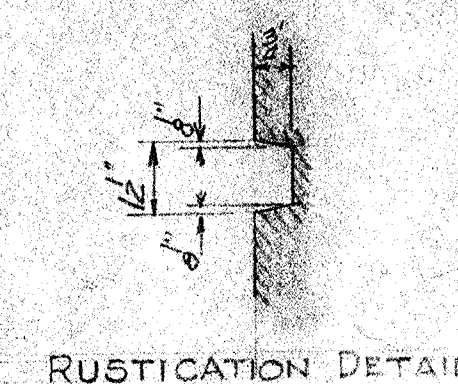
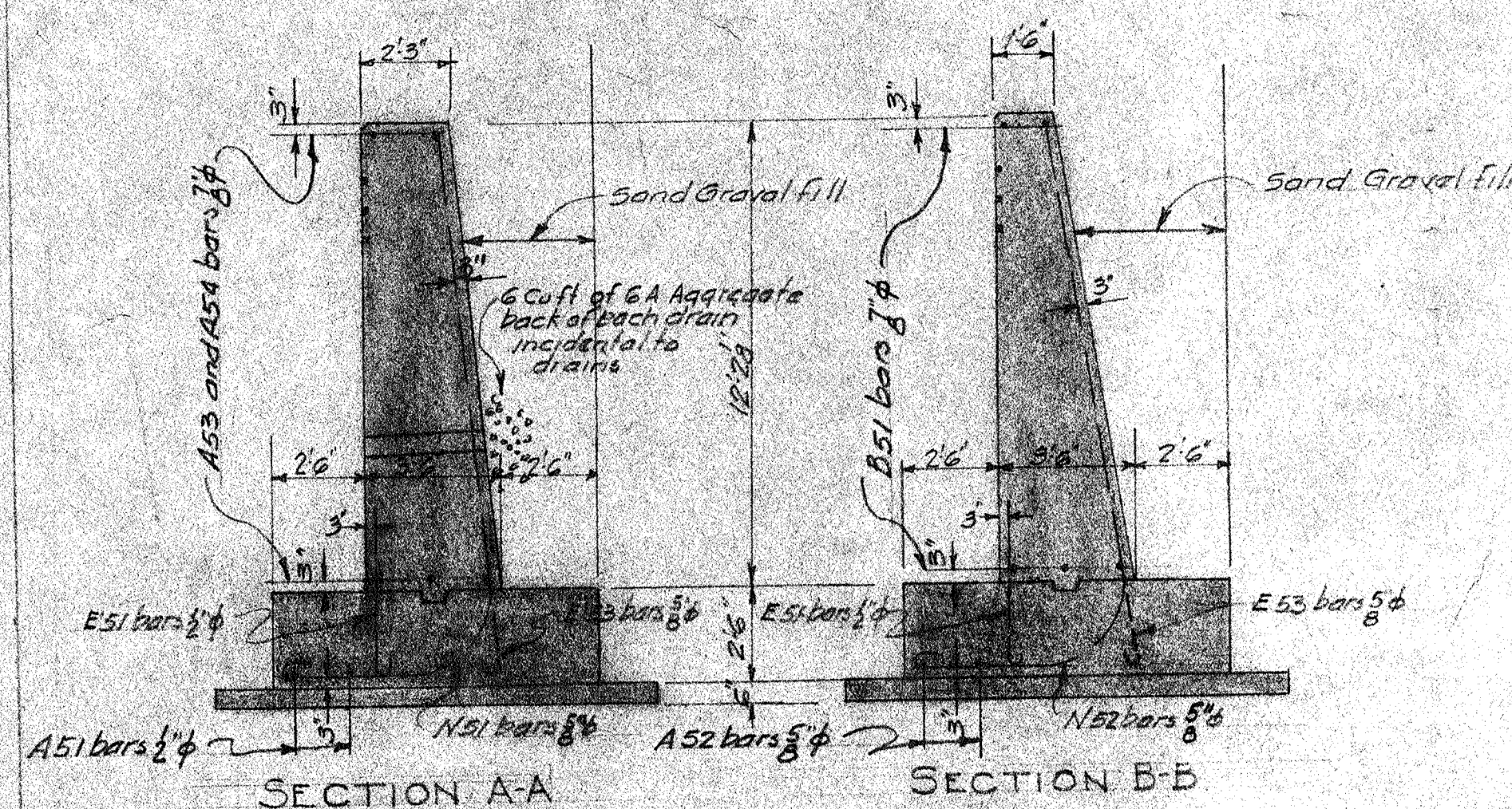
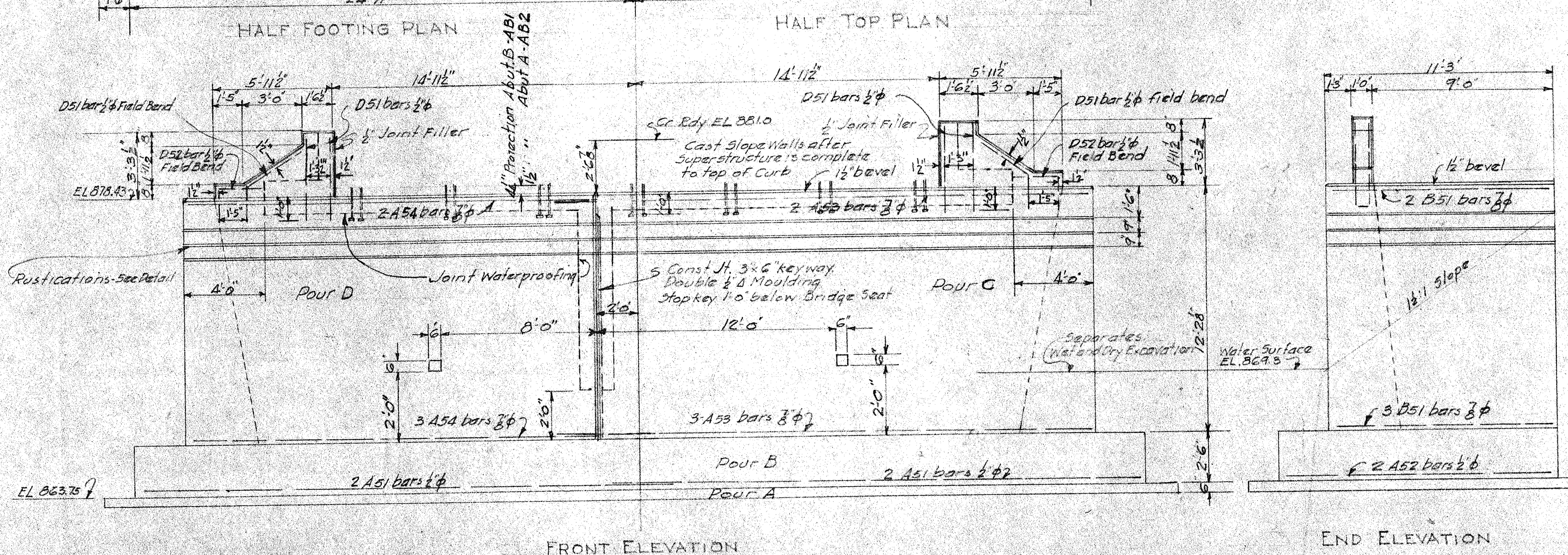
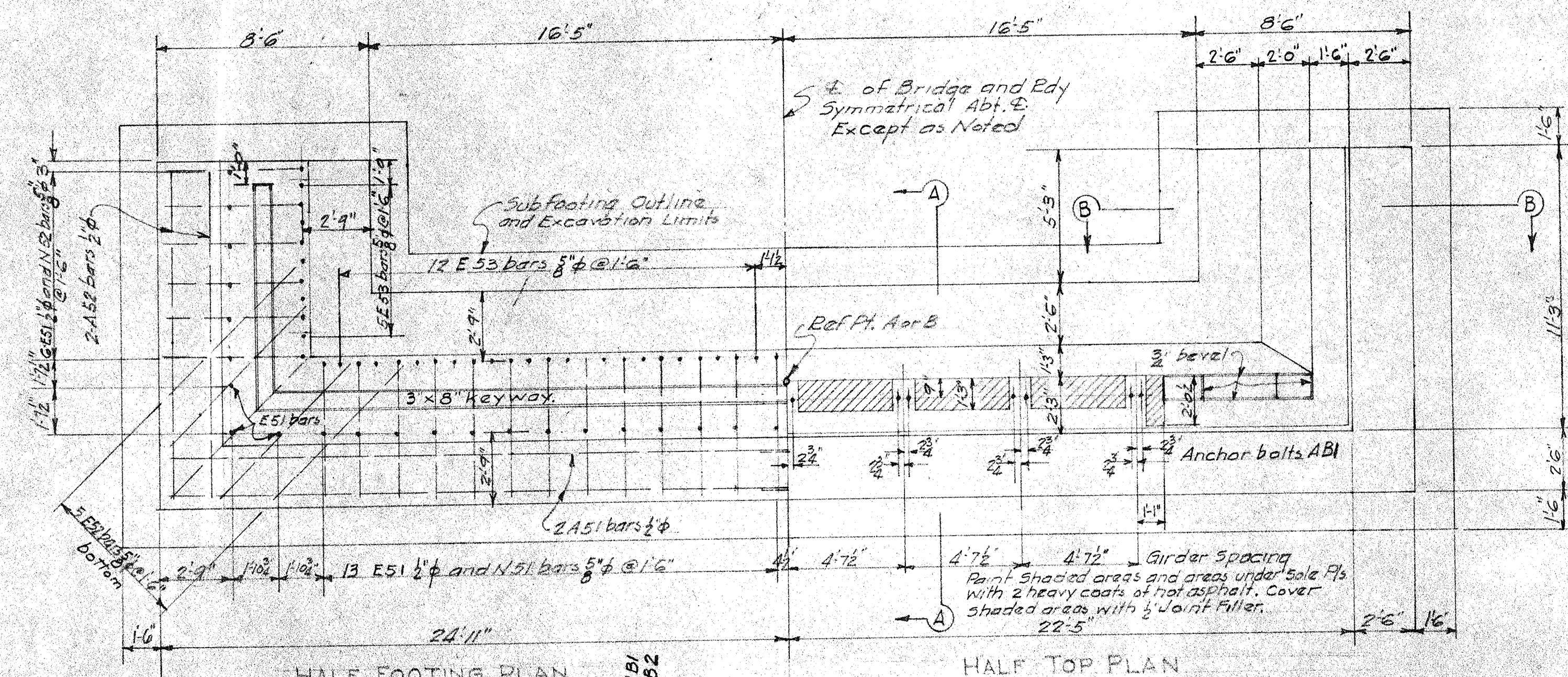


SECTION B-B
Scale: 1/4" = 1'-0"

WASHTENAW COUNTY ROAD COMMISSION
GUENTHER ROAD
Crossing Mill Creek on N. & S. 4 Line of Section 34
T. 2 S., R. 4 E., Lima Township.
GENERAL PLAN OF STRUCTURE

APPROVED *E. J. Allen*
County Engineer

Prepared By G. J. M. 4-5-44
Approved By *E. J. Allen* Reg. Civil Engineer



SUBSTRUCTURE REINFORCEMENT DETAILS (DEFORMED BARS)											
MARK	a	b	c	d	e	f	LENGTH	SIZE	No	WEIGHT	BENDING DIAGRAMS
A51	25'8"						25'8"	2 ϕ	8	138	
A52	13'3"						13'3"	2 ϕ	8	70	
A53	26'2"						26'2"	3 ϕ	10	532	
A54	20'0"						20'0"	3 ϕ	10	408	
B51	10'9"	2'6"					13'3"	3 ϕ	20	540	
D51	4'2"	9"					9'1"	2 ϕ	12	72	
D52	3'2"	9"					7'1"	2 ϕ	4	18	
E51	4'6"	4"	2'	2"			5'0"	3 ϕ	88	294	
E52	7'6"	5'	2 1/2'	2 1/2"			8' 1/2"	3 ϕ	20	170	
E53	14'5"	5'	2 1/2'	2 1/2"			14' 10 1/2"	3 ϕ	68	1052	
N51	3'3"	5"	2 1/2'	2 1/2"	6'0"	8"	13'5"	3 ϕ	52	726	
N52	5'3"	5"	2 1/2'	2 1/2"	6'2"	1'0"	13'6 1/2"	3 ϕ	24	338	
TOTAL 2 ABUTMENTS										4388	

CONCRETE QUANTITIES		
POUR	LOCATION	CU. YARDS GRADE B
A	SUBFOOTING	13.5
B	FOOTING	47.5
C	WALL	10.9
D	WALL	35.8
SLOPE WALLS		.8
TOTAL ABUTMENT A		138.5
TOTAL ABUTMENT B		138.5

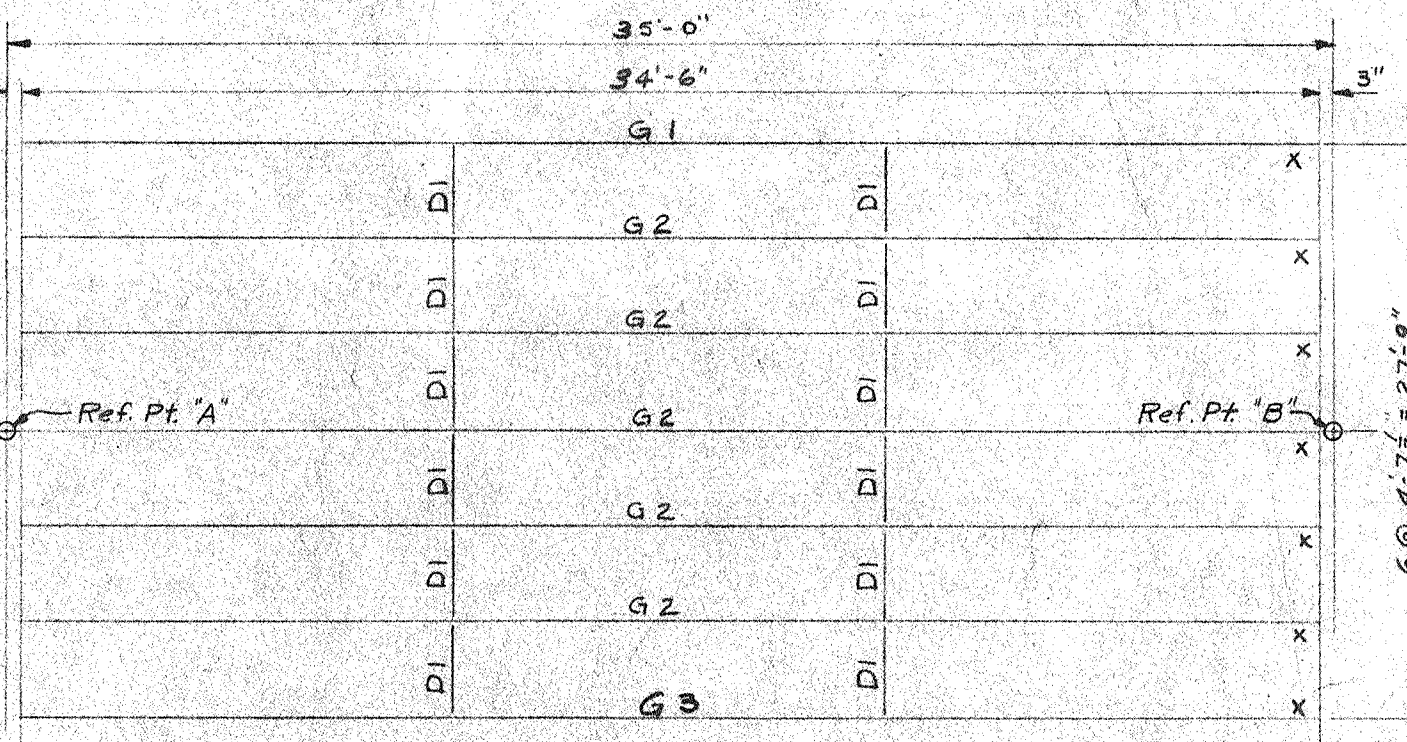
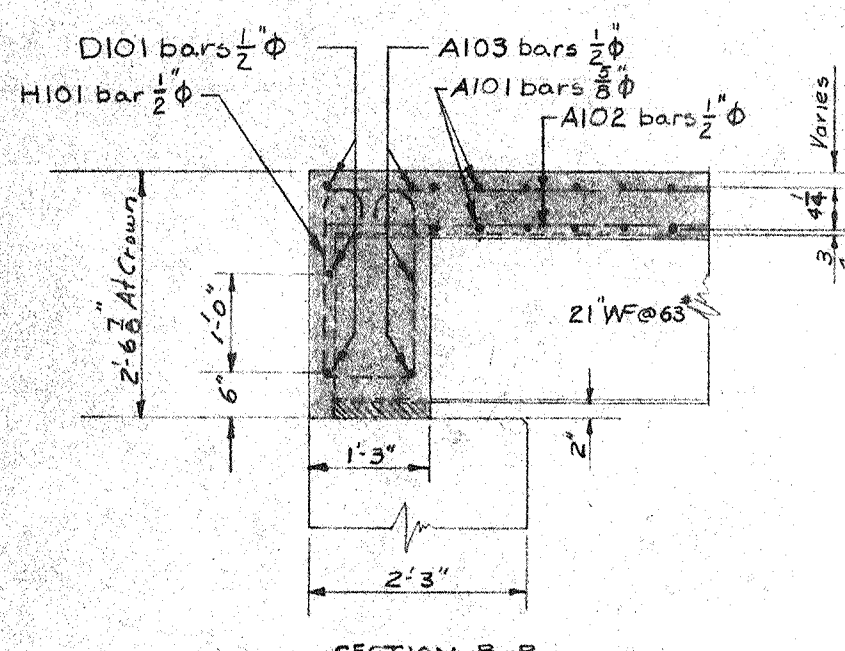
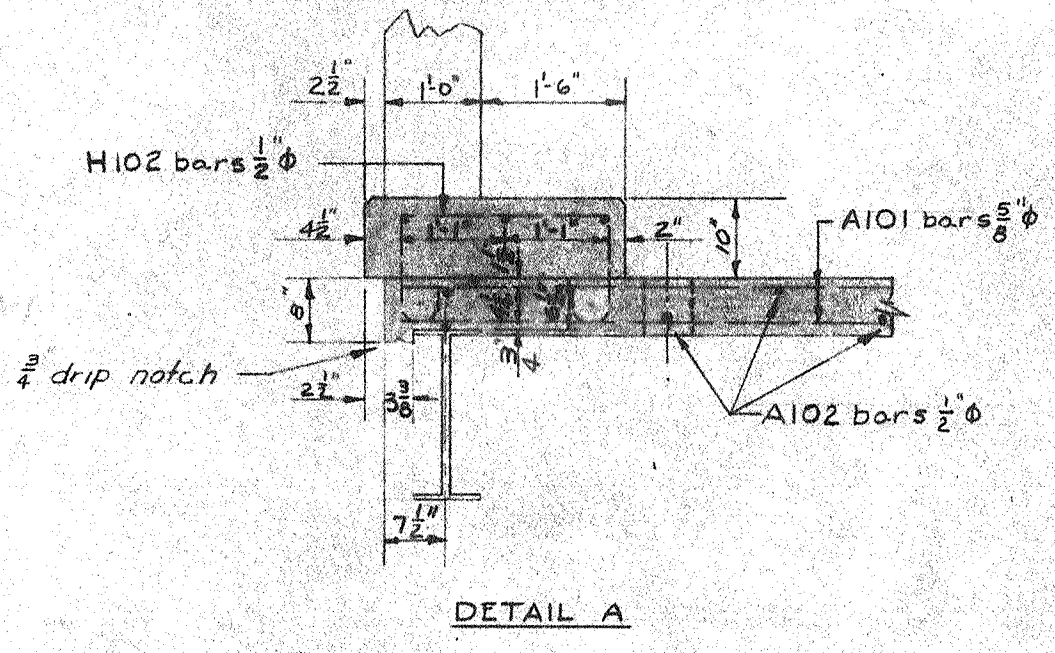
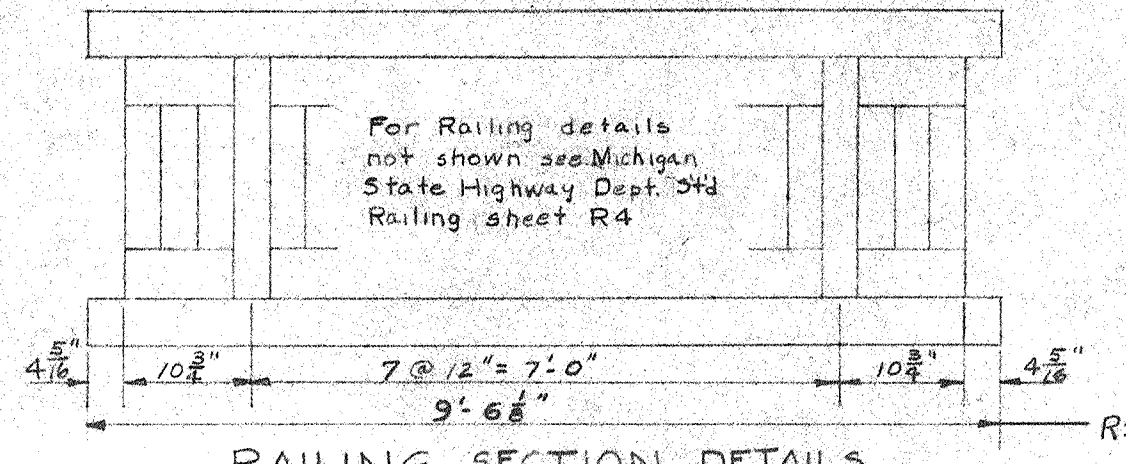
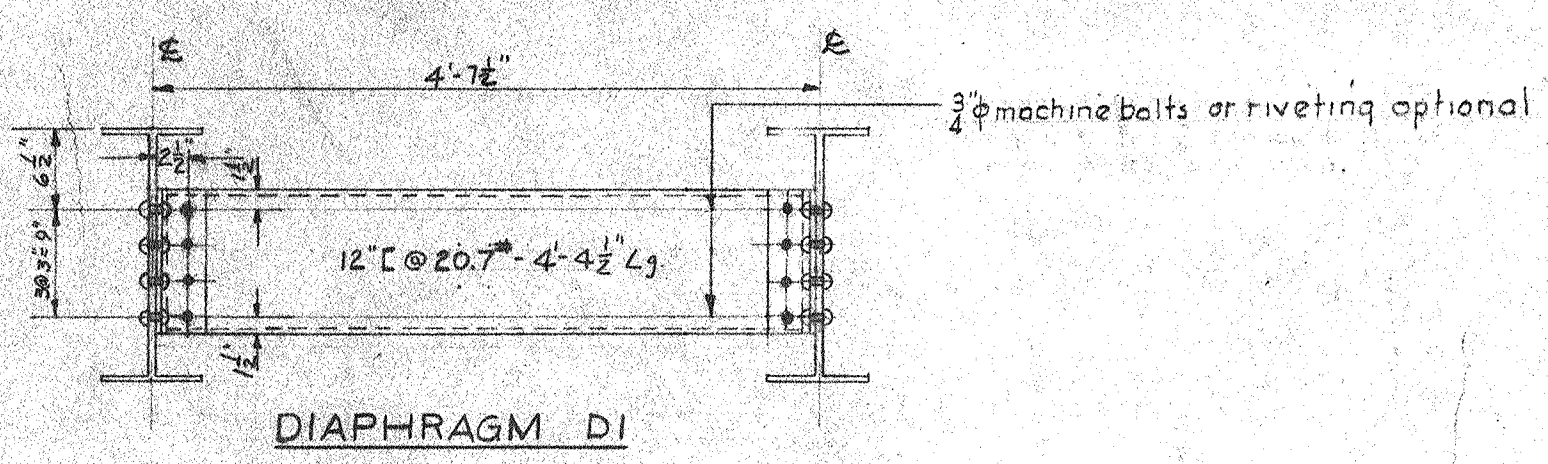
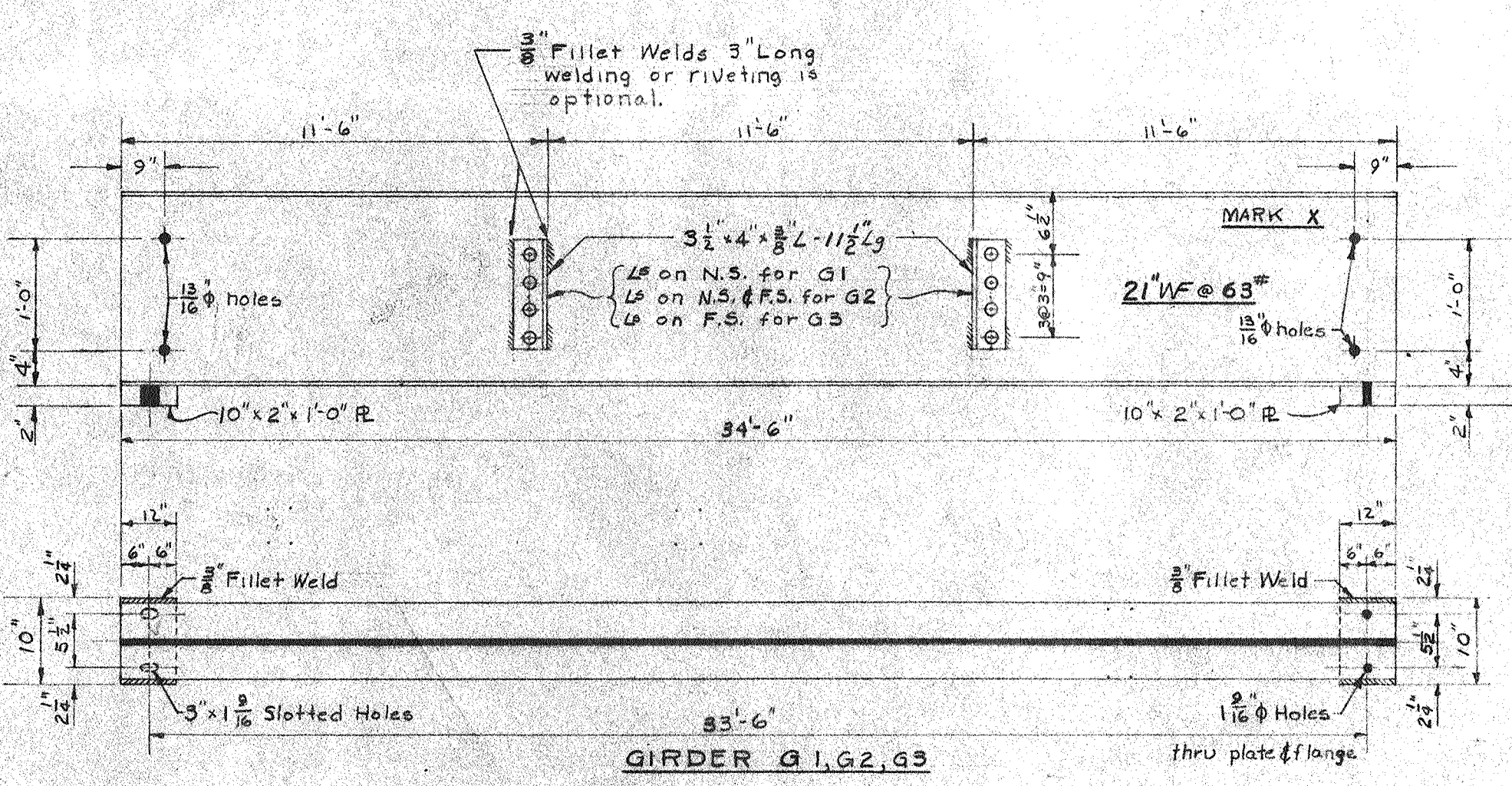
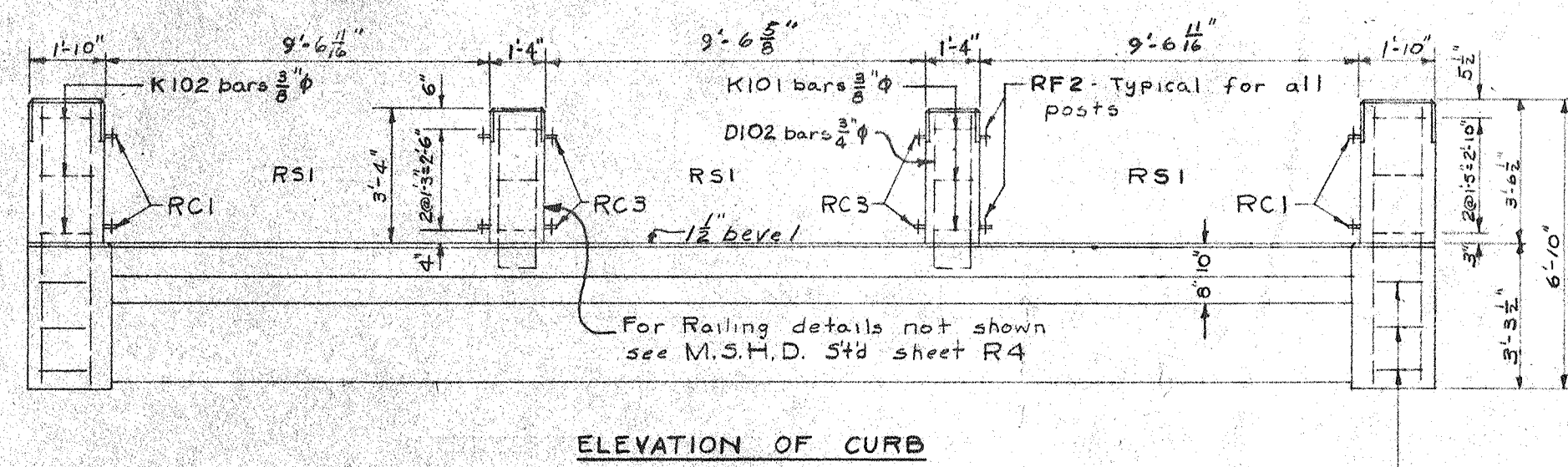
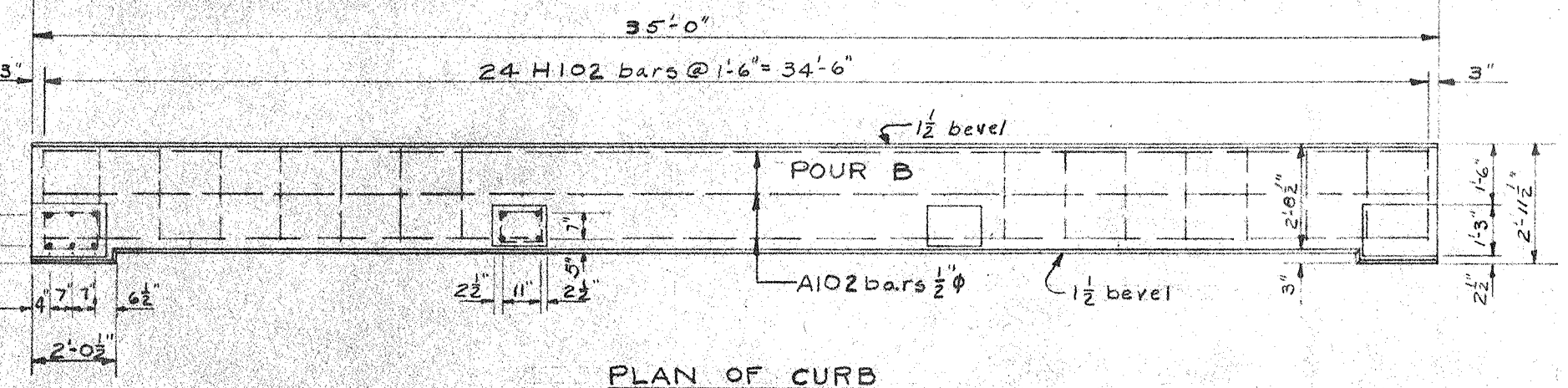
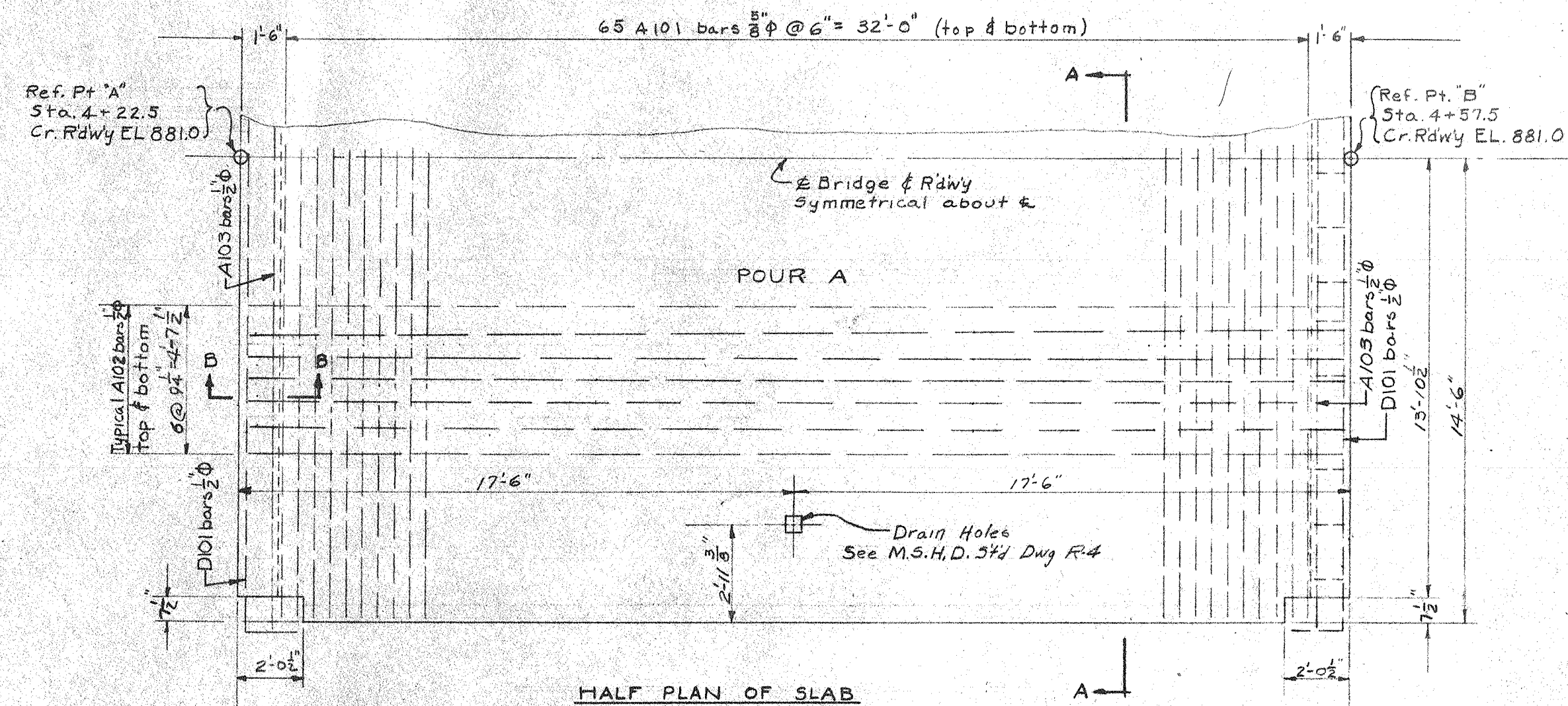
MISCELLANEOUS QUANTITIES		
ITEM	AMOUNT AMOUNT A	AMOUNT AMOUNT B
RUBBED SURFACE FINISH	745.50 FT	745.50 FT.
1" JOINT FILLER	40 SQ FT	40 SQ FT.
JOINT WATERPROOFING	86 SQ FT	86 SQ FT.

WASHTENAW COUNTY ROAD COMMISSION
GUENTHER ROAD
ABUTMENT A AND B
DETAILS

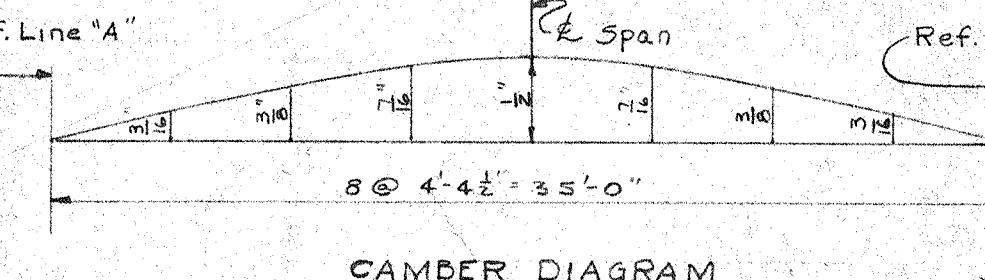
[illegible]

APPROVED G. M. Foster
APPROVED E. J. Allen
COUNTY ENGINEER

SQUAD BOSS		
DRAWN BY	WPS	4-19-44
TRACED BY		
CHECKED BY	KWC.	4-22-44
SHEET	4	OF 5



MARK	NO.	DESCRIPTION	WEIGHT
G1	1	21" W @ 63"	2327
G2	5	21" W @ 63"	11722
G3	1	21" W @ 63"	2327
D1	12	12" C @ 20.7"	1087
BOLTS	96	3/4" x 2" bolts hex hd & nut & lock washer	53
BOLTS	14	1" x 1/2" bolt Sq. hd. & nut & flat washer	66
BAR	304	3/4" rivet heads	37
BAR	AB2	1" x 1/2" Plain Bar.	66
TOTAL			17685



NOTE: Amounts shown on camber diagram shall be added to slab thickness to offset dead load deflection. Top of curb to be cast parallel to bottom of outside edge of slab.

MARK	NO.	DESCRIPTION
RS1	6	Railing Section
RF2	24	Railing Flange
RC1	8	Railing Clip
RC3	8	Railing Clip
	24	3/4" x 2 1/2" bolts hex hd & nut & washer

NO.	REVISIONS	DATE	BY

MARK	a	b	c	d	e	LENGTH	SIZE	NO.	WEIGHT	BENDING DIAGRAM
A101	26'-8"					26'-8"	3/8"	150	3887	
A102	34'-6"					34'-6"	1/2"	45	1035	
A103	29'-7"					29'-7"	1/2"	6	119	
A104	6'-6"					6'-6"	3/8"	12	117	
B101	4'-0 1/2"	1'-7"	0	1'-7"		5'-7 1/2"	3/8"	12	101	
D101	1'-7"	29'-8"				32'-10"	1/2"	6	132	
D102	3'-11"	11 1/2"				5'-10"	3/8"	6	106	
H101	11 1/2"	1'-11"	4"	2 1/2"	2"	5'-9 1/2"	1/2"	36	139	
H102	2'-3 1/2"	1'-1"	4"	2 1/2"	2"	5'-5 1/2"	1/2"	48	175	
K101	1'-0 1/2"	6"	6"	8 1/2"		3'-9"	3/8"	12	17	
K102	1'-3 1/2"	8"	8"	11 1/2"		4'-10"	3/8"	12	22	
TOTAL									5650	

POUR	LOCATION	GRADE	CU. YDS.
A	Slab		30.0
B	Curbs (2)		6.7
	Posts		1.84
Total Cu Yds Grade B			36.7

* Not included in total.

MISC. QUANTITIES

Rubbed Surface Finish - 165 sq. ft.

NOTES

Fabrication - Michigan State Highway Department Standard Specifications for Road & Bridge Construction - 1940 Edition.

Design - Michigan State Highway Department Specifications for the Design of Highway Bridges - 1936 Edition - H15 Loading.

Rivets shall be 3/4" and open holes 1 1/2" unless otherwise noted.

Shop Painting shall be in accordance with the Michigan State Highway Department Standard Specifications - One coat red lead No. 1A on structural steel and railing. All bearing plates to be painted with one coat of tallow and white lead on sliding surfaces.

Shop Connections - Diaphragm connection angles may at the option of the Contractor, be welded or riveted to the girders.

Field Connections - All field connections to diaphragms may at the option of the Contractor be riveted or bolted with machine bolts.

Field Painting - As soon as practicable after steel is delivered at the site, the Contractor shall paint with painting mixture 4b all places and surfaces where the shop paint has become damaged in shipping or handling. After structural steel has been erected and all concrete work which is supported by steelwork completed, the Contractor shall apply one coat of paint mixture No. 4b to all structural steel including railing.

WASHTENAW COUNTY ROAD COMMISSION

GUENTHER ROAD

SUPERSTRUCTURE & STRUCTURAL STEEL

DETAILS

APPROVED	DATE	BY

Drawn By	4-19-44
Traced By	4-24-44
Sheet 3 of 5	