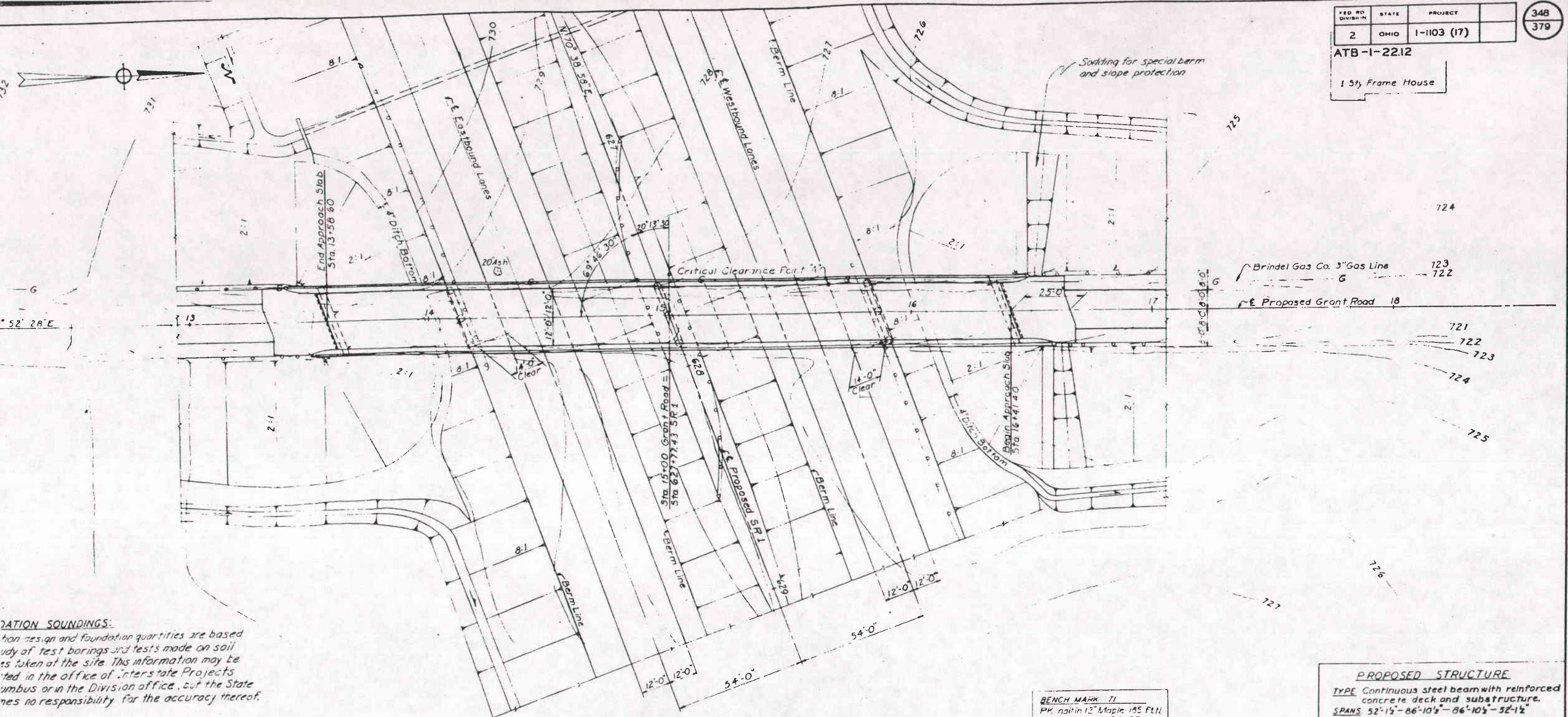
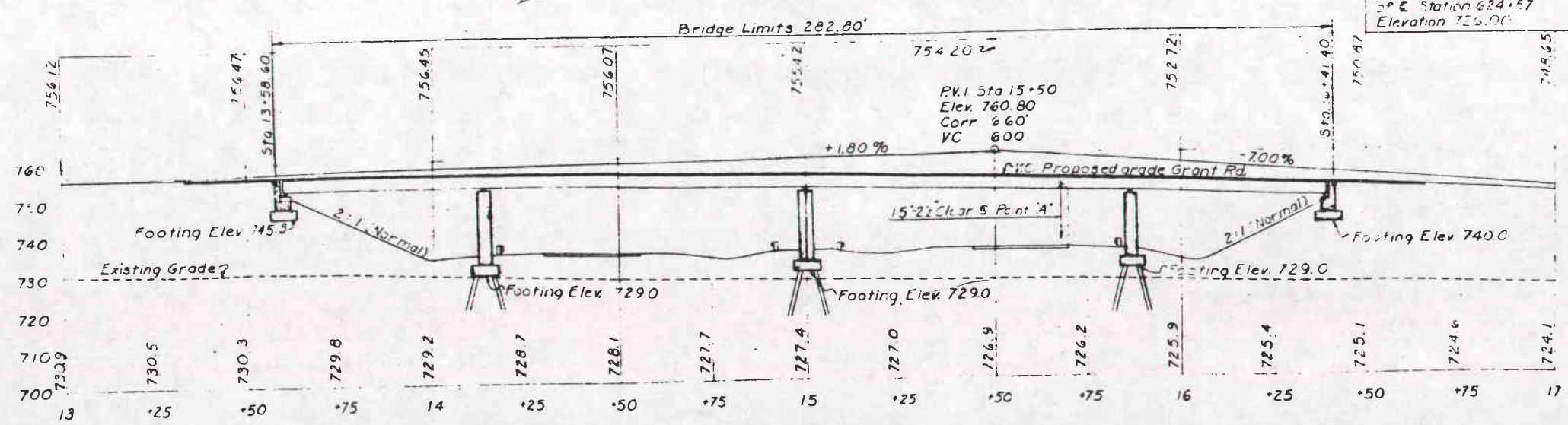


ATB-1-22.12
1 Sty. Frame House



FOUNDATION SOUNDINGS:
Foundation design and foundation quantities are based on study of test borings and tests made on soil samples taken at the site. This information may be used in the office of Interstate Projects Columbus or in the Division office, but the State assumes no responsibility for the accuracy thereof.

Steel Piles (2BP53) are
Average estimated say lengths
12' for Pier 1
12' for Pier 2
12' for Pier 3



BENCH MARK 71
PK nail in 12" Maple 195 ft. 11"
Station 624+57
Elevation 729.00

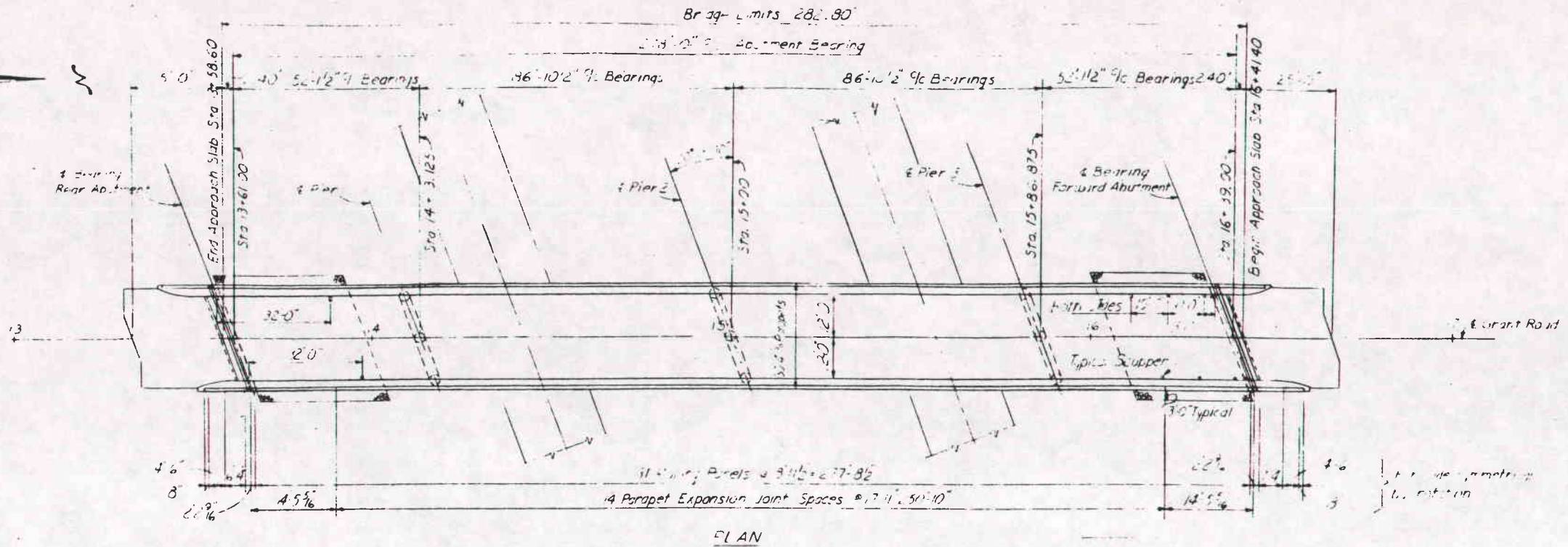
PROPOSED STRUCTURE
TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: 52'-15" - 86'-10 1/2" - 86'-10 1/2" - 52'-1 1/2"
ROADWAY: 24'-0" P/P 2'-0" Safety Curbs
LOAD FREQUENCY: C.F. 30(37)
SKEW: 20° 13' 30" R.F.
WEARING SURFACE: 1/2" Monolithic Concrete
APPROACH SLABS: 25' Long
ALIGNMENT: Tangent
AVERAGE DAILY TRAFFIC (1975): 120

SHAFFER, PARRETT & ASSOCIATES AND BROOKHART & TYO
CONSULTING ENGINEERS
MANSFIELD, OHIO

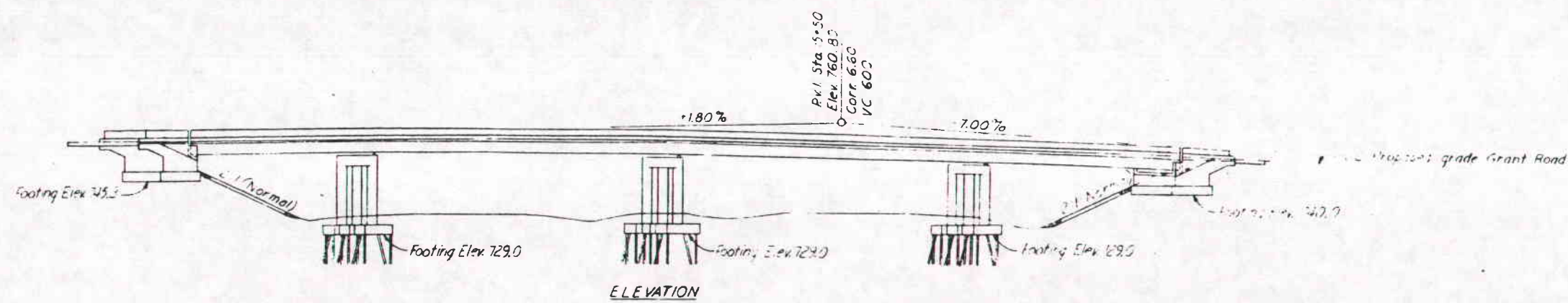
SITE PLAN
BRIDGE No ATB-1-2458
S.R. UNDER GRANT ROAD
ASHTABULA CO. SR.1
SCALE: 1 IN. = 20 FT. STA. 627+77.43

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EFC	EFC	ERJ	RMH	D.R.F.	8-28-57	

ATB-1- (10-20-22,12)



Note: 2" Pipe and scuppers at north end.



REFERENCE: may be made to Standard Drawings F.B. 1-55 dated 3-1-55, C.B. 2-56 sheets 2 and 3 of 6 dated 4-1-56, AP-1-57 dated 4-9-57 and Supplemental Specification No. 114 dated 8-30-55, revised 8-1-57.

CONCRETE: 30,000 psi

PILE: shall be driven to firm contact with shale. If the length of penetration is approximately equal to the depth of shale according to the bridge foundation investigation report the firm contact shall be considered as obtained when the capacity according to the formula in Sec. 5-A.05 is not less than the following value for a pile hammer of the indicated energy rating:

- 28 tons per pile using a 1000 ft. lb. hammer
- 25 tons per pile using a 11000 ft. lb. hammer
- 25 tons per pile using a 15000 ft. lb. or greater hammer. If the energy rating of the hammer is between the ratings is shown above, the required formula capacity shall be determined by interpolation. The design load is 25 tons per pile for the pile.

ESTIMATED QUANTITIES

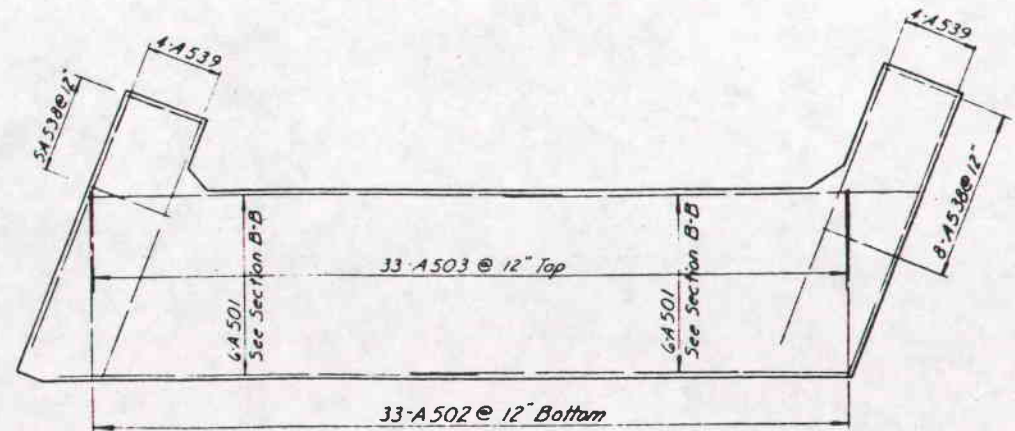
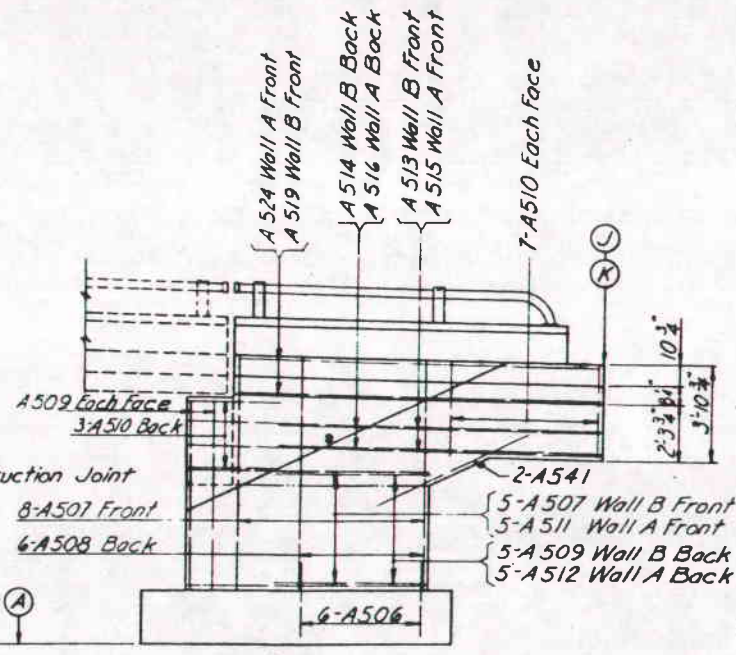
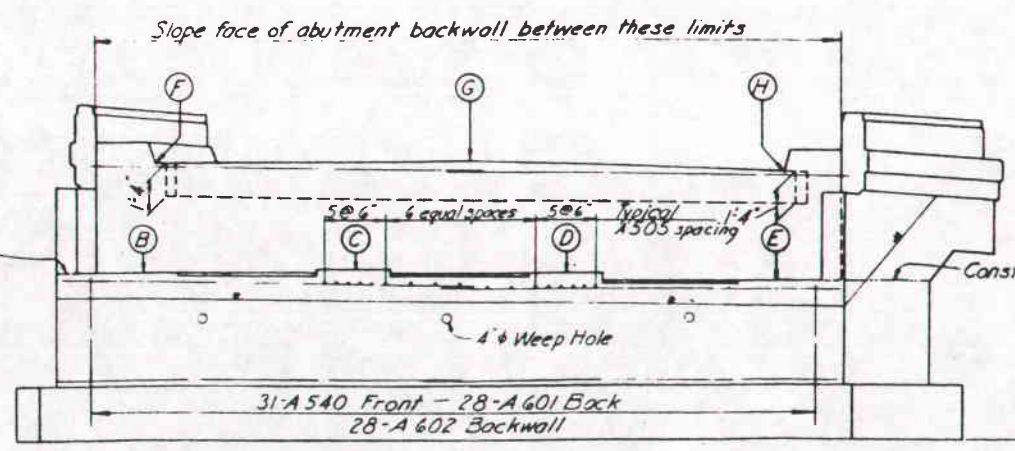
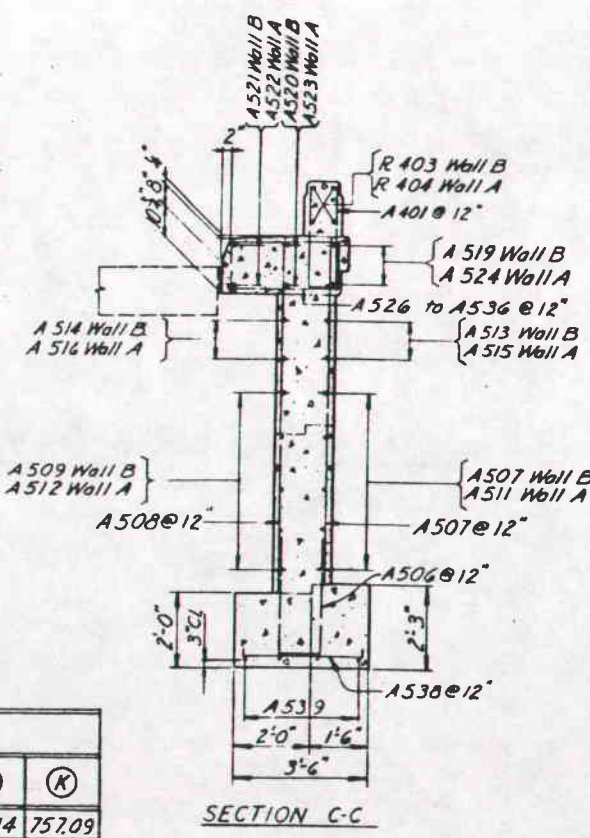
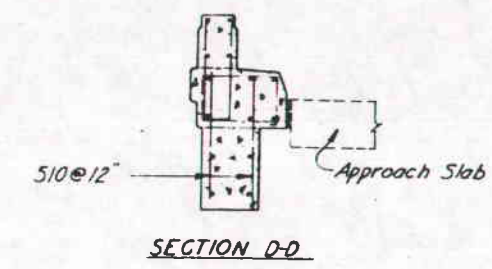
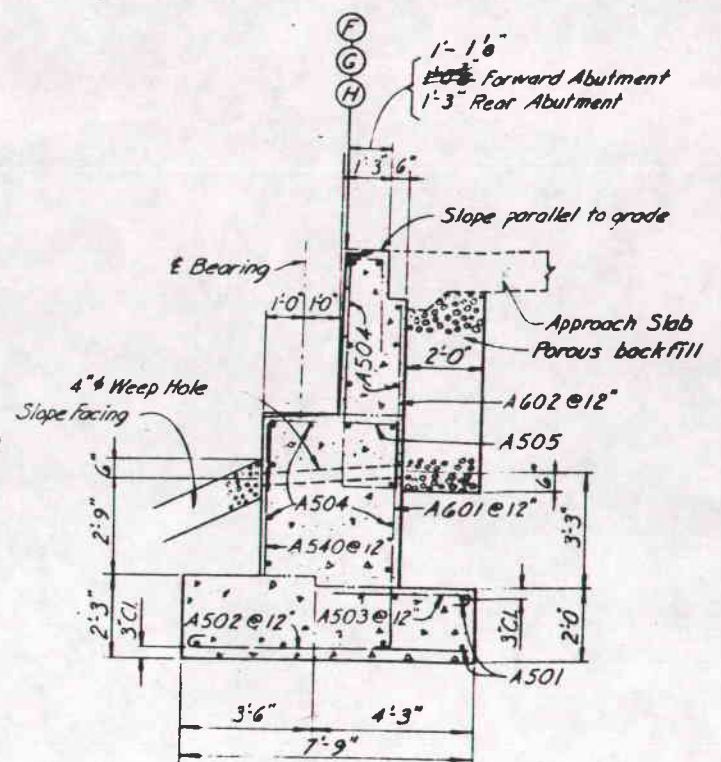
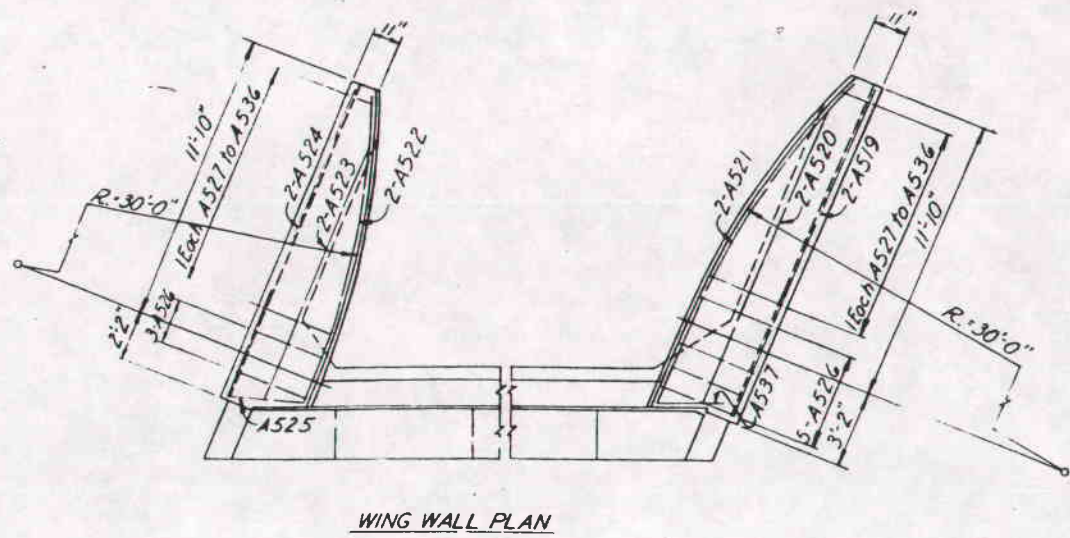
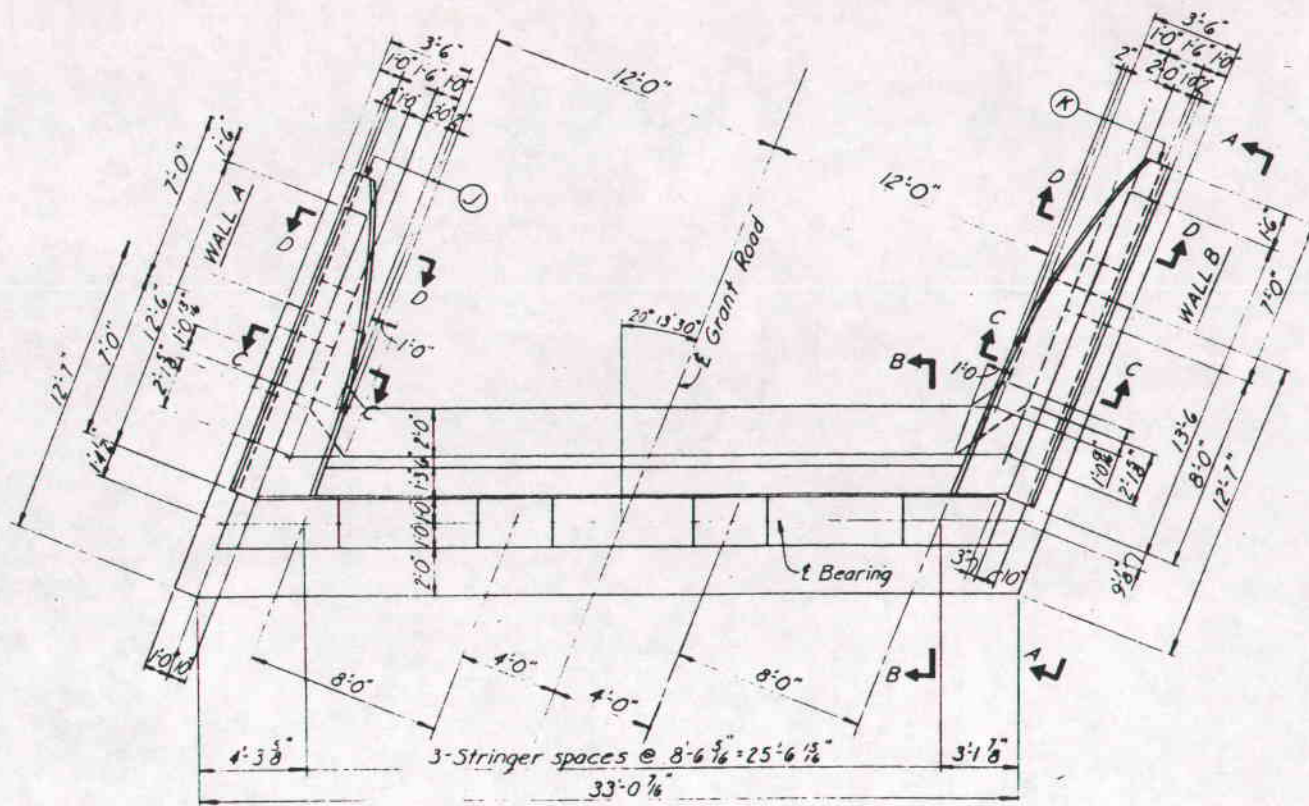
TOTAL	UNIT	DESCRIPTION	SUPERSTR	ABUTS	PIERS	GENERAL
17	cu yds	Unclassified excavation	-	210	17	-
2	cu yds	Class C concrete, superstructure	252	-	-	-
3	cu yds	Class C concrete, pier caps and columns	-	47	17	-
3	cu yds	Class E concrete, abutments above footings	-	47	17	-
4	cu yds	Class E concrete, footings	-	47	17	-
1,576	lbs.	Reinforcing steel	15,282	8430	16,094	-
1,600	lbs.	Structural steel	221,600	-	-	-
1,600	sq. ft.	Foil painting of structural steel	221,600	-	-	-
2	sq. ft.	Rolling aluminum rail and supports, concrete parapet and guard rail connections,	112	-	-	-
100	sum	First test pile	-	-	Lump Sum	-
92	line ft	Steel ties (1/2 BPS)	-	-	792	-
10	cu yds	Porous backfill	-	20	-	-
2	cu yds	Slope fixing (2-20 25 lbs)	-	-	-	102

SHAFFER, PARRETT & ASSOCIATES AND BROOKHART & TYO
CONSULTING ENGINEERS
MANSFIELD, OHIO

GENERAL PLAN
BRIDGE NO. ATB-1-2456
SRI UNDER GRANT ROAD
ASHTABULA CO. SRI
STA. 627+77.43

DATE	REVISION	BY
1-31-58	SCB	RMB

ATB - 1-(19.20-22.12)



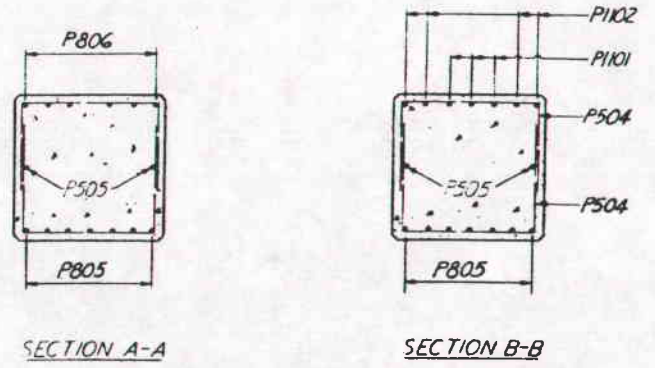
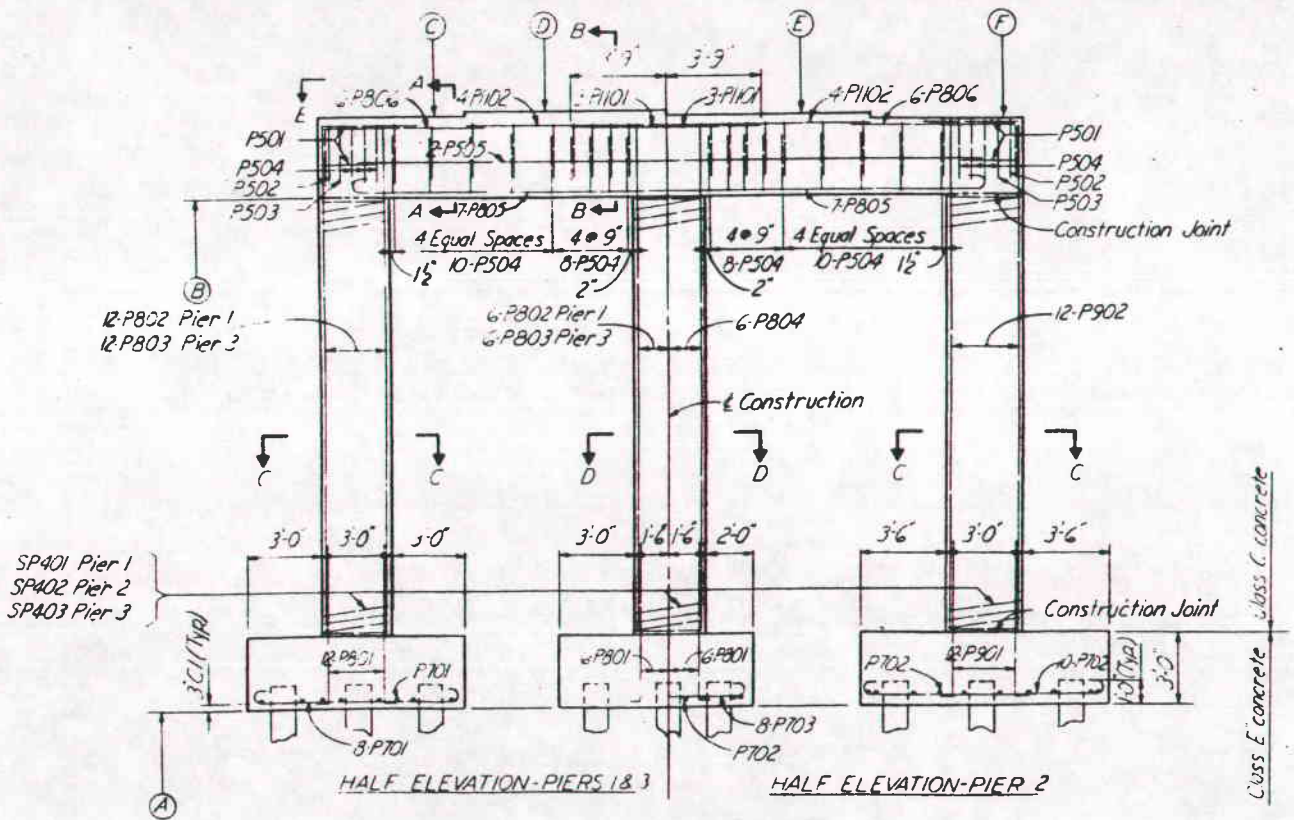
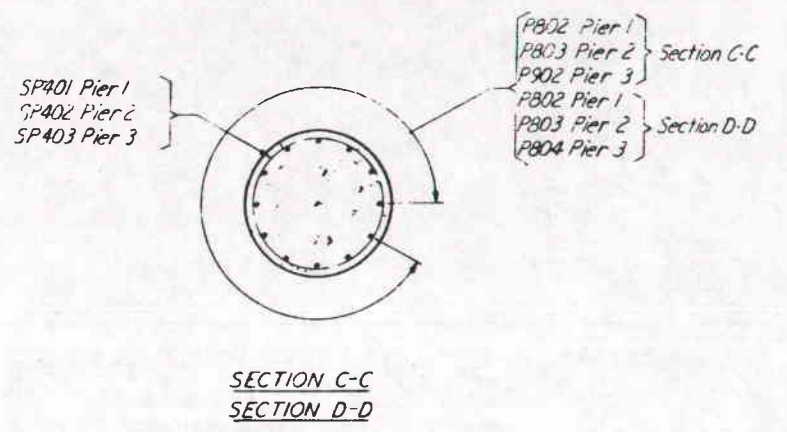
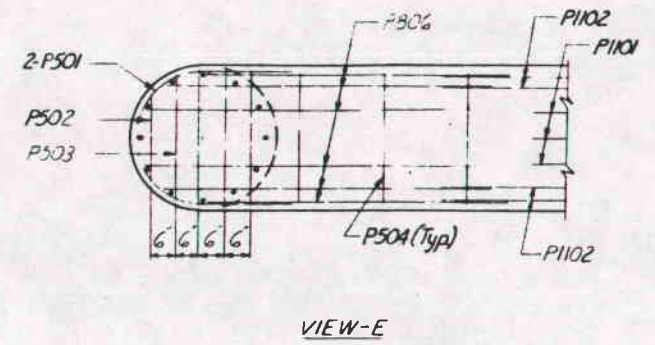
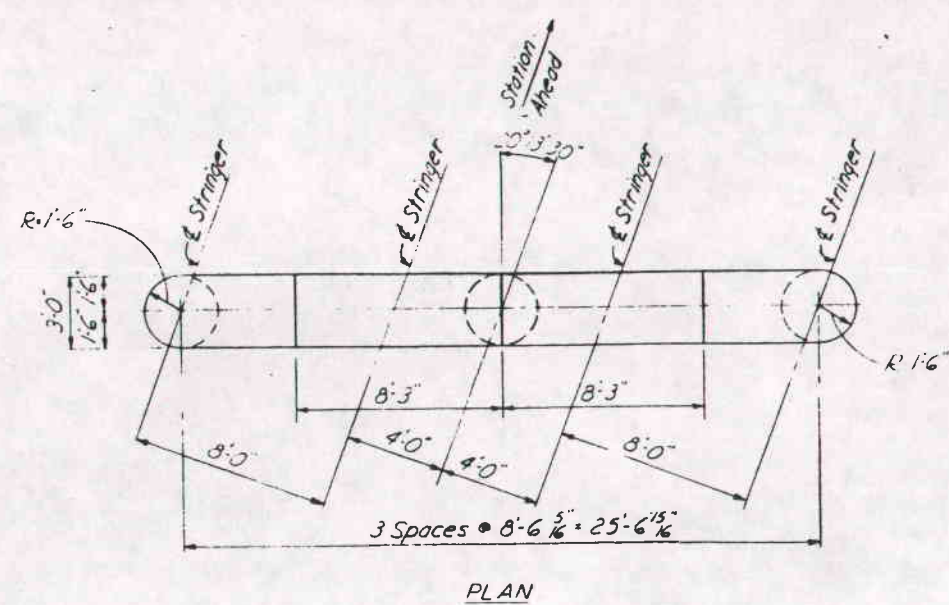
NOTES:
FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 1 1/2 tons per square foot.
CONCRETE: All abutment concrete shall be Class E except parapet which shall be Class C.
RAILING: See AR-1-57 and sheet 349
STANDARD DETAILS AND GENERAL NOTES: See sheet 319

TABLE OF ELEVATIONS										
LOCATION	A	B	C	D	E	F	G	H	J	K
Rear Abutment	745.3	751.865	751.984	751.981	751.850	756.31	756.49	756.30	757.14	757.09
Forward Abutment	740.0	746.841	746.852	746.737	746.496	751.25	751.26	750.90	751.59	751.12

SHAPPER, PARRETT & ASSOCIATES AND BROOKHART & TYO
CONSULTING ENGINEERS
MANSFIELD, OHIO

ABUTMENTS
BRIDGE NO ATB - 1-2456
SR 1 UNDER GRANT ROAD
ASHTABULA CO. SR 1
STA. 627+7743

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DLM	CWF	ERL	DRE	S.C.B.	1-31-58	4-29-58



NOTES:
PROCEDURE: The embankment shall be placed and compact up to a minimum of 6 inches above the bottom of the pier footing at all piers, after which excavation shall be made for pier footings.
EXCAVATION QUANTITY includes the removal of fill material between the bottom of the pier footing and 6 inches above the bottom of the footing at all piers.
CONCRETE: All concrete for pier footings shall be Class "E" and all pier concrete shall be Class "C".
GENERAL NOTES: See Sheet 319

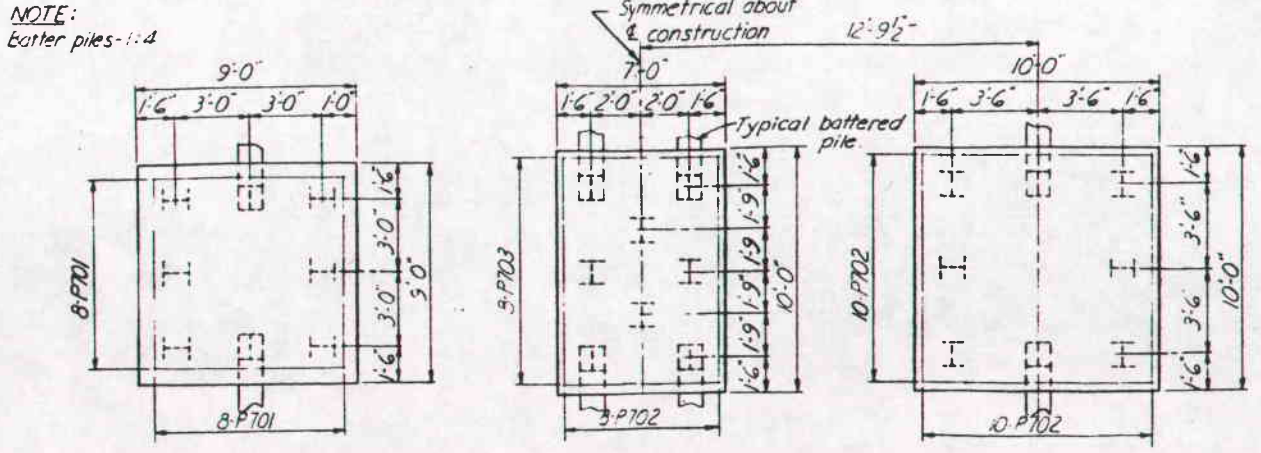


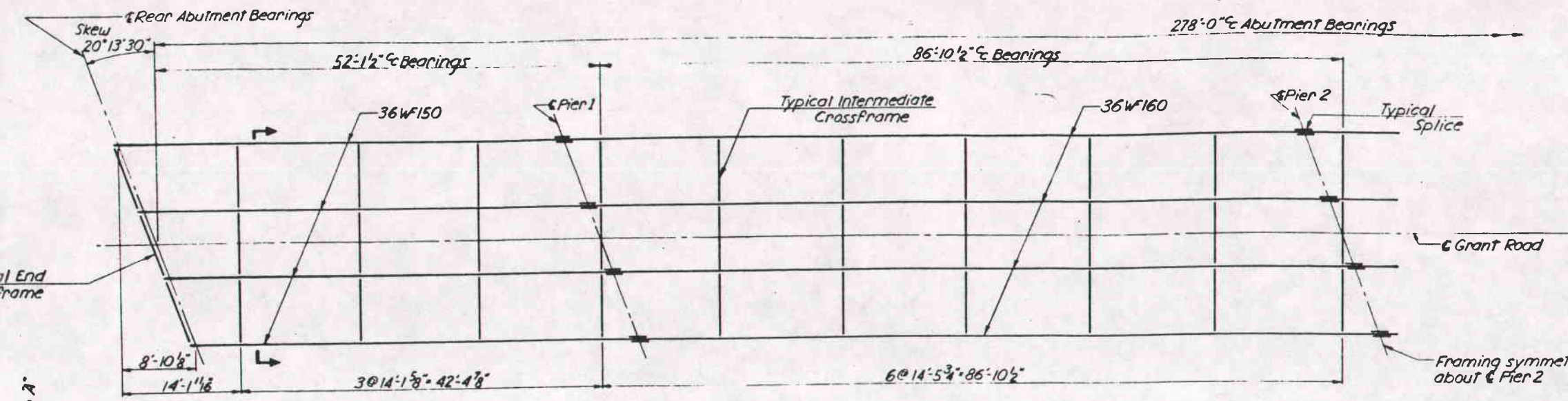
TABLE OF ELEVATIONS						
LOCATION	A	B	C	D	E	F
PIER 1	729.00	748.22	751.27	751.38	751.37	751.22
PIER 2	729.00	747.05	750.22	750.29	750.23	750.05
PIER 3	729.00	744.87	748.14	748.18	748.09	747.87

SHAFFER, PARRETT & ASSOCIATES AND BROOKHART & TYO
CONSULTING ENGINEERS
MANSFIELD, OHIO

PIERS
BRIDGE NO ATB - 1 - 2458
S.R.I UNDER GRANT ROAD
ASHTABULA CO. S.R.I
STA. 627+774.3

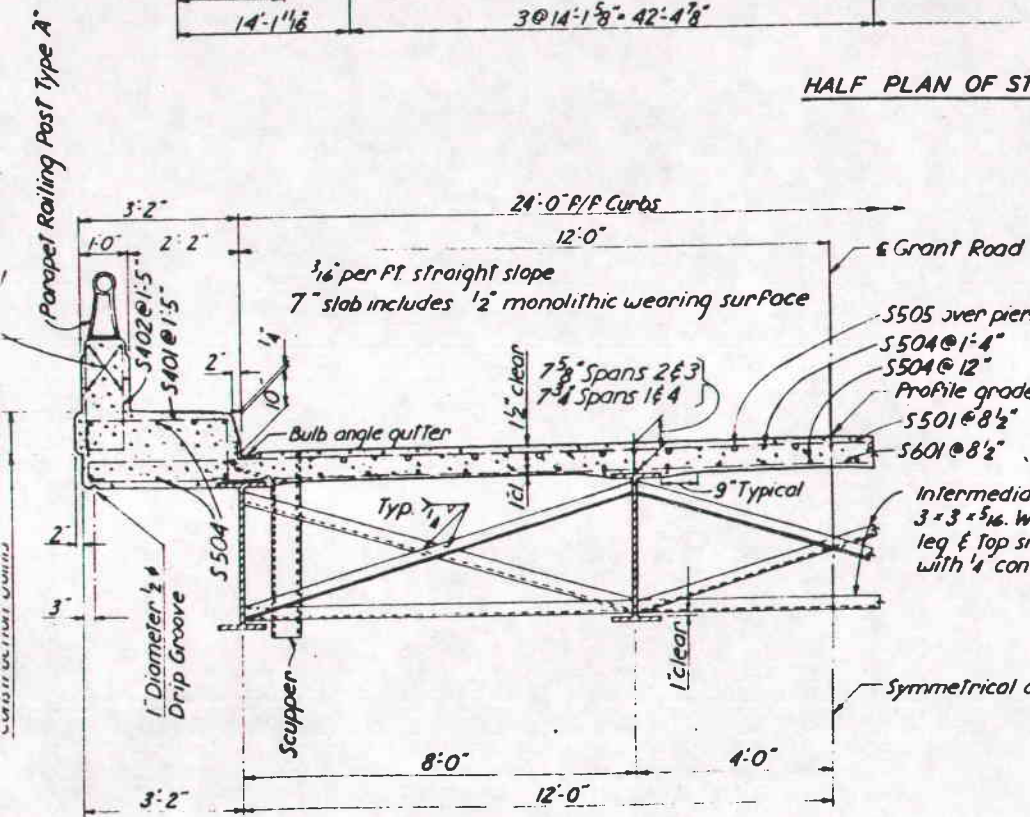
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.H.B.	M.D.G.	M.D.G.	RAM	G.C.B.	1-31-58	7-23-58

ATB-1-(19.20-22.12)

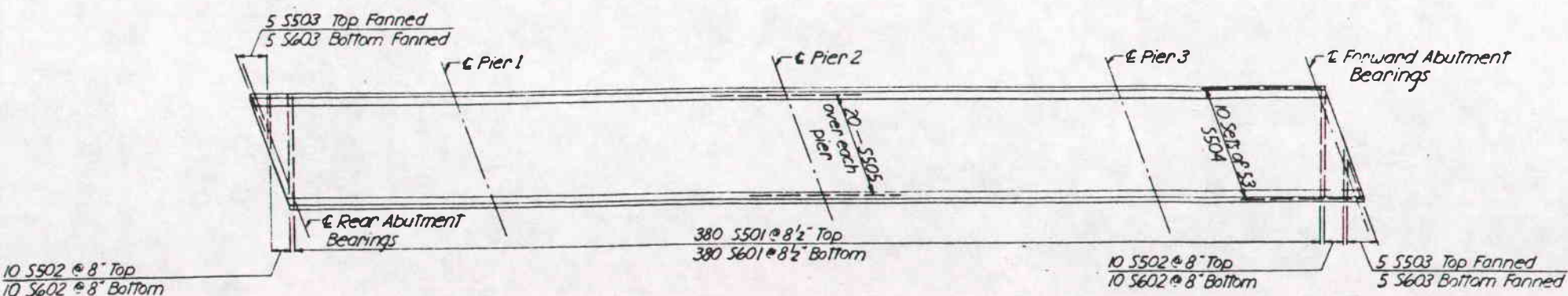


HALF PLAN OF STEEL FRAMING

MOMENT PLATE SIZE		
	PIERS 1 & 3	PIER 2
TOP PLATE	10 1/2 x 9 1/8 x 18'-9"	10 1/2 x 1 3/8 x 28'-0"
BOTTOM PLATE	13 1/2 x 1 1/2 x 18'-9"	13 1/2 x 1 1/8 x 28'-0"



SECTION A-A



DECK SLAB PLAN

NOTES

CAMBERING of beams is required in accordance with the following table:

	DEFLECTION AND CAMBER			
	OUTSIDE BEAMS		INSIDE BEAMS	
	END SPANS	MIDDLE SPANS	END SPANS	MIDDLE SPANS
Deflection due to weight of steel	0	1/4	0	1/4
Deflection due to remaining dead load	1/6	15/16	1/6	13/16
Converity required for vertical curve	5/8	1 5/8	5/8	1 5/8
Sum of deflection and converity	1 1/6	2 13/16	1 1/6	3 1/16
Required Camber	1	2 13/16	1	3 1/16

BEAM SPLICE WELDING PROCEDURE

1. Raise end of beam at third pier 4 3/4".
2. Butt weld the beam flanges & web at second pier; using the following sequence: make one pass on each flange, then one on the web, repeat until welds are completed. Weld top & bottom moment pl.
3. Lower end of beam at third pier to final position.
4. Make splice at first & third piers in the same manner, raising the end of the beam 15 1/16" at the abutments.
5. After splices are completed at first and third piers, lower the ends of the beams of the abutments to final positions.

BEARINGS See RB-1-55 for the following: R-75 Abutments
R-175 Piers 1 & 3
B-175 Pier 2

END CROSSFRAMES, END FINISH, GUTTERS, SCUPPERS & CURB PLATE DETAILS See CSB-2-56 Sheets 2 & 3 of 6

RAILING See AR-1-57

RAILING POST PARAPET EXPANSION JOINT & SCUPPER SPACING See Sheet 349

CONCRETE All superstructure concrete shall be Class C

GENERAL NOTES & BEAM SPLICE DETAILS See Sheet 313

SHAFFER, PARRETT & ASSOCIATES AND BROOKHART & TYO
CONSULTING ENGINEERS
MANSFIELD, OHIO

SUPERSTRUCTURE
BRIDGE NO. ATB-1-2456
S.R.I. UNDER GRANT ROAD
ASHTABULA CO. S.R.I.
STA. 627+77.43

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.F.C.	M.M.N.	M.M.N.	D.R.F.	G.C.B.	1-31-58	