

INDEX OF SHEETS

SHEET NO. 1	TITLE
SHEET NO.	TYPICAL CROSS SECTIONS
SHEET NO.	ESTIMATE OF QUANTITIES
SHEET NO.	MISCELLANEOUS QUANTITIES
SHEET NO.	RIGHT OF WAY PLAT
SHEET NO.	PLAN AND PROFILE STA. 7+00 TO STA. 16+00
SHEET NO.	STANDARD DETAILS
SHEET NO.	DRAINAGE STRUCTURES
SHEET NO.	CROSS SECTIONS

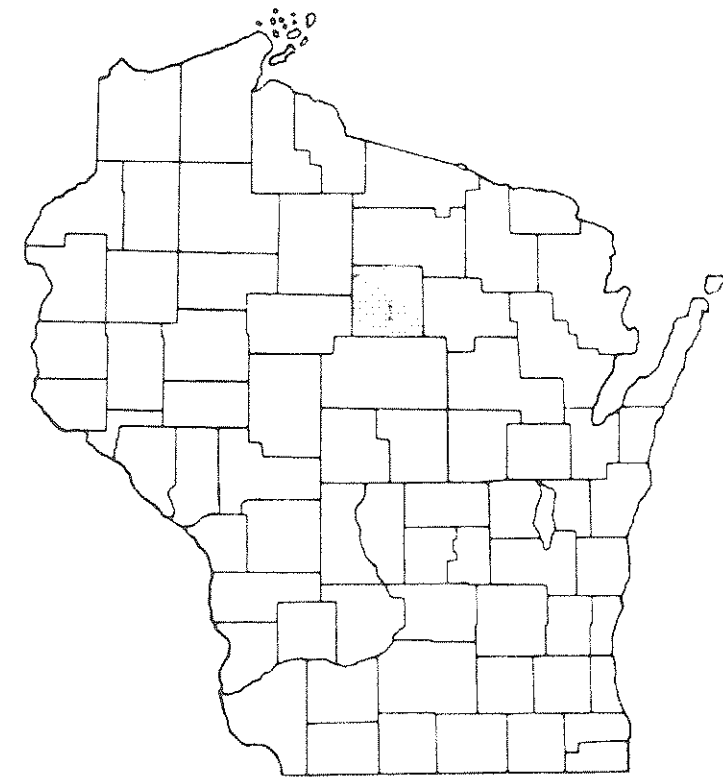
COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		B.P.A. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
35.6	0.0		3.13	4 WIS.	/	//

STATE OF WISCONSIN
STATE HIGHWAY COMMISSION OF WISCONSIN

PLAN AND PROFILE OF PROPOSED

COPPER RIVER BRIDGE

C. T. H. "M"
LINCOLN COUNTY
PROJECT E 0-0(13)

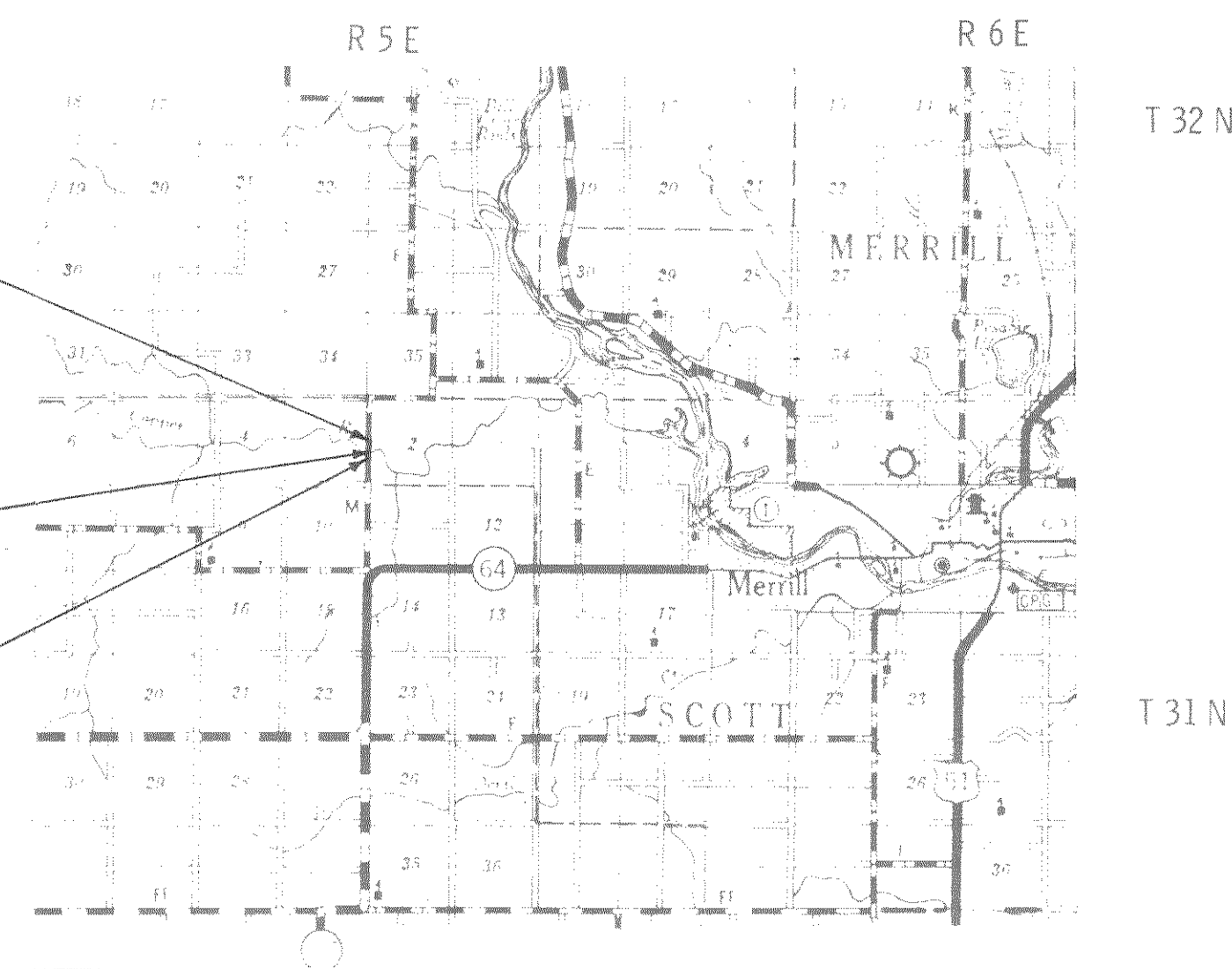


PLAN 1 IN. = 100 FT.
PROFILE HOR. 1 IN. = 100 FT. VERT. 1 IN. = 10 FT.
CROSS SECTIONS HOR. 1 IN. = 5 FT. VERT. 1 IN. = 5 FT.

BEGINNING OF PROJECT E 0-0(13)
STA. 7+00
1616' S. & 12.7' W. of W. 1/4 Cor.
Sec. 2, T 31 N R 5 E

STA. 11+75.92 TO STA. 12+82.58
STRUCTURE B-35-17
CONTRACT 1

END PROJECT E 0-0(13)
STA. 16+00
716' S. & 5.6' W. of W. 1/4 Cor.
Sec. 2 T 31 N R 5 E



CONVENTIONAL SIGNS

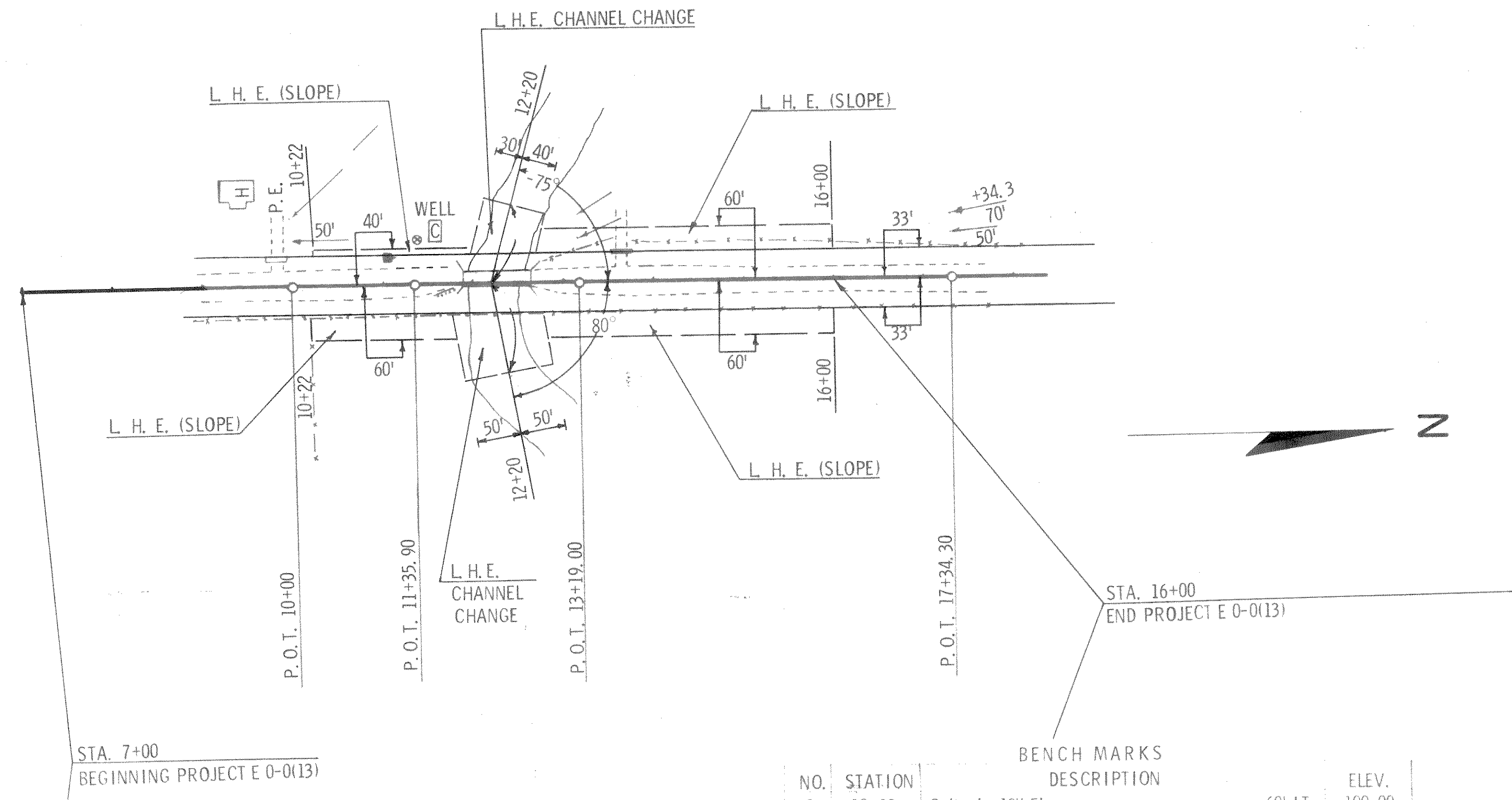
STATE LINE	CULVERTS IN PLACE
COUNTY LINE	CULVERTS REQUIRED
TOWNSHIP OR RANGE LINE	DROP INLET
SECTION LINE	POWER POLE
NEW RIGHT OF WAY LINE	TELEPHONE OR TELEGRAPH POLE
PRESENT RIGHT OF WAY LINE	RIGHT OF WAY MARKERS
WIRE FENCE { WOVEN	REFERENCE STAKE FOR HUBS ONLY
{ BARBED	MARSH
LOT LINE	HEDGE
CORPORATE OR CITY LIMITS	TREES
PROPERTY LINE	GROUND ELEVATION
TRAVELED WAY OR P.E.	RAILROADS
RAILROADS	BASE OR SURVEY LINE
BASE OR SURVEY LINE	GRADE ELEVATION

LAYOUT

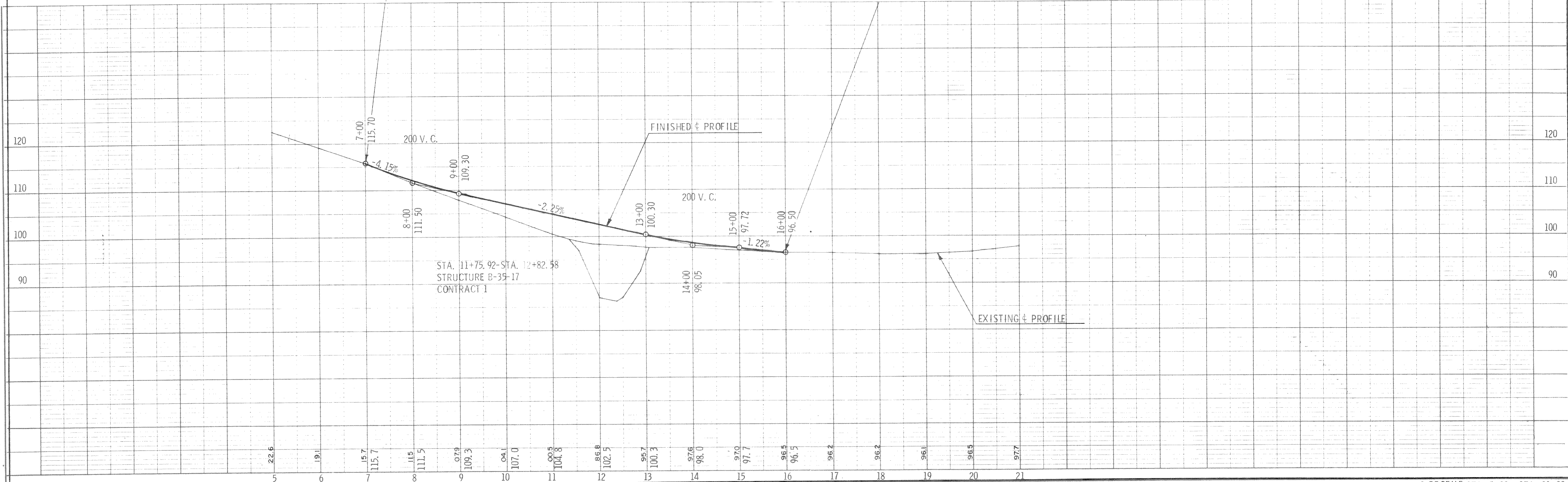
SCALE 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 0.170 MI.

STATE HIGHWAY COMMISSION OF WISCONSIN MADISON, WIS.	
SURVEYOR SONNENBERG	NOTE BOOK 272
DIVISION COMPUTER MCOWEN	M. D. CHECKER
DISTRICT CHECKER	CORRECT
CORRECT:	
DATE 8/15/66	<i>M. D. Tuttle</i> DISTRICT ENGINEER
RECOMMENDED FOR APPROVAL:	
DATE	
APPROVED:	
DATE	STATE HIGHWAY ENGINEER
DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	
APPROVED:	
DATE	
DIVISION ENGINEER	



NO.	STATION	DESCRIPTION	ELEV.
1	10+88	Spike in 18" Elm	60' LT. 100.00
2	13+66	Spike in 20" Elm	60' LT. 93.00



BENCH MARKS

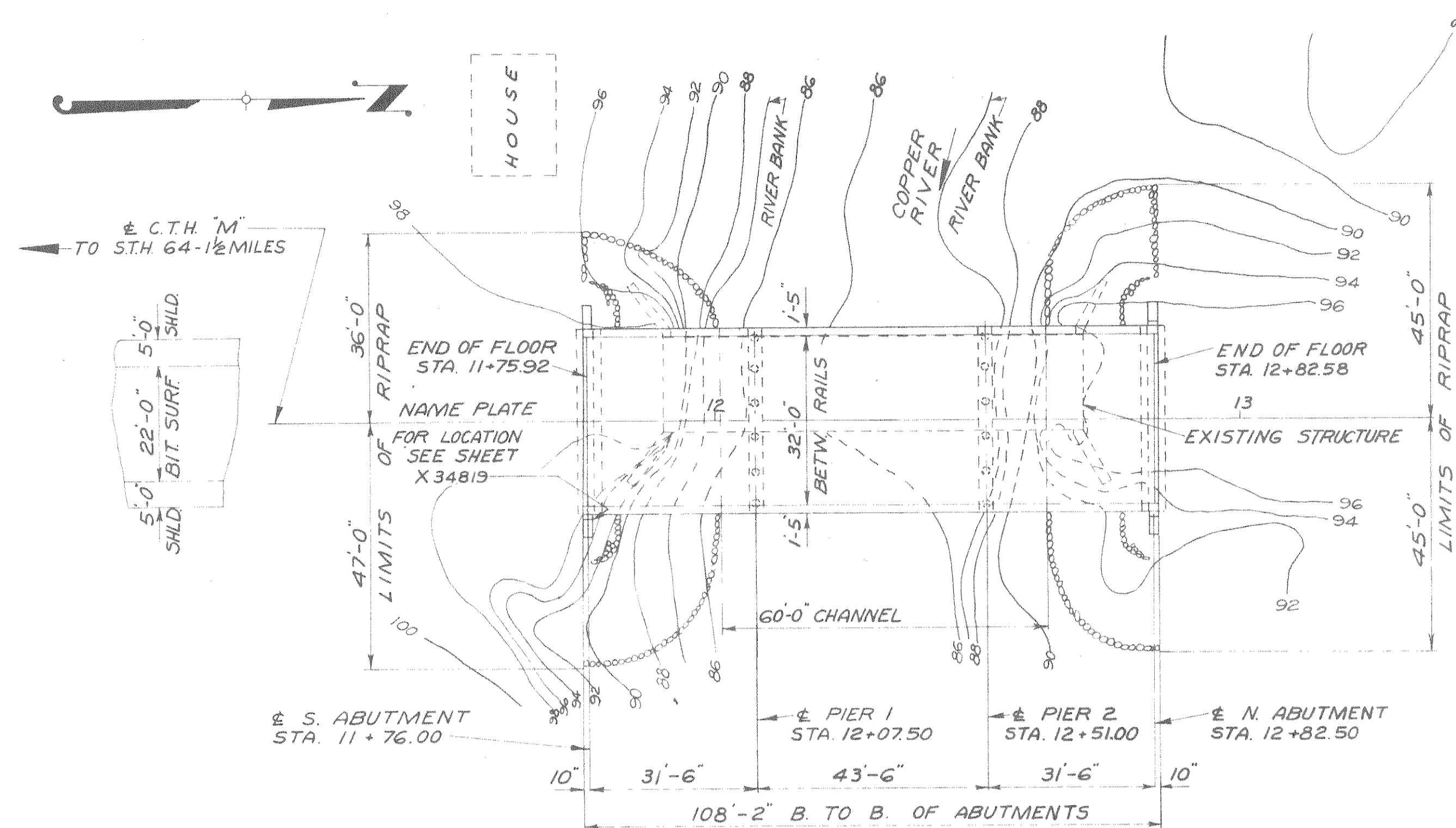
NO.	STATION	DESCRIPTION	ELEV.
1	10+88	SPIKE IN 18" ELM	60' LT. 100.00
2	13+66	SPIKE IN 20" ELM	60' LT. 93.00

COUNTY & HIGHWAY	ROUTE & SECTION	CLASS & AGREEMENT	FEDERAL	STATE	F.P.F. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
356	00	3.13			4	E 0-0(13)	4	11

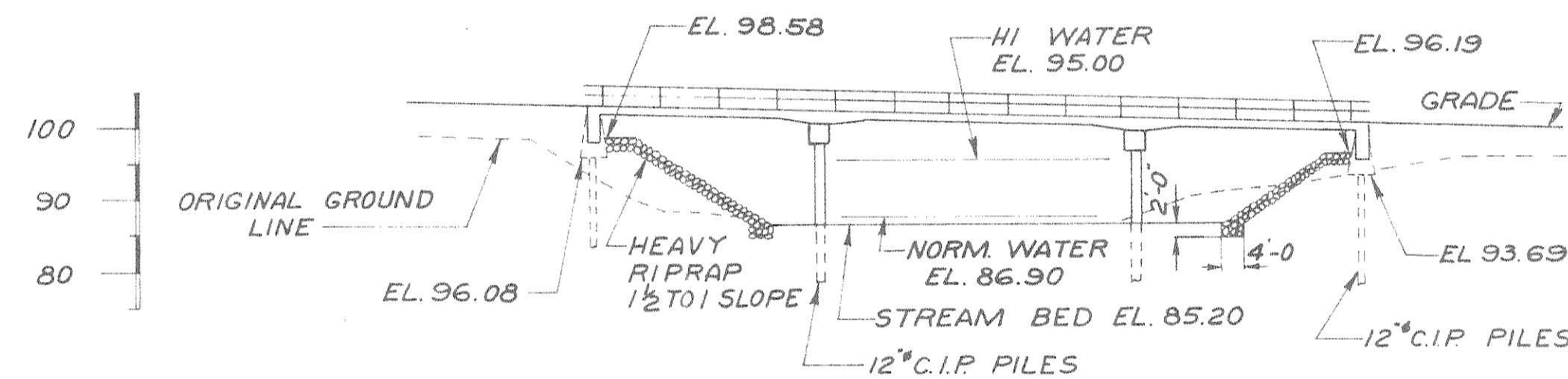
TOTAL ESTIMATED QUANTITIES

BID-ITEMS	UNIT	SUPER	S. ABUT	PIER 1	PIER 2	N. ABUT.	TOTAL
REMOVING OLD BRIDGE	L.S.						1
EXCAVATION FOR STRUCTURES	C.Y.		5			5	10
GRANULAR BACKFILL	C.Y.		5			5	10
CONCRETE MASONRY	C.Y.	169.1	20.1	9.9	9.9	20.1	229.1
BAR STEEL REINFORCEMENT	LB.	38,100	750	3,300	3,300	750	46,200
* CAST-IN-PLACE CONCRETE TEST PILING	L.S.						1
CAST-IN-PLACE CONCRETE PILING DELIVERED	L.F.		80	210	210	80	580
CAST-IN-PLACE CONCRETE PILING DRIVEN	L.F.		80	132	138	80	430
TUBULAR RAILING TYPE "F"	L.F.	222					222
HEAVY RIPRAP	C.Y.		210			195	405
NON-BID ITEMS							
FILLER	SIZE	2" x 4"					2" x 4"

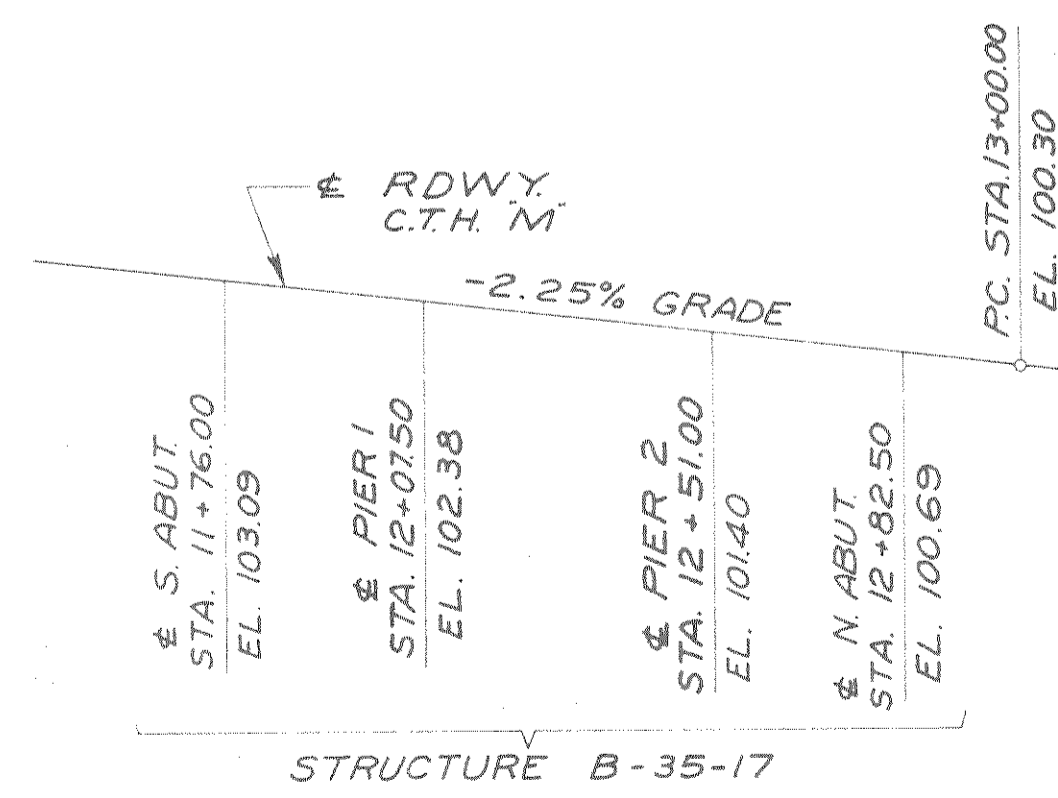
* DRIVE ONE 30'-0" TEST PILE AT EACH ABUTMENT



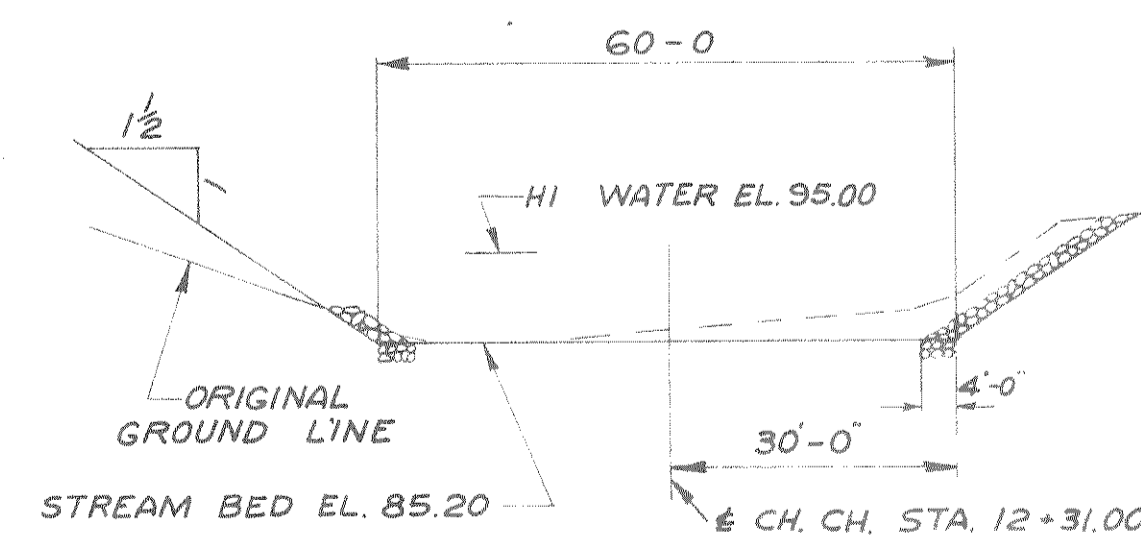
PLAN
3 SPAN CONTINUOUS SLAB



ELEVATION



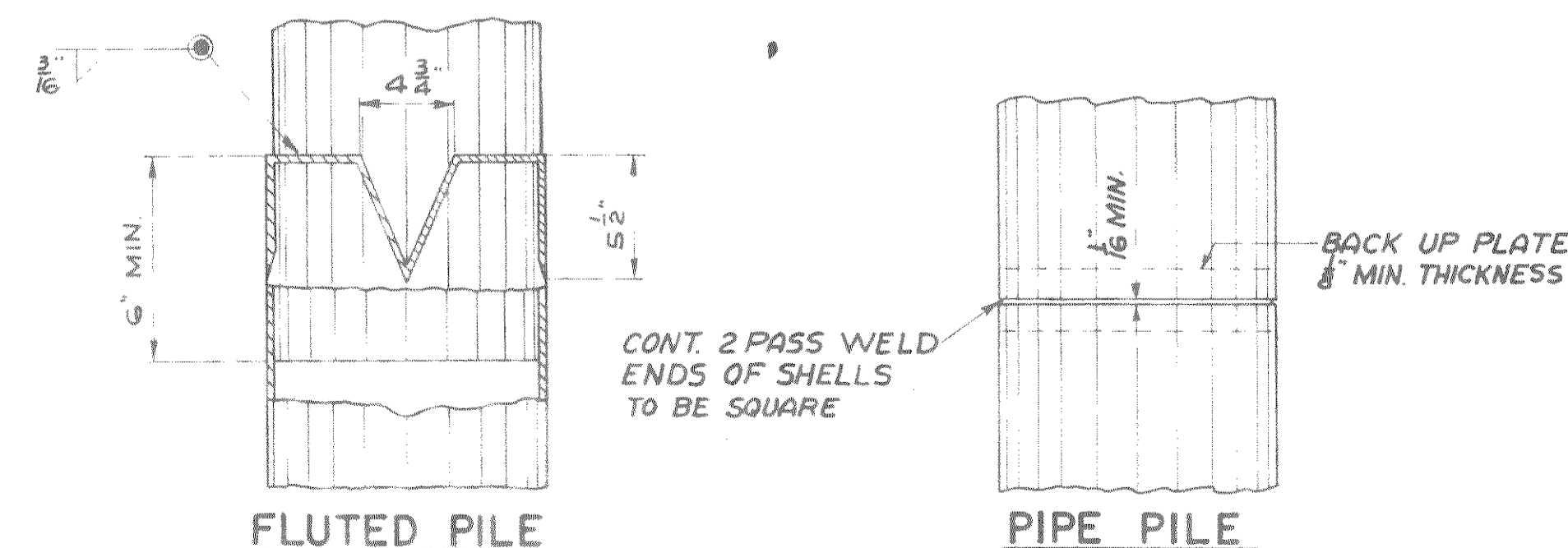
PROFILE GRADE LINE C.T.H.M.



SECTION THRU CH. CH.
NORMAL TO CH. CH. CONSTR. &

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
 EXPANSION JOINT FILLER SHALL CONFORM TO A.A.S.H.O. DESIGNATION M153, TYPE I.
 UPPER LIMITS OF EXCAVATION FOR STRUCTURES FOR THE ABUTMENTS IS CONSIDERED TO BE THE BOTTOM OF THE SLOPE PROTECTION AND THE ESTIMATED QUANTITIES ARE COMPUTED FROM THIS LINE. SEE SHEET X-34819.
 ALL EXCAVATED VOLUME NOT OCCUPIED BY THE ABUTMENTS SHALL BE BACKFILLED WITH GRANULAR BACKFILL. PAYMENT WILL BE MADE ONLY FOR MATERIAL ACTUALLY PLACED WITHIN THE LIMITS SPECIFIED FOR EXCAVATION FOR STRUCTURES.
 THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AS SHOWN ON THIS SHEET AND ON SHEET X-34819.
 THE EL. & SLOPE BELOW THE RIPRAP IS REFERRED TO AS THE "FINISHED GRADED SECTION".
 SLAB FALSEWORK SHALL BE SUPPORTED ON PILES.
 CYLINDRICAL TYPE STEEL PILE SHELLS, IF USED SHALL HAVE A MINIMUM NOMINAL (AVERAGE) SHELL THICKNESS OF 0.188 INCH AND CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A252, GRADE 2.



PILE SPLICE DETAIL

LIST OF DRAWINGS

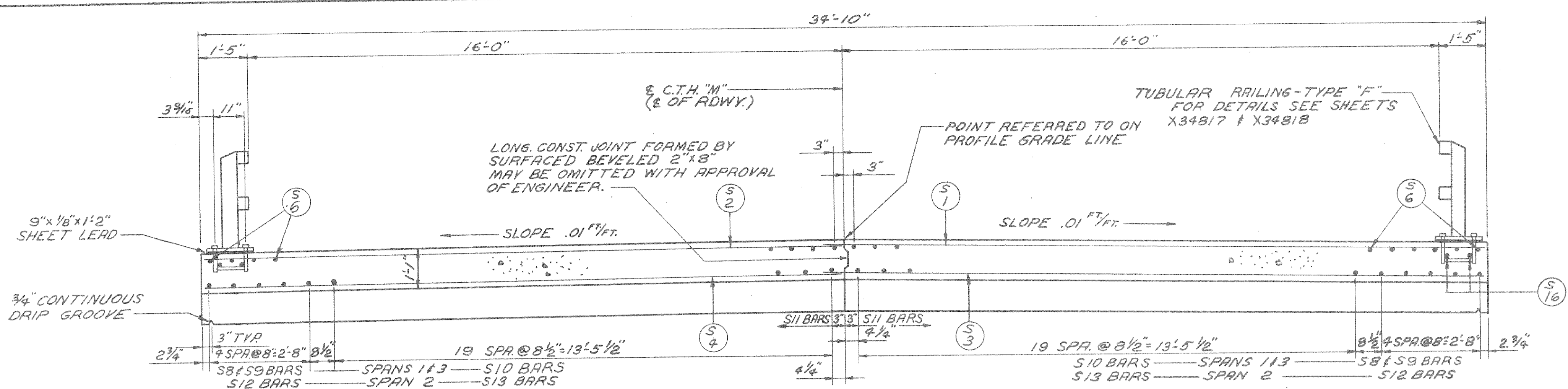
1. GENERAL PLAN	X 34815
2. SUPERSTRUCTURE	X 34816
3. TUBULAR STEEL RAILING TYPE "F"	X 34817
4. TUBULAR ALUMINUM RAILING TYPE "F"	X 34818
5. ABUTMENTS	X 34819
6. PIERS 1 & 2	X 34820
7. BILL OF BARS	X 34821
8. SUBSURFACE EXPLORATION	X 34822

DESIGN DATA

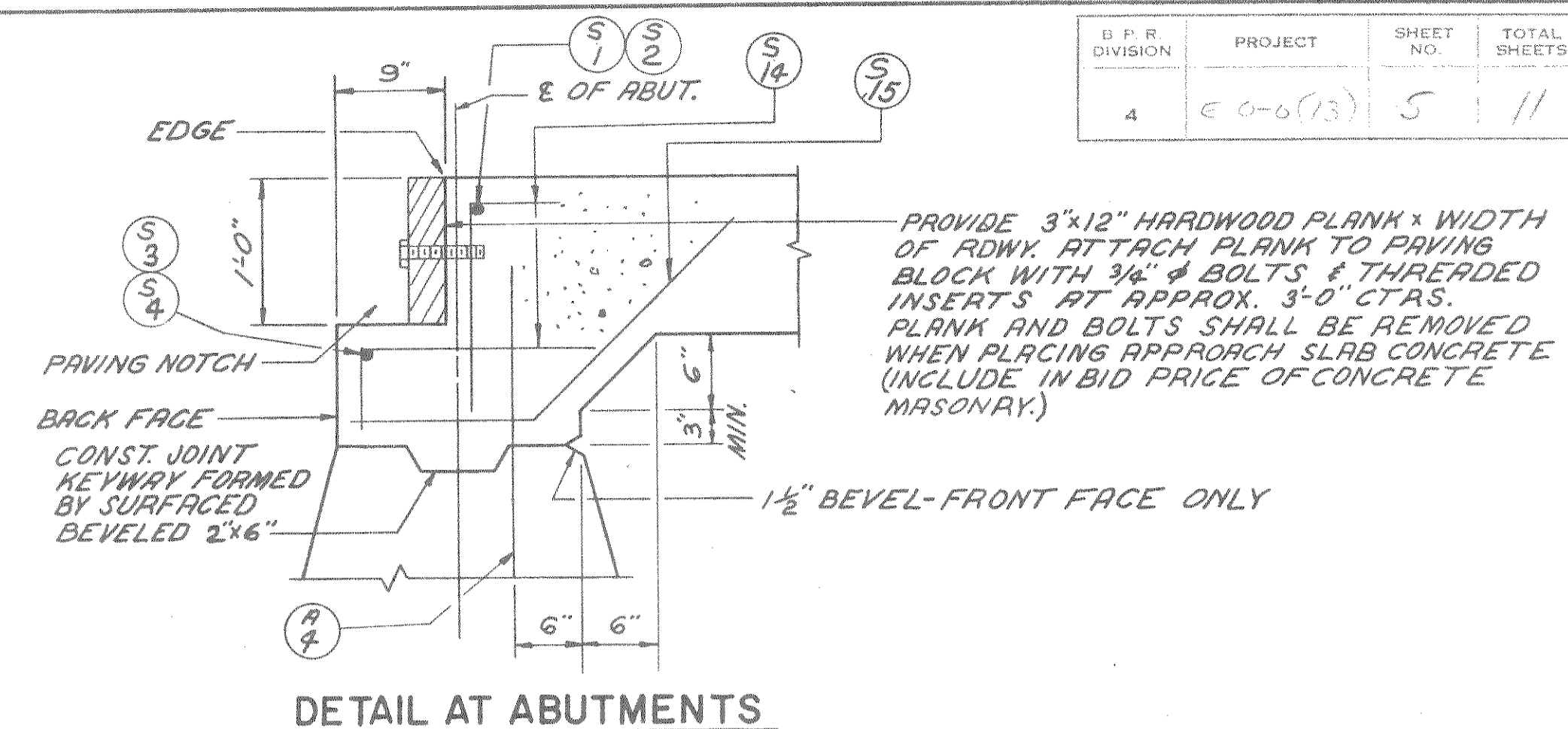
LIVELOAD H15
 ALLOWABLE DESIGN STRESSES
 CONCRETE MASONRY GRADE "AA" $f_c = 1,400$ P.S.I.
 BAR STEEL REINFORCEMENT $f_s = 20,000$ P.S.I.
 FOUNDATION DATA
 ABUTMENTS TO BE SUPPORTED ON 12" C.I.P. CONC. PILING EST. 20'-0" LONG AND DRIVEN TO A MINIMUM BEARING VALUE OF 25 TONS PER PILE.
 PIER CAPS TO BE SUPPORTED ON 12" C.I.P. CONC. PILING EST. 35'-0" LONG AND DRIVEN TO A MINIMUM BEARING VALUE OF 40 TONS PER PILE.
 PILES TO BE DRIVEN TO EL. 65.00 BY AID OF JETS OR PRE-BORING, IF NECESSARY, AT PIERS.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN			
	GENERAL PLAN			
	RD. LINCOLN	CORNING	S+ 12+3100	
	SECTION 2, 3	TOWN 31 N	RANGE 5 E	
	DES. IN. SPEC. A.A.S.H.O. 61	LOADING H15	CONTRACT NO. 1963	
	DATE 4-21-66	DESIGN G.E.Z.	DRAWN LBJ	CHECK ENZ
	RECOMMENDED BY <i>T. B. Schultz</i>			
	APPROVED BY <i>H. J. [Signature]</i>			
	STRUCTURE B-35-17			SHEET 1 OF 8

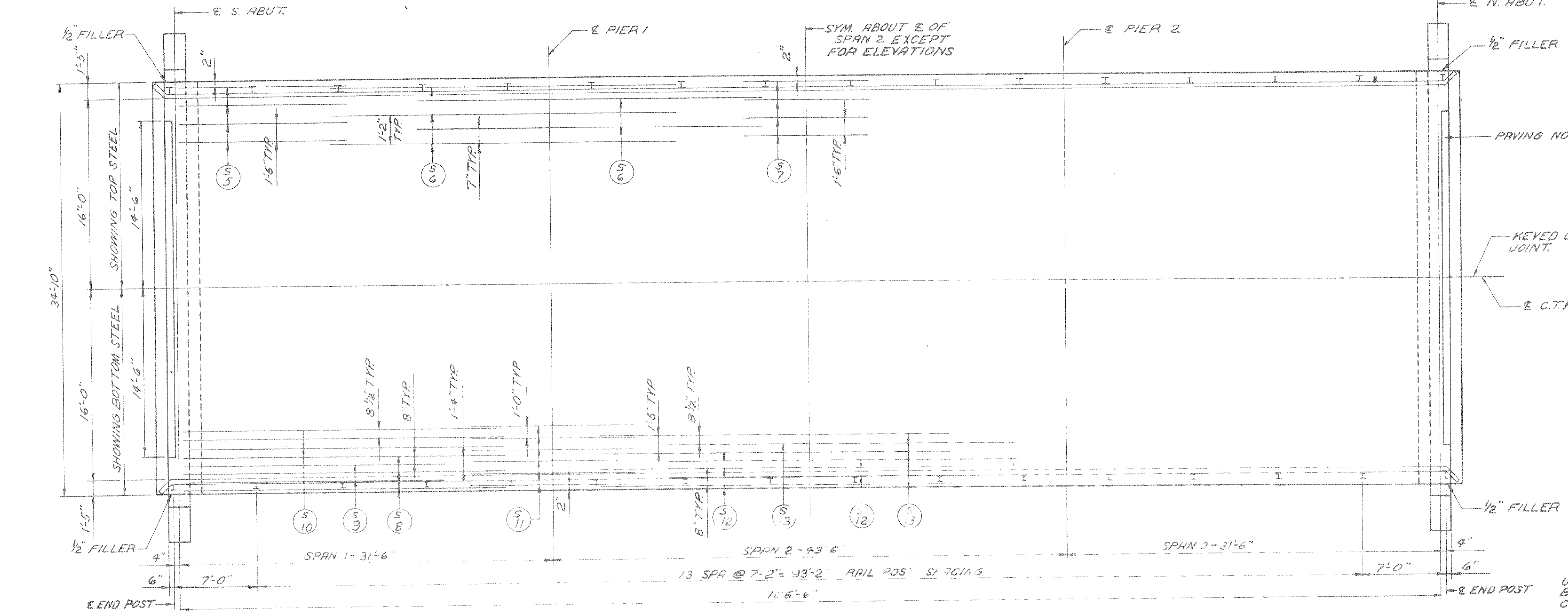
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	E-6-6(13)	5	11



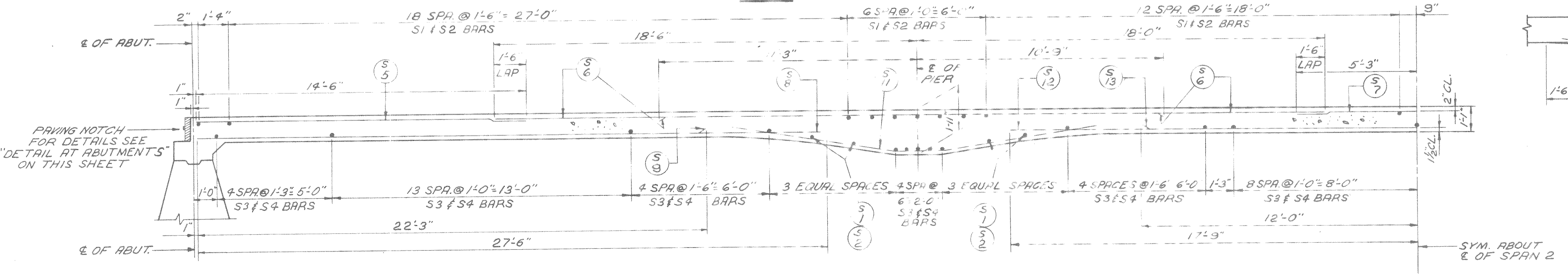
SECTION THRU ROADWAY



DETAIL AT ABUTMENTS



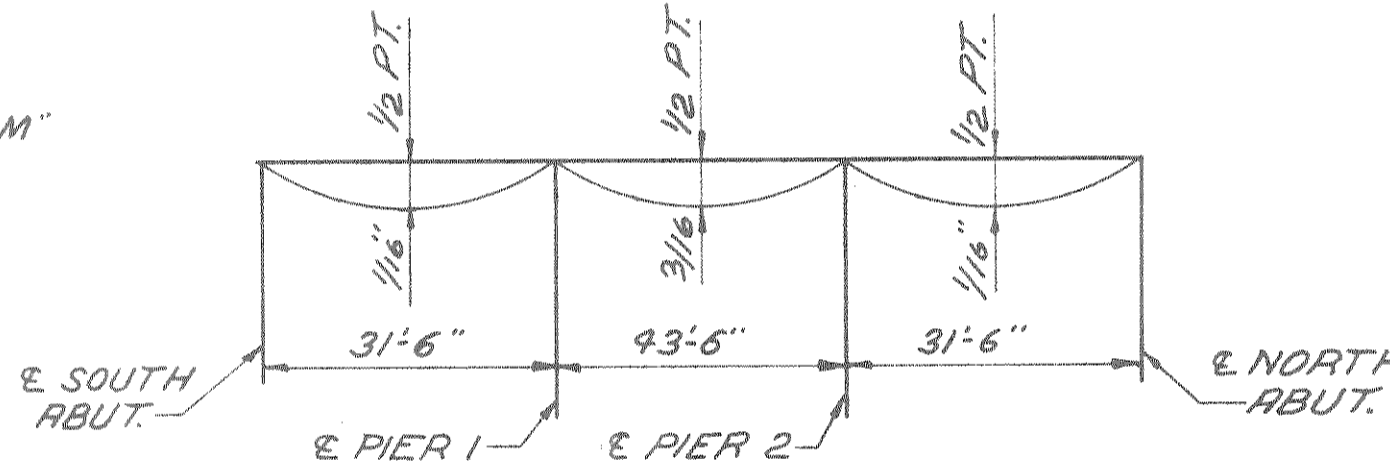
PLAN



LONGITUDINAL SECTION

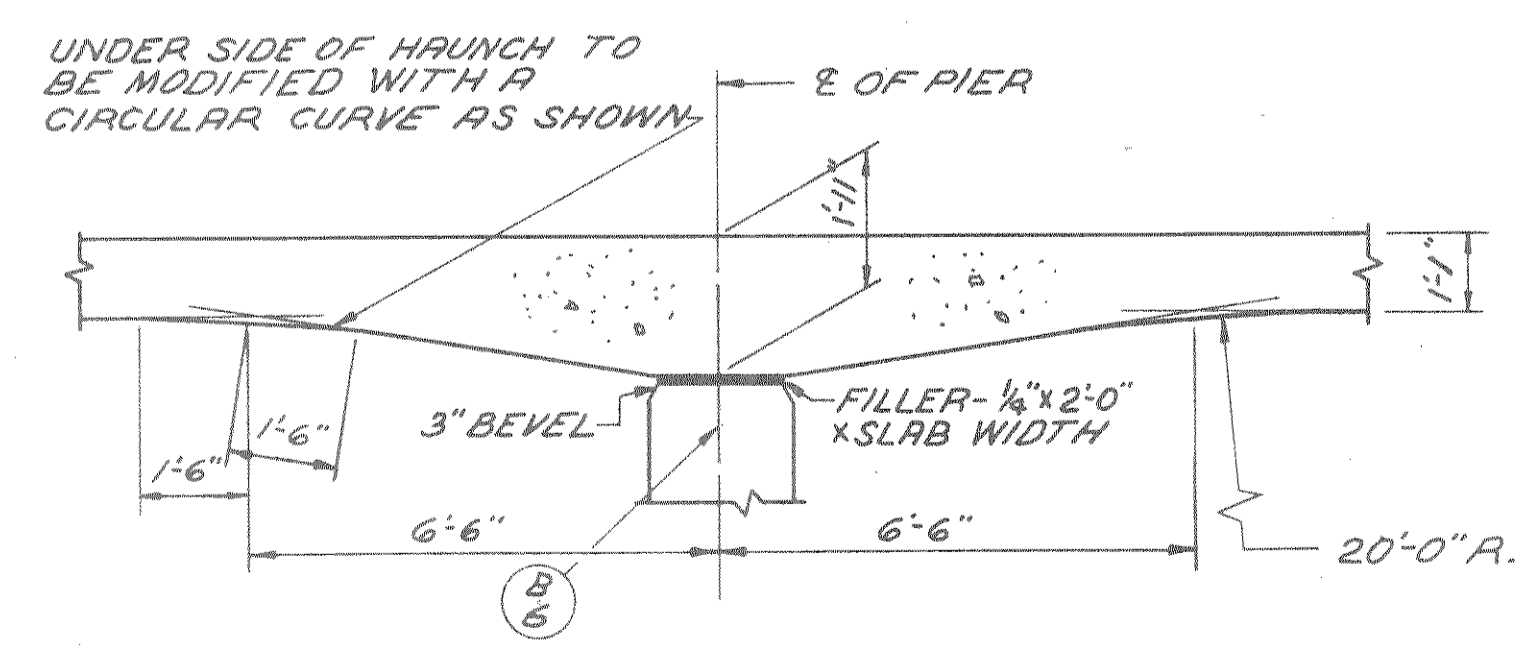
NOTE: ALTERNATE TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CTAS. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CTAS.

NOTE: SLAB THICKNESS DIMENSIONS SHOWN ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONST. DISCREPANCIES SHALL BE PLUS (+).



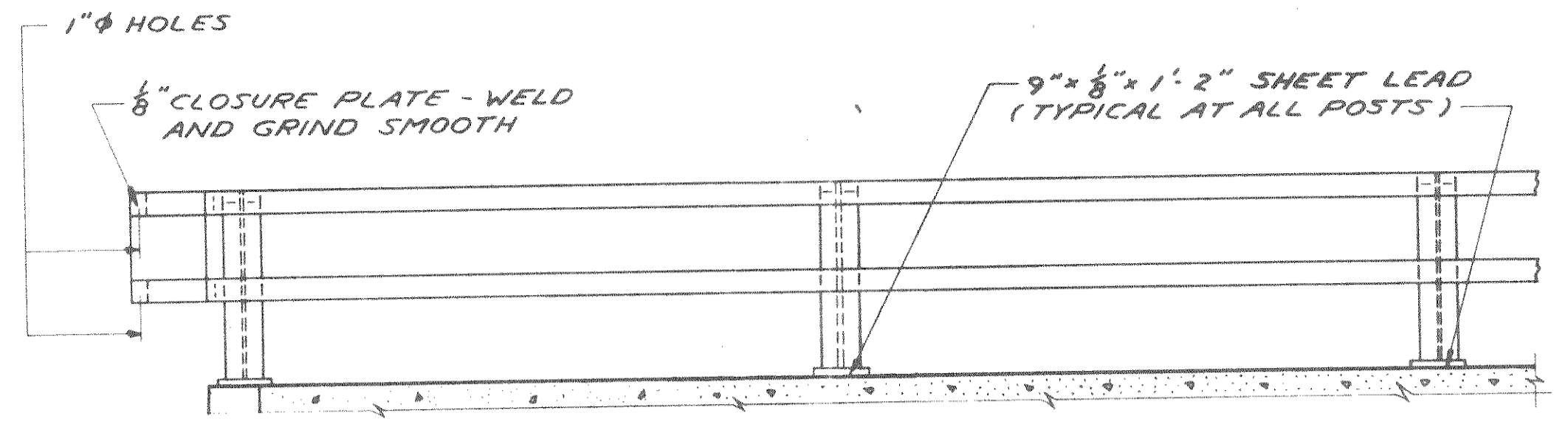
DEFLECTION DIAGRAM

PROVIDE CAMBER OF 1/8" IN SPANS 1, 2 AND 5/8" IN SPAN 2 TO COMPENSATE FOR DEAD LOAD DEFLECTION AND PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

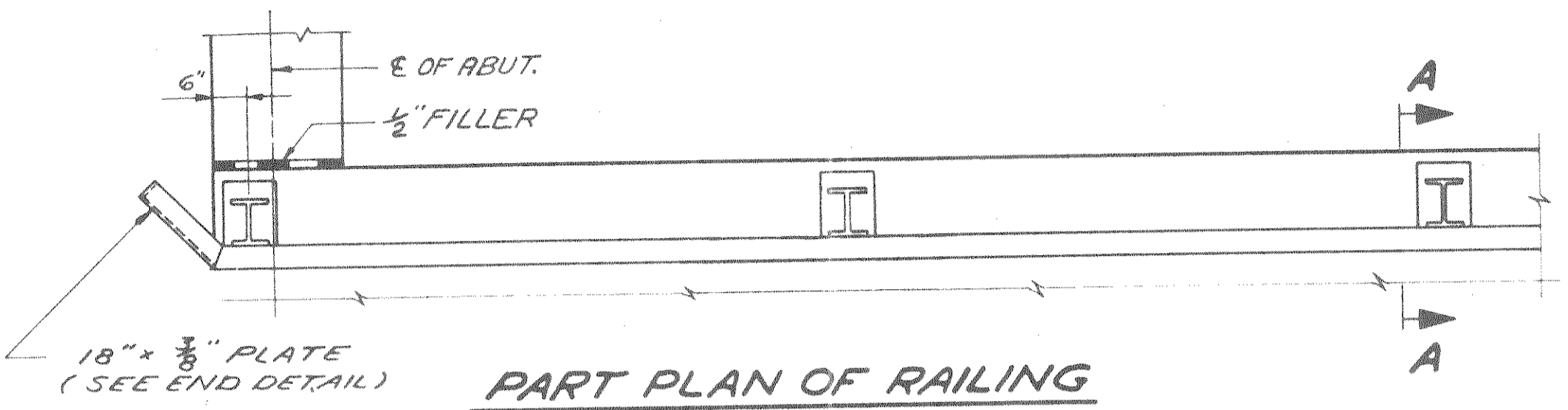


HAUNCH DETAIL AT PIER

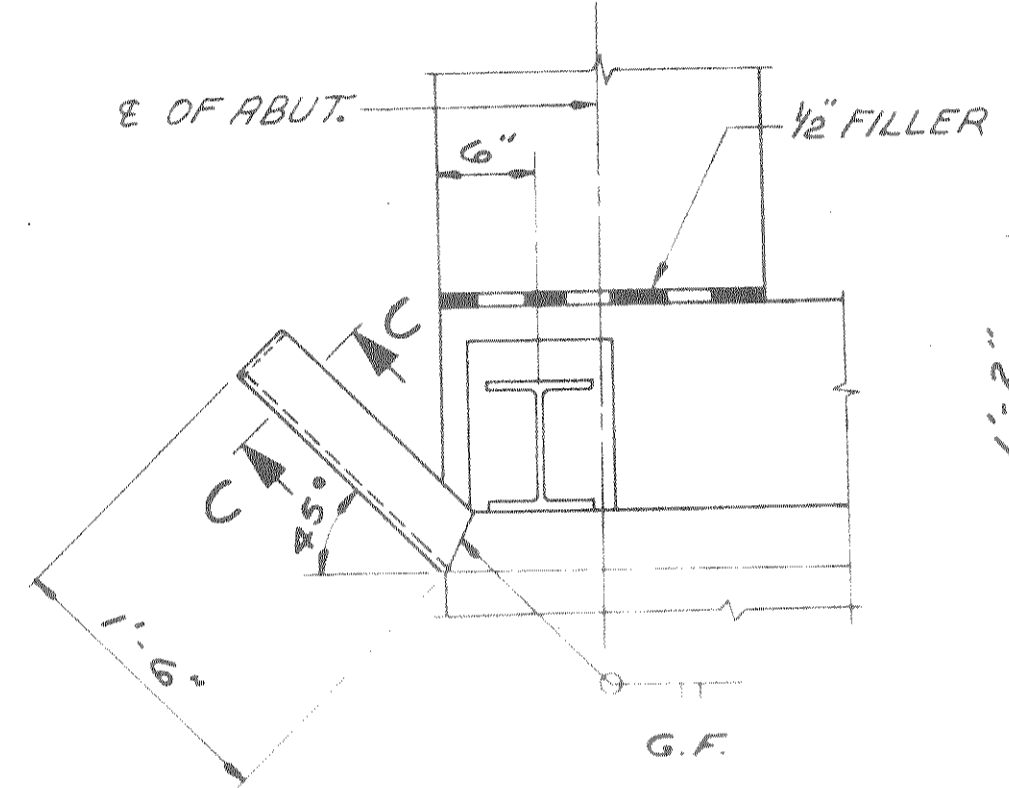
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	SUPERSTRUCTURE		
	DESIGN SPEC. R.A.S.H.Q. '61	LOADING H15	CONST. 1963
	DATE 4-21-66	DESIGN G.E.Z.	DRAWN P.R.L. CHK. E.M.Z.
STRUCTURE B-35-17		SHEET 2 OF 8	



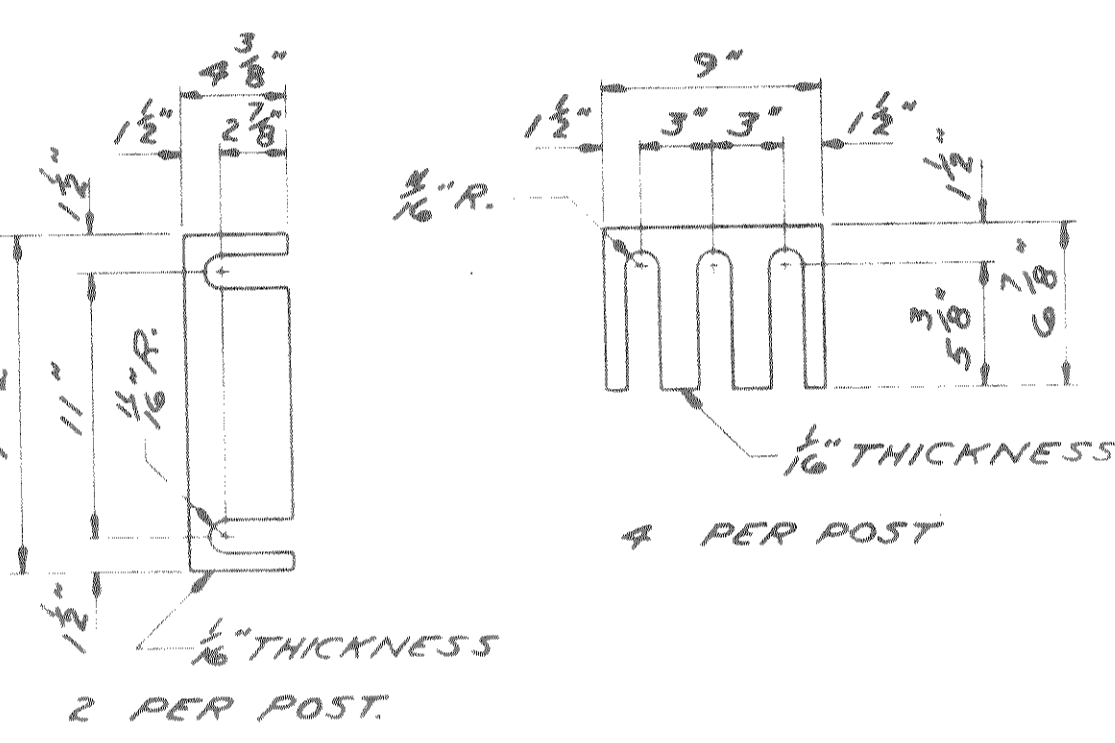
PART ELEVATION OF RAILING



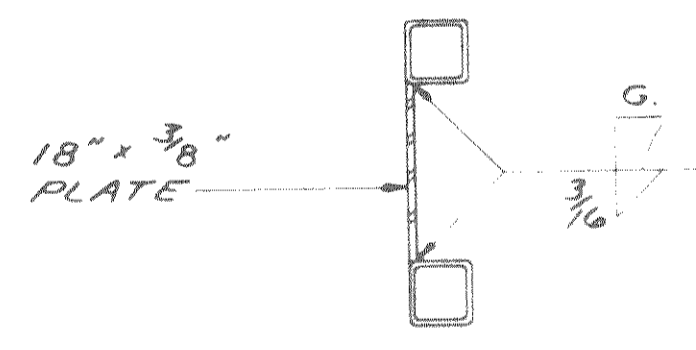
PART PLAN OF RAILING



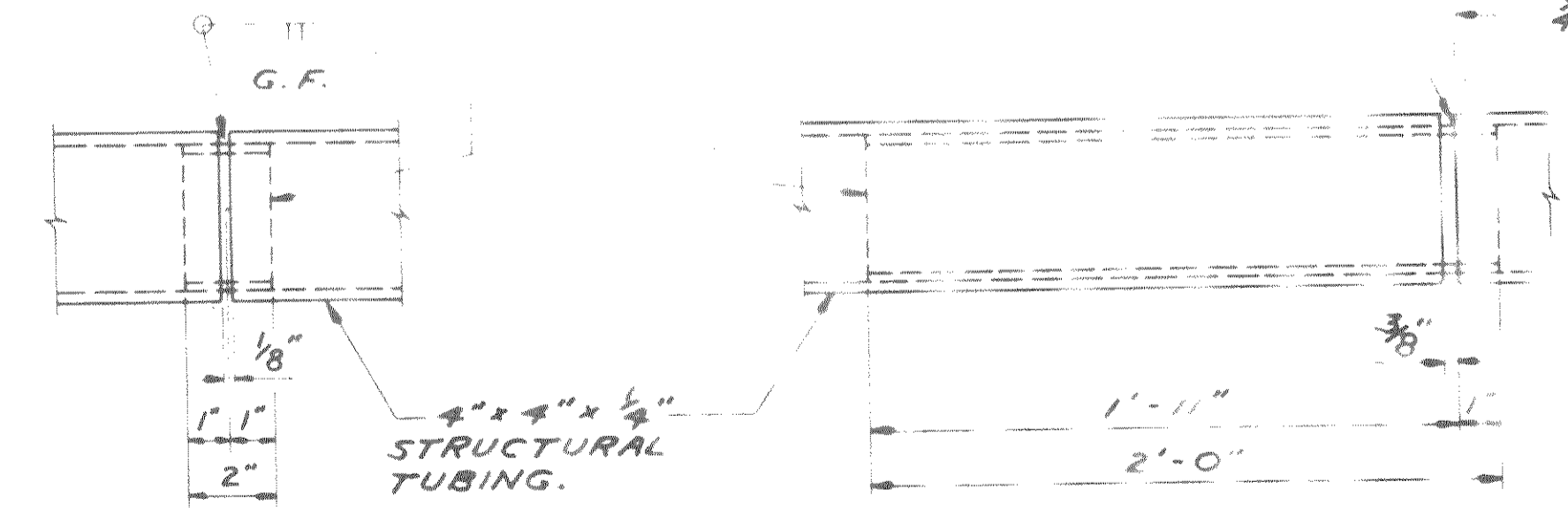
END DETAIL



POST SHIM DETAILS



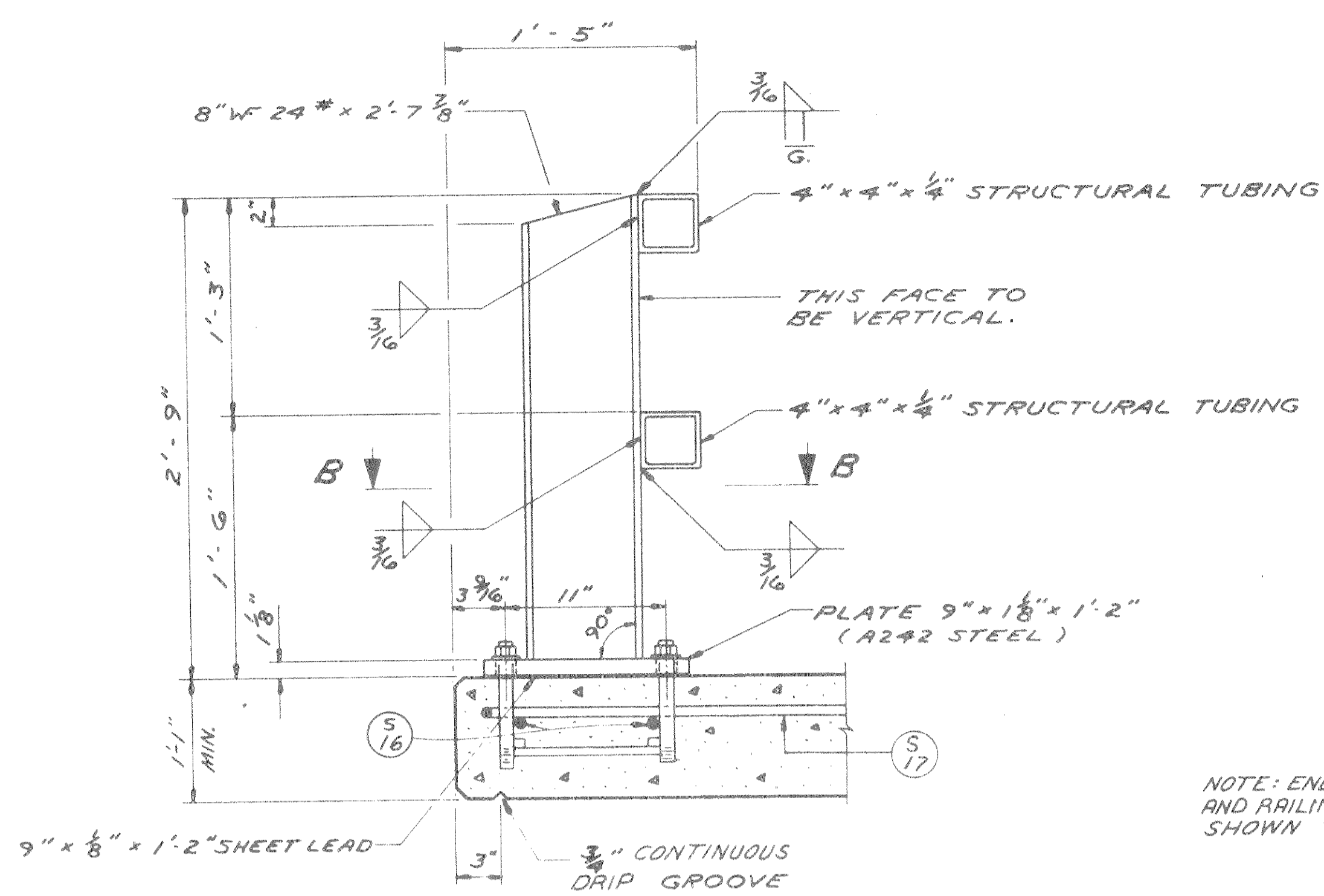
SECTION C



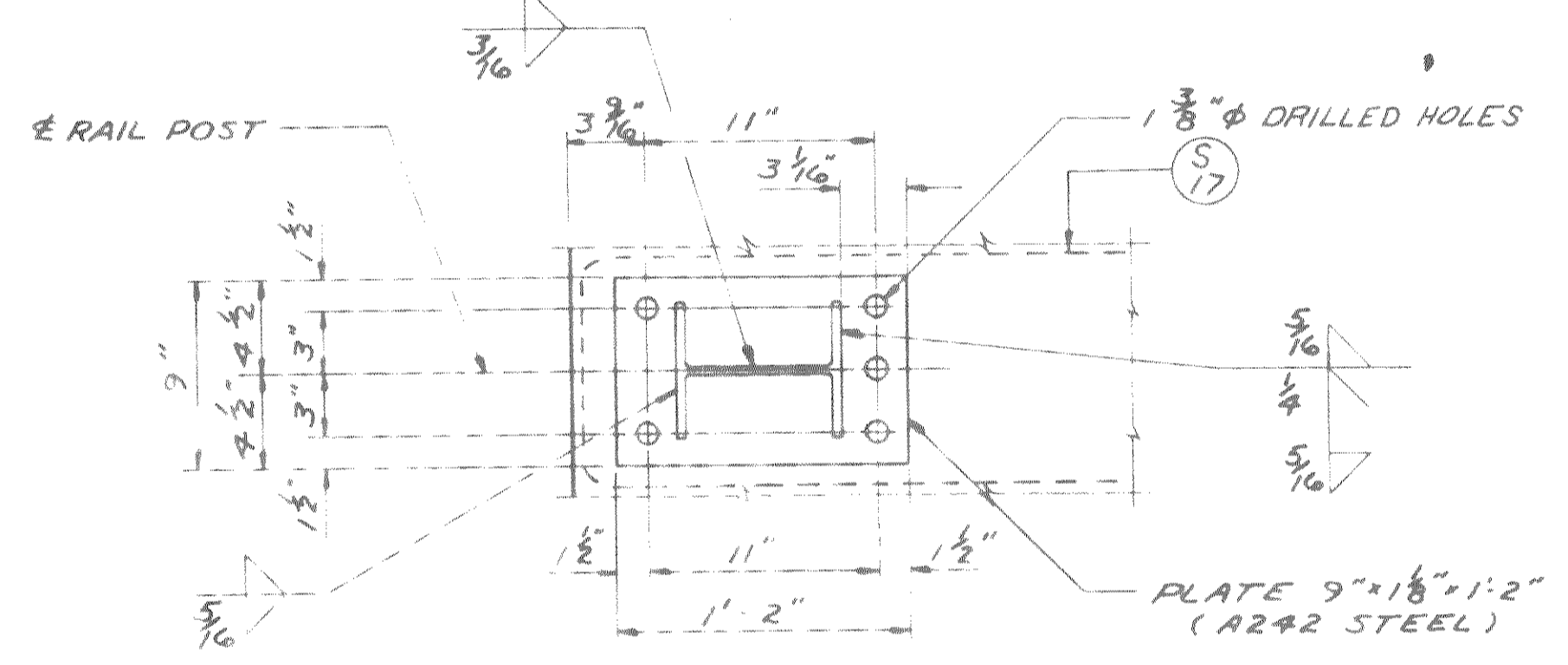
SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS.

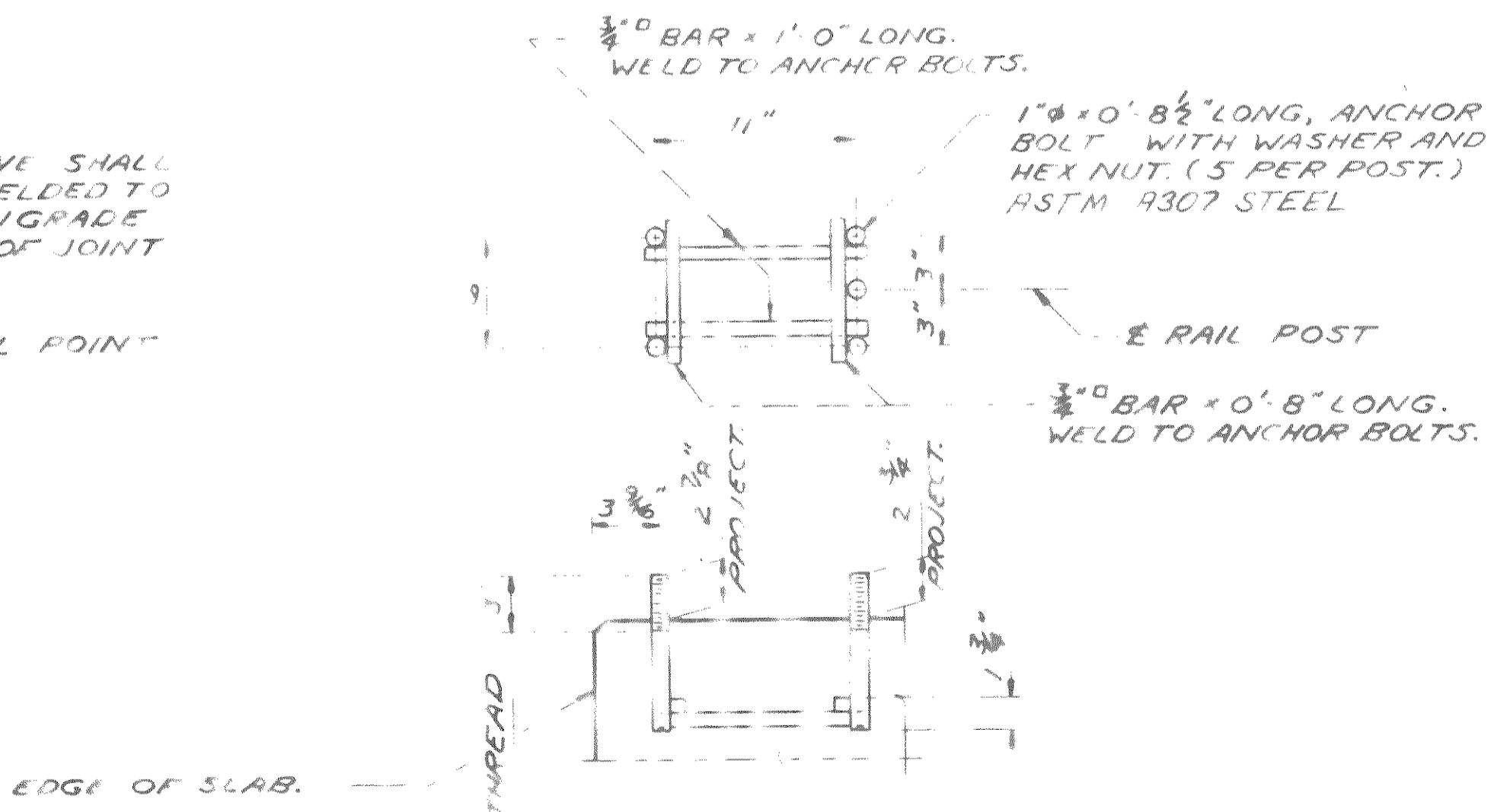
FIELD ERECTION JOINT DETAIL



SECTION A

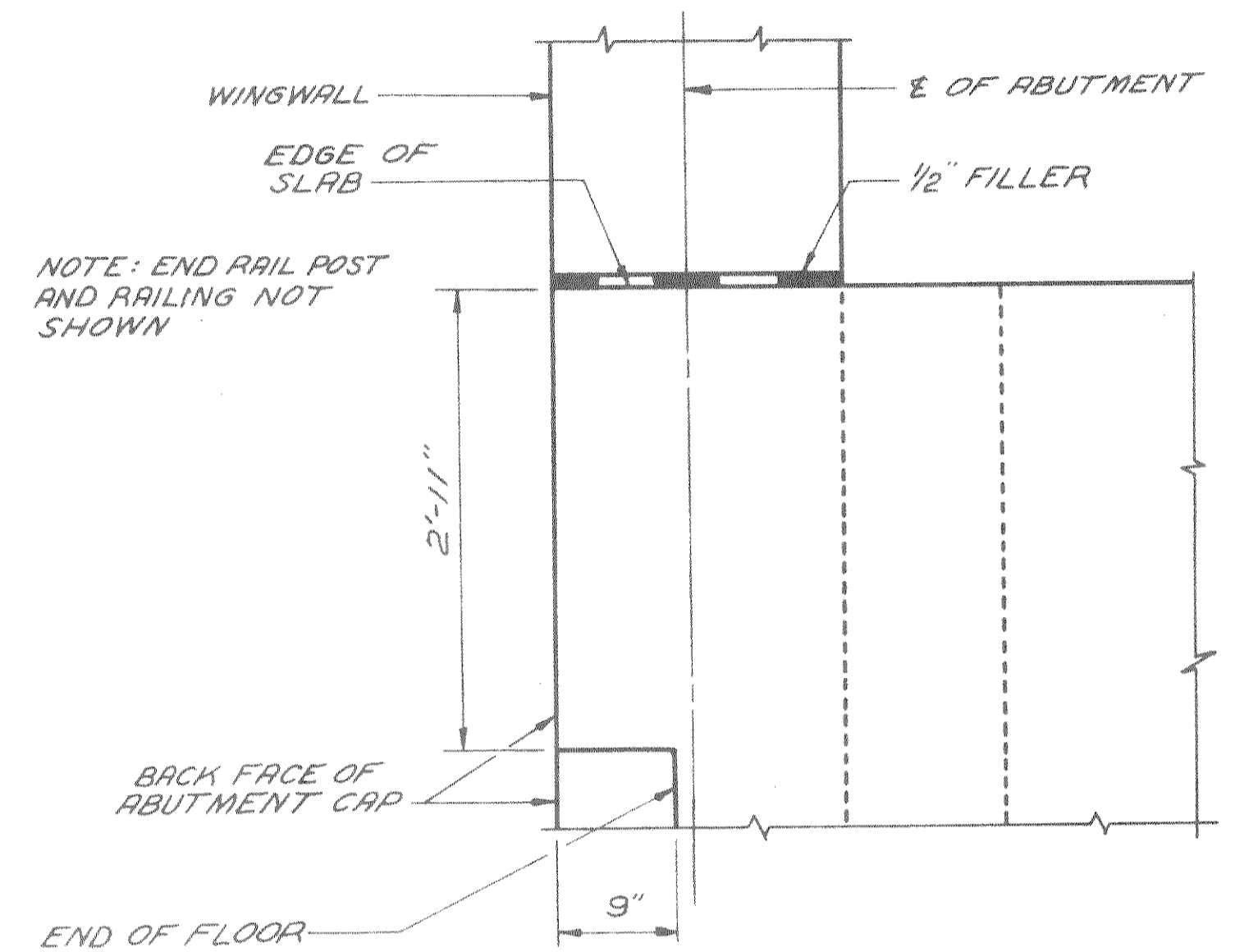


SECTION B



ANCHOR BOLT DETAILS

NOTE: PLACE ANCHOR BOLT VERTICAL.



DETAIL AT END OF FLOOR

RAILING NOTES

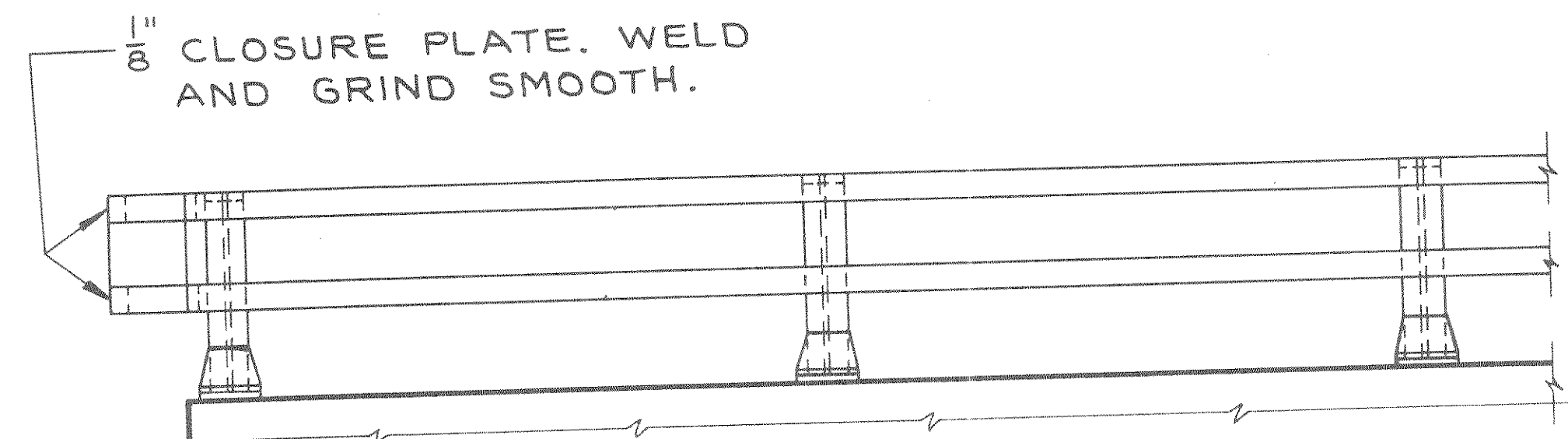
1. STEEL RAIL POSTS SHALL BE SET NORMAL TO GRADE.
2. RAILING SHALL BE FABRICATED IN 2 & 3 PANEL LENGTHS.
3. STEEL SHIMS SHALL BE USED UNDER POSTS WHERE REQUIRED FOR ALIGNMENT.
4. CAULK EXPOSED OPENINGS AT SHIMS WITH LEAD WOOL.
5. POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.
6. A.S.T.M. A242 STEEL SHALL HAVE A CORROSIVE RESISTANCE OF 4 OR MORE TIMES THAT OF A36 STEEL.
7. SHIMS SHALL BE MADE OF A.S.T.M. A242 STEEL OR SHALL BE GALVANIZED A.S.T.M. A123.
8. ELECTRO GALVANIZE A MINIMUM OF TOP 3 1/2" INCHES OF ANCHOR BOLTS INCLUDING NUTS & WASHERS A.S.T.M. A164, TYPE G.S.
9. CHAMFER TOP OF ANCHOR BOLTS BEFORE THREADING.
10. THE SHANK AND ROOT OF THREAD DIAMETER FOR ANCHOR BOLTS SHALL BE A MINIMUM OF 0.838 INCHES.
11. MATERIAL FOR ANCHOR BOLTS TO BE ASTM A307.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	TUBULAR STEEL		
	RAILING, TYPE "F"		
DESIGNED BY	AASHO 61	DATE	APR 1963
DATE	4-21-66	DESIGNED BY	GE.Z.
STRUCTURE B-35-17		SHEET 3 OF 8	

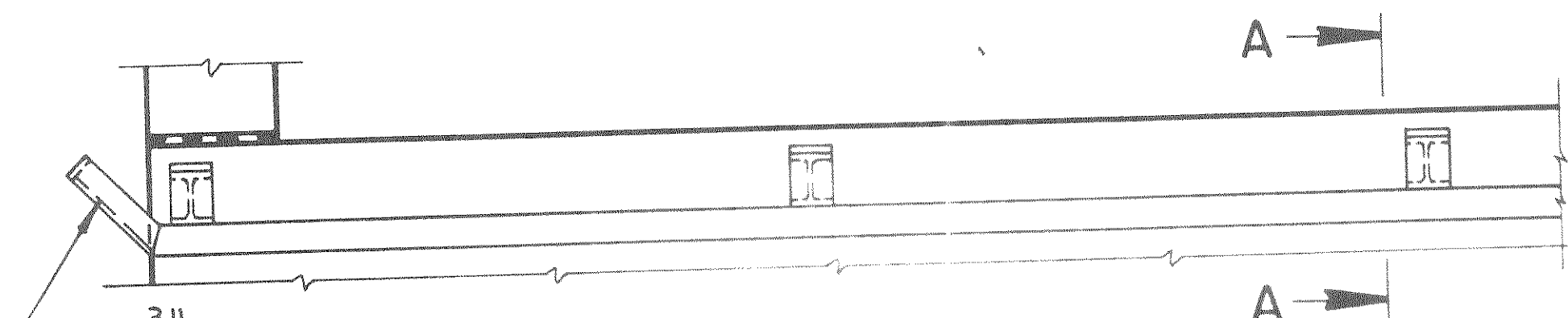
B.P.F. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	E-0-0 (13)	7	11

GENERAL NOTES

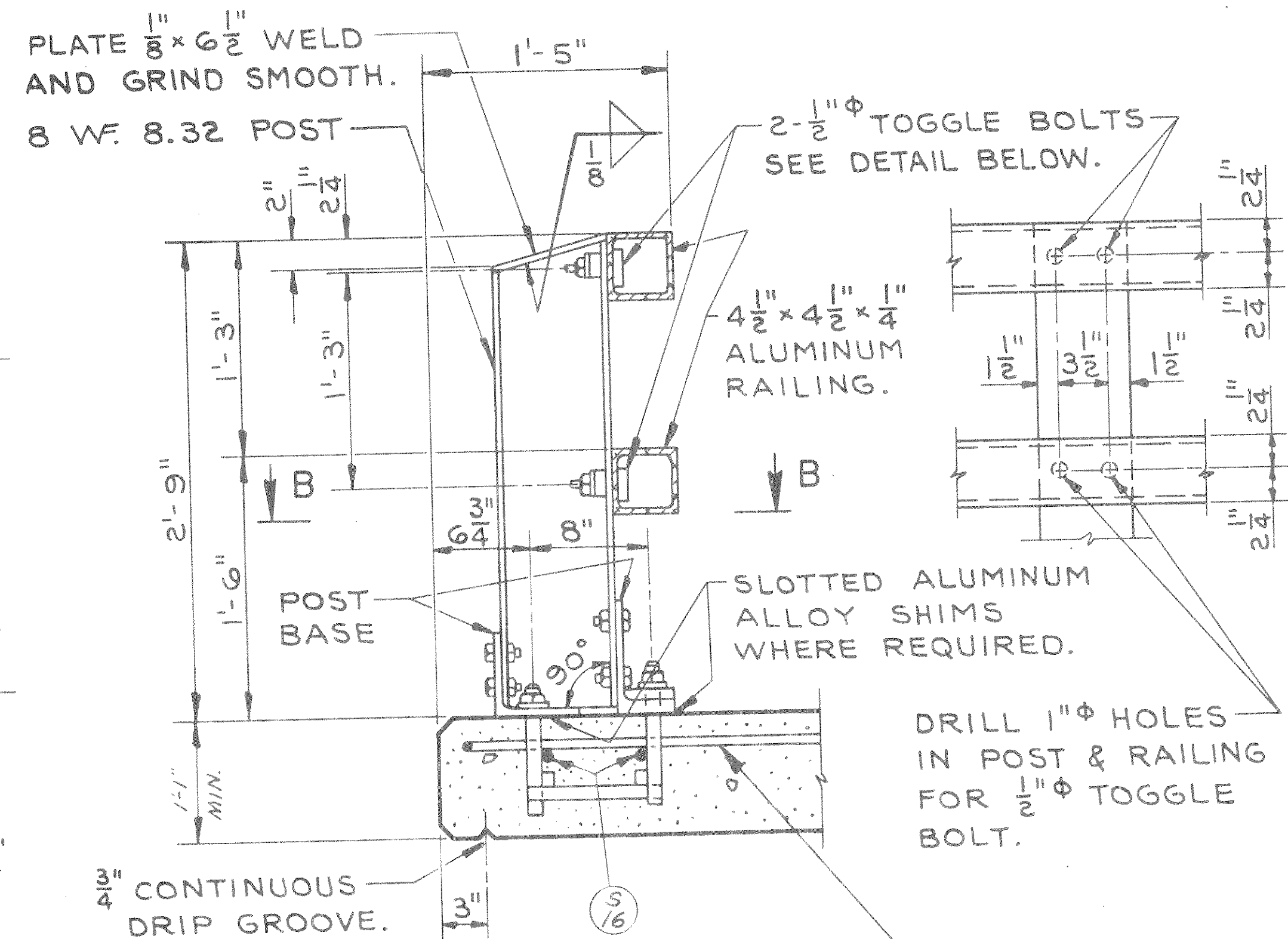
ALUMINUM RAIL POSTS SHALL BE SET NORMAL TO GRADE.
 RAILING SHALL BE FABRICATED IN TWO AND THREE PANEL LENGTHS.
 ALUMINUM SHIMS SHALL BE USED UNDER POSTS WHERE REQUIRED FOR ALIGNMENT.



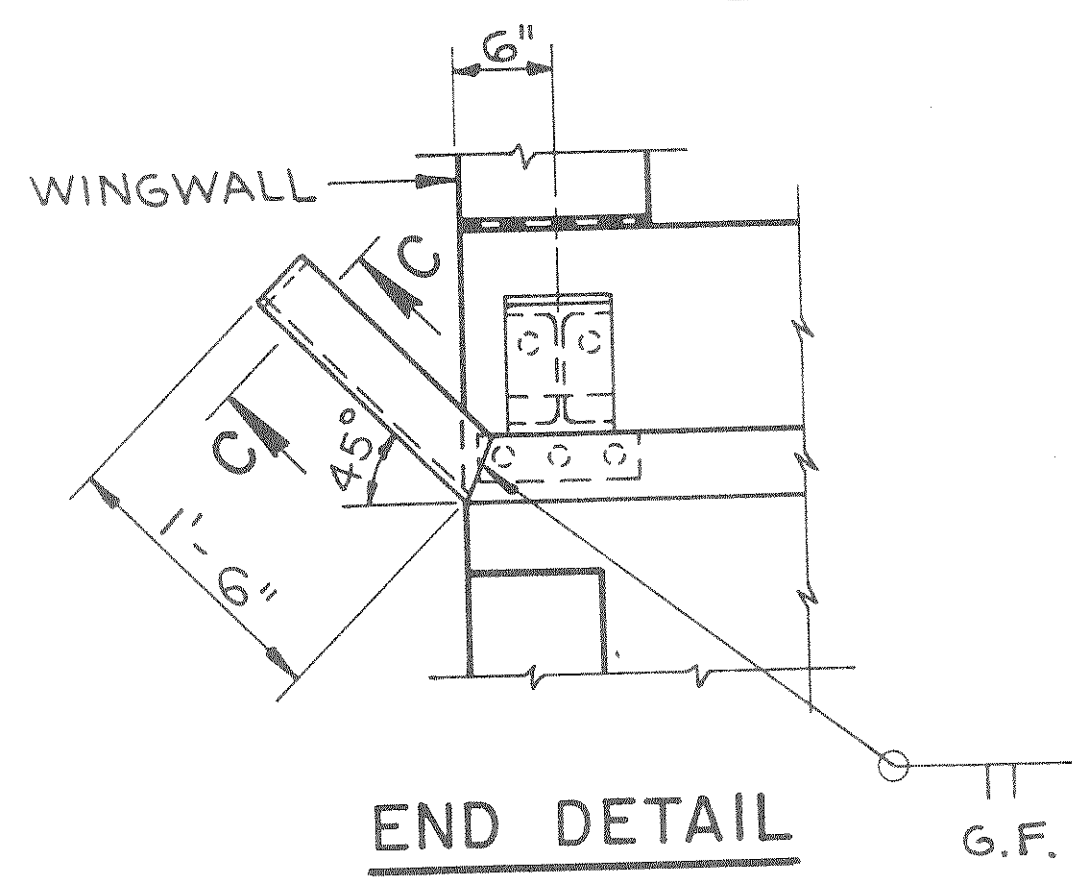
PART ELEVATION OF RAILING



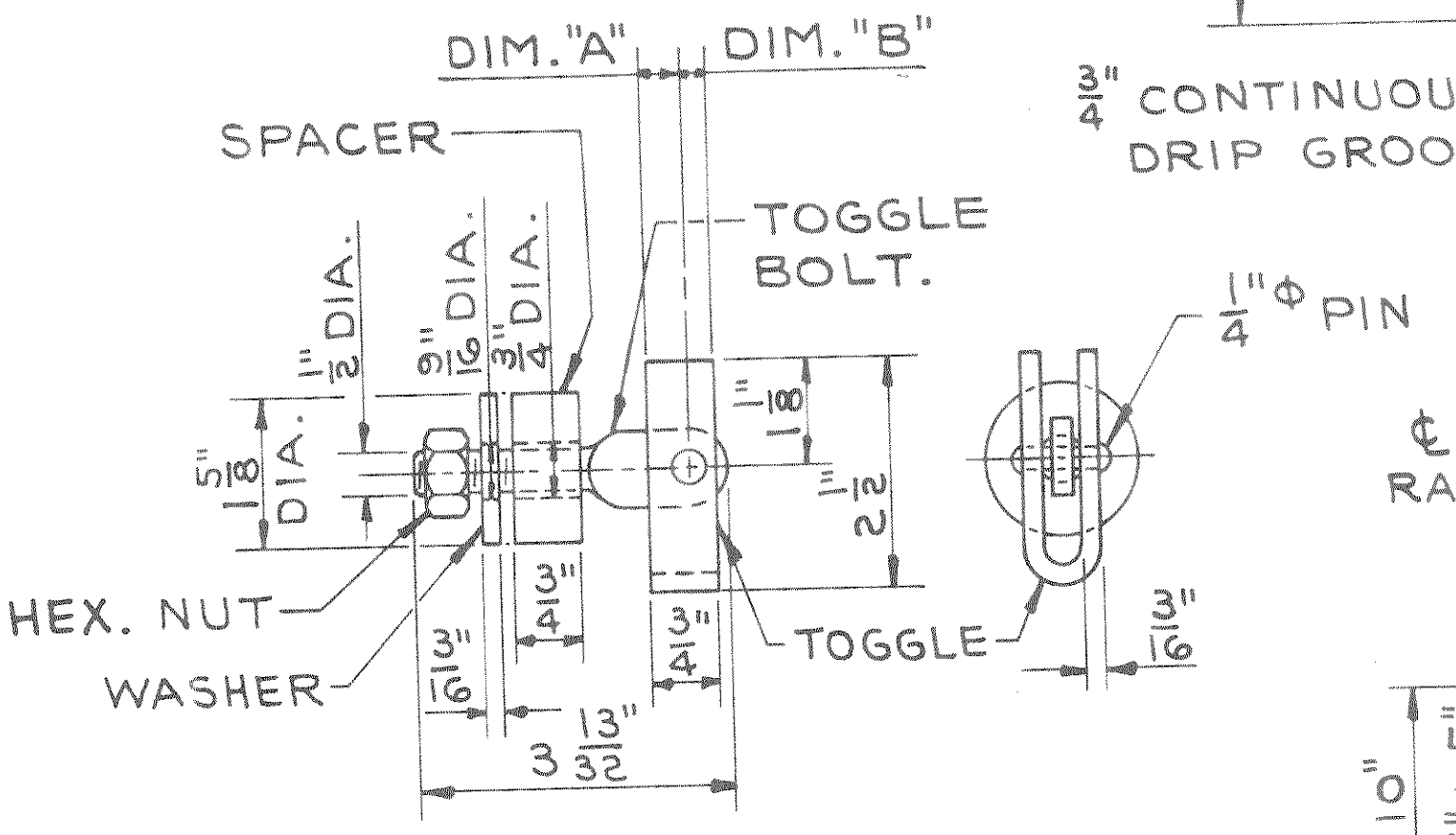
PART PLAN OF RAILING
(SEE END DETAIL)



SECTION A

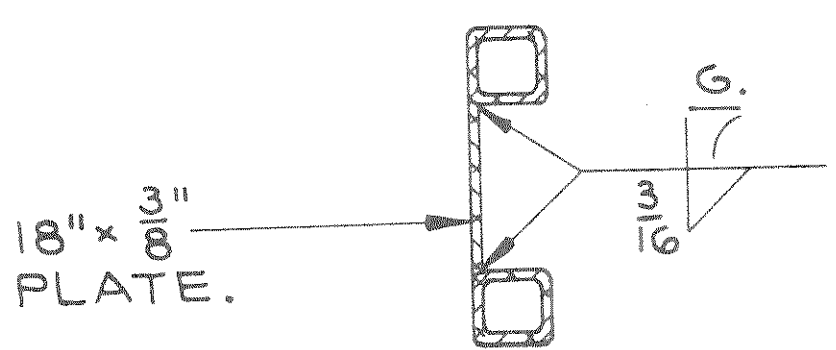


END DETAIL



TOGGLE BOLT DETAIL

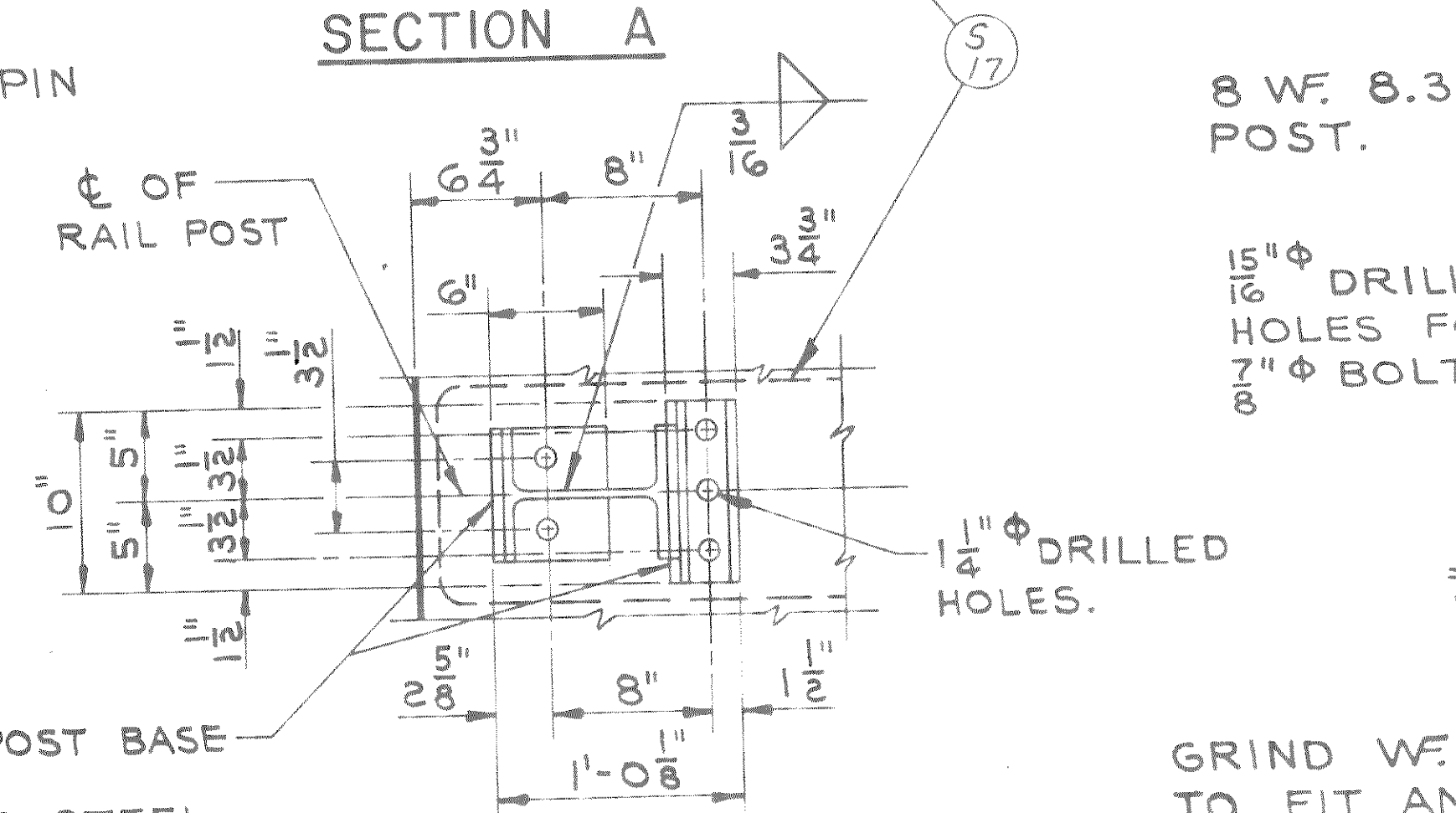
INSTALL BOLT AS SHOWN SUCH THAT DIMENSION "A" IS GREATER THAN DIMENSION "B".



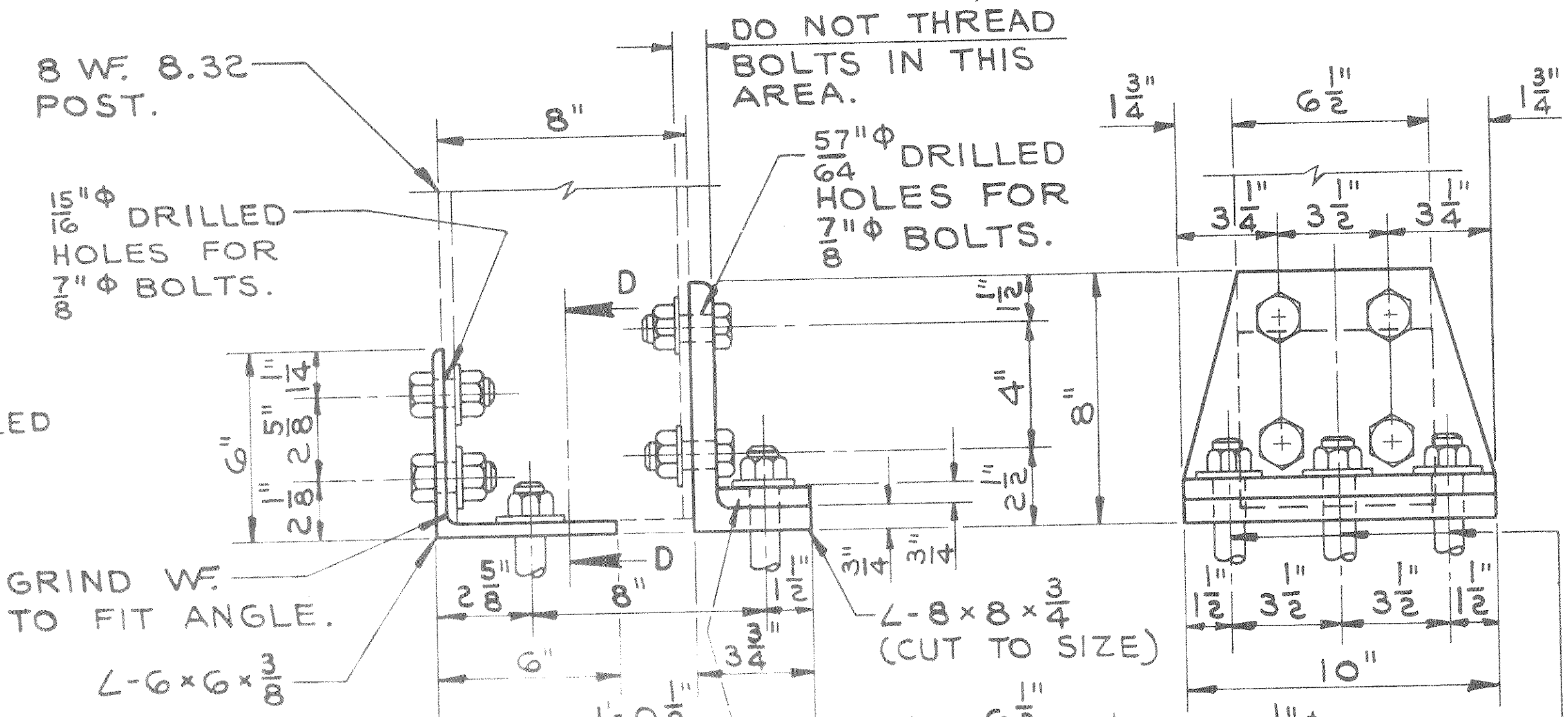
SECTION C

ALL SHIMS 1/16" THICK. 2 SHIMS EACH REQUIRED PER POST. ALL RADII TO BE 1/16".

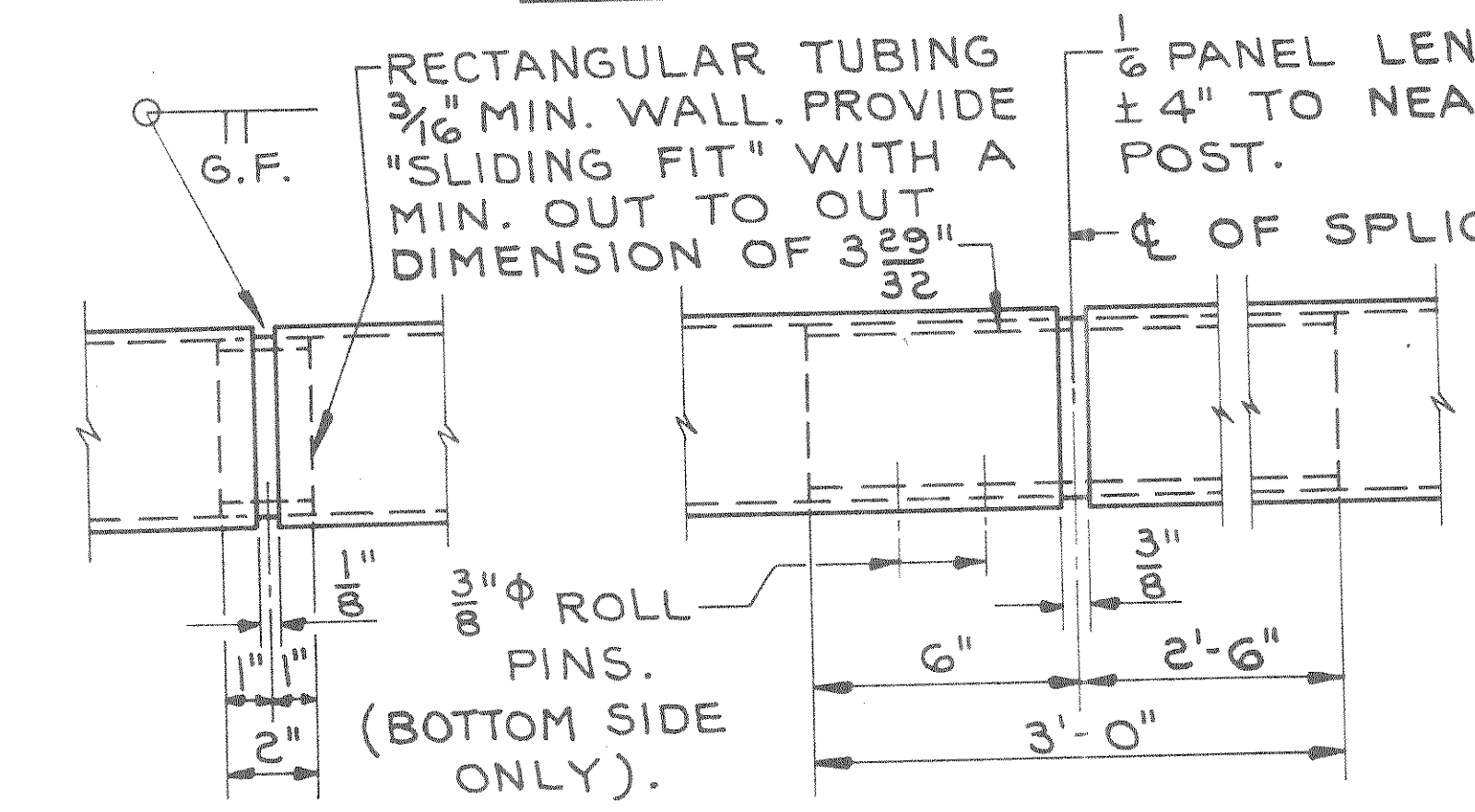
STAINLESS STEEL ANCHOR BOLTS x 0'-9" LONG WITH WASHER AND HEX. NUT (5 BOLTS PER POST) WASHER & NUT TO BE STAINLESS STEEL.



SECTION B



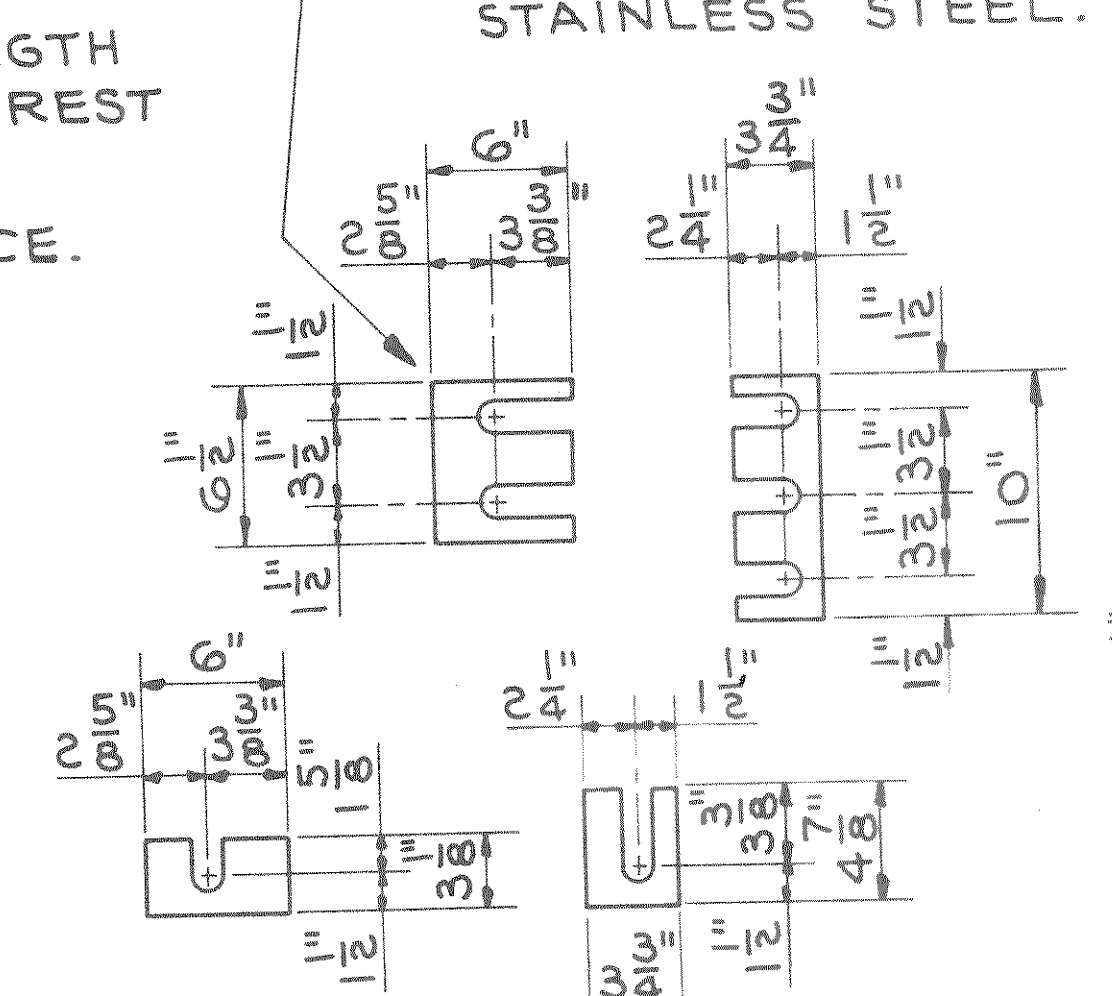
POST BASE DETAILS



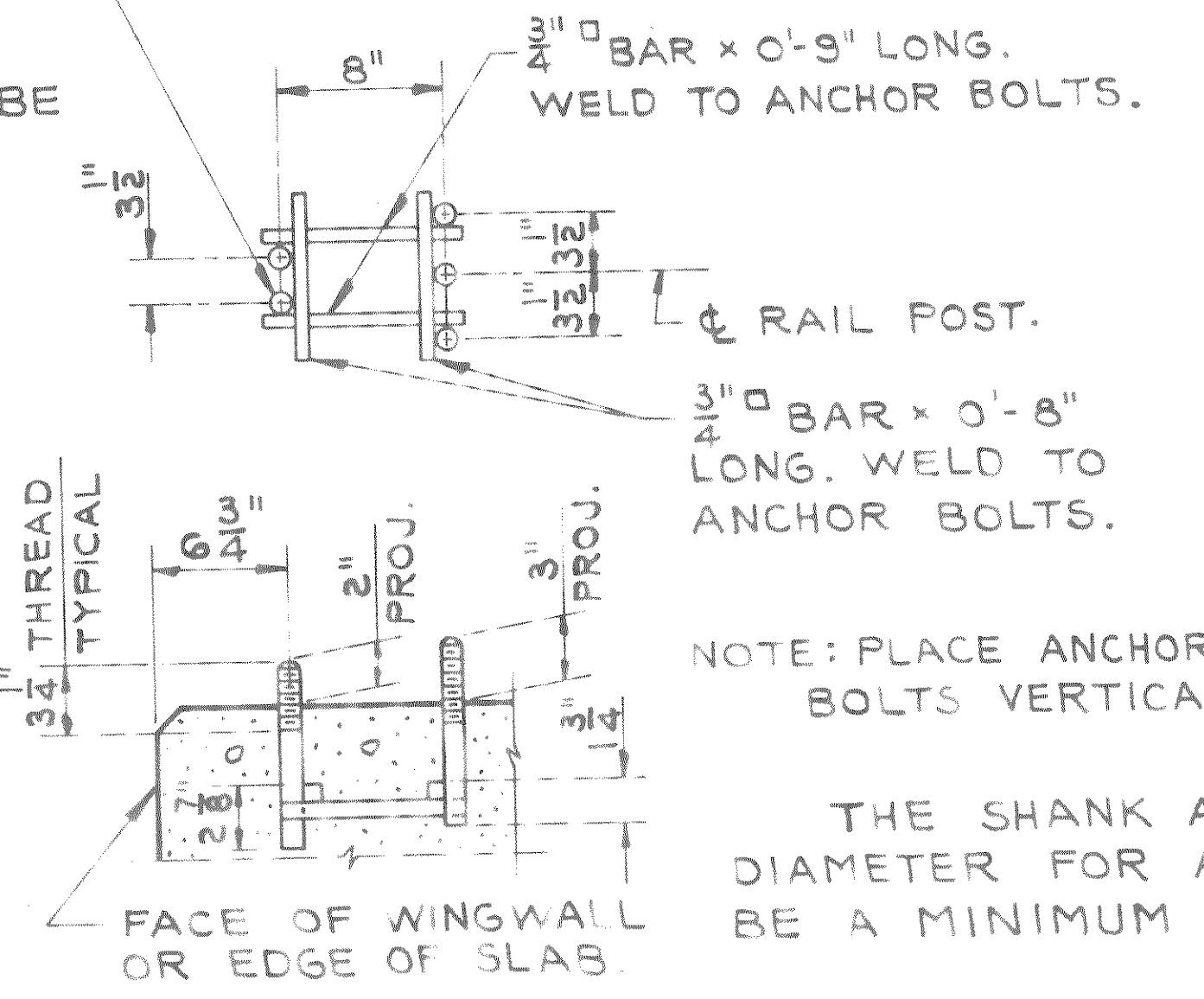
SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS.

FIELD ERECTION JOINT DETAIL

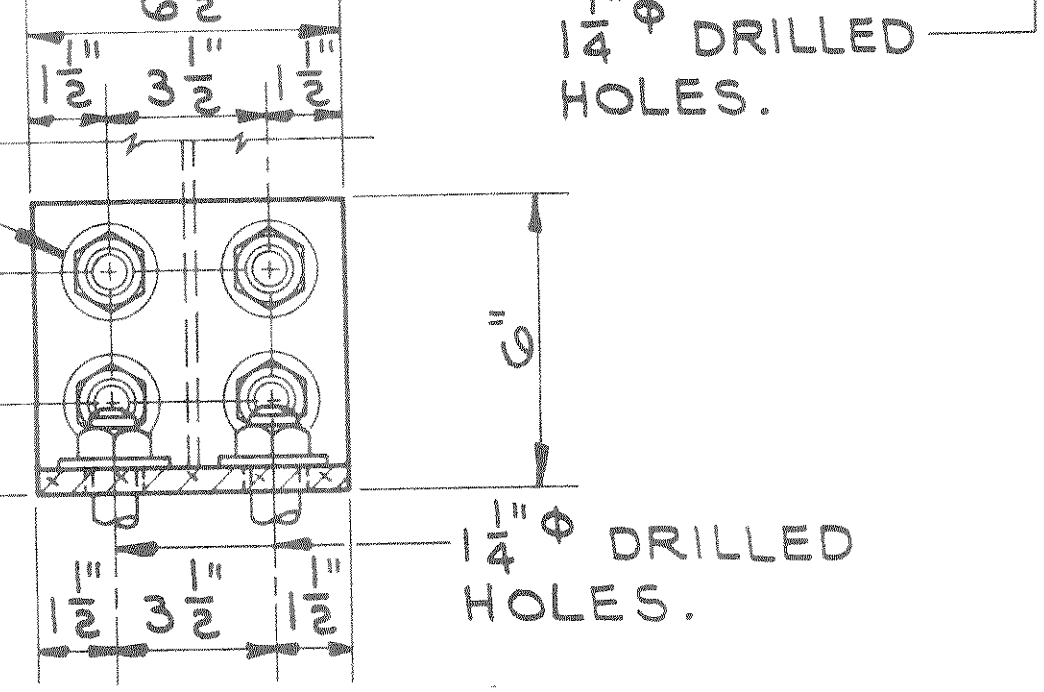


POST SHIM DETAILS



ANCHOR BOLT DETAILS

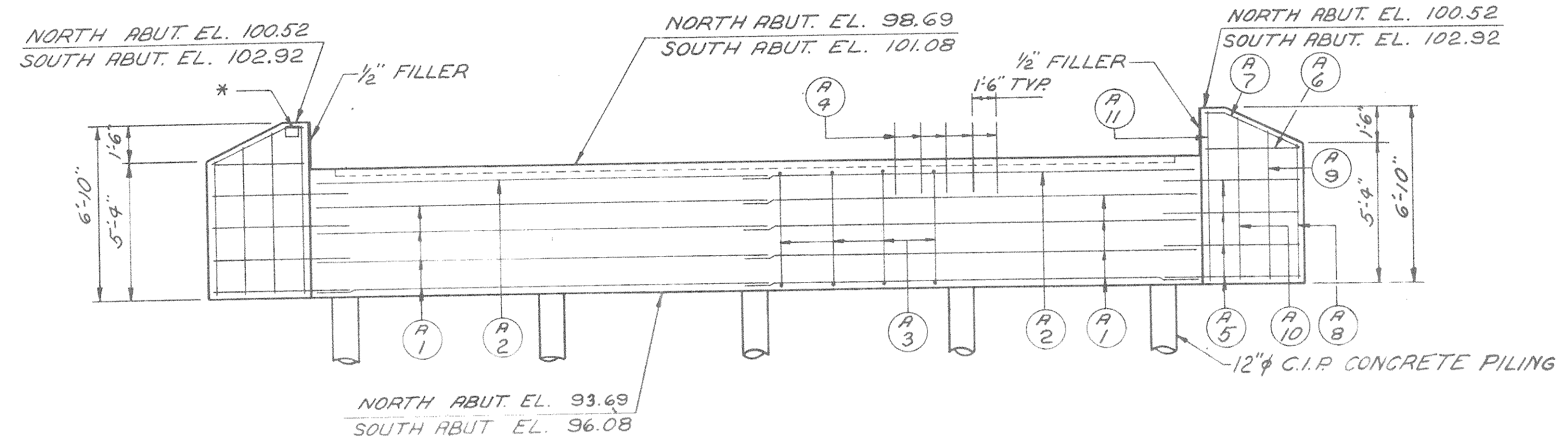
THE SHANK AND ROOT OF THREAD DIAMETER FOR ANCHOR BOLTS SHALL BE A MINIMUM OF 0.838 INCHES.



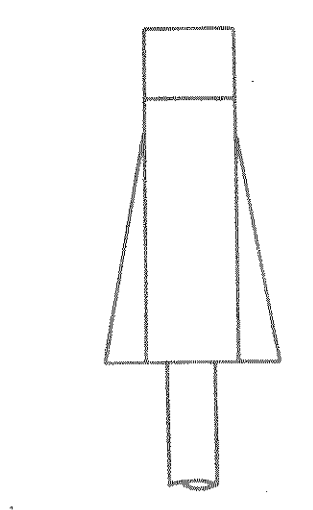
SECTION D

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
TUBULAR ALUMINUM RAILING TYPE "F"	
DESIGN SPEC. A.R.S.H.O. '61	LOADING
DATE 4-21-66	DESIGN
STRUCTURE B-35-17	SHEET 4 OF 8

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	500-153	8	11



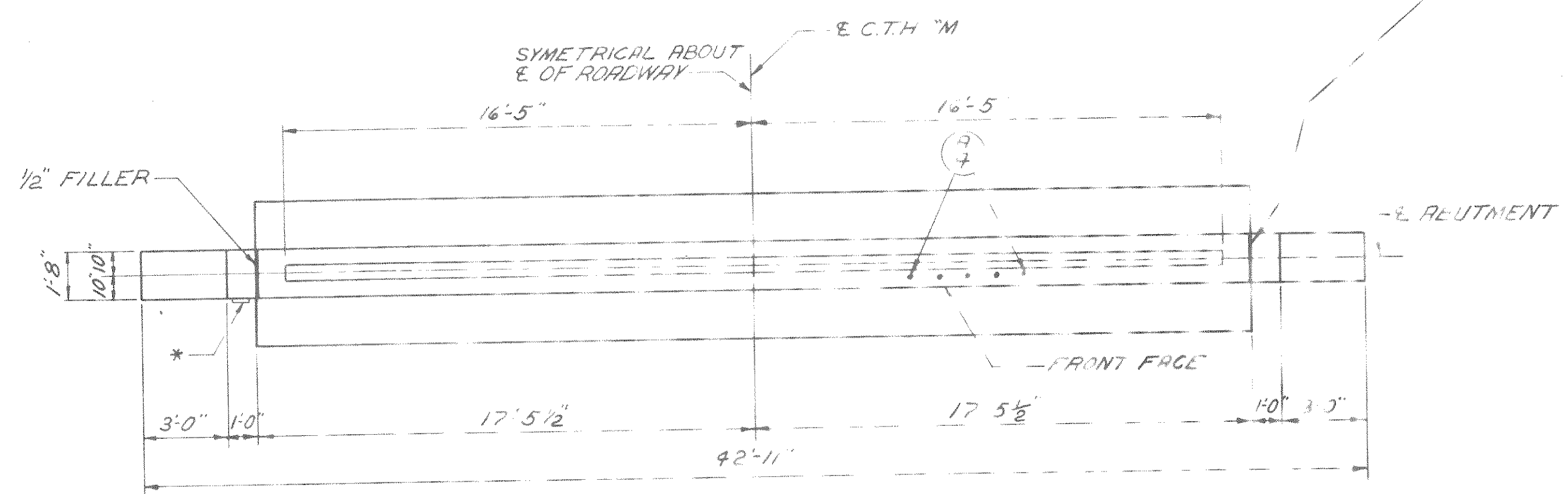
ELEVATION



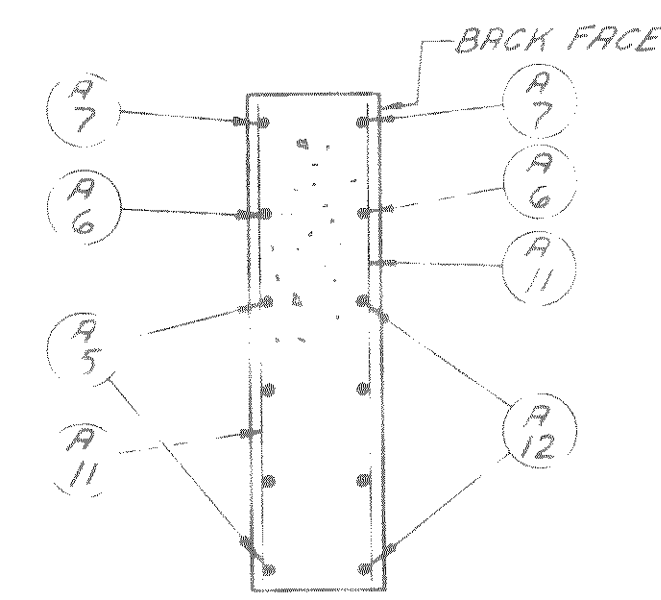
END VIEW

* PLACE NAME PLATE AT FF. OF WING OF S. ABUT. AS NEAR TO TOP OF WING AS POSSIBLE. SEE "PLAN" ON X34815 FOR LOCATION.

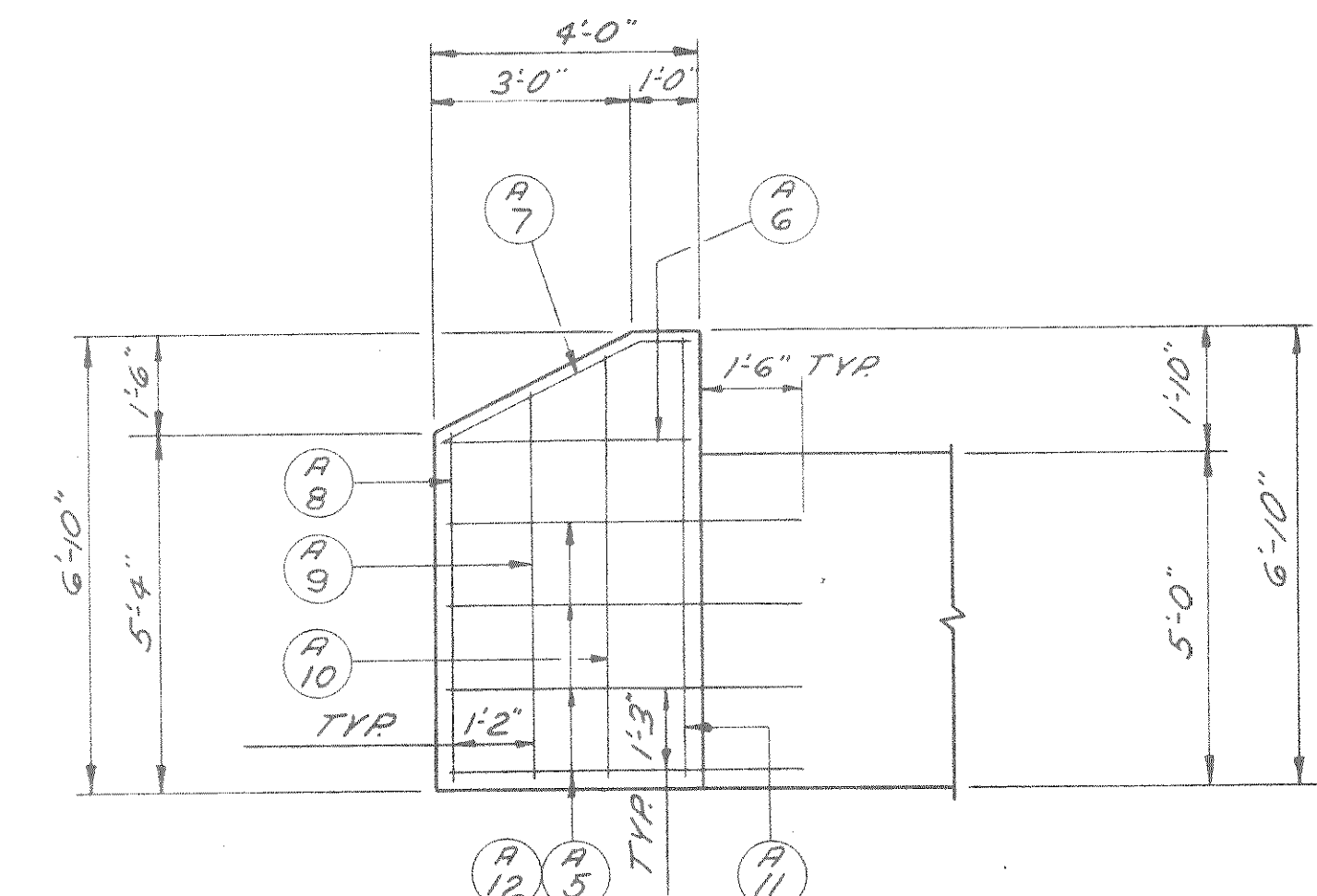
NOTE: 1/2" FILLER - SEAL HORIZ. & VERTICAL SURFACES WITH NON-STAINING GRAY TWO COMPONENT POLY-SULFIDE LIQUID POLYMER (GUN GRADE) WITH SURFACE PRIMER CONFORMING TO A.S.A. - A 116.1-1960. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE.)



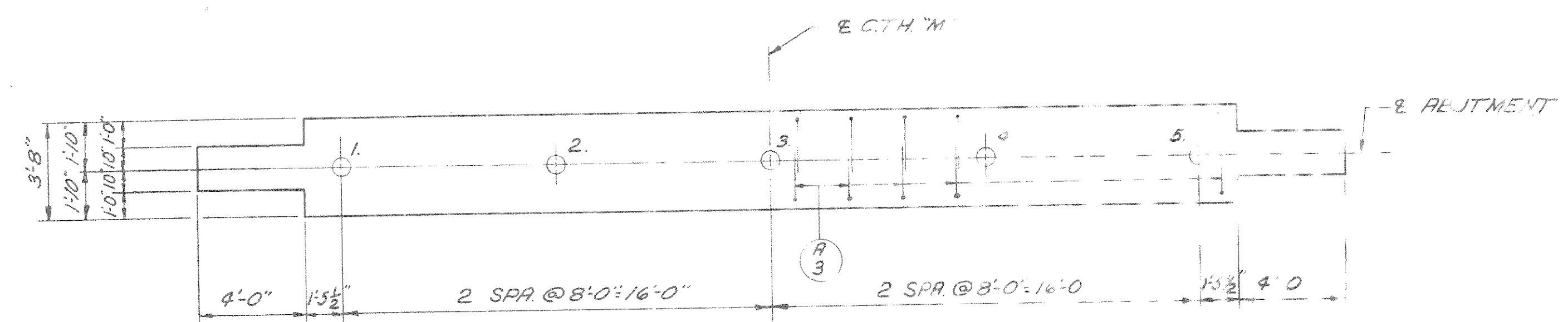
PLAN



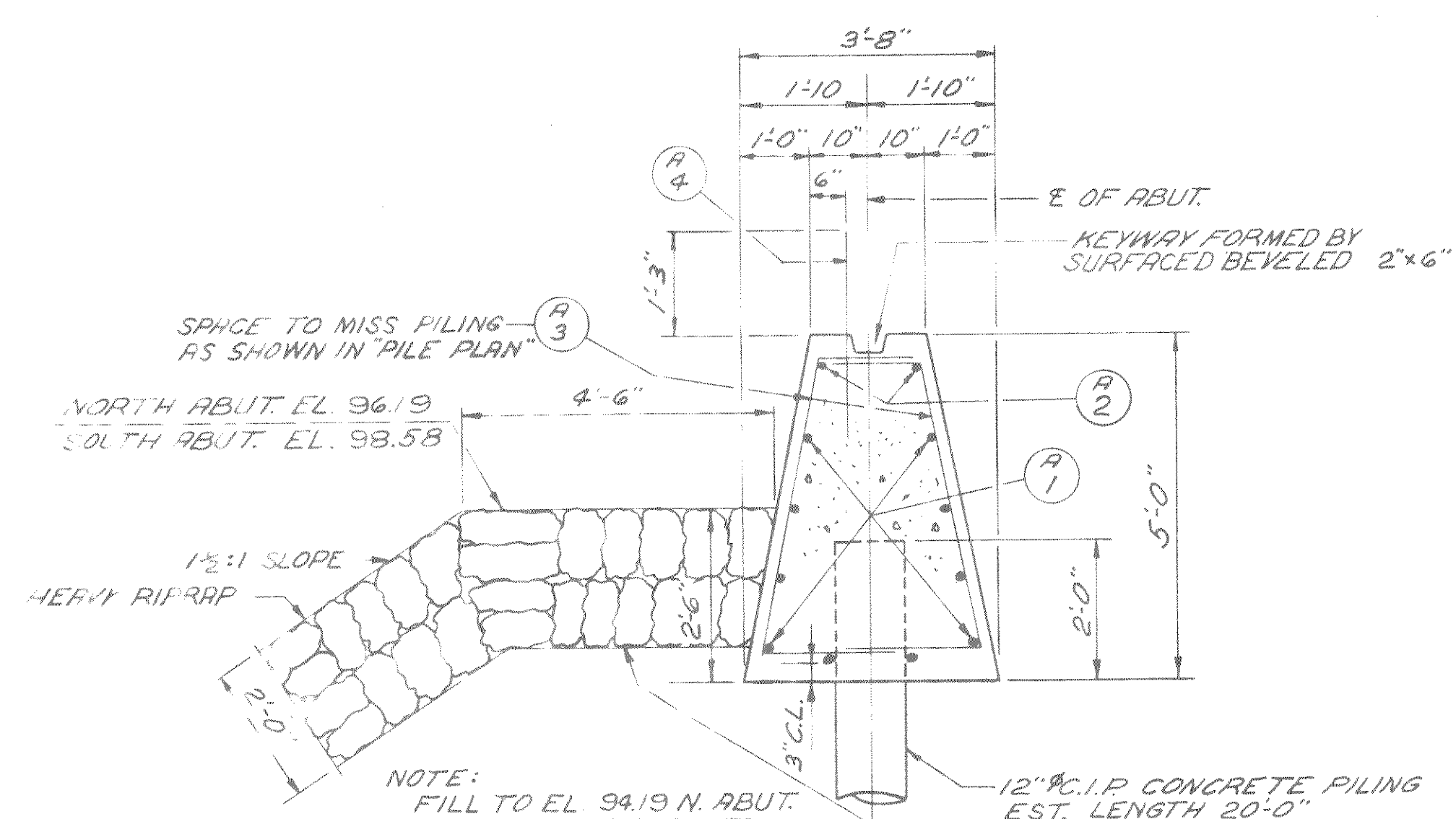
SECTION THRU WING



WING ELEVATION



PILE PLAN

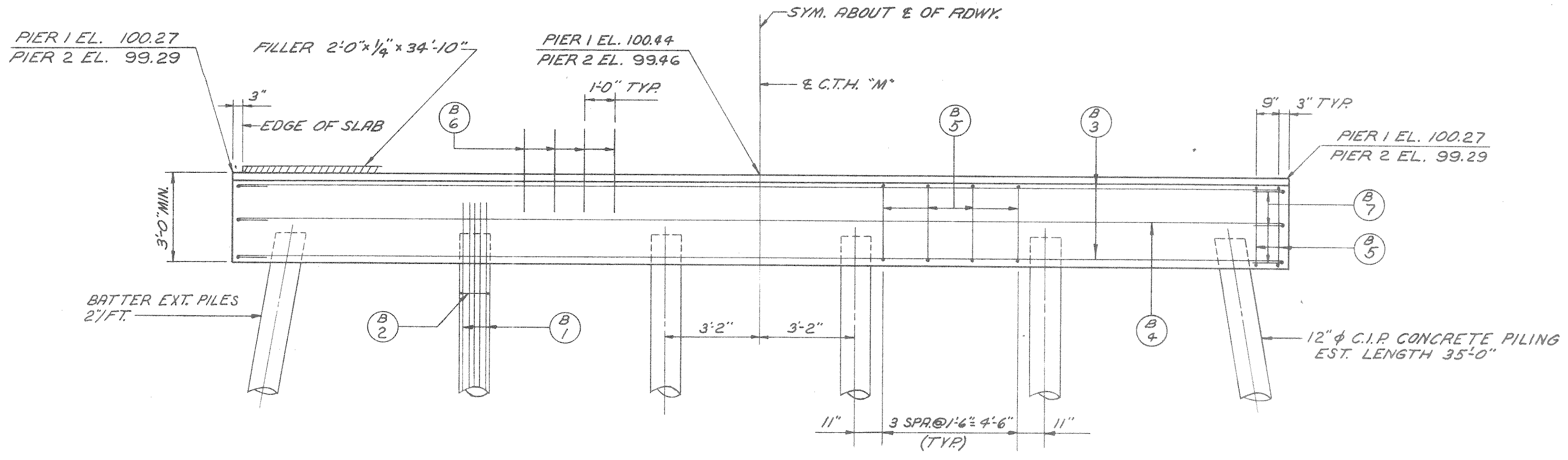


NOTE: FILL TO EL. 94.19 N. ABUT. AND EL. 96.58 S. ABUT. BEFORE DRIVING PILING. UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" SHALL NOT EXCEED THIS ELEVATION. OUR L.S.T. QUANTITY BASED ON THIS SECTION THRU BODY

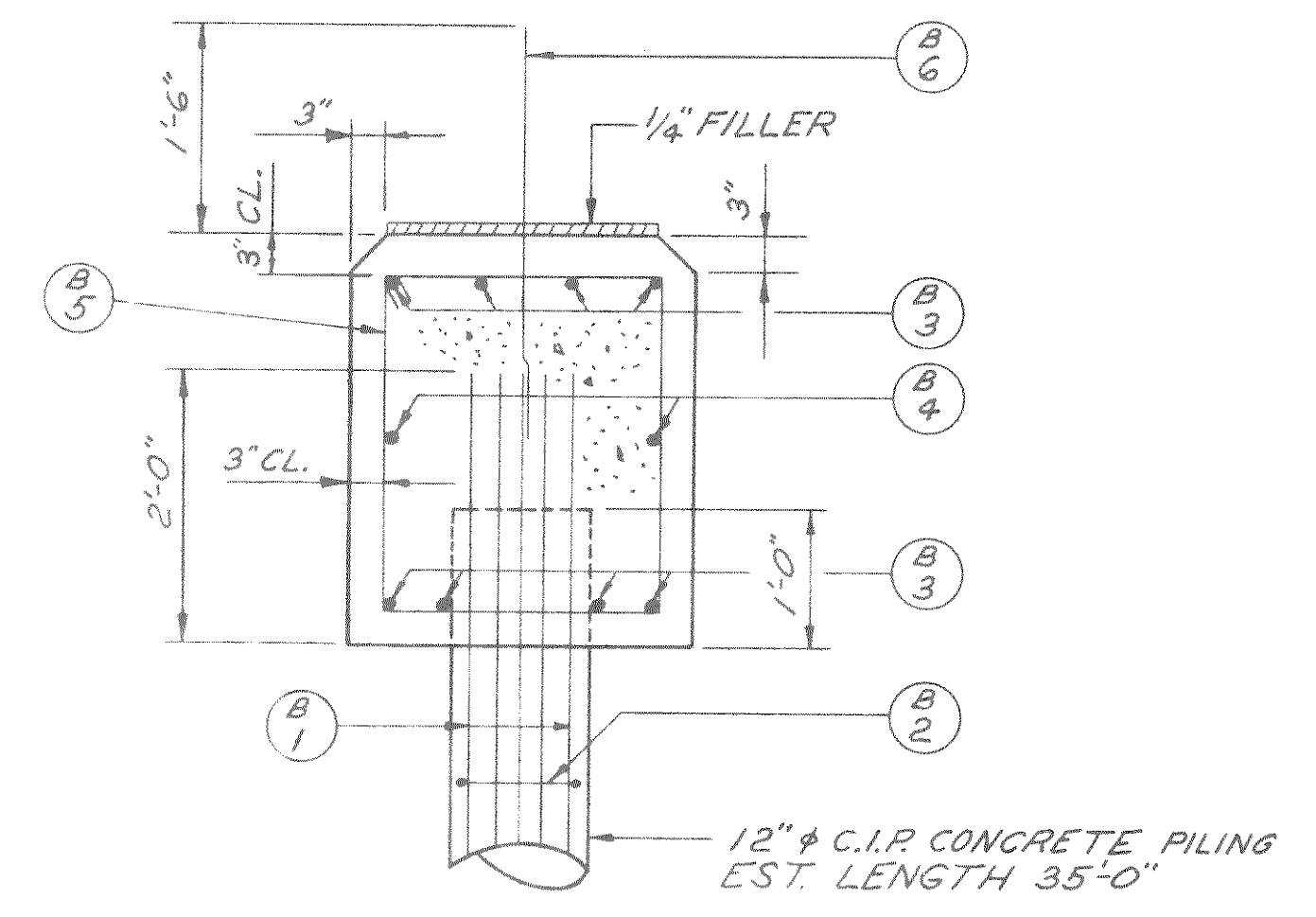
SECTION THRU BODY

REVISION	STATE HIGHWAY COMMISSION OF WISCONSIN
ABUTMENTS	
DESIGN BY: A.R.S.H.O. "G1"	LOADING: H15
DATE: 4-21-66	DESIGN: G.E.Z.
DATE: 4-21-66	DESIGN: P.R.L.
STRUCTURE B - 35 - 17	
SHEET 5 OF 8	

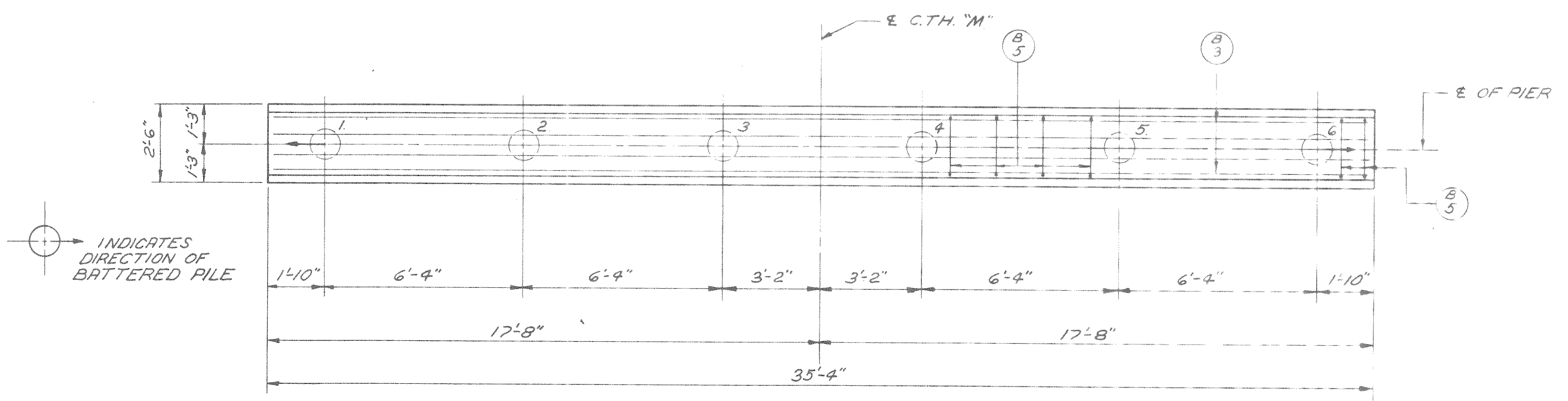
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	E-0-10(2)	9	11



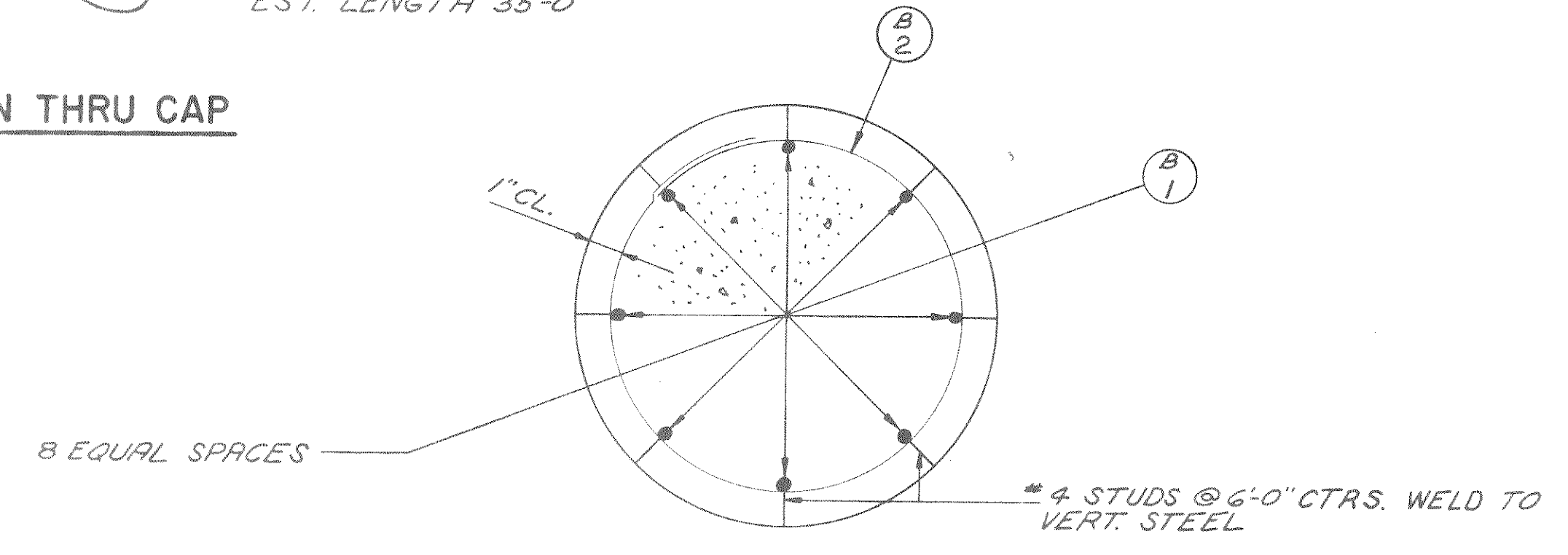
ELEVATION
LOOKING NORTH



SECTION THRU CAP



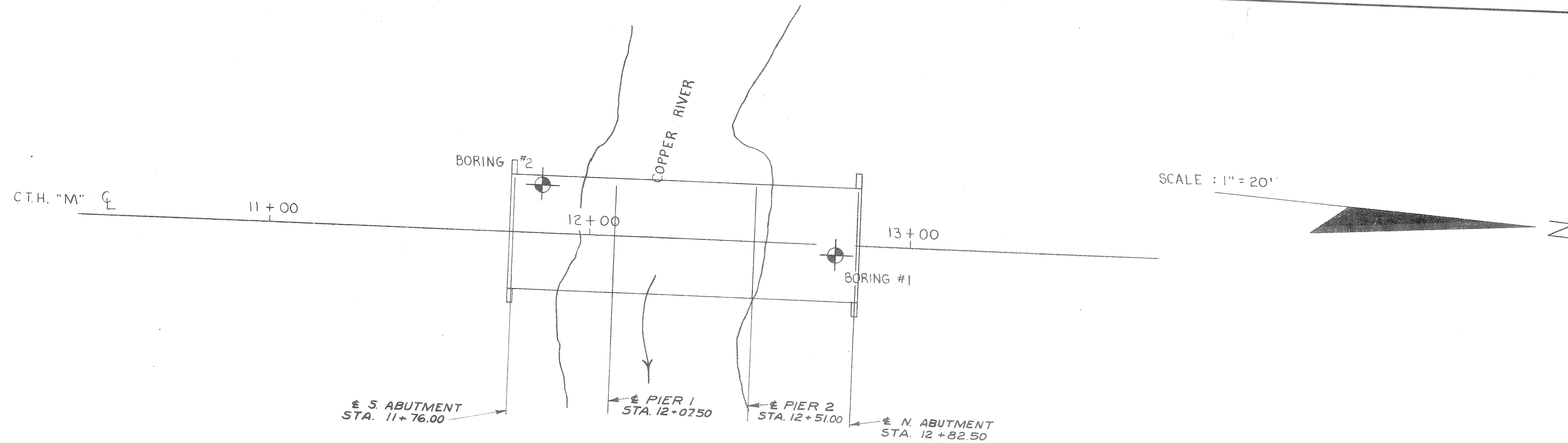
PLAN



SECTION THRU PILES

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	PIERS 1&2
	DESIGN SPEC. R.P.S.H.O.'61 LOADING H15 CONCR. 1963
	DATE 4-21-66 DESIGN G.E.Z. DRAWN P.R.L. CRD B.K.Z.
STRUCTURE B-35-17	SHEET 6 OF 8

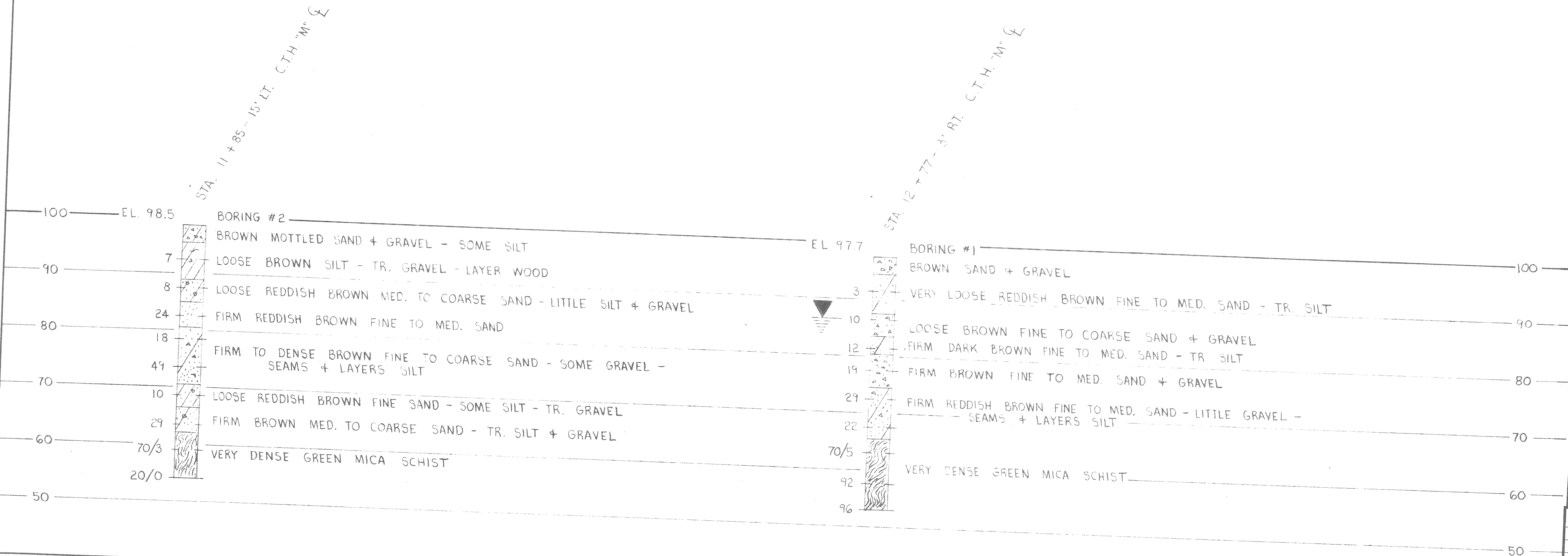
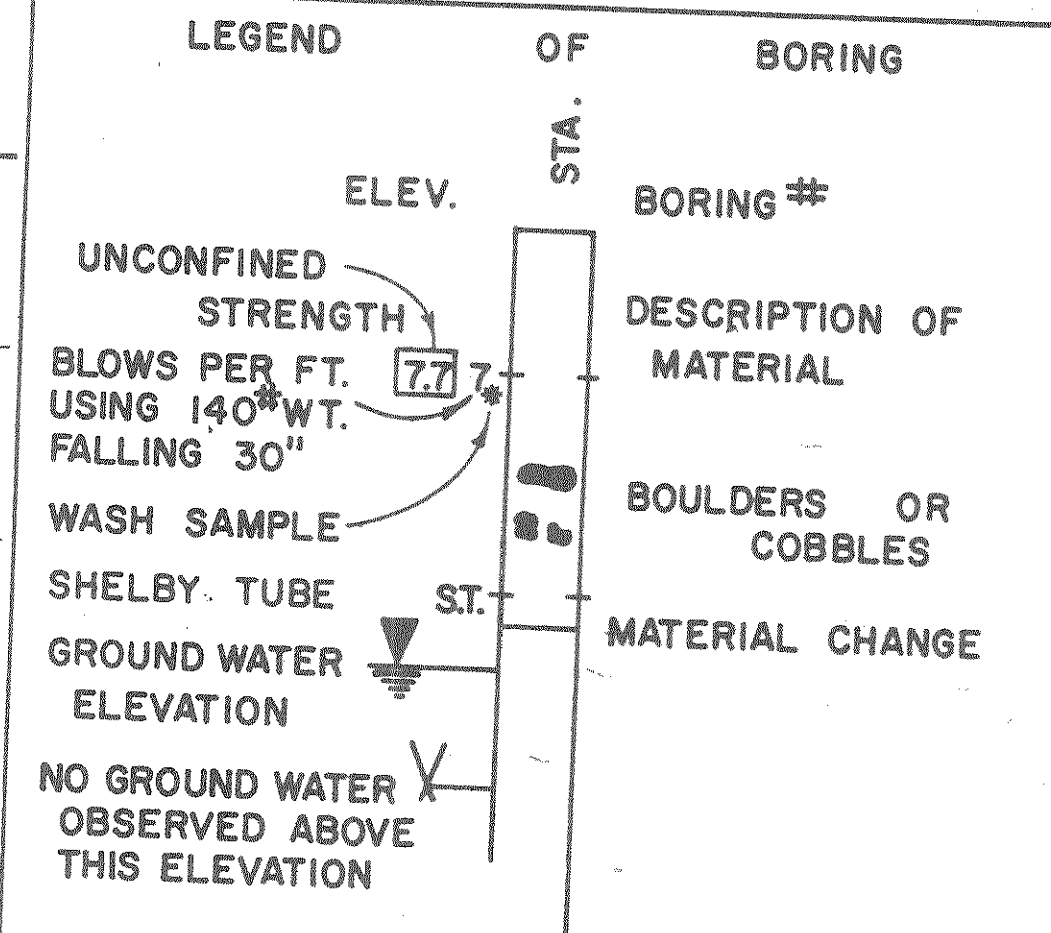
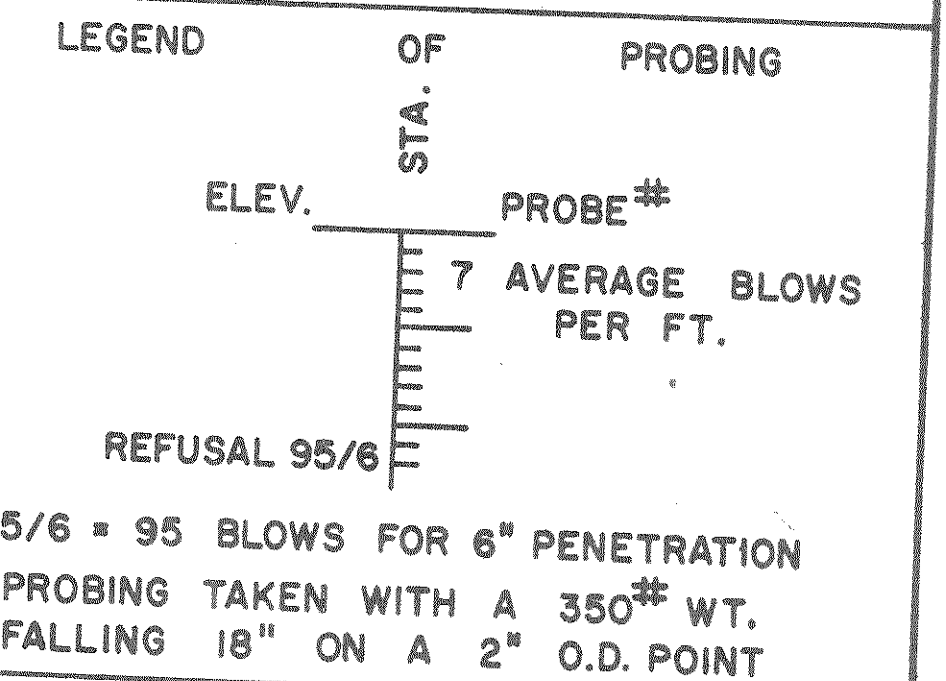
D.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	E 0-0 (13)	10	11



SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN

FOR THE DESIGN OF THE STRUCTURE FOUNDATION, TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING WITH THE LOG OF SUCH EXPLORATION DATA AS INTERPRETED FOR SUCH DESIGN PURPOSE AS SHOWN. THE EXPLORATIONS WERE MADE BY ORDINARY AND CONVENTIONAL METHODS AND CARE DEEMED ADEQUATE FOR SUCH PURPOSE. HOWEVER, SINCE IT IS A MATTER OF COMMON KNOWLEDGE THAT THE EXACT CHARACTER OF ANY MATERIAL AND ITS REACTION IS DIFFICULT TO DETERMINE FROM SUCH SUBSURFACE EXPLORATION AND THAT THE KIND AND CHARACTER OF MATERIAL AT THE SITE WHERE THE FOUNDATIONS ARE BUILT MAY VARY SUBSTANTIALLY FROM THAT INDICATED BY THE LOG THEY ARE MADE AVAILABLE TO THE BIDDERS SIMPLY FOR WHAT THEY ARE WORTH, WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED THAT THE MATERIAL TO BE ENCOUNTERED IN BUILDING THE FOUNDATION WILL CONFORM THEREWITH. IF THE LOG IS USED BY THE CONTRACTOR IN MAKING HIS BID, IT IS HEREBY EXPRESSLY STIPULATED THAT THE COMMISSION ACCEPTS NO RESPONSIBILITY FOR SAID USE.

UNLESS OTHERWISE SPECIFIED THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. x 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140 LB. HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.



STATE HIGHWAY COMMISSION OF WISCONSIN			
SUBSURFACE EXPLORATION			
DESIGN SPEC. A.A.S.H.O. 61	LOADING H15	CONSTR. SPEC. 1963	
DATE 4-21-66	DESIGN	DRAWN	CHKD. J.L.M.
STRUCTURE B-35-17		SHEET 8 OF 8	

