

INDEX OF SHEETS

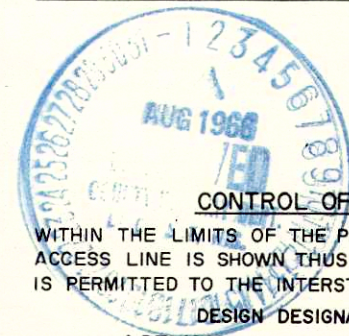
SHEET NO.	TITLE
1	TITLE
2	TYPICAL CROSS SECTIONS
2	ESTIMATE OF QUANTITIES
-	MISCELLANEOUS QUANTITIES
3	RIGHT OF WAY PLAT
4-5	PLAN AND PROFILE STA. TO STA.
6	STANDARD DETAILS
7-19	DRAINAGE STRUCTURES
-	CROSS SECTIONS



STATE OF WISCONSIN
STATE HIGHWAY COMMISSION OF WISCONSIN

PLAN AND PROFILE OF PROPOSED
LA CROSSE - TOMAH ROAD
(FRENCH ISLAND INTERCHANGE)
I. H. 90
LA CROSSE COUNTY
PROJECT EACI - 90-1(46)2

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		S.P.R. REGION DIVISION	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
32.3	90.1	11.46		4 WIS.	1	19



CONTROL OF ACCESS

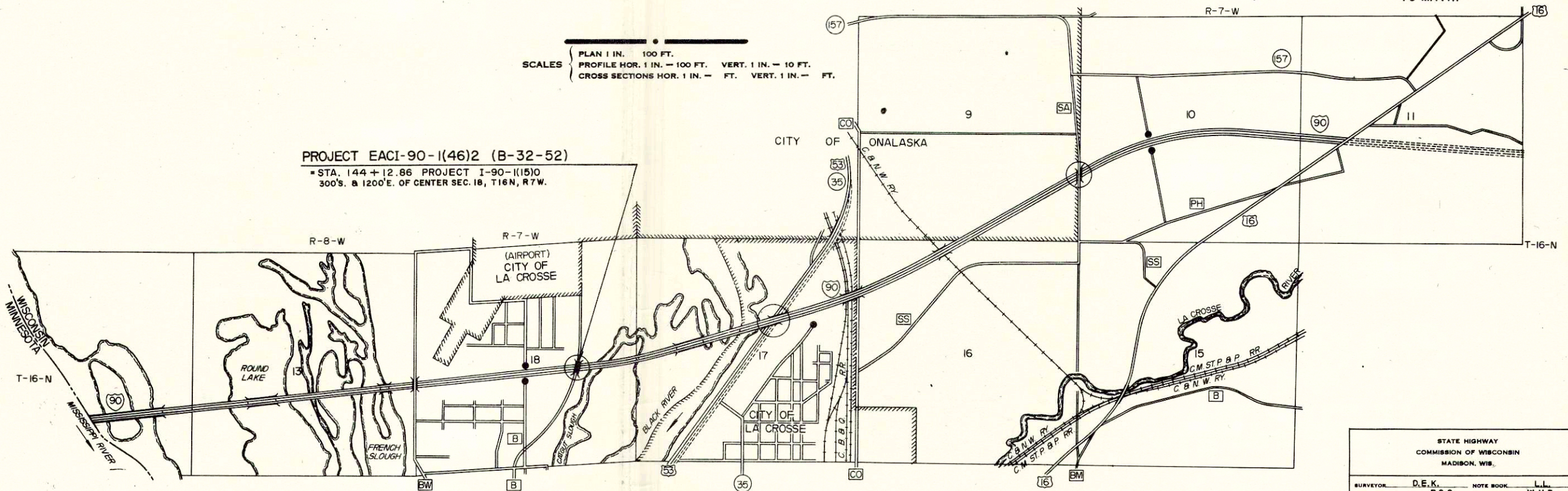
WITHIN THE LIMITS OF THE PROJECT, WHERE CONTROL OF ACCESS LINE IS SHOWN THUS _____ NO ACCESS IS PERMITTED TO THE INTERSTATE HIGHWAY TRAFFIC LANES.

DESIGN DESIGNATION

A DT 1962	6800
ADT 1986	16,100
DHV 1986	2090
K	13 %
D	60 %
T	8 %
V	70 M. P. H.

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

PROJECT EACI-90-1(46)2 (B-32-52)
* STA. 144 + 12.86 PROJECT I-90-1(15)0
300'S. & 1200'E. OF CENTER SEC. 18, T16N, R7W.



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	DATUM LINE 73.9
TRAVELED WAY OR P.E.	-----	GRADE ELEVATION	DATUM LINE 75.16
RAILROADS	-----		
BASE OR SURVEY LINE	-----		

APPROVED INTERSTATE LOCATION	-----
INTERCHANGE	-----
HWY. GRADE SEPARATION (MAIN LINE UNDER)	-----
BRIDGES (MAIN LINE OVER)	-----
TERMINATED CROSS ROAD	-----

LAYOUT

SCALE 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WIS.

SURVEYOR: D.E.K. NOTE BOOK: L.L.L.
DIVISION COMPUTER: R.G.S. H. O. CHECKER: W.H.B.
DISTRICT CHECKER: A.E.J. CORRECT

CORRECT: _____
DATE: 6-21-66 *[Signature]*
DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL:
DATE: 6/20/66 *[Signature]*
CHIEF DESIGN ENGINEER

APPROVED: _____
DATE: 4/30/66 *[Signature]*
STATE HIGHWAY ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

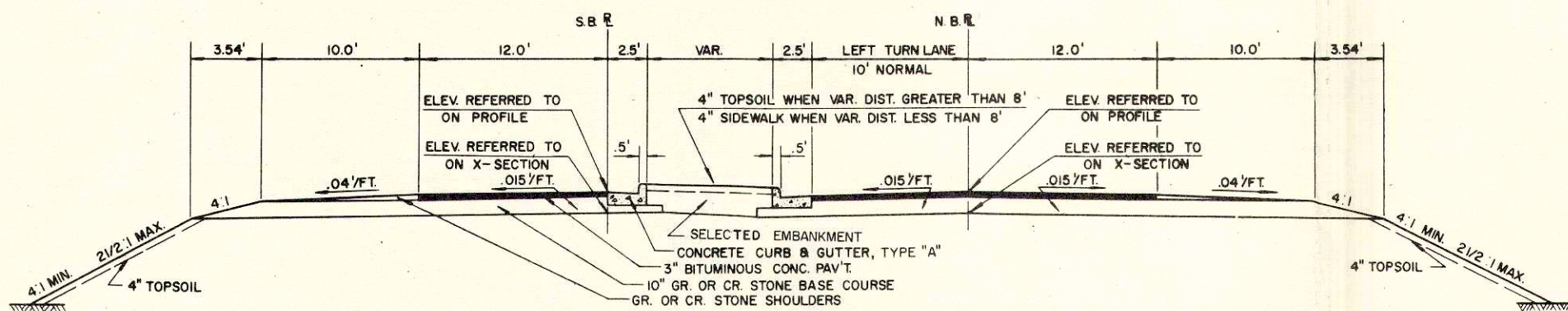
APPROVED _____ DATE _____
DIVISION ENGINEER

ESTIMATE OF QUANTITIES

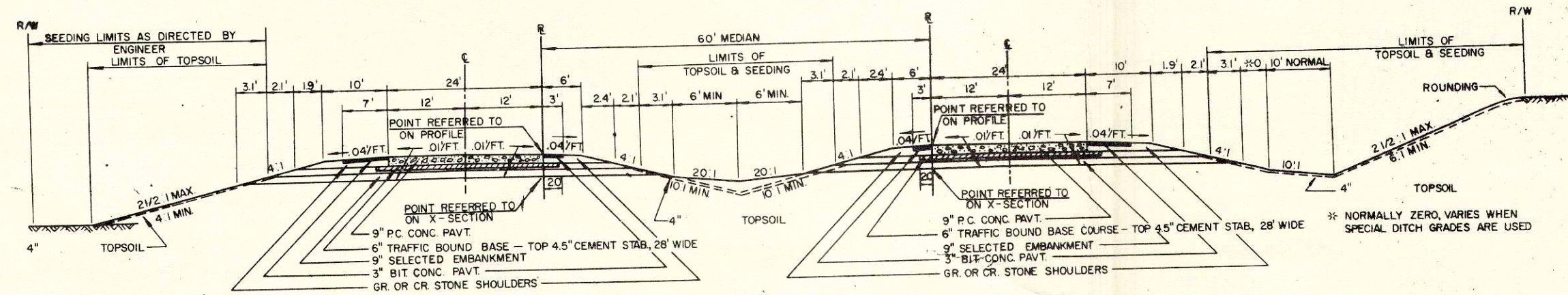
PROJECT	SHEET NUMBER	TOTAL SHEETS
EACI-90-1(46)2	2	19

THIS PROJECT IS TO BE EXECUTED UNDER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE HIGHWAY COMMISSION OF WISCONSIN — EDITION OF 1963, APPROVED OCTOBER 16, 1963, FEDERAL AID REQUIRED CONTRACT PROVISIONS APPROVED OCTOBER 15, 1963 AND SPECIAL PROVISIONS AS ATTACHED TO PROPOSALS.

SECTION	STATION TO STATION	NET LENGTH OF CENTER LINE	EXCAVATION FOR STRUCTURES	GRANULAR BACKFILL	CONCRETE MASONRY	BAR STEEL REINFORCEMENT	STRUCTURAL CARBON STEEL	STRUCTURAL LOW ALLOY STEEL	LUBRICATED BRONZE PLATES	BEARING PADS	TUBULAR RAILING TYPE G	FIELD OFFICE	SLOPE PAVING CRUSHED STONE											
			ITEM NO.	20601	20901	50201	50501	50601	50605	50614	50621	51332	90001	90002										
			UNIT	LIN. FT.	C.Y.	C.Y.	C.Y.	LBS.	LBS.	LBS.	LBS.	S.F.	L.F.	L.S.	S.Y.									
1	144 + 12.86	0.0	310	800	844.3	66,000	402,690	5,520	187	40	501	1	535											



TYPICAL TANGENT SECTION — C.T.H. "B"



WEST BOUND

EAST BOUND

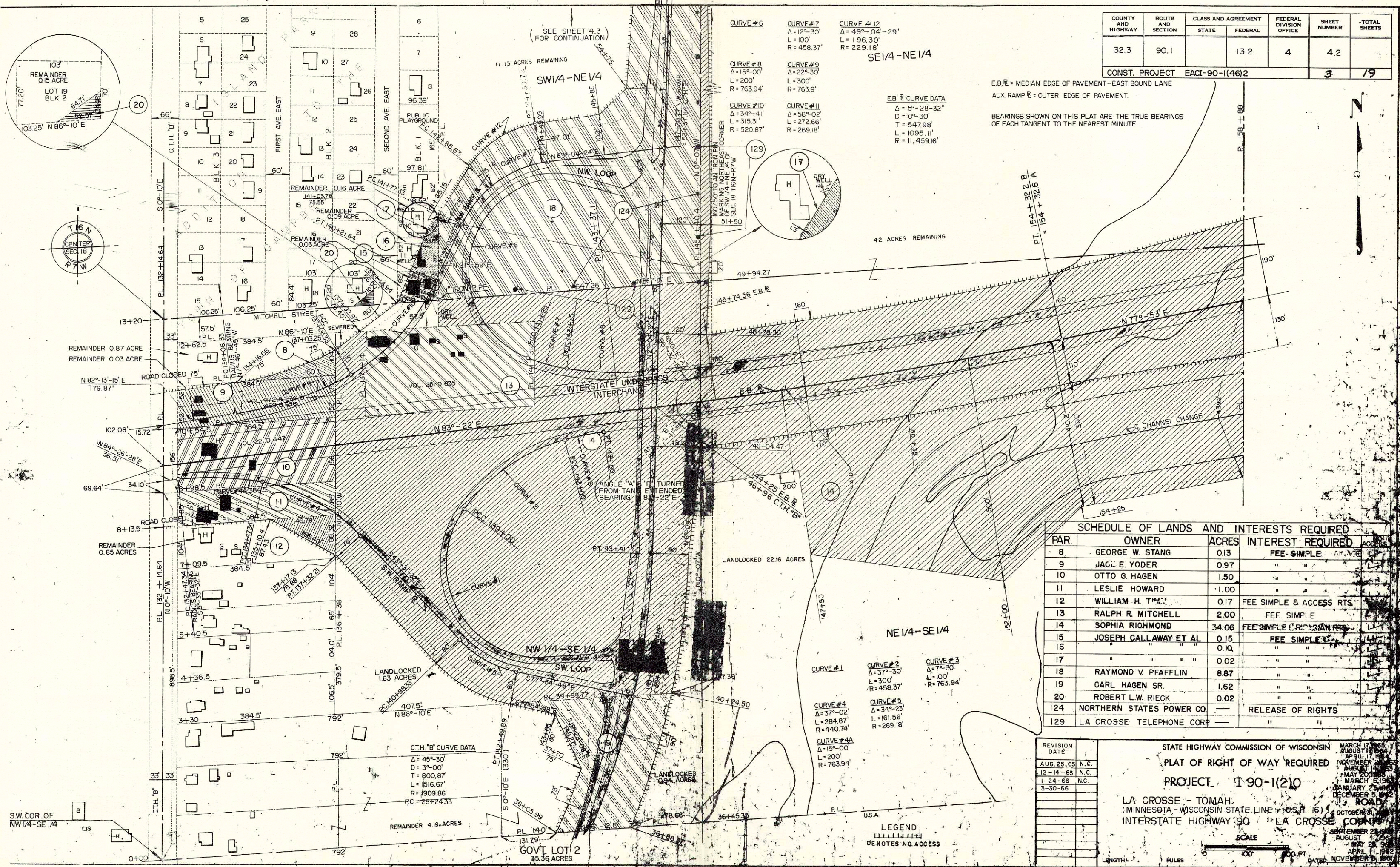
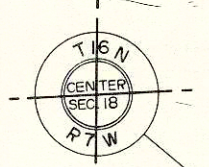
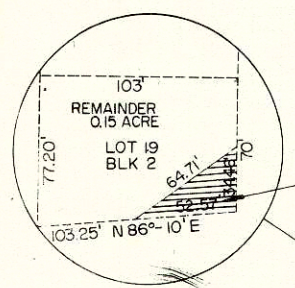
TYPICAL FINISHED SECTION INTERSTATE I-90

NOTE: GRADING, BASE COURSE, PAVEMENT AND SHOULDERS ARE NOT PART OF THIS CONTRACT. PLAN-PROFILE SHEETS INCLUDED FOR INFORMATION ONLY.

STANDARD DETAIL DRAWINGS
7-4.1.4 CONSTRUCTION BARRICADE

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		FEDERAL DIVISION OFFICE	SHEET NUMBER	TOTAL SHEETS	
		STATE	FEDERAL				
32.3	90.1		13.2	4	4.2		
CONST. PROJECT EACI-90-1(46)2						3	19

E.B. = MEDIAN EDGE OF PAVEMENT - EAST BOUND LANE
 AUX. RAMP = OUTER EDGE OF PAVEMENT.
 BEARINGS SHOWN ON THIS PLAT ARE THE TRUE BEARINGS OF EACH TANGENT TO THE NEAREST MINUTE.



PAR.	OWNER	ACRES	INTEREST REQUIRED	ACRES
8	GEORGE W. STANG	0.13	FEE SIMPLE	0.13
9	JACI E. YODER	0.97	" "	0.97
10	OTTO G. HAGEN	1.50	" "	1.50
11	LESLIE HOWARD	1.00	" "	1.00
12	WILLIAM H. T.M.	0.17	FEE SIMPLE & ACCESS RTS.	0.17
13	RALPH R. MITCHELL	2.00	FEE SIMPLE	2.00
14	SOPHIA RICHMOND	34.06	FEE SIMPLE & ACCESS RTS.	34.06
15	JOSEPH CALLAWAY ET AL	0.15	FEE SIMPLE	0.15
16	" " " "	0.10	" "	0.10
17	" " " "	0.02	" "	0.02
18	RAYMOND V. PFAFFLIN	8.87	" "	8.87
19	CARL HAGEN SR.	1.62	" "	1.62
20	ROBERT L.W. RIECK	0.02	" "	0.02
124	NORTHERN STATES POWER CO.		RELEASE OF RIGHTS	
129	LA CROSSE TELEPHONE CORP.		" "	

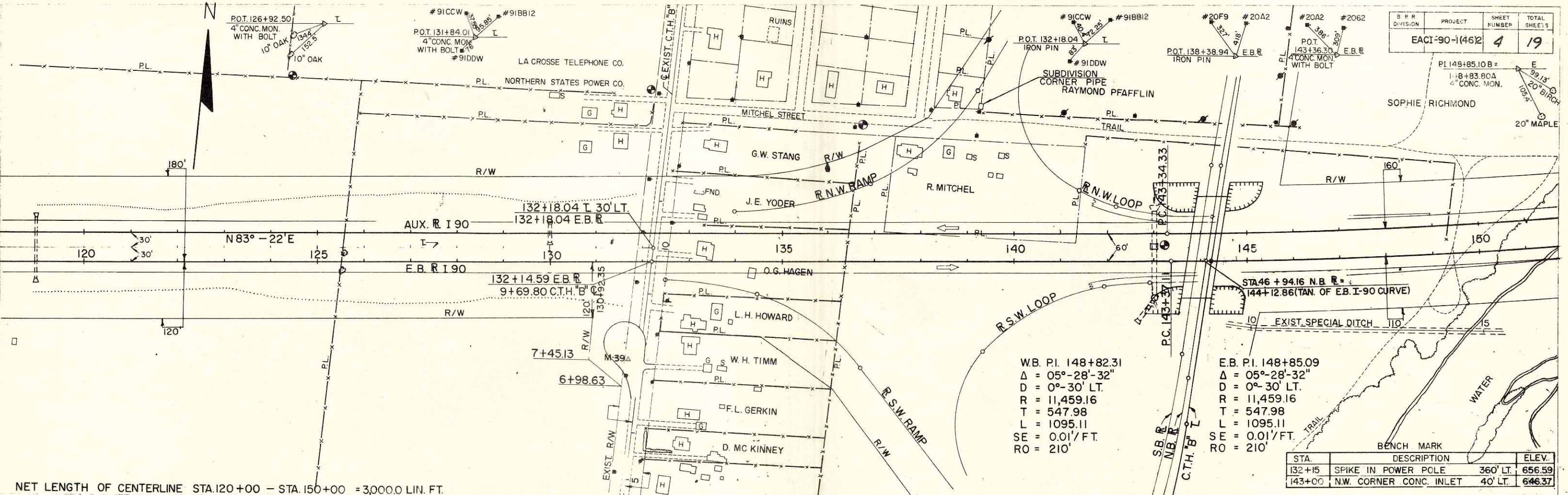
REVISION DATE	BY	REASON
AUG. 25, 65	N.C.	
12-14-65	N.C.	
1-24-66	N.C.	
3-30-66	N.C.	

STATE HIGHWAY COMMISSION OF WISCONSIN
 PLAT OF RIGHT OF WAY REQUIRED
 PROJECT I 90-1(2)0
 LA CROSSE - TOMAH.
 (MINNESOTA - WISCONSIN STATE LINE - U.S. 16)
 INTERSTATE HIGHWAY 90
 LA CROSSE COUNTY

REVISION DATE: AUGUST 25, 1965
 AUGUST 17, 1965
 NOVEMBER 1, 1965
 MAY 20, 1966
 MARCH 6, 1966
 JANUARY 2, 1966
 DECEMBER 5, 1965

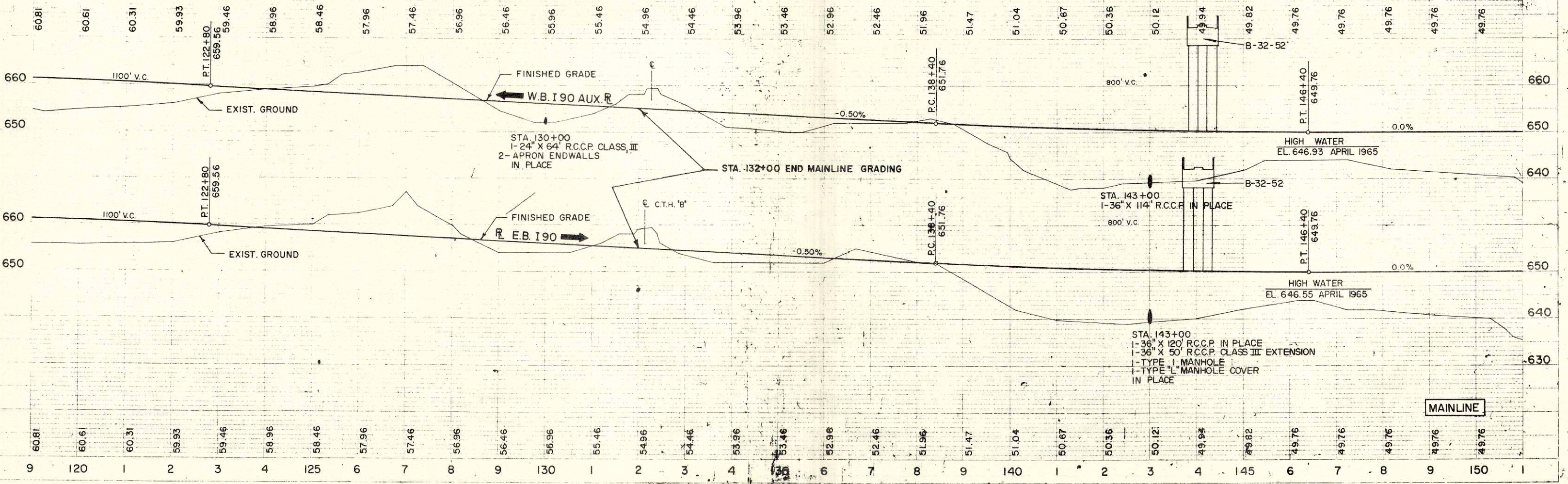
SCALE: 1" = 100 FT.

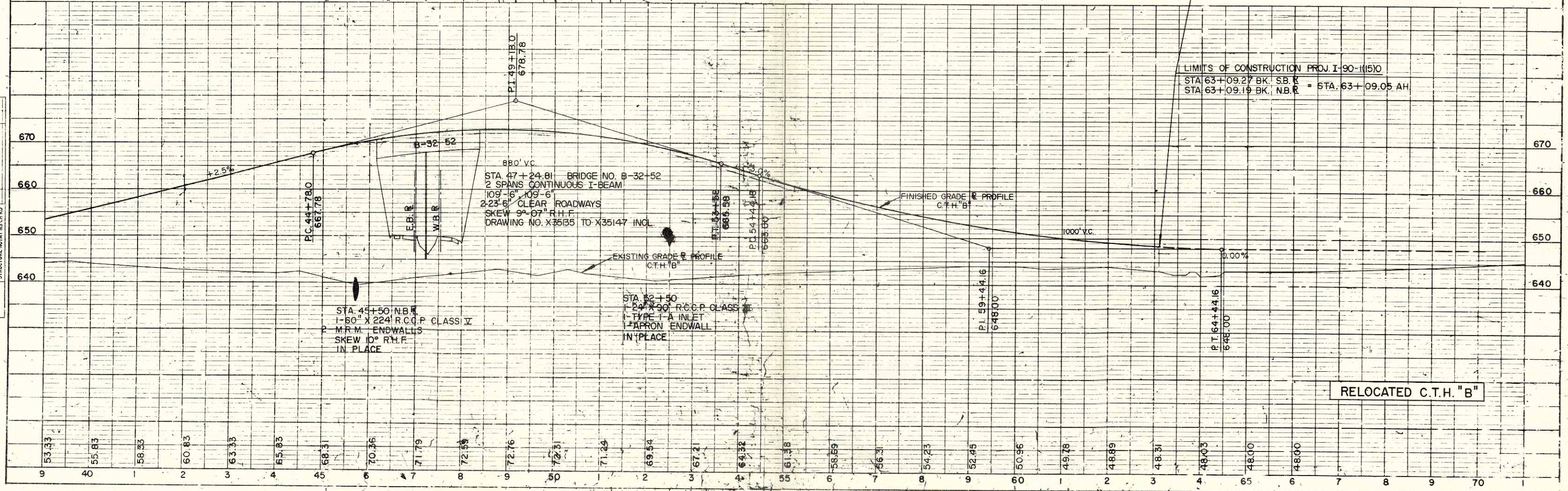
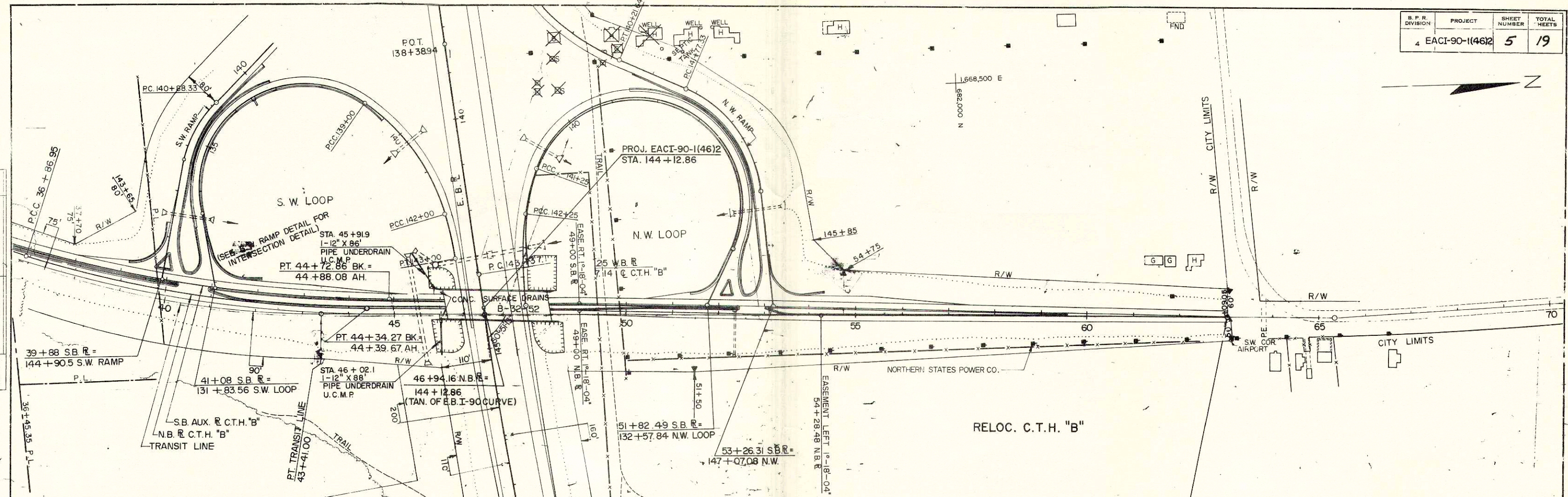
LEGEND
 DENOTES NO. ACCESS



NET LENGTH OF CENTERLINE STA. 120+00 - STA. 150+00 = 3,000.0 LIN. FT.

STA.	DESCRIPTION	ELEV.
132+15	SPIKE IN POWER POLE 360' LT.	656.59
143+00	N.W. CORNER CONC. INLET 40' LT.	646.37

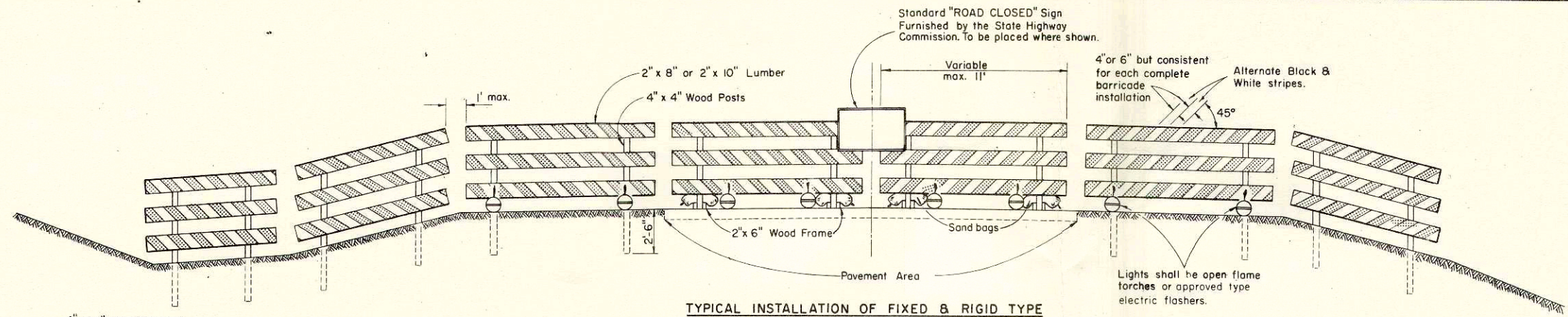




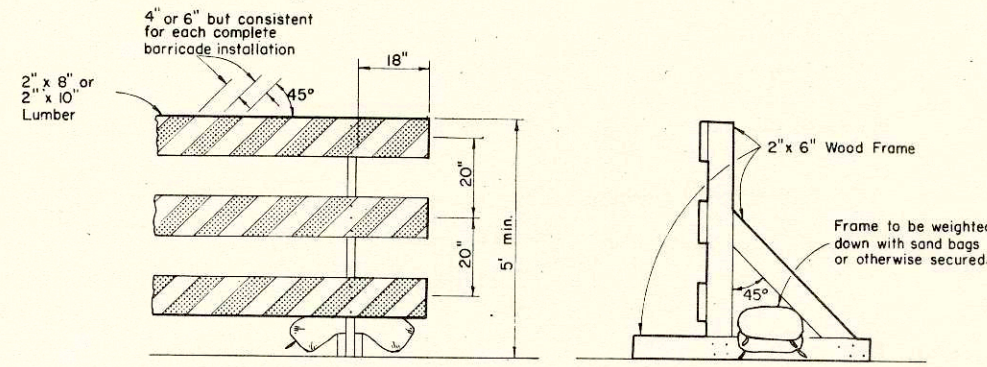
LIMITS OF CONSTRUCTION PROJ. I-90-1(15)0
 STA. 63+09.27 BK. S.B.R. = STA. 63+09.05 AH
 STA. 63+09.19 BK. N.B.R.

RELOCATED C.T.H. "B"

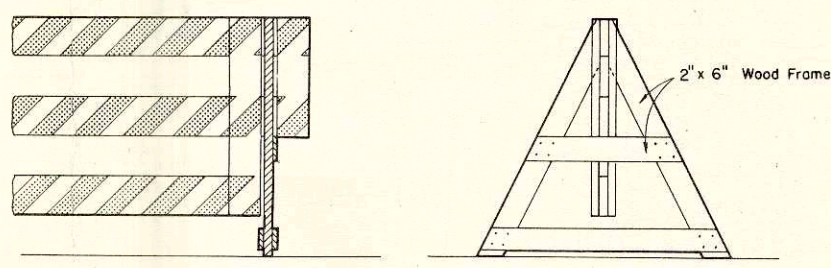
6-19



TYPICAL INSTALLATION OF FIXED & RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS I BARRICADE

GENERAL NOTES:

The Contractor shall construct, place and maintain barricades as shown on this drawing and as required by the Standard Specifications for the duration of the project at all points of highway closure. Barricades shall be painted as shown hereon and structurally maintained for maximum visibility at all times, for the duration of the respective project.

CLASS I BARRICADE

Shall be used at points of closure where road is closed to traffic. Gates or movable sections of barricade shall be provided when necessary, for access of equipment or other authorized vehicles only.

CLASS II BARRICADE

May be used only where the hazard to traffic is relatively small, and for the more or less continuous delimiting of a restricted roadway, or for temporary daytime use.

LUMBER & FABRICATION

Lumber shall be of a grade structurally sound and sufficiently rigid to satisfactorily support and maintain the purpose and intent of a barricade facility. The fabrication of the barricade shall be in accord with good pertinent wood-working practices.

PAINTING

Barricades shall be painted as shown hereon in alternate black and white stripes. Black stripes shall be painted with weather resistant and durable black paint. White stripes shall be painted a prime coat of good grade wood primer, followed by two coats of white "Codium Reflective Liquid" (Minnesota Mining Co.) or equivalent, or reflective sheeting wide angle, flat top "Scotchlite" brand material (Minnesota Mining Co.) or equivalent.

DIRECTION OF DIAGONAL STRIPES

Where a barricade extends entirely across the roadway and no vehicle access provision, the stripes shall slope downward toward the highway centerline.

Where vehicle access is permitted, the stripes shall slope downward in the direction toward which vehicles must turn in detouring.

Where both right and left turns are provided for, the stripes shall slope downward in both directions from the center.

MEASUREMENT & PAYMENT

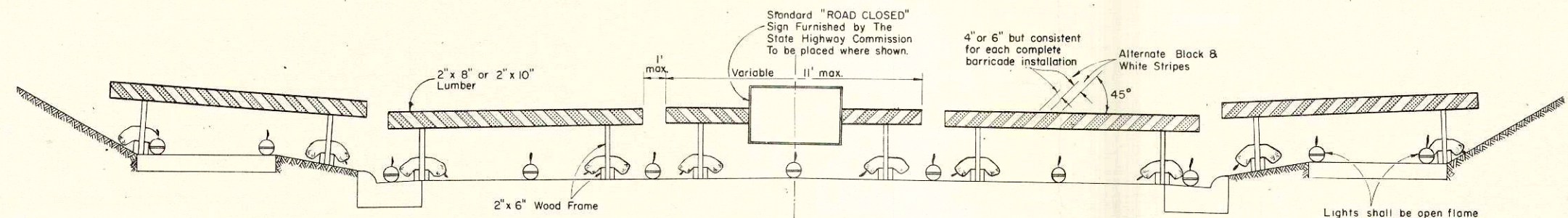
All barricades, unless otherwise provided for in the plans and/or special provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

NOTE:

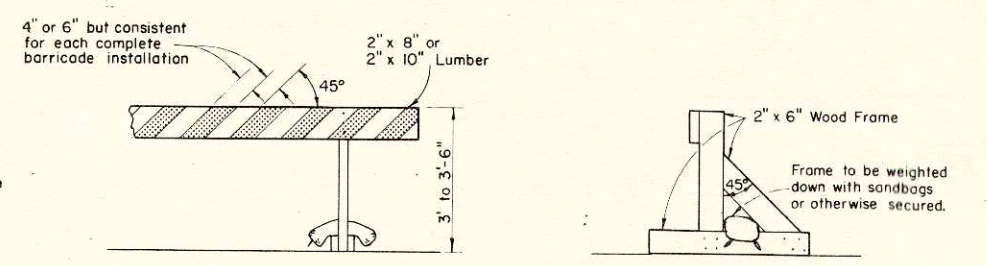
Lighting devices for barricades shall conform to the requirements of the Standard Specifications.

NOTE:

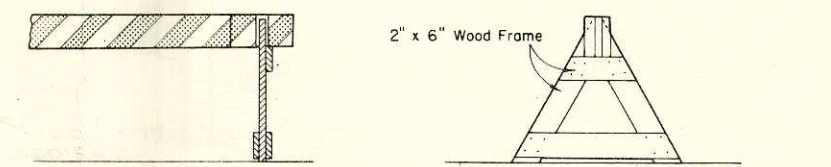
All lumber or timber dimensions shown hereon are nominal.



TYPICAL INSTALLATION OF RIGID TYPE



ALTERNATE TYPE INSTALLATION (RIGID)



ALTERNATE TYPE INSTALLATION (DEMOUNTABLE)

CLASS II BARRICADE

CONSTRUCTION BARRICADE

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

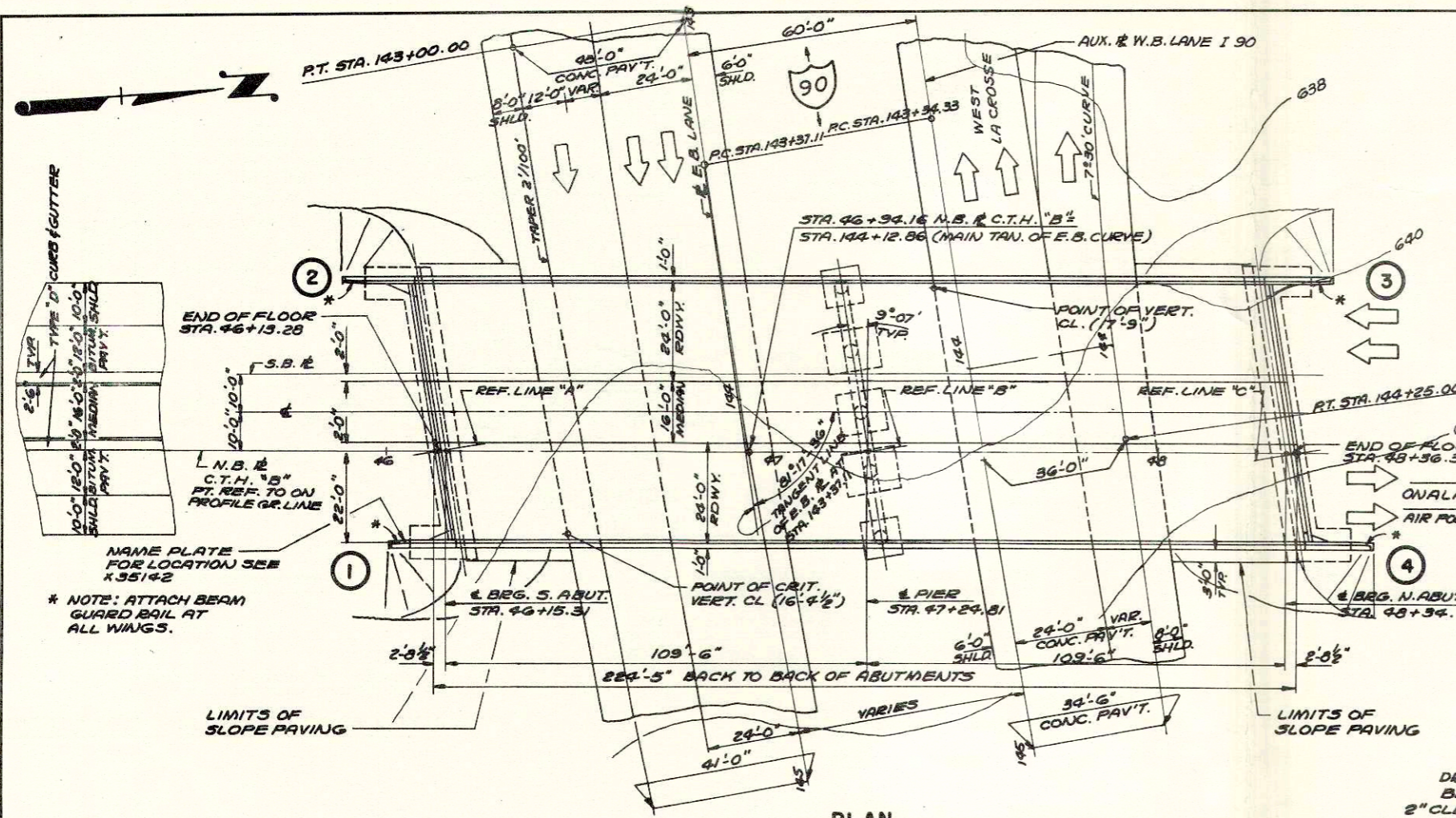
DATE 2-5-63 J. Pelt ENGINEER OF DESIGN

APPROVED

DATE 2/6/63 E. G. Postinger STATE HIGHWAY ENGINEER

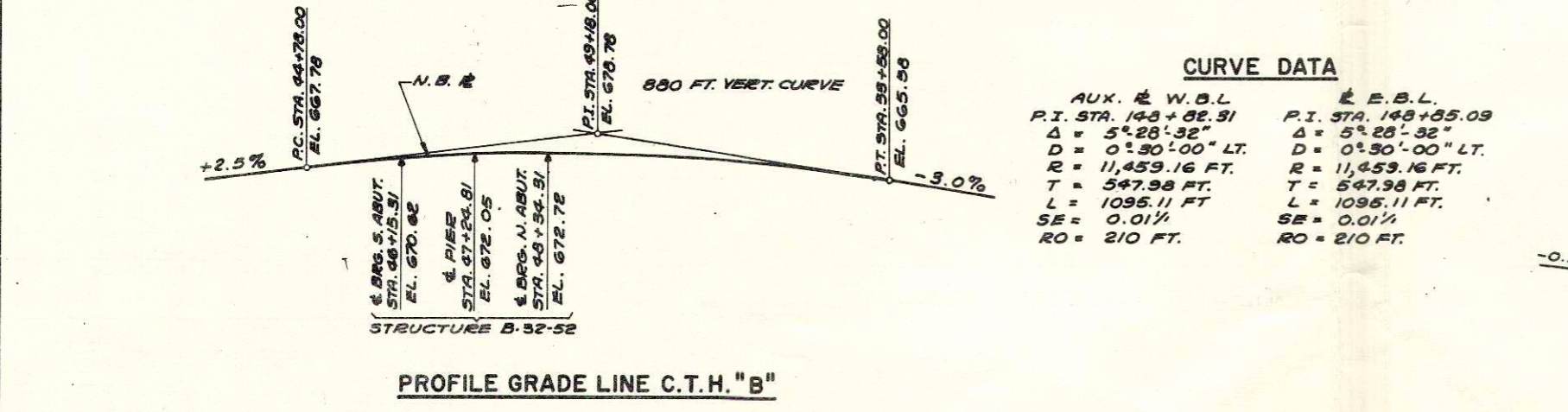
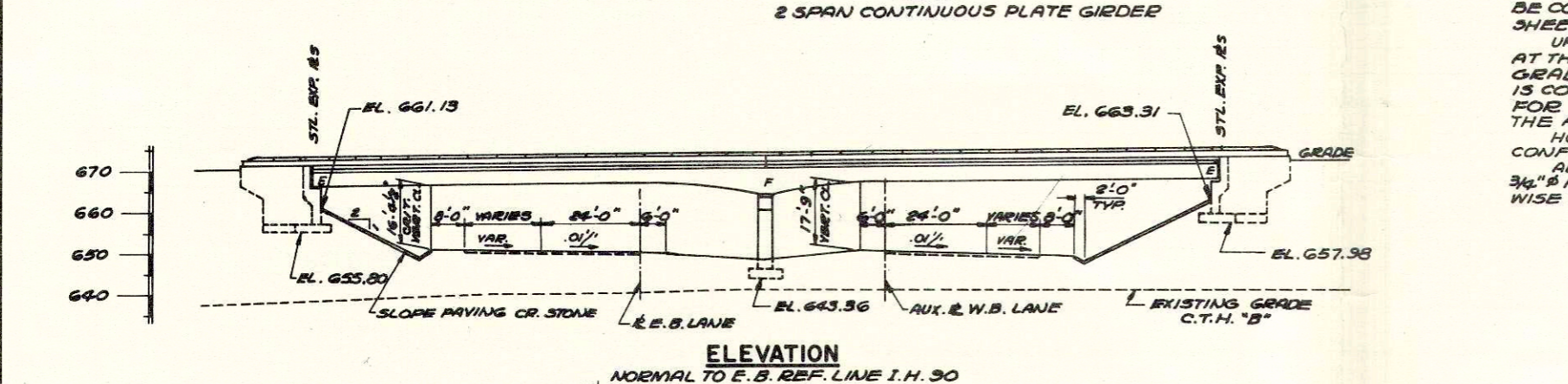
BENCH MARK			
NO.	STATION	LOCATION	ELEV.
	132+20.00	R.K. IN ST. LIGHT POLE	526' LT. 656.43

COUNTY & HIGHWAY	ROUTE & SECTION	CLASS & AGREEMENT	FEDERAL	S.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
72.3	90.1	13.1	4	7-90/(46)2	7	19	



TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER	S.ABUT.	PIER	N.ABUT.	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.		80	150	80	310
GRANULAR BACKFILL	C.Y.		400		400	800
CONCRETE MASONRY	C.Y.	443.9	153.1	94.4	152.9	844.3
BAR STEEL REINFORCEMENT	LB.	135,320	7,550	15,570	7,560	166,000
STRUCTURAL CARBON STEEL	LB.	402,690				402,690
STRUCTURAL LOW-ALLOY STEEL	LB.	5,520				5,520
LUBRICATED BRONZE PLATES	LB.	187				187
BEARING PADS	S.F.	40				40
TUBULAR RAILING, TYPE "G"	L.F.	501				501
SLOPE PAVING, CRUSHED STONE	S.Y.		235		300	535
NON-BID ITEMS						
ALUMINUM OR ZINC PLATES	S.F.	36				36



GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
 THE SLOPE IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING AS SHOWN ON THIS SHEET AND ON SHEETS X 35143 AND X 35145.
 UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" AT THE PIER IS CONSIDERED TO BE THE FINISHED GRADED SECTION AND THE ESTIMATED QUANTITY IS COMPUTED FROM THIS LINE. FOR "EXCAVATION FOR STRUCTURES" AND GRANULAR BACKFILL AT THE ABUTMENTS SEE SHTS. X 35143 AND X 35145.
 HOT POURED ELASTIC TYPE JOINT SEALER SHALL CONFORM TO A.S.T.M. DESIGNATION, D1150.
 ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" HIGH TENSILE STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.

- ### LIST OF DRAWINGS
- 1. GENERAL PLAN X 35135
 - 2. SUPERSTRUCTURE X 35136
 - 3. SUPERSTRUCTURE X 35137
 - 4. SUPERSTRUCTURE X 35138
 - 5. BEARING DETAILS X 35139
 - 6. EXPANSION JOINT X 35140
 - 7. DETAILS FOR TYPE "G" TUBULAR ALUMINUM OR STEEL RAILING X 35141
 - 8. RAIL PARAPET DETAILS X 35142
 - 9. SOUTH ABUTMENT X 35143
 - 10. PIER X 35144
 - 11. NORTH ABUTMENT X 35145
 - 12. BILL OF BARS X 35146
 - 13. SUBSURFACE EXPLORATION X 35147

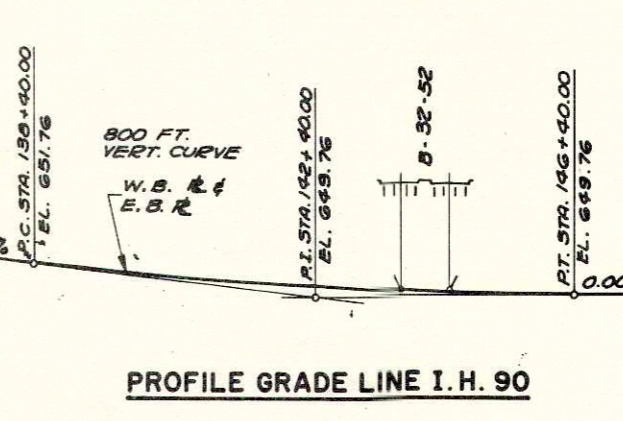
DESIGN DATA

LIVE LOAD - HS 20

ALLOWABLE DESIGN STRESSES

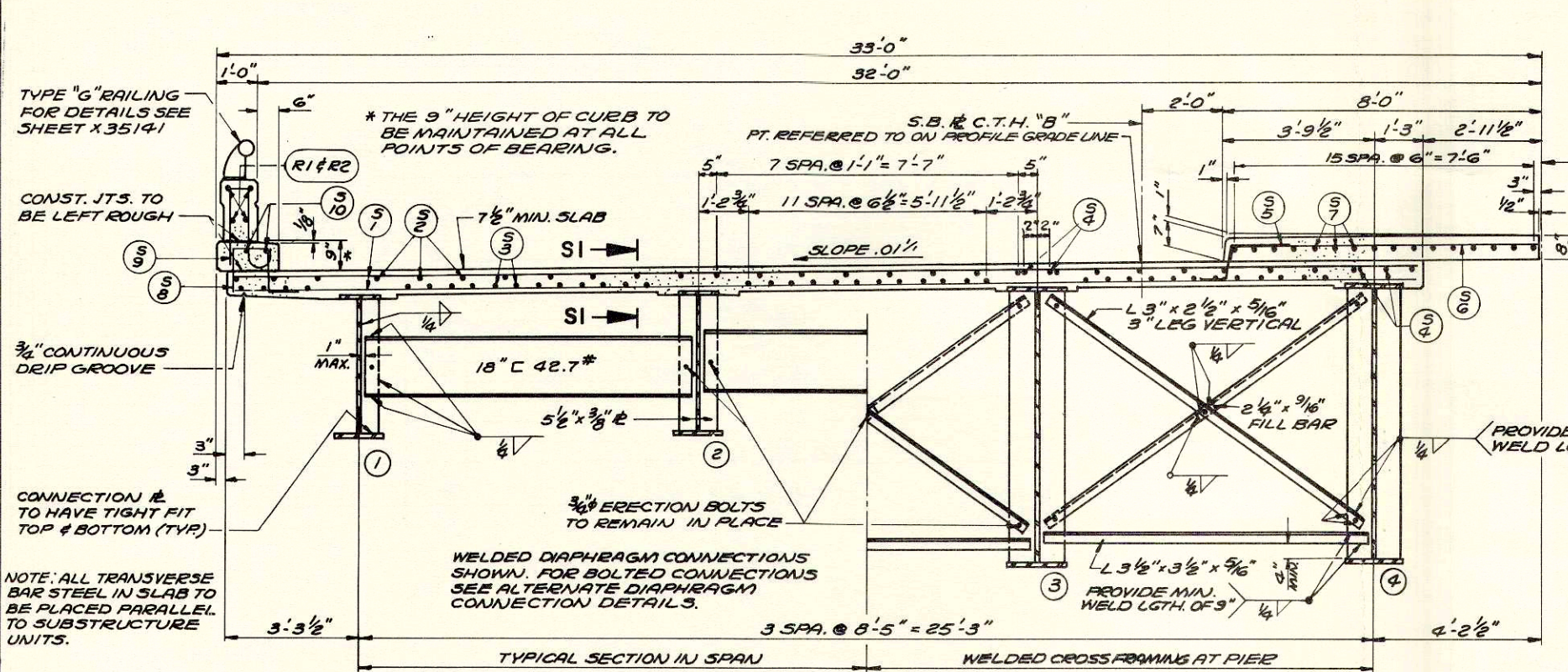
CONCRETE MASONRY, GRADE "AA" $f_c = 1,400$ P.S.I.
 BAR STEEL REINFORCEMENT $f_s = 20,000$ P.S.I.
 STRUCTURAL CARBON STEEL $f_s = 20,000$ P.S.I.
 STRUCTURAL LOW-ALLOY STEEL
 TO AND INCLUDING 3/4" THICK $f_s = 27,000$ P.S.I.
 OVER 3/4" TO AND INC. 1 1/2" THICK $f_s = 25,000$ P.S.I.
 OVER 1 1/2" THICK $f_s = 23,000$ P.S.I.

THE ABUTMENTS SHALL BE SUPPORTED ON SPREAD FOOTINGS WITH A MAXIMUM ALLOWABLE BEARING PRESSURE OF 1 1/2 TONS PER SQUARE FOOT.
 THE PIERS SHALL BE SUPPORTED ON SPREAD FOOTINGS WITH A MAXIMUM ALLOWABLE BEARING PRESSURE OF 2 TONS PER SQUARE FOOT.

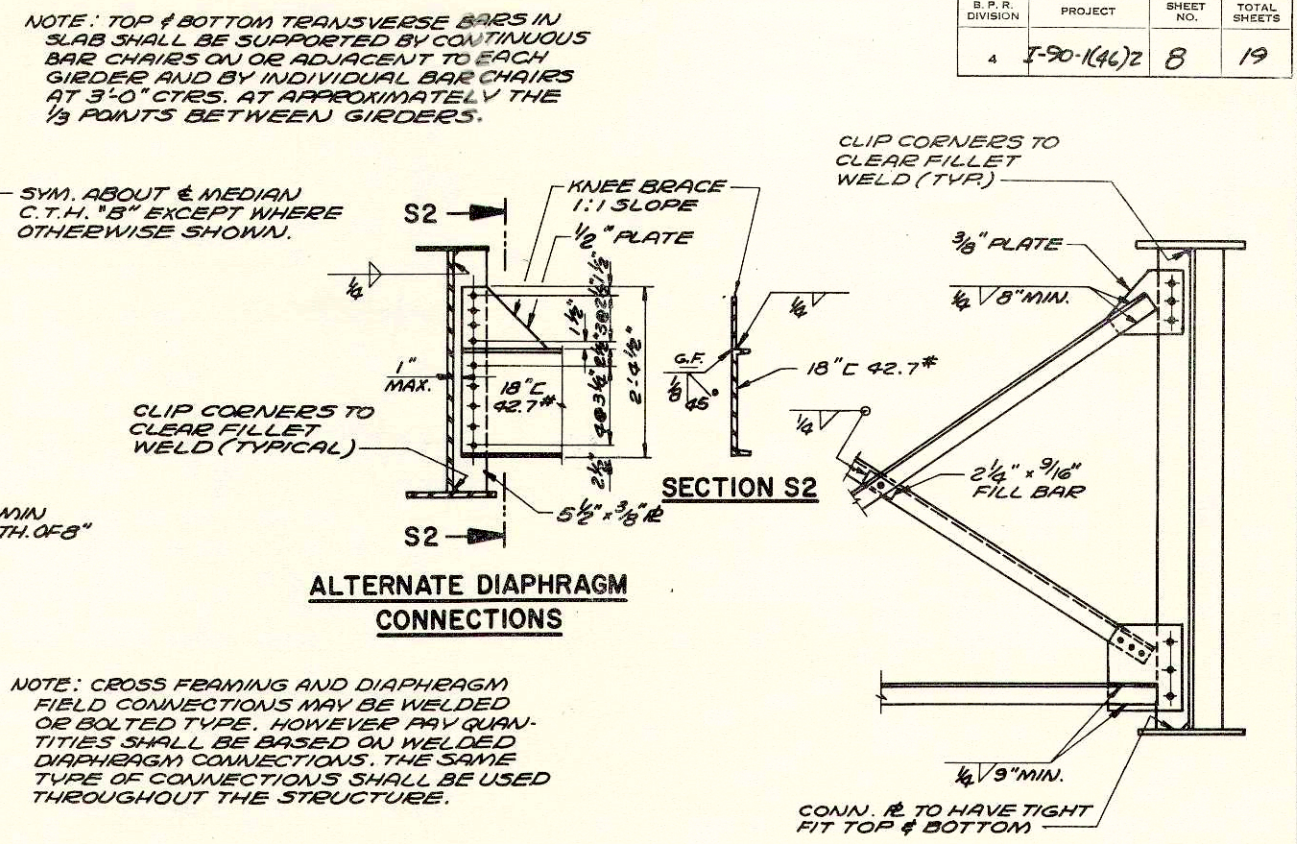


REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
GENERAL PLAN	
CO. LA CROSSE	CAMPBELL
SECTION 18	TOWN 16N
DESIGN SPEC. ARSHO'61	LOADING HS-20
DATE 6-3-66	DESIGN D.F.S.
RECOMMENDED	<i>T. B. Schuff</i> CHIEF BRIDGE ENGINEER
APPROVED	<i>H. J. Burmeister</i> STATE HIGHWAY ENGINEER
STRUCTURE B-32-52	
SHEET 1 OF 13	

B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-K(4)2	8	19

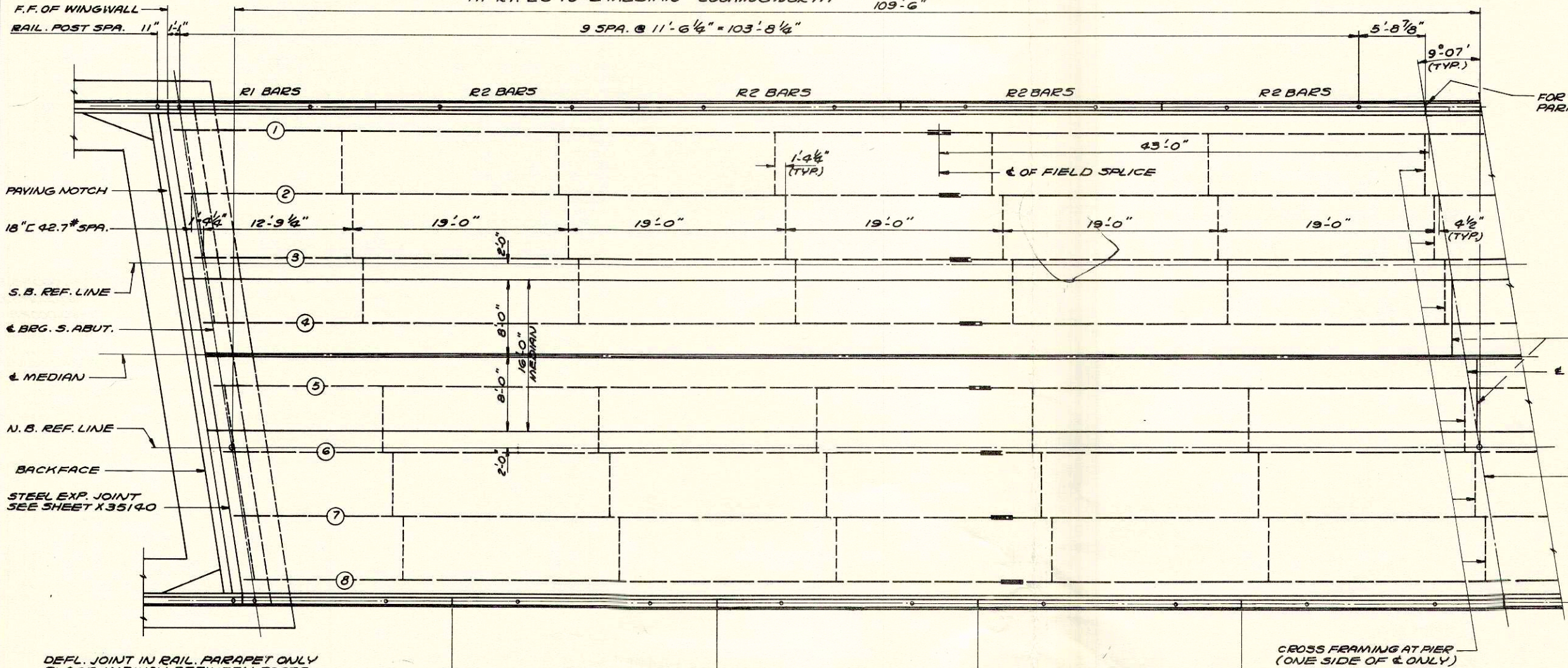


HALF CROSS SECTION THRU ROADWAY
AT RT. L'S TO & MEDIUM LOOKING NORTH



ALTERNATE DIAPHRAGM CONNECTIONS

ALTERNATE CROSS FRAMING CONNECTIONS



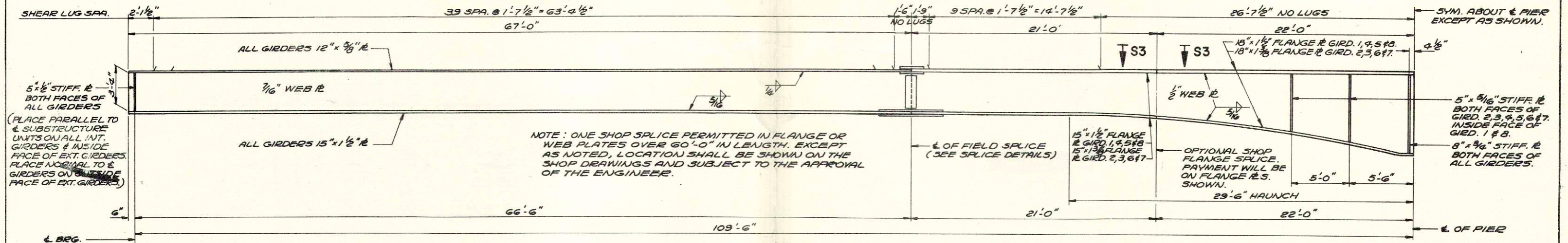
HALF PLAN

NOTE: FOR BILL OF BARS AND BENDING DETAILS SEE SHEET X35146.

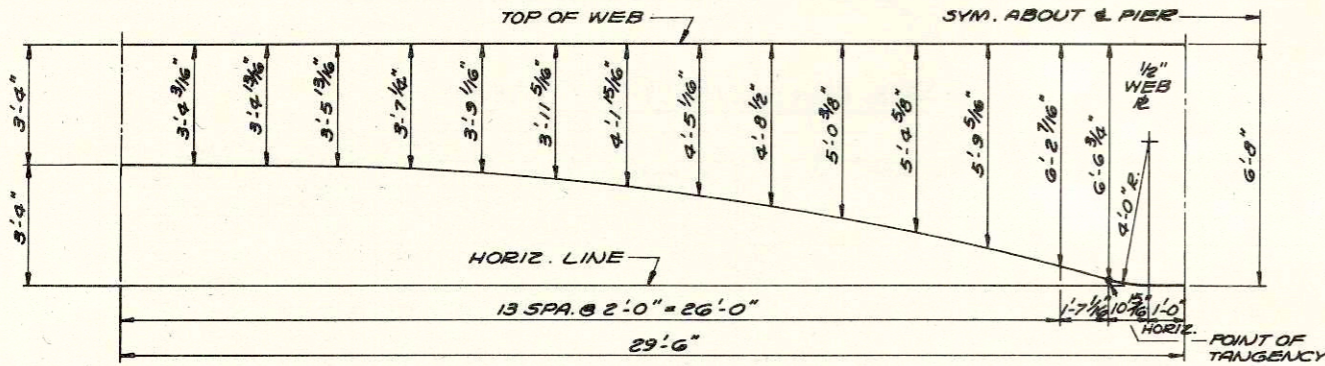
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	SUPERSTRUCTURE		
	DESIGN SPEC. ARSHO '61	LOADING H520	CONSTR. 1963
	DATE 6-3-66	DESIGN D.F.S.	DRAWN CCF
STRUCTURE	B-32-52	SHEET 2 OF 13	

NOTE: FIELD WELDING ON TOP FLANGE FOR CONSTRUCTION PURPOSES IS PROHIBITED IN THE AREA OVER THE PIER BETWEEN SHEAR LUGS

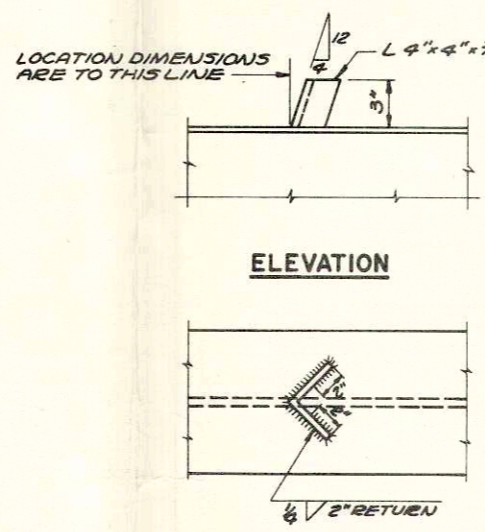
S. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(46)2	9	19



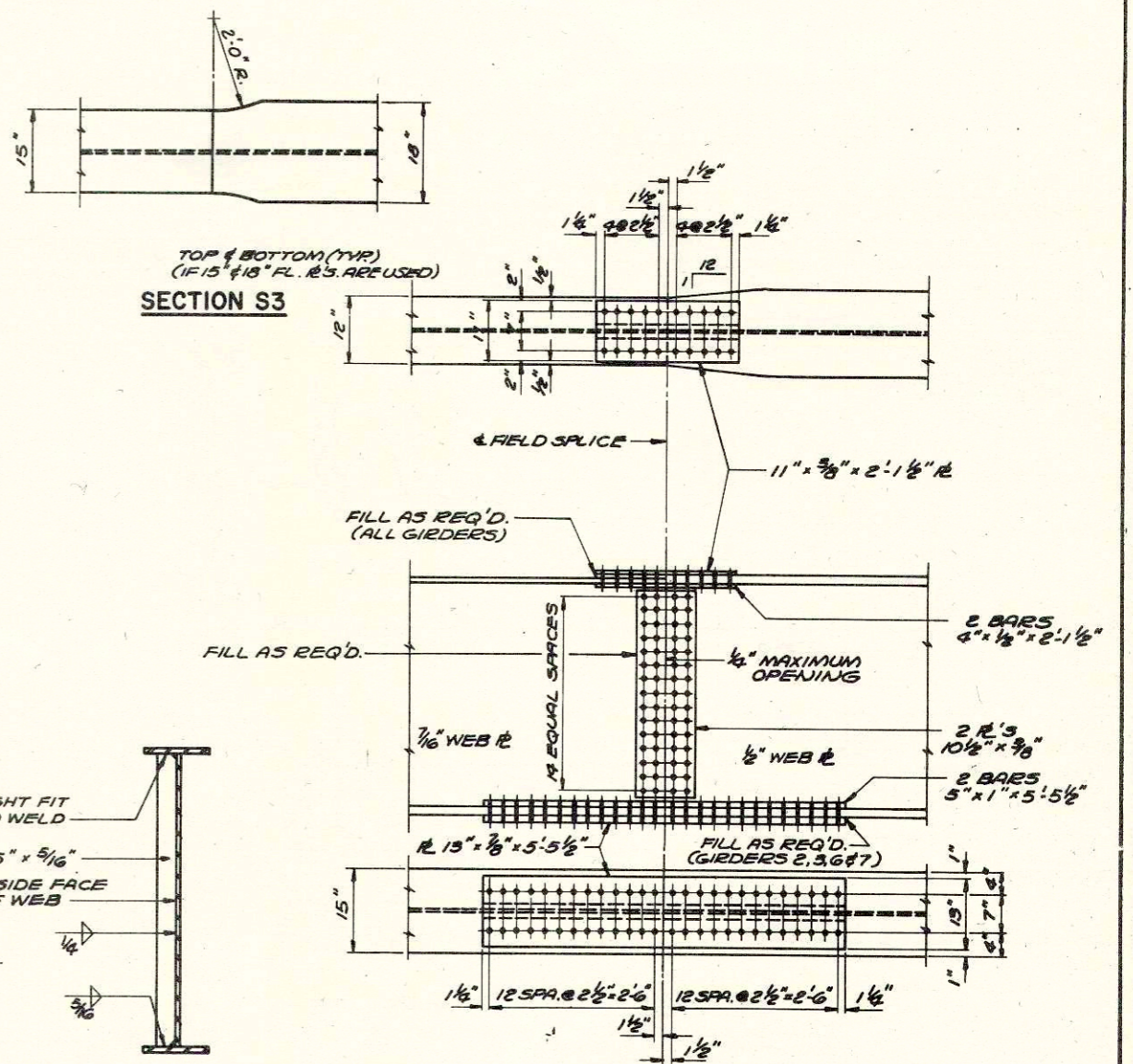
GIRDER ELEVATION



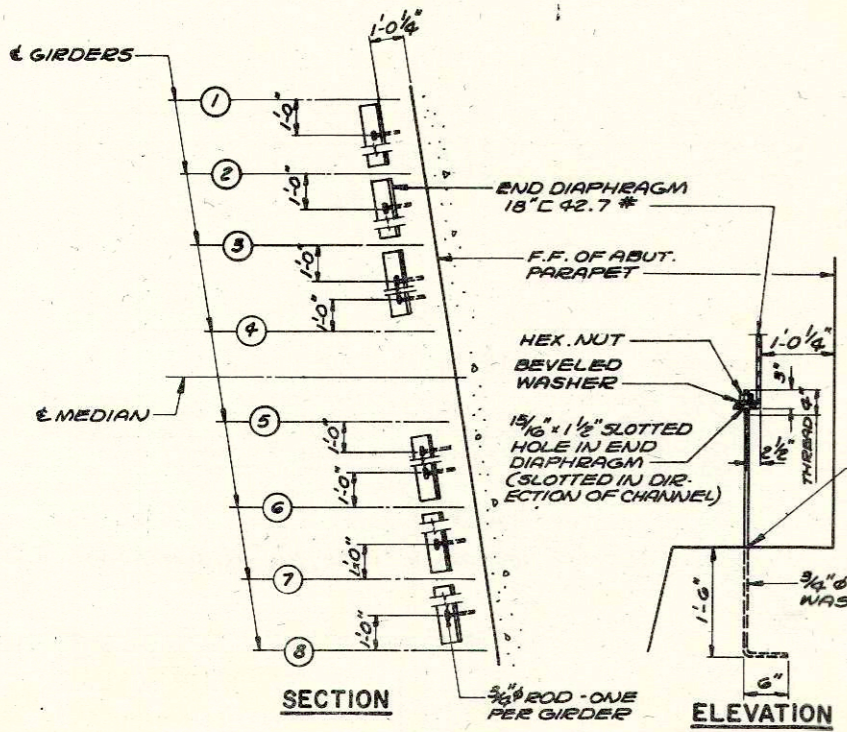
WEB CUTTING DIAGRAM



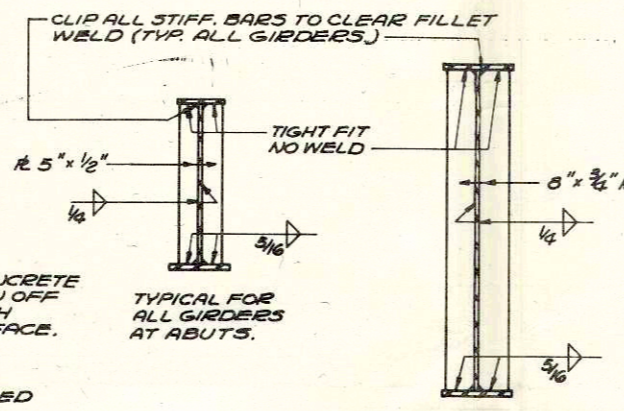
SHEAR LUG DETAIL



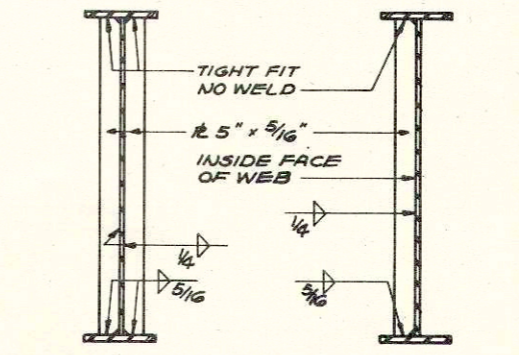
SPLICE DETAILS



TEMPORARY HOLD DOWN DEVICE



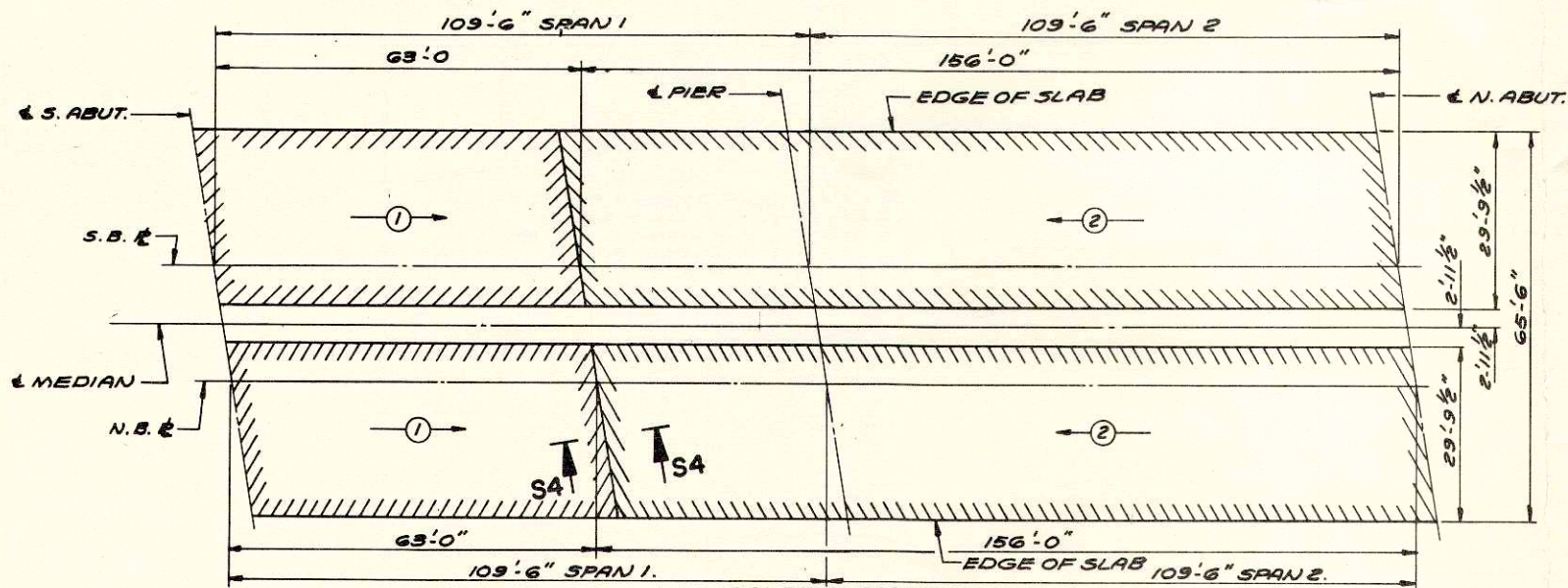
BEARING STIFFENER DETAILS



INTERMEDIATE STIFFENER DETAILS

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	SUPERSTRUCTURE		
	DESIGN SPEC. AASHO '61	LOADING HS 20	CONSTR. SPEC. 1363
	DATE 6-3-66	DESIGN D.F.S.	DRAWN CCF
	STRUCTURE B-32-52	SHEET 3 OF 13	

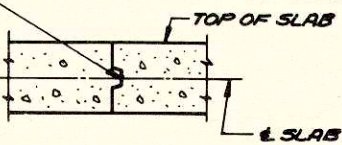
B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	190-1(46)2	10	19



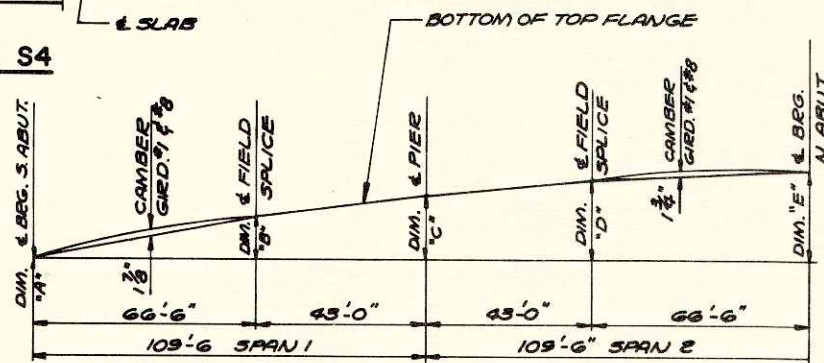
POURING DIAGRAM

THE TWO POURS MAY BE COMBINED AND THE TRANSVERSE CONSTR. JOINT OMITTED IF THE POUR FOR AN ENTIRE SPAN CAN BE COMPLETED WITHIN FOUR HOURS AFTER CONCRETE OVER THE PIER IS PLACED. DIRECTION OF POUR MAY BE REVERSED IF PORTION OF THE POUR FROM THE PIER TO THE ABUTMENT CAN BE COMPLETED IN A FOUR HOUR PERIOD. IF THE SEQUENCE OR DIRECTION OF POURS IS CHANGED, THE LOCATION OF THE TEMPORARY HOLD DOWN DEVICE SHALL BE CHANGED TO FIT THE NEW POURING DIAGRAM.

KEYWAY ON E OF SLAB FORMED BY SURFACED, BEVELED 2"x2" RUN BAR STEEL THRU JOINT.



SECTION S4



GIRDER	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"
#1	0	1'-0 3/8"	1'-5 3/8"	1'-10 3/8"	2'-2 1/8"
#2	0	1'-0 5/8"	1'-5 1/4"	1'-10 3/8"	2'-2"
#3	0	1'-0 3/8"	1'-5 1/4"	1'-10 3/8"	2'-1 3/4"
#4	0	1'-0 3/8"	1'-5 1/4"	1'-10 1/4"	2'-1 9/16"
#5	0	1'-0 1/8"	1'-5 1/8"	1'-10 1/8"	2'-1 5/8"
#6	0	1'-0 1/8"	1'-5"	1'-10"	2'-1 1/8"
#7	0	0'-11 13/16"	1'-4 1/8"	1'-9 13/16"	2'-0 7/8"
#8	0	0'-11 1/8"	1'-4 3/8"	1'-9 5/8"	2'-0 5/8"

CAMBER & BLOCKING DIAGRAM

HAUNCH THICKNESS AT E OF GIRDERS AT SUBSTRUCTURE UNITS IS 1 1/4".

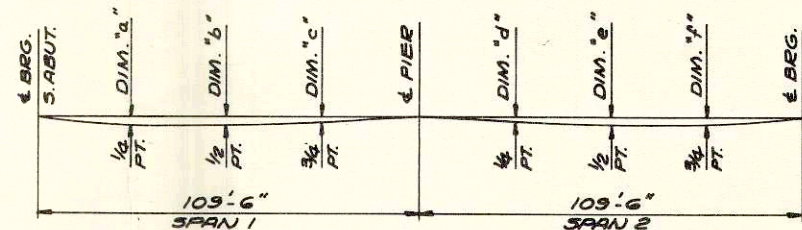
STEEL ERECTION GRADES

GIRDER NO.	E. BRG. S. ABUT.	F.S. #1	E. PIER	F.S. #2	E. BRG. N. ABUT.
1	669.65	670.77	671.19	671.63	671.83
2	669.76	670.86	671.27	671.71	671.92
3	669.86	670.96	671.37	671.81	672.01
4	669.97	671.07	671.48	671.91	672.10
5	669.99	671.09	671.49	671.92	672.10
6	669.93	671.01	671.41	671.84	672.02
7	669.87	670.94	671.34	671.76	671.94
8	669.81	670.88	671.28	671.69	671.86

NOTE: ELEVATIONS ARE AT TOP OF TOP FLANGE PLATES AT SUBSTRUCTURE UNITS AND AT TOP OF SPLICE PLATES AT FIELD SPLICES. THE ELEVATION OF THE TOP OF STEEL AT THE FIELD SPLICE POINTS SHALL BE CHECKED, AND CORRECTED IF POSSIBLE, AFTER ERECTION AND BEFORE PERMANENTLY WELDING OR BOLTING DIAPHRAGM IN PLACE.

TABLE OF CONSTRUCTION GRADES

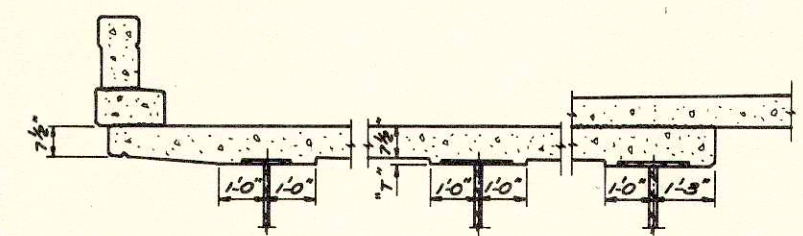
GIRDER	SPAN 1				SPAN 2				
	E. BRG. S. ABUT.	1/4 PT.	1/2 PT.	3/4 PT.	E. PIER	1/4 PT.	1/2 PT.	3/4 PT.	E. BRG. N. ABUT.
1	670.32	670.76	671.15	671.49	671.79	672.04	672.24	672.40	672.51
2	670.43	670.87	671.25	671.59	671.89	672.13	672.34	672.49	672.60
3	670.54	670.97	671.35	671.69	671.99	672.23	672.43	672.58	672.68
4	670.64	671.07	671.46	671.79	672.08	672.33	672.52	672.67	672.77
5	670.67	671.09	671.47	671.81	672.10	672.34	672.53	672.68	672.78
6	670.60	671.03	671.41	671.74	672.02	672.26	672.45	672.60	672.70
7	670.54	670.97	671.34	671.67	671.95	672.19	672.38	672.52	672.61
8	670.48	670.90	671.27	671.60	671.88	672.11	672.30	672.44	672.53



	DIM. "a"	DIM. "b"	DIM. "c"	DIM. "d"	DIM. "e"	DIM. "f"
CONC. ONLY	1 1/4"	1 1/4"	5 1/8"	3 1/8"	1 1/4"	1 1/4"
TOTAL	1 9/16"	1 9/16"	3 1/8"	3 1/8"	1 9/16"	1 9/16"

DEFLECTION DIAGRAM

NOTE: ONLY DEAD LOAD DEFLECTION IS SHOWN.



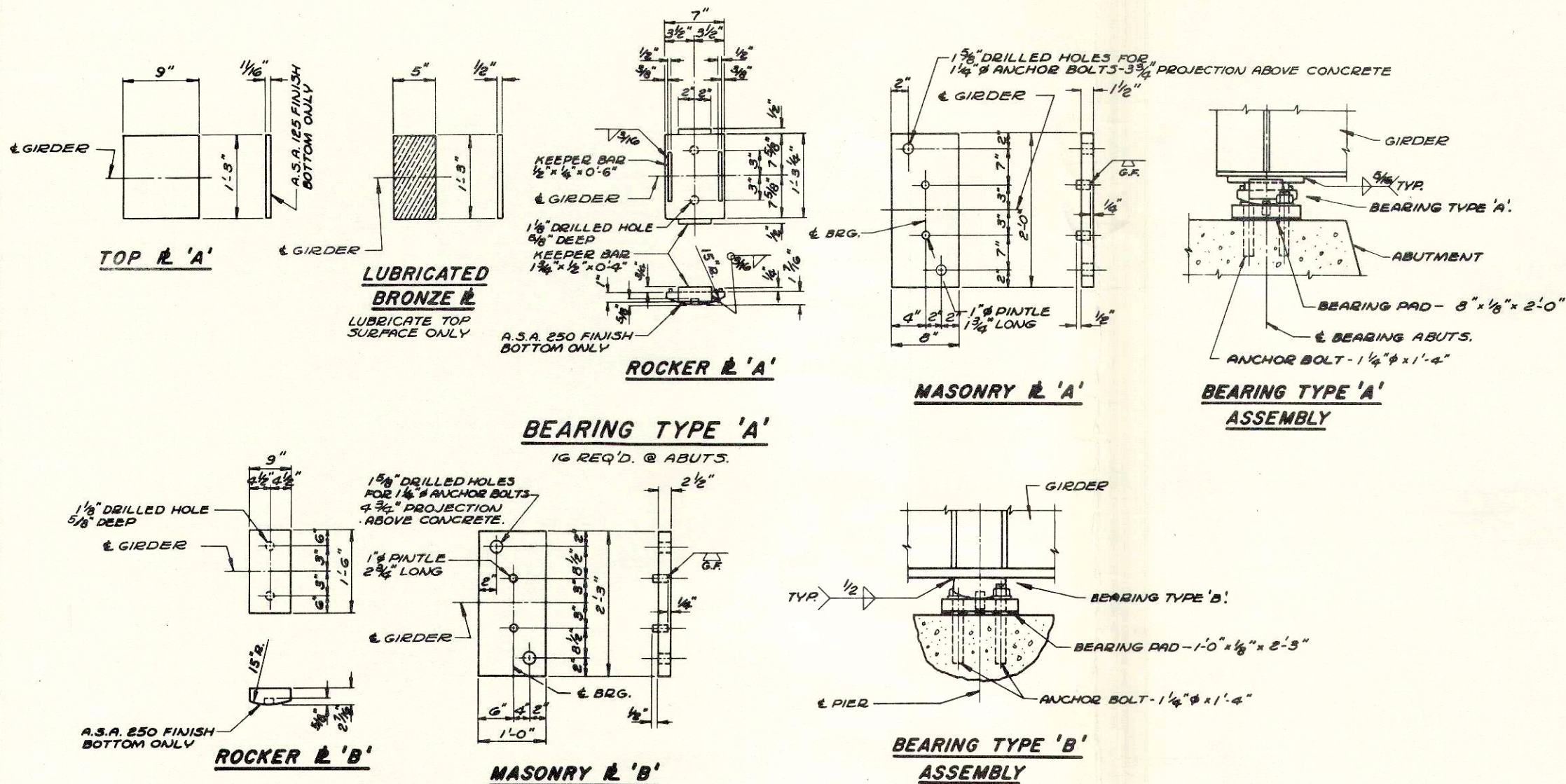
SECTION AT GIRDERS 1 & 8 SECTION AT GIRDERS 2, 3, 6 & 7 SECTION AT GIRDERS 4 & 5

SLAB HAUNCH DETAILS

TO DETERMINE "T": AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES, TOP OF SPLICE PLATES, OR TOP OF COVER PLATES, WHICHEVER APPLIES, SHALL BE TAKEN AT CENTER LINE OF BEARINGS, CENTER LINE OF FIELD SPLICES, AND AT QUARTER POINTS OF EACH SPAN WHICH ARE MORE THAN SIX FEET FROM A FIELD SPLICE. THESE ELEVATIONS, SUBTRACTED FROM THE GRADE ELEVATIONS, ADJUSTED FOR DEADLOAD DEFLECTION OF THE CONCRETE, MINUS THE SLAB DEPTH, PLUS THE STEEL THICKNESS TO BOTTOM OF TOP FLANGE, EQUALS THE HAUNCH DEPTH "T".

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	SUPERSTRUCTURE		
	DESIGN SPEC. AASHO '61	LOADING H320	CONST. SPEC. 1963
	DATE 6-3-64	DESIGN D.F.S.	DRAWN CCF
STRUCTURE B-32-52		SHEET 4 OF 13	

DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(4)2	11	19



NOTE: TOP PLATE OF EXPANSION BEARING TO BE FINISHED IN DIRECTION OF MOVEMENT.

BEARING NOTES

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES 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.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX. NUT PER BOLT.

ALL MATERIAL INCLUDING SHIMS BUT EXCLUDING ANCHOR BOLTS, NUTS AND WASHERS SHALL BE MADE OF A242 STEEL WITH A CORROSIVE RESISTANCE OF 4 OR MORE TIMES THAT OF A36 STEEL.

THE TOP 4 1/2" OF ANCHOR BOLTS, WASHERS AND NUTS SHALL BE GALVANIZED.

ALL MATERIAL IN BEARINGS, EXCLUDING BRONZE PLATES AND BEARING PADS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL LOW ALLOY STEEL."

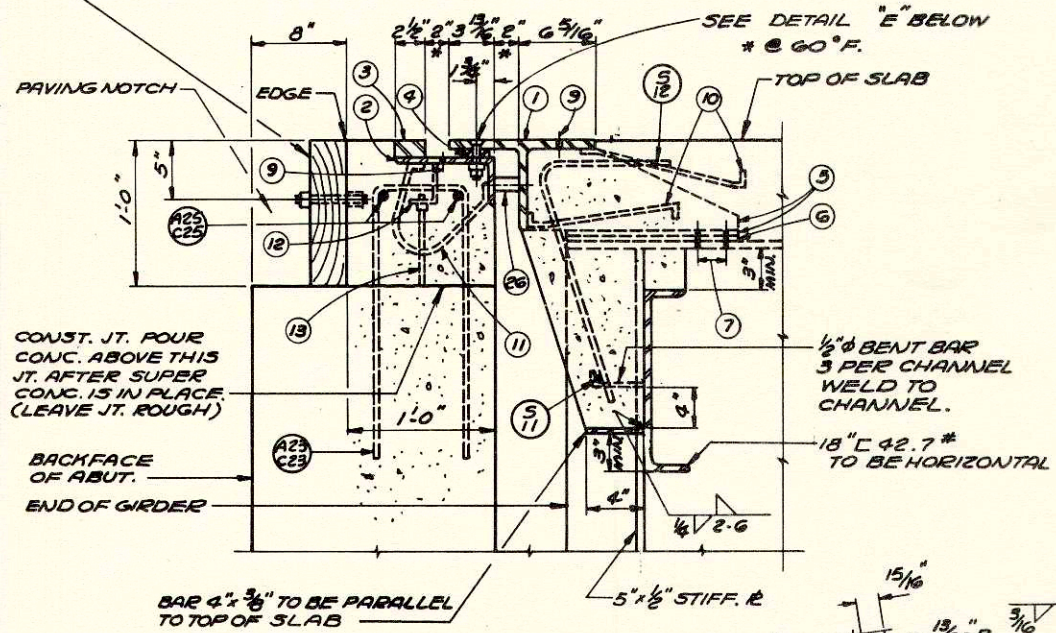
CHAMFER TOP OF PINTLES 1/8". DRILL HOLES FOR PINTLES IN ALL MASONRY PLATES FOR DRIVING FIT.

LUBRICATED BRONZE PLATES SHALL BE MADE FROM MATERIAL CONFORMING TO A.S.T.M. DESIGNATION B100-55 ALLOY 1.

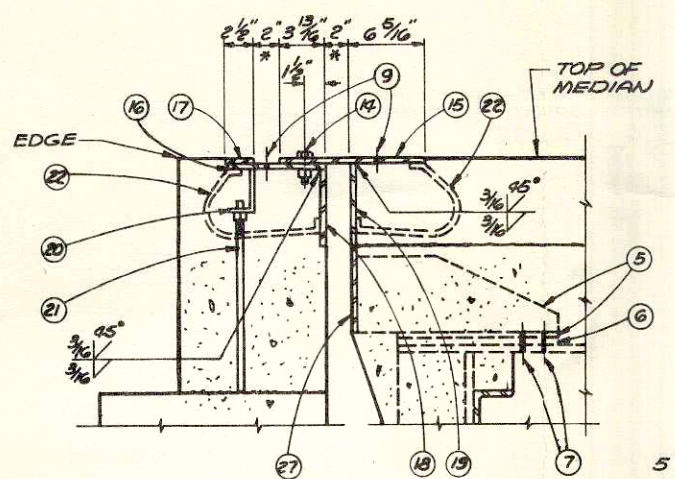
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	BEARING DETAILS		
	DESIGN SPEC. A.A.S.H.O. 61	LOADING	CONST. SPEC. 1963
	DATE 6-3-66	DESIGN D.F.S.	DRAWN CCF
STRUCTURE	B-32-52	SHEET	5 OF 13

B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-(46)2	12	19

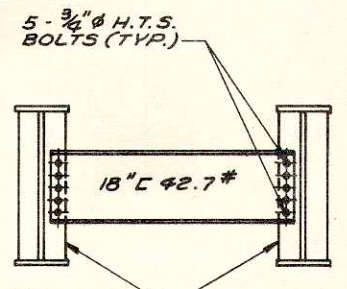
PROVIDE HARDWOOD PLANK 3" x 12" x ROADWAY LENGTH. ATTACH PLANK TO PAVING BLOCK WITH 3/4" BOLTS AND THREADED INSERTS AT APPROX. 5'-0" CENTERS. REMOVE BOLTS AND PLANK WHEN PLACING APPROACH SLAB CONCRETE. (INCLUDE IN BID PRICE FOR CONCRETE MASONRY.)



SECTION E1



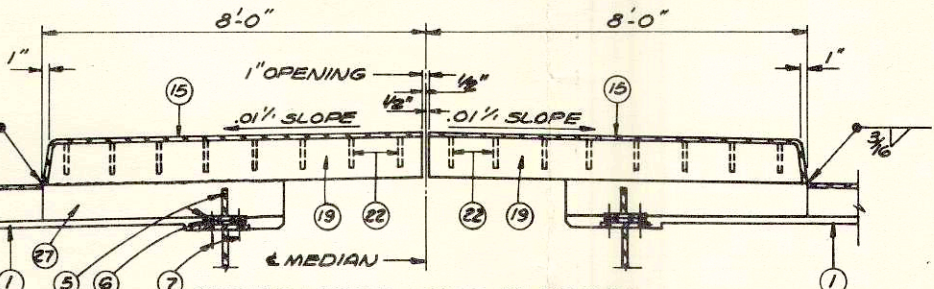
SECTION E2



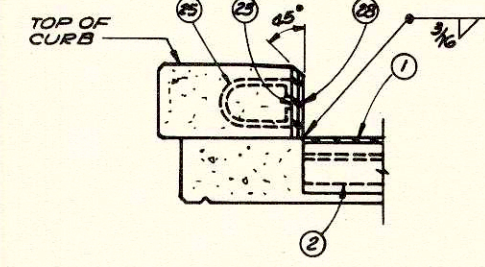
END DIAPHRAGM CONNECTION DETAIL

LEGEND

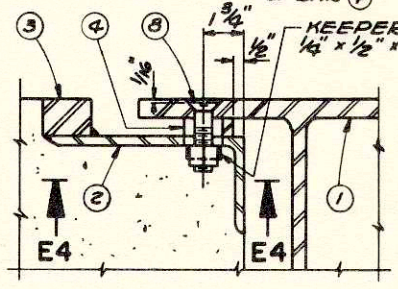
1. S.T. 6"W.F. 99.5# x RDWY. WIDTH.
2. L 8"x4" x 1/16" RDWY. WIDTH. LONG. DIM. OF 1 1/16" x 1 1/2" SLOTTED HOLE PARALLEL TO RDWY.
3. BAR 2 1/2" x 1 1/2" x RDWY. WIDTH. WELD TO L#2 WITH 2 LINES OF 1/4" FILLET WELD. 2 @ G.
4. BAR 2" x 3/4" x RDWY. WIDTH. WELD TO L#2 WITH 2 LINES OF 1/4" FILLET WELD. 2 @ G. LONG. DIM. OF 1 1/16" SLOT PARALLEL TO RDWY.
5. FABRICATE FROM 3/8" WELDED R. WELD TO STEM & FLG. OF S.T.#1 OR TO L#27 WITH 1/4" FILLET WELD NEAR SIDE AND FAR SIDE.
6. 5/8" MIN. LAMINATED AND SLOTTED SHIM.
7. DRILL HOLES IN GIRDER FLANGE IN FIELD FOR 4-3/16" ERECTION BOLTS.
8. 3/4" FLAT HD. CAP SCREW x 0-2 3/4" LG. WITH SQ. NUT AT 4'-0" CTRS. GREASE FOR EASY REMOVAL. 1/4" x 1/2" x 1/4" KEEPER BAR - WELD TO L#2 TO KEEP SQ. NUT FROM TURNING. 1 3/16" x 1 1/2" SLOTTED HOLES IN L#2. 1 3/16" HOLE C5K. 1/16" DEEP IN S.T.#1. 1 3/16" SLOT IN BAR #4 AS SHOWN.
9. VENT HOLES 1 3/16" PLACED AT 2'-0" CTRS. ON L#2 AND S.T.#1 AND AT 9" CTRS. ON R#15 AND #16.
10. 5/8" BENT BAR @ 0'-9" ALTERNATE CTRS. BETWEEN GIRDERS 1'-3" LG. WELD TO S.T.#1.
11. 5/8" BENT BAR @ 1'-0" CTRS. 2'-0" LG. WELD TO L#2.
12. L 3" x 2 1/2" x 3/8" x 0'-3" LG. @ 3'-0" CTRS. WELD TO L#2. PROVIDE 3/8" HOLE IN 2 1/2" LEG FOR BOLT #13.
13. 1/2" BOLT x 3" LG. & NUT. TACK WELD NUT TO L#12.
14. 3/8" BOLT WITH SQ. NUT. TACK WELD NUT TO L#16. GREASE FOR EASY REMOVAL.
15. R 12" x 3/8" - BEND DOWN FLUSH WITH FACE OF MEDIAN. WELD TO R#19 AS SHOWN. FIELD WELD TO S.T.#1. 1 3/16" x 1 1/2" SLOTTED HOLE FOR BOLT #4. LONG. DIM. U TO RDWY.
16. R 8" x 3/8" - BEND DOWN FLUSH WITH FACE OF MEDIAN. WELD TO R#18 AS SHOWN.
17. R 2 1/2" x 3/8" - BEND DOWN FLUSH WITH FACE OF MEDIAN AS SHOWN. WELD TO R#16 WITH 1 LINE OF 3/16" FILLET WELD. FIELD WELD TO BAR #3.
18. R 6" x 3/8" - CUT TO MEDIAN LIMITS AS SHOWN.
19. 3/8" R. CUT TO MEDIAN LIMITS AS SHOWN. FIELD WELD TO R#27.
20. L 3" x 2 1/2" x 3/8" x 0'-3" LG. WELD TO R#16. PROVIDE 3/8" HOLE IN 2 1/2" LEG FOR BOLT #21.
21. 1/2" BOLT x 1'-2" LG. AND NUT. TACK WELD NUT TO L#20.
22. 3/8" BOLT x 6" LG. WELD TO R#15 & #19 AND R#16 & #18 WITH 3/16" FILLET WELDS ALL AROUND. SPACE BARS @ 1'-0" CTRS. AS SHOWN.
23. R 8 1/2" x 3/8" - WELD TO R#24. CHAMFER AS SHOWN.
24. R 2 1/2" x 3/8" - CHAMFER AS SHOWN. WELD TO R#23 WITH 1 LINE OF 3/16" FILLET WELD. FIELD WELD TO BAR #3.
25. 5/8" BENT BAR x 1'-3" LONG. WELD TO R#23 & R#28.
26. BLOCK & BOLT FOR SHIPMENT WITH PIPE SLEEVE AND 1/2" BOLT. PROVIDE 3/16" HOLES AT 3'-0" CTRS. IN S.T.#1 & L#2 FOR 1/2" BOLT.
27. 3/8" R. CUT TO MEDIAN LIMITS AS SHOWN. WELD TO S.T.#1 & R#19.
28. R 12 1/16" x 3/8" - CHAMFER AS SHOWN. FIELD WELD TO S.T.#1.



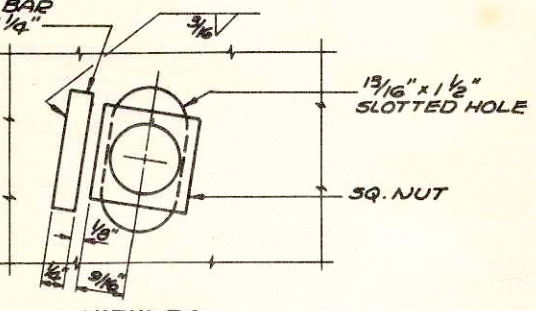
SECTION THRU JOINT AT MEDIAN



SECTION E3

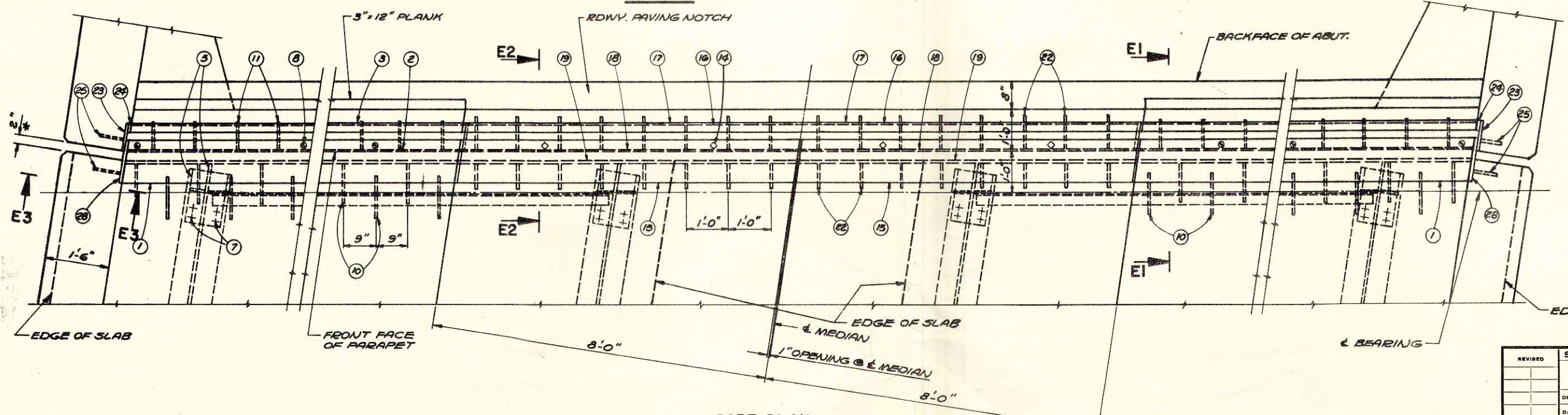


DETAIL "E"



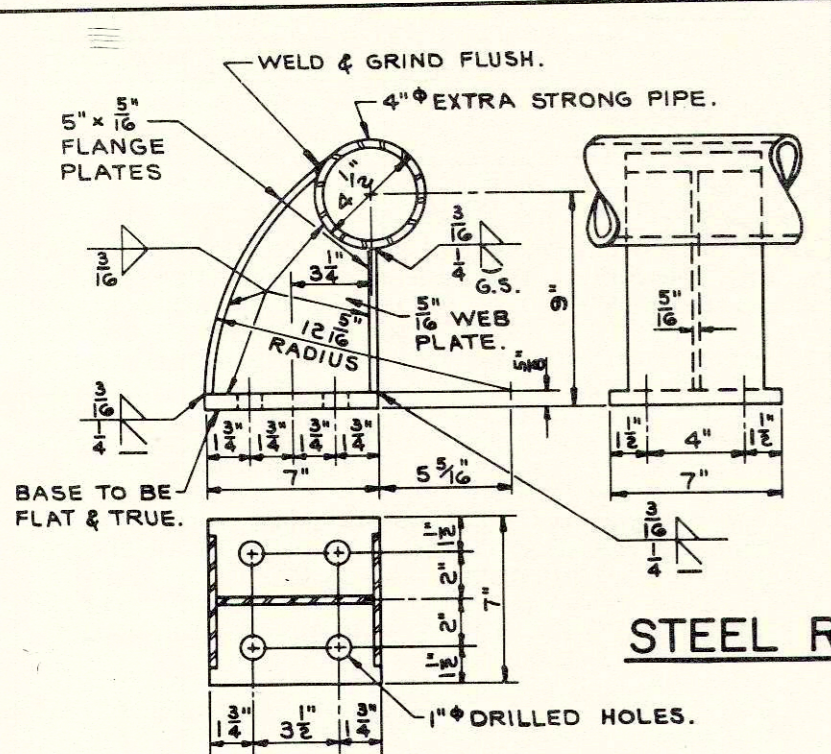
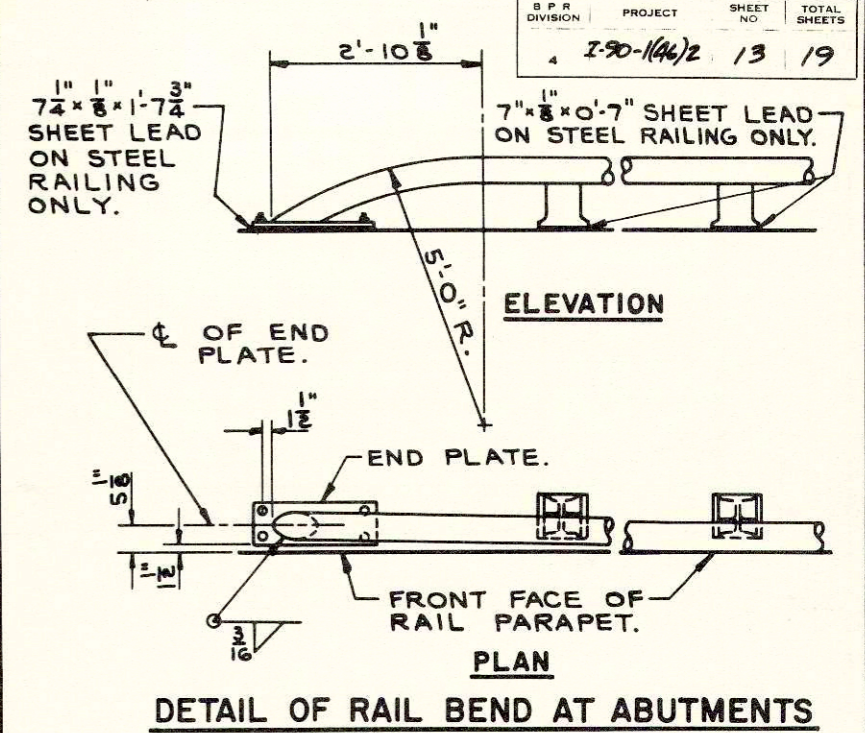
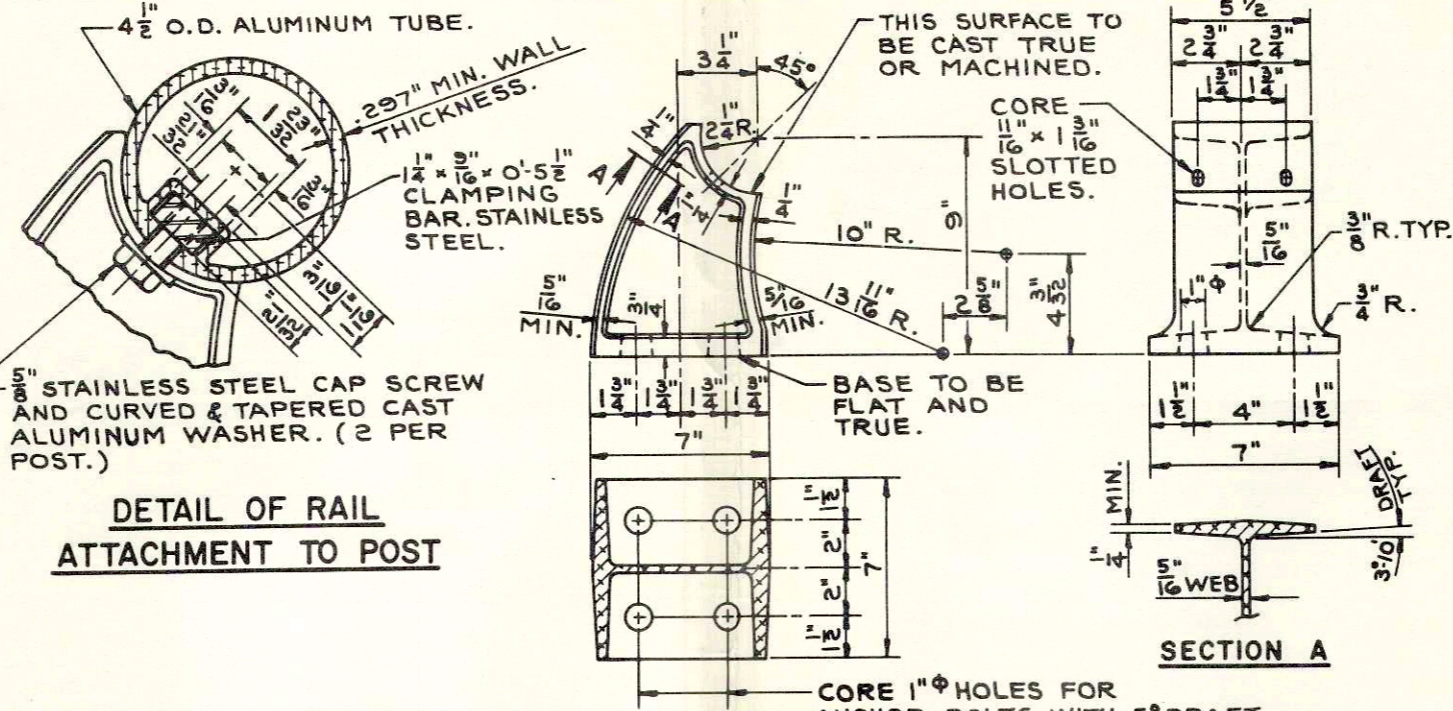
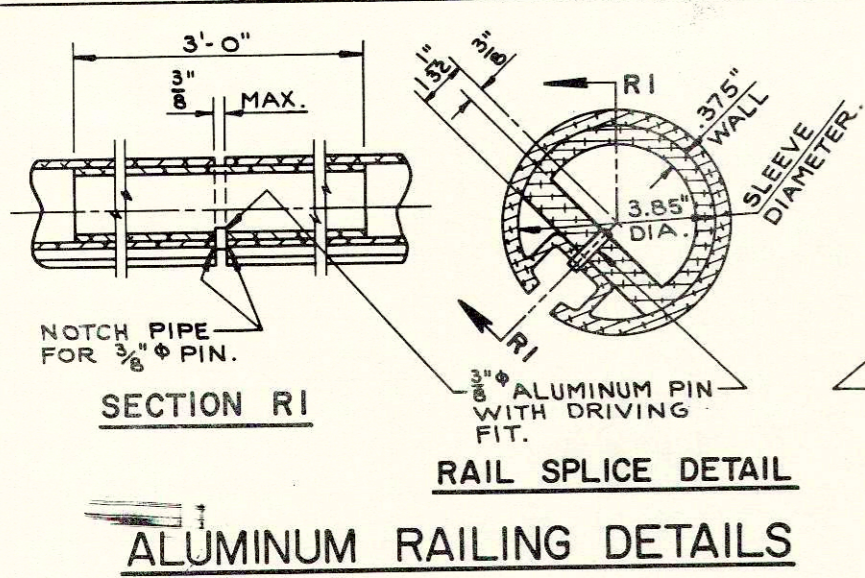
VIEW E4

EXPANSION JOINT SHALL BE BUILT TO CONFORM TO RDWY. CROWN & GRADE. AFTER CONCRETE HAS SET THE JOINT OPENING SHALL BE THOROUGHLY CLEANED. APPLY 1/16" COAT OF BITUMASTIC TO METAL SURFACES FORMING THE JOINT AND FILL OPENING WITH HOT POURED ELASTIC TYPE JOINT SEALER. AFTER CONCRETE HAS SET REMOVE SCREWS #8 AND BOLTS #14 AND FILL HOLES WITH HOT POURED ELASTIC TYPE JOINT SEALER.

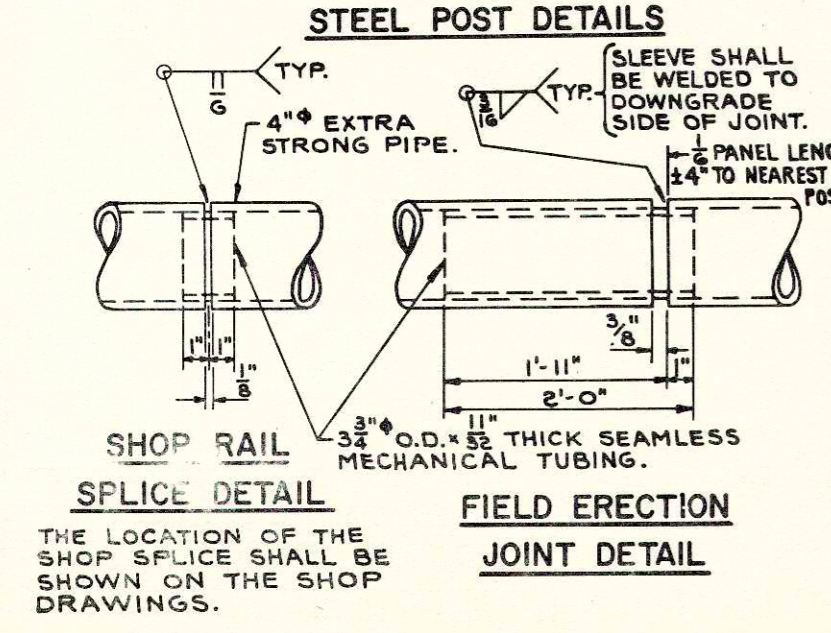
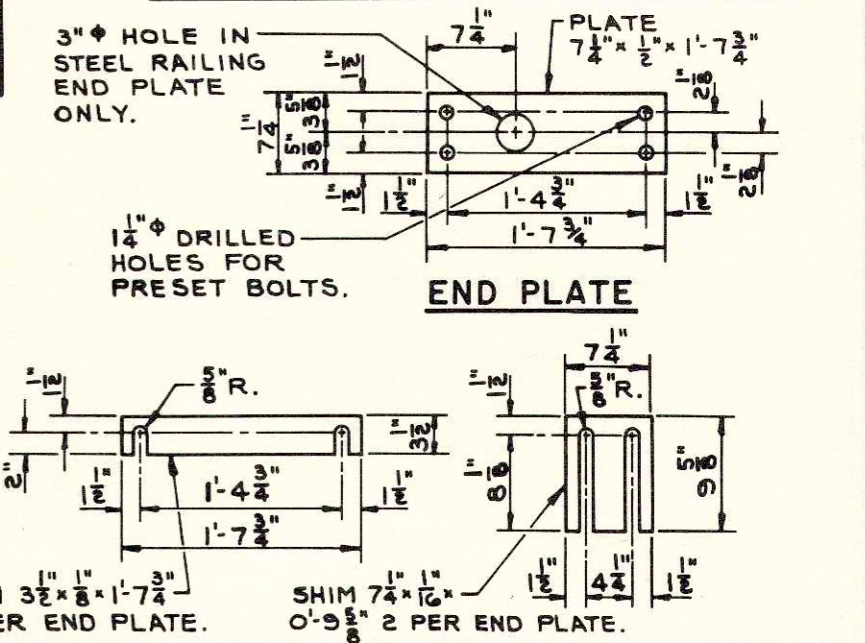
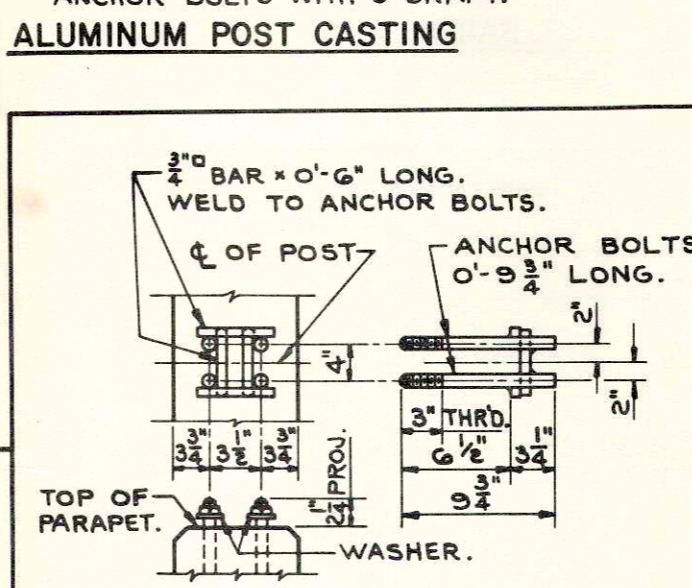


PART PLAN

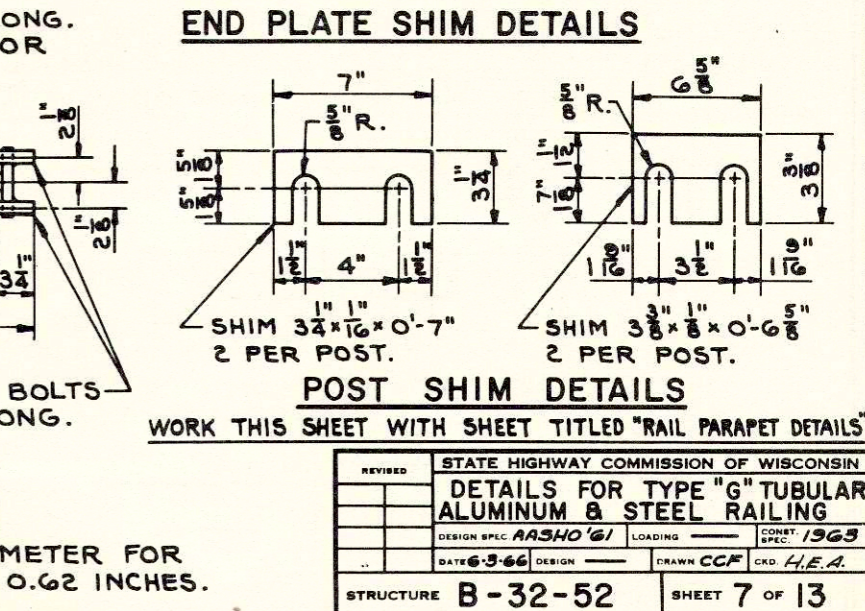
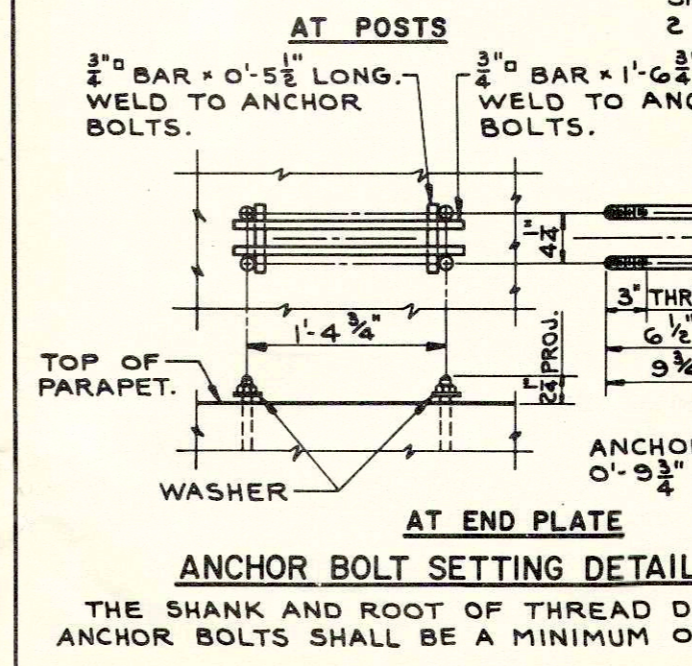
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	EXPANSION JOINT
DESIGN SPEC. ARSHO '61	LOADING HS 20
DATE 6-3-66	DESIGN D.F.S. DRAWN CCF
STRUCTURE B-32-52	SHEET 6 OF 13



NOTES
RAILING SPLICES SHALL BE LOCATED SUCH THAT ϕ OF SPLICE IS $1/6$ PANEL LENGTH ± 4 " OFF NEAREST POST.
ALUMINUM SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQUIRED FOR ALIGNMENT.
RAILING SHALL BE FABRICATED IN TWO AND THREE PANEL LENGTHS.
ANCHOR BOLTS, NUTS & WASHERS TO BE STAINLESS STEEL.
WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MINIMUM NOMINAL AVERAGE WALL THICKNESS.



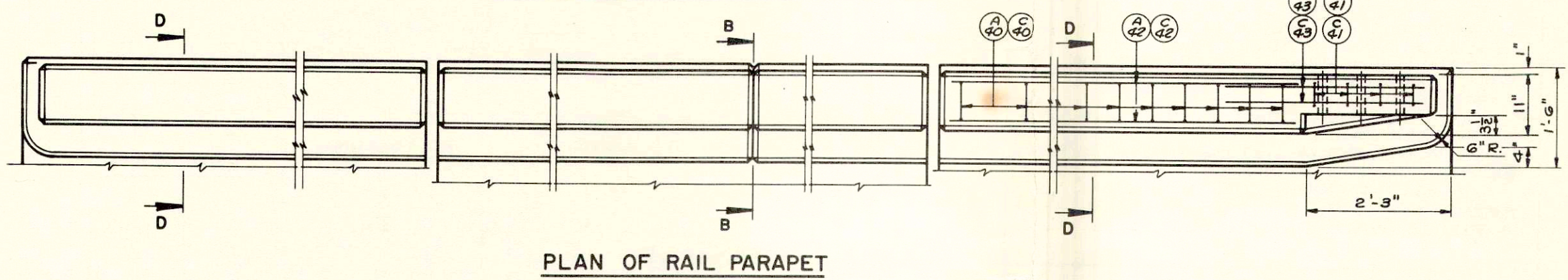
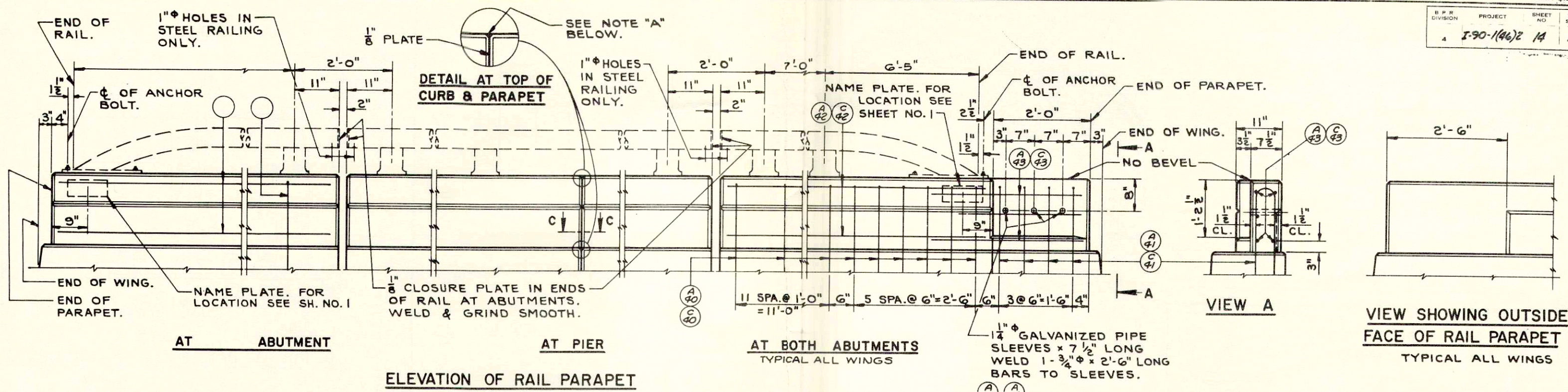
NOTES
RAILING SHALL BE FABRICATED IN 2 & 3 PANEL LENGTHS.
STEEL SHIMS SHALL BE USED UNDER POSTS AND UNDER END PLATES WHERE REQUIRED FOR ALIGNMENT.
THE FOLLOWING MATERIALS SHALL BE USED:
RAILING SHALL BE 4" EXTRA STRONG PIPE CONFORMING TO ASTM DESIGNATION A53, GRADE B.
SLEEVES SHALL BE 3 3/4" O.D. x 1 1/2" THICK SEAMLESS MECHANICAL TUBING MADE OF STEEL WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 60,000 P.S.I. AND A MINIMUM ELONGATION OF 10%.
POSTS SHALL BE FABRICATED FROM MATERIAL CONFORMING TO ASTM DESIGNATION A36.
ANCHOR BOLTS TO BE MADE FROM MATERIAL CONFORMING TO ASTM A307.
CAULK EXPOSED OPENINGS BETWEEN SHIMS WITH LEAD WOOL.
GALVANIZE ENTIRE RAILING AFTER FABRICATION INCLUDING NUTS, WASHERS, SHIMS AND TOP 3 1/2" OF ANCHOR BOLTS.



WORK THIS SHEET WITH SHEET TITLED "RAIL PARAPET DETAILS"

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
	DETAILS FOR TYPE "G" TUBULAR ALUMINUM & STEEL RAILING
DESIGN SPEC AASHO '61	LOADING CONCT SPEC 1963
DATE 6-3-66	DESIGN DRAWN CCF CKD H.E.A.
STRUCTURE B-32-52	SHEET 7 OF 13

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	I-90-1(46)2	14	19



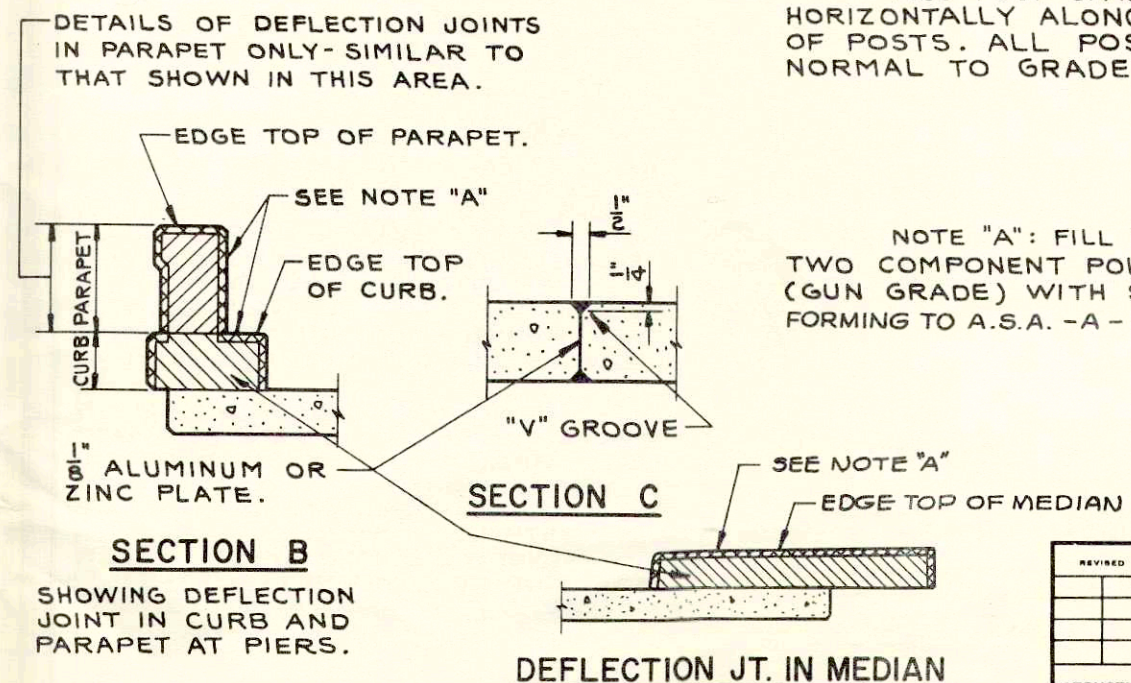
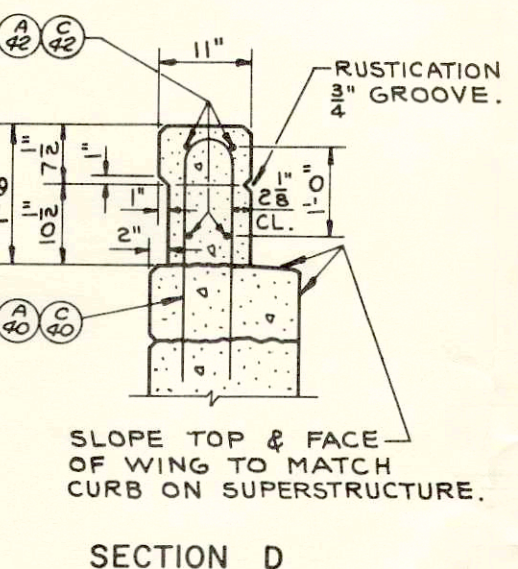
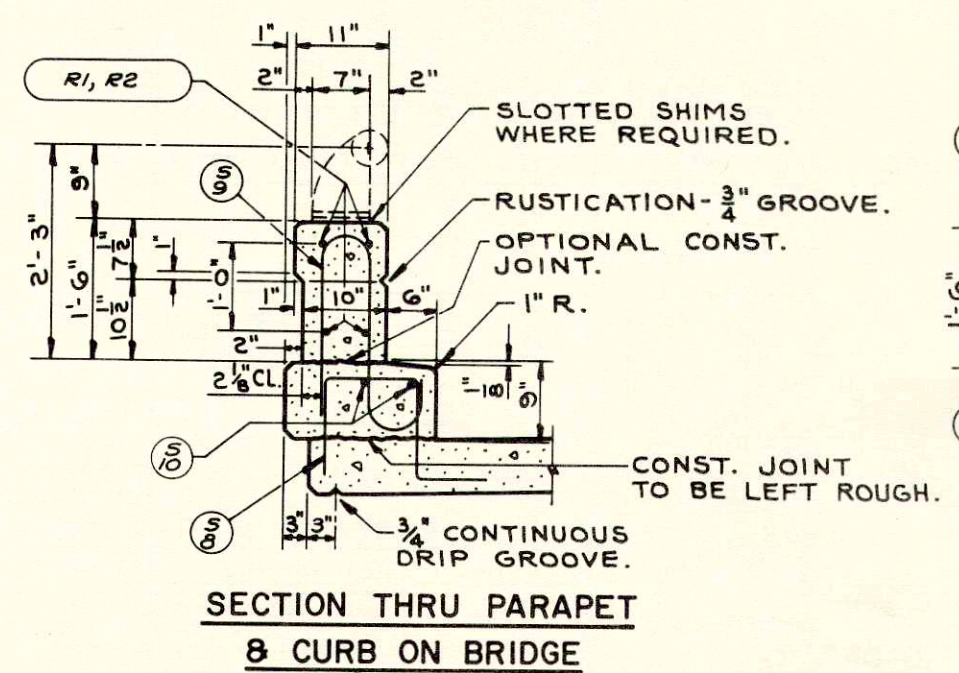
NOTES

WHEN PARAPETS AND CURBS ARE POURED CONTINUOUSLY FROM END TO END THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR ALUMINUM PLATE CUT AS SHOWN IN SECTION "B" BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS AND CURBS ARE USED AT THE DEFLECTION JOINTS ONE SIDE OF JOINT SHALL BE COATED WITH BITUMINOUS PAINT AND PLATE SEPARATORS MAY BE OMITTED.

COST OF 1/4" φ GALVANIZED PIPE SLEEVES AND 3/4" φ BARS TO BE INCLUDED IN UNIT PRICE BID FOR CONCRETE MASONRY.

WORK THIS SHEET WITH SHEET TITLED "DETAILS FOR TYPE "G" TUBULAR ALUMINUM AND STEEL RAILING".

ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG CL OF RAILING AT BASE OF POSTS. ALL POSTS SHALL BE SET NORMAL TO GRADE.



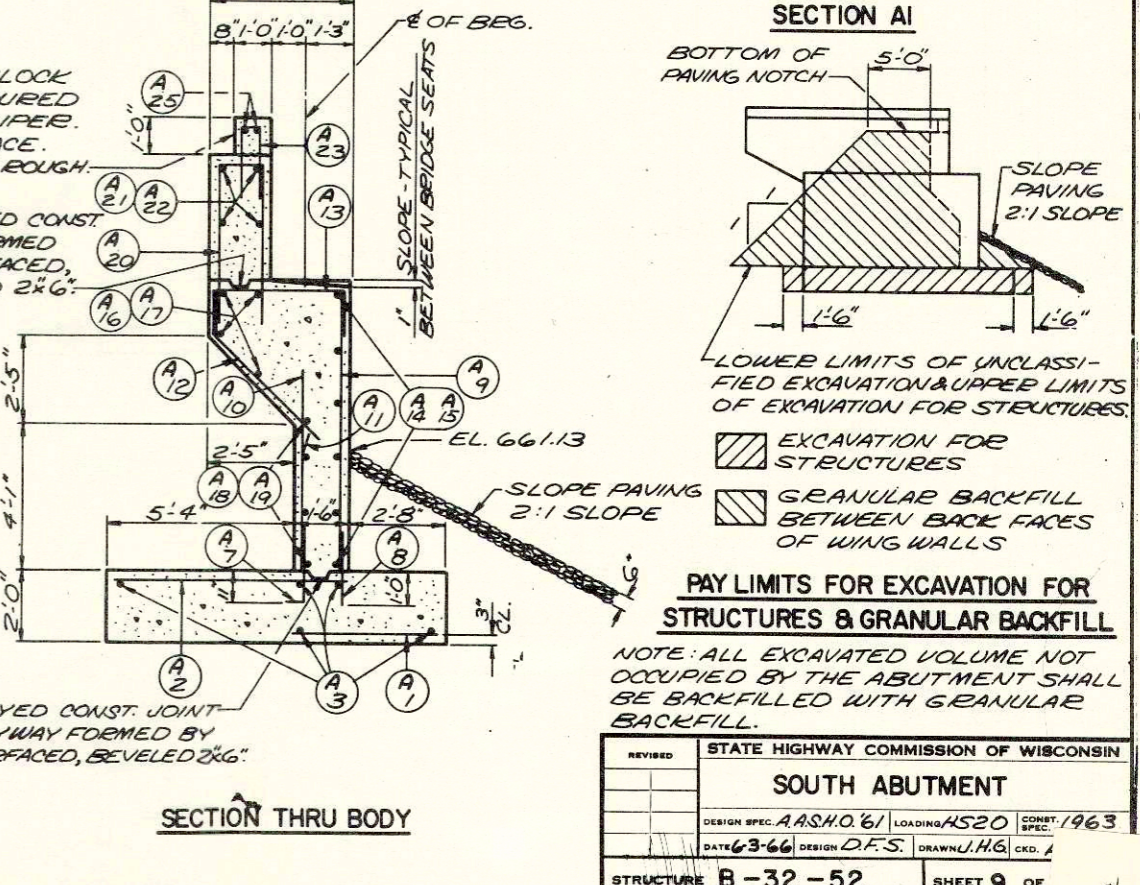
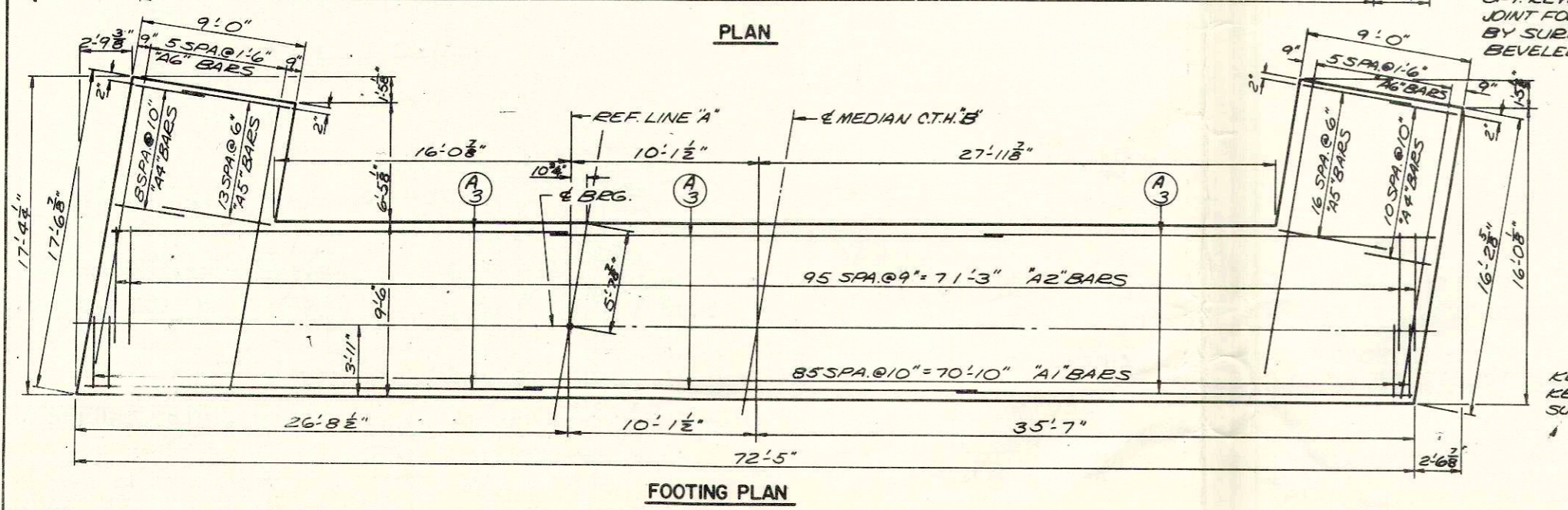
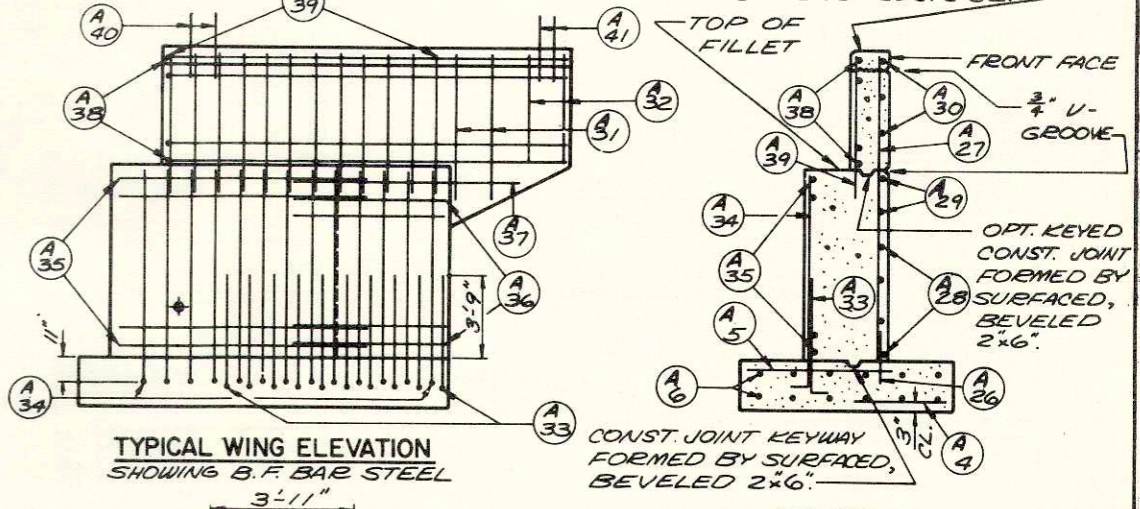
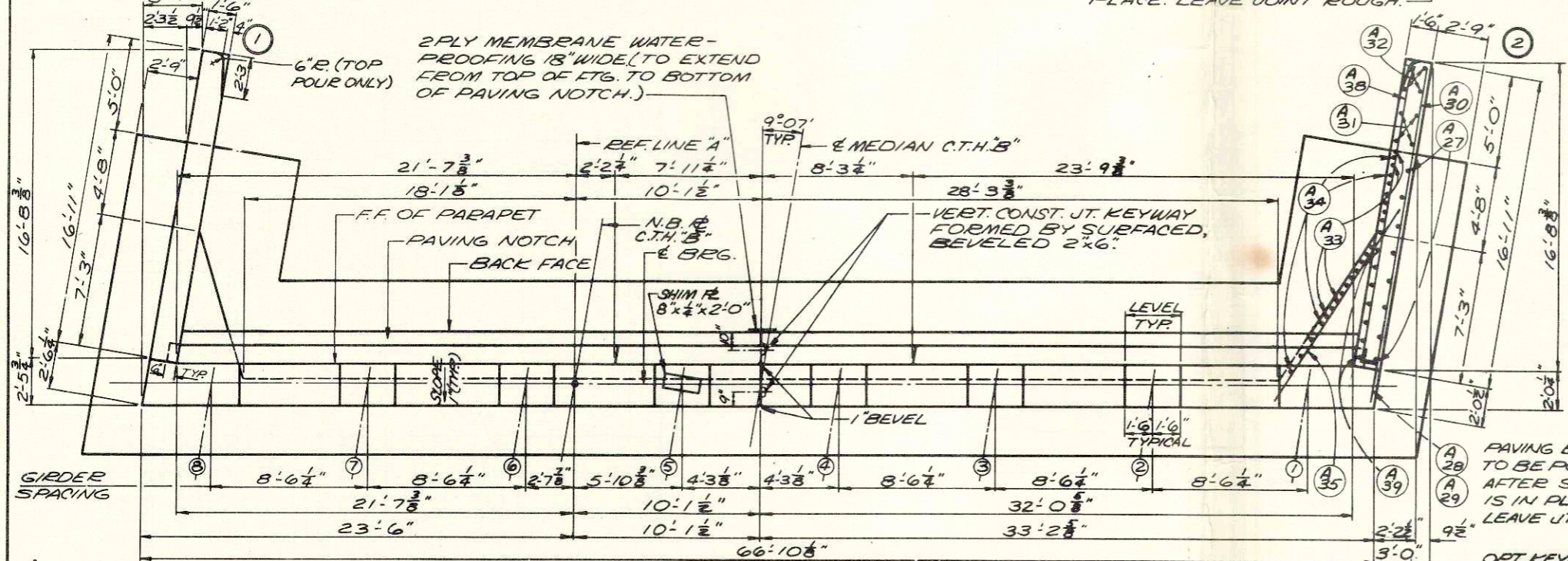
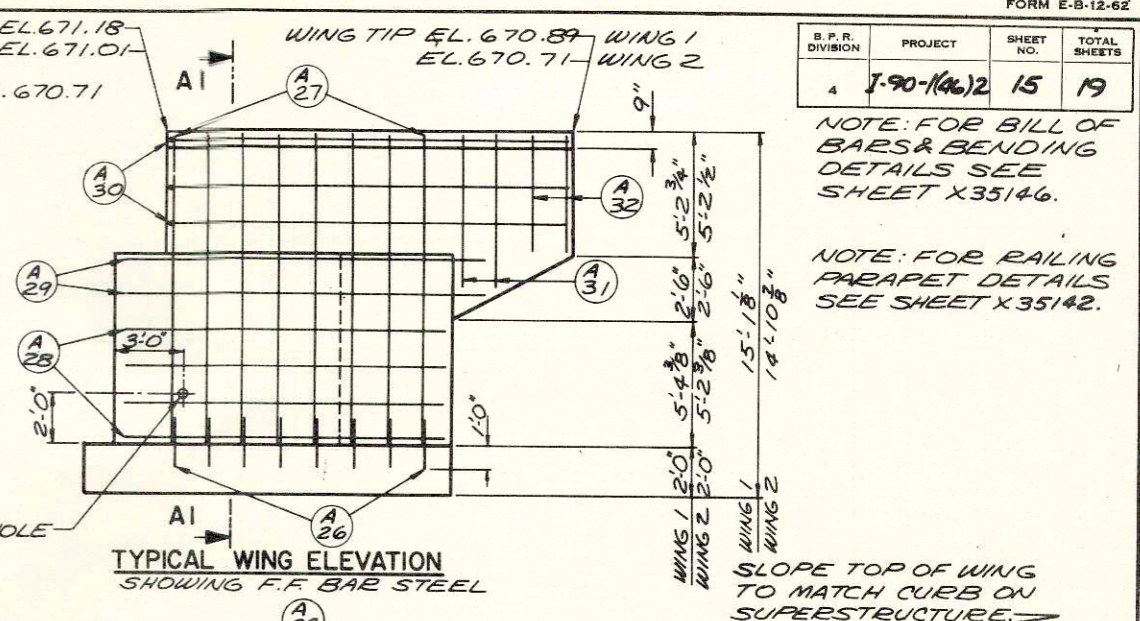
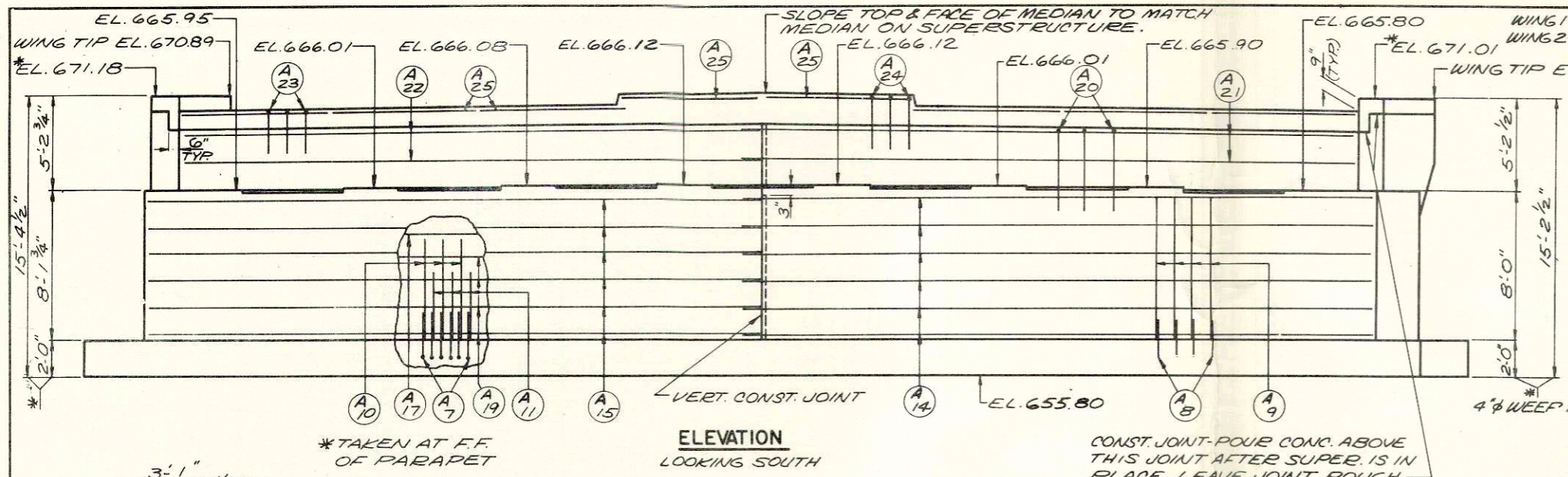
NOTE "A": FILL WITH NON-STAINING GRAY TWO COMPONENT POLYSULFIDE LIQUID POLYMER (GUN GRADE) WITH SURFACE PRIMER (CONFORMING TO A.S.A. - A-116.1-1960.)

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
RAIL PARAPET DETAILS	
DESIGN SPEC. AASHO '61	LOADING
DATE 6-3-66	DESIGN
STRUCTURE B-32-52	SHEET 8 OF 13

B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
1-90-1(46)2		15	19

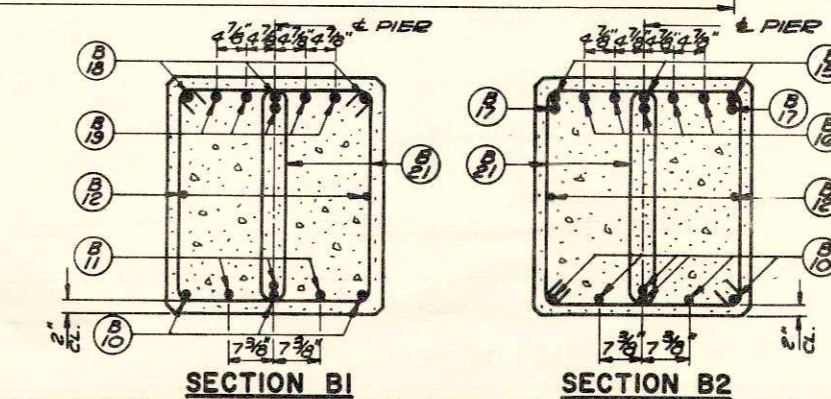
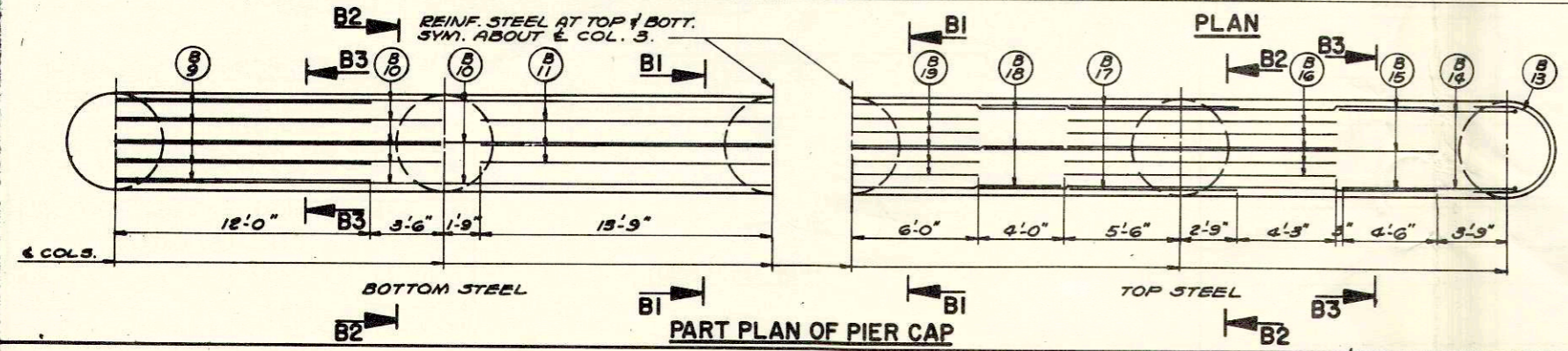
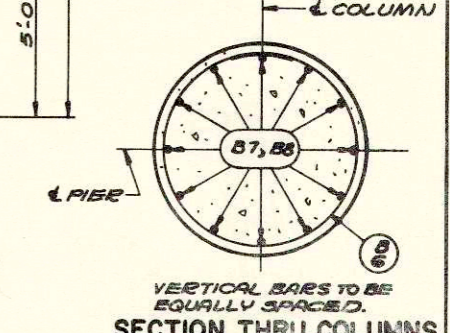
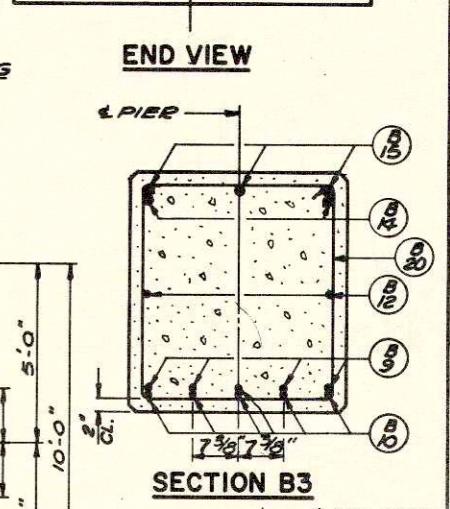
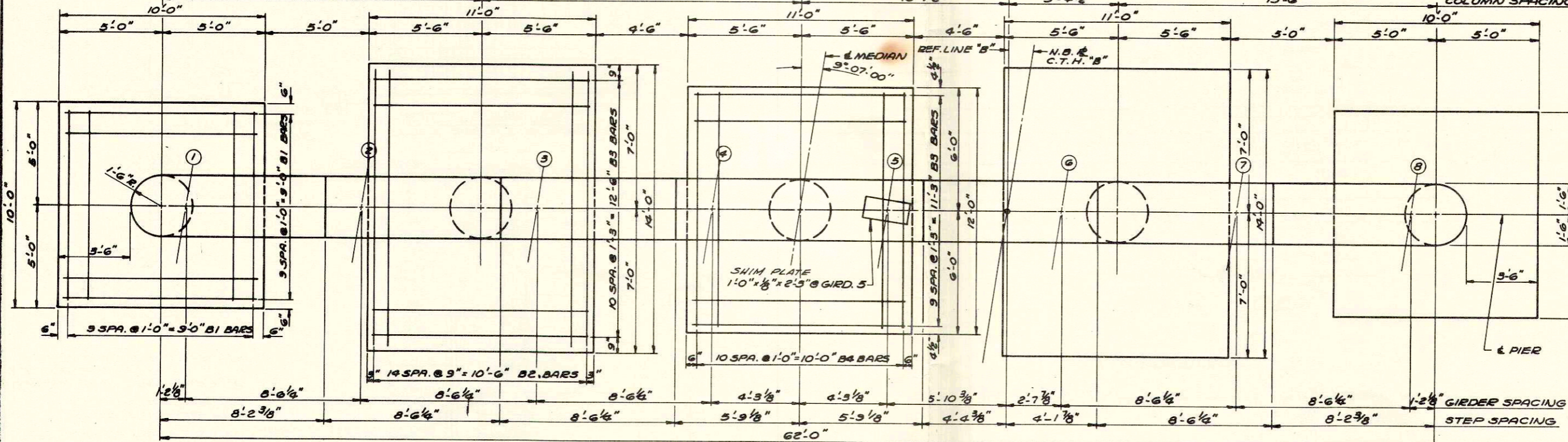
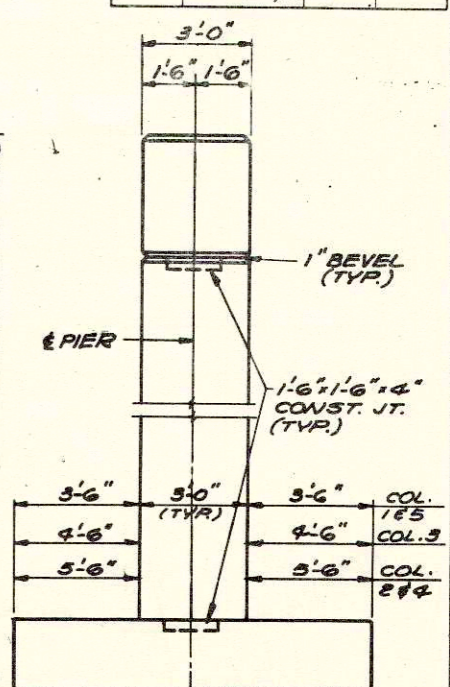
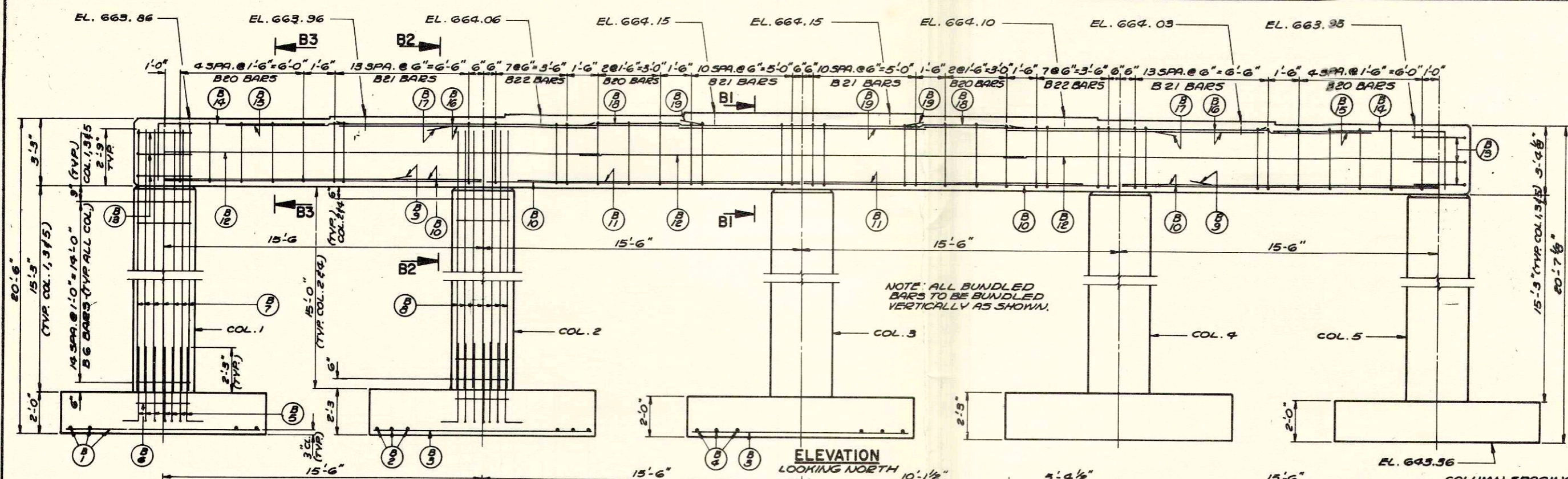
NOTE: FOR BILL OF BARS & BENDING DETAILS SEE SHEET X35146.

NOTE: FOR RAILING PARAPET DETAILS SEE SHEET X35142.



REVISION	STATE HIGHWAY COMMISSION OF WISCONSIN
SOUTH ABUTMENT	
DESIGN SPEC. A.A.S.H.O. 6/1	LOADING HS20
DATE 6-3-66	DESIGN D.F.S. DRAWN J.H.G. CKD. J.
CONSTR. SPEC. 1963	
STRUCTURE B-32-52	SHEET 9 OF

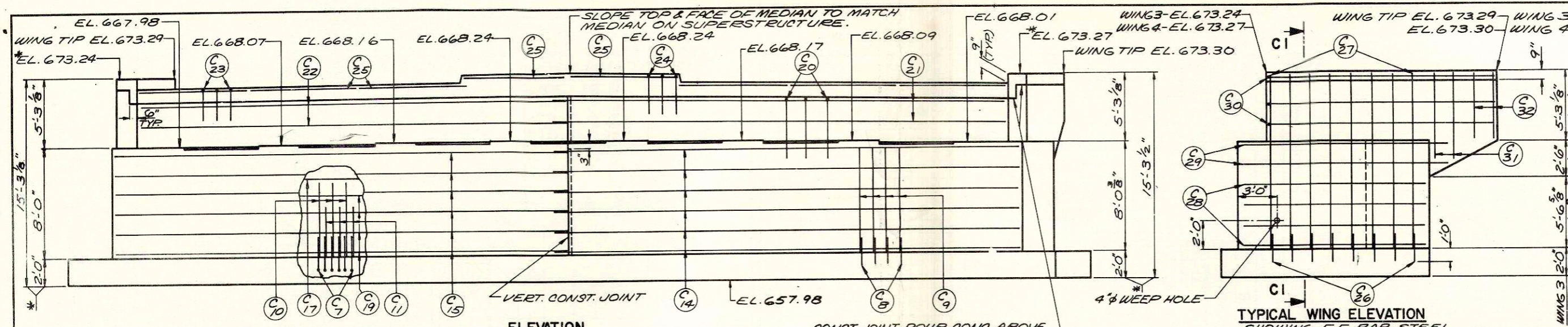
B.P.R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
1-90-1(46)2	16	19	



NOTE: FOR BILL OF BARS AND BENDING DETAILS SEE SH. X35146

ESTIMATED CONCRETE MASONRY	
FOOTINGS	50.3 C.Y.
COLUMNS	19.8 C.Y.
CAP	24.3 C.Y.
TOTAL	94.4 C.Y.

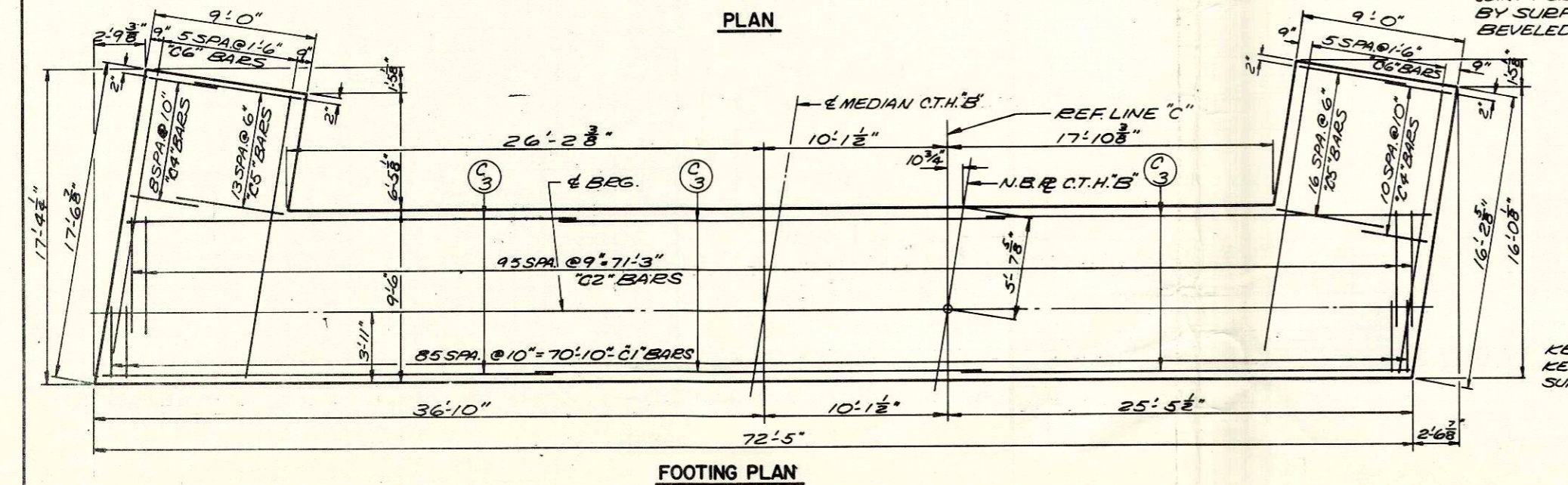
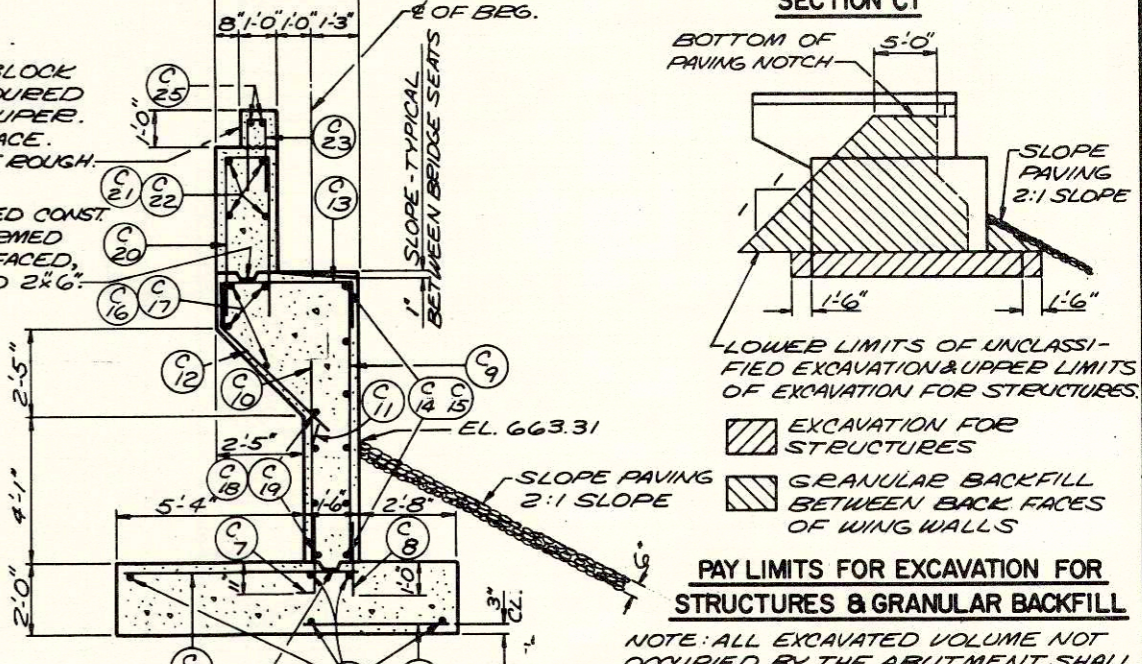
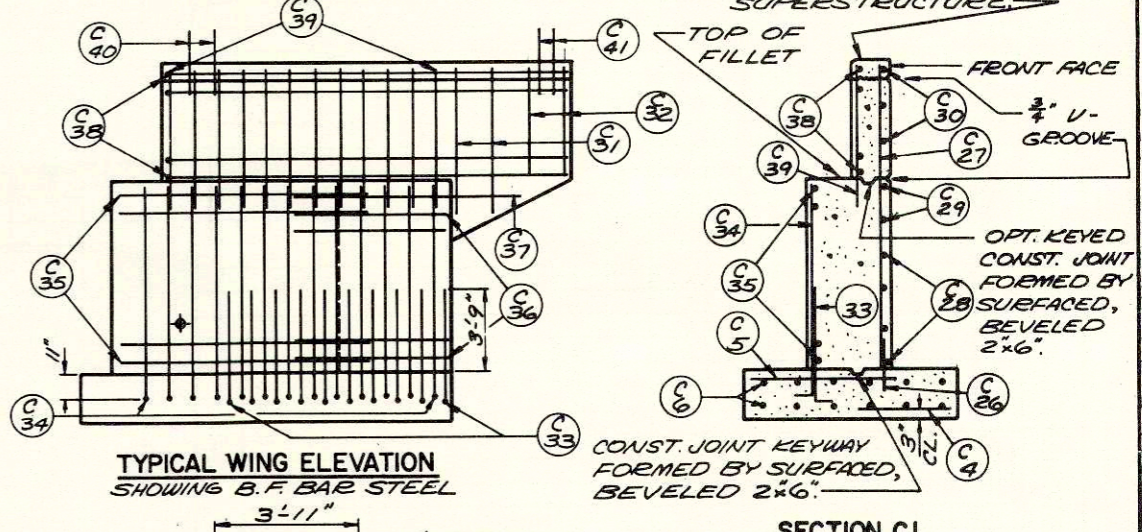
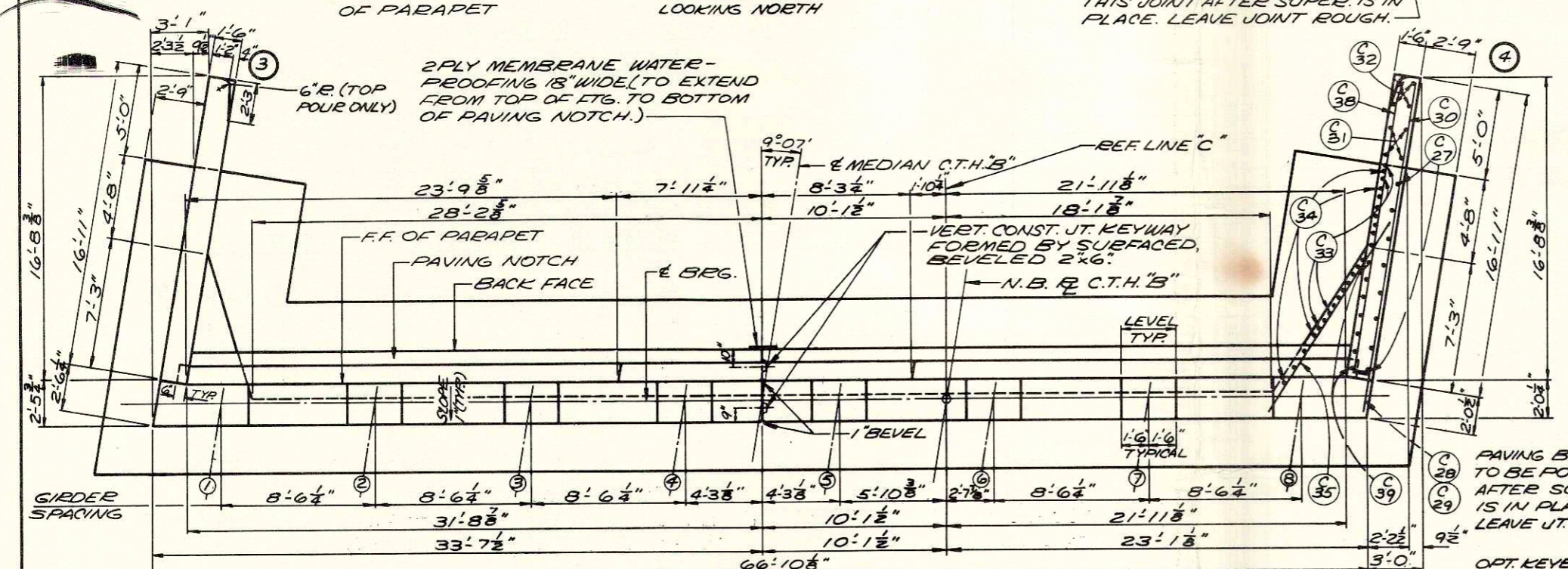
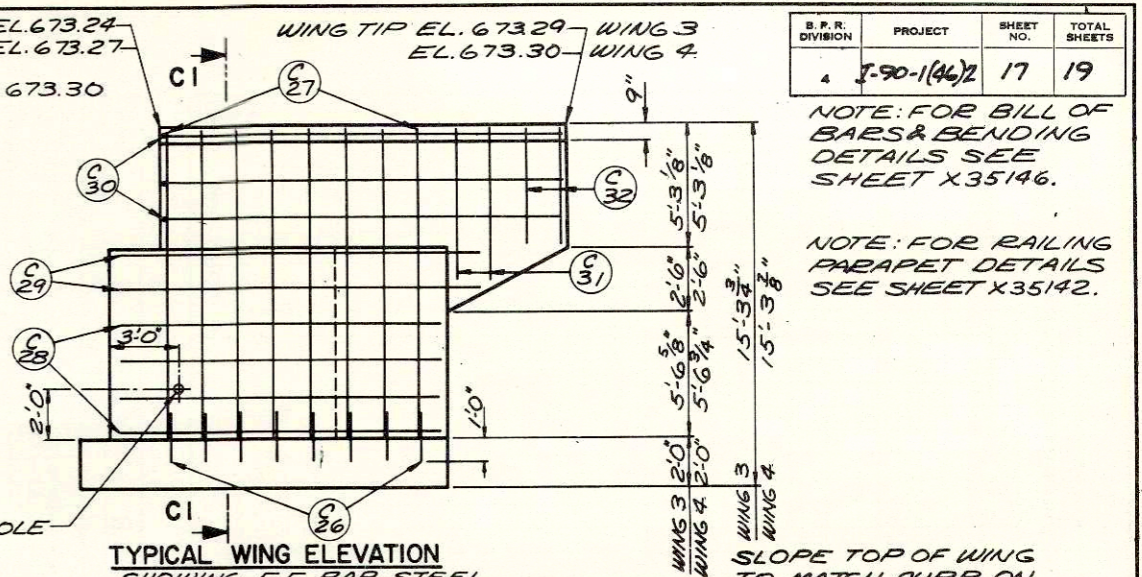
REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	PIER		
	DESIGN SPEC. AASHO '61	LOADING HS 20	CONST. 1963
	DATE 6-3-66	DESIGN D.F.S.	DRAWN CCF
	STRUCTURE B-32-52		SHEET 10 OF 13



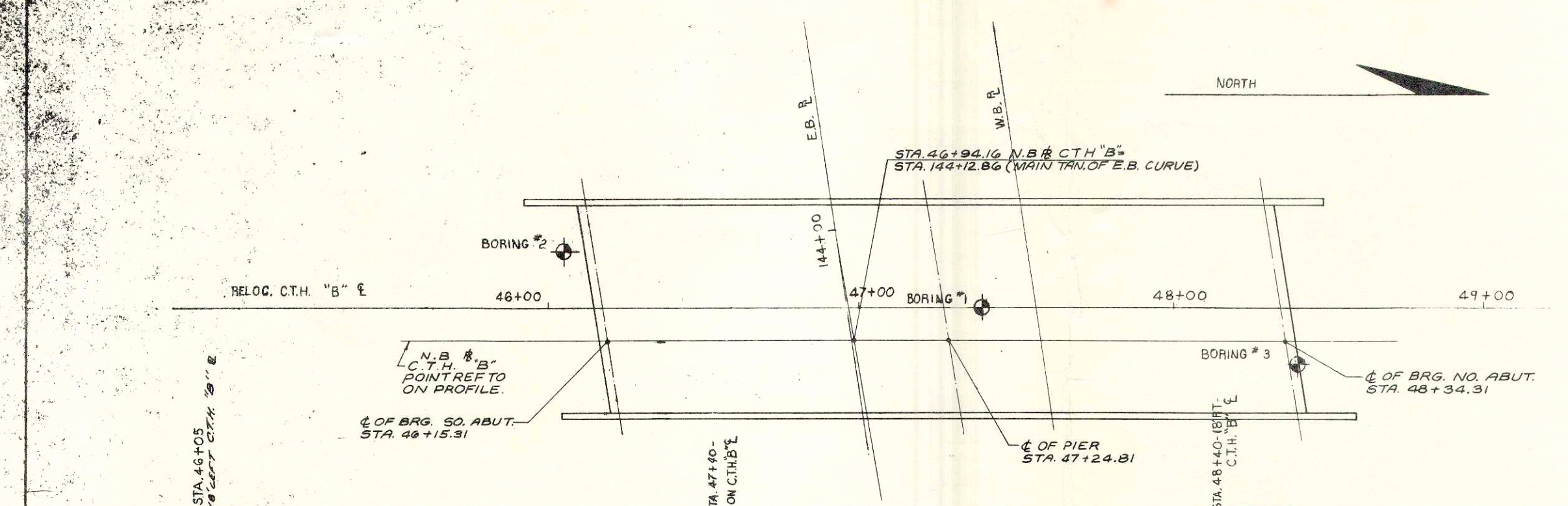
S. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
	1-90-1(4)2	17	19

NOTE: FOR BILL OF BARS & BENDING DETAILS SEE SHEET X35146.

NOTE: FOR RAILING PARAPET DETAILS SEE SHEET X35142.

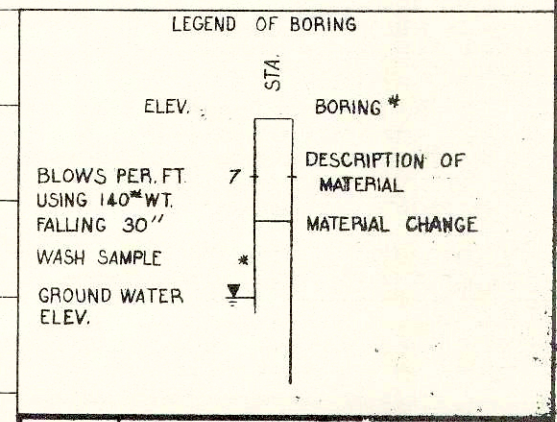
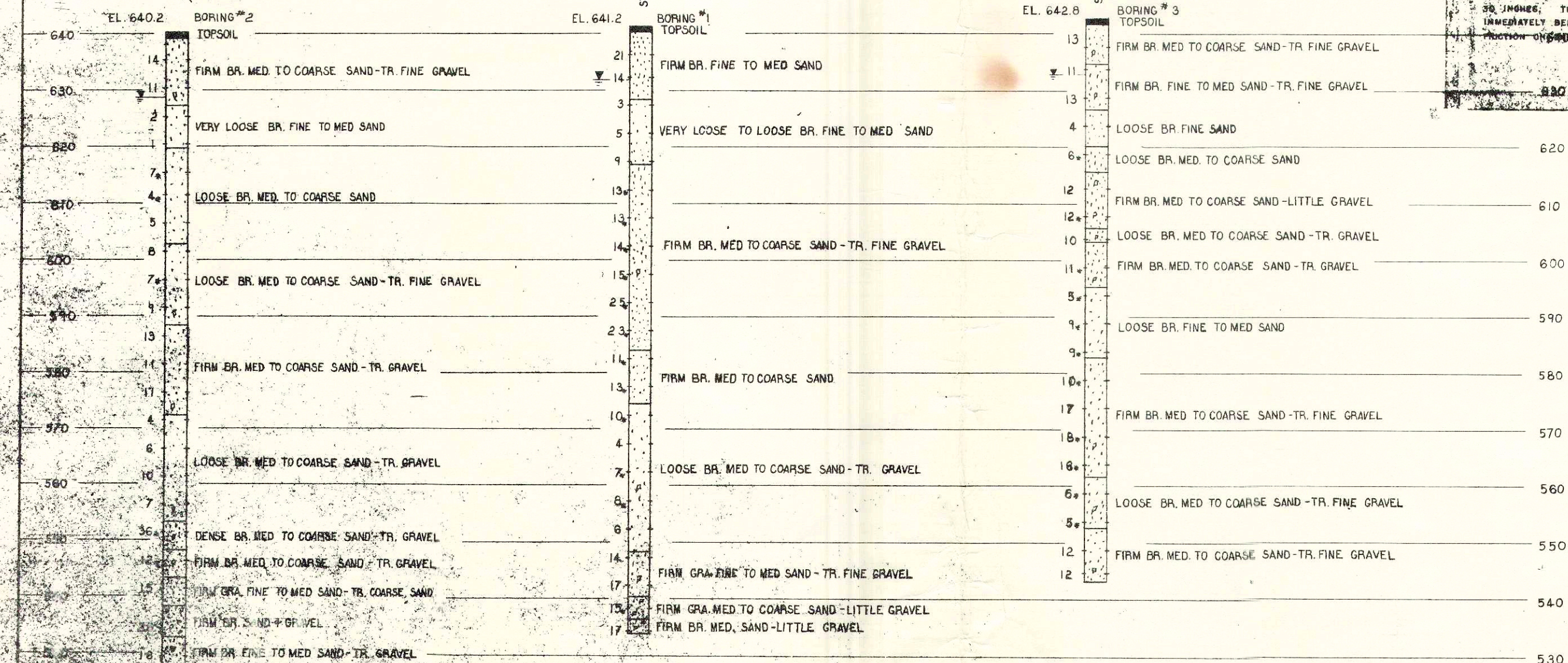


REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	NORTH ABUTMENT		
	DESIGN SPEC. A.A.S.H.O. 6/	LOADING MS20	CONET. 1963
	DATE 6-3-66	DESIGN D.F.S.	DRAWING H.G. CKD. H.E.A.
	STRUCTURE B-32-52		SHEET 11 OF 13



SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN

FOR THE DESIGN OF THE STRUCTURE FOUNDATION, TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIALS AND WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND TESTS 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 WERE 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 AS THE SITE WHERE THE FOUNDATIONS ARE BUILT MAY VARY SUBSTANTIALLY FROM THAT INDICATED BY THE LOG THEY ARE MADE AVAILABLE TO THE BIDDERS, THEREFORE, 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 OR IN MAKING HIS BID, IT IS HEREBY EXPRESSLY STipulated THAT THE COMMISSION ACCEPTS NO RESPONSIBILITY FOR SUCH DATA UNLESS OTHERWISE SPECIFIED. THE BIDDERS FOR PART OF THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" DIAMETER SPOON SAMPLER WITH A 140 LB. HAMMER HAVING A 30" FALL. THE BLOW COUNT IS TAKEN IN UNDISTURBED MATERIAL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING FRICTION ON THE DRIVE PIPE.



REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	SUBSURFACE EXPLORATION		
DESIGN SPEC. A.A.S.H.O. 6'	LOADING HS-20	DATE 12/63	
DATE 6-3-66	DESIGN D.F.S.	DRAWN M.A.B.	CHECK S.L.M.
STRUCTURE B-32-52	SHEET 13	OF 13	