

CUMBERLAND COUNTY

FEDERAL AID PROJECT NO. IN-95-4(2)

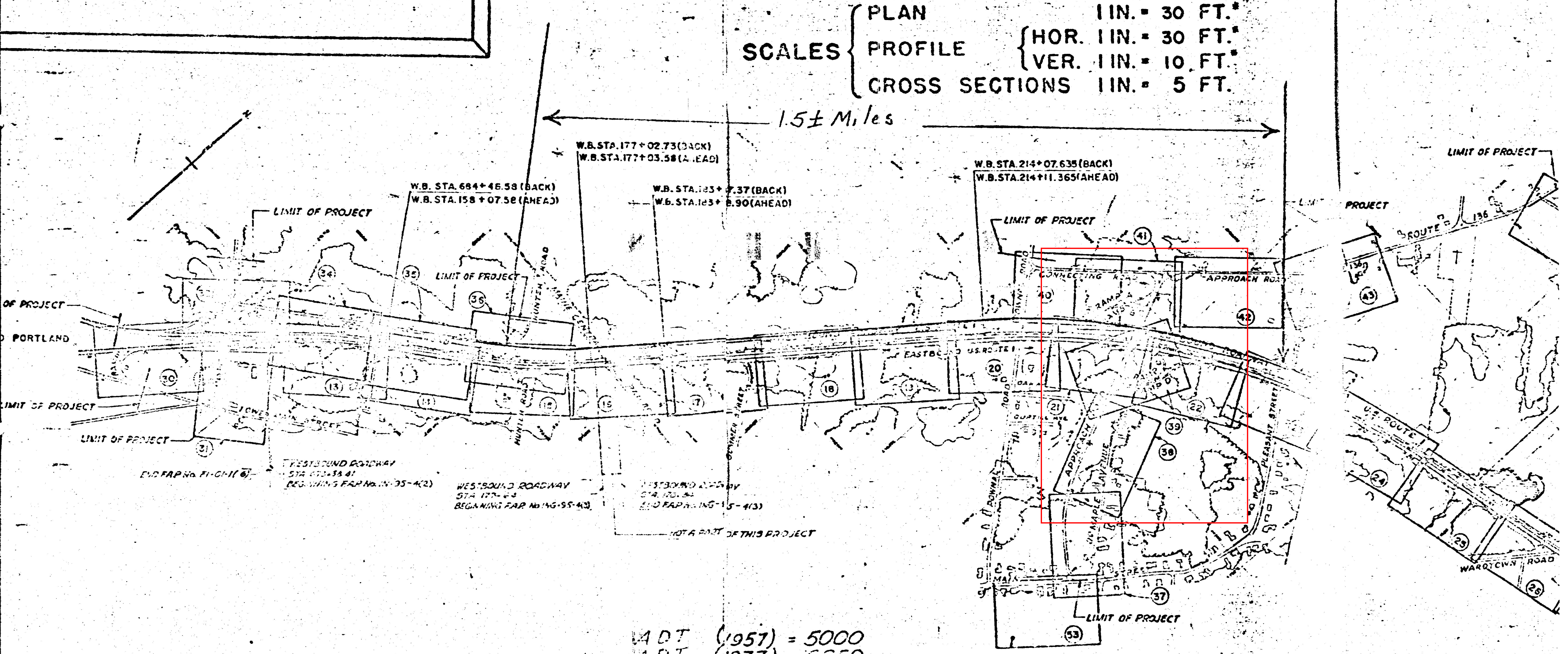
IN 01-1(15) - 1957

Missing Sheet 3 - assuming typical sections for ramps, I would consider the same as Ramp E

Note : project # different on title page and sheets

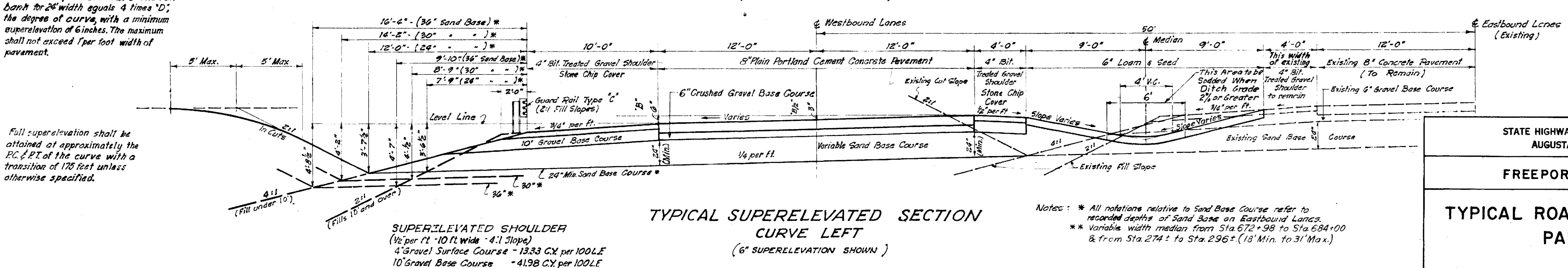
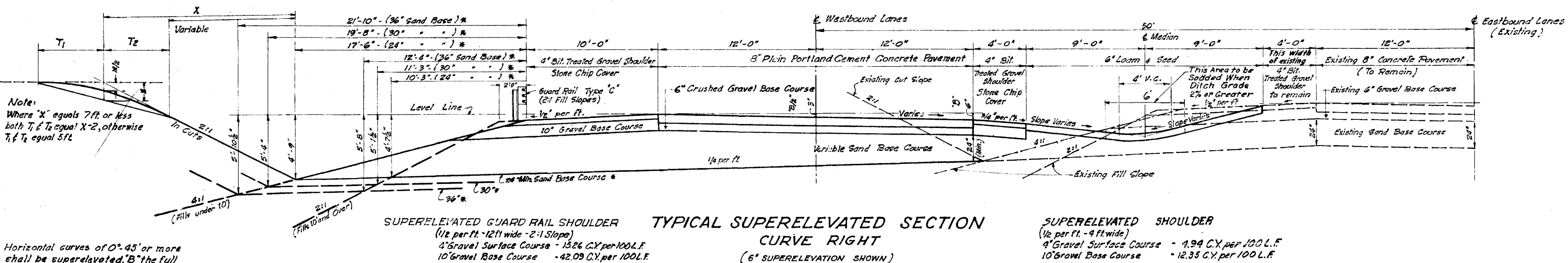
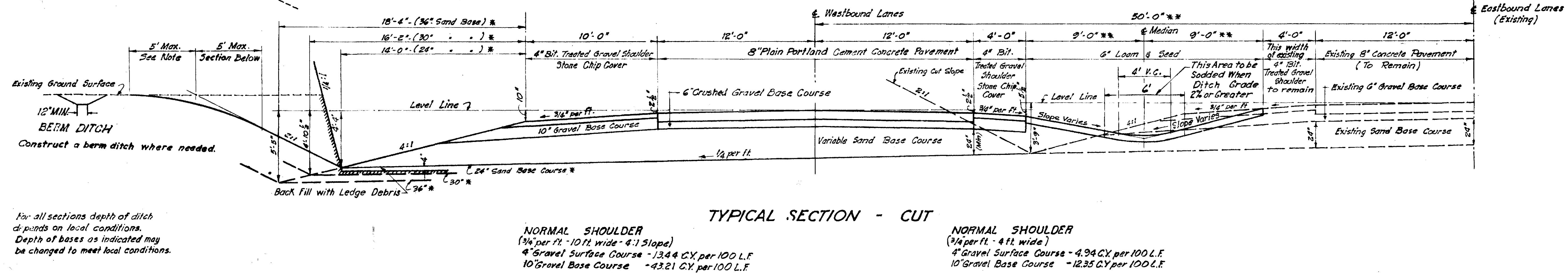
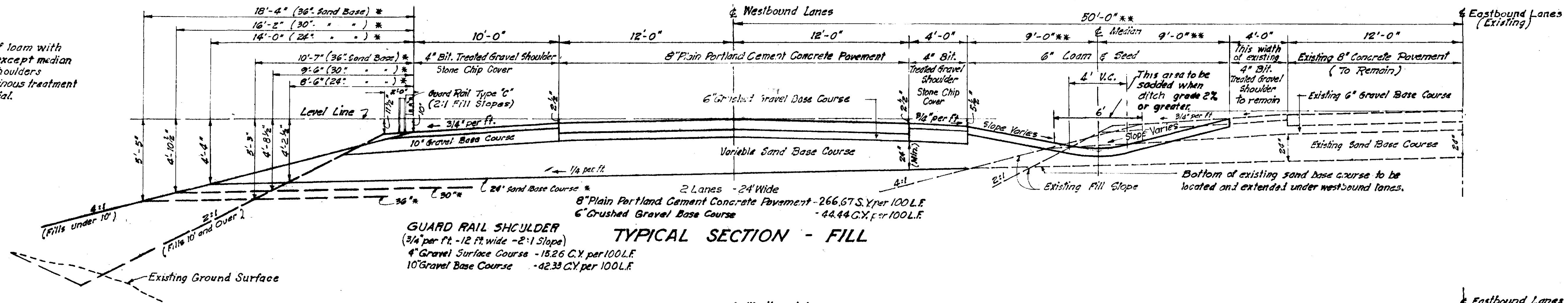
TOTAL LENGTH 2.801 MILES

PLAN 1 IN. = 30 FT.
 SCALES PROFILE { HOR. 1 IN. = 30 FT.
 VER. 1 IN. = 10 FT.
 CROSS SECTIONS 1 IN. = 5 FT.

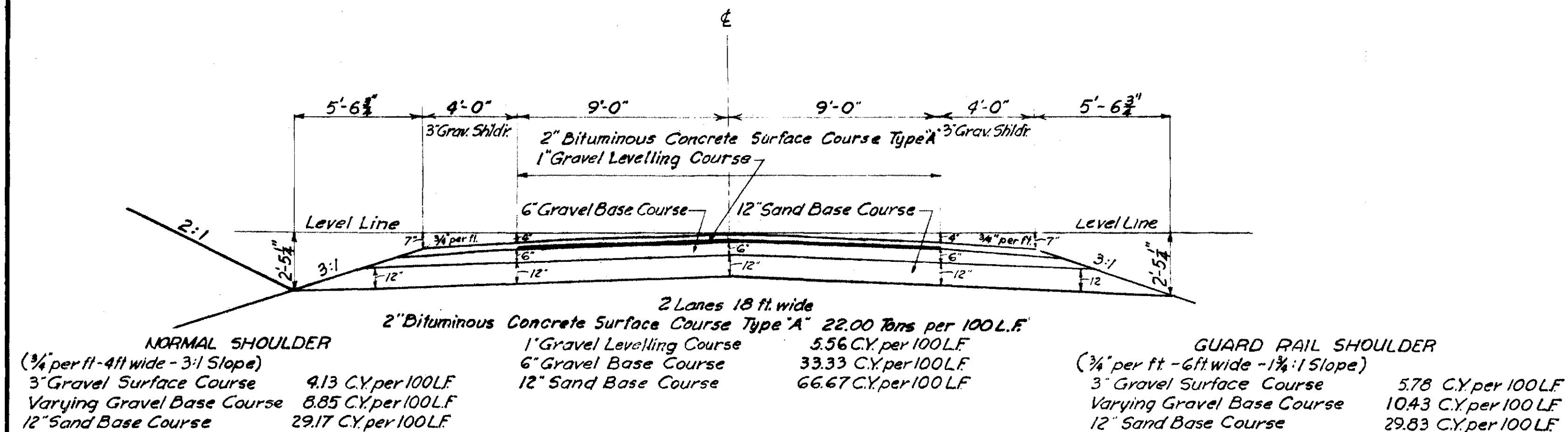


ADT	(1957)	=	5000
ADT	(1977)	=	6650
DHV		=	998
D		=	50%
T		=	11%
V		=	60

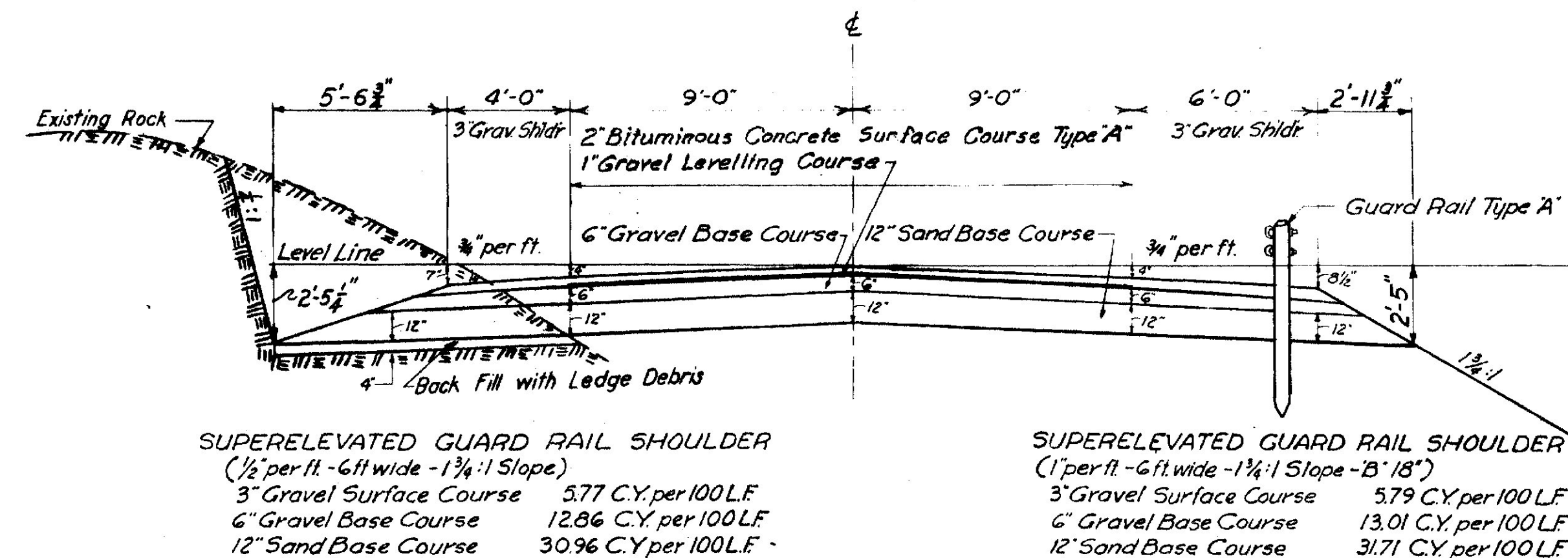
NOTE: Apply 2" depth of loam with seeding on all graded areas except median outside of shoulders - Treat shoulders full width with special bituminous treatment using stone chip cover material.



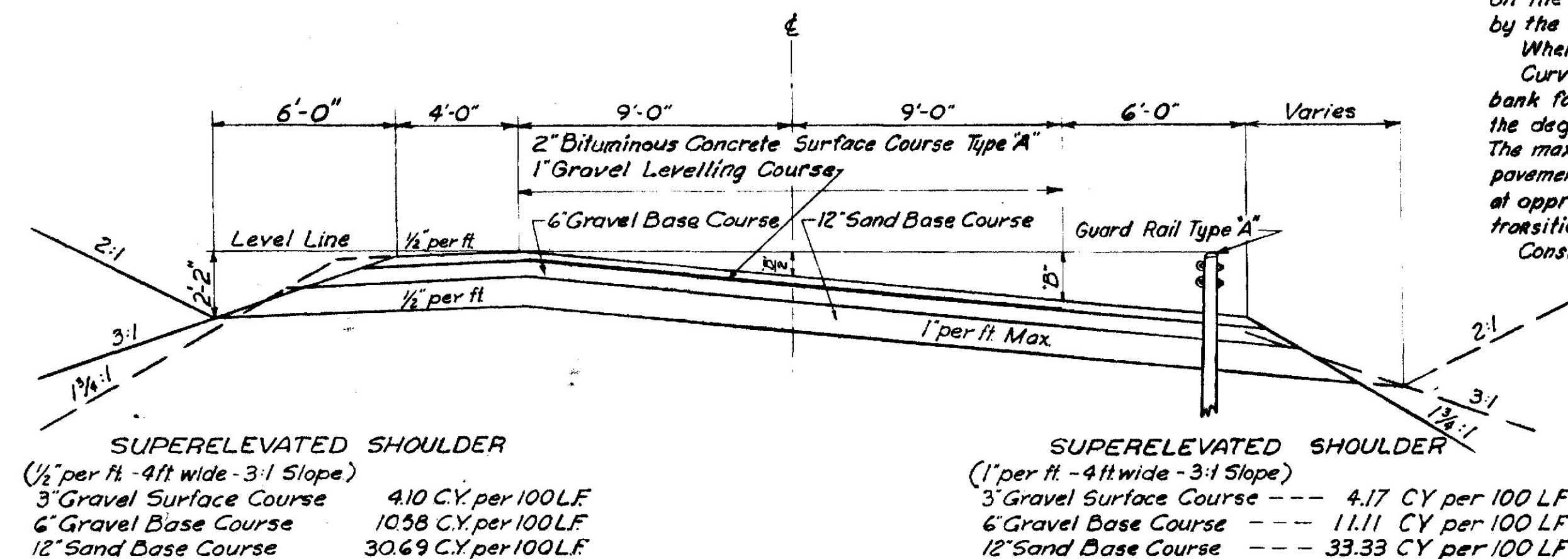
CONNECTING ROAD - RAMP "E" TO HUNTER RD.



TYPICAL SECTION - CUT & FILL



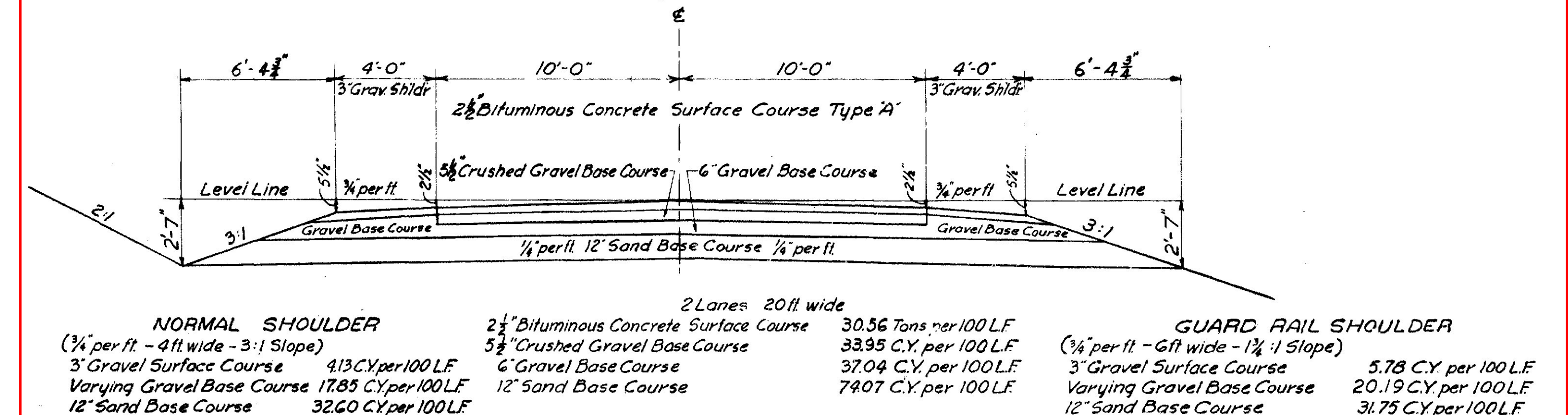
TYPICAL SECTION - ROCK & GUARD RAIL



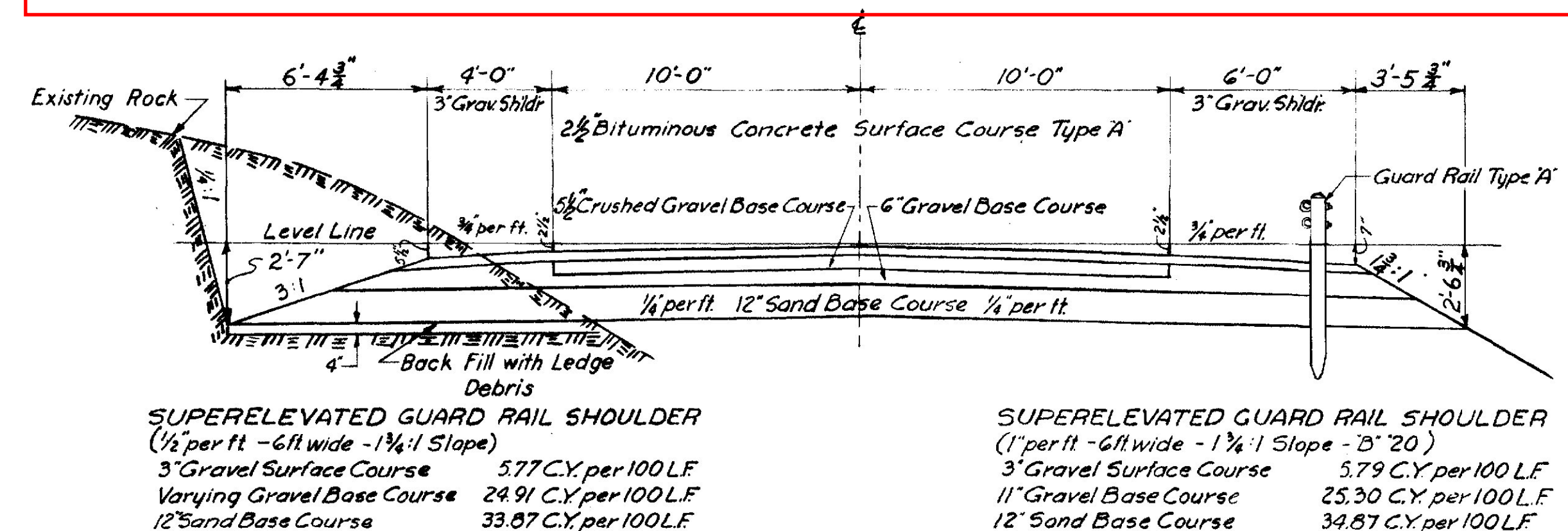
TYPICAL SECTION - SUPERELEVATED

CONNECTING ROAD - POWNAL RD TO APPROACH RD. & DURHAM ROAD (ROUTE 136) TO WARDTOWN RD. RAMP "E" TO MERRILL RD.

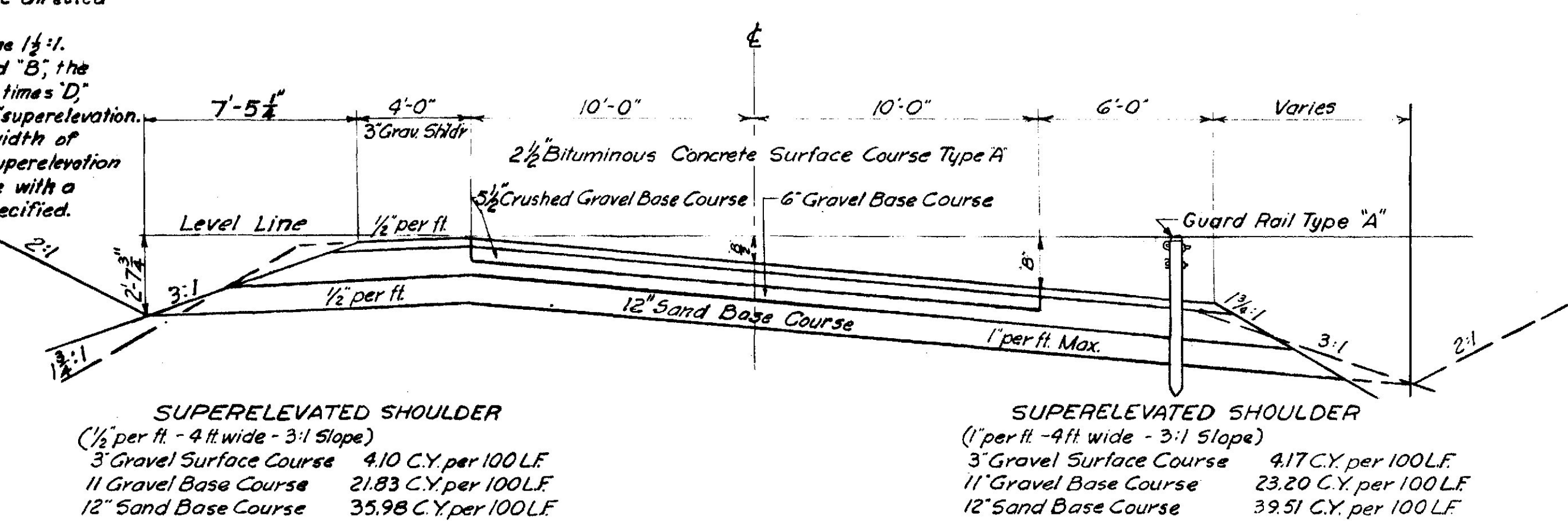
P. R. A.	STATE	FED. AID	SHEET	TOTAL
DIV. NO.	PROJ. NO.	NO.	NO.	SHEETS
1	MAINE	IN-01-1 (B)	4	240



TYPICAL SECTION - CUT & FILL



TYPICAL SECTION - ROCK & GUARD RAIL



TYPICAL SECTION SUPERELEVATED

Notes:
For all sections depth of ditch depends on local conditions.
Depth of bases as indicated may be changed to meet local conditions.
No loam and seeding nor treatment of shoulders on the connecting roads unless otherwise directed by the engineer.
Where 2:1 slope in cut is not practical use $1\frac{1}{2}$:1.
Curves over 1'00' shall be superelevated "B"; the bank for the width of pavement equals 4 times "D"; the degree of curve with a minimum of 6" super-elevation. The maximum shall not exceed 1" per foot width of pavement and all curves shall have full super-elevation at approximately the P.C. & P.T. of the curve with a transition of 150 feet unless otherwise specified. Construct a berm ditch where needed.

STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

FREEMONT BY-PASS

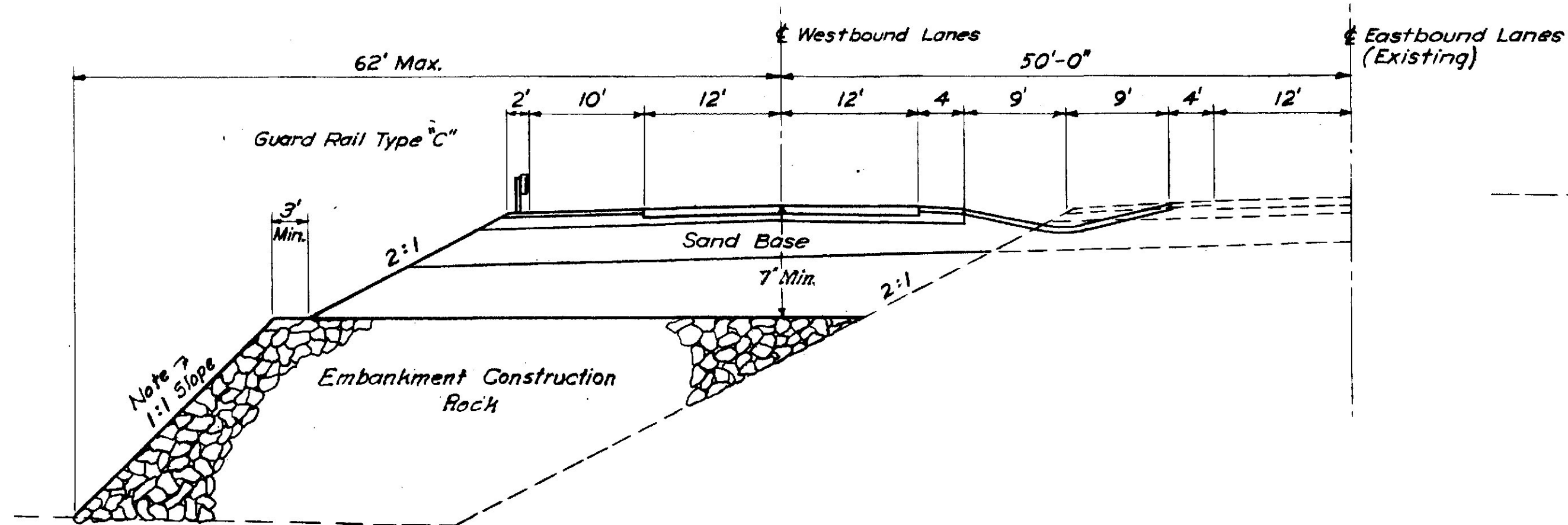
TYPICAL ROADWAY SECTIONS PART III

SHEET NO. 4 OF 240 SCALE: 1" = 4' AUG. 1956

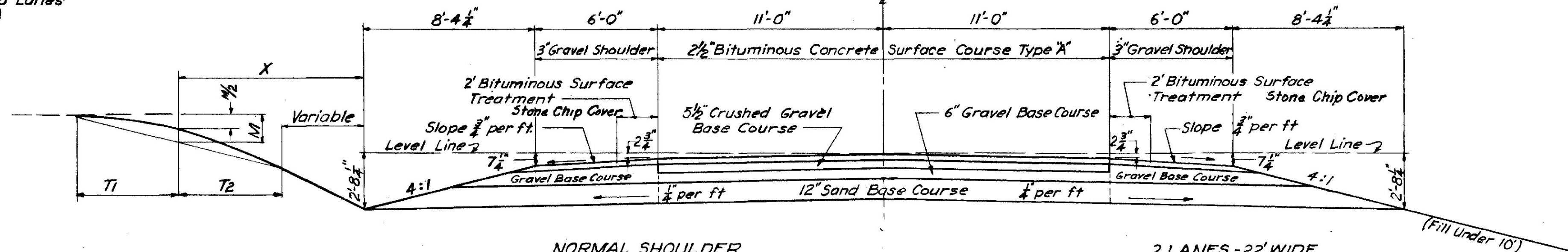
FAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS

12
15

C.M.F.
J.R.
P.L.P.
C.H.F.
H.J.W.



TYPICAL SECTION
WESTBOUND LANES
SHOWING SLOPE TREATMENT
STA. 262+15± TO STA. 262+85±
Scale: 1"=10'



Where X equals 7ft or less, both T₁ & T₂ equal X-2. Otherwise T₁ & T₂ equal 5ft. To avoid property damage and to save trees this formula may be modified.

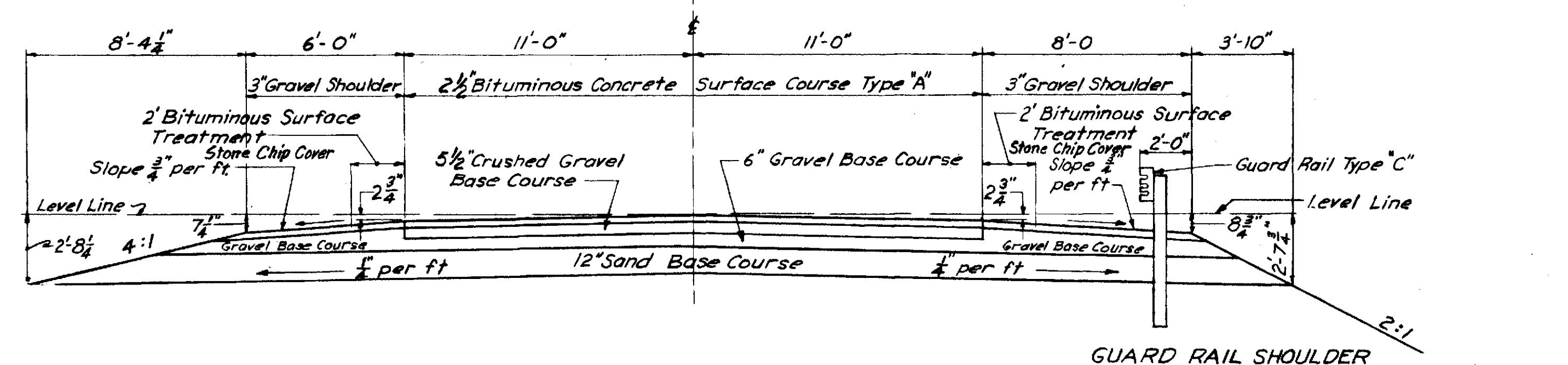
Where a 2:1 Slope in cuts is not practical use a 1 1/2:1

For all sections depth of ditch depends on local conditions. Depth of base as indicated may be changed to meet local conditions.

NORMAL SHOULDER
(3/4" per ft - 6ft wide - 4:1 Slope)
3" Gravel Surface Course 6.17 CY per 100 L.F.
Varying Gravel Base Course 23.76 CY per 100 L.F.
12" Sand Base Course 45.11 CY per 100 L.F.

2 LANES - 22' WIDE
2 1/2" Bituminous Concrete Surface Course 33.61 Tons per 100 L.F.
5 1/2" Crushed Gravel base Course 37.35 C.Y. per 100 L.F.
6" Gravel Base Course 40.74 C.Y. per 100 L.F.
12" Sand Base Course 81.48 C.Y. per 100 L.F.

TYPICAL SECTION - CUT & FILL
Scale - 1"=4'



GUARD RAIL SHOULDER
(3/4" per ft - 8ft wide - 2:1 Slope)
3" Gravel Surface Course 7.67 C.Y. per 100 L.F.
Varying Gravel Base Course 24.63 C.Y. per 100 L.F.
12" Sand Base Course 39.93 C.Y. per 100 L.F.

TYPICAL SECTION - GUARD RAIL
Scale - 1"=4'

Notes:
Apply 2" depth of loam with seeding on all graded areas outside of shoulders unless otherwise specified.
Except for shoulders, the quantities for pavement & bases are given below on the sq yd basis for required depth.

QUANTITIES PER SQUARE YARD
2 1/2" Bituminous Concrete Surface Course 0.1375 Tons
5 1/2" Crushed Gravel Base Course 0.1528 C.Y.
6" Gravel Base Course 0.1667 C.Y.
12" Sand Base Course 0.3333 C.Y.

STATE HIGHWAY COMMISSION AUGUSTA, MAINE		
FREEPORT BY-PASS		
TYPICAL ROADWAY SECTIONS PART IV		
SHEET NO. 5 OF 240	SCALE: AS NOTED	AUG. 1956

FAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS

LOAM AND SODDING			
STATION TO STATION		SIDE	REMARKS
WESTBOUND ROADWAY			
673+25	TO 675+25	RT.	SOD. GUTTER
158+00	TO 158+50	LT.	SOD. GUTTER
163+00	TO 163+50	LT.	SOD. GUTTER
165+50	TO 172+50	RT.	SOD. GUTTER
170+37	DITCH OUTLET	LT.	SOD. GUTTER
172+50	DITCH OUTLET	LT.	SOD. GUTTER
182+50	TO 188+00	LT.	SOD. GUTTER
182+50	TO 188+00	RT.	SOD. GUTTER
193+00	TO 204+50	RT.	SOD. GUTTER
194+50	DITCH OUTLET	LT.	SOD. GUTTER
195+50	TO 197+50	LT.	SOD. GUTTER
203+50	TO 205+50	LT.	SOD. GUTTER
207+00	TO 207+50	LT.	SOD. GUTTER
209+50	TO 210+00	LT.	SOD. GUTTER
231+50	TO 232+50	LT.	SOD. GUTTER
239+00	TO 243+00	LT.	BERM SOD GUTTER
244+00	DITCH OUTLET	LT.	SOD. GUTTER
249+00	TO 249+50	LT.	SOD. GUTTER
248+50	TO 260+50	RT.	SOD. GUTTER
251+50	TO 253+00	LT.	SOD. GUTTER
254+00	TO 257+00	LT.	BERM SOD. GUTTER
254+50	TO 259+00	LT.	SOD. GUTTER
258+00	TO 259+00	LT.	BERM SOD. GUTTER
260+50	TO 262+35,	LT.	SOD. GUTTER
260+50	BERM DITCH OUTLET	LT.	SOD. GUTTER
262+60	TO 265+00	LT.	SOD. GUTTER
263+50	TO 267+00	RT.	SOD. GUTTER
266+50	TO 267+00	LT.	SOD. GUTTER
268+50	TO 269+00	LT.	SOD. GUTTER
273+00	TO 273+50	LT.	SOD. GUTTER
273+50	TO 274+00	LT.	BERM SOD. GUTTER
273+50	BERM DITCH OUTLET	LT.	SOD. GUTTER
276+50	TO 277+00	LT.	SOD. GUTTER
280+50	TO 281+00	LT.	SOD. GUTTER
281+00	TO 284+50	LT.	BERM SOD. GUTTER
287+00	TO INLET	LT.	SOD. GUTTER
MERRILL ROAD INTERCHANGE			
RAMP G			
12+50	TO 14+00	LT.	SOD. GUTTER (MAIN STREET)
1+50	TO 2+90	LT.	SOD. GUTTER
135+50	TO 138+25	RT.	SOD. GUTTER (EASTBOUND LANE)
MERRILL ROAD RELOCATED			
2+00	TO 4+00	LT.	SOD. GUTTER
2+00	TO 4+75	RT.	SOD. GUTTER
6+00	TO 7+20	LT.	SOD. GUTTER
5+25	TO 7+80	RT.	SOD. GUTTER
11+00	TO 11+60	LT.	SOD. GUTTER
12+50	TO 13+10	LT.	SOD. GUTTER
12+50	TO 13+10	RT.	SOD. GUTTER
RAMP E			
6+00	TO 8+90	LT.	SOD. GUTTER
5+00	TO 7+80	RT.	SOD. GUTTER
RAMP F			
0+80	TO 2+75	RT.	SOD. GUTTER
APPROACH ROAD INTERCHANGE			
RAMP A			
2+25	TO 4+50	RT.	SOD. GUTTER
6+00	TO 7+50	RT.	SOD. GUTTER
8+50	TO 10+50	RT.	SOD. GUTTER
9+25	TO 9+75	LT.	SOD. GUTTER
4+50	TO 7+50	LT.	MEDIAN
RAMP B			
0+00	TO 3+25	RT.	SOD. GUTTER
2+50	TO 2+75	LT.	SOD. GUTTER
4+00	TO 7+00	LT.	MEDIAN
RAMP C			
2+50	TO 3+25	LT.	SOD. GUTTER
2+50	TO 3+50	RT.	SOD. GUTTER
4+50	TO 7+50	LT.	MEDIAN

LOAM AND SODDING			
STATION TO STATION		SIDE	REMARKS
APPROACH ROAD INTERCHANGE CONTINUED			
RAMP D			
1+25	TO 5+00	RT.	SOD. GUTTER
3+00	TO 6+00	LT.	MEDIAN
APPROACH ROAD			
1+50	TO 1+80	LT.	SOD. GUTTER
1+50	TO 1+80	RT.	SOD. GUTTER
3+50	TO 10+50	LT.	SOD. GUTTER
3+50	TO 10+50	RT.	SOD. GUTTER
12+00	TO 15+00	RT.	SOD. GUTTER
18+50	TO 24+25	LT.	SOD. GUTTER
26+00	TO 26+50	RT.	SOD. GUTTER
27+00	TO 31+00	RT.	SOD. GUTTER
232+00	TO 232+50	LT.	SOD. GUTTER
233+50	TO 234+50	LT.	SOD. GUTTER
235+00	TO 240+00	RT.	SOD. GUTTER
238+20	TO 239+80	LT.	SOD. GUTTER
245+25	TO 245+80	LT.	SOD. GUTTER
246+00	TO 249+00	RT.	SOD. GUTTER
246+40	TO 247+60	LT.	SOD. GUTTER
249+20	TO 249+75	RT.	SOD. GUTTER
247+80	TO 248+75	LT.	SOD. GUTTER
CONNECTING ROAD-MERRILL		ROAD TO HUNTER ROAD	
144+50	DITCH INLET	RT.	SOD. GUTTER
146+00	TO 146+50	RT.	SOD. GUTTER
148+50	TO 149+00	LT.	SOD. GUTTER
156+25	TO 157+00	LT.	SOD. GUTTER
156+50	TO 157+50	RT.	SOD. GUTTER
165+00	TO 168+50	RT.	SOD. GUTTER
170+50	TO 171+00	RT.	SOD. GUTTER
CONNECTING ROAD-POWNAL		ROAD TO APPROACH ROAD	
1+25	TO 2+25	LT.	SODDING IN LIEU OF BERM DITCH
4+15	TO 4+65	LT.	SOD. GUTTER
7+50	TO 11+15	RT.	SOD. GUTTER
8+00	TO 8+25	LT.	SOD. GUTTER
11+60	TO 232+00*	LT.	SOD. GUTTER* APPROACH ROAD
CONNECTING ROAD-ROUTE 136		TO WARDTOWN ROAD	
7+00	TO 8+00	LT.	SOD. GUTTER
8+00	TO 9+50	RT.	SOD. GUTTER
9+00	TO 10+00	LT.	SOD. GUTTER
17+50	TO 18+00	LT.	SOD. GUTTER
20+00	TO 20+50	LT.	SOD. GUTTER
26+50	TO 27+50	LT.	BERM SOD. GUTTER
30+85	TO 32+90	LT.	SOD. GUTTER
32+60	TO 33+15	RT.	SOD. GUTTER

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	QUANTITY	UNIT
201-5	CLEARING	42	ACRES
202-5	REMOVING TREES (9" TO 24")	62	EACH
202-6	REMOVING TREES (OVER 24")	8	EACH
203-9	EARTH EXCAVATION	141,000	CU. YDS.
203-10	ROCK EXCAVATION	20,000	CU. YDS.
204-10	STRUCTURAL EARTH EXCAVATION-DRAINAGE	5,500	CU. YDS.
204-11	STRUCTURAL ROCK EXCAVATION-DRAINAGE	200	CU. YDS.
204-12	STRUCTURAL EARTH EXCAVATION-ABUTMENTS AND RETAINING WALLS	280	CU. YDS.
204-14	STRUCTURAL EARTH EXCAVATION-PIERS	370	CU. YDS.
204-15	STRUCTURAL ROCK EXCAVATION-PIERS	25	CU. YDS.
204-16	STRUCTURAL EARTH EXCAVATION-CHANNEL	1,300	CU. YDS.
205-9	GRANULAR BORROW	187,000	CU. YDS.
301-8	SAND BASE COURSE-PIT MEASUREMENT	145,000	CU. YDS.
302-7	GRAVEL BASE COURSE-IN PLACE MEASUREMENT	27,000	CU. YDS.
302-8	SCREENING GRAVEL BASE COURSE-IN PLACE MEASUREMENT	13,500	CU. YDS.
302-9	CRUSHED GRAVEL BASE COURSE-IN PLACE MEASUREMENT	14,500	CU. YDS.
308-5	OVERHAUL (IN PLACE MEASURE)	41,500	YD. MILES
309-5	STRIPPING PITS	19,000	CU. YDS.
310-6	SPRINKLING (1,000 GAL. UNITS)	730	UNITS
311-6	CALCIUM CHLORIDE	45	TONS
401-11	GRAVEL SURFACE COURSE	4,900	CU. YDS.
402-16	STONE CHIPS	290	TONS
404-28	BITUMINOUS CONCRETE SURFACE COURSE (TYPE A)	8,700	TONS
405-18	PLAIN PORTLAND CEMENT CONCRETE PAVEMENT	40,000	SQ. YDS.
405-20	REINFORCED PORTLAND CEMENT CONCRETE APPROACH SLAB	185	SQ. YDS.
501-7	ROAD TAR	60,000	GALS.
601-10	12-INCH CORRUGATED METAL PIPE	60	LIN. FT.
601-11	15-INCH CORRUGATED METAL PIPE	230	LIN. FT.
601-14	24-INCH CORRUGATED METAL PIPE	90	LIN. FT.
602-12	18-INCH ASPHALT COATED CORRUGATED METAL PIPE	2,340	LIN. FT.
602-14	24-INCH ASPHALT COATED CORRUGATED METAL PIPE	645	LIN. FT.
602-15	30-INCH ASPHALT COATED CORRUGATED METAL PIPE	225	LIN. FT.
602-16	36-INCH ASPHALT COATED CORRUGATED METAL PIPE	200	LIN. FT.
602-17	42-INCH ASPHALT COATED CORRUGATED METAL PIPE	260	LIN. FT.
602-20	60-INCH ASPHALT COATED CORRUGATED METAL PIPE (10 GAGE)	70	LIN. FT.
602-21	72-INCH ASPHALT COATED CORRUGATED METAL PIPE	70	LIN. FT.
603-10	12-INCH REINFORCED CONCRETE PIPE	104	LIN. FT.
603-12	18-INCH REINFORCED CONCRETE PIPE	2,630	LIN. FT.
603-13	24-INCH REINFORCED CONCRETE PIPE	270	LIN. FT.
603-15	36-INCH REINFORCED CONCRETE PIPE	115	LIN. FT.
603-22	24-INCH EXTRA STRENGTH REINFORCED CONCRETE PIPE	65	LIN. FT.
603-23	30-INCH EXTRA STRENGTH REINFORCED CONCRETE PIPE	115	LIN. FT.
605-19	MANHOLES TYPE A	2	EACH
605-24	DROP INLETS TYPE A MODIFIED	46	EACH
605-26	CATCH BASINS TYPE A MODIFIED	5	EACH
605-27	CATCH BASINS TYPE C MODIFIED	7	EACH
605-28	CATCH BASINS TYPE D MODIFIED	1	EACH
606-10	UNDERDRAINS TYPE B	1,100	LIN. FT.
606-16	UNDERDRAIN OUTLETS	140	LIN. FT.
701-33	PORTLAND CEMENT CONCRETE, ABUTMENTS AND RETAINING WALLS	1,250	CU. YDS.

ESTIMATED QUANTITIES (CONT.)			
ITEM	DESCRIPTION	QUANTITY	UNIT
701-37	PORTLAND CEMENT CONCRETE, SUBSTRUCTURE, COLUMNS, COLUMN BASES, BENTS, COLLISION WALLS, GIRDERS, STRUTS, ECT.	195	CU. YDS.
701-40	PORTLAND CEMENT CONCRETE, ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES	405	CU. YDS.
701-45	PORTLAND CEMENT CONCRETE, CULVERT END WALLS	80	CU. YDS.
701-47	PORTLAND CEMENT	2,703	BBLS.
701-50	PORTLAND CEMENT CONCRETE-FILL	80	CU. YDS.
702-103	STRUCTURAL STEEL, FABRICATED AND DELIVERED	372,000	POUNDS
702-104	STRUCTURAL STEEL-ERECTION	372,000	POUNDS
703-9	BRONZE OR COPPER ALLOY BEARING AND EXPANSION PLATES, DELIVERED	560	POUNDS
703-10	BRONZE OR COPPER ALLOY BEARING AND EXPANSION PLATES, PLACING	560	POUNDS
704-13	60-INCH ASPHALT COATED STRUCTURAL PLATE PIPE (10-GAGE)	34	LIN. FT.
705-13	REINFORCING STEEL, DELIVERED	177,000	POUNDS
705-14	REINFORCING STEEL, PLACING	177,000	POUNDS
710-1	DAMP PROOFING	525	SQ. YDS.
705-17	SHEAR CONNECTORS	L.S.	L.S.
708-21	CAST IN PLACE CONCRETE PILES	3,900	LIN. FT.
709-1	MEMBRANE WATERPROOFING	1,130	SQ. YDS.
804-6	FRENCH DRAINS	500	CU. YDS.
805-8	BRIDGE RAIL, DELIVERED AND ERECTED	840	LIN. FT.
901-10	GRANITE CURB-TYPE II	2,080	LIN. FT.
901-11	GRANITE CURB-TYPE II-CIRCULAR	20	LIN. FT.
901-14	GRANITE EDGING	2,670	LIN. FT.
901-15	GRANITE EDGING-CIRCULAR	170	LIN. FT.
905-23	GUARD RAIL TYPE A	980	LIN. FT.
905-25	GUARD RAIL TYPE C	2,560	LIN. FT.
905-27	GUARD RAIL TYPE E	3,900	LIN. FT.
905-30	GUARD RAIL TYPE H	224	LIN. FT.
905-31	ANCHORAGES FOR TYPE A GUARD RAIL	14	EACH
905-32	ANCHORAGES FOR TYPE C GUARD RAIL	34	EACH
905-34	END-WINGS	22	EACH
905-35	GUARD POSTS TYPE A	40	EACH
905-37	BRIDGE ANCHORAGES	8	EACH
905-38	RELOCATED GUARD RAIL TYPE C	2,560	LIN. FT.
906-18	FENCING, METAL POSTS	7,900	LIN. FT.
906-20	BARWAYS, METAL POSTS	4	EACH
906-23	RELOCATED FENCING-METAL POSTS	3,800	LIN. FT.
907-10	HAND LAID RIPRAP	180	CU. YDS.
908-8	LOAM EXCAVATION	1,020	CU. YDS.
908-9	LOAM BORROW	12,300	CU. YDS.
909-7	SODDING	16,000	SQ. YDS.
910-9	SEEDING-ROADSIDE MIXTURE	1,315	UNITS
913-6	BITUMINOUS SLOPE STABILIZATION	2,850	GALS.
913-7	BITUMINOUS TREATED STONE SLOPE PROTECTION	360	SQ. YDS.
915-6	RIGHT OF WAY MONUMENTS	90	EACH
916-6	UNDERDRAIN OUTLET MARKERS	3	EACH
917-6	TRAFFIC OFFICERS	1,000	MAN-HRS
919-7	METAL SLUICE	145	LIN. FT.

STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

FREEPORT BY PASS

DISTRIBUTION OF QUANTITIES
PART I

SHEET NO. 6 OF 240 SCALE-NONE AUG. 1956

PAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS

ROADWAY CULVERTS						
STATION	SIZE	LENGTH OF R.C.P.	LENGTH OF CONC. COLLAR	CONCRETE D.I. TYPE A	REMARKS	
WESTBOUND ROADWAY						
675+50	18"	72'	28'	I	I	
679+50	18"	48'	32'	I	I	
683+75	18"	48'	38'	I	I	
164+50	18"	48'	26'	I	I	
167+975	18"	48'	10'	I	I	16' OF METAL SLUICE
170+40	18"	40'	32'	I	I	
172+50	18"	48'	32'	I	I	
174+00	18"	48'	26'	I	I	
175+39	24"	48'	24'	I	I	I.C.B. TYPE "A" MOD.
178+75	18"	48'	26'	I	I	
182+50	18"	48'	24'	I	I	
186+50	18"	48'	22'	I	I	
194+50	18"	48'	24'	I	I	
198+50	18"	48'	28'	I	I	
202+00	18"	48'	24'	I	I	
205+63	18"	48'	24'	I	I	
210+00	18"	48'	22'	I	I	
213+50	18"	48'	26'	I	I	
214+82	30"	28'*	42'	I	I	*EX. STR. R.C.P.
217+05	18"	52'	32'	I	I	
218+75	18"	56'	34'	I	I	
221+46	18"	80'	38'	I	I	
224+33	18"	48'	30'	I	I	I.C.B. TYPE "A" MOD.
227+66	24"	88'	60'	2	I	I.C.B. TYPE "A" MOD.
231+50	18"	48'	30'	I	I	
235+00	18"	48'	26'	I	I	
242+45						25' RT. OF BASELINE
249+50	18"	48'	24'	I	I	
253+50	18"	44'	30'	I	I	
257+03	36"	56'	20'	I	I	C.B. TYPE "A" MOD. CONC. END WALL
260+46	18"		60'			52' LT. OF BASELINE
260+60	18"	52'	34'	I	I	
262+00	18"	48'	18'	I	I	30' OF METAL SLUICE
262+36	60"		32'			NEW ENDWALL COMMON TO
262+43	60"		32'			3 10-GAGE PIPES
262+54	60"					32" ASPHALT COATED STRUC. PLATE 10-GAGE
263+50	18"	44'	16'	I	I	26' OF METAL SLUICE
264+85	18"		24'			21' LT. OF BASELINE
265+75	18"		148'			C.B. TYPE "C" MOD. C.B. TYPE "C" MOD.
268+50	18"	48'	22'	I	I	
272+88	24"	48'	18'	I	I	CONC. ENDWALL
275+50	18"	48'	22'	I	I	
278+36	18"	48'	12'	I	I	CONC. ENDWALL
281+07	24"	32'	20'	I	I	CONC. ENDWALL
287+05	36"	48'	20'	I	I	C.B. TYPE "A" MOD. CONC. ENDWALL
288+00	18"	48'	22'	I	I	
289+50	18"	48'	24'	I	I	
293+00	18"	48'	34'	I	I	
296+00	18"	52'	34'	I	I	
MERRILL ROAD INTERCHANGE						
RAMP G						
1+50	24"	24'	58'	2		CONC. ENDWALL
MERRILL ROAD RELOCATED						
2+50	18"		58'		I	
7+00	18"	40'	78'	2		CONC. ENDWALL
7+36	18"	28'	18'			30' OF METAL SLUICE
12+50	18"	40'	58'	2		CONC. ENDWALL
CONNECTING ROAD- MERRILL ROAD TO HUNTER ROAD						
144+50	24"		102'			CONC. ENDWALL
146+00	18"		78'			CONC. ENDWALL
152+50	18"		50'			
157+00	18"		74'			
161+50	18"		62'			
170+00	24"		64'			
INTERCHANGE APPROACH ROAD						
1+35-1+80	12"		107'		2	MANHOLE TYPE "A"
26+35	18"		45'			C.B. TYPE "C" MOD. 30' OF METAL SLUICE
27+25	24"		56'*		2	CONC. ENDWALL
28+80	18"		80'		I	*EX. STR. R.C.P.

ROADWAY CULVERTS						
STATION	SIZE	LENGTH OF R.C.P.	LENGTH OF CONC. COLLAR	CONCRETE D.I. TYPE A	REMARKS	
APPROACH ROAD INTERCHANGE						
RAMP A						
3+38	18"	48'	38'	I	I	
4+50	18"	36'	12'	I	I	16' OF METAL SLUICE
7+50	18"	20'	24'	I	I	C.B. TYPE "C" MOD.
10+10	30"	32'*	92'	2		CONC. ENDWALL *EX. ST. R.C.P.
RAMP B						
2+50	30"	32'*	78'	2		CONC. ENDWALL *EX. ST. R.C.P.
RAMP C						
2+50	18"	40'	16'	I		CONC. ENDWALL
5+35	18"	27'	40'	I		
7+50	18"	44'	38'	I	I	
8+80	18"	28'	40'	I	I	
RAMP D						
2+20	18"	64'			I	
4+90	18"	19'	32'	I		CONC. ENDWALL
6+00	18"	24'	22'	I		C.B. TYPE "C" MOD.
CONNECTING ROAD- POWNAL ROAD TO INTERCHANGE APPROACH ROAD						
2+70	18"		68'			
4+86	18"		80'			
7+90	42"		144'			
12+25	18"	44'	12'	I	I	
CONNECTING ROAD- ROUTE 136 TO WARDTOWN ROAD						
13+00	42"		52'			
13+07	42"		52'			
21+50	18"		66'			
24+00	24"		78'			
26+50	18"		50'			
30+80	18"		56'			
32+35	36"		150'			
32+50	72"		70'			CATTLE PASS
44+50	24"		60'			

DRIVEWAY CULVERTS				
STATION	SIZE OF CMP	LENGTH		REMARKS
MERRILL ROAD INTERCHANGE				
MERRILL ROAD RELOCATED				
14+70	12"	36'		36' RT.
5+00	15"	44'		21' RT.
INTERCHANGE APPROACH ROAD				
245+31	12"	24'		58' RT.
249+20	15"	24'		22' RT.
CONNECTING ROAD- ROUTE 136 TO WARDTOWN ROAD				
7+00	15"	34'		20' LT.
16+12	15"	24'		22' RT.
34+00	15"	24'		20' LT.
35+00	15"	24'		24' RT.
36+45	15"	24'		27' RT.
44+50	24"	34'	WARDTOWN ROAD	210' RT.
48+00	15"	24'		21' RT.

TYPE B UNDERDRAINS				
STATION TO STATION	LENGTH	OUTLET		REMARKS
WESTBOUND ROADWAY				
225+64	227+80	180'	40'	75' RT.
226+97	228+76	160'	20'	25' LT.
258+00	260+50	250'		25' RT.
260+50	262+00	150'		25' RT.
262+00	262+50	50'		25' RT.
INTERCHANGE APPROACH ROAD				
245+00	247+80	280'	80'	19' LT.

GUARD RAIL						
STATION TO STATION	TYPE	SIDE	LENGTH	ANCHORS		REMARKS
WESTBOUND ROADWAY						
167+80 TO 170+20	C	LT.	240'	2		
174+84 TO 177+88	C	LT.	304'	1		PROJECT ING-01-1(16)
178+31 TO 183+27	C	LT.	496'	1		BRIDGE ANCHORAGES
214+00 TO 215+76	C	LT.	176'	2		
217+95 TO 220+35	C	LT.	240'	2		
222+32 TO 224+56	C	LT.	224'	2		
225+36 TO 227+12	C	LT.	176'	2		
260+90 TO 266+50	C	LT.	560'	2		
178+50 TO 178+90	E	RT.	40'			
MERRILL ROAD INTERCHANGE						
MERRILL ROAD RELOCATED						
6+49 TO 7+45	C	LT.	96'	1		BRIDGE ANCHORAGE
6+57 TO 7+53	C	RT.	96'	1		BRIDGE ANCHORAGE
9+70 TO 11+46	C	LT.	176'	1		BRIDGE ANCHORAGE
9+73 TO 11+33	C	RT.	160'	1		BRIDGE ANCHORAGE
12+15 TO 13+43	C	LT.	128'	2		
12+15 TO 13+11	C	RT.	96'	2		
RAMP E						
7+35 TO 11+33*	E	LT.	325'			*MERRILL RD STATION
7+45 TO 145+50*	E	RT.	175'			*CONNECTING RD. MERRILL TO HUNTER RD.
RAMP F						
11+46* TO 2+50	E	LT.	225'			*MERRILL RD STATION
12+15* TO 2+00	E	RT.	225'			*MERRILL RD STATION
APPROACH ROAD INTERCHANGE						
RAMP A						
4+00 TO 12+50	E	RT.	850'			
8+50 TO 10+50	E	LT.	200'			
RAMP B						
2+25 TO 3+25	E	LT.	100'			
1+57 TO 8+57	E	RT.	650'			
RAMP C						
4+75 TO 9+25	E	RT.	425'			
RAMP D						
1+30 TO 6+55	E	RT.	525'			
APPROACH ROAD						
14+00 TO 16+24	C	LT.	224'	2		
14+18 TO 16+58	C	RT.	240'	2		
18+38 TO 24+10	C	LT.	512'	1		BRIDGE ANCHORAGE
22+95 TO 24+23	C	RT.	128'	1		BRIDGE ANCHORAGE
26+16 TO 27+60	C	LT.	144'	1		BRIDGE ANCHORAGE
26+27 TO 30+59	C	RT.	432'	1		BRIDGE ANCHORAGE
236+50 TO 237+78	C	LT.	128'	2		
CONNECTING ROAD- MERRILL ROAD TO HUNTER ROAD						
145+50 TO 147+30	A	LT.	180'	2		
145+50 TO 146+10	A	RT.	60'	2		
167+50 TO 168+80	A	LT.	130'	2		
168+80 TO 170+50	A	LT.	170'	2		
12+15* TO 144+50	E	LT.	200'			*MERRILL RD STATION
CONNECTING ROAD- POWNAL ROAD TO APPROACH ROAD						
9+60 TO 10+40	A	LT.	80'	2		
10+80 TO 12+24	C	LT.	144'	2		
CONNECTING ROAD- ROUTE 136 TO WARDTOWN ROAD						
30+40 TO 32+60	A	RT.	220'	2		
32+20 TO 33+60	A	LT.	140'	2		
EASTBOUND ROADWAY						
177+90 TO 178+30	E	LT.	40'			

GRADING SUMMARY					
SECTION @	CUT	ROCK CUT	FILL	SANDBASE @	REMARKS
QUANTITIES IN CUBIC YARDS					
1	13,263	3,298	44,840	12,896	
2	84,306	6,302	38,817	60,339	EXCESS TO SECTION 3
3	17,537	300	161,214	28,824	
4	9,090	8,104	21,210	6,240	
5	5,381	346	10,052	2,110	
6	8,561	100	14,428	6,270	
7	2,606	15	12,212	3,422	

NOTES:
(A) SEE DESCRIPTION OF SEGMENTS INCLUDED IN EACH SECTION.

INDEX TO SECTIONS

- MERRILL ROAD INTERCHANGE:
EASTBOUND LANE STATION 135+00 TO 139+00
WESTBOUND LANE STATION 659+25 TO 661+50 672+38 TO 679+50
RAMP "E"
RAMP "F"
RAMP "G"
RAMP "E" TO MERRILL ROAD
MERRILL ROAD
- WESTBOUND ROADWAY:
STATION 679+50 TO 684+47 BACK=STATION 158+08 AHEAD TO 212+75
STATION 243+00 TO 296+00
- APPROACH ROAD INTERCHANGE:
EASTBOUND LANE STATION 225+00 TO 243+00
WESTBOUND LANE STATION 212+75 TO 243+00
APPROACH ROAD-STATION 18+00 TO 33+10 BACK= 232+74 AHEAD
RAMP "A"
RAMP "B"
RAMP "C"
RAMP "D"
- APPROACH ROAD STATION 1+26 TO 18+00
APPROACH ROAD STATION 232+74 TO 248+50
- CONNECTING ROAD- POWNAL ROAD TO APPROACH ROAD
- CONNECTING ROAD- ROUTE 136 TO WARDTOWN ROAD
- CONNECTING ROAD- RAMP "E" TO HUNTER ROAD

(B) COMPACTED MEASUREMENT - QUANTITIES NOT SWELLED.

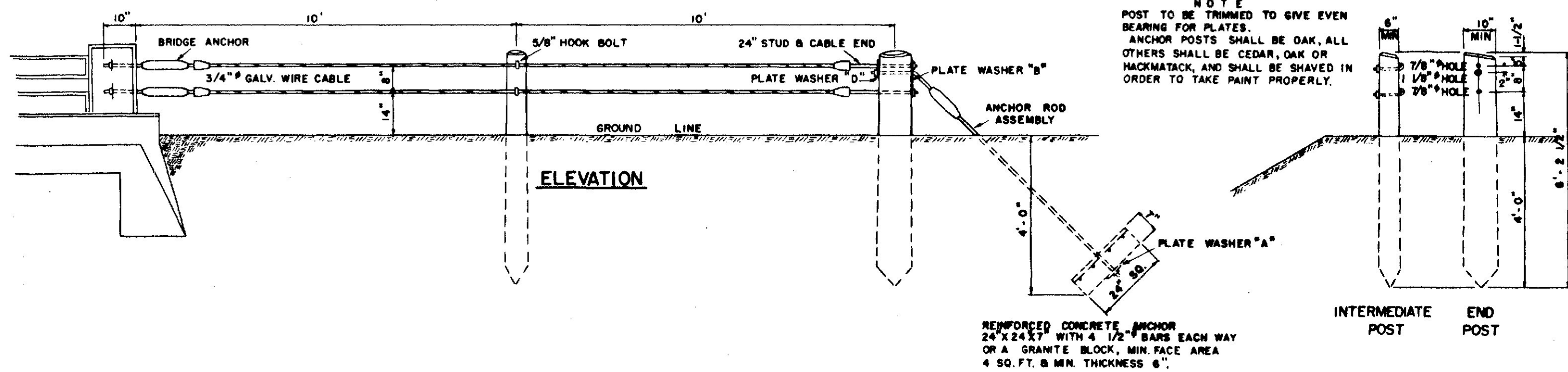
STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

FREEPORT BY PASS

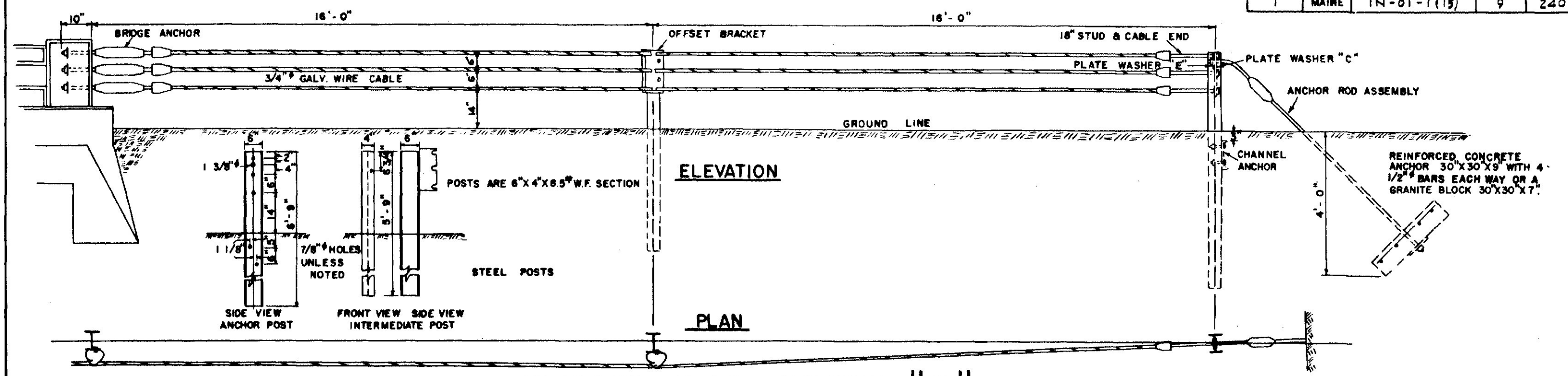
DISTRIBUTION OF QUANTITIES PART II

SHEET NO. 7 OF 240 SCALE - NONE AUG. 1956

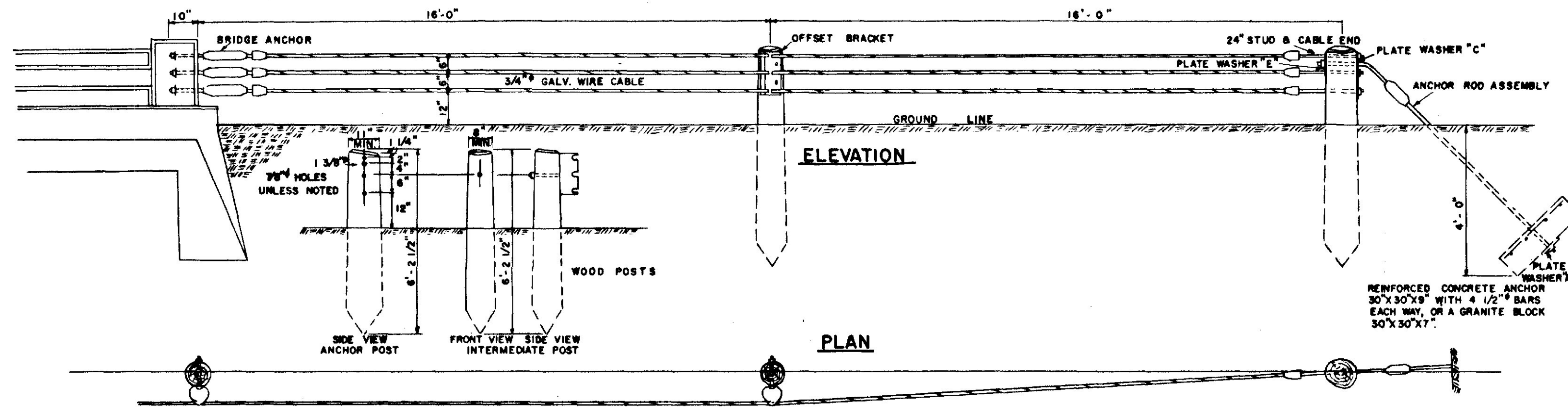
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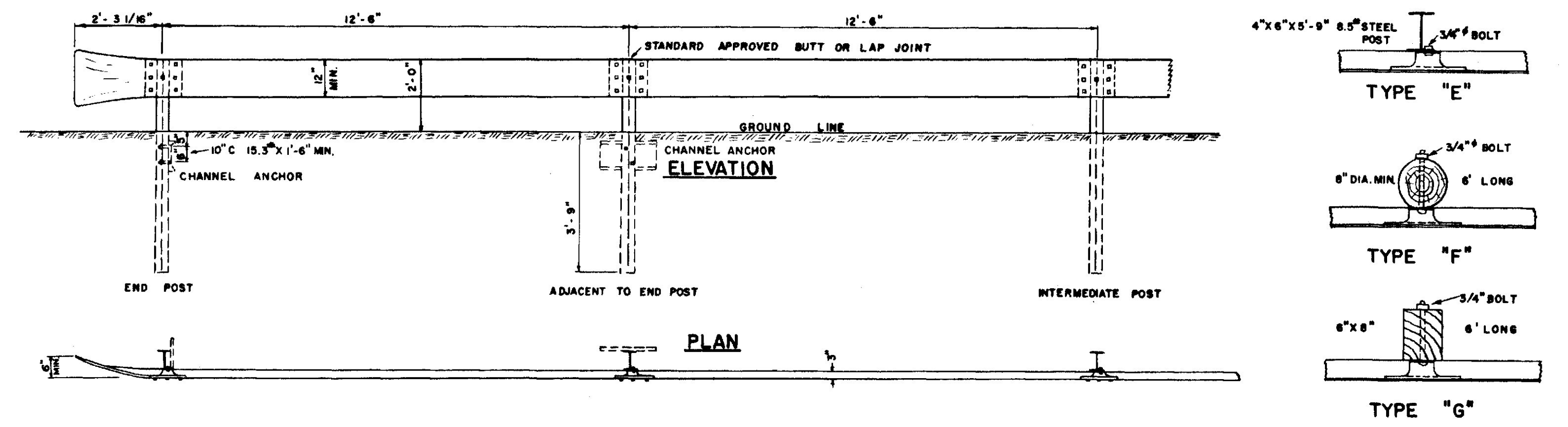
GUARD RAIL TYPE "A" & "B"



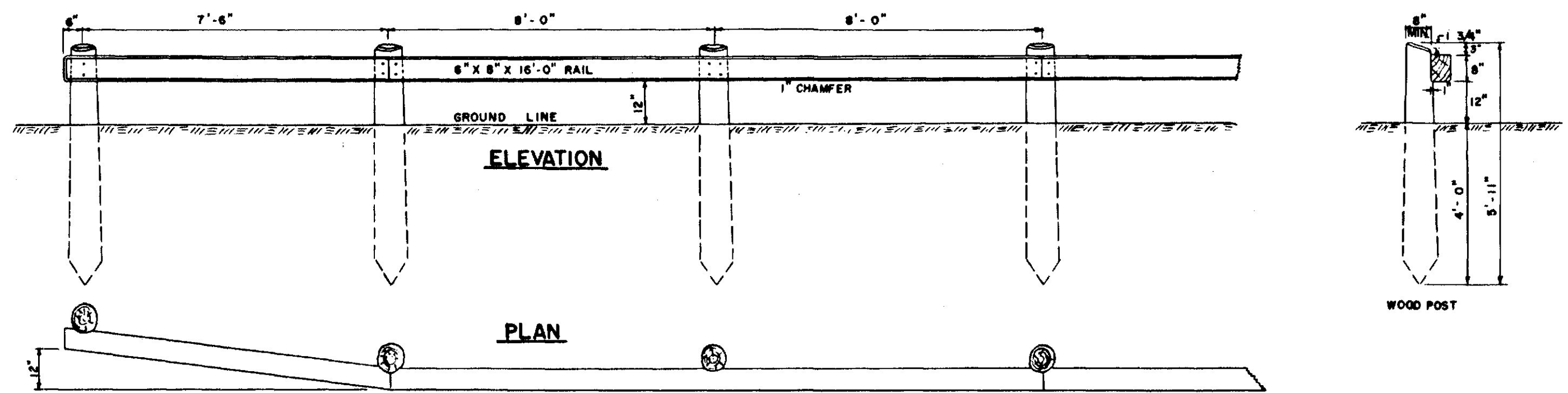
GUARD RAIL TYPE "C"



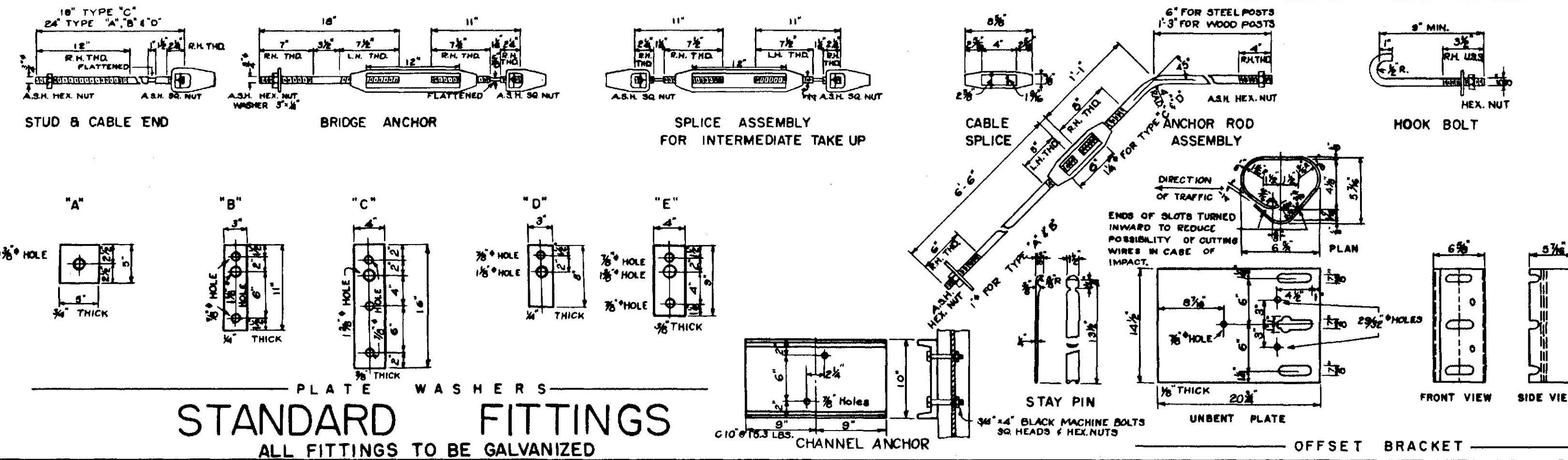
GUARD RAIL TYPE "D"



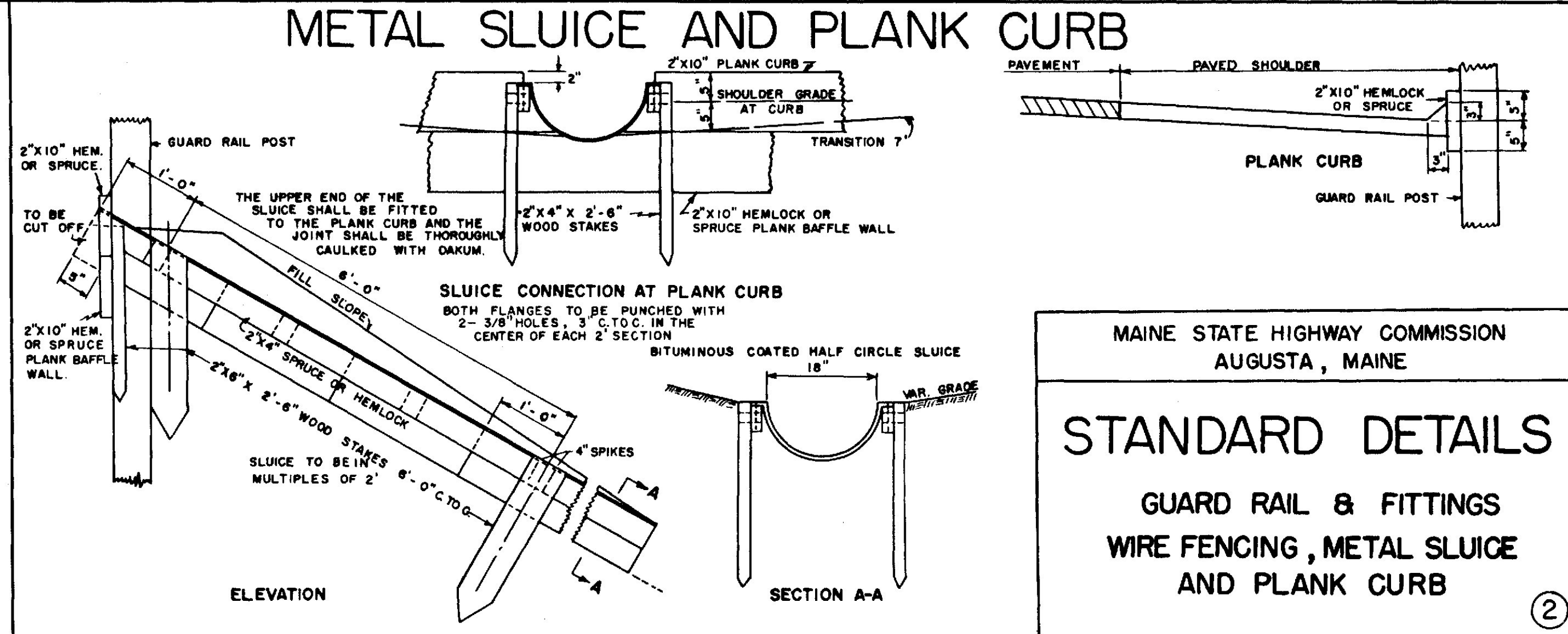
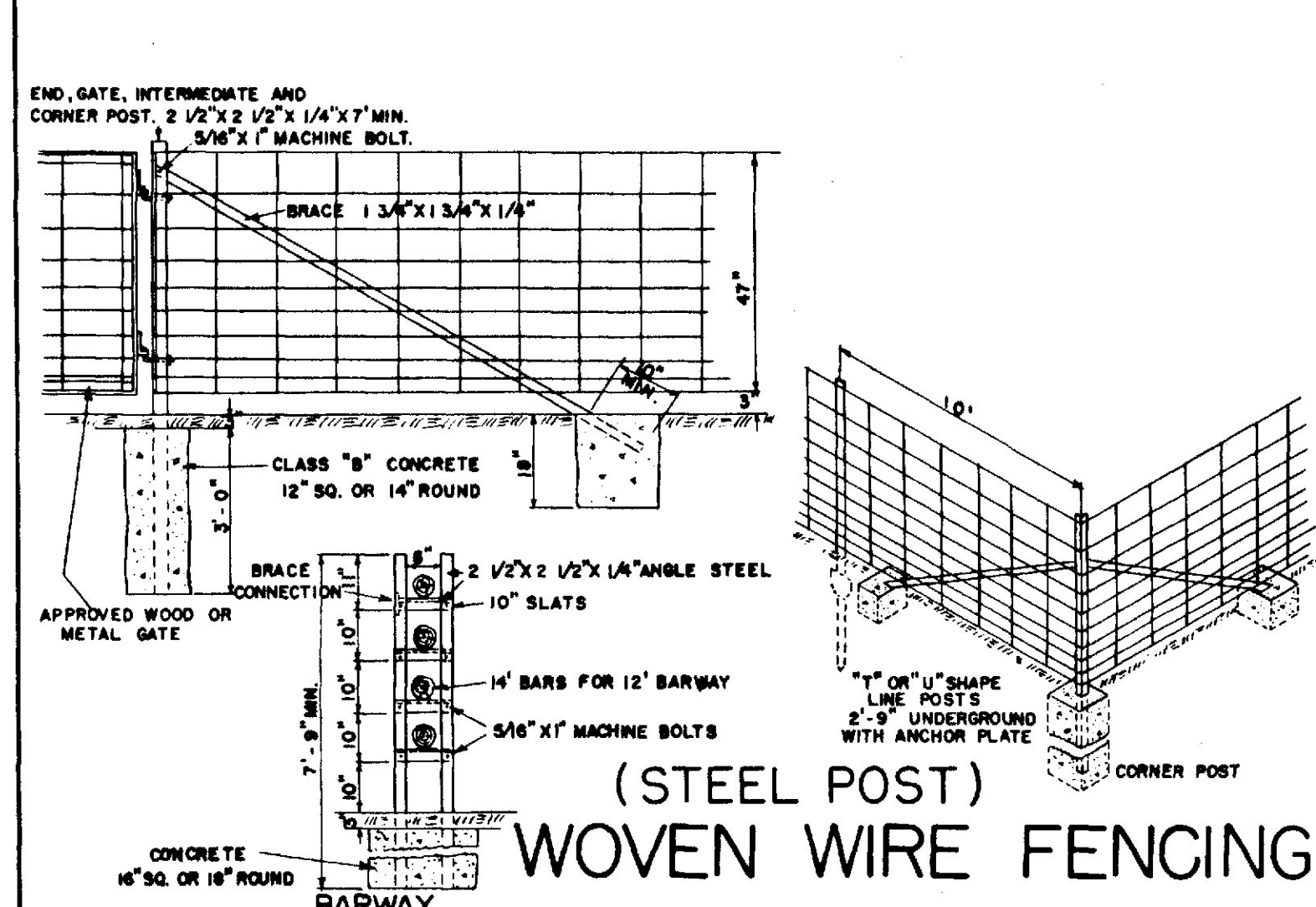
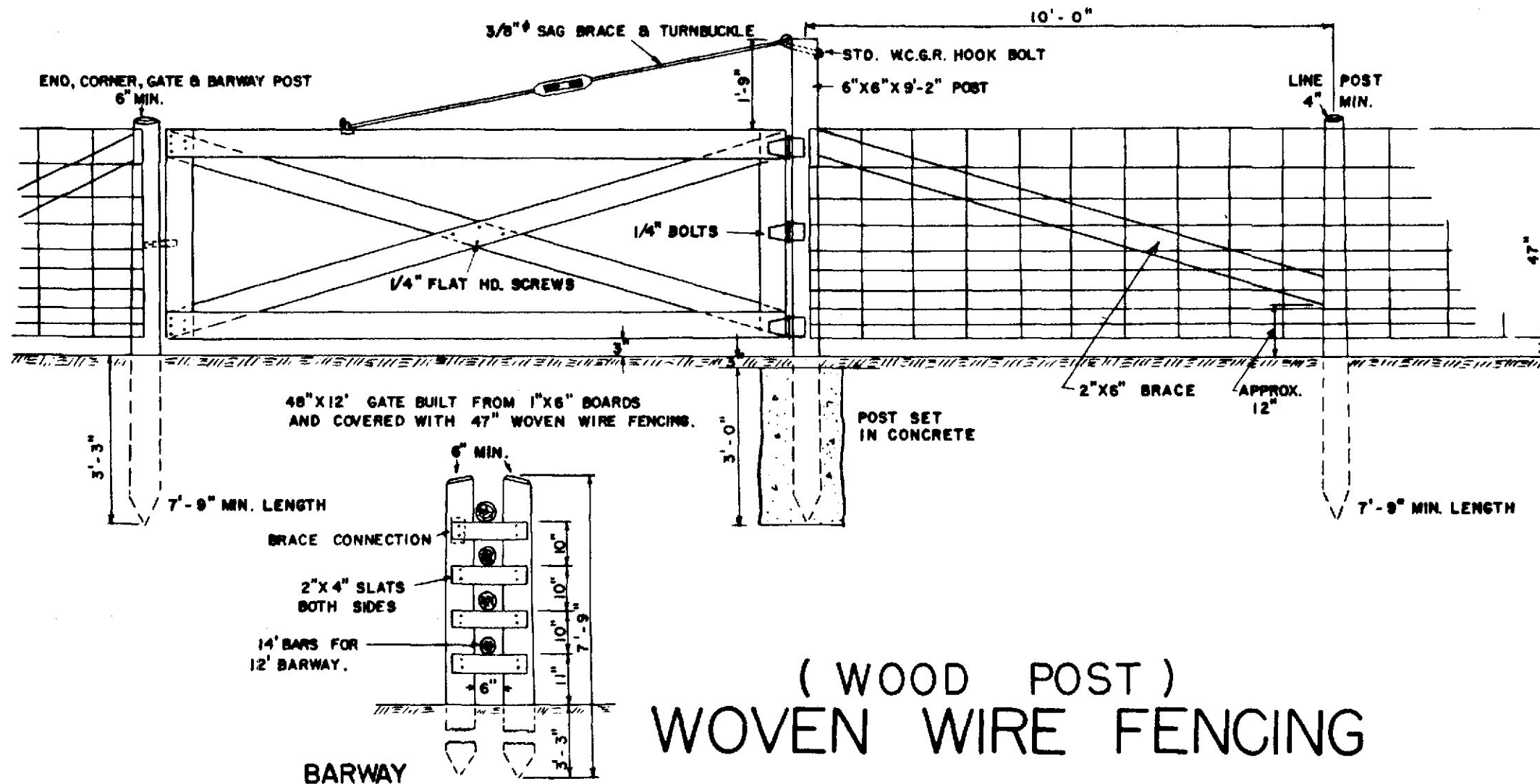
GUARD RAIL TYPE "E", "F" & "G"



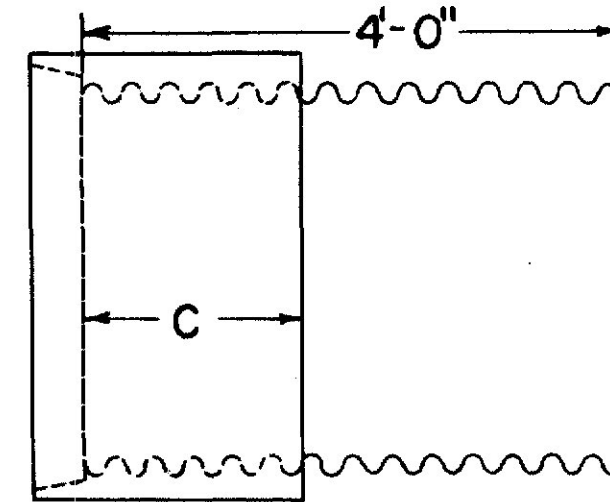
GUARD RAIL TYPE "H"



STANDARD FITTINGS



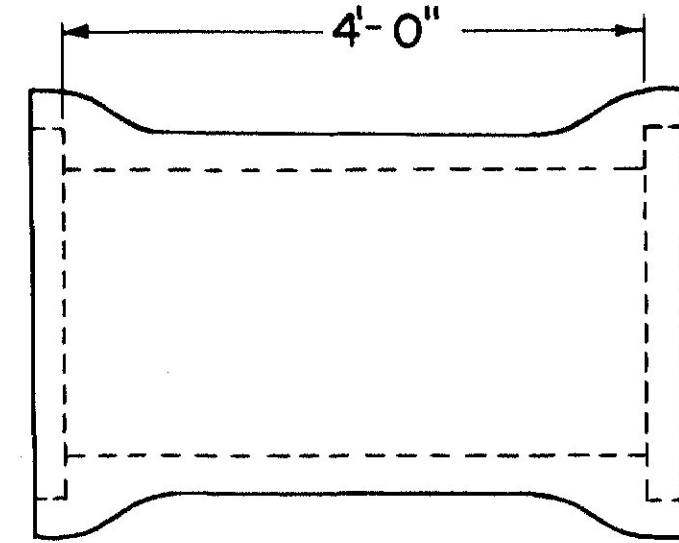
PIPE CONNECTIONS



GROOVE END COMBINATION
For 30" to 72", inclusive, diameter connection
between concrete and metal pipe

"C" = 17" min. for sizes 30" to 48" incl.
"C" = 23" min. for sizes over 48"

Asphalt coated corrugated metal pipe
shall conform to the latest
standard specifications

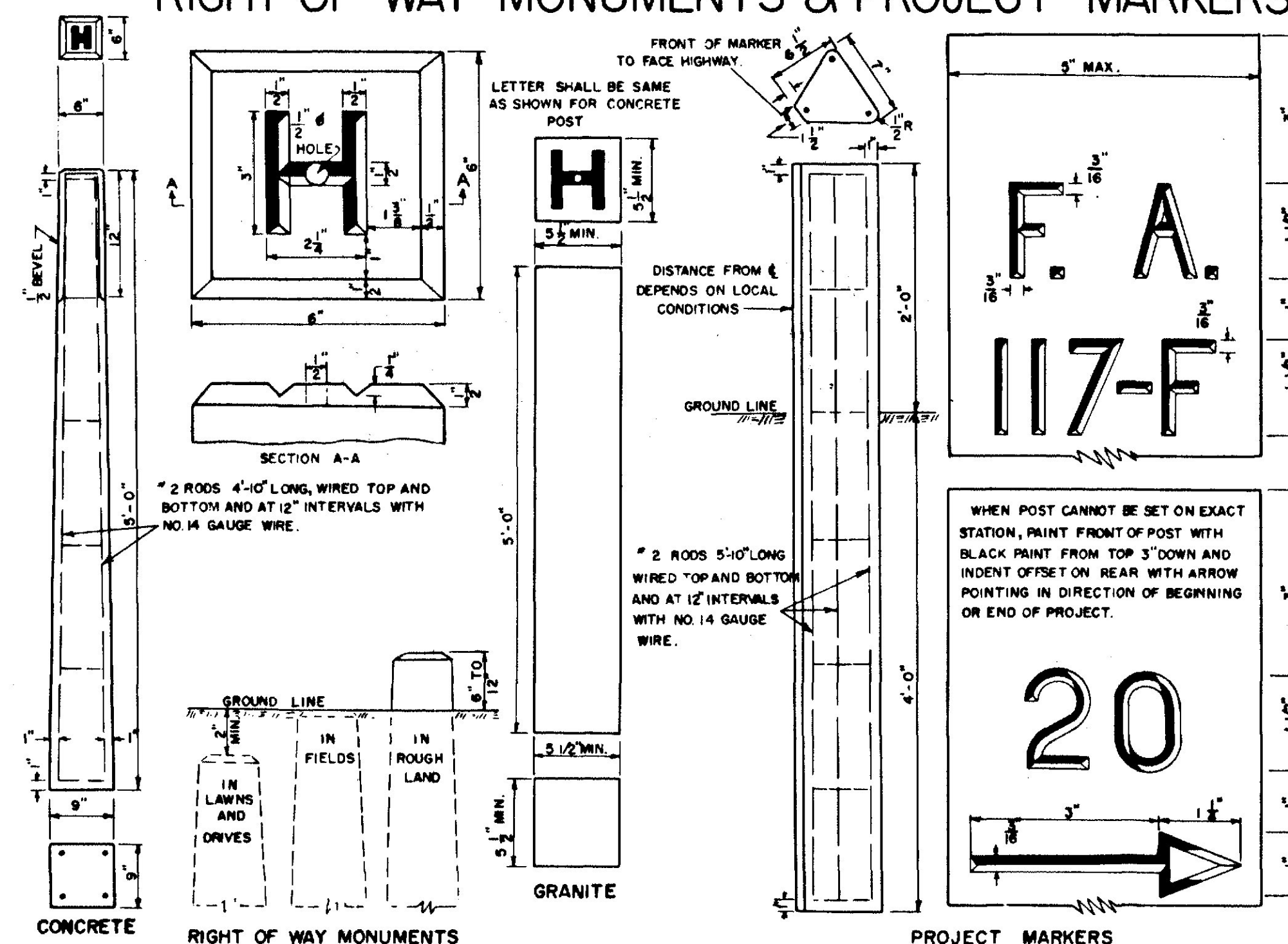


**REINFORCED CONCRETE PIPE CONNECTOR
DOUBLE BELL**

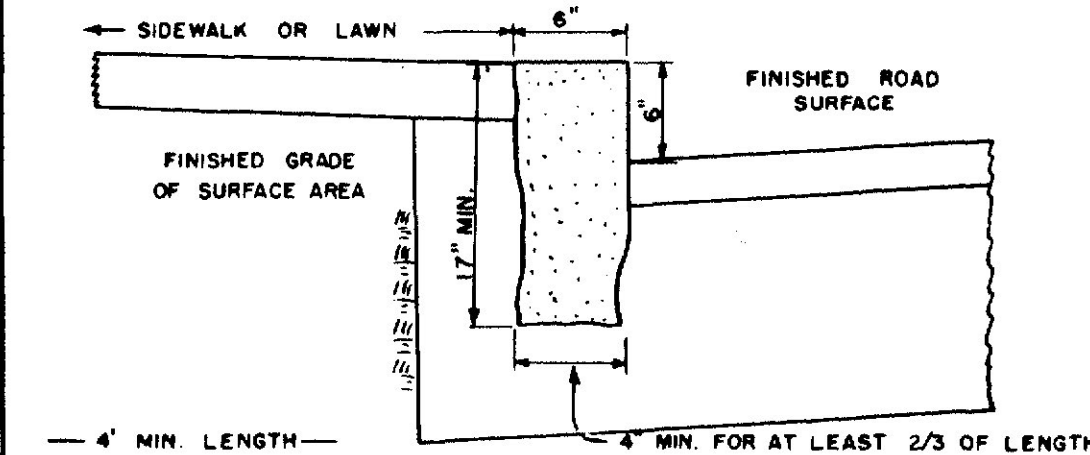
For 12" to 24", inclusive, diameter connection
between concrete and metal pipe

Reinforced concrete pipe shall
conform to the latest standard
specifications

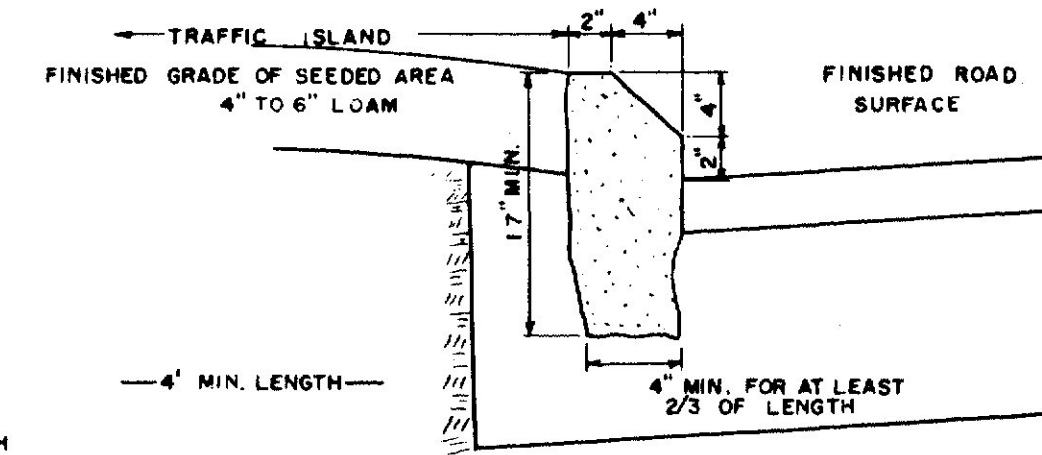
RIGHT OF WAY MONUMENTS & PROJECT MARKERS



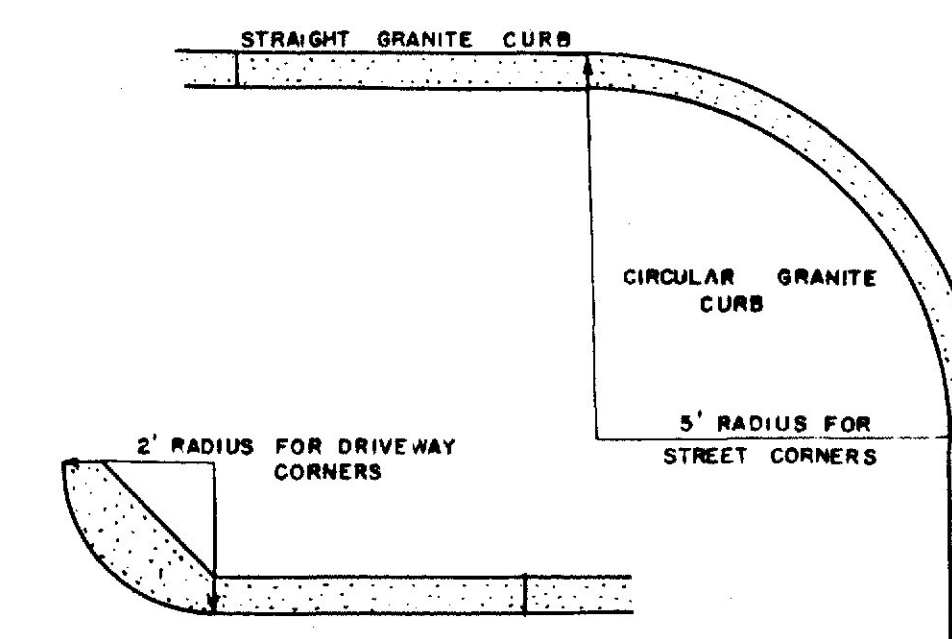
GRANITE CURB & EDGING



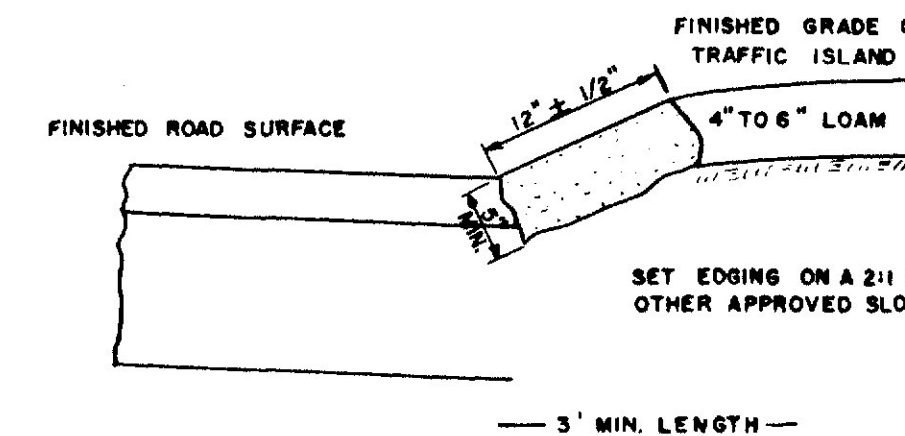
STRAIGHT GRANITE CURB



SLOPED GRANITE CURB

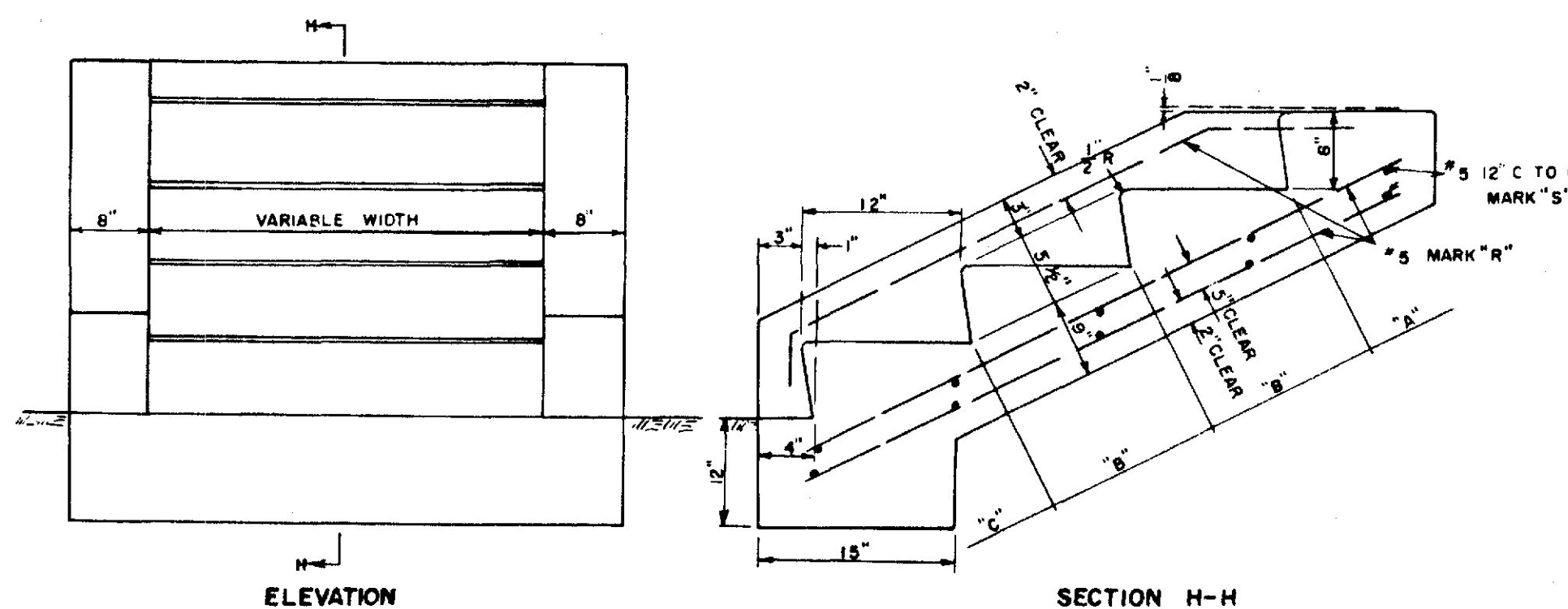


CIRCULAR GRANITE CURB



GRANITE EDGING

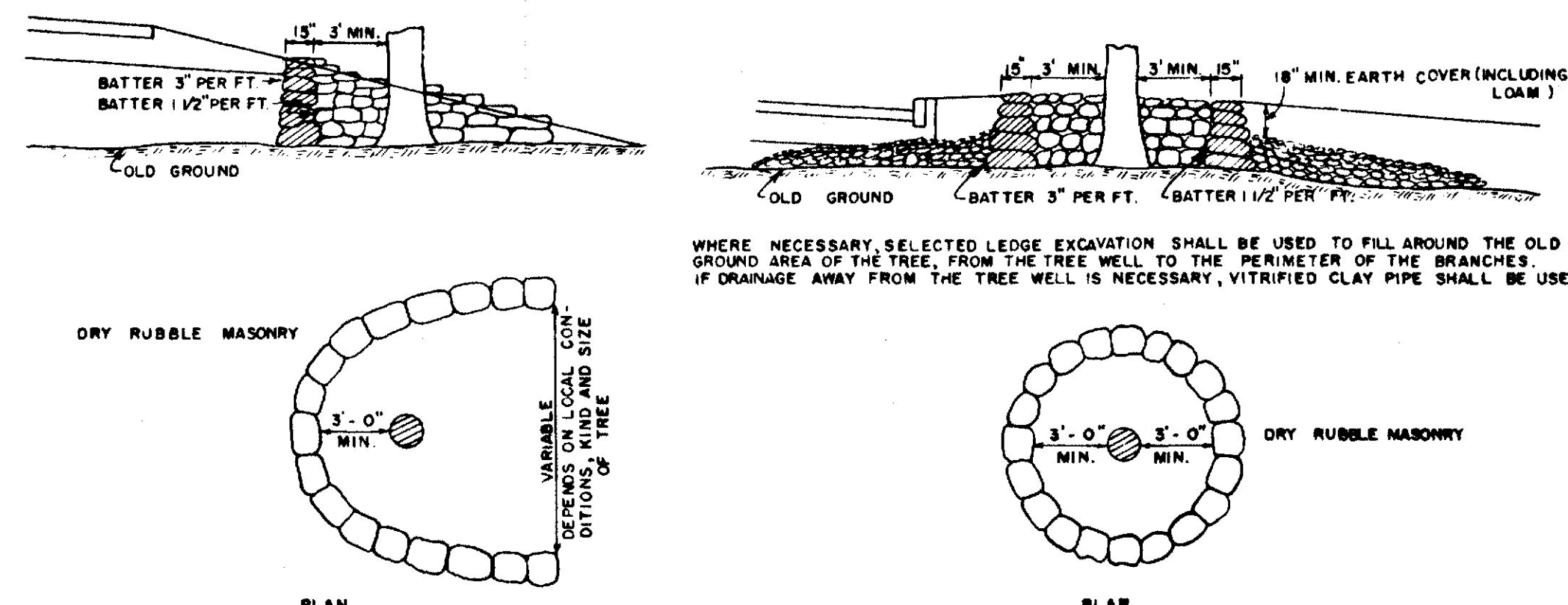
CONCRETE STEPS



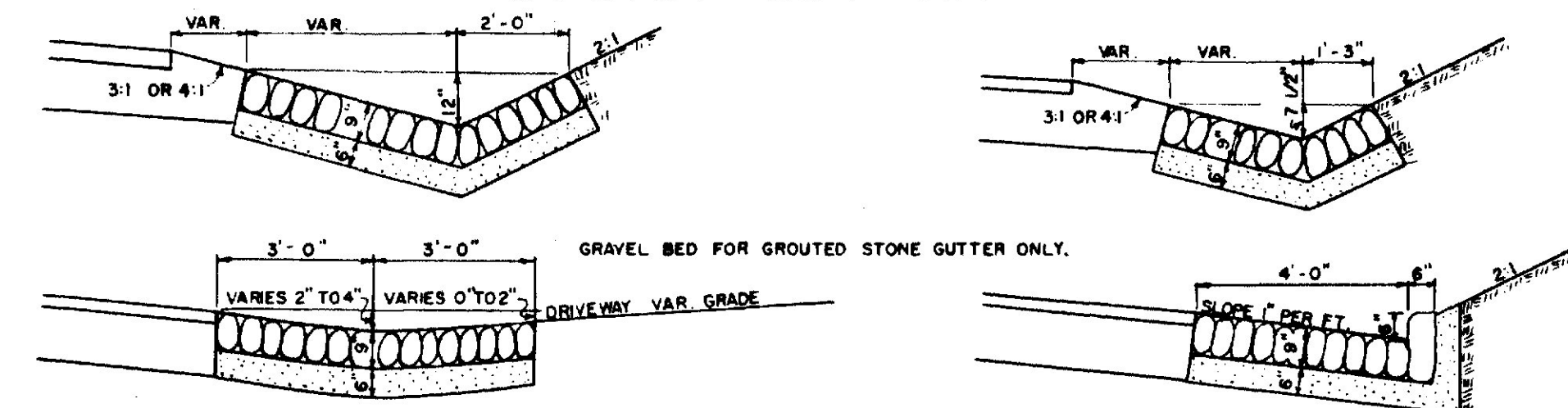
CONCRETE CLASS "A"		
SECTION	STEPS PER FT. OF WIDTH	PARAPET EACH WALL
"A" HEADER	.032 CU. YDS.	.022 CU. YDS.
"B" EA. INTER. ST.	.040 CU. YDS.	.040 CU. YDS.
"C" FOOTER	.071 CU. YDS.	.065 CU. YDS.

REINFORCING STEEL			
MARK	SIZE	NUMBER	LENGTH (EACH)
R	"5	3 EACH PARAPET 2 EACH FT. OF WIDTH	8" FOR "A" +13" FOR EACH "B" +16" FOR "C"
S	"5	2 FOR "A" 2 FOR EACH "B" 2 FOR "C"	6" EACH PARAPET +12" PER FT. OF WIDTH

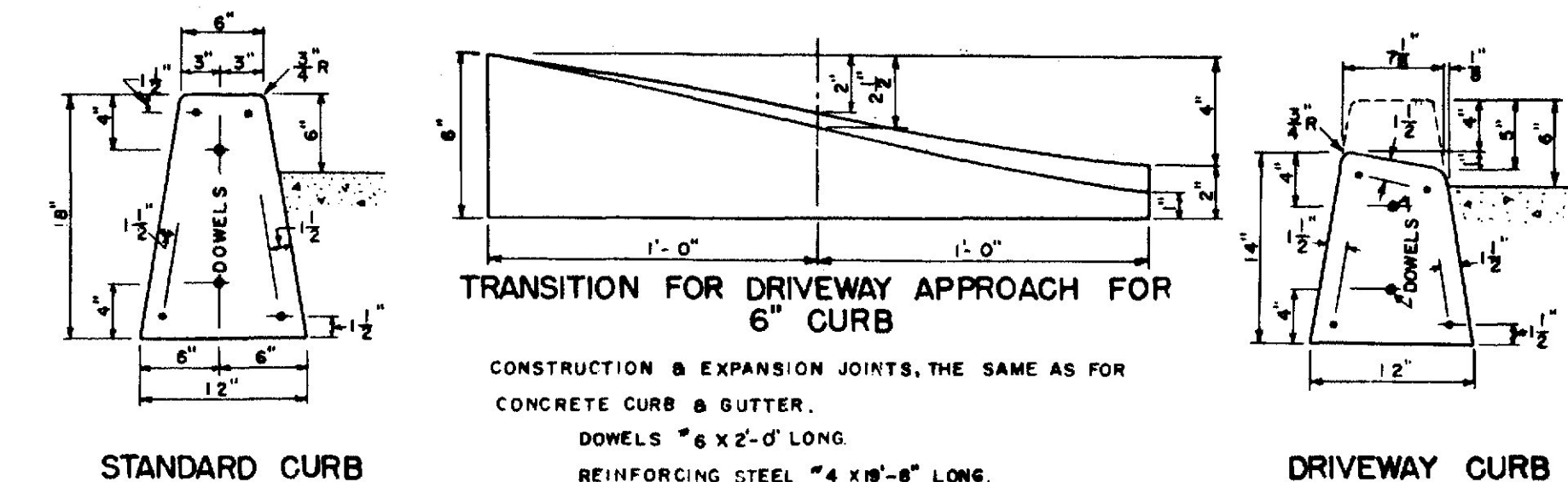
TREE WELLS



STONE GUTTER

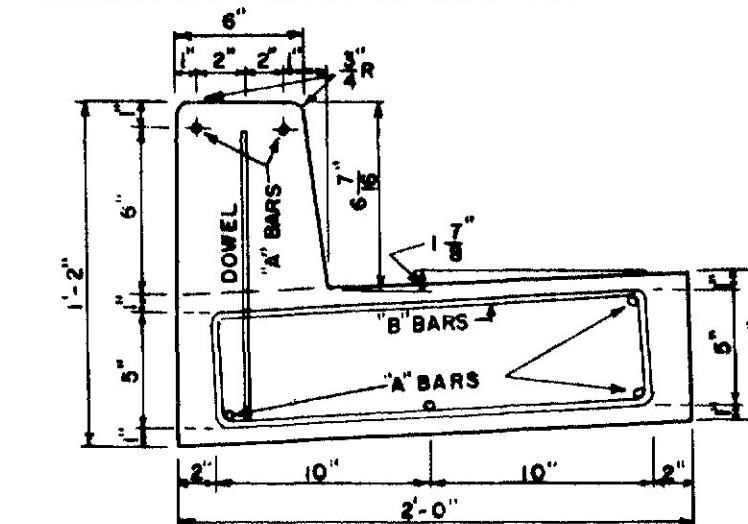


CONCRETE CURB

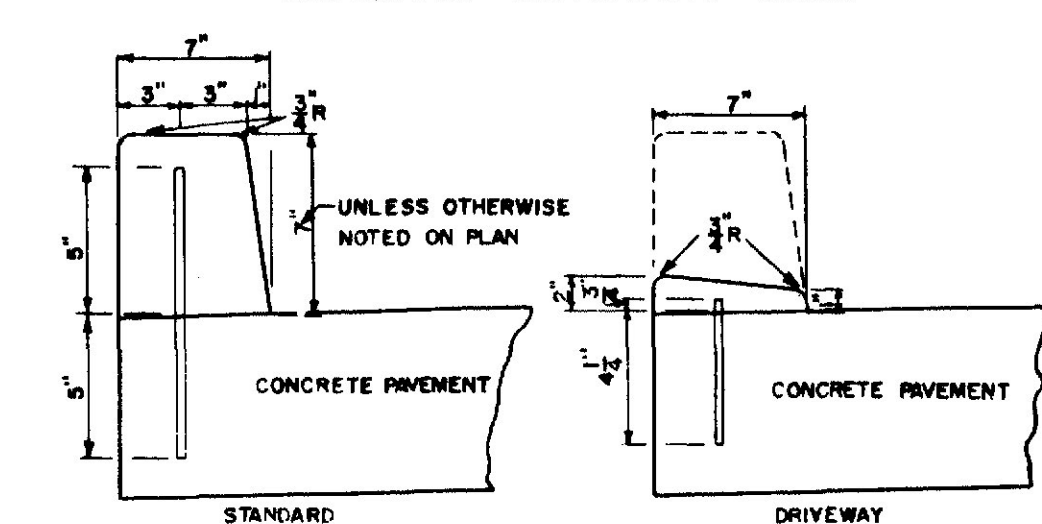


CONCRETE CURB & GUTTER

INTEGRAL CONCRETE CURB

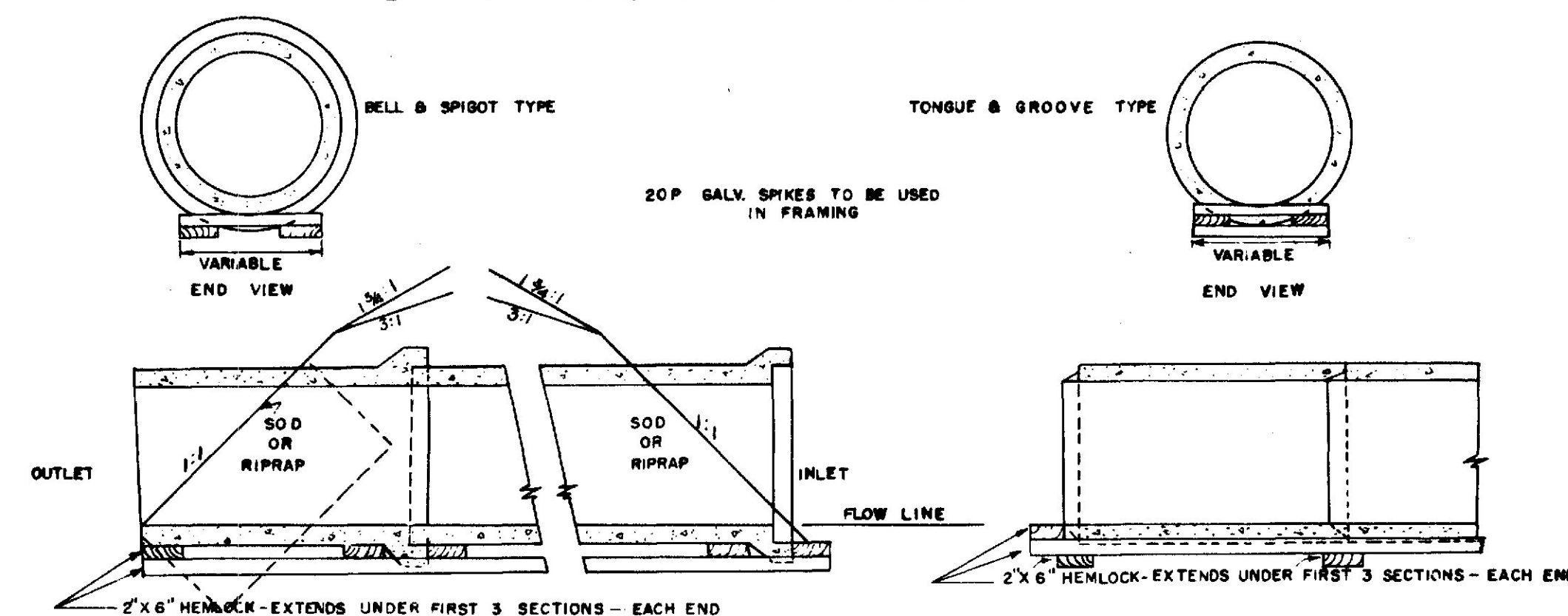


TO BE CONSTRUCTED IN 20' SECTIONS. CONSTRUCTION JOINTS TO BE PAINTED WITH BITUMINOUS MATERIAL. EXPANSION JOINTS EVERY 40'. 1/2" THICK PREMOULDED MATERIAL SHALL BE PLACED IN EACH EXPANSION JOINT.
"A" BARS #3 X 8'-0" LONG. "B" BARS #3 X 4'-0" LONG. PLACE "A" BAR 1'-3" FROM EACH END OF THE SECTION AND THEN SPACE THEM 3'-6" TO C. THE REST OF THE SECTION. DOWELS #4 X 1'-0" LONG, SPACED 1'-0" TO C. TO C.

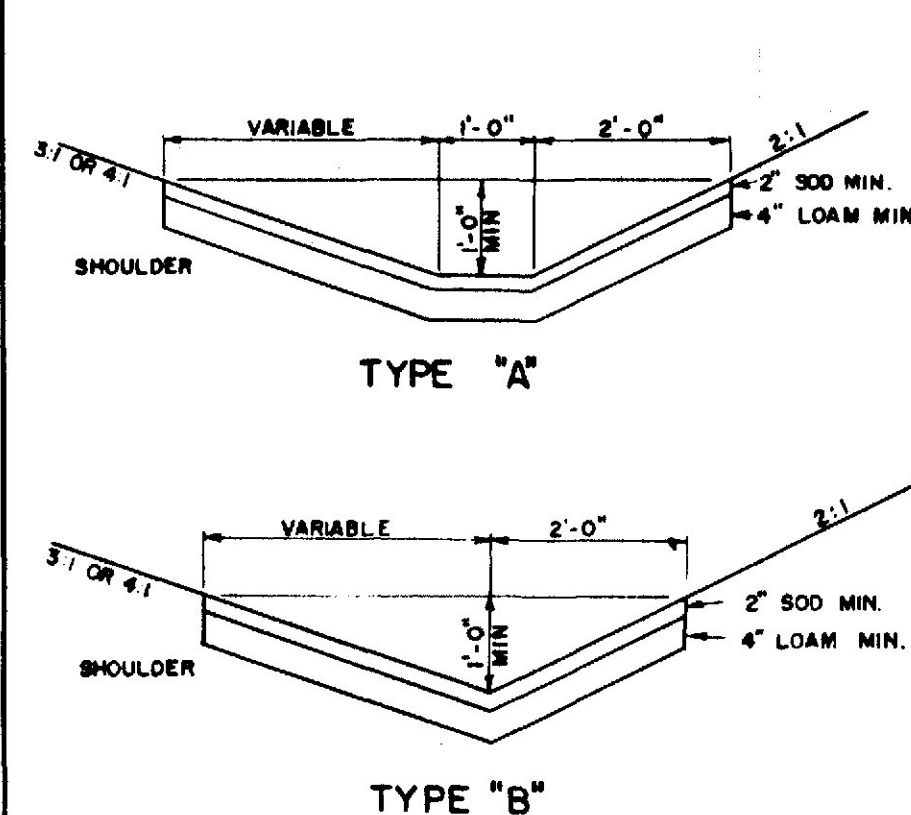


EXPANSION & DUMMY JOINTS IN CURB SHALL BE CONSTRUCTED AT SAME LOCATION AS EXPANSION & DUMMY JOINTS IN CONCRETE PAVEMENT.
DOWELS #4 SPACED 1'-0" TO C. TO C. FIRST DOWEL TO BE PLACED 6" FROM END OF JOINT.

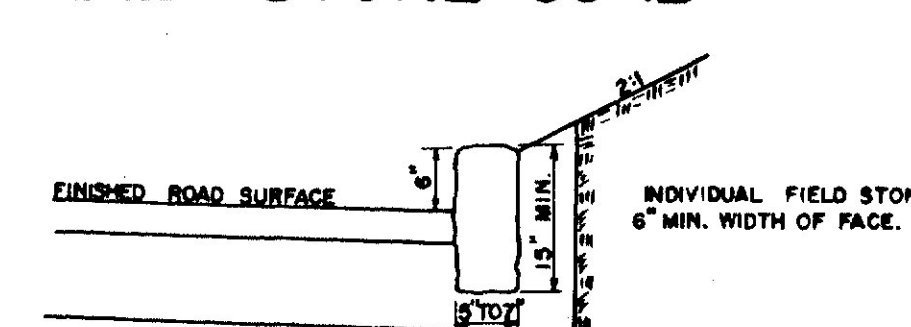
CONCRETE PIPE CRADLE



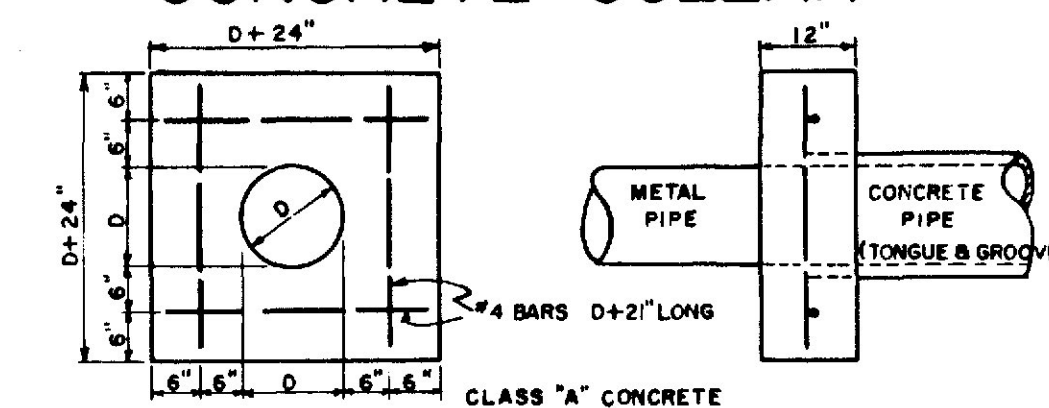
SODDED GUTTER



FIELD STONE CURB



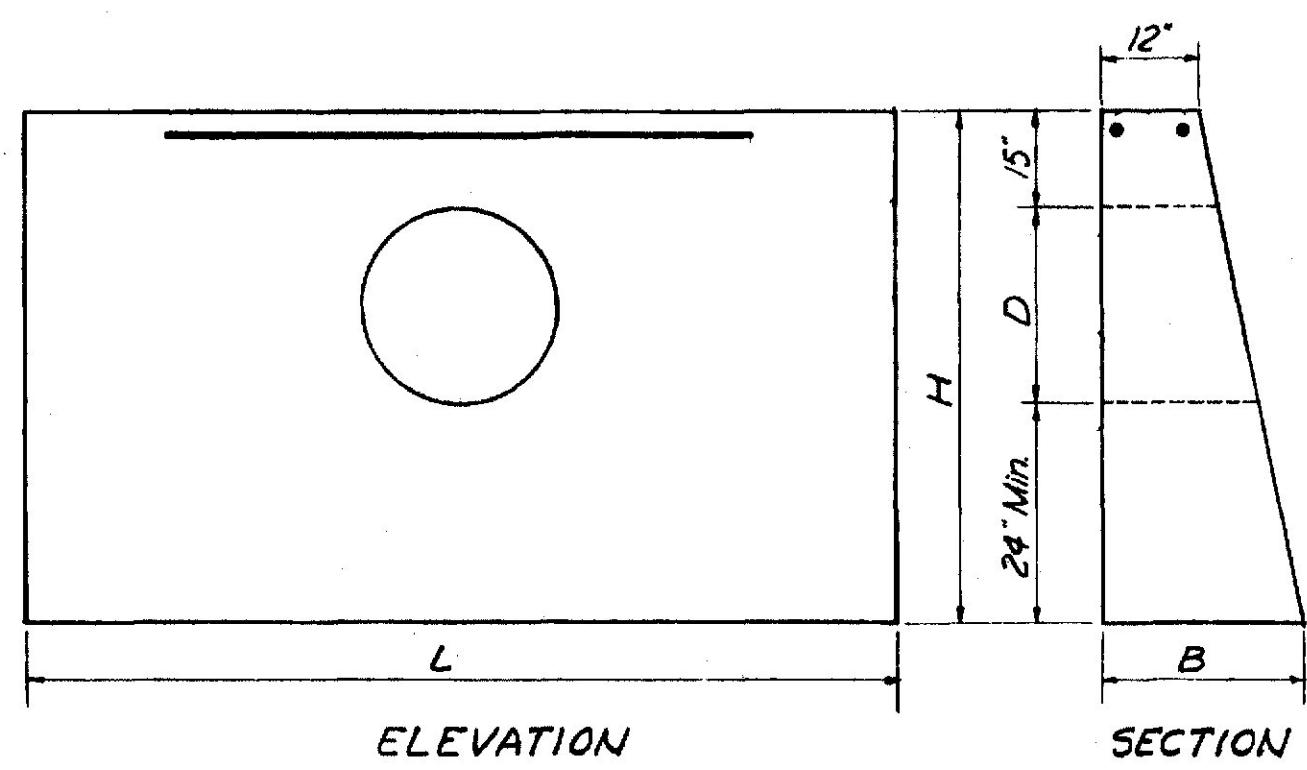
CONCRETE COLLAR



MAINE STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

STANDARD DETAILS

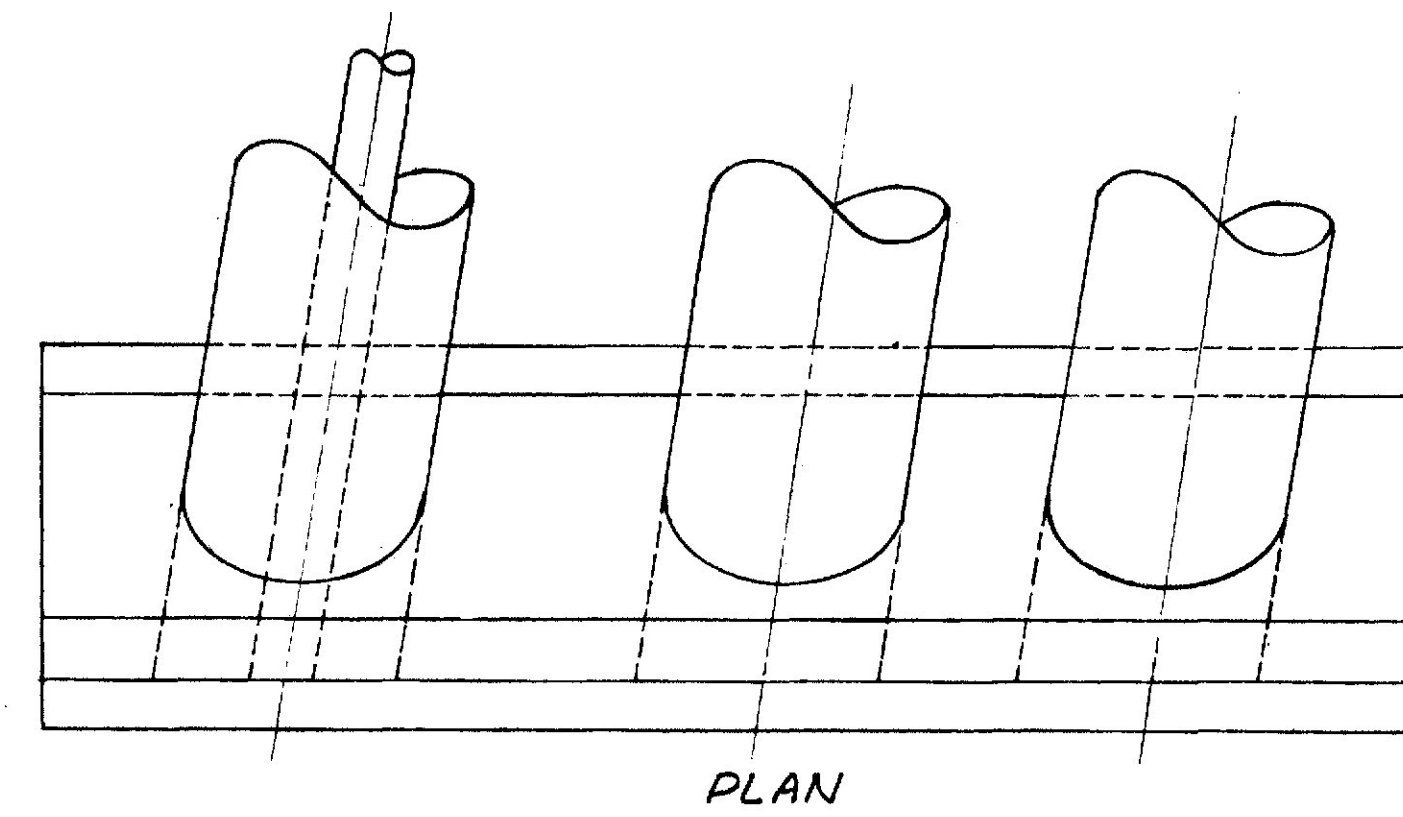
MISCELLANEOUS ITEMS



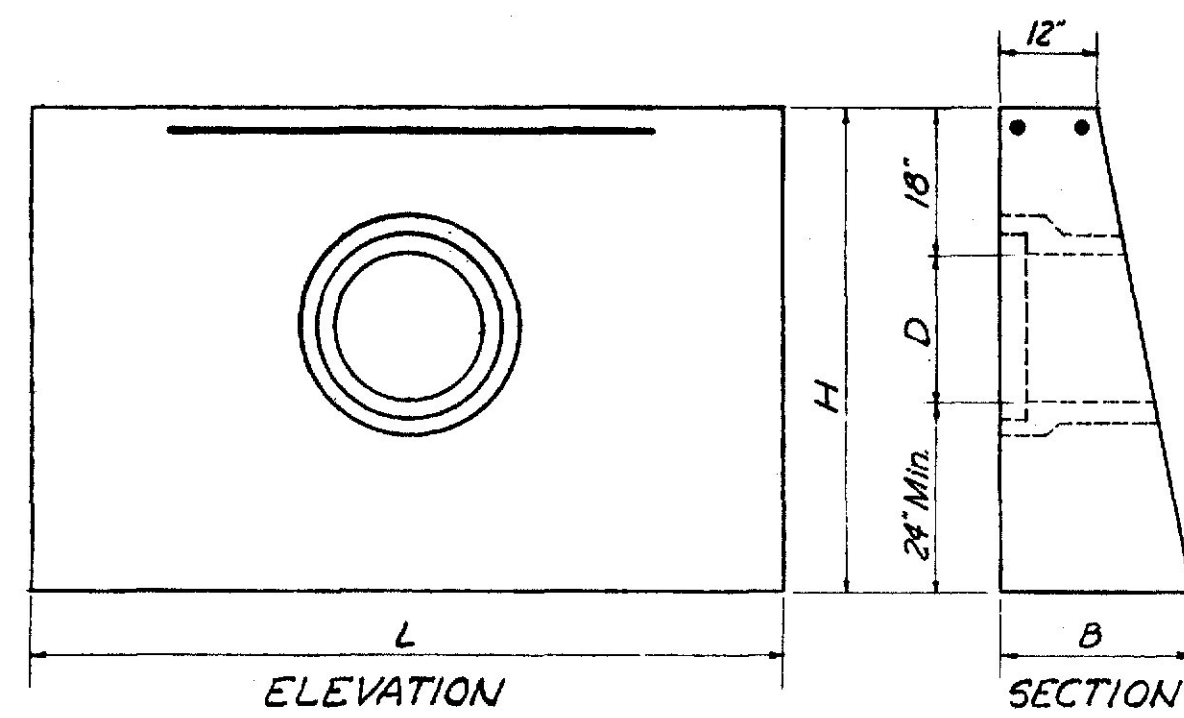
CONCRETE END WALLS FOR CORRUGATED METAL AND CAST IRON PIPE CULVERTS
Scale: $\frac{1}{4}$ " = 1'-0"

D	H	L	B	ONE END WALL		
				CONCRETE CU. YDS.	NUMBER STEEL BARS	LENGTH OF BARS
12"	4'-3"	5'-6"	1'-11"	1.11	2-#4	4'-0"
15"	4'-6"	6'-0"	1'-11"	1.40	2-#4	4'-6"
18"	4'-9"	7'-0"	2'-0"	1.75	2-#4	5'-0"
21"	5'-0"	8'-0"	2'-0"	2.09	2-#4	5'-6"
24"	5'-3"	9'-0"	2'-1"	2.53	2-#4	6'-0"
30"	5'-9"	11'-0"	2'-2"	3.93	2-#4	7'-0"
36"	6'-3"	13'-0"	2'-4"	4.60	2-#4	8'-0"
42"	6'-9"	15'-0"	2'-5"	5.83	2-#6	9'-0"
48"	7'-3"	17'-0"	2'-6"	7.21	2-#6	10'-0"

Top edges of front and ends to be chamfered 1". Weight of #4 steel 0.668 lbs. per lin. ft. Steel to be not nearer than 2" from surface of concrete. Weight of #6 steel 1.502 lbs. per lin. ft.



Portland Cement Concrete = 33.03 C.Y.
2-#6 Reinforcing Steel Bars @ 28 L.F. Each = 56 L.F.

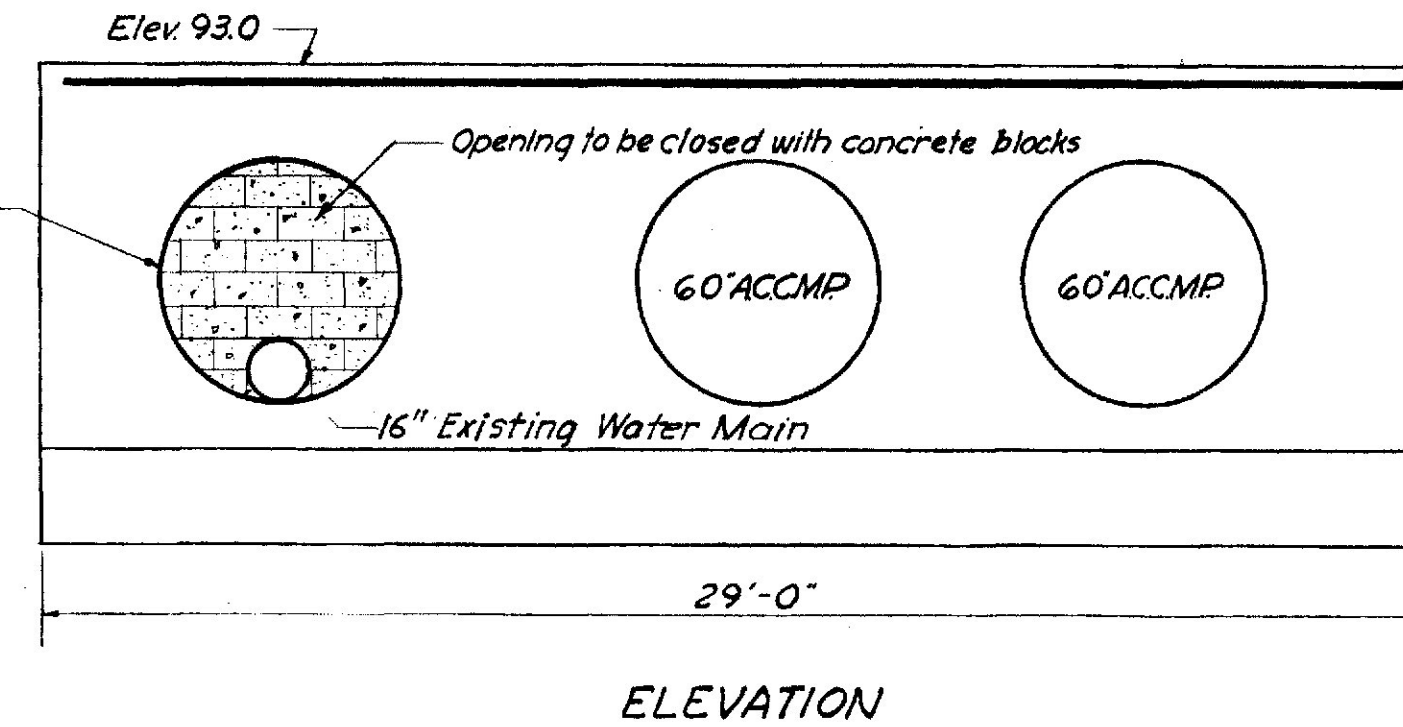


CONCRETE END WALL FOR REINFORCED CONCRETE PIPE CULVERTS
Scale: $\frac{1}{4}$ " = 1'-0"

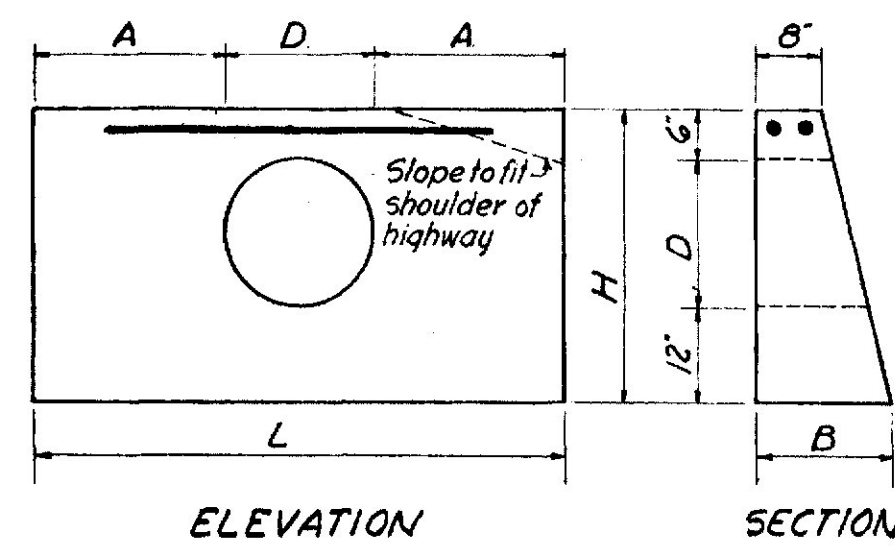
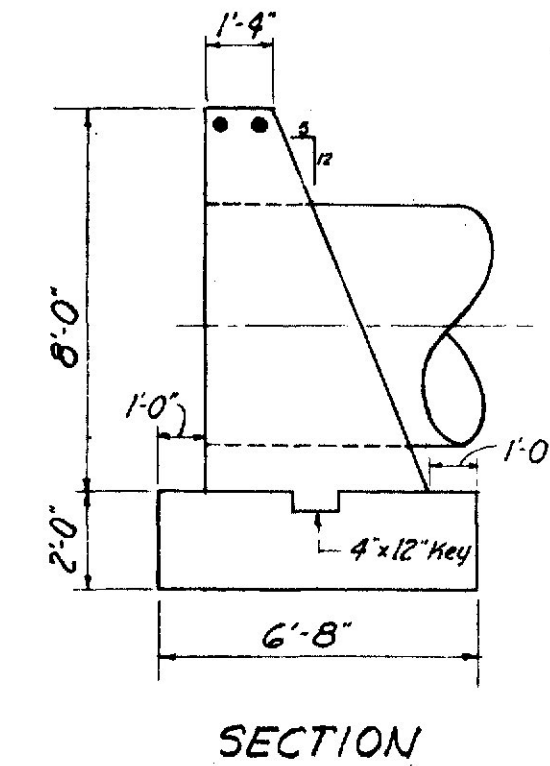
D	H	L	B	ONE END WALL				NUMBER OF BARS	LENGTH OF BARS
				CAST PIPE BELL END SPIGOT END CONCRETE CU. YDS.	MACHINE PIPE BELL END SPIGOT END CONCRETE CU. YDS.				
12"	4'-6"	5'-9"	1'-11"	1.30	1.32	1.32	1.33	2-#4	4'-0"
15"	4'-9"	6'-9"	2'-9"	1.64	1.67	1.66	1.68	2-#4	4'-6"
18"	5'-0"	7'-9"	2'-0"	1.96	2.00	1.98	2.01	2-#4	5'-0"
24"	5'-0"	7'-9"	2'-2"	2.82	2.87	2.84	2.89	2-#4	6'-0"
30"	6'-0"	11'-9"	2'-3"	3.74	3.81	3.79	3.85	2-#4	7'-0"
36"	6'-6"	13'-9"	2'-4"	4.78	4.88	4.87	4.94	2-#4	8'-0"
42"	7'-0"	15'-9"	2'-6"	6.14	6.27	6.25	6.35	2-#6	9'-0"
48"	7'-6"	17'-9"	2'-7"	7.50	7.66	7.61	7.74	2-#6	10'-0"
54"	8'-0"	19'-9"	2'-8"	9.01	9.21	9.14	9.30	2-#6	11'-0"
60"	8'-6"	21'-9"	2'-9"	10.69	10.92	10.84	11.02	2-#6	12'-0"

Top edges of front and ends to be chamfered 1". Weight of #4 steel 0.668 lbs. per lin. ft. Steel to be not nearer than 2" from surface of concrete. Weight of #6 steel 1.502 lbs. per lin. ft.

60" Asphalt Coated Structural Plate Pipe (10 Gage)



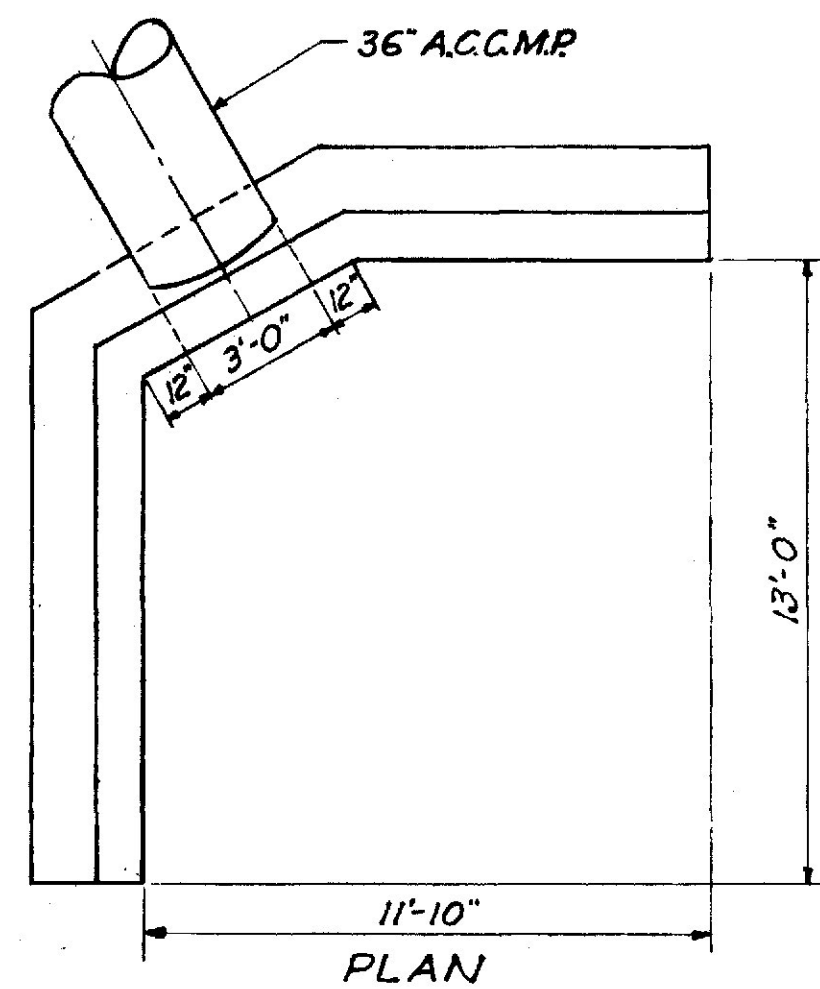
DETAIL OF END WALL NEAR FREEPORT WATER CO. DAM AT STA. 262+50±
Scale: $\frac{1}{4}$ " = 1'-0"



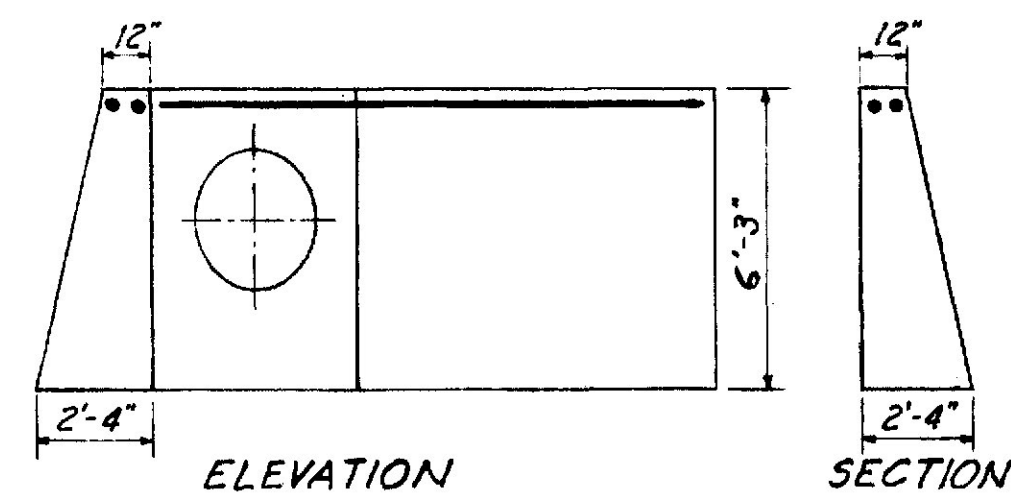
CONCRETE END WALL FOR DRIVEWAY CULVERTS
Scale: $\frac{1}{4}$ " = 1'-0"

D	A	B	H	L	ONE END WALL	
					CONCRETE CU. YDS.	STEEL BARS
12"	1'-6"	1'-3"	2'-6"	4'-0"	3'-0"	0.33
15"	1'-9"	1'-4"	2'-9"	4'-9"	3'-6"	0.44
18"	2'-0"	1'-5"	3'-0"	5'-6"	4'-0"	0.57
24"	2'-6"	1'-6"	3'-6"	7'-0"	5'-0"	0.86

Length of wall may be varied to fit conditions. Top edges of front and ends to be chamfered 1". Steel to be not nearer than 2" from surface of concrete.

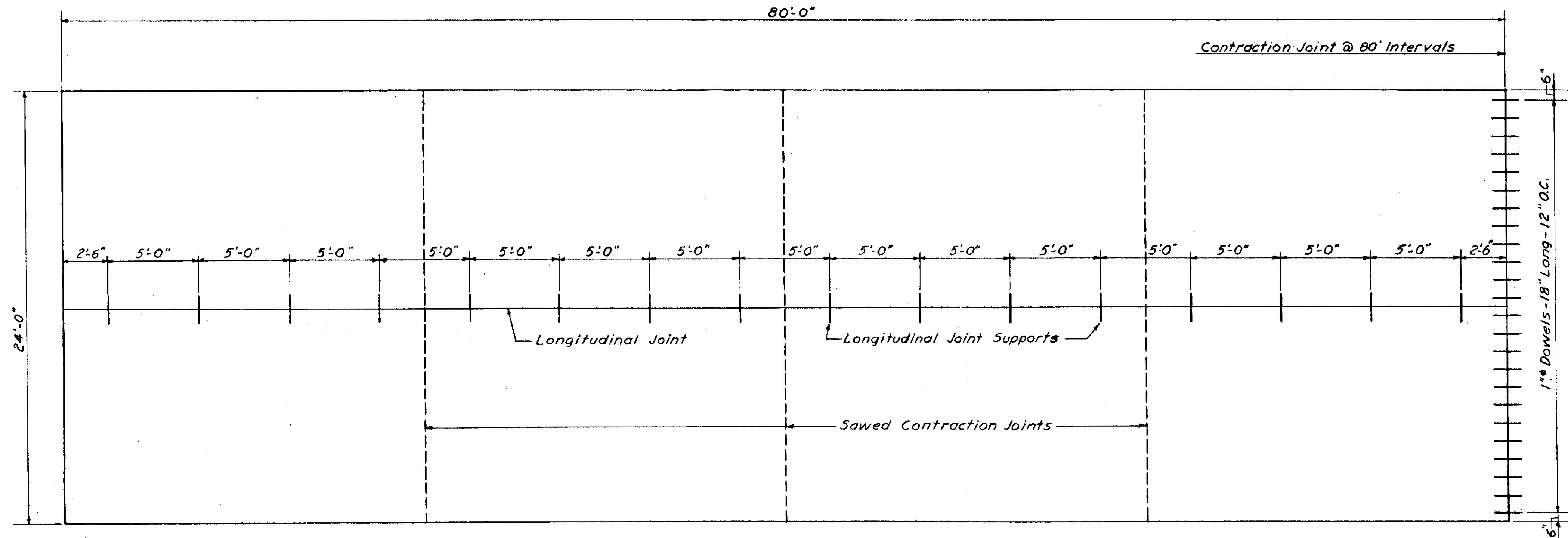


DETAIL OF END WALL FOR 36" PIPE UNDER WESTBOUND ROADWAY AT STA. 257±
Scale: $\frac{1}{4}$ " = 1'-0"



Portland Cement Concrete = 9.03 C.Y.
2-#4 Reinforcing Steel Bars @ 18 L.F. Each = 36 L.F.

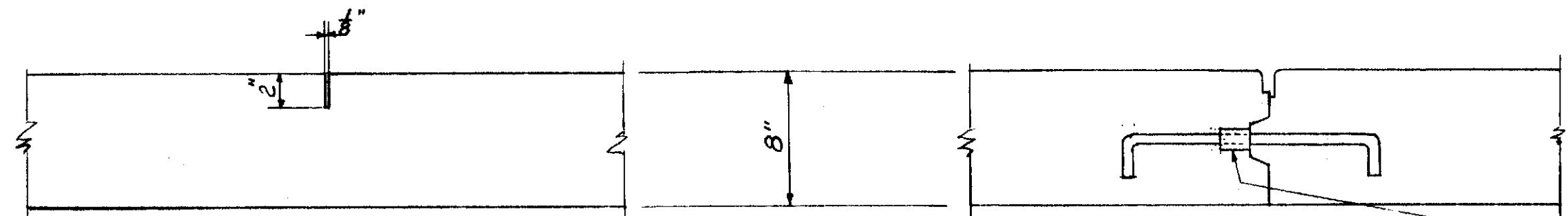
STATE HIGHWAY COMMISSION AUGUSTA, MAINE		
FREEPORT BY PASS		
SPECIAL END WALL DETAILS		
SHEET NO. 11 OF 240	SCALE AS NOTED	AUG. 1956
FAY, SPOFFORD & THORNDIKE, INC. ENGINEERS		



PLAN
Scale $\frac{1}{4}'' = 1'-0''$

NOTE:

Dowels must be accurately held in place by supports of a type approved by the Engineer. One half of the dowel shall be coated with bituminous material sufficient to break the bond. The cost of dowels, supports, or other devices shall be included in the price of "Cement Concrete Pavement" and shall not be paid for directly.

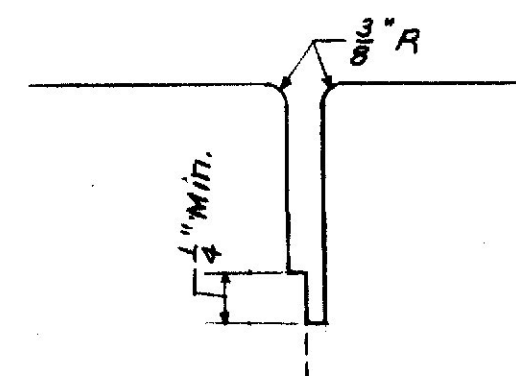


SAWED TRANSVERSE JOINT
TO BE CUT ON 20' CENTERS
BETWEEN 80' CONTRACTION JOINTS
Scale $\frac{1}{2}'' = 1'-0''$

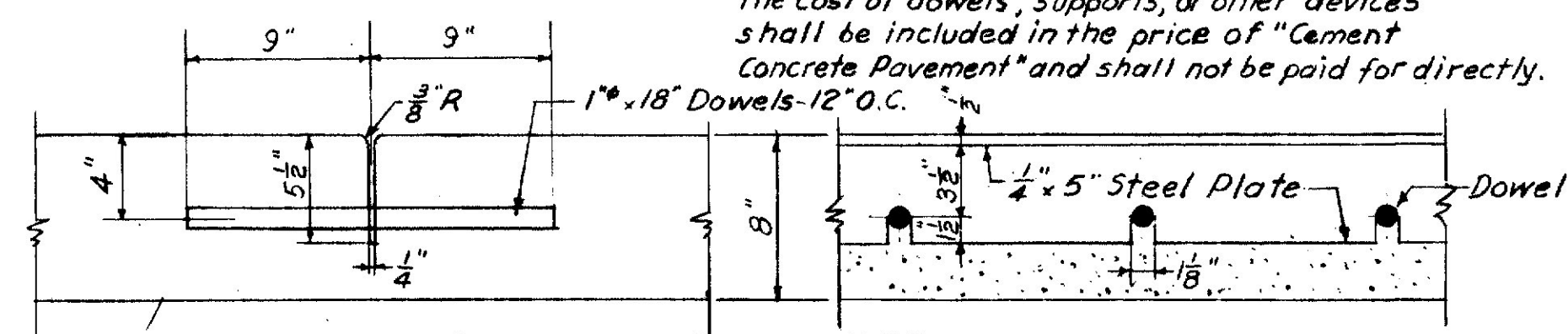
LONGITUDINAL TONGUE
AND GROOVE JOINT
Scale $\frac{1}{2}'' = 1'-0''$

NOTE:

Joints shall be sawed full width (24') in not less than 12 days, nor more than 14 days. Sawing of joints will not be paid for directly, but shall be incidental to "Plain Portland Cement Concrete Pavement."



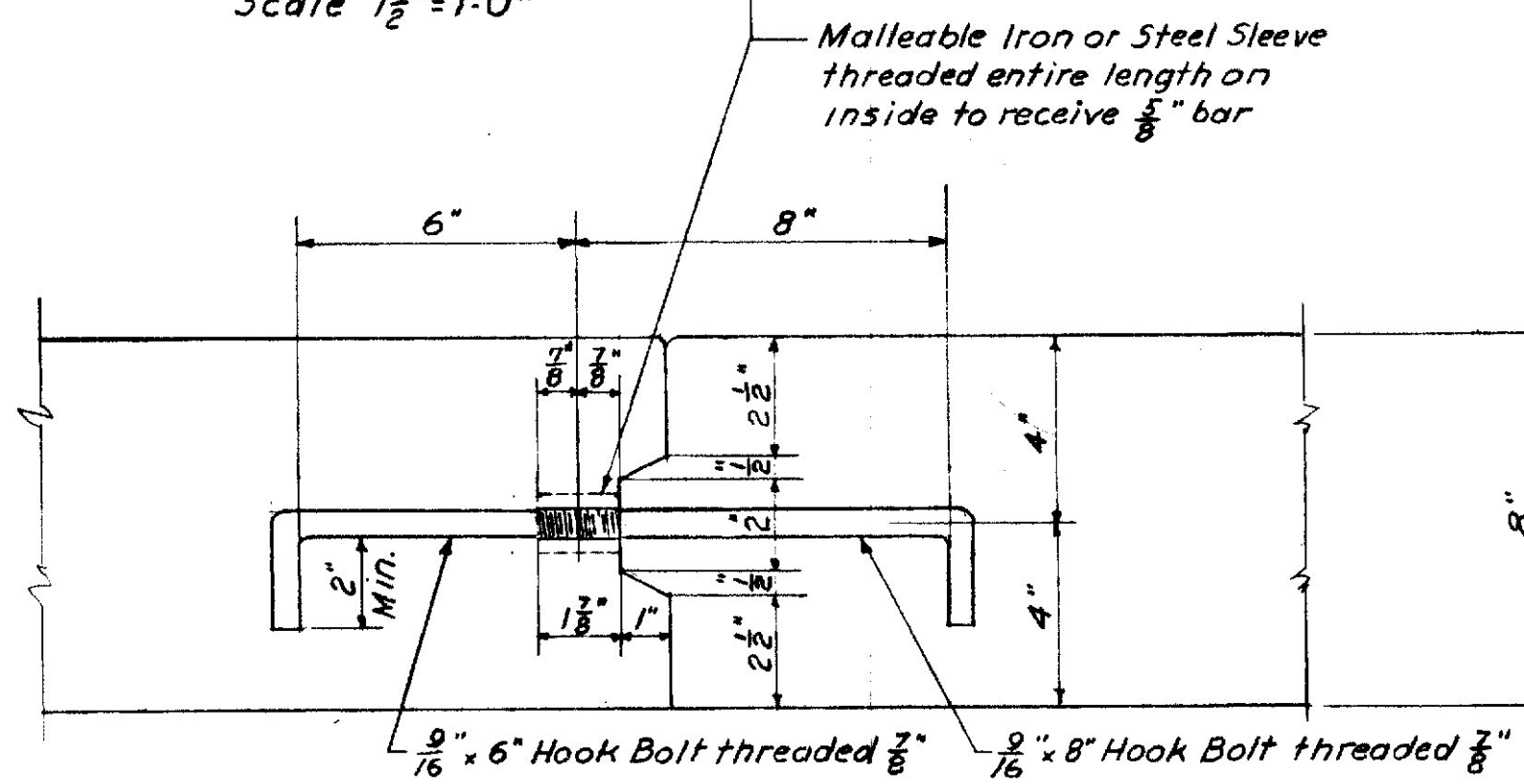
DETAIL OF FINISHING
LONGITUDINAL JOINT
HALF WIDTH CONST.
Scale: Full Size



DOWEL CONTRACTION JOINT
Scale $\frac{1}{2}'' = 1'-0''$

NOTE:

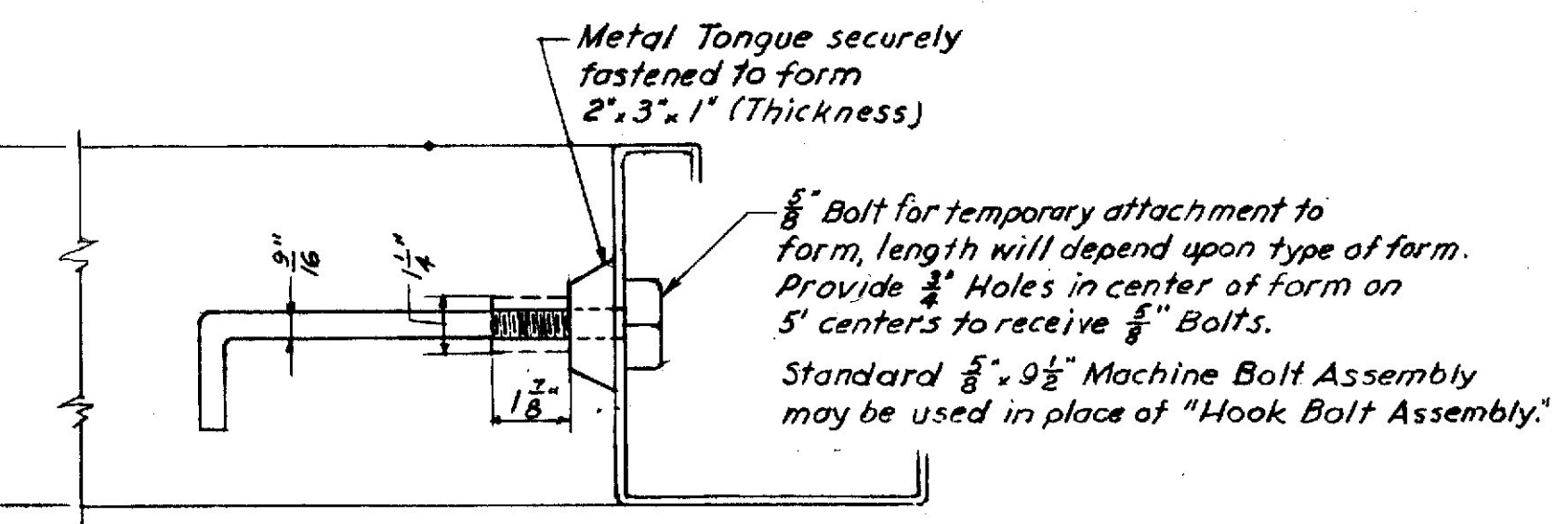
Part-depth contraction joint, shall be formed by inserting $\frac{1}{4}'' \times 5''$ removable steel plate in dowel assembly. Plate shall not be removed until after burlap finish of pavement.



LONGITUDINAL JOINT SUPPORT
Scale $3'' = 1'-0''$

NOTE:

The cost of Longitudinal Joints and Devices shall be included in the price of "Cement Concrete Pavement" and shall not be paid for directly.



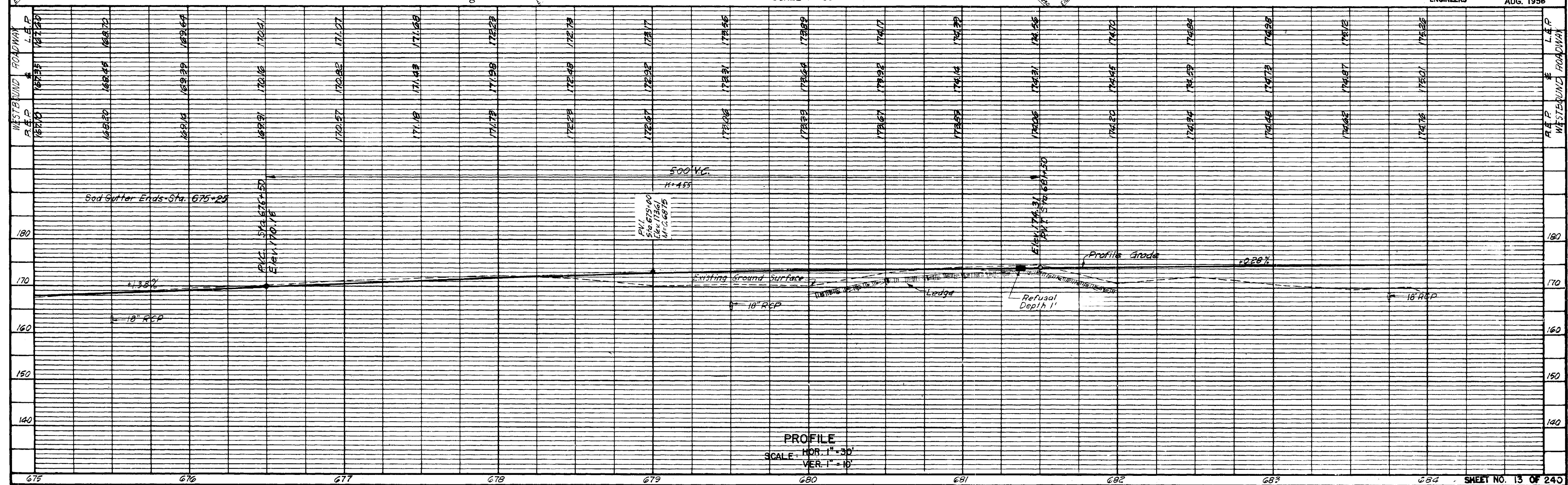
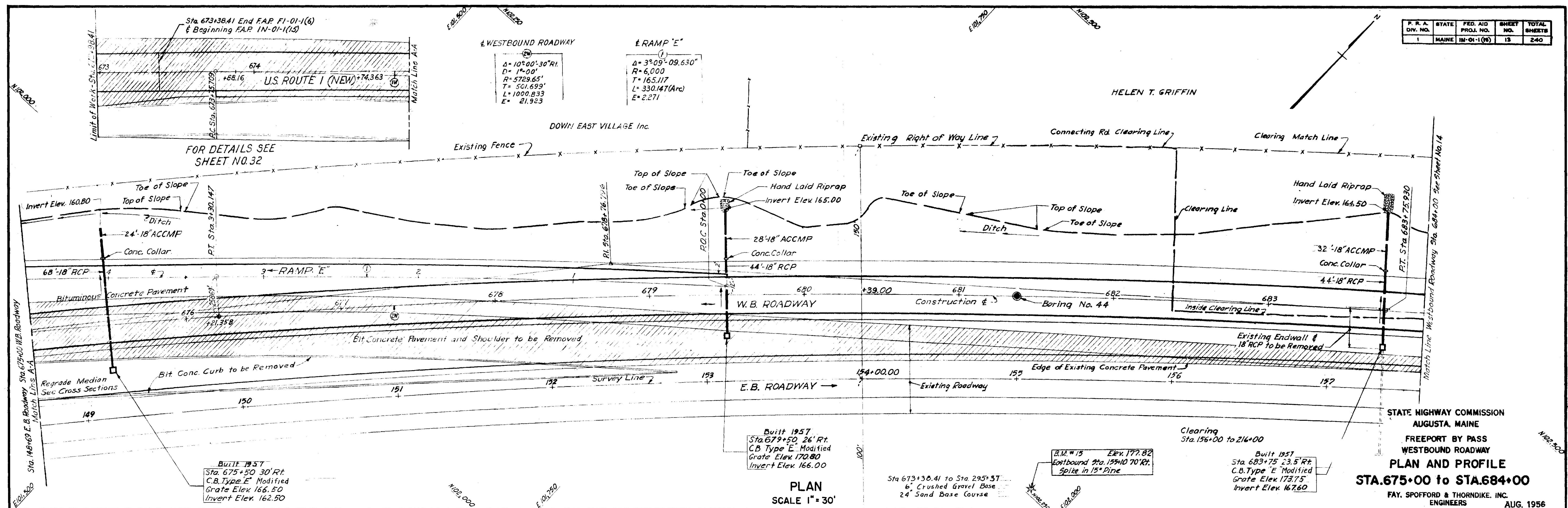
LONGITUDINAL JOINT SUPPORT
SHOWING TEMPORARY ATTACHMENT TO FORM
Scale $3'' = 1'-0''$

STATE HIGHWAY COMMISSION
AUGUSTA, MAINE

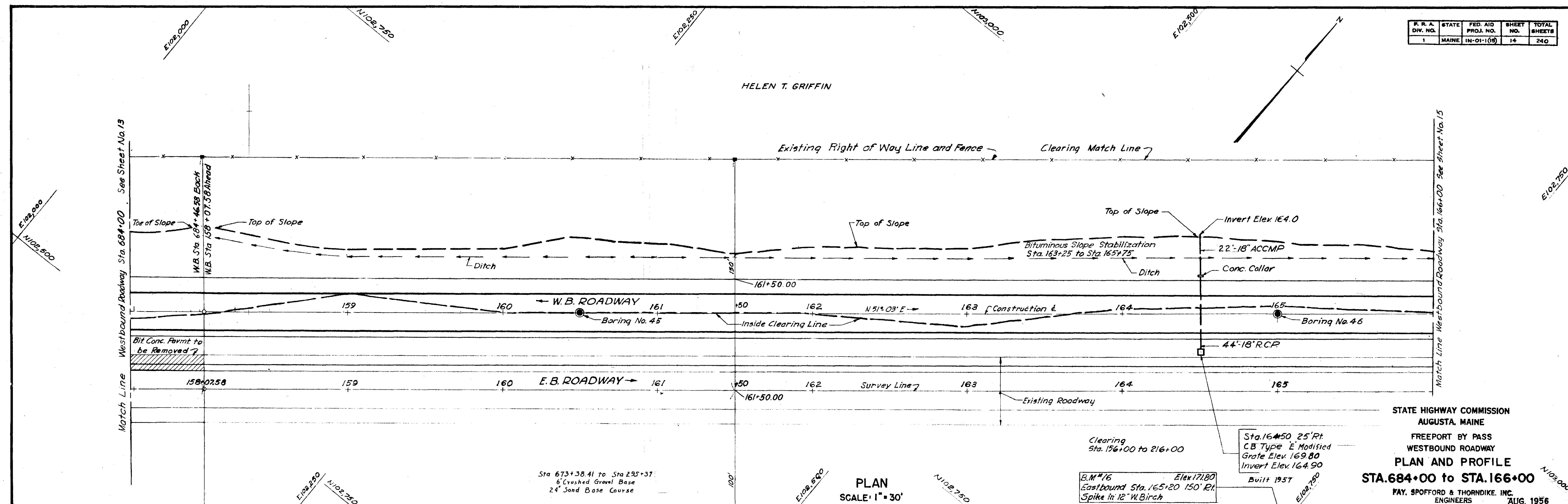
FREEPORT BY PASS

PLAIN PORTLAND CEMENT
TYPICAL CONCRETE SLAB DETAILS

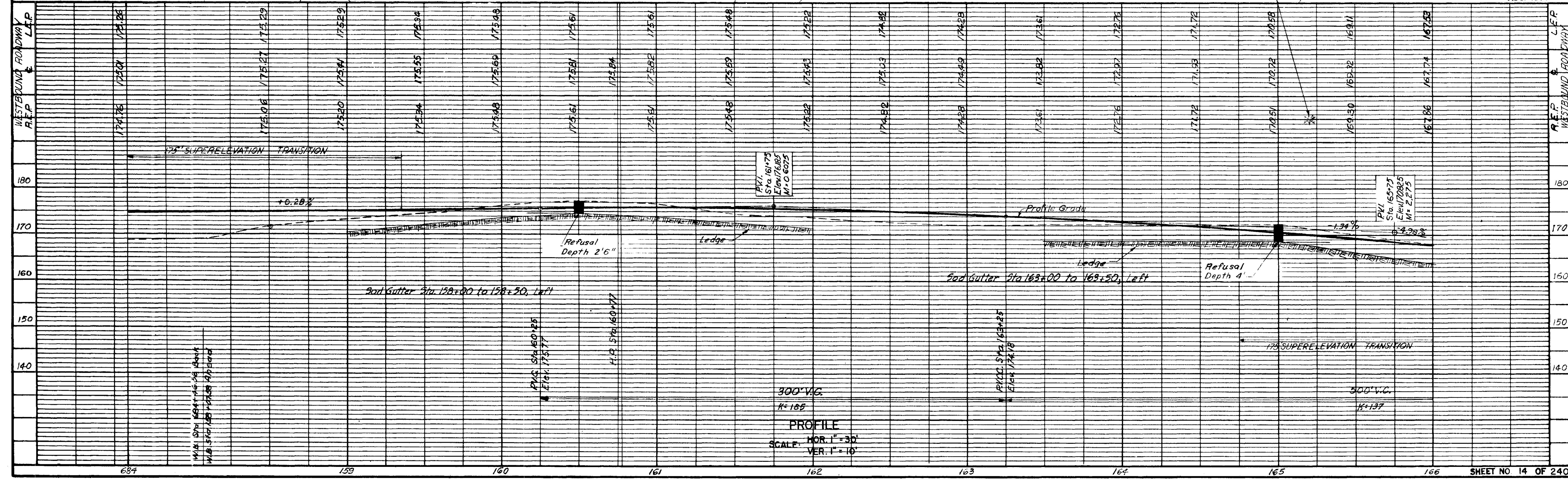
P. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	IN-01-1 (16)	13	240



R. R. A. DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	MAINE	IN-01-1(15)	14	240



STATE HIGHWAY COMMISSION
AUGUSTA, MAINE
FREEPORT BY PASS
WESTBOUND ROADWAY
PLAN AND PROFILE
STA. 684+00 to STA. 166+00
PAY, SPOFFORD & THORNDIKE, INC.
ENGINEERS
AUG. 1956



Qm-12
25

DES. H.N.J.
IN. R.P.
TR. R.P.
CHK. C.H.F.
APP. H.J.W.