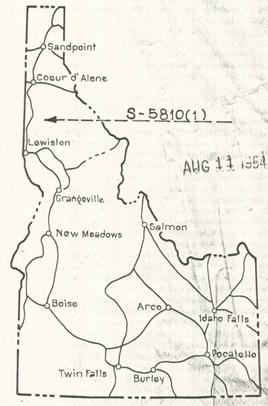
5810

INDEX OF SHEETS		
SHEET NO.	DESCRIPTION	STA. TO STA.
1	TITLE SHEET	
2	TYPICAL CROSS SECTIONS AND SUMMARY	
3	PLAN AND PROFILE	

FEDERAL ROAD DIVISION NO.	STATE	FEDERAL AID PROJECT NO.	TOTAL SHEETS	SHEET NO.
8	IDAHO	S-5810(1)	3	1

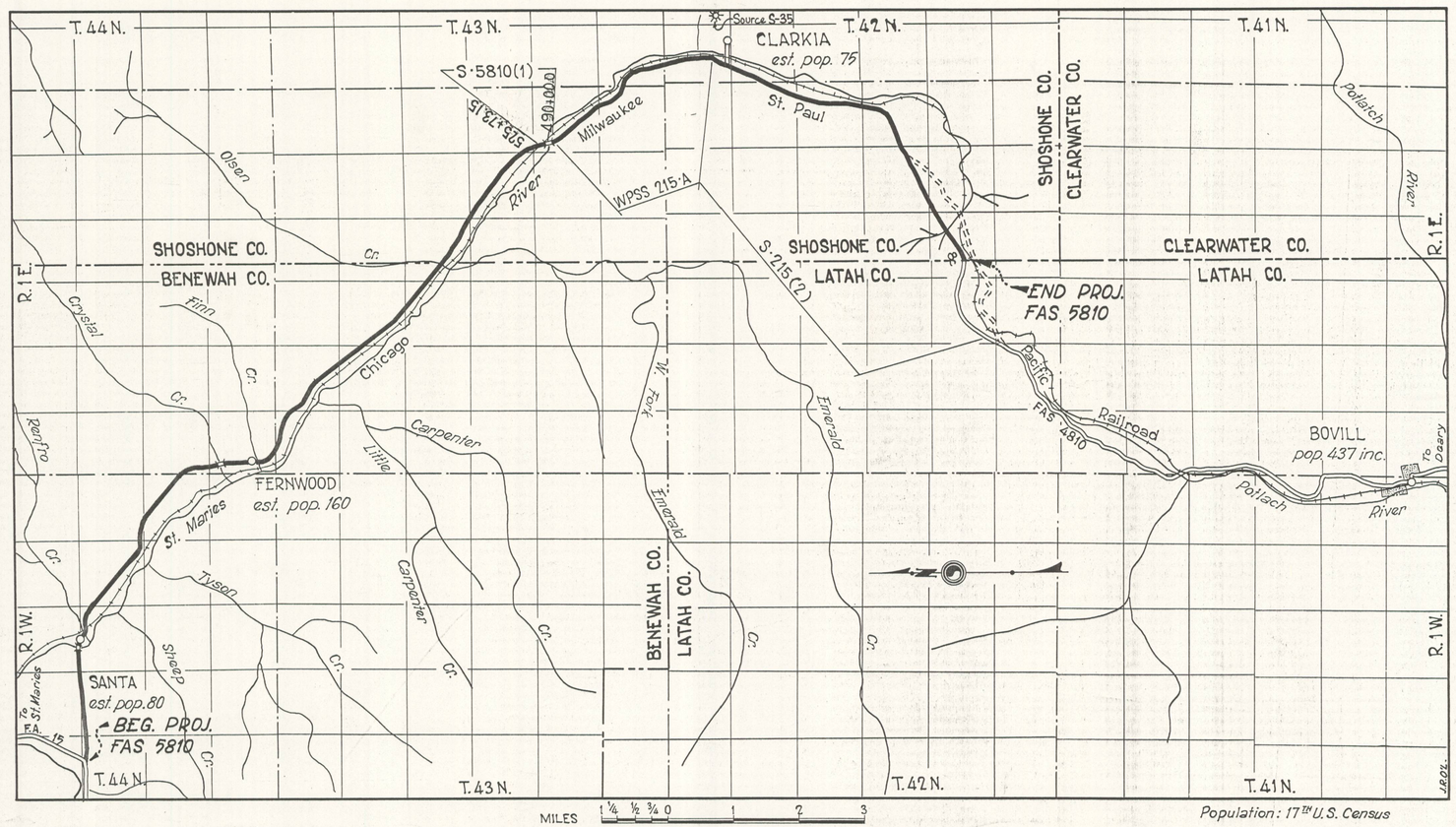
STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY NO. 43
FEDERAL AID PROJECT NO. S-5810(1)
BENEWAH, LATAH & SHOSHONE COUNTIES
BOISE, APRIL 1954



AUG 11 1954

HOR. 100 50 0 100 200 300 FT.
VERT. 10 5 0 10 20 30 FT.
SCALES



CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- CITY OR VILLAGE
- TOWNSHIP LINE
- SECTION LINE
- FENCE LINE
- GUARD RAIL
- UNFENCED PROPERTY
- RIGHT-OF-WAY LINE
- EXISTING ROAD
- BASE OR SURVEY LINE
- RAILROADS
- RETAINING WALL
- BRIDGE
- CULVERT
- SIPHON
- POWER POLE
- TELEPHONE OR TELEGRAPH POLE
- MARSH
- IRRIGATION DITCH
- TREES

STATE OF IDAHO

STATE HIGHWAY ENGINEER ____ DATE ____

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DISTRICT ENGINEER ____ DATE ____

MICROFILM RECORD
DATE 10-16-81
ROLL NO. 22
AP-CARD or FRAME NO. 238
METRIC 2 3 4 5 6 7 8 9 10
INCHES 1 2 3 4

5810

FEDERAL DIVISION	ROAD NO.	STATE	FEDERAL AID PROJECT NO.	TOTAL SHEETS	SHEET NO.
8		IDAHO	S-5810(1)	3	3

Rev. 6-22-54

24

AUG 11 1967

FEB 3 1967

T. 43 N. R. 1E. B.M.

NE¼ NE¼ 26 | SE¼ SE¼ 23 | SW¼ SW¼ 24 | NW¼ NW¼ 25

Clarkia

R/W Markers

N 31° 41' W

BEG. PROJ. S-5810(1) = STA. 495+00.0 = STA. 495+00.0 W.P.S.S. 215-A

496+00 - 40 Appr. w/18" P.C. Per. # S-73-11

498+10

499+70 — Cedar Cr. — 4'x10'x49.7'

Guard Rail Req'd Rt. & Lt.

P.C. 497+61.51

P.T. 504+54.84

Δ = 38° 08'
D = 5° 30'
T = 360.06
L = 693.33
R = 1041.74
Super 0.10'/ft.

Ref. Markers

N 6° 27' E

Channel Change 6

Adv. Warning Sign

Guide Posts Req'd Rt. & Lt.

7.5 Sta. Oblit. of Old Road Class I

BEG. S.A.P. 188-A
END W.P.S.S. 215-A
STA. 506+35.4

N 18° 00' W

Bearing Tree Cor. not found

ST MARIES RIVER

Δ = 70° 22' 30"
D = 13° 00'
T = 310.76'
L = 541.35
R = 440.73

9 Sta. Obliteration of Old Rd. Class I

ELK RIVER BRANCH

Const. Special Dr.

END PROJ. S-5810(1) = 526+00.2 AH = 525+73.17 BK.

Little Cr.

523+37-30 x 54'

N 63° 55' 30" W

P.T. 518+21.69

Adv. Warning Sign

Move 2 Power Poles outside Const. area by Clearwater Valley Light & Power Assn. Inc.

521+50 - Aerial Tel. Xing on Exist. Power Poles Per. # S-66-64

522+25 - 20 Appr. W/12" P.C. Per. # S-66-23

522+20 & 523+20 - 2, 30' Apprs. Per. # S-71-95

Channel Change 5

P.C. 512+86.35

RR X-ing Signs

N 34° 04' W

Adv. Warning Sign

Move 2 Power Poles outside Const. area by Clearwater Valley Light & Power Assn. Inc.

To Channel

C.M. St P & P. R.R.

512+81.04 P.O.R. 580'-4.75 ℄ R.R.
513+16.18 = 578.18 = 50

513+90 - 30 Appr. W/12" P.C. Per. # S-74-13

RR 552+75.77

Δ = 38° 08'
D = 5° 30'
T = 360.06
L = 693.33
R = 1041.74
Super 0.10'/ft.

P.T. 504+54.84

Ref. Markers

N 6° 27' E

Channel Change 6

Adv. Warning Sign

Guide Posts Req'd Rt. & Lt.

7.5 Sta. Oblit. of Old Road Class I

BEG. S.A.P. 188-A
END W.P.S.S. 215-A
STA. 506+35.4

N 18° 00' W

Bearing Tree Cor. not found

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Δ = 70° 22' 30"
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523+37-30 x 54'

N 63° 55' 30" W

P.T. 518+21.69

Adv. Warning Sign

Move 2 Power Poles outside Const. area by Clearwater Valley Light & Power Assn. Inc.

521+50 - Aerial Tel. Xing on Exist. Power Poles Per. # S-66-64

522+25 - 20 Appr. W/12" P.C. Per. # S-66-23

522+20 & 523+20 - 2, 30' Apprs. Per. # S-71-95

Channel Change 5

P.C. 512+86.35

RR X-ing Signs

N 34° 04' W

To Channel

C.M. St P & P. R.R.

512+81.04 P.O.R. 580'-4.75 ℄ R.R.
513+16.18 = 578.18 = 50

513+90 - 30 Appr. W/12" P.C. Per. # S-74-13

RR 552+75.77

BEG. S-5810(1) = STA. 495+00 = STA. 495+00 W.P.S.S. 215-A

B.M. 2781.48

Spike in Stump 30' Rt. Sta. 495+95

5.0% | +1.86 | 84.96

12" C.M. Pipe 24' in place Remove

12" Pipe Culvert 28' Regd.

Side Drain 1 Lt.

200 C.Y. Apprr. Emb. in Mass

498+70 - 4'x10' Conc. Culv. 33.86' in place Ret. ℄ Ext. 7.9 Lt. & 8.3 Rt.

23.5 C.Y. Conc. Cl. A, 3298 Lbs. Met. Reinf.

51 C.Y. Str. Exc. 45 C.Y. Mech. Tamp.

100 C.Y. Channel Exc. Lt. (Wasted in front in Mass

48 C.Y. Loose Rip-Rap

Dwg. No. S-36424 = 6572

73.16 | 400' V.C. | 70.66 | 1.86 | 609'

12' out from ℄ Finished Grade

0.00%

-0.438%

505+00 - Const. Appr. Lt.

505+90 - Conc. Culv. Lt. abandon in place.

51+45 - 105 Conc. Bridge Regd. Each, Removal of Bridge

107 C.Y. Mech. Tamping

45 C.Y. Conc. Cl. A, for Precast Stgrs.

83 C.Y. Conc. Cl. A, poured in place

32,180 Lbs. Metal Reinf.

1506 Lbs. Structural Steel

225 L.F. Steel Bearing Piles 10 Bore Str.

Lump Sum Fur. Pile Driving Equip.

380 L.F. Furnish Timber Piles Tr.

900 L.F. Driving Timber Piles Tr.

80 L.F. Driving Test Piles (2)

2220 M.F.B.M. F-1100 # C.D.S.

2170 M.F.B.M. F-1100 # C.D.

Dwgs. G-525

512+81.04 ℄ R.R.

Elev. Top of Rail 2770.80

S.E. Wing Wall Brg. 65' Lt. Sta. 511+15

70.66 | 1.86 | 609'

Rem. & Ext. 10' Pr. & 16' Lt.

18" Pipe Culv. 26' Regd.

3 C.Y. Str. Exc. 3 C.Y. Mech. Tamp.

513+50 - Const. Appr. Rt.

12" Pipe Culv. 23' Regd. Side Drain Rt.

R.R. Sta. 581+25 - 24' CM Pipe 48" in place and 120 Sta. 584+75 Install 24" Pipe Culv.

24" Pipe Culv. 45' to be Installed

5 C.Y. R.P. Cr. 3 C.Y. Sacks Excavate

516+80 - 18' C.M. Pipe 36" in place Rem. 28' Pipe Culv. 40' Regd. 26° Skew

14 C.Y. Str. Exc. 5 C.Y. Mech. Tamp.

1001 L.F. - Const. Small Ditch Lt.

℄ RR 580+74.75 = 4' Hwy. Sign Regd.

2 Each, E.E. Xing Signs Regd.

2 Each, Adv. Warning Signs Regd.

Dwgs. M-2-2

Work by State forces

73.99 | 2.32% | 70.66 | 1.86

300' V.C.

523+37-30' C.M. Pipe 36" in place Retain ℄ Extend Rt.

30' Pipe Culv. 18' Regd.

5 C.Y. Str. Exc. 3 C.Y. Mech. Tamping

35 L.F. - Const. Small Ditch

524+75 - Const. Appr. Lt. & Rt.

18" C.M. Pipe 26' in place Rt. Remove

3½" Iron Pipe 150' Lt. Sta. 525+00 U.S.G.S.

END S-5810(1) Sta. 525+73.15 BM = STA. 525+73.15 = STA. 526+00.2 AH SAP 188-A

73.16 | 2.45% | 67.72

700' V.C.

Spec. Dt. Gr.

Q11 Ac. Cl.

Q11 Ac. Gr.

9 Sta. Obliteration Old Rd. Class I

Spec. Dif. Exc. of Quant. in Mass

B.M. 2770.30

---

200 L.F. Guard Rail Regd. 100' Rt. & 100' Lt.

1175 L.F. Guard Rail Regd. 800' Rt. & 575' Lt.

6 Guide Posts Regd. 3 Rt. & 3 Lt.

2.50 Ac. Clearing
1.95 Ac. Grubbing

52 C.Y. Exc. (Rdwy)
40 C.Y. Emb.

4198 C.Y. Emb.

4409 C.Y. Emb.

683 Y.M.

Free Haul

2469 C.Y. Emb.

6041 C.Y. Emb.

6830 C.Y. Chan. Exc. in Mass
520 C.Y. Loose Rip-Rap
175 C.Y. Str. Exc.
1.14 Ac. Clearing
1.14 Ac. Grubbing
1445 5984 C.Y. Exc.
Old Rd. ℄ Chan.

Haul along Chan.

Haul along Chan.

Free Haul

1001 Y.M.

5431 C.Y. Exc. Channel

3210 C.Y. Exc. (Rdwy)

164 C.Y. Exc. (to be wasted along R.R. Fill (F.H.))

7854 C.Y. Exc. (Rdwy)

130 C.Y. Emb. 168 C.Y. Exc.

39 C.Y. Emb. 51 C.Y. Exc.

3.9 C.Y. Emb. 50 C.Y. Exc. (Rdwy)

TOTALS

Exc.	* 23064 C.Y.
Emb.	17365 C.Y.
Haul	1684 Y.M.

* Includes 100 C.Y. Ch. Exc. at Sta 499+70

Roadway 2968.15 L.F.
Bridge 107.00 L.F.

SW¼ SW¼ 24 ③ 521+35 - 525+73.15

PLATE 1 - PLAN-PROFILE C. P. R. & R. R. STANDARD

PLAN: SURVEYED, PLOTTED, NOTE BOOK, NO. | ALIGNMENT CHECKED, RT. OF WAY CHECKED | DATE, BY

PROFILE: SURVEYED, PLOTTED, NOTE BOOK, NO. | GRADES CHECKED, R & L NOTES CHECKED, STRUCTURES NOTATING CHECKED | DATE, BY

MICROFILM RECORD
DATE: 10-16-81
ROLL NO.: 29
AP-CARD or FRAME NO.: 240

METRIC 2 3 4 5 6 7 1 8 9 10
INCHES 1 2 3 4

5810

FEDERAL ROAD DIVISION NO.	STATE	FEDERAL AID PROJECT No.	TOTAL SHEETS	SHEET No.
8	IDAHO	S-5810(1)	3	2

Rev. 6-29-54

23

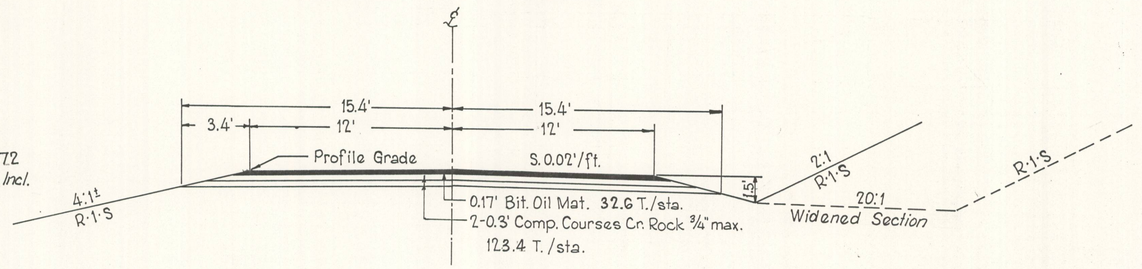
AUG 1 1 1954

FEB 3 1967

STANDARD AND STRUCTURE DRAWINGS ARE INCLUDED WITH THESE PLANS AS LISTED BELOW:

Barricade, Detour and Warning Signs	WS-1, D-1
Widening and Superelevation	R-1
Embankment Over Pipe Culverts	R-1-A
Secondary Grading Requirements	R-1-S
Project and Right of Way Markers	R-2
Guide Posts	R-3
Beam Type Guard Rail	R-4-A
Location of Guard Rail Posts	R-4-B
Railroad Crossing Signs	R-12
Paved Rural Approaches	R-17
Extention of Concrete Culvert ....499+70.....	S-36(4) & 6572
Concrete Bridge .....511+45.....	6565 to 6571 Incl.

TYPICAL SECTION



ROADWAY SUMMARY

Item No.	Item	Amnt.	Unit
201-A	CLEARING	3.75	Acres
202-A	GRUBBING	3.20	"
206-A	UNCL. EXC.	23064	C.Y.
207-A	EXC. FOR STR.	173	"
210-A	HAUL	1684	Y.M.
212-A	WATERING EMB.	798	M.G.
B	" BASE & SURF.	136	"
213-A	ROLLING, POWER ROLLER	24	HRS.
B	" TAMP. ROLLER	228	"
214	MECH. TAMP.	56	C.Y.
217	SMALL DITCH	235	L.F.
219-A	OBLIT. OF OLD ROAD CL. I	16.5	Sta.
401-C	CR. ROCK SURF. ¾" MAX.	3866	Tons
F	CR. ROCK IN WINDROW ¾" MAX.	1025	"
403-A	RC-1 ASPH. ROAD MAT'L. FOR PRIME	2611	Gals.
406-B	MIX, FIN. & ROLL CL. "A"	0.562	Mi.
C	MC-3 ASPH. ROAD MAT'L FOR ROADMIX	41	Tons
E	MIX & PLACE BIT. SURF. FOR APPR. ROADS	22	"
408-A	MC-3 ASPH. ROAD MAT'L. FOR SEAL	2517	Gals.
B	COVER COAT MAT'L. CL. "5"	125	Tons
506-A-2	CONC. CL. "A"	28.5	C.Y.
507	METAL REINF.	3298	Lbs.
515-A-1	12" PIPE CULV.	56	L.F.
2	18" " "	26	"
3	24" " "	42	"
4	30" " "	18	"
601	LOOSE RIP-RAP	568	C.Y.
606	STEEL BEAM TYPE GUARD RAIL	1375	L.F.
607	GUIDE POST TYPE "2"	6	Ea.

NON-PARTICIPATING

401-I	CR. ROCK IN STPILES. ¾" MAX.	10,000	Tons

WORK BY STATE FORCES

613-A	PROJECT MARKERS	2	Ea.
B	R/W MARKERS	18	"
	REFLECTORIZED ADVANCED WARNING SIGNS	2	"
	" RAILROAD CROSSING SIGNS	2	"

BRIDGE SUMMARY

Item No.	Item	Amnt.	Unit
204-A	REMOVAL OF BRIDGE	1	Ea.
214	MECH. TAMPING	107	C.Y.
506-A-1	CONC. CL. "A" (PRECAST STRINGERS)	45	C.Y.
2	" " " (POURED IN PLACE)	83	C.Y.
507	METAL REINF.	32180	Lbs.
508A	STR. STEEL	1506	"
509-C	STEEL BEAM HDRAIL. FOR CONC. STR. (10GA.)	225	L.F.
510-A	FURNISH PILE DRIVING EQUIPMENT	Lump Sum	
B	" TIMBER PILES TR.	980	L.F.
F	DRIVE TIMBER PILES TR.	900	"
I	" TEST PILES (2)	80	"
514-A-1	F-1700 DENSE #1 C.D. FIR, CREO. TR.	2.240	M.F.B.M.
2	" " " " " " , SALTS TR.	0.170	"

NOTES

Widening and superelevation of curves, slope rounding and warping of slopes required as shown on Drawings R-1 and R-1-S.

Estimating Basis

Sprinkling water @ 35 gals. / C.Y. of excavation, and @ 35 gals. / ton of surfacing.
Tamping Roller @ 1 hour / 100 C.Y. of excavation.
Power Roller @ 16 hours / mile / course of surfacing.
RC-1 for Prime @ 0.30 gal. / sq. yd.
MC-3 for Mix @ 4% by weight.
MC-3 for Seal @ 0.30 gal. / sq. yd.
Cover Coat Material Cl. "5" @ 30 lbs. / sq. yd.
Method "B" embankment compaction specified.

Surfacing and oiling quantities have been increased by 203 tons of ¾" Cr. Rock Surf, 57 ton ¾" Windrow Mat'l, 150 gals. RC-1 for Prime, 143 gals. MC-3 for Seal, 0.9 ton MC-3 for Roadmix and 7 tons of Cover Coat Mat'l. to care for 292 sq. yds. of curve widening and 5 approaches.

In calculating haul on grading quantities, a percentage has been added to or subracted from embankment quantities to cover shrinkage or swell.

Quantities hereon have been increased for bidding purposes as shown on the proposal forms.

Unless otherwise especially provided, all work on this project shall be governed by the IDAHO STANDARD SPECIFICATIONS for ROAD and BRIDGE CONSTRUCTION, Edition of 1950.

LENGTH SUMMARY

ROADWAY	2968.15 Lin. Ft.		0.562 Miles
BRIDGE	105.00 " "		0.020 "
TOTAL	3073.15 " "		0.582 "

DRAWN & COMPILED BY _____ DATE 4-20-54
CHECKED BY _____ DATE _____

BROUGHT IN RECORD										
DATE	10-16-81									
ROLL NO.	29									
AP-CARD or FRAME NO.	239									
METRIC 2	3	4	5	6	7	8	9	10		
INCHES	1		2				3		4	

FEDERAL ROAD DIVISION NO.	STATE	FEDERAL AID PROJECT NO.	TOTAL SHEETS	SHEET NO.
8	IDAHO	S-5810(1)	3	1

INDEX OF SHEETS

SHEET NO.	DESCRIPTION	STA. TO STA.
1	TITLE SHEET	
2	TYPICAL CROSS SECTIONS & SUMMARY	
3	PLAN AND PROFILE	

AS CONSTRUCTED 1954-55

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

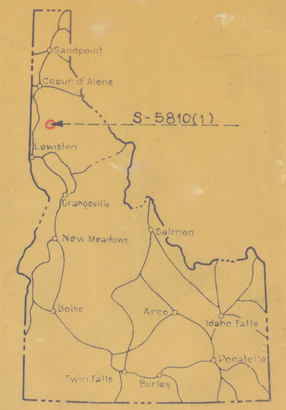
PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY NO. 43

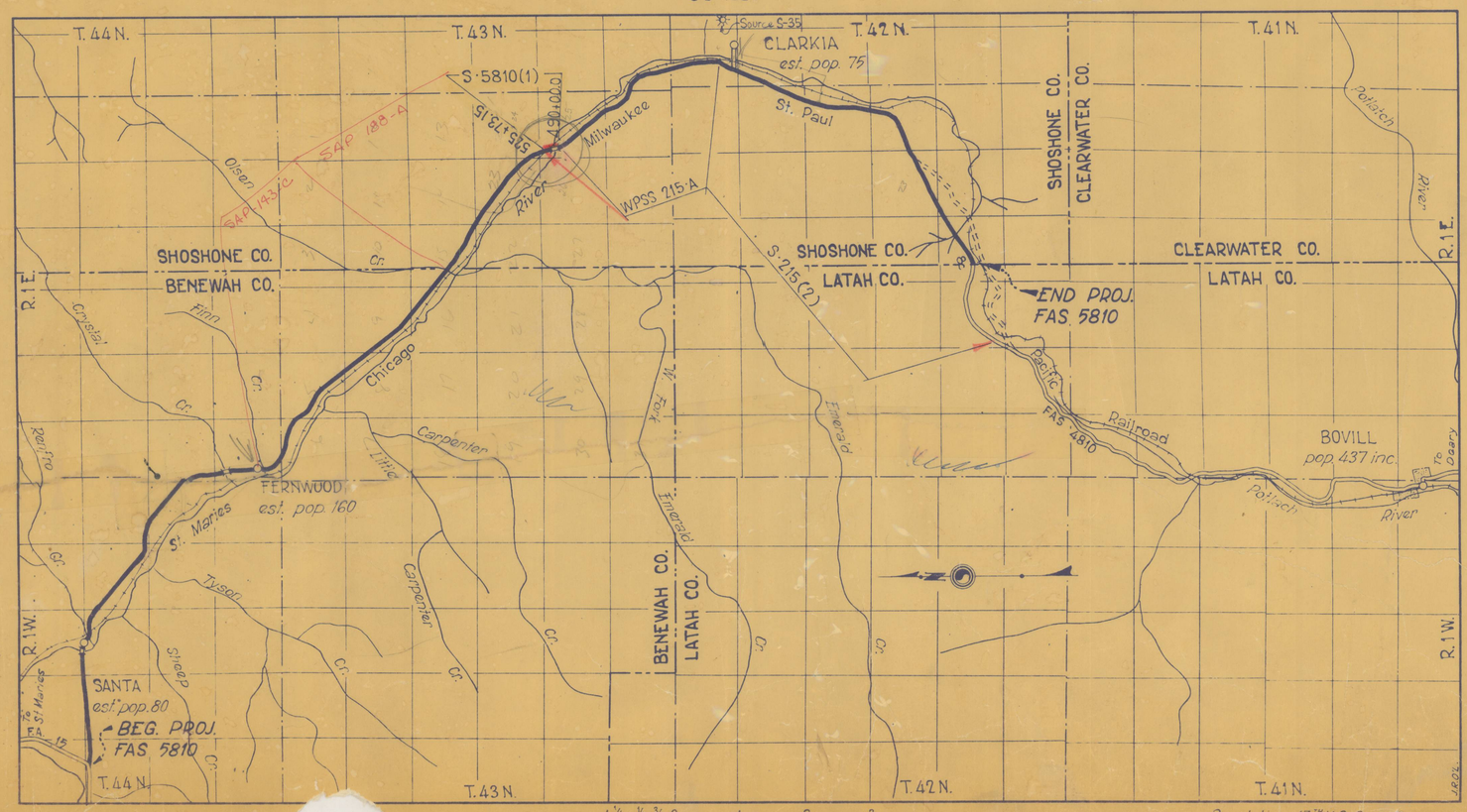
FEDERAL AID PROJECT NO. S-5810(1)

BENEWAH, LATAH & SHOSHONE COUNTIES

BOISE, APRIL 1954



HOR. 100 50 0 100 200 300 FT.
VERT. 10 5 0 10 20 30 FT.
SCALES



CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- CITY OR VILLAGE
- TOWNSHIP LINE
- SECTION LINE
- FENCE LINE
- GUARD RAIL
- UNFENCED PROPERTY
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- RAILROADS
- RETAINING WALL
- BRIDGE
- CULVERT
- SIPHON
- POWER POLE
- TELEPHONE OR TELEGRAPH POLE
- MARSH
- IRRIGATION DITCH
- TREES

STATE OF IDAHO

STATE HIGHWAY ENGINEER DATE

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

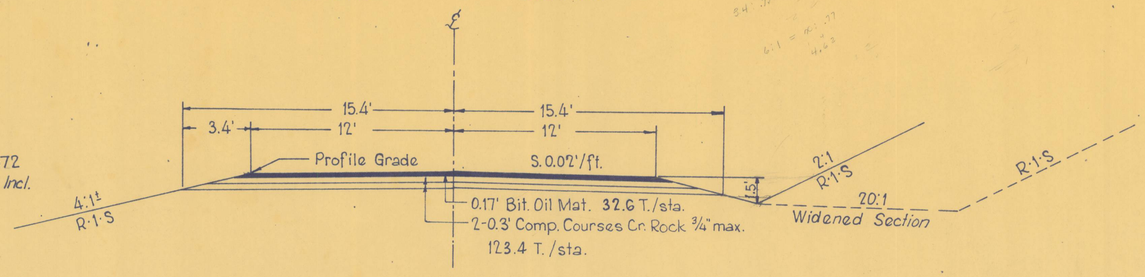
DISTRICT ENGINEER

FEDERAL ROAD DIVISION NO.	STATE	FED. AID OR S. P. NO.	SHEET NO.	TOTAL SHEETS
8	IDAHO	S-5810(1)	3	2

STANDARD AND STRUCTURE DRAWINGS ARE INCLUDED WITH THESE PLANS AS LISTED BELOW:

Barricade, Detour and Warning Signs	WS·1, D·1
Widening and Superelevation	R·1
Embankment Over Pipe Culverts	R·1·A
Secondary Grading Requirements	R·1·S
Project and Right of Way Markers	R·2
Guide Posts	R·3
Beam Type Guard Rail	R·4·A
Location of Guard Rail Posts	R·4·B
Railroad Crossing Signs	R·12
Paved Rural Approaches	R·17
Extention of Concrete Culvert ....499+70	S·36(4) & 6572
Concrete Bridge .....511+45	6565 to 6571 Incl.

TYPICAL SECTION



ROADWAY SUMMARY

Item No.	Item	Amnt.	Unit
201·A	CLEARING	3.75	Acres
202·A	GRUBBING	3.20	"
206·A	UNCL. EXC.	23064	C.Y.
207·A	EXC. FOR STR.	118	"
210·A	HAUL	1684	Y.M.
212·A	WATERING EMB.	798	M.G.
B	" BASE & SURF.	136	"
213·A	ROLLING, POWER ROLLER	24	HRS.
B	" TAMP. ROLLER	228	"
214	MECH. TAMP.	96	C.Y.
217	SMALL DITCH	235	L.F.
219·A	OBLIT. OF OLD ROAD CL. I	16.5	Sta.
401·C	CR. ROCK SURF. ¾" MAX.	3866	Tons
F	CR. ROCK IN WINDROW ¾" MAX.	1025	"
403·A	RC·1 ASPH. ROAD MAT'L. FOR PRIME	2611	Gals.
406·B	MIX, FIN. & ROLL CL. "A"	0.562	Mi.
C	MC·3 ASPH. ROAD MAT'L FOR ROADMIX	41	Tons
E	MIX & PLACE BIT. SURF. FOR APPR. ROADS	22	"
408·A	MC·3 ASPH. ROAD MAT'L. FOR SEAL	2517	Gals.
B	COVER COAT MAT'L. CL. "5"	175	Tons
506·A·2	CONC. CL. "A"	28.5	C.Y.
507	METAL REINF.	3298	Lbs.
515·A·1	12" PIPE CULV.	56	L.F.
2	18" " "	26	"
3	24" " "	86	"
4	30" " "	18	"
601	LOOSE RIP-RAP	503	C.Y.
606	STEEL BEAM TYPE GUARD RAIL	1375	L.F.
607	GUIDE POST TYPE "2"	6	Ea.

NON-PARTICIPATING

401·I	CR. ROCK IN STPILES. ¾" MAX.	10,000	Tons

WORK BY STATE FORCES

613·A	PROJECT MARKERS	2	Ea.
B	R/W MARKERS	18	"
	REFLECTORIZED ADVANCED WARNING SIGNS	2	"
	" RAILROAD CROSSING SIGNS	2	"

BRIDGE SUMMARY

Item No.	Item	Amnt.	Unit
204·A	REMOVAL OF BRIDGE	1	Ea.
214	MECH. TAMPING	107	C.Y.
506·A·1	CONC. CL. "A" (PRECAST STRINGERS)	45	C.Y.
2	" " " (POURED IN PLACE)	83	C.Y.
507	METAL REINF.	32180	Lbs.
508·A	STR. STEEL	1506	"
509·C	STEEL BEAM HDRAIL. FOR CONC. STR. (10GA.)	225	L.F.
510·A	FURNISH PILE DRIVING EQUIPMENT	Lump Sum	
B	" TIMBER PILES TR.	980	L.F.
F	DRIVE TIMBER PILES TR.	900	"
I	" TEST PILES (2)	80	"
514·A·1	F-1700 DENSE #1 C.D. FIR, CREO. TR.	2.240	M.F.B.M.
2	" " " " " " , SALTS TR.	0.170	"

NOTES

Widening and superelevation of curves, slope rounding and warping of slopes required as shown on Drawings R·1 and R·1·S.

Estimating Basis

Sprinkling water @ 35 gals. / C.Y. of excavation, and @ 35 gals. / ton of surfacing.
Tamping Roller @ 1 hour / 100 C.Y. of excavation.
Power Roller @ 16 hours/mile/course of surfacing.
RC·1 for Prime @ 0.30 gal. / sq. yd.
MC·3 for Mix @ 4% by weight.
MC·3 for Seal @ 0.30 gal./ sq. yd.
Cover Coat Material Cl. "5" @ 30 lbs./sq. yd.
Method "B" embankment compaction specified.

Surfacing and oiling quantities have been increased by 203 tons of ¾" Cr. Rock Surf, 57 ton ¾" Windrow Mat'l, 150 gals. RC·1 for Prime, 143 gals. MC·3 for Seal, 0.9 ton MC·3 for Roadmix and 7 tons of Cover Coat Mat'l. to care for 292 sq. yds. of curve widening and 5 approaches.

In calculating haul on grading quantities, a percentage has been added to or subracted from embankment quantities to cover shrinkage or swell.

Quantities hereon have been increased for bidding purposes as shown on the proposal forms.

Unless otherwise especially provided, all work on this project shall be governed by the **IDAHO STANDARD SPECIFICATIONS** for **ROAD** and **BRIDGE CONSTRUCTION**, Edition of 1950.

LENGTH SUMMARY

ROADWAY	2968.15 Lin. Ft.		0.562 Miles
BRIDGE	105.00 " "		0.020 "
TOTAL	3073.15 " "		0.582 "

CHECKED BY _____ DATE _____

FEDERAL ROAD DIVISION NO.	STATE	FEDERAL AID PROJECT NO.	TOTAL SHEETS	SHEET NO.
8	IDAHO	S-5810(1)	3	3

T. 43 N. R. 1 E. B.M.

NE¼ NE¼ 26 | SE¼ SE¼ 23 | NW¼ NW¼ 25 | SW¼ SW¼ 24

Clarkia

R/W Markers

N 31° 41' W

BEG. PROJ. S-5810(1) = STA. 495+00.0 = 495+00 W.P.S.S. 215-A

Spike in Stump 30" Rd. Sta. 495+95

84.36

+86

0.00%

400' V.C.

73.16

498+70 - Const. Appr. Rt. & Lt.

12" C.M. Pipe 24' in place. Remove

12" Pipe Culvert 28' Reqd.

Side Drain Lt.

200 C.Y. Appr. Emb. in Mass

70.66

499+70 - 4'x10' Conc. Culv. 33 ¾" in place. Ret. & Ext. 79' Lt. & 83' Rt.

28.5 C.Y. Conc. Cl. "A". 3298 Lbs. Mel. Reinf.

51 C.Y. Str. Exc. 45 C.Y. Mech. Tamp.

100 C.Y. Channel Exc. Lt. (Waste) not in Mass

48 C.Y. Loose Rip-Rap

Dwg. No. S-3842 # 6572

12' out from ℄ Finished Grade

-0.438%

Channel Grade

200 L.F. Guard Rail Reqd. 100' Rt. & 100' Lt.

1175 L.F. Guard Rail Reqd. 600' Rt. & 575' Lt.

250 Ac. Clearing

1.95 Ac. Grubbing

52 C.Y. Exc (Rdwy)

40 C.Y. Emb.

4198 C.Y. Emb.

6041 C.Y. Emb.

4409 C.Y. Emb.

683 Y.M.

Free Haul

2469 C.Y. Emb.

1001 Y.M.

7.5 Sta. Oblit. of Old Road Class I

BEG. S.A.P. 188-A

END W.P.S.S. 215-A

STA. 506+35.4

Sta. 504+52

Cedar Cr. — 499+70 — 4'x10' x 49.7'

498+10

Guard Rail Reqd. Rt. & Lt.

500

505

P.C. 491+61.51

P.T. 504+54.84

Δ: 38° 08'

D: 5° 30'

T: 360.06

L: 693.33

R: 1041.74

Super 0.10'/ft.

N 6° 27' E

Channel Change

Ref. Markers

Adv. Warning Sign

Guide Posts Reqd. Rt. & Lt.

540

Bearing Tree Cor not found

RIVER

ST. MARIES

26 23 25 24

9 Sta. Obliteration of Old Rd. Class I

Δ: 70° 22' 30"

D: 13° 00'

T: 310.76'

L: 541.35

R: 440.73

Change

100'

P.C. 512+86.34

20'

P.T. 518+27.69

ELK RIVER BRANCH

N 63° 55' 30" W

520

Adv. Warning Sign

RR X-ing Signs

Move 2 Power Poles outside Const. area by Clearwater Valley Light & Power Assn. Inc. at Co. Exp.

515

50' 50' 27' 50'

+75

525

END PROJ. S-5810(1) = 526+00.2 AH. = 525+73.15 Bk.

Const. Special Dt.

Little Cr.

523+37-30' x 54'

100' Channel

51'30"

50'

50'

C.M. St. P. & P. RR

512+81.04 P.O.T.

513+C 18'x76'+50

580+74.75 ℄ RR

RR 527+77

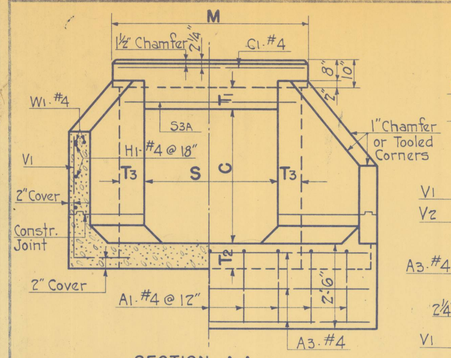
Δ

Δ

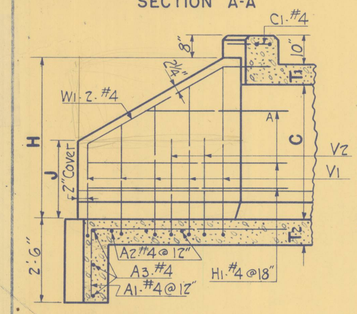
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PUB. ROADS DIV. No.	STATE	PROJ. No.	TOTAL SHEETS	SHEET No.
8	IDAHO			

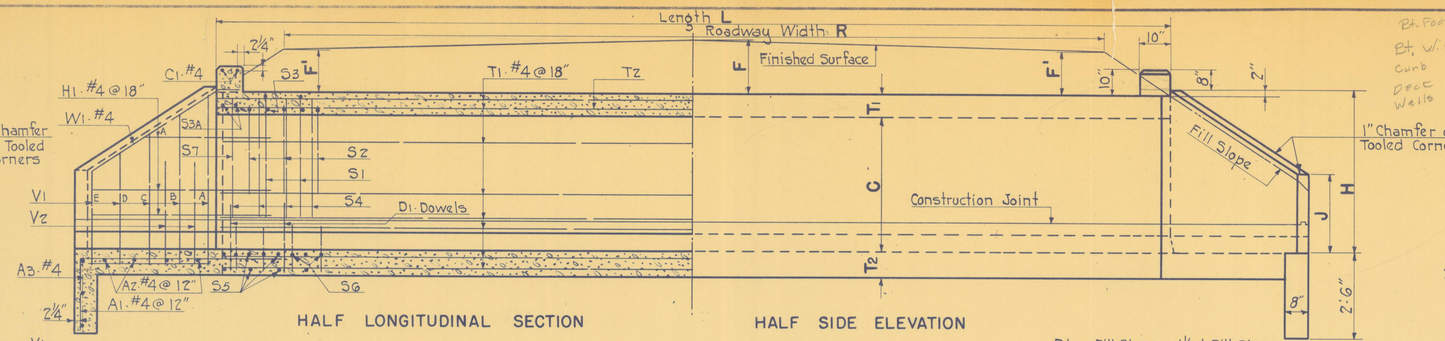
Bt Footing 5.30
Bt, wings .94
.31
Curb 2.1
Deck 1.2
Walls



SECTION A-A

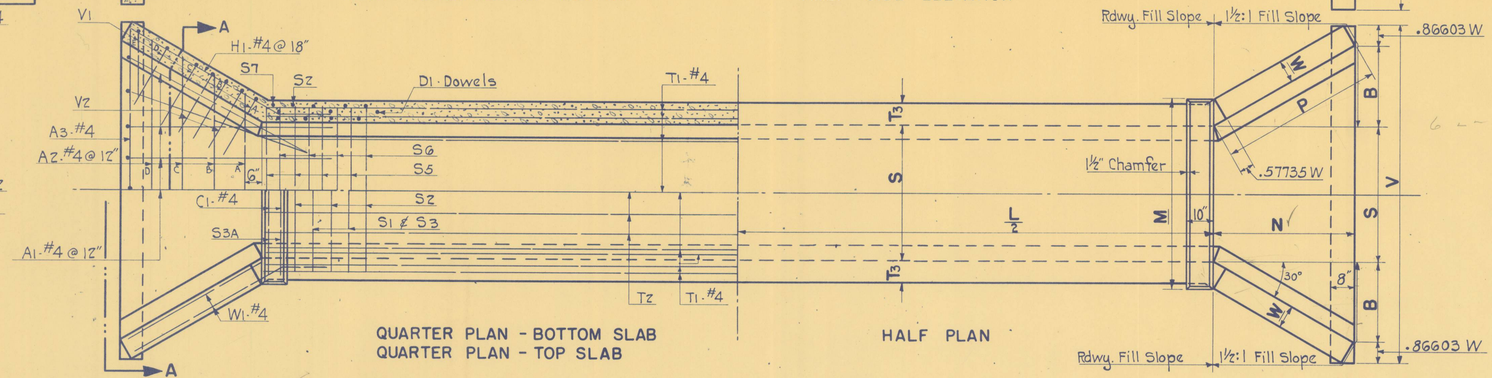


WING ELEVATION



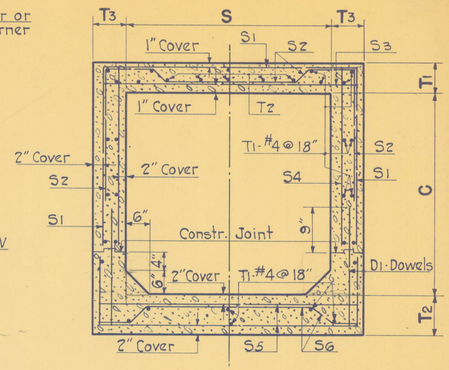
HALF LONGITUDINAL SECTION

HALF SIDE ELEVATION



QUARTER PLAN - BOTTOM SLAB
QUARTER PLAN - TOP SLAB

HALF PLAN



BARREL SECTION

CONSTRUCTION DATA

Project	File	Station	Date	Loading	Span S	Height of Fill F	Height of Fill F'	Rdwy. Fill Slope	Rdwy. Width R	Length L	Clear Height C	H	Top Slab T1	Top Slab Steel S1, S2 & S3	Top Slab T2	Bottom Slab T2	Bottom Slab Steel S5 & S6	Side Walls T3	Side Walls S4	Side Walls D1	Side Walls S7	Wing Walls W	Wing Walls V1	Wing Walls V2	Wing Walls P	Wing Walls B	Wing Walls V	Wing Walls M	Wing Walls N	Wing Walls J	Quantities: Removal of Culvert	Quantities: Channel Change Cu. Yds.	Quantities: Excav. Cu. Yds.	Quantities: Mechanical Tamping Cu. Yds.	Quantities: Conc. Cu. Yds.	Quantities: Reinf. Steel Lbs.	Rod Detail Drwg. No.
S-3836(1)	1114	11+20	3-11-53	H15-S12	6'-0"	2.15'	1.81'	4:1	34'-0"	42'-0"	3'-0"	3'-9"	7"	#4@5"	#4@12"	9"	#5@6"	8"	#4@12"	#5@18"	#5	8"	#4@12"	None	3'-8¼"	1'-10⅝"	10'-10⅝"	7'-6½"	3'-2⅜"	1'-10½"	1	See Rdwy. Plans	20	45	26	3574	6305
"	"	12+28 Rt.	3-11-53	"	6'-0"	.043'	0.27'	10:1±	16'-0"	25'-9"	3'-0"	3'-9"	7"	#4@5"	#4@12"	9"	#5@6"	8"	#4@12"	#5@18"	#5	8"	#4@12"	"	3'-8¼"	1'-10⅝"	10'-10⅝"	7'-6½"	3'-2⅜"	1'-10½"	-	"	15	30	17.5	2264	6305
S-2741(1)	1126	32.2+36	9-10-53	"	10'-0"	1.47'	1.05'	4:1	34'-0"	42'-0"	3'-6"	4'-3½"	7½"	#5@5½"	#4@11"	10½"	#6@7"	8½"	#4@13"	#6@18"	#5	8½"	#4@12"	"	4'-3"	2'-11½"	15'-6"	11'-7¾"	3'-8¼"	2'-0¾"	1	"	70	28	42	5,574	6452
F-411(2)	1134	170+95	1-19-54	H15-S12	7'-0"	3.79	3.43	2:1	96'-0"	113'-0"	7'-0"	7'-9"	7"	#4@6½"	#4@12"	10"	#5@5½"	8"	#4@12"	#6@18"	#4	8"	#4@8"	None	8'-1"	4'-0½"	16'-3"	8'-6½"	7'-0"	3'-4¾"	1	94	500	80	101	12,724	6541
S-5810(1)	1142	499+70	2-11-54	H15-S12	10'-0"	6.00'	7.09' Lt. 4.72' Rt.	2:1	26'-0"	5:11½" R 9:6" L	4'-0"	4'-10"	8"	#5@5½" & #10	#5@15	12½"	#6@5"	9"	#4@15"	#6@18"	#5	9"	#4@12"	"	4'-10"	2'-5"	16'-1⅝"	11'-8¾"	4'-2¼"	2'-3⅛"	-	See Rdwy. Plans	51	45	28.5	3298	6572
F-3022(4)	949	21+15	3-17-54	H20-S16	12'-0"	1.43	1.19	4:1	24'-0"	32'-0"	8'-0"	8'-10½"	8½"	#6@7"	#4@11"	12"	#6@5"	9½"	#4@18"	#6@18"	#6	9½"	#4@15"	#4@15"	9'-3¼"	4'-7⅝"	22'-7¾"	13'-10"	8'-0⅞"	3'-9⅜"	-	-	40	90	63	7640	6640

NOTE: When **F'** is less than 1'-6" the culvert length **(L)** shall not be less than **R** + 4'-0".

GENERAL NOTES

Structure designed in accordance with A.A.S.H.O. Specification of 1953.

Unit Stresses: fc = 1000#/□"; fs = 20,000#/□"; u = 300#/□"; v = 90#/□" without shear reinforcement; 225 #/□" with shear reinforcement. Above unit stresses based on 3000#/□" concrete at 28 days.

Main walls designed for a 3' L.L. surcharge, except when the height of fill **(F)** is more than 8' and exceeds the span **(S)** then no L.L. surcharge is considered.

No live load surcharge considered in design of wing walls.

All concrete to be Class "A". No. 2 coarse aggregate.

All reinforcing to be deformed bars of intermediate grade and shall conform to A.A.S.H.O. Specification M-31 and A.S.T.M. A-305-50.

When channel change is noted, structural excavation shall be made after channel change has been completed and excavation quantities are based on this procedure.

No surplus excavated material shall be left to obstruct the natural flow of the stream. Carefully backfill all excavated spaces.

All reinforcing to have a 2" covering outside of bars unless shown otherwise.

Use Idaho Department of Highways Standard Specifications, 1950 Edition, unless otherwise noted.

Mechanical tamping shall be done in accordance with Sec. 214 of the Specifications, except no mechanical tamping will be required above top slab elevation.

DIMENSION DATA

1½:1 FILL SLOPE

H = C + T1 + 2" L = R + 3 F' for 1½:1

J = .36603 H + .54466 W + .10567

B = .54904 H - .18301 W - .09151'

V = S + 2B + 1.73205 W

P = 2B ; N = 1.73205 B

M = S + 2.30939 W

T1 = 7" MINIMUM

T2 = 9" "

T3 = 8" "

W = T3 "

CHECKED BY
DATE

CHECKED BY
DATE

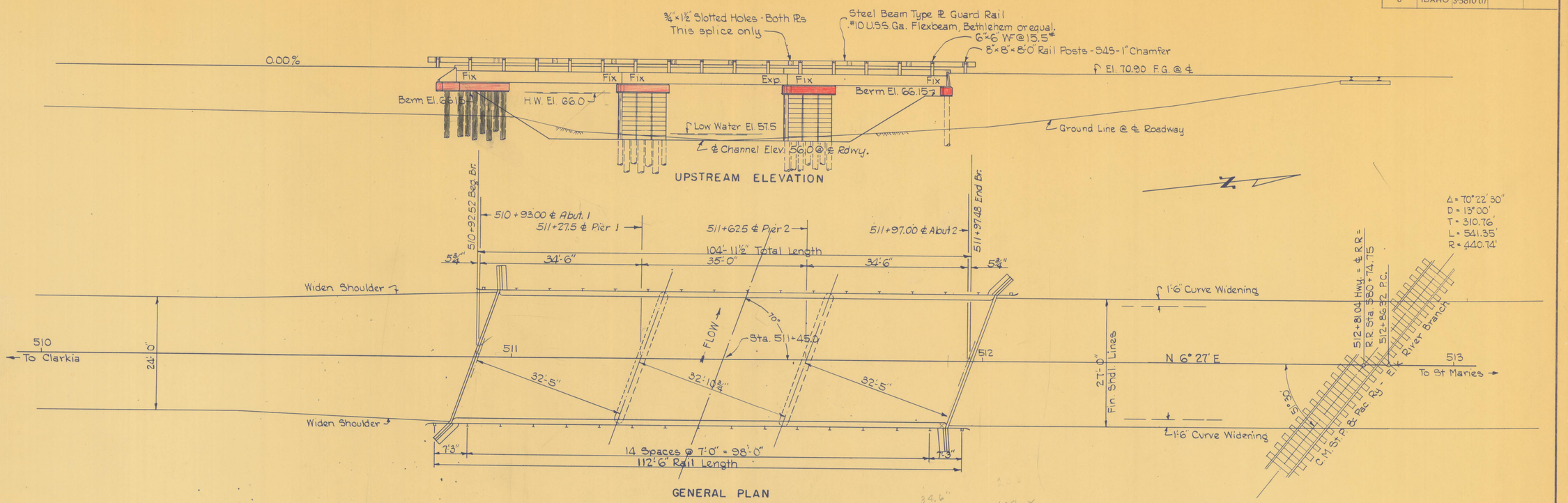
STANDARD CONCRETE BOX CULVERT

STATE of IDAHO
DEPARTMENT of HIGHWAYS
BOISE - IDAHO

APPROVED: W. Albutheen BRIDGE ENG'R. SCALE: None DATE 3-25-54

FILE No. [redacted] DRAWING No. S-36(4)

PUB. ROADS DIV. NO.	STATE	PROJ. NO.	TOTAL SHEETS	SHEET NO.
8	IDAHO	S-5810 (1)		



DESIGN NOTES

Structure designed in accordance with A.A.S.H.O. Specifications of 1953.

Live Load: H15-S12-44 loading, variable impact.

Roadway Slab designed for a future wearing surface of 25#/□'.

Abutment Walls and Wing Walls designed for a 90# live load surcharge.

Unit Stresses: Concrete $f'c = 3000\#/\square"$ in 28 days; $fc = 1200\#/\square"$; Reinforcing Steel $fs = 20{,}000\#/\square"$.

Timber Piling shall be driven to a bearing value of not less than 18 tons per pile and to a minimum penetration of 15' below stream bed.

GENERAL NOTES

Use Idaho Department of Highways Standard Specifications, 1950 Edition unless otherwise noted.

All concrete to be Class "A" No. 1 coarse aggregate.

All reinforcing steel bars shall be deformed bars of intermediate grade and shall conform to A.A.S.H.O. Specification M-31 and A.S.T.M. Specification A-305-50

All timber shall be Coast Douglas Fir and shall pass the requirements as defined in the Revised Grading Rules of the West Coast Lumbermans Association dated Nov. 1, 1948.

All reinforcing steel to have a 2" covering outside of bars unless otherwise noted. Dimensions shown are to rod centers.

Surfaces of steel bearing plates in contact with concrete shall not be painted.

Stringer stems may be precast away from the bridge site, but prior to handling or erecting, tests must indicate that the concrete has a strength of $f'c = 3000\#/\square"$.

Precast stringers may be lifted only from a point 0.2 x length from each end.

Cost of furnishing and placing the following are to be included in the unit price bid for Item 506-A-2: Non-extruding joint filler, hot poured rubber joint filler, galvanized pipe drains and lead bearing plates.

Timber piling and pile bent enclosure planking shall be treated by the empty cell process to contain not less than 8 lbs. per cubic foot of creosote or 50-50 creosote-petroleum oil. End rail posts to be salts treated as per specifications.

Item 509-C shall include the cost of furnishing and installing the plate guard rail and its fastenings only.

Timber rail posts shall be painted: First coat - white guard rail paint #1; Second coat - light grey lead paint; Finish coat - Concrete grey lead paint.

Steel posts and plate guard rail shall be painted: Shop coat - red lead paint; First field coat - light grey lead paint; Finish coat - concrete grey lead paint.

One test pile each shall be driven in Abut. #1 and Abut. #2 in a location so that they may be used as part of the finished structure.

Cost of furnishing and placing all hardware as shown in "Hardware Schedule" to be included in the unit price bid for Item 514-A-1.

Item 508-A shall include cost of furnishing and placing steel bearing plates and steel rail posts.

Contractor shall provide an approved method for supporting deck slab forms in precast stringers.

Approach Embankment above bottom of cut off wall (elevation 64.15) shall be brought up simultaneously on both sides of abutment and shall be thoroughly tamped for a distance of 5 feet each side of centerline of abutment. Mechanical tamping may be provided below Elev. 64.15 in lieu of Method B compaction Specified.

QUANTITIES

204-A	Removal of Bridge	1	Each
214	Mechanical Tamping	107	Cu. Yds.
506-A-1	Concrete, Class "A", for Precast Stringers	45	Cu. Yds.
506-A-2	Concrete, Class "A", poured in place	83	Cu. Yds.
507	Metal Reinforcement	3,180	Lbs.
508-A	Structural Steel	1506	Lbs.
509-C	Steel Beam Handrail for Concrete Structure (10 Ga.)	225	Lin. Ft.
510-A	Furnishing Pile-Driving Equipment		Lump Sum
510-B	Furnishing Timber Piles, Treated	980	Lin. Ft.
510-F	Driving Timber Piles, Treated	900	Lin. Ft.
510-I	Driving Test Piles (2)	80	Lin. Ft.
514-A-1	F-1700 #/□" Dense No. 1 Coast Douglas Fir, Creosote Treated	2240	M.F.B.M.
514-A-2	F-1700 #/□" Dense No. 1 Coast Douglas Fir, Salts Treated	170	M.F.B.M.

DRAWINGS

General Plan, Elevation, Notes & Quantities	Drwg. No.	6565
Slab Plan & Rail Elevation	" "	6566
Rdwy. Section, Stringer Details, End Beam Details	" "	6567
Abutment Details	" "	6568
Bent Details	" "	6569
Contour Map & Location Sketch & ℄ Profile	" "	6570
Reinforcing Details, Lumber & Hardware Schedules	" "	6571

Revised 3-3-54

DESIGNED BY R. J. Larsen DATE 2-11-54
CHECKED BY [illegible] DATE 2-11-54

105' CONCRETE BRIDGE
OVER ST MARIES RIVER
NORTH OF CLARKIA
STA 511+45.0
ELK RIVER HWY. SHOSHONE CO.

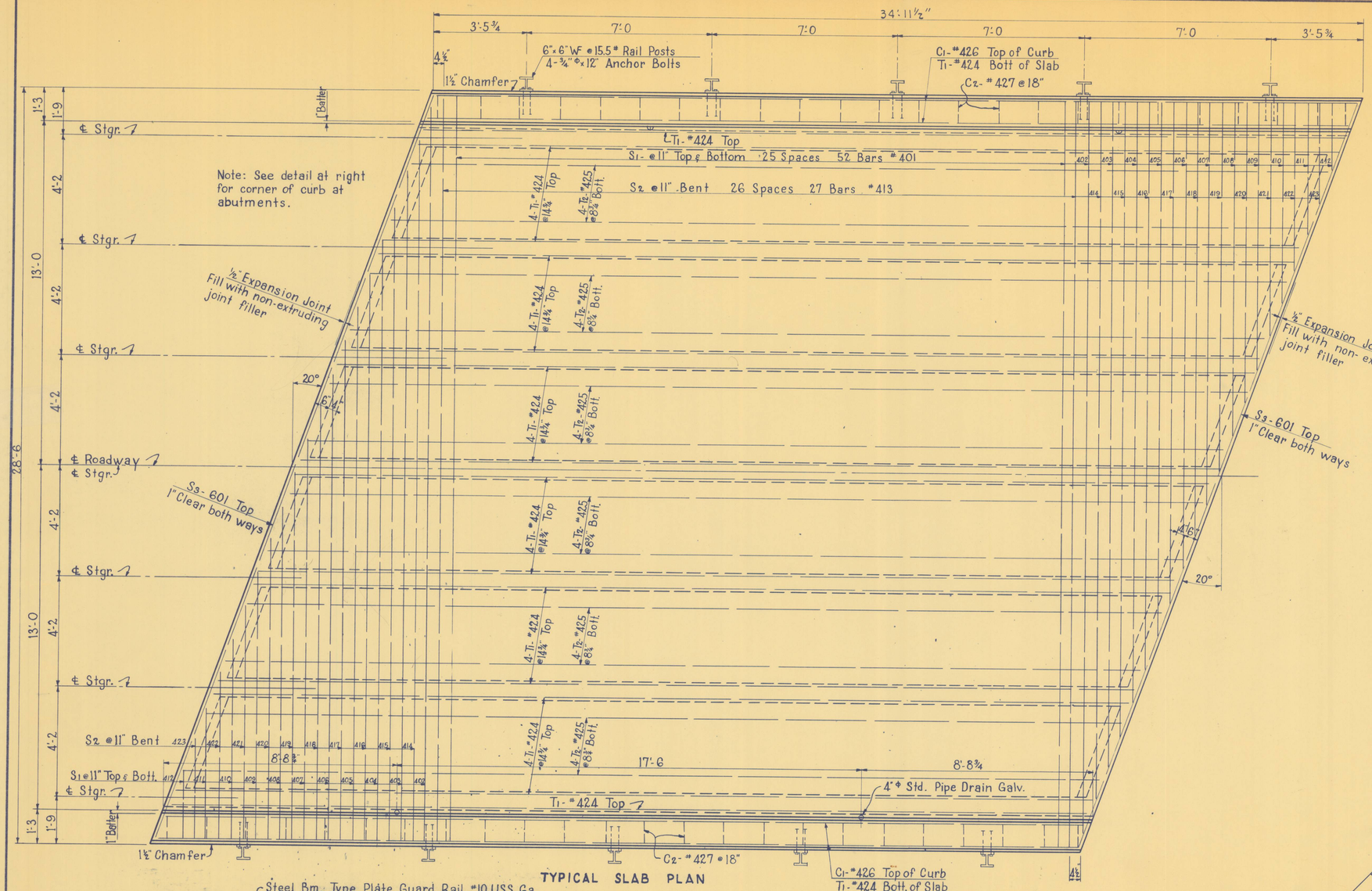
STATE OF IDAHO
DEPARTMENT OF HIGHWAYS
BOISE - IDAHO

APPROVED: SCALE: 1"=10'

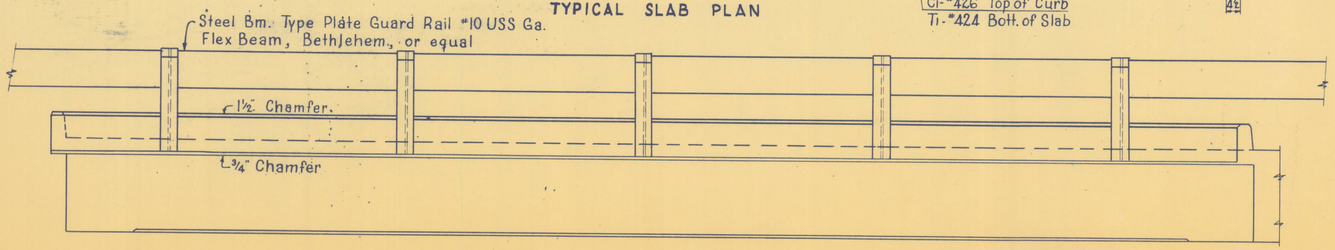
C. H. Larson Asst. BRIDGE ENG'R DATE 2-11-54

FILE No. 1142 DRAWING No. 6565

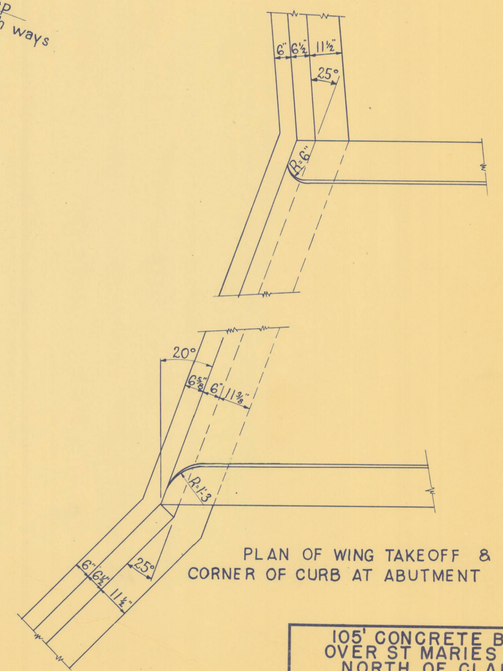
PUB. ROADS DIV. No.	STATE	PROJ. No.	TOTAL SHEETS	SHEET No.
8	IDAHO	S5810 (1)		



TYPICAL SLAB PLAN



TYPICAL RAIL ELEVATION



PLAN OF WING TAKEOFF & CORNER OF CURB AT ABUTMENT

DESIGNED BY J. Sachse DATE Jan. 20, 1954
CHECKED BY A.L.M. DATE 2-11-54

105' CONCRETE BRIDGE OVER ST MARIES RIVER NORTH OF CLARKIA

STA 511+45.0

ELK RIVER HWY. SHOSHONE CO.

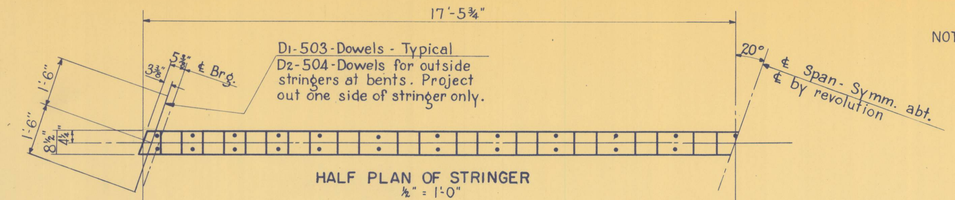
STATE OF IDAHO
DEPARTMENT OF HIGHWAYS
BOISE - IDAHO

APPROVED: SCALE: ½" = 1'-0

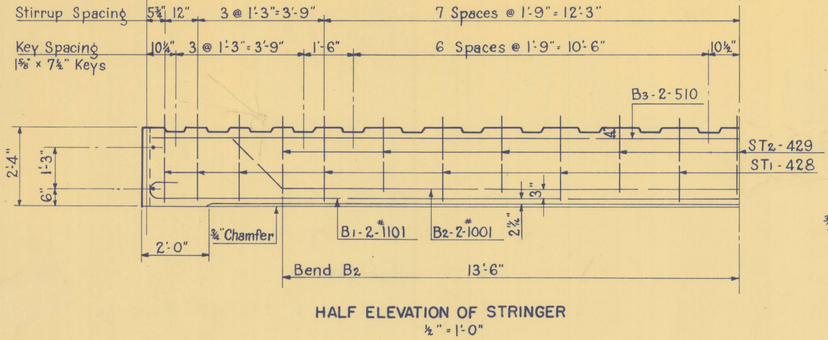
C.T. Larson Asst. BRIDGE ENG'R. DATE 2-11-54

FILE No. 1142 DRAWING No. 6566

PUB. ROADS DIV. NO.	STATE	PROJ. NO.	TOTAL SHEETS	SHEET NO.
8	IDAHO	S-5810 (1)		

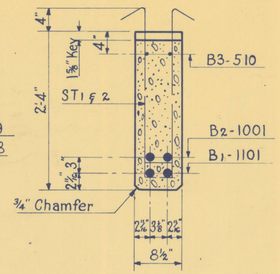


HALF PLAN OF STRINGER
½" = 1'-0"

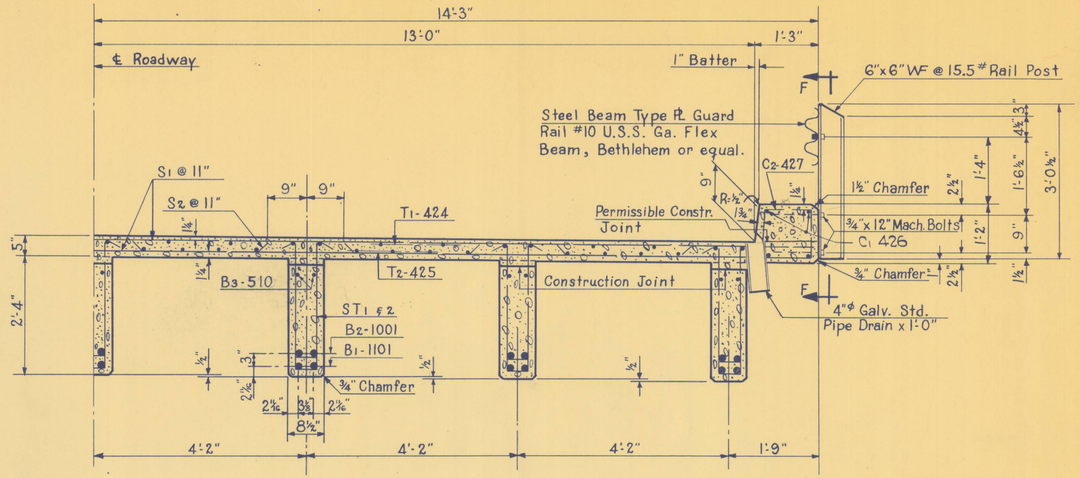


HALF ELEVATION OF STRINGER
½" = 1'-0"

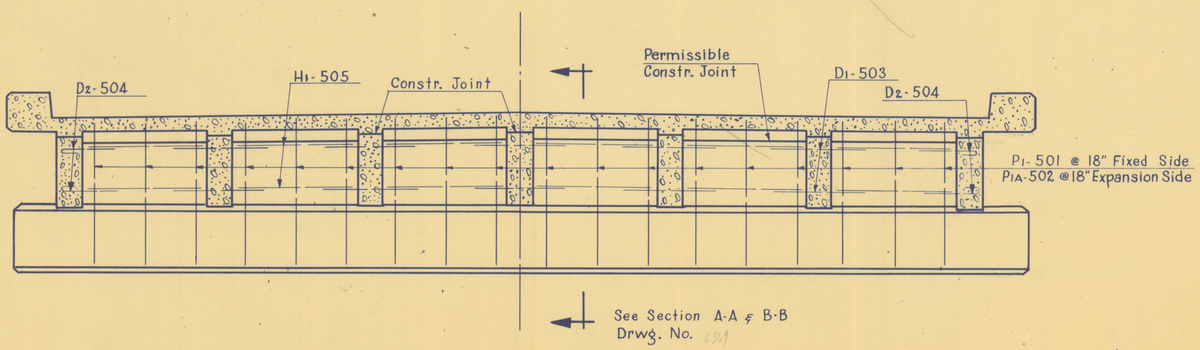
NOTE: Camber precast stringer on parabolic curve to ½" at ℄ Span. Keep 2'-4" depth constant so that top of stringer follows parabolic curve also.



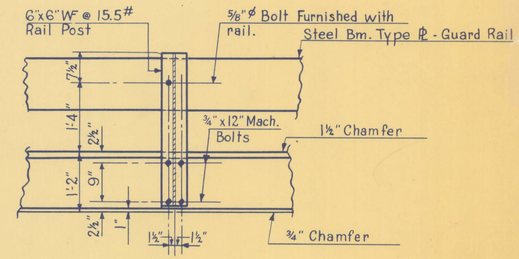
STRINGER SECTION
1" = 1'-0"



HALF ROADWAY SECTION
¾" = 1'-0"



END BEAM ON BENTS
½" = 1'-0"



SECTION F-F
¾" = 1'-0"

Revised 3-3-54

DESIGNED BY C. F. Sasser
DATE Jan. 29, 1954
CHECKED BY [illegible]
DATE 2-11-54

105' CONCRETE BRIDGE OVER ST MARIES RIVER NORTH OF CLARKIA STA 511+45.0

ELK RIVER HWY. SHOSHONE CO.

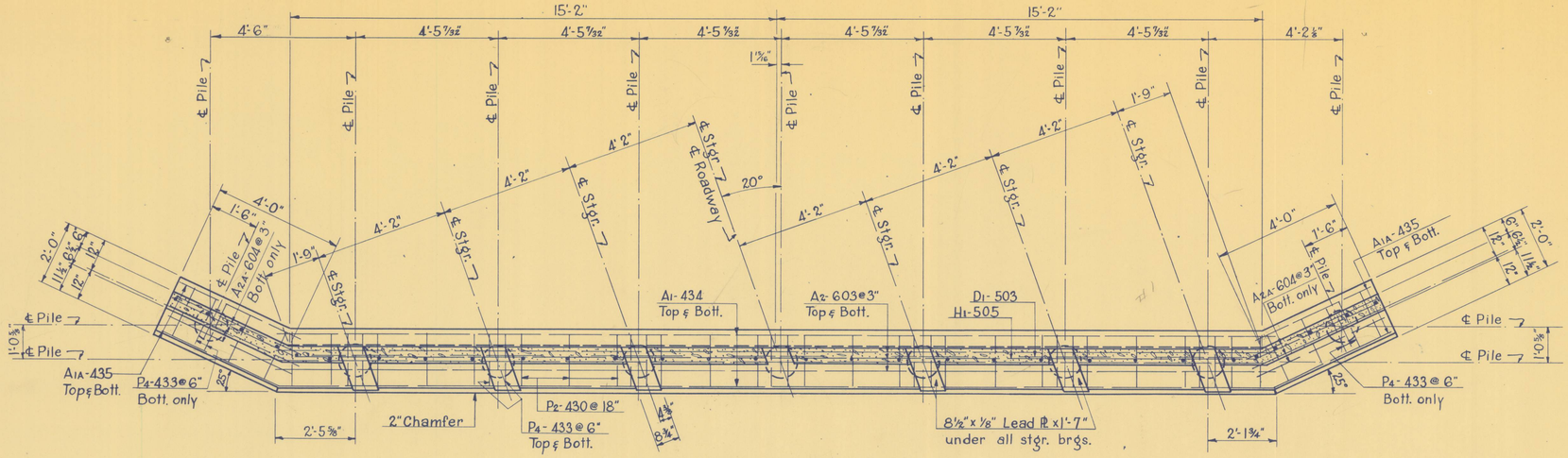
STATE OF IDAHO
DEPARTMENT OF HIGHWAYS
BOISE - IDAHO

APPROVED: SCALE: As Shown

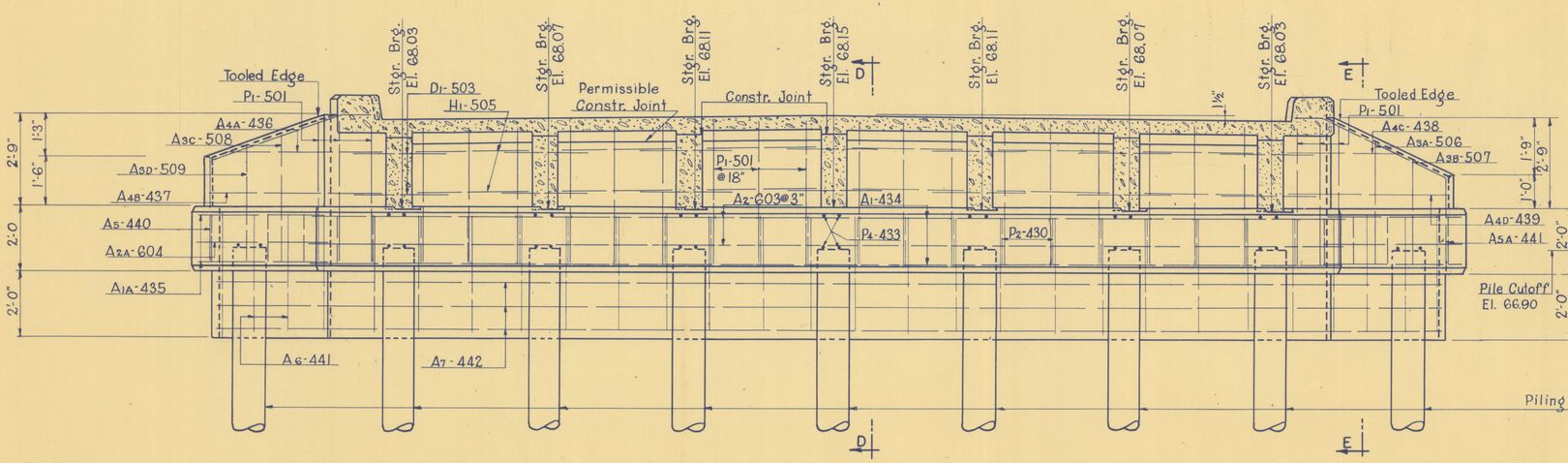
C. T. Parson Asst. BRIDGE ENG'R. DATE 2-11-54

FILE No. 1142 DRAWING No. 6567

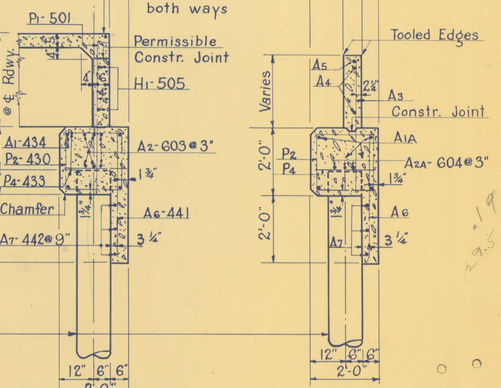
PUB. ROADS DIV. NO.	STATE	PROJ. NO.	TOTAL SHEETS	SHEET NO.
8	IDAHO	S-5810 (1)		



PLAN OF ABUTMENT CAP



ELEVATION OF ABUTMENT



SECTION D-D

SECTION E-E

105' CONCRETE BRIDGE
OVER ST MARIES RIVER
NORTH OF CLARKIA
STA 511+45.0
ELK RIVER HWY. SHOSHONE CO.

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS
BOISE - IDAHO

APPROVED: SCALE 1/2" = 1'0

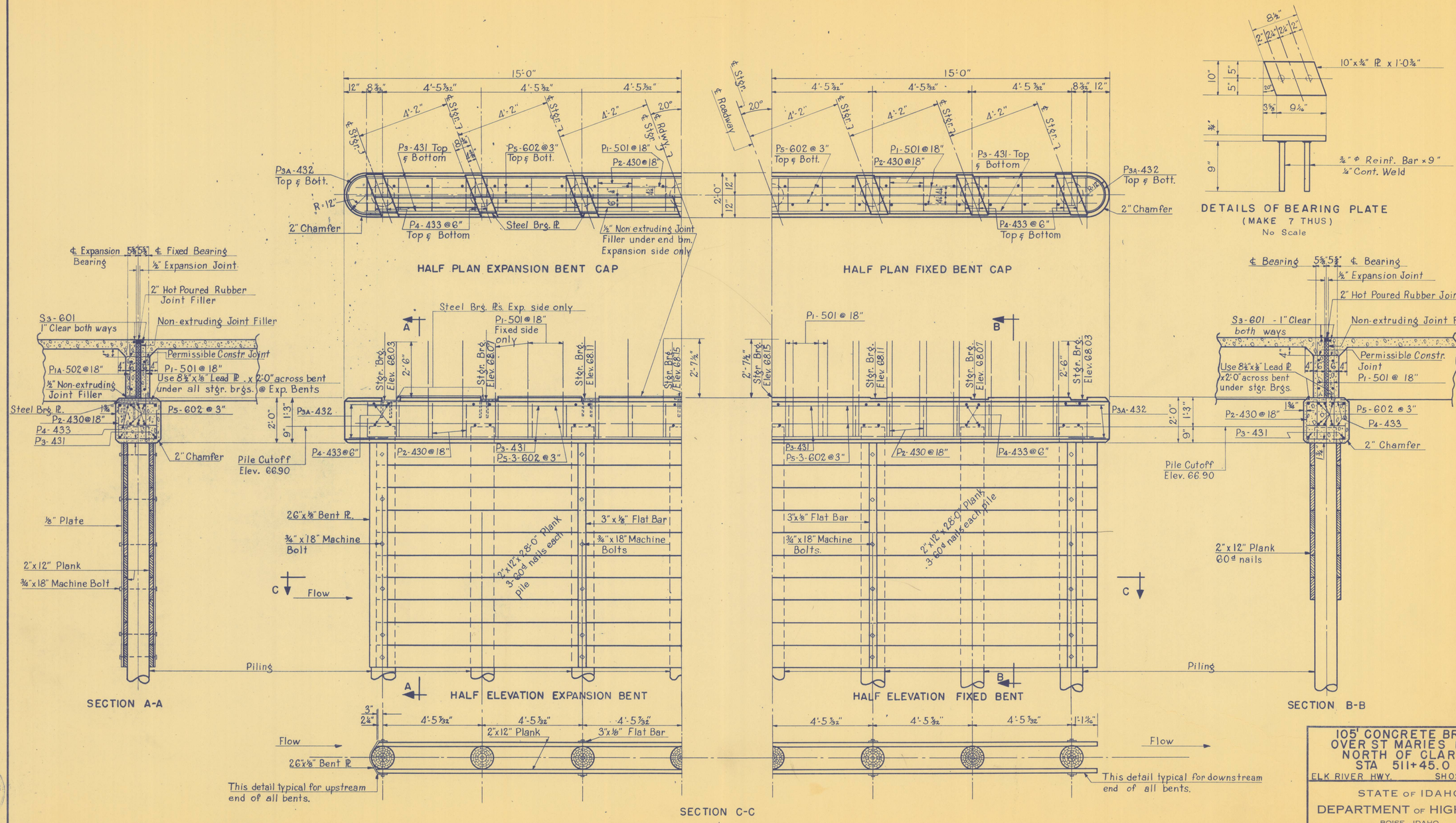
C.T. Lewis ASST. BRIDGE ENG'R. DATE 2-11-54

FILE No. 1142 DRAWING No. 6568

DESIGNED BY H. F. Fisher DATE Jan. 20, 1954
CHECKED BY H.W. DATE 2-11-54

319

PUB. ROADS DIV. NO.	STATE	PROJ. NO.	TOTAL SHEETS	SHEET NO.
8	IDAHO	S-5810(1)		



DESIGNED BY G. J. Sather DATE Jan. 29, 1954

CHECKED BY [illegible] DATE 2-11-54

105' CONCRETE BRIDGE
OVER ST MARIES RIVER
NORTH OF CLARKIA
STA 511+45.0
ELK RIVER HWY. SHOSHONE CO.

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS
BOISE - IDAHO

APPROVED: SCALE: ½" = 1'-0"

C. T. Cason BRIDGE ENG'R. DATE 2-11-54

FILE No. 1142 DRAWING No. 6569

PUB. ROADS DIV. NO.	STATE	PROJ. NO.	TOTAL SHEETS	SHEET NO.
8	IDAHO	S-5810(1)		

Remove Existing Abut. & Fill to El. 62.0 - See Roadway Plans

100' Existing Steel Span - Remove

℄ Channel

90°

1½:1

30'

30'

15'

15'

Excavate & Remove Abut. to Elev. 64.0

Δ = 70° 22' 30"
D = 13° 00'
T = 310.76'
L = 541.35'
R = 440.74'

512+86.32 P.C.

512+81.81 Old Hwy. = ℄ R.R.
R.R. Sta. 580+74.45

2:1 Slope

4:1 Slope

Widen Shoulder

510

To Clarkia

511

512

513

To St Maries

N. 6° 27' E

Sta. 511+45.2

70°

Test Pit - 3' Top Soil - 2' Sand - 3'+ Compact Grav.

12'-0"

12'-0"

3.35'

3.35'

13'-6"

13'-6"

Sym. Cy. Widening to Br.

2:1 Slope

4:1 Slope

2:1 Slope

15'

15'

90°

Fill to Elev. 62.0

FLOW

100' to end of Rip-Rap

C.M. St. P. & Pac. Railroad

2762

2760

2758

2756

2765

2770

CONTOUR MAP

510+92.52 Beg Bridge
510+93.00 ℄ Abut.

511+27.5 ℄ Pier

511+62.5 ℄ Pier

511+97.0 ℄ Abut
511+97.48 End Bridge

104'-11½" Total Length

34'-6"

35'-0"

34'-6"

5¾"

5¾"

0.0 %

70.90 F.G. @ ℄

H.W. Elev. 66.0

1½:1 Slope

2.86 Berm

2'

2'

℄ El. 560

1½:1 Slope

2.86 Berm

PROFILE

Foundation Material - Compact Gravel

DESIGNED BY C. T. Larsen
DATE Jan. 21, 1954

CHECKED BY [illegible]
DATE 2-11-54

Revised 3-3-54

105' CONCRETE BRIDGE OVER ST MARIES RIVER NORTH OF CLARKIA STA 511+45.0

ELK RIVER HWY. SHOSHONE CO.

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS
BOISE - IDAHO

APPROVED: SCALE: 1" = 10'

C. T. Larsen ~~ASST~~ BRIDGE ENG'R. DATE 2-11-54

FILE No. 1142 DRAWING No. 6570

105' Concrete Bridge
Over St. Maries River
Sta. 511+45.0

S-5810 (1)

Mark	Location	Size No.	Total Length	No.	Sketch	Out to Out
401	S1 - Slab	4	28'-2"	156		
402	" "	"	27'-7"	12	"	
403	" "	"	25'-1"	12	"	
404	" "	"	22'-7"	12	"	
405	" "	"	20'-1"	12	"	
406	" "	"	17'-6"	12	"	
407	" "	"	15'-0"	12	"	
408	" "	"	12'-6"	12	"	
409	" "	"	10'-0"	12	"	
410	" "	"	7'-5"	12	"	
411	" "	"	4'-11"	12	"	
412	" "	"	2'-5"	12	"	
413	S2 "	"	29'-2"	81	2'-6" 1'-5½" 1'-5½" 1'-5½" 1'-5½" 1'-5½" 2'-6" 2'-3" 2'-3" 2'-3

4'x10' Conc. Culv.
Extensions Rt. & Lt.
Sta. 499+70.0

S-5810 (1)

Mark	Location	Size No.	Total Length	No.	Sketch	Out to Out
S1	Slab & Walls	5	18'-3"	23	11'-1⅜"	
S2	" & "	5	16'-3"	21	6'-5"	
S3	Top Slab	5	11'-2"	23		
S3A	Top Slab & Curbs	5	11'-2"	4	"	
S4	Sidewalls	4	3'-6"	34	"	
S5	Bot. Slab	6	11'-2"	23	"	
S6	Bot. Slab	6	14'-7"	21	7'-7" 11"	
S7	Sidewalls	5	3'-6"	4	"	
D1	Dowels	6	2'-6"	24	"	
D2	"	6	1'-6"	26	"	
C1	Curb	4	11'-4"	4	"	
V1A	Wing Walls	4	6'-10"	4	5'-5"	
B	" "	4	6'-3"	4	4'-10"	
C	" "	4	5'-8"	4	4'-3"	
D	" "	4	5'-1"	4	3'-8"	
E	" "	4	4'-6"	4	3'-1"	
H1	" "	4	5'-3"	8	4'-6"	
H1A	" "	4	4'-9"	4	4'-0"	
W1	" "	4	6'-0"	8	Field Bend	
A1	Apron & Cutoff Walls	4	7'-6"	26	5'-5"	
A2A	Apron	4	11'-11"	2		
B	"	4	13'-1"	2	"	
C	"	4	14'-3"	2	"	
A3	Cutoff Wall	4	15'-11"	6	"	
T1	Slab, Floor & Walls	4	18'-10"	35	" Field Cut	
T2	Top Slab	5	18'-10"	6	"	
F1	6" Floor Slab	4	9'-8"	8	"	
F2	6" " "	4	9'-0"	11	"	

Part of Drwg. No. 6572 Sheet 1 of 2 File 1142

4'x10' Conc. Culv.
Extensions Rt. & Lt.
Sta. 499+70.0

S-5810 (1)

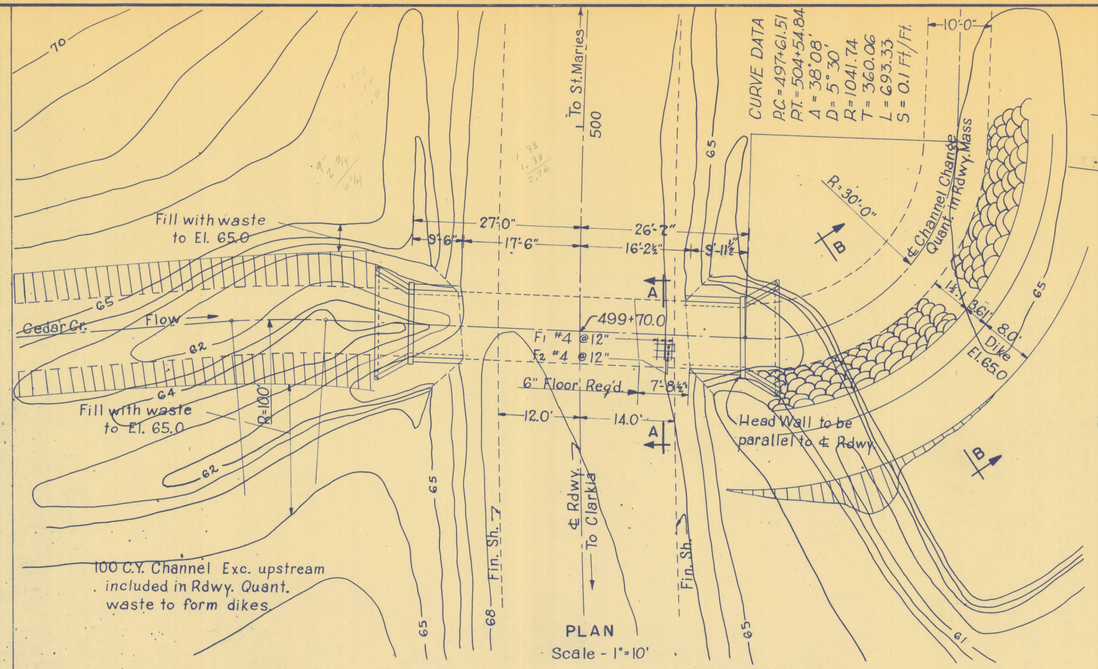
See Drwg. No. 6571 for Rod, Hooks & Bends

ROD WEIGHTS

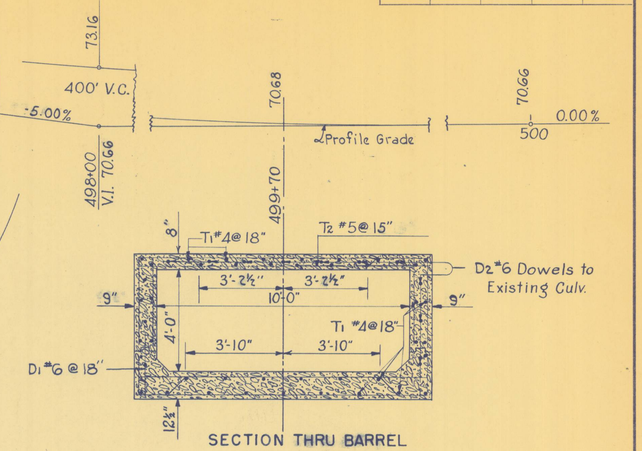
Size No	Lin. Ft.	Wt/Ft	Weight
4	1,591.17	0.668	1,062.90
5	1,189.50	1.043	1,240.65
6	662.08	1.502	994.44
Total Weight			3,297.99

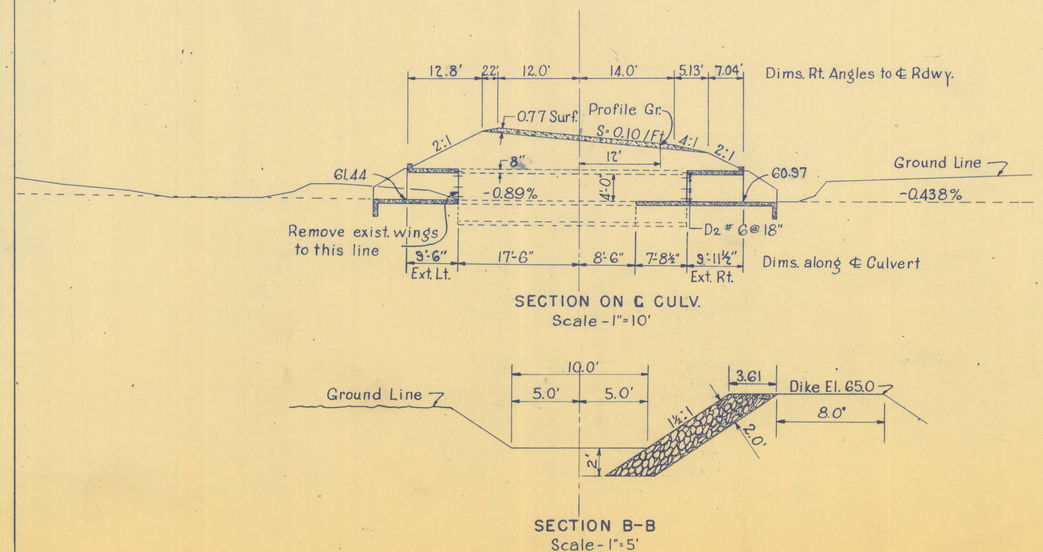
Part of Drwg. No. 6572 Sheet 2 of 2 File 1142

DESIGNED BY C. J. Sauer DATE Jan. 29, 1954
CHECKED BY J.M.C.W. DATE 2-11-54



NOTE: Do not scale this drawing.





SUMMARY OF QUANTITIES

207-A	Exc. for Str.	51	C.Y.
214	Mechanical Tamping	45	C.Y.
506-A	Conc. Class "A"	28.5	C.Y.
507.	Metal Reinf.	3298	Lbs.
601	Loose Rip Rap	48	C.Y.

NOTE: Unit Stresses: fc : 1200 #/□"
fs : 20,000 #/□"
This supercedes the unit stresses shown on Drwg. No. S-36 (4)

PUB. ROADS DIV. No.	STATE	PROJ. No.	TOTAL SHEETS	SHEET No.
8	IDAHO	S-5810(1)		

To Accompany Drawing No. S-36 (4)

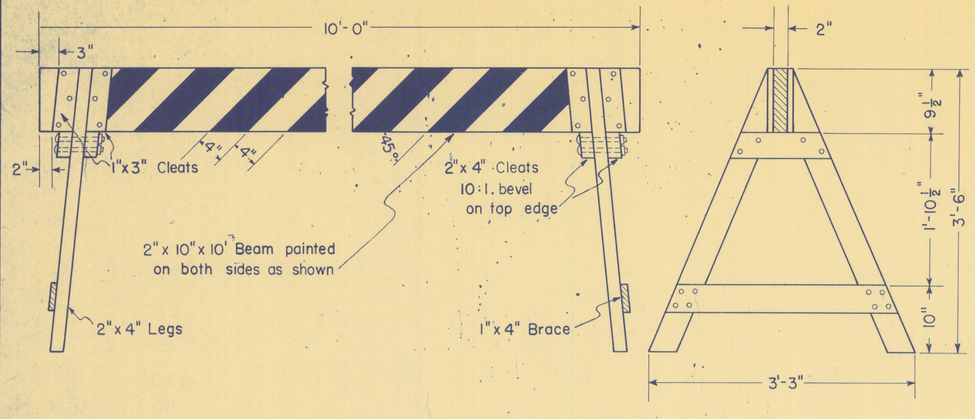
4'x10' CONC. CULV.
EXTENSIONS RT. & LT.
STA. 499+70.0
ELK RIVER HWY. SHOSHONE CO.

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS
BOISE - IDAHO

APPROVED: SCALE: As Shown
C.T. Lamm Asst. BRIDGE ENG'R. DATE 2-11-54

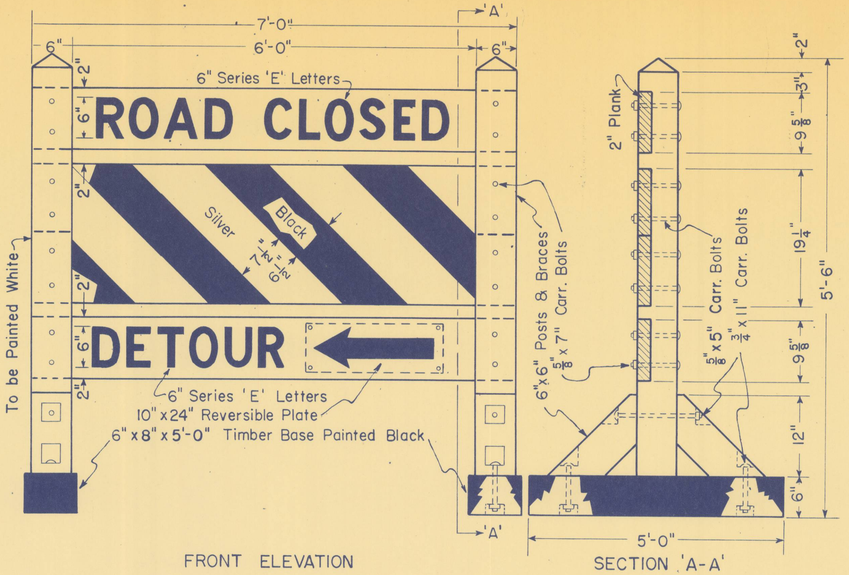
FILE No. 1142 DRAWING No. 6572

WS
1
D-1



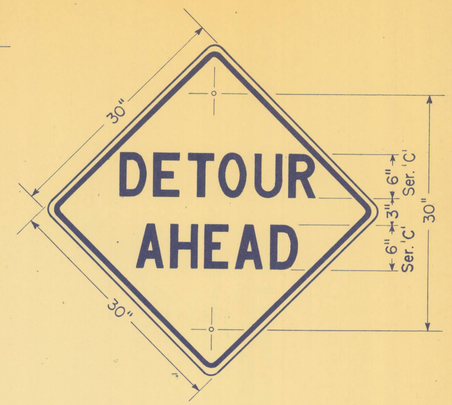
8-$\frac{3}{8}$"x 6" Carriage Bolts required for complete assembly. Other parts nailed. All lumber O.P.S.4S.
Silver Bands to be No. 2250 Silver Scotchlite, or equal. Barricade to be reflectorized on both sides.

PORTABLE BARRICADE



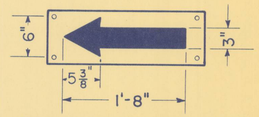
Reflecting Coating to be No. 2250 Silver Scotchlite, or equal. All letters to be 6" Series 'E' as per Standard Alphabets for Highway Signs Edited by U.S. Bureau of Public Roads 1945. Entire face of Barricade, except for posts, to be reflectorized. Center section of back side of barricade to be reflectorized with black and silver bands as on front.

ROAD CLOSED STANDARD



No. 2251 Yellow Scotchlite, or equal. All letters to be 6" Series 'C' as per Standard Alphabets for Highway Signs Edited by U.S. Bureau of Public Roads 1945. (P-3378)

STANDARD DETOUR SIGN



DETAIL REVERSIBLE ARROW PLATE

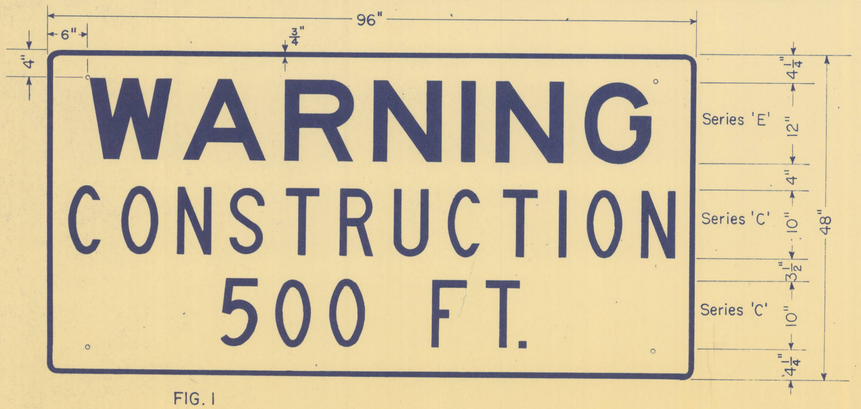


FIG. 1

Sign shall be full Surface Reflectorized with No. 2251 Yellow Scotchlite or equal. All letters to be as per Standard Alphabets for Highway Signs Edited by U.S. Bureau of Public Roads 1945. (P-3378)

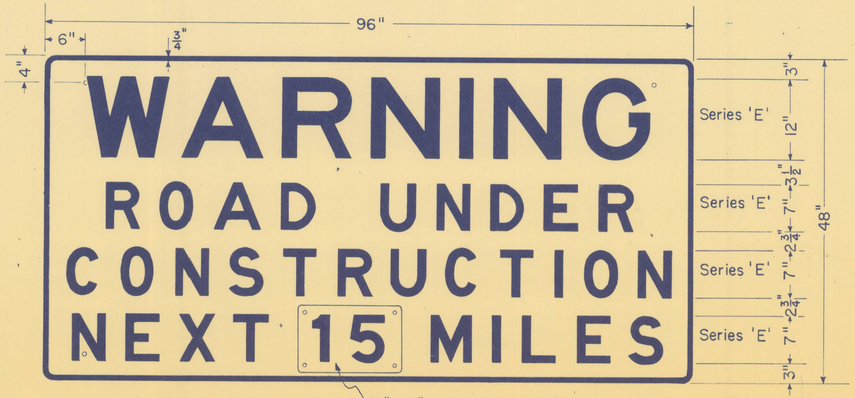


FIG 2

10"x 15" Interchangeable Plate

STANDARD CONSTRUCTION WARNING SIGNS

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

BARRICADE, DETOUR & WARNING SIGNS

BOISE, IDAHO NOV. 1952

REVISED

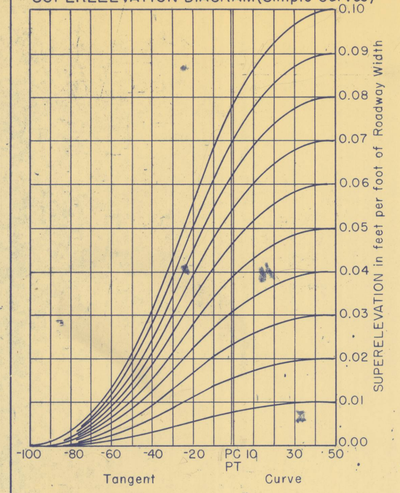
APPROVED:

L. C. Miller
STATE HIGHWAY ENGINEER

DRAWING NO.
WS-1
D-1

R-1

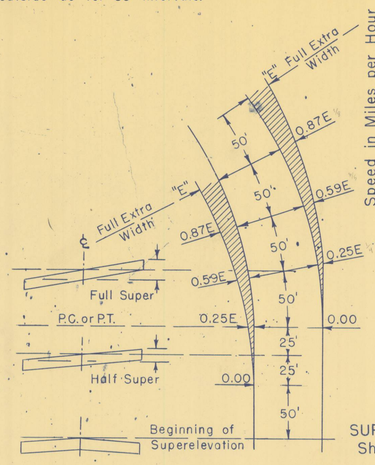
SUPERELEVATION DIAGRAM (Simple Curves)



METHOD OF WIDENING SIMPLE CURVES

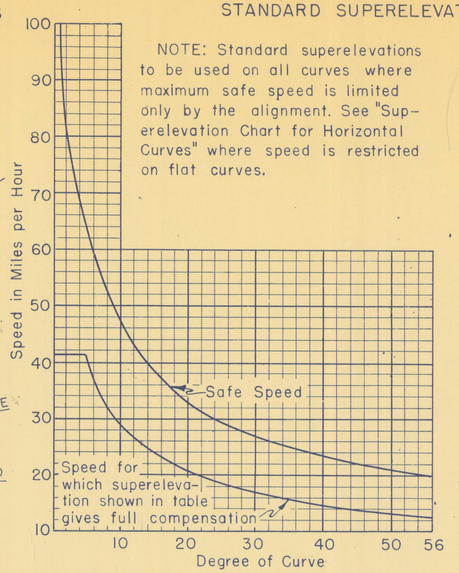
If curve is less than 300 feet long divide into 6 equal parts and apply widening on inside as for 50' intervals.

If impossible to widen on inside of curve and curve is less than 400 feet long divide into 8 equal parts and apply widening on outside as for 50' intervals.



STANDARD SUPERELEVATION

NOTE: Standard superelevations to be used on all curves where maximum safe speed is limited only by the alignment. See "Superelevation Chart for Horizontal Curves" where speed is restricted on flat curves.

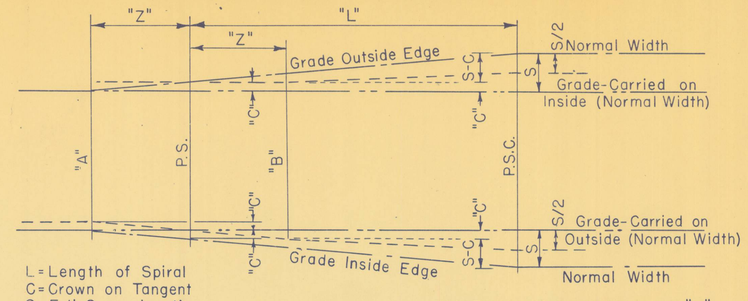


Degree of Curve	Superelevation
0 to 1°	.02
1°30'	.03
2°	.04
2°30'	.05
3°	.06
3°30'	.07
4°	.08
4°30'	.09
5°&up	.10

Feet per Foot of Roadway Width

"Full Compensation" means that amount of superelevation which fully compensates for the centrifugal force, without the use of a skid factor.

METHOD OF SUPERELEVATING SPIRALED CURVES



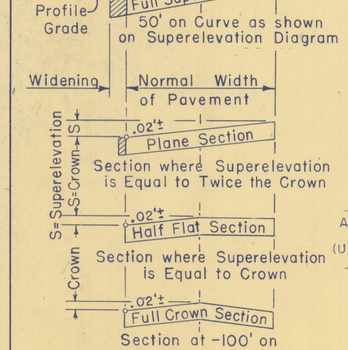
L = Length of Spiral
C = Crown on Tangent
S = Full Superelevation
Z = Distance required to reach half flat section

METHOD of DETERMINING "Z"

$\frac{Z}{C} = \frac{L}{S-C}$ Similar Triangles

$Z = \frac{CL}{S-C}$

TRANSITION FROM FULL CROWN TO FULL SUPERED SECTION SIMPLE CURVES



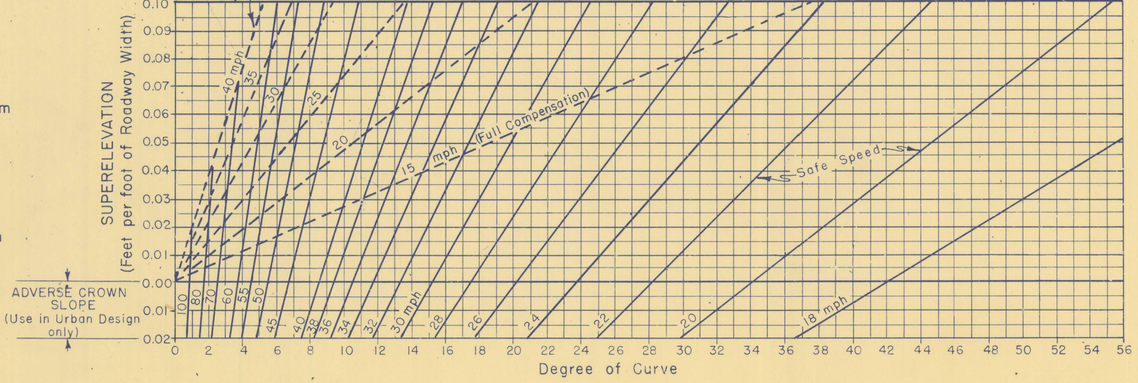
Profile grade shall be carried as indicated except where drainage problems are created, in which case special treatment shall be applied.

SUPERELEVATION FOR HORIZONTAL CURVES

Showing Relation of Superelevation to Safe Speeds

Based on the Safe Speed Formula $V = \sqrt{\frac{R(S+f)}{0.067}}$

Where V = Speed in miles per hour
R = Radius of curve in feet
S = Superelevation in feet per foot width
f = Skid factor = 0.16 for speeds 60mph or less decreasing 0.015 per 10mph increase in speed above 60mph



NOTE: The maximum allowable superelevation shall not exceed that which gives full compensation for a speed of 40 mph, or in any event more than 0.10 feet per foot as indicated on the chart, but shall be used at all times for ultimate safe speeds on open highways, except in districts where speed is restricted due to congested traffic, short flat curves compounded with sharper curves, or on which the speed will be limited by the close proximity of sharper curves, legal limits, etc. The maximum superelevation to be used under restricted speed conditions should not exceed that which gives full compensation for a speed equal to 0.8 of the restricted speed.

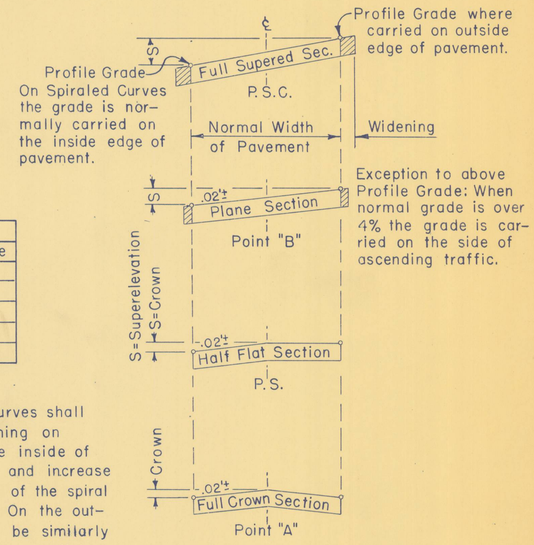
PROBLEM: Given — A short 4° curve between curves of 24° and 28°.
Required — Superelevation to be used on the 4° curve.
Solution — Enter chart at bottom on the flatter of the two sharp curves (24°) and read at the intersection with the line of maximum allowable superelevation a safe speed of about 30 mph, 0.8 x 30 = 24 mph. Enter chart at bottom on the 4° curve, follow up to an intersection with the 24 mph (interpolated) heavy dash line and across to the left the required superelevation = 0.028. This will allow a safe speed of 62 mph on 4° curve as determined by the intersection of the 4° curve, superelevation = 0.028 and the safe speed curves interpolated.

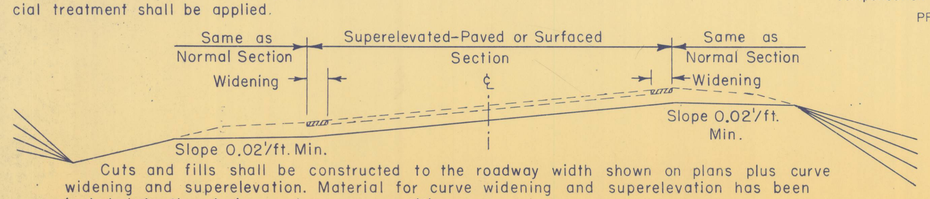
CURVE WIDENING

Degree of Curve	Width	
	2 Lane	4 Lane
0° to 5°	0	0.
5° to 11°	2'	3'
11° to 18°	3'	4'
18° to 22°	3'	5'
22° & UP	4'	6'

(For Both Simple and Spiraled Curves)

The roadway on Spiraled Curves shall be widened 1/2 the above widening on each side. The widening on the inside of curve shall start at the P.S. and increase at a constant rate the length of the spiral to full widening at the P.S.C. On the outside of curves widening shall be similarly applied except that no widening shall be applied **beyond** the tangent of the outside edge of the roadway produced.





Cuts and fills shall be constructed to the roadway width shown on plans plus curve widening and superelevation. Material for curve widening and superelevation has been included in the design and mass quantities.

Drafting: R Van B

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

WIDENING AND SUPERELEVATION

BOISE, IDAHO JAN. 1953

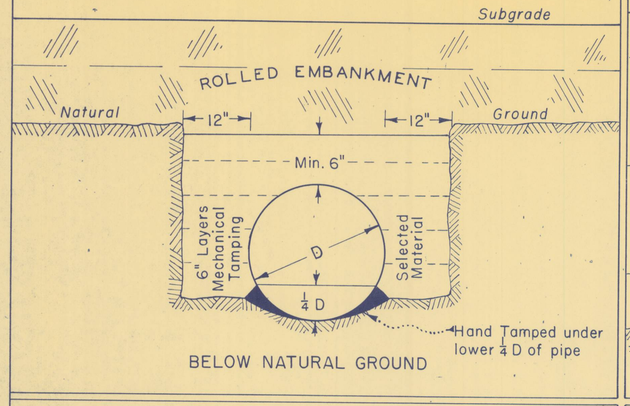
REVISED 5-6-53

APPROVED:

STATE HIGHWAY ENGINEER

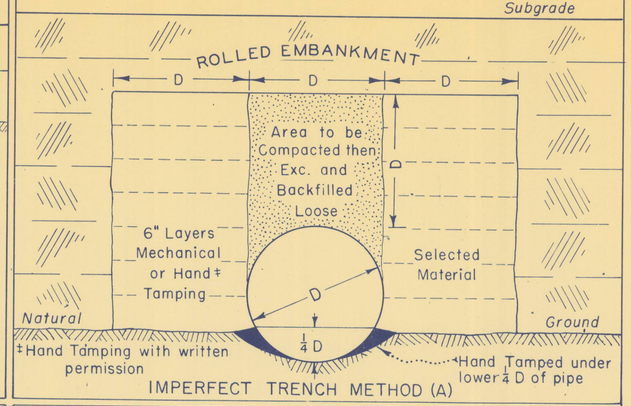
DRAWING NO. R-1

METHOD I
PIPE CULVERT INSTALLATION

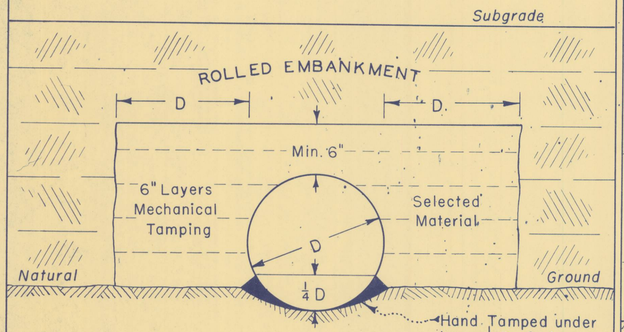


BELOW NATURAL GROUND

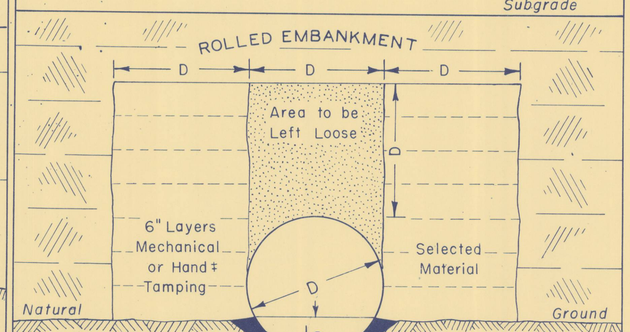
METHOD II
PIPE CULVERT INSTALLATION



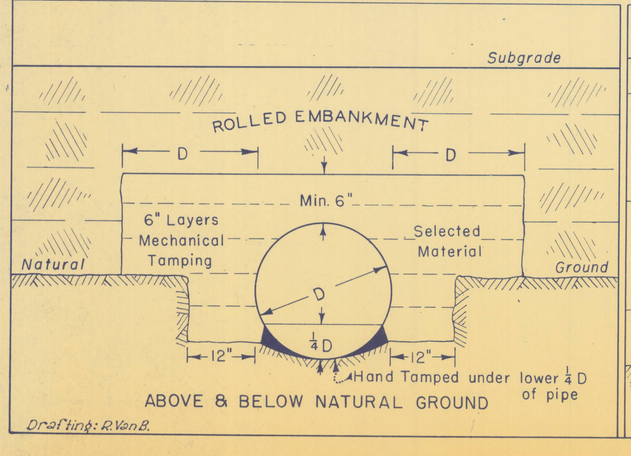
IMPERFECT TRENCH METHOD (A)



ABOVE NATURAL GROUND

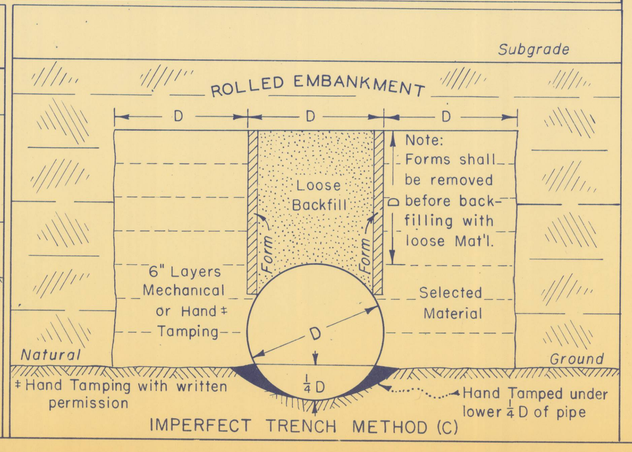


IMPERFECT TRENCH METHOD (B)



ABOVE & BELOW NATURAL GROUND

Drafting: R.Van B.



IMPERFECT TRENCH METHOD (C)

APPROVED MAXIMUM HEIGHT OF FILL OVER CORRUGATED METAL PIPE

DIAMETER IN INCHES	HEIGHT OF FILL IN FEET												
	0 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 60	60 70	70 80	80 100	100 UP
	GAUGE OF METAL REQUIRED IN PIPE												
18	16	16	16	16	16	16	14	14	14	12	12	12	10
24	14	14	14	14	14	14	14	12	12	12	10	10	8
30	14	14	14	14	12	12	12	10	10	10	*8	*8	*8
36	12	12	12	12	10	10	10	8	8	*8	*8	*8	*8
42	12	12	12	10	10	8	8	8	8	*8	*8	*8	*8
48	12	12	12	10	10	8	8	8	8	*8	*8	*8	*8
54	12	12	10	10	10	8	8	*8	*8	*8	*8		
60	10	10	10	8	8	8							
66	10	10	8	8									
72	10	8	8										
78	8	8	8										
84	8	8	8										
90	8												
96	8												

Blank Spaces Require Corrugated Plate Pipe Culverts

*Method II Pipe Culvert Installation required.

Pipe sizes appearing below Heavy Line shall be strutted in accordance with Drawing R-7.

APPROVED MAXIMUM HEIGHT OF FILL OVER REINFORCED CONCRETE PIPE

DIAMETER IN INCHES	Standard Strength Pipe		Extra Strength Pipe	
	Method I Emb.	Method II Emb.	Method I Emb.	Method II Emb.
	HEIGHT OF FILL IN FEET			
18	20	30	35	45
24	20	30	35	45
30	20	25	35	40
36	20	25	35	40
42		20		35
48		20		35
54		20		35
60		20		35
66		20		35
72		20		35
78		20		35
84		20		35

R-1 A

GENERAL NOTES

If pipe is placed after embankment is completed the entire volume, exclusive of pipe, shall be replaced in 6" layers and mechanically tamped.

Structure Excavation will be allowed only for the portion defined in Section 207 "Excavation for Structures" and Mechanical Tamping for that portion defined in Section 214 "Mechanical Tamping. Installation shall conform to Section 515 of the IDAHO STANDARD SPECIFICATIONS for ROAD and BRIDGE CONSTRUCTION, Edition of 1950.

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

EMBANKMENT OVER PIPE CULVERTS

BOISE, IDAHO DEC. 1952

REVISED 2-2-53

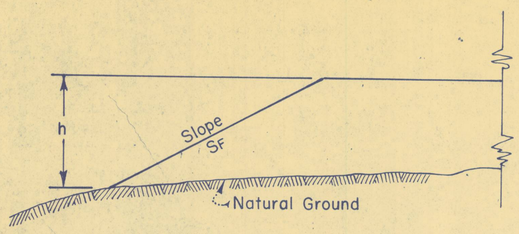
APPROVED:

E. D. Mills
STATE HIGHWAY ENGINEER

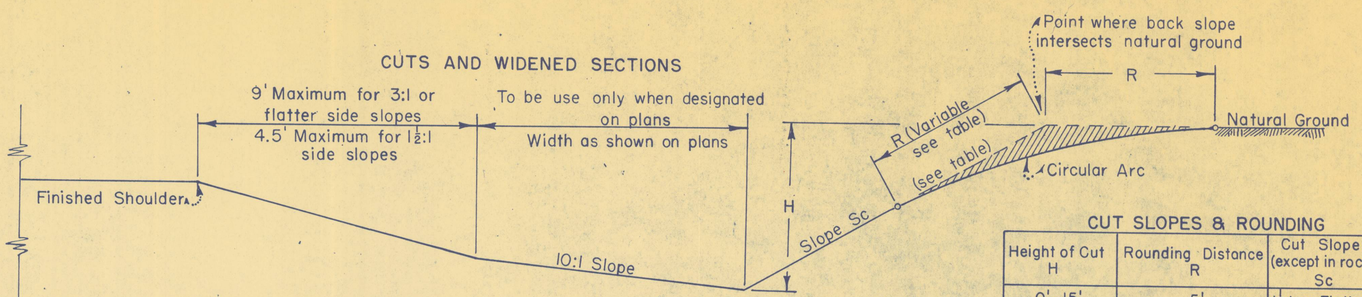
DRAWING NO. R-1-A

FILL SECTIONS

FILL SLOPES	
Height h	Slope S_F
0'-3'	3:1
Over 3'	1½:1



CUTS AND WIDENED SECTIONS

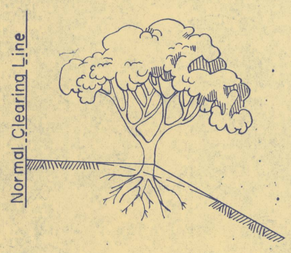


CUT SLOPES & ROUNDING		
Height of Cut H	Rounding Distance R	Cut Slope (except in rock) Sc
0'-15'	5'	1½:1 or Flatter
Over 15'	8'	1:1

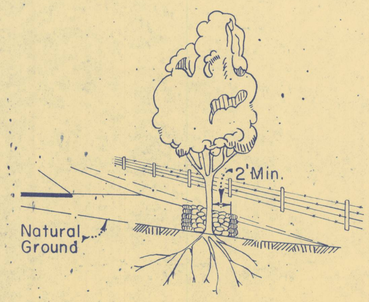
TREE CONSERVATION

Save existing specimen trees. Trees and shrubs on top of cuts at crown of V. Cs. should be preserved where possible.

For traffic safety maintain 8' minimum horizontal shoulder clearance and 14' minimum vertical clearance of tree limbs.

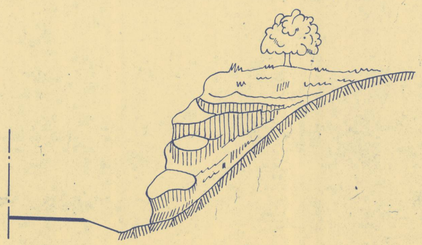


Omit slope rounding to preserve desirable trees or shrubs where possible. All typical rounding should be adjusted where existing vegetation (trees, etc.) is considered a factor, and where such modification in the work will be beneficial to plant growth.



If specimen trees to be retained should be in greater than a 6" fill a corrugated metal or a dry rubble well shall be constructed around same.

ROCK & EARTH CUT TRANSITION



Rock cuts should not be rounded. Where rock has an earth overburden, treat the overburden the same as a normal cut.

In cuts which are composed of rock and earth abutting each other let the excavation follow a smooth rounding course.

Small pockets of earth should be left between rocks to permit re-establishment of vegetation.

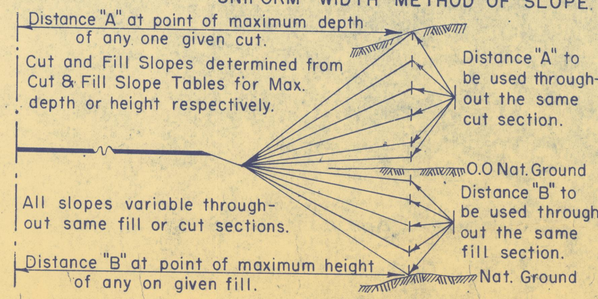
SLOPES

All slopes and especially at 0.0 grade points between cuts and fills, shall be uniformly warped between one rate of slope and another so as to produce a pleasing appearance and blend harmoniously with the adjoining topography. The transition shall cover a distance of not less than 30 feet. Slopes shown hereon are maximum and flatter slopes should be used where possible; in general, slopes established as standard shall be adhered to unless otherwise shown on typical section of plans.

Slopes steeper than 1½:1 shall not be used in earth or fine loose material unless absolutely necessary.

Backslopes shall be rounded as shown in all sections except in solid rock. Slopes less than 5 feet in length shall be rounded the full distance. Where no new right of way is being acquired, slope rounding shall be accomplished only to the extent permitted by the available right of way. Material from slope rounding has been included in design and mass quantities.

UNIFORM WIDTH METHOD OF SLOPE CONSTRUCTION



Uniform width method of slope construction to be used thru rolling and mountainous country. In flat topography where cut or fill slopes changes height very gradually use modified uniform width method of slope construction affecting the last five feet of height of cuts and fills.

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

SECONDARY GRADING REQUIREMENTS

BOISE, IDAHO SEPT. 1952

REVISED

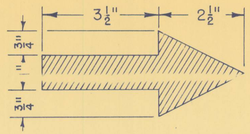
APPROVED:

E. W. Shiller
STATE HIGHWAY ENGINEER

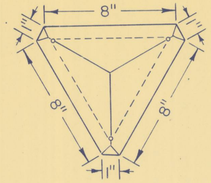
DRAWING NO. R-1-S

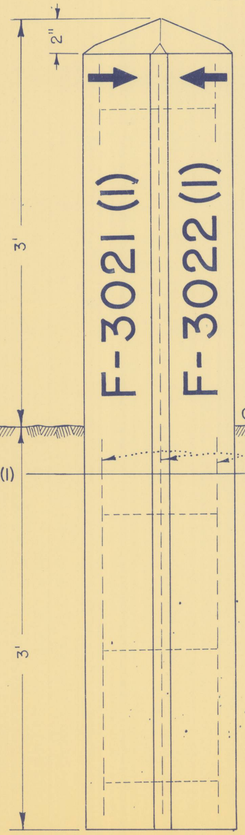
R-1 S

Drafting: R. Van B.



DETAIL OF ARROW





Project Markers shall be 8" on a side and 1" on corners as shown and shall be made with reinforced Cl. 'A' Concrete using white Portland Cement and light weight aggregate conforming to A. S. T. M. C-130-42.

Reinforcing shall consist of 3-$\frac{1}{4}$"ϕ metal reinforcement bars 5'-8" long set 1" from edge and tied with No. 8 wire at 12" intervals.

Markers shall be set exactly opposite end of project where possible.

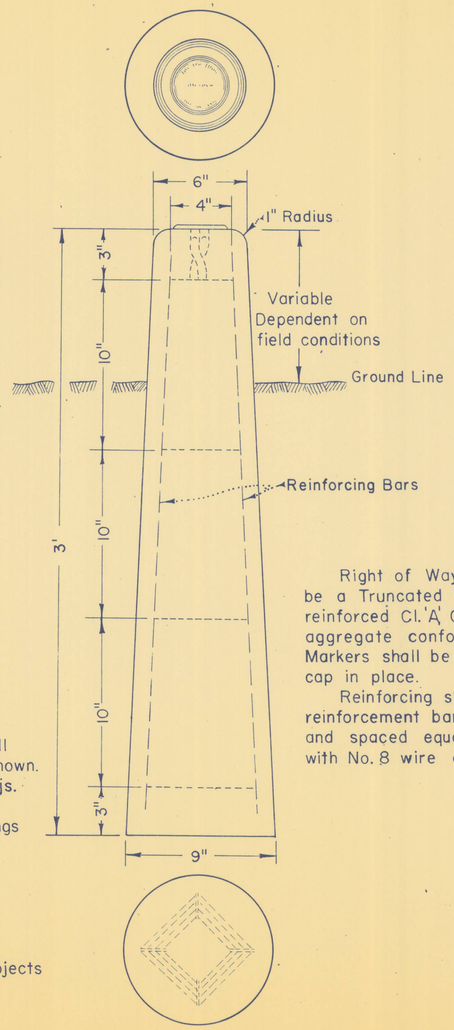
Lettering on Project Markers shall be 5" high with $\frac{7}{8}$" stroke placed as shown.

Project numbers on Fed. Aid Projs. shall be as shown after the words "Project No." in detail estimate headings as:

FI-1031(1)
F-FG-2391(2)
F-6412(1)
S-3748(1)
SG-1838(2)

Project numbers on State Aid Projects shall bear a designation similar to.
ST. 3720(501)

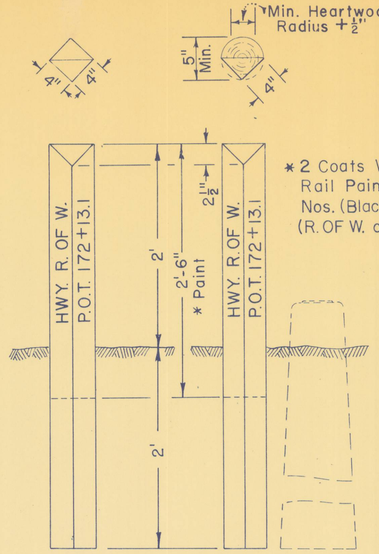
PROJECT MARKER



Right of Way, Reference or B. M. shall be a Truncated Concrete Cone and made of reinforced Cl. 'A' Concrete using light weight aggregate conforming to A.S.T.M. C-130-42. Markers shall be cast in one piece with brass cap in place.

Reinforcing shall consist of 4-$\frac{1}{4}$"ϕ metal reinforcement bars 33$\frac{1}{2}$" long set 1" from sides and spaced equal distance apart and tied with No. 8 wire at 10" intervals.

RIGHT OF WAY or REFERENCE MARKER

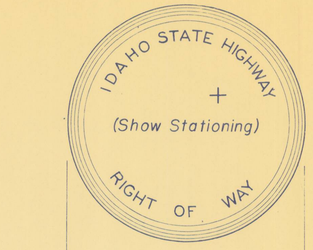


* 2 Coats White Guard Rail Paint. Letters & Nos. (Black) 2" high (R. OF W. or REF. PT.)

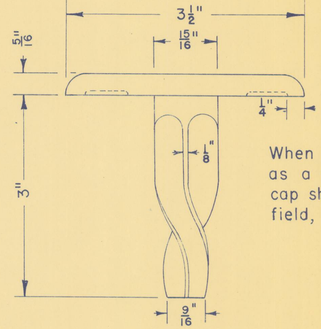
All Marker Posts shall be well seasoned, straight and sound cedar or fir. Top of each shall be beveled 2½". Round posts shall have a minimum 5" diameter at the top and 2 sides dressed to a minimum 4" face. All posts shall be given a salts preservative treatment.

Posts shall be placed as near markers as practical.

MARKER POST



+ Shall be stamped at exact point of measurement or elevation.



When marker is to be used as a reference point or BM, cap shall be stamped, in the field, as such.

DETAIL OF BRASS CAP

R-2

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

PROJECT & RIGHT OF WAY MARKERS

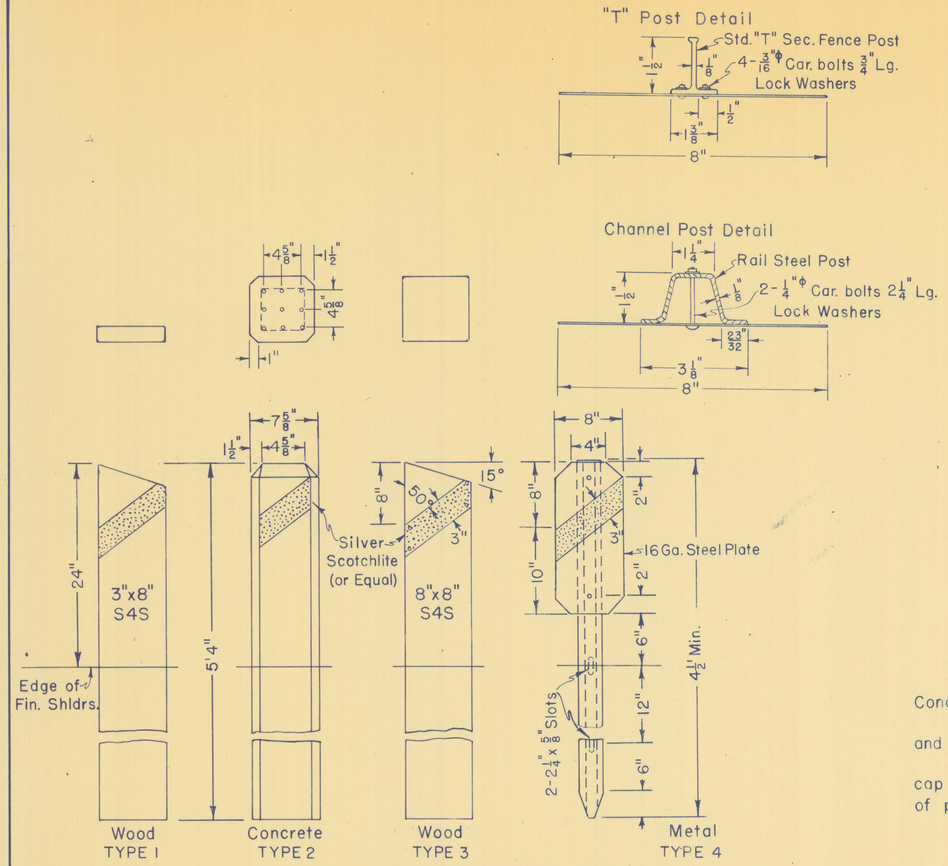
BOISE, IDAHO SEPT. 1952

REVISED

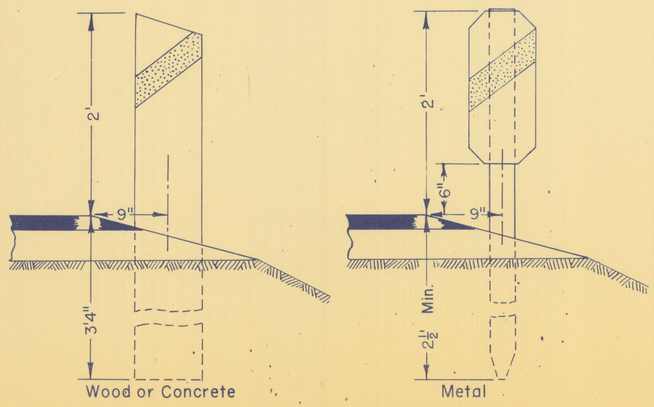
APPROVED:

E. V. Smith
STATE HIGHWAY ENGINEER

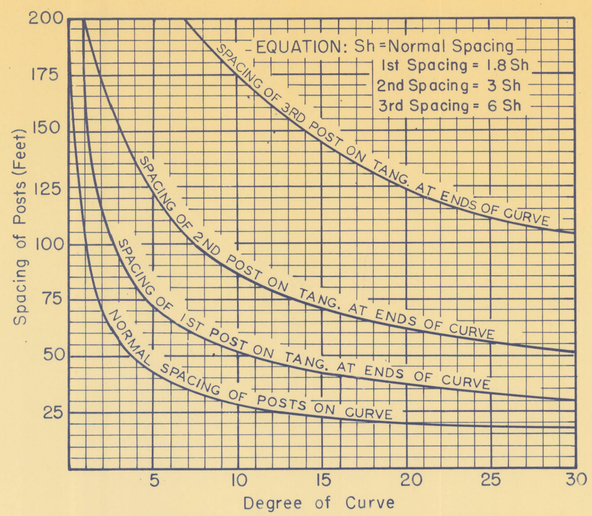
DRAWING NO.
R-2



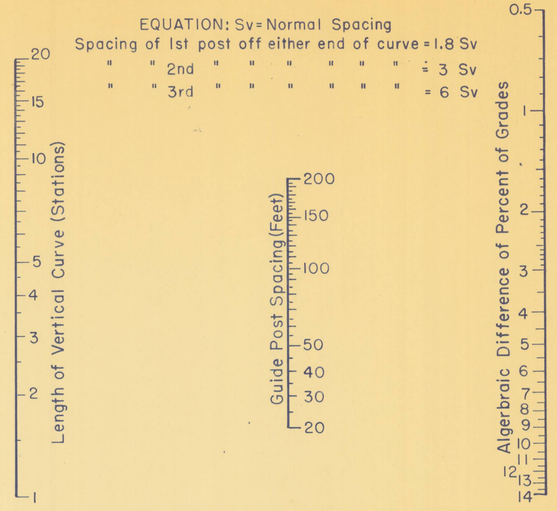
GUIDE POST DETAIL



RELATIONSHIP OF GUIDE POST & FINISHED SHOULDER



SPACING OF GUIDE POSTS ON HORIZONTAL CURVES



SPACING OF GUIDE POSTS ON VERTICAL CURVES

GENERAL NOTES

All concrete posts shall be Cl. "A" Concrete, No. 1 Coarse Aggregate. Concrete finish shall be Class 2.

All reinforcing shall be deformed bars of intermediate grade and shall conform to A. A. S. H. O. Spec'ns M-31.

Metal post shall be driven, using an approved metal driving cap which fits snugly in or around the post, depending on the type of post used.

Steel posts and plates shall be painted as follows:

First Coat — Red Lead Paint
Second Coat — Black Guard Rail Paint
Third Coat — " " " "

Concrete posts shall be painted as follows:

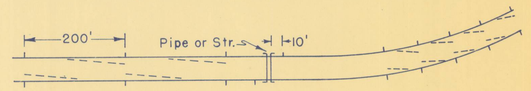
First Coat — Guard Rail Paint No. 4 (White)
Second Coat — Black Guard Rail Paint
Third Coat — " " " "

Scotchlite (or equal) shall be installed after all painting has been completed.

All wood posts shall be well seasoned and sound clear cedar or fir and shall be given a creosote preservative treatment using the empty cell process in accordance with specifications. Wood posts shall be left a natural creosote color. Scotchlite (or equal) shall be placed on 16 gauge galvanized metal or aluminum strips fastened to the post in accordance with the drawing using 4-6 penny galvanized coated nails.

All guide posts, paint and painting shall be in accordance with the Idaho Standard Specifications for Road and Bridge Construction, Edition of 1950, unless otherwise noted.

Space guide post to nearest 5ft. increments.
The spacing of guide post on tangents beyond the limits of horizontal or vertical curves shall be 200' unless otherwise ordered by the Engr.



Face of guide posts shall be placed at right angle to a line extended from center of traffic lane at a point opposite the preceding post.

Guide post locations as shown on plans are approximate and changes may be necessary to meet field conditions.

R-3

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

GUIDE POSTS

BOISE, IDAHO SEPT. 1952

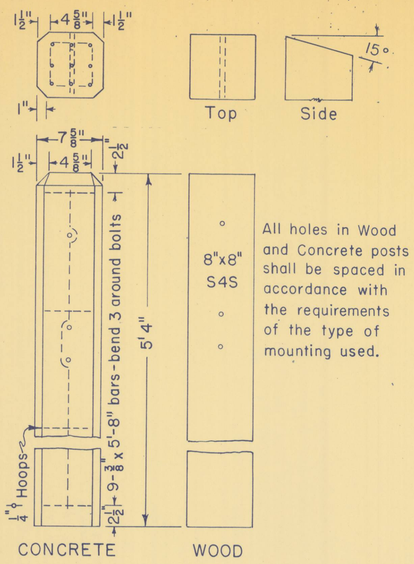
REVISED 10-30-52 4-2-54

APPROVED:

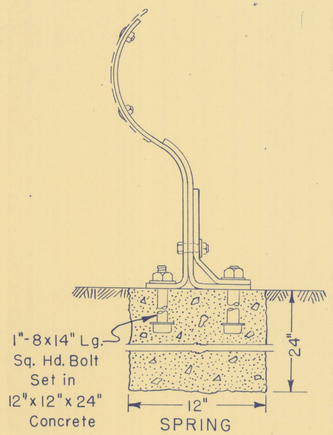
E. Bruce
STATE HIGHWAY ENGINEER

DRAWING NO. R-3

Drafting-R Van B.



All holes in Wood and Concrete posts shall be spaced in accordance with the requirements of the type of mounting used.



All concrete posts shall be Cl."A" Conc., No.1 Coarse Aggregate. Concrete finish shall be Cl. 2. All reinforcing shall be deformed bars of intermediate grade conforming to AASHO Specs. M-31.

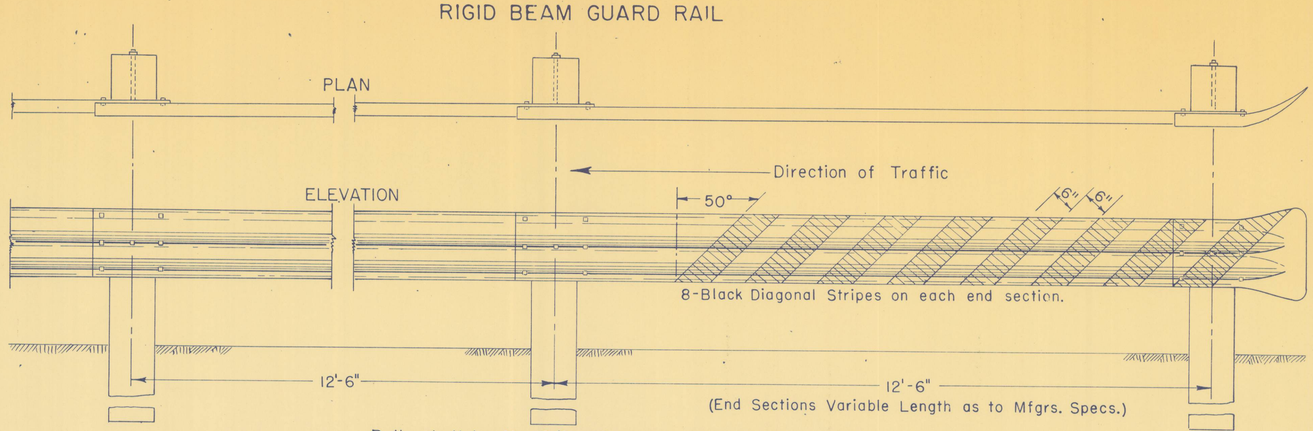
All portions of concrete & metal posts above the ground shall be given 2 coats of Black paint.

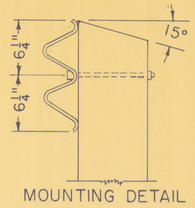
All timber posts shall be well seasoned, straight, sound fir and shall be given a creosote preservative treatment, using the empty cell process, in accordance with specifications. Painting of wood posts will not be required.

All posts shall conform to requirements of the Idaho Standard Specifications for Road and Bridge Construction, Edition of 1950, unless otherwise noted.

GUARD RAIL POSTS

RIGID BEAM GUARD RAIL



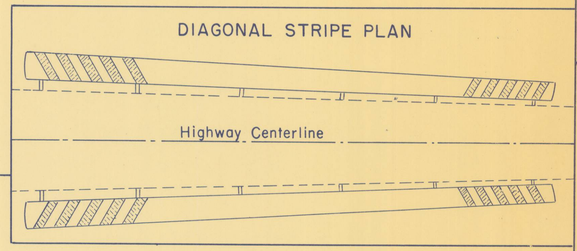


Rails shall be No. 12 (No. 10 when specified) U.S.S. Ga., hot rolled and cold formed, high carbon spring steel and shall have a minimum tensile strength of 80,000 Lbs. per square inch. Heat treated machine bolts to be as furnished by the manufacturer.

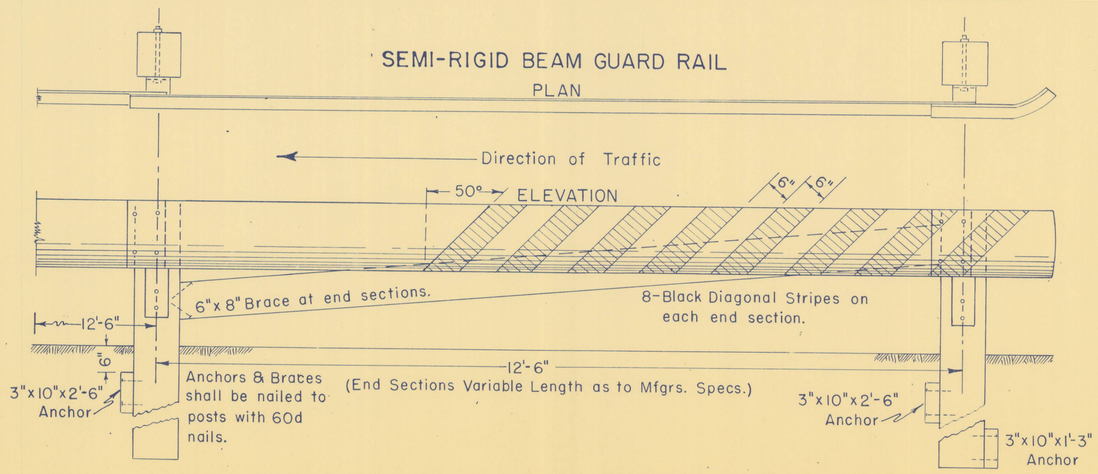
After submission and approval of plate, manufactures plans and specifications shall be used in conjunction with standard erection detail.

All rail shall be painted white in accordance with specifications.

R-4 a



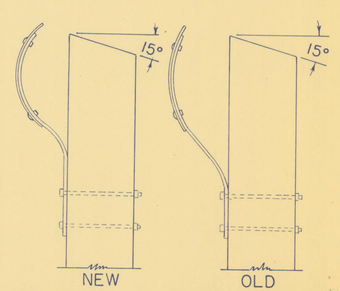
SEMI-RIGID BEAM GUARD RAIL

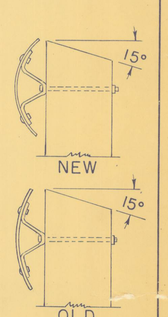


Rails shall be No. 12 (No. 10 when specified) U. S. S. Ga., hot rolled and cold formed, high carbon spring steel and shall have a minimum tensile strength of 85,000 Lbs. per square inch. Heat treated machine bolts to be as furnished by the manufacturer.

After submission and approval of plate, manufacturers plans and specifications shall be used in conjunction with standard erection detail.

All rail shall be painted white in accordance with specifications.





Drafting: R. Van B.

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

BEAM TYPE GUARD RAIL

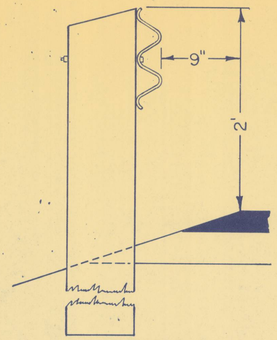
BOISE, IDAHO DEC. 1952

REVISED
12-11-52
2-2-54
4-2-54

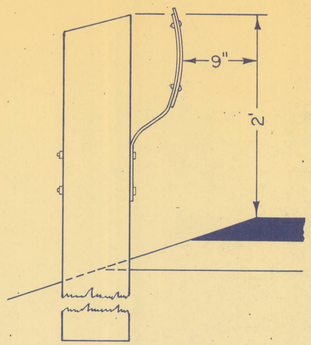
APPROVED:
C. D. Miller
STATE HIGHWAY ENGINEER

DRAWING NO.
R-4-A

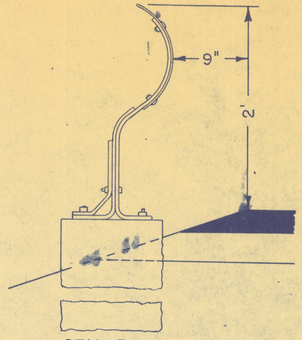
RELATION OF GUARD RAIL POST TO FINISHED SHOULDER



RIGID BEAM



SEMI-RIGID BEAM
(Spring Type Mounting)



SEMI-RIGID BEAM
(Spring Support)

R-4
b

ROADWAY TO BRIDGE TRANSITION FOR WIDENED ROADWAY

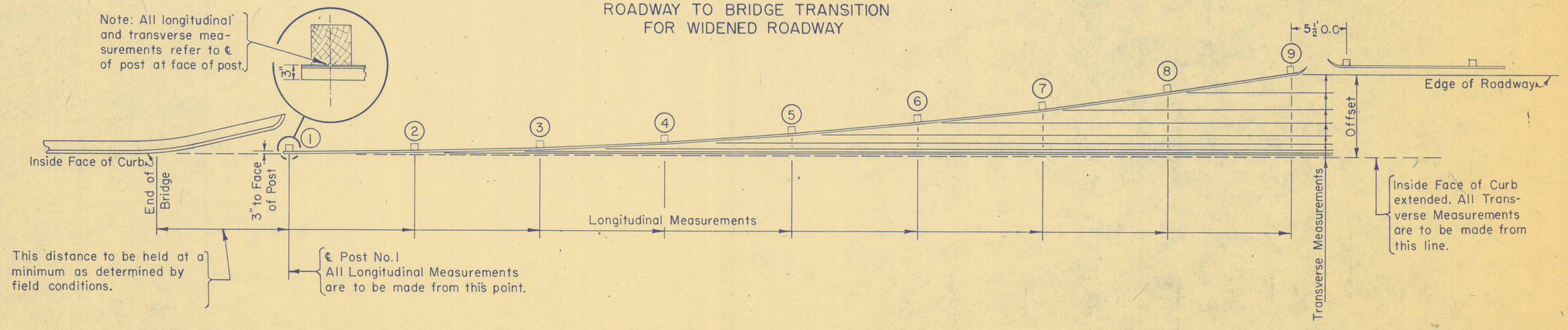


TABLE OF LONGITUDINAL & TRANSVERSE MEASUREMENTS

OFFSET	POST 1		POST 2		POST 3		POST 4		POST 5		POST 6		POST 7		POST 8		POST 9	
	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN	LONG	TRAN
3'	0	0.25	12.50	0.58	24.96	1.58	37.34	3.25										
4'	0	0.25	12.50	0.50	24.97	1.25	37.41	2.50	49.79	4.25								
5'	0	0.25	12.50	0.45	24.98	1.05	37.44	2.05	49.87	3.45	62.24	5.25						
6'	0	0.25	12.50	0.42	24.99	0.92	37.46	1.75	49.91	2.92	62.32	4.42	74.68	6.25				
7'	0	0.25	12.50	0.39	24.99	0.82	37.47	1.54	49.93	2.54	62.37	3.82	74.77	5.39	87.13	7.25		
8'	0	0.25	12.50	0.38	24.99	0.75	37.48	1.38	49.95	2.25	62.40	3.38	74.82	4.75	87.21	6.38	99.57	8.25

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

LOCATION OF GUARD RAIL POSTS

BOISE, IDAHO OCT. 1952

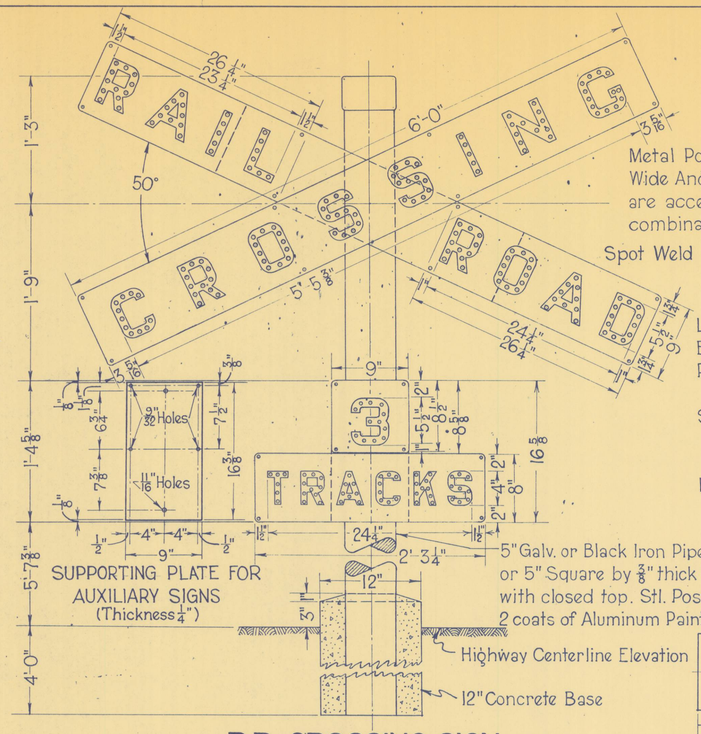
REVISED 11-25-52

APPROVED:

E. Miller
STATE HIGHWAY ENGINEER

DRAWING NO: R-4-b

Drafting: R.Van B.



R.R. CROSSING SIGN

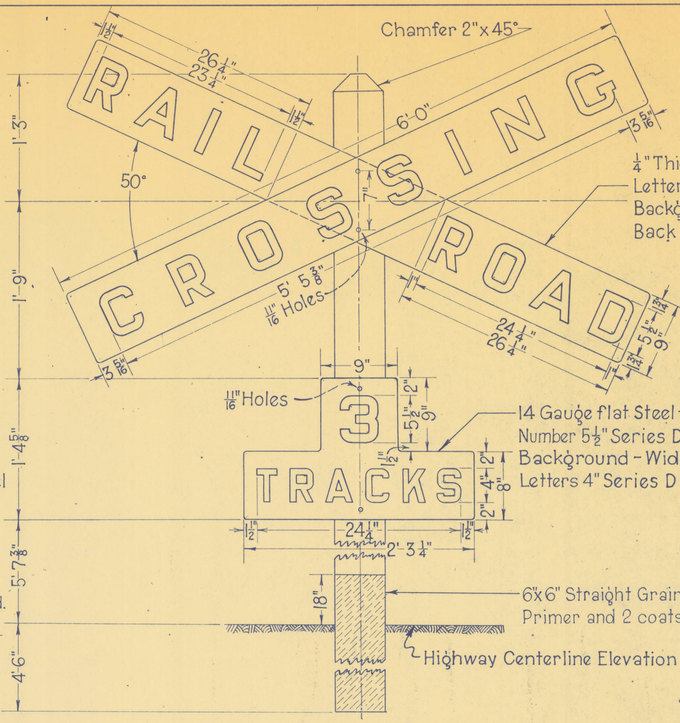
NOTE
Metal Post or Wood Post, Reflector Buttons or Wide Angle "Reflecting Coating" Background are acceptable as alternate items in any combination.

Spot Weld Supporting Plate to Back Plates

Letters 5 1/2" Series D - Black Enamal
Background - White Enamel
Refl. Units - White or Colorless - Number Reqd. as shown
Signs to be fastened to Stl. Posts with with Std. A.A.R. Bracket or Brackets of similar design.
Back of Cross Buck to be White Enamel



SUPPORTING PLATE FOR CROSS BUCK (Thickness 1/4")



R.R. CROSSING SIGN

1/4" Thick Boiler Plate
Letters 5 1/2" Series D - Solid Black
Background - Wide Angle White "Reflecting Coating"
Back of Cross Buck to be White Enamel

Signs to be fastened to Wood Posts by Rustproof Bolts.

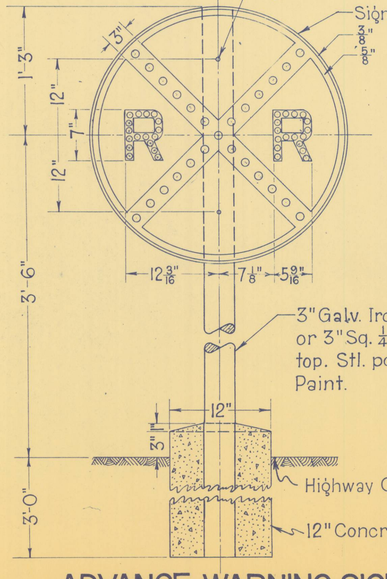
11/16" Holes

14 Gauge flat Steel - One piece inverted "T"
Number 5 1/2" Series D - Solid Black
Background - Wide Angle White "Reflecting Coating"
Letters 4" Series D - Solid Black

6"x6" Straight Grained Fir Salts Treated to be given 1 coat of White Wood Primer and 2 coats of Aluminum Paint.

Highway Centerline Elevation

Letters shall be of the size and Series as shown to conform to the Standard Alphabets for Highway Signs approved by the American Association of State Highway Officials.



Sign 30" outside diam. 16 Gauge Stl. - Border & Legend embossed

NOTE
Metal Post or Wood Posts, Reflector Buttons or Wide Angle "Reflecting Coating" Background are are acceptable as alternate items in any combination

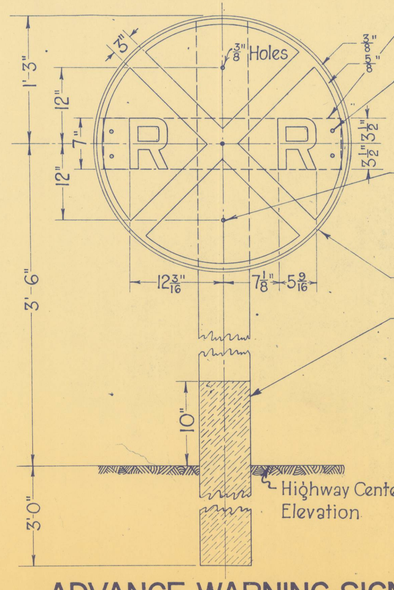
Signs to be fastened to Stl. Post with Std. A.A.R. Bracket or Stl. Bracket of Similar design.
Letters - 7" Series E
Letters, Cross and Border - Solid Black Enamel
Background - Federal Yellow Enamel
Reflector Units - White or Colorless

3" Galv. Iron or Black Iron Pipe Post with Capped Top or 3" Sq. 1/4" thick Stl. built up section with closed top. Stl. posts to be painted with 2 coats of Aluminum Paint.

Highway Centerline Elevation

12" Concrete Base

ADVANCE WARNING SIGN



Fir 2"x6"x28" Mitered in 4"x6" Post to form flat surface.

4 - 2" x 1/8" Rustproof Stove Bolts

Signs to be fastened to Wood Post by 3 - 2" x 5/16" Galv. Lag Screws.
Letters 7" Series E
Letters, Cross and Border - Solid Black
Background - Wide Angle Yellow "Reflecting Coating"

Sign 30" outside diam. 16 Gauge Stl. Border only embossed

4"x6" Straight Grained Fir Salts Treated to be given 1 coat of Primer and 2 coats of Std. Camouflage Green.

Highway Centerline Elevation

ADVANCE WARNING SIGN

R-12

STATE OF IDAHO
DEPARTMENT OF HIGHWAYS

R.R. CROSSING SIGNS

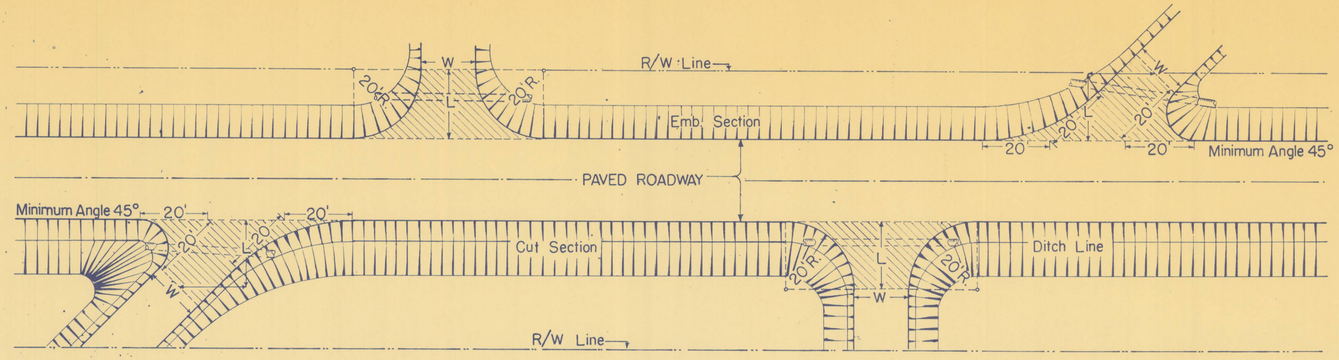
BOISE, IDAHO NOV. 1952

REVISED

APPROVED:

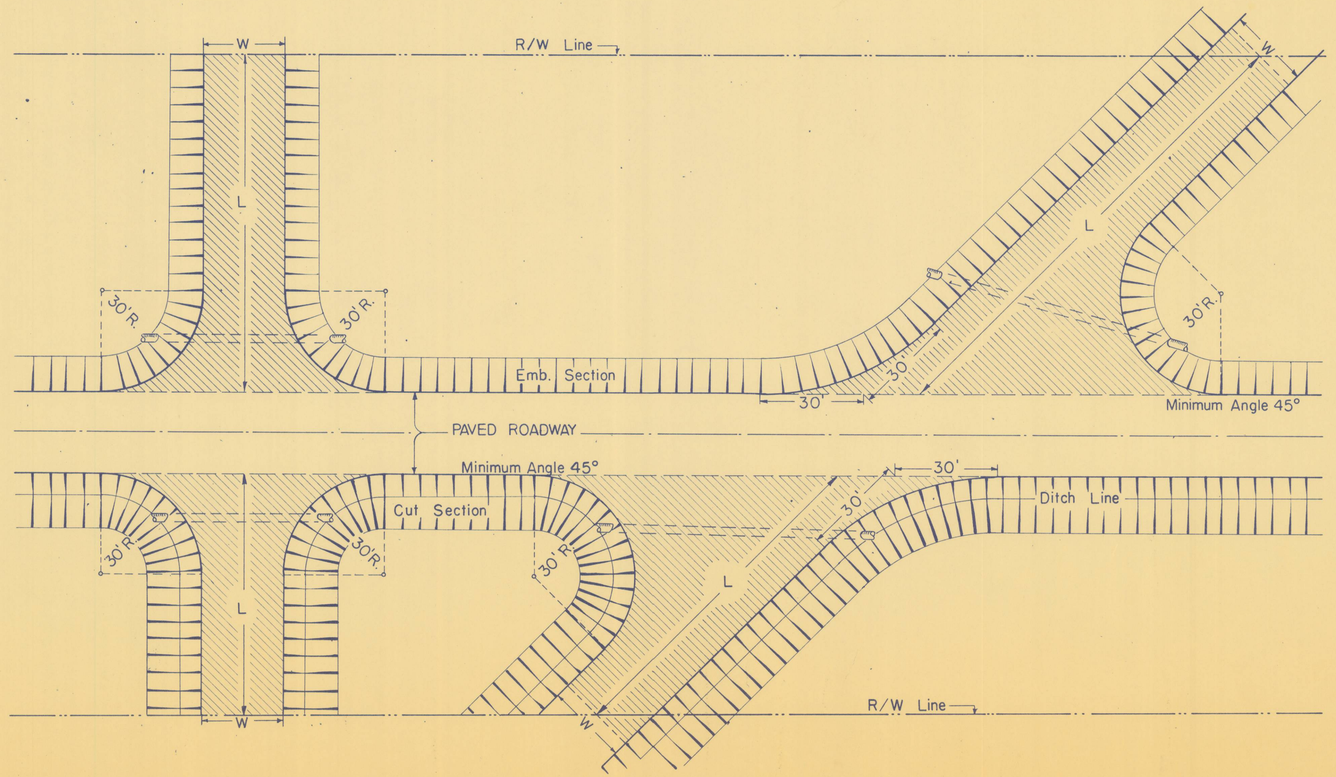
E. T. Buicer
STATE HIGHWAY ENGINEER

DRAWING NO.
R-12



FARMYARD AND/OR RESIDENTIAL APPROACHES

L = 20' or to R/W line whichever is less, unless otherwise shown on plans.
W = 12' minimum or as shown on plans.



PUBLIC ROAD APPROACHES

L = From edge of oil to R/W line.
W = 20' minimum variable as to width of approach shown on plans.

STATE OF IDAHO DEPARTMENT OF HIGHWAYS PAVED RURAL APPROACHES BOISE, IDAHO OCT. 1953	REVISED
APPROVED: E. A. Bibler STATE HIGHWAY ENGINEER	DRAWING NO. R-17

Drafting J.R.O.L.