FED. H.WAY DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	23A-R	1	

Revised 8-6-35 - H.W.M.

COLORADO
STATE HIGHWAY DEPARTMENT

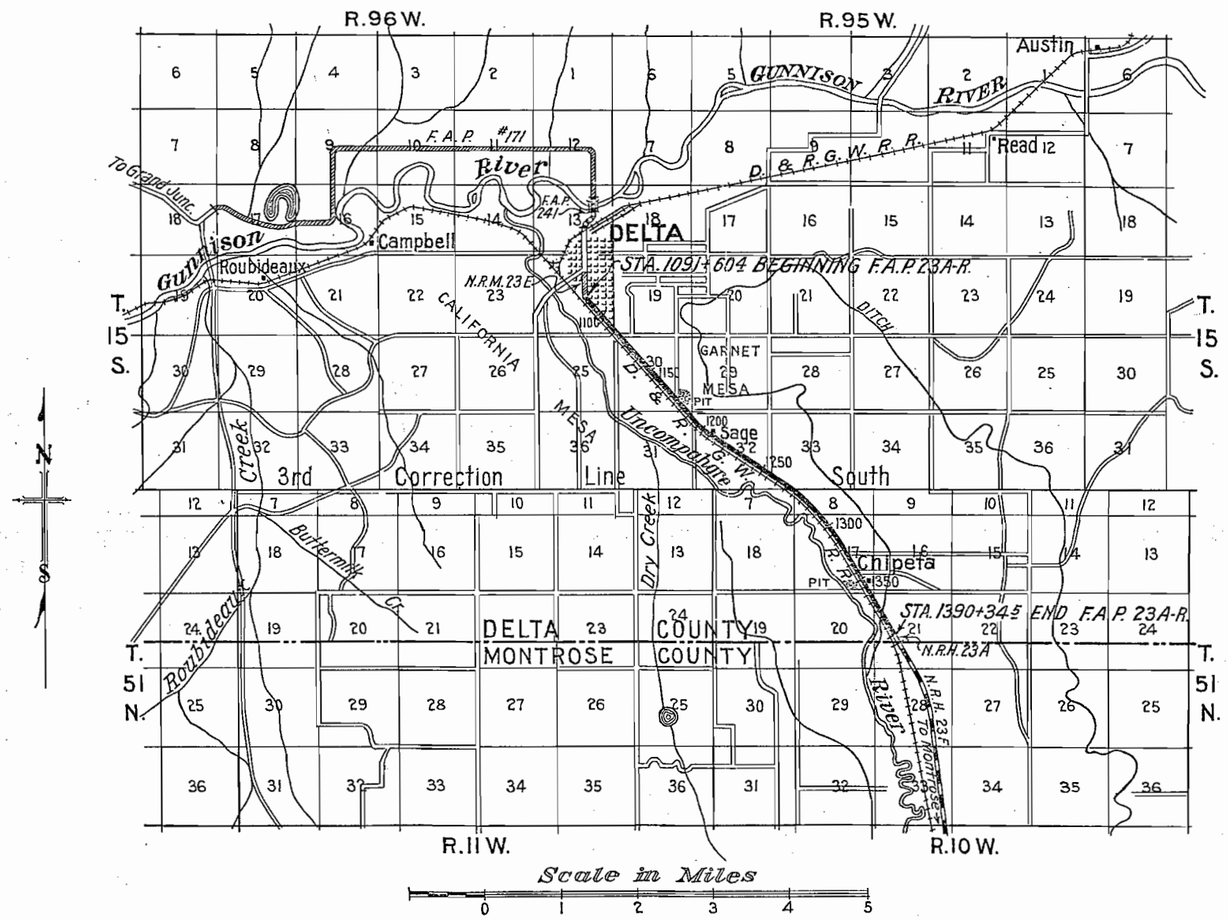
PLAN AND PROFILE OF PROPOSED
FEDERAL AID PROJECT NO. 23A-R
STATE HIGHWAY NO. 6
DELTA COUNTY

INDEX OF SHEETS

CONVENTIONAL SIGNS

Center Line of Survey ——— 2105 +
Right of Way Line ———— ————
Township Line — — — — — —
Section Line ———————
One Quarter Section Line ——— — —
Barbed Wire Fence ——x——x——
Combination Fence ——x—·—x——
Wire Cable Guard Fence ——·——·——
Railroad ———— +++++++++

SCALE OF ORIGINAL TRACINGS
ON PLAN, 1 IN. - 100 FT.
ON PROFILE { 1 IN. - 100 FT. HORIZONTAL / 1 IN. - 10 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT } 29,873.7 FT. = 5.657 MI.
NET LENGTH OF PROJECT }



NOTE :- It is recommended that bidders go over the plan details of this Project with one of the following authorized representatives of the Department.
John J. Vandemoer, Division Engineer, Grand Jct.

RECOMMENDED FOR APPROVAL 6/21/35
J. E. Mahoney
ASSISTANT ENGINEER
APPROVED
Chas. D. Vail
STATE HIGHWAY ENGINEER
RECOMMENDED FOR APPROVAL
DIST. ENG. BUREAU PUBLIC ROADS
RECOMMENDED FOR APPROVAL
CHIEF ENG. BUREAU PUBLIC ROADS
APPROVED
DIRECTOR BUREAU PUBLIC ROADS

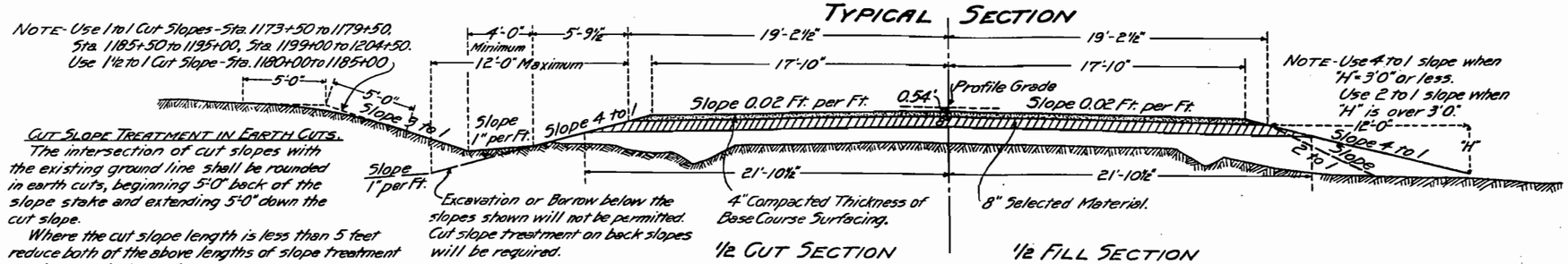
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	23A-R	2	

Rev. 8-6-35 A.F.F.
Rev. 8-15-35 A.F.F.

Void - see large blueprints for Final

TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES

TYPICAL SECTION



NOTE - Use 1 to 1 Cut Slopes - Sta. 1173+50 to 1179+50, Sta. 1185+50 to 1195+00, Sta. 1199+00 to 1204+50. Use 1½ to 1 Cut Slope - Sta. 1180+00 to 1185+00.

NOTE - Use 4 to 1 slope when "H" = 3'0" or less. Use 2 to 1 slope when "H" is over 3'0."

CUT SLOPE TREATMENT IN EARTH CUTS.

The intersection of cut slopes with the existing ground line shall be rounded in earth cuts, beginning 5'0" back of the slope stake and extending 5'0" down the cut slope.

Where the cut slope length is less than 5 feet reduce both of the above lengths of slope treatment to the actual slope distance.

Excavation quantities involved in rounded slope shall not be included in the Unclassified Excavation.

Excavation or Borrow below the slopes shown will not be permitted. Cut slope treatment on back slopes will be required.

½ CUT SECTION

½ FILL SECTION

Thickness of the Gravel or Crushed Rock Surfacing is to be considered as approximate only. The Base Course Surfacing is to be placed at the rate of 75 tons per 100 ft. of Roadway.

The 8" of Selected Material immediately underlying the Gravel or Crushed Rock Surfacing as shown on the Typical Section is to be constructed with Selected Material over the entire Project. Also the subgrade till between Sta. 1091+60± and Sta. 1173+50, and between Sta. 1233+00 and Sta. 1390+34±, is to be constructed of Selected Material.

The Selected Material is to be obtained from the designated pits, or from pits furnishing suitable equivalent material. This Material is to be classified and paid for as "Unclassified Excavation." The estimated yardage, pit location, and estimated overhaul of the required material are shown on the profile.

If the Contractor, for his own convenience, elects to use pits other than those designated, actual overhaul will be paid, provided however, that overhaul in excess of the Department's plan will not be allowed.

GENERAL NOTES

This Project is to be constructed in accordance with the Standard Specifications of the Colorado State Highway Department adopted Aug. 1, 1935.

All Quantities on preliminary plans are considered as approximate only.

All Curves are to be superelevated in accordance with the Standard Superelevation Sheet included in the plans.

All Roadway Excavation required to construct this Project is to be obtained as indicated on the plans. Quantities involved beyond the limits of the ditch as shown on the Typical Section, such as Embankment on List of Structures, are to be classified and paid for as Unclassified Excavation.

Wet Excavation may be encountered on the Project between Sta. 1091+60± and Sta. 1173+00, and between Sta. 1206+00 and Sta. 1390+34±. The cost of handling this material is to be included in the unit price bid for Unclassified Excavation. The material excavated between these stations is to be used to fill holes and abandoned ditches on the right of way, and the excess is to be wasted neatly over the right of way. This material is indicated on the profile as Waste Excavation, and on the cross sections as Wet Excavation.

All Poles encroaching on construction are to be moved by the Owners.

The Entire Project is to be cleared and grubbed for the full width of the Right of Way, and the cost thereof included in the lump sum price bid for Clearing and Grubbing the Entire Project. The location and character of clearing required are shown by notes on the plans.

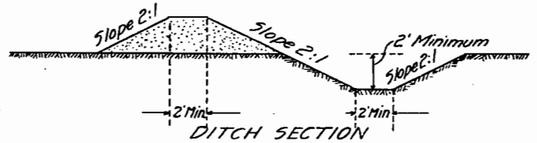
Except as limited by the Special Provisions, Power Equipment may be used on this Project.

The New Work on the Project lies over the present travelled roadway. The Contractor shall, at his own expense, prosecute construction in such a manner that traffic may readily pass over the road. The Contractor shall maintain in safe condition and at his own expense, all temporary approaches to and crossings of intersecting highways.

DITCH SECTION

Sta. 1111+50 - 1162+45
" 1172+90 - 1178+00
" 1201+50 - 1207+00
" 1245+00 - 1276+70

Sta. 1311+50 - 1320+67
" 1327+90 - 1340+38
" 1342+90 - 1377+00



DITCH SECTION

Sta. 1198+20 - 1207+00
" 1278+32 - 1280+50
" 1291+80 - 1294+00
" 1294+00 - 1311+50

Sta. 1320+67 - 1327+30
" 1325+00 - 1327+90
" 1340+38 - 1342+90
" 1379+50 - 1390 +34±

FENCING

Stations	Side	Remove Fence Lin. Ft.	Build Fence B.W. Fen. Lin. Ft.	Build Fence Com. Fen. Lin. Ft.	
1107+90 - 1116+00	L	845	815		
1116+00 - 1117+80	L	180		180	
1117+80 - 1139+20	L	2245	2140		
1139+60 - 1162+50	L	2410	2290		
1166+80 - 1174+60	L	780	780		
1174+60 - 1195+90	L		2150		
1201+70 - 1213+20	L	1375	1175		
1213+20 - 1245+35	L		3215		
1245+50 - 1276+60	L	3185	3120		
1279+45 - 1324+30	L	4600	4600		
1329+30 - 1333+00	L	380		370	
1333+00 - 1390+45±	L	5825	5745		
1276+60 - 1279+10	L	250		250	
Totals		22,075	26,030	800	

NOTE: Grade 'B' surfacing is to be stock-piled at gravel pit opposite Sta. 1164+00. The exact locations of stock-piles are to be designated by the Engineer.

The Contractor's attention is directed to the fact that wet Roadway excavation may be encountered on Project.

The costs of handling the wet Excavation shall be included in the original contract unit price for "Unclassified Excavation."

GATES

Station	Side	Reqd. No. of Gates B.W.	Drive.
1111+90	L	1	
1115+85	L	1	
1148+12	L	1	
1173+10	L	1	
1176+40	L	1	
1184+30	L	1	
1245+90	L	1	
1254+90	L	1	
1261+00	L	1	
1263+08	L	1	
1269+45	L	1	
1277+42	L		1
1295+58	L	1	
1310+80	L	1	
1311+90	L	1	
1317+40	L	1	
1330+28	L		1
1340+07	L	1	
1343+32	L	1	
1353+32	L	1	
1374+43	L	1	
1378+18	L	1	
1380+08	L	1	
1388+80	L	1	
Totals		22	2

R.O.W. MARKERS

Station	Side	No.
1111+30	L&R	3
1116+57	"	2
1146+71	"	2
1156+42	"	2
1164+00	L	2
1182+14	L&R	2
1191+00	L	2
1196+41	L&R	2
1201+30	L	1
1221+99	L&R	2
1229+99	"	2
1246+05	L	2
1262+49	L&R	2
1267+75	"	2
1279+70	"	2
1281+00	L	2
1291+80	"	2
1293+48	L&R	2
1317+38	"	2
1327+14	"	2
1357+69	"	2
1371+08	"	2
1388+29	"	2
1091+60.4	R	1
1170+00	"	2
1175+00	"	2
1195+00	"	2
1206+00	"	2
1325+92±	"	2
1390+34±	L&R.	2
1207+00	L.	2
Totals		61

SUMMARY OF APPROXIMATE QUANTITIES

No.	ITEM	UNIT	QUANTITY
10a	Clearing & Grubbing entire Proj.	Lump Sum	·
11a	Remove 34 structures	" "	·
11b	Rem. & reset Mail Boxes	Each	13
12a	Removing Fence	Lin. Ft.	22,100
12c	" & Resetting Gate	Each	1
13c	Unclassified Excavation	Cu. Yds.	157,000
13d	Cut Slope Treatment	Mi.	4
14a	Dry Rock Excav. (Struct)	Cu. Yd	50
14b	" Comm. " "	" "	250
14c	Wet Rock " "	" "	100
14d	" Comm. " "	" "	700
18a	Station Yard Overhaul	Sta. Yd.	1,300,000
18b	Yard Mile Overhaul	Yd. Mi.	107,000
26a	Gravel or Cr. Rock Surfacing	Ton	22,410
30b	Grade 'B' Surfacing	"	4.50
42a	Untreated Br. Timber	M.ft.B.M.	1.5
42b	Treated Br. Timber	" "	27.
43	Asphalt Plank Wear. Surf.	Sq. ft.	1111
53a	15" Corr. Metal Culv. Pipe	Lin. Ft.	1534
53b	18" " " " "	" "	582
53c	24" " " " "	" "	408
53d	30" " " " "	" "	154
53e	36" " " " "	" "	74
53s	15" Corr. Met. connect. bands	Each	11
53t	24" " " " "	"	1
59	Relaying Pipe	Lin. Ft.	772
72a	15" Corr. Met. Pipe Underdrain	Lin. Ft.	100
76b	B.W. fence, Unfr. wood posts	" "	26,100
76e	Comb. W. fence, Unfr. Wd posts	" "	800
76g	Barbed wire gates	Each	22
76h	Driveway gates	"	2
81a	Project Markers	Each	2
81b	Right of Way Markers	"	61
89b	Drain Pipe	"	4
60a	Treated Timber Piling	Lin. Ft.	1576
60e	Metal Pile Shoes	Each	68
	WORK TO BE DONE BY R.R. CO.- 30" Corr. Met. Culv. Pipes, opposite Stations 1207 and 1281	Lin. Ft.	100
	WORK TO BE DONE BY TELEG. CO.- Moving Teleg. Poles	Each	8

LIST OF STRUCTURES

STATION	DESCRIPTION	REMOVE STRUCT.	EXCAVATION Cu. Yd.		STRUCTURAL EXCAVATION * Cu. Yd.				CONCRETE Cu. Yd.	REINF. STEEL	CORRUGATED METAL PIPE Lin. Ft.						RELAY PIPE	CONN. BANDS		MISCELLANEOUS
		No.	Uncl.	Emb					CLASS-A	Lb.	15"	18"	24"	30"	36"		Lin. Ft.	No. & Size		
1091+60.4	Project Marker																			Project Marker
1096+53	Remove C.M.P. Cross Culv. Ditch	1	25					10				58								
1101+35	Side Drain, Road Approach L.			25				10			50									
1102+25	" " " " L			40				15			70									
1102+75	Remove C.M.P.	1																		
1105+25	Remove C.I.P.	1																		
" "	Side Drain, Road Approach L.			25				5			30									
1109+94	Remove C.M.P. Side Dr. Rd. Appr. R.	1		25				5			30									
1111+50-1162+45	Ditch L.		400																	
1111+70	Side Drain, Rd Appr. Relay C.M.P. L.			30				10			30						34			
1115+85	Relay C.M.P.																34			
" "	Side Drain, Road Approach L.			25				10			30									
1117+31	" " " " R.			20				5			40									
1125+27	Remove C.M.P. Cross Culv. Ditches	1	25					20					72							
1139+54	Remove Wood Culv., Relay C.M.P.	1						5									34			
" "	Side Drain, Road Approach L.			20				5			30									
1148+12	Remove Wd. Culv., Relay C.M.P.	1						5									32			
" "	Side Drain, Road Approach L.			20				5			30									
1155+70	Ditch, Cross Culv, R.		50					15				70								
1157+22	Remove Wd. Culv. Relay C.M.P.	1						5									34	1-15"		
" "	Side Drain, Road Appr. R.			25				5			30									
1162+50	" " " " L.			25				5			30									
1163+05	Remove C.M.P. R.	1																		
1163+50	Side Drain, Road Appr. L.			25				5			30									
1164+13	Cross Culv., Ditch		20					55							74					
1164+13-1173+00	Intercepting Ditch		900																	
1164+65	Remove 6'X 38' Conc. Box C.	1																		
1170+40	" C.M.P. Side Dr., Rd. Appr. R.	1		35				5			30									
1172+07	Remove C.M.P. L.	1																		
1172+90-1178+00	Intercepting Ditch L.		40																	
1173+10	Road Appr., Side Dr, Relay C.M.P. L.			25				10			30						30			
1173+10-1176+50	" "		(In Cross Sections)																	
1173+40	Perforated C.M.P. Und'drain L.							20												100'-15" Perforated C.M.P. Underdrain.
1180+00	Cross Culv., Ditch		10					20					64							
1182+35	Remove C.M.P.	1																		
1183+50	Side Drain, Road Approach L.			25				5			30									
1187+80	Remove Wooden Culv.	1																		
1193+00	" C.M.P. Cross Culv.	1						15				66								
1197+50	" 2 C.M.P's & 1 Vitr. C.P.	3																		
" "	Side Drain, Road Approach R.			25				5			40									
1197+65	" " " " L.			35				5			30									
" "	Remove C.M.P.	1																		
1198+20-1207+00	Ditch Change on right of R.R.		300																	
1201+50	Remove C.M.P. Side Dr, Rd Appr. L.	1		50				5			30									
1201+50-1207+00	Intercepting Ditch		50																	
1206+50	Remove C.M.P.	1																		
1207+00	Cross Culv., Ditch		20					40						76						
1207+00	30"X 50' C.M.P. Culv. under R.R.																			
" "	*(To be done by R.R. Co. force)																			
1207+00-1245+00	Intercepting Ditch		(In Cross Sections)																	
1214+50	Side Drain, Road Approach R.			15				5			30									
" "	Remove 2 C.M.P's.	2																		
1244+56	Road Appr., Side Drain R.			50				5			30									
1245+00-1276+70	Intercepting Ditch		250																	
1245+96	Relay C.M.P.							5									32	1-15"		
" "	Side Drain, Road Appr. L.			35				5			30									
1255+00	2 " " " " L.&R.			85				10			60									
	Relay C.M.P. L							5									32	1-15"		
1260+78	Remove C.M.P. Cross Culv., Dyke.	1		25				15				66								
1261+00	Remove C.M.P., Remove Wd. Culv.	2																		
" "	Side Dr., Rd Appr., Relay C.M.P. L.			20				10			30						30			
1263+08	" " " " " " L.			25				10			30						30			
1265+00	Cross Culvert, Ditch		20					10				68								
1269+42	Road Appr., Side Drain R.			20				5			30									
1269+45	Relay C.M.P.							5									32	1-15"		
" "	Side Drain, Road Appr. L.			20				5			30									
1277+42	" " " " L.			20				5			30									
1278+32	Cross Culv., Ditch,		10					10					62							
1278+32-1280+50	Intercepting "		20																	
1180+00-1192+00	Relocate 8 Telegraph Poles																			
" " "	*Work to be done by Tele. Co Forces.																			

Void - See large blueprints for final

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	23A-R	3	109

LIST OF STRUCTURES

STATION	DESCRIPTION	REMOVE STRUCT.	EXCAVATION Cu. Yd.		STRUCTURAL EXCAVATION Cu. Yd. *				CONCRETE Cu. Yd.	REINF. STEEL	CORRUGATED METAL PIPE Lin. Ft.						RELAY PIPE	CONN. BANDS		MISCELLANEOUS
		No.	Uncl.	Emb.					CLASS "A"	Lb.	15"	18"	24"	30"	36"		Lin. Ft.	No. & Size		
1279+33	Side Drain, Road Appr. L.			40				5			40									
" "	Relay & Extend C.M.P.							5					8				32	1-24"		
1281+00-1291+80	Intercepting Ditch		(In Cross Sections)																	
1281+00 #	30'X 50' Cross Culv. under R.R.																			
" "	(By R.R. Co. Forces)																			
" "	Relay C.M.P. Drain Ditch R.		200					10									32			
" "	Cross Culv., Ditch		20					25						78						
1291+80	" " "		20					30					72							
1291+80-1294+00	Ditch		75																	
1293+45	Remove C.M.P.	1																		
1294+00-1311+50	Intercepting Ditch		800														30			
1295+58	Relay C.M.P.							5												
" "	Side Drain, Road Appr. L.			20				5			30									
1299+58	Ditch, Cross Culv.,		50					10				66								
1309+50	Remove C.M.P. " " , Ditch	1	25					15					66				32	1-15"		
1310+73	Relay C.M.P.							5												
" "	Side Drain, Road Appr. L.			20				5			30									
1311+50-1320+67	Intercepting Ditch		450														32	1-15"		
1311+90	Relay C.M.P.							5												
" "	Side Drain, Road Appr. L.			20				5			30									
1312+20	" " " " R.			20				5			30									
1317+40	Side Dr., Rd. Appr., Relay C.M.P., L.			25				10			30						30			
1320+67	Ditch, Cross Culv.		20					10					64							
1320+67-1327+30	"		350																	
1325+00-1327+90	Ditch		150																	
1325+00	Cross Culv.							10				60								
1327+50	Side Dr., Relay C.M.P., Rd. Appr. L.			25				10			40						50			
1327+71	Remove C.M.P.	1																		
1327+94	" Wood Side Drain	1																		
1327+90-1340+38	Intercepting Ditch		500														32	1-15"		
1330+28	Side Dr., Relay C.M.P., Rd. Appr. L.			20				10			30									
1340+07	Remove Wd. Br., 2 Side Dr. R&L.	1						10			60									
" "	2 Road Approaches			25								64								
1340+38	Ditch, Cross Culv.		20					5												
1340+38-1342+90	"		120																	
1342+90-1377+00	Intercepting Ditch		1360																	
1343+32	Side Dr., Relay C.M.P., Rd. Appr. L.			25				10			30						36			
1353+17	" ", , " " R.			20				5			40									
1353+32	" ", Road Approach L.			20				5			30									
" "	Relay C.M.P.							5									32	1-15"		
1361+22	Road Appr., Side Drain R.			25				5			30									
1374+43	" " " " L.			20				5			30						32	1-15"		Remove & Reset Gate (Untr. Br. Timb. 0.712 M.ft.B.M. Tr. " " 13.003 " " " Asphalt Plank 535 Sq. Ft. Tr. Timber Piling 704 Lin. Ft. Metal Pile Shoes 32 Drain Pipe 2
" "	Relay C.M.P., Remove & Reset Gate							5												
1377+63	Road Approach R.			50																
1377+55-1377+75	Remove Conc. Box Culv.	1																		
" "	Reqd 1-Span Timber Trestle							(65)												
1378+18	Side Drain, Road Appr. L.			20				5			30									
1379+50-1390+34	Intercepting Ditch		550																	
1379+40-1379+60	Remove Conc. Box Culv.	1																		
" "	Reqd 1 Span Timber Trestle							100												
1380+08	Relay C.M.P.							5									32	1-15"		Untr. Br. Timber 0.712 M.ft.B.M. Tr. " " 14.763 " " " Asphalt Plank 535 Sq. Ft. Tr. Timber Piling 872 Lin. Ft. Metal Pile Shoes 36 Drain Pipe 2
" "	Side Dr., Rd. Appr. L.			20				5			30									
1386+40	Cross Culv., Ditch		20					5				64								
1387+03	Remove C.M.P.	1																		
1388+38	Road Appr., Side Drain R.			20				5			30									
1388+83	" " " " L			20				5			30									
" " (1390+34.5)	Relay & Extend C.M.P.							5			14						16	1-15"		Project Marker
	Project Marker																			
TOTALS		(34)	(6870)	1270				(880)			1534	(582)	(408)	154	74		772	1-24" 11-15"		

*Structural Excavation is estimated to be 90% Common and 10% Rock, each of which is estimated to be 25% Dry and 75% Wet.
Work to be done by the Railroad Co. Forces
◇ Work " " " " Telegraph Co. "

Void - See large blueprints for final

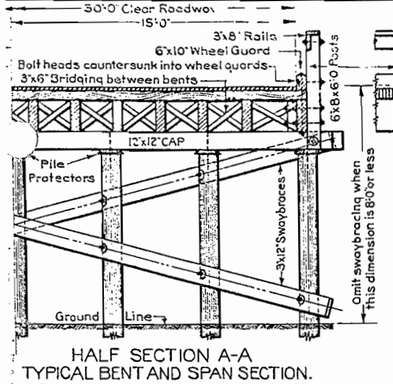
FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	23 A-R	4	109

Rev. 8-6-35 A.F.F.

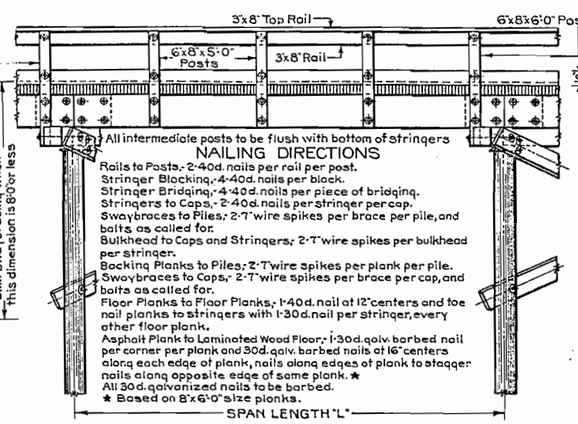
STANDARD P-117-B-H 60

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. Nº	SHEET NO.	TOTAL SHEETS
3	COLO.	23-AR	5	

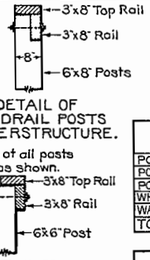
Rev 8-15-35, t&c – Aug 1,1935 Spec's.



HALF SECTION A-A
TYPICAL BENT AND SPAN SECTION.

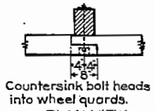


TYPICAL ELEVATION OF SPAN.

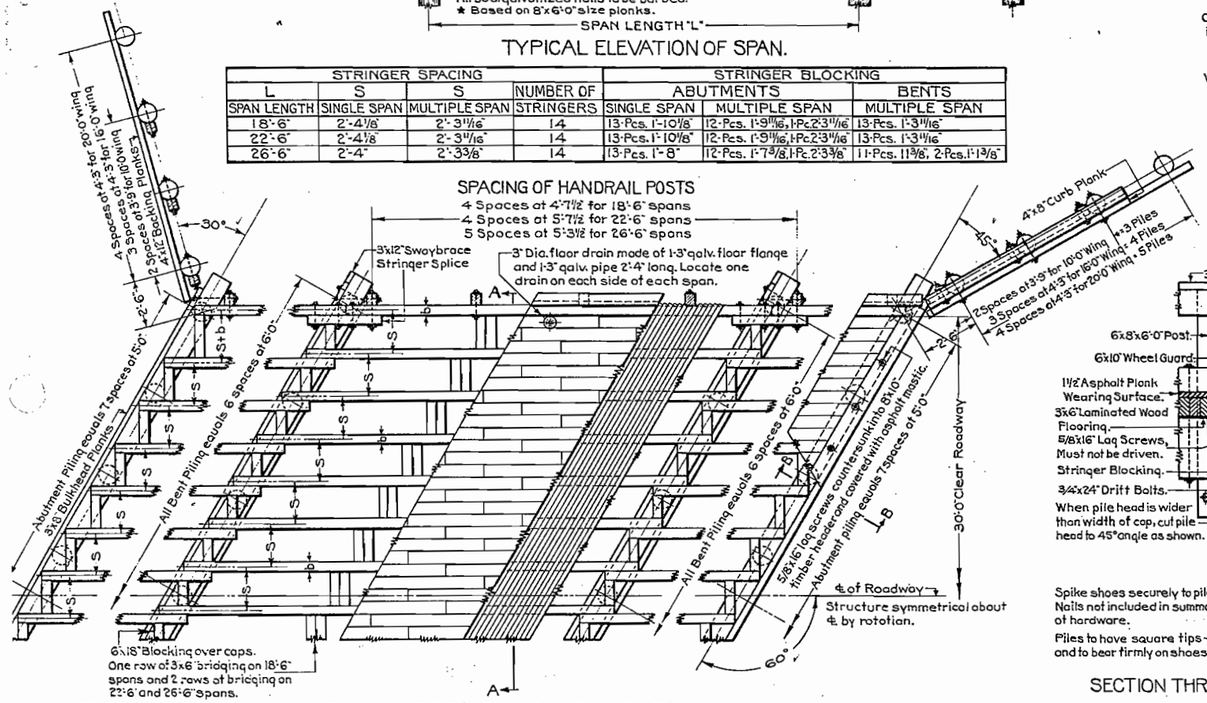


DETAIL OF HANDRAIL POSTS SUPERSTRUCTURE.

DETAIL OF HANDRAIL POSTS WINGS.

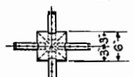


Countersink bolt heads into wheel guards.
PLAN VIEW
DETAILS OF WHEEL GUARD SPLICE.

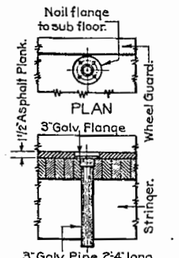


TYPICAL SECTIONAL HALF PLAN OF SPANS AND ABUTMENTS.

SECTION THRU ABUTMENT



PLAN OF PILE SHOE CAST IRON.



DETAIL OF FLOOR DRAIN.

STRINGER SPACING				STRINGER BLOCKING		
L	S	S	NUMBER OF	ABUTMENTS	MULTIPLE SPAN	BENTS
SPAN LENGTH	SINGLE SPAN	MULTIPLE SPAN	STRINGERS	SINGLE SPAN	MULTIPLE SPAN	MULTIPLE SPAN
18'-6"	2'-4 1/8"	2'-3 11/16"	14	13-Pcs. 1'-10 1/8"	12-Pcs. 1'-9 11/16", 1-Pc. 2'-3 11/16"	13-Pcs. 1'-3 11/16"
22'-6"	2'-4 1/8"	2'-3 11/16"	14	13-Pcs. 1'-10 1/8"	12-Pcs. 1'-9 11/16", 1-Pc. 2'-3 11/16"	13-Pcs. 1'-3 11/16"
26'-6"	2'-4"	2'-3 3/8"	14	13-Pcs. 1'-8"	12-Pcs. 1'-7 5/8", 1-Pc. 2'-3 3/8"	11-Pcs. 1'-1 5/8", 2-Pcs. 1'-1 3/8"

SPACING OF HANDRAIL POSTS
4 Spaces at 4'-7½" for 18'-6" spans
4 Spaces at 5'-7½" for 22'-6" spans
5 Spaces at 5'-3½" for 26'-6" spans

BOLTS AND WASHERS FOR ONE SPAN OF SUPERSTRUCTURE

LOCATION	SIZE	18'-6" SPAN			22'-6" SPAN			26'-6" SPAN		
		NO.	LENGTH	LBS.	NO.	LENGTH	LBS.	NO.	LENGTH	LBS.
POSTS TO RAILS	5/8"	6	10"	7.0	6	10"	7.0	8	10"	9.0
POSTS TO WHEEL GUARDS	5/8"	6	14"	8.5	6	14"	8.5	8	14"	11.5
POSTS TO STRINGERS	5/8"	12	16"	19.0	12	16"	19.0	16	18"	27.5
WHEEL GUARD TO STRINGERS	5/8"	6	36"	19.5	6	38"	20.5	8	38"	27.0
WASHERS- STD. C.I.O.G.	5/8"	60		45.0	60		45.0	80		60.0
TOTAL WEIGHT				99.0			100.0			135.0

BOLTS AND WASHERS FOR ONE ABUTMENT

LOCATION	ITEM	SIZE	NO.	LENGTH	WT. EACH	TOTAL WT.
POSTS TO RAILS	BOLTS	5/8"	2	10"	1.08 LBS.	2.2 LBS.
POST TO BULKHEAD TO CAP	BOLTS	5/8"	2	27"	2.48 LBS.	5.0 LBS.
POSTS TO STRINGERS	BOLTS	5/8"	4	18"	1.74 LBS.	7.0 LBS.
POSTS TO WHEEL GUARDS	BOLTS	5/8"	2	14"	1.41 LBS.	2.9 LBS.
WHEEL GUARDS TO STRINGERS	BOLTS	5/8"	2	38"	3.40 LBS.	7.0 LBS.
TIMBER HEADER TO STRINGERS	LAG SCREWS	5/8"	14	16"	1.36 LBS.	19.1 LBS.
					LBS.	LBS.
WASHERS - STD. C.I.O.G.	WASHERS	5/8"	38		0.75 LBS.	28.8 LBS.
CAPS TO PILES	DRIFT BOLTS	3/4"	8	24"	3.00 LBS.	24.0 LBS.
TOTAL WEIGHT						96.0 LBS.

BOLTS AND WASHERS FOR ONE WING

POSTS TO RAILS	BOLTS	5/8"	3	11"	1.16 LBS.	3.4 LBS.
POSTS TO PILES	BOLTS	5/8"	6	20"	1.90 LBS.	11.4 LBS.
PILES TO CURB PLANK	BOLTS	5/8"	3	18"	1.74 LBS.	5.2 LBS.
					LBS.	LBS.
WASHERS- STD. C.I.O.G.	WASHERS	5/8"	24		0.75 LBS.	18.0 LBS.
TOTAL WEIGHT						38.0 LBS.

BOLTS AND WASHERS FOR ONE BENT

POSTS TO RAILS	BOLTS	5/8"	2	10"	1.08 LBS.	2.2 LBS.
POSTS TO WHEEL GUARDS	BOLTS	5/8"	2	14"	1.41 LBS.	2.9 LBS.
POSTS TO CAPS	BOLTS	5/8"	2	24"	2.23 LBS.	4.5 LBS.
WHEEL GUARDS TO STRINGERS	BOLTS	5/8"	2	36"	3.40 LBS.	6.8 LBS.
POSTS TO STRINGERS TO SPLICES	BOLTS	5/8"	4	24"	2.23 LBS.	8.9 LBS.
SPLICES TO STRINGERS	BOLTS	5/8"	12	16"	1.57 LBS.	18.9 LBS.
POSTS TO CAP TO SWAYBRACES	BOLTS	5/8"	2	27"	2.48 LBS.	5.0 LBS.
SWAYBRACES TO CAPS	BOLTS	5/8"	2	17"	1.66 LBS.	3.3 LBS.
SWAYBRACES TO PILES	BOLTS	5/8"	12	17"	1.66 LBS.	19.9 LBS.
SWAY. TO PILE TO SWAY.	BOLTS	5/8"	1	20"	1.90 LBS.	1.9 LBS.
WASHERS STD. C.I.O.G. NO SWAYS	WASHERS	5/8"	48		0.75 LBS.	36.0 LBS.
WASHERS- STD. C.I.O.G. WITH SWAYS	WASHERS	5/8"	78		0.75 LBS.	58.2 LBS.
CAPS TO PILES	DRIFT BOLTS	3/4"	7	24"	3.00 LBS.	21.0 LBS.
TOTAL WEIGHT- WITHOUT SWAYBRACES						102.0 LBS.
TOTAL WEIGHT- WITH SWAYBRACES						150.0 LBS.

NAILS

LOCATION	ITEM	18'-6" SPAN	22'-6" SPAN	26'-6" SPAN
ONE SPAN OF SUPERSTRUCTURE	30D. COMMON	25 LBS.	30 LBS.	35 LBS.
	300. GALV. BARBED	85 LBS.	105 LBS.	120 LBS.
	40D. COMMON	160 LBS.	195 LBS.	230 LBS.
ONE ABUTMENT	40D. COMMON	5 LBS.	5 LBS.	5 LBS.
	T WIRE SPIKES	28 LBS.	LBS.	LBS.
ONE WING	40D. COMMON	1 LBS.	1 LBS.	1 LBS.
	T WIRE SPIKES	9 LBS.	LBS.	LBS.
ONE BENT	40D. COMMON	7 LBS.	7 LBS.	7 LBS.
	T WIRE SPIKES	LBS.	LBS.	LBS.

SUMMARY FOR HARDWARE

BOLTS AND WASHERS	1 SPANS	AT	99.0 LBS. PER SPAN	= 99 LBS.
	2 ABUTMENTS	AT	56.0 LBS. PER ABUTMENT	= 152 LBS.
	4 WINGS	AT	38.0 LBS. PER WING	= 152 LBS.
	— BENTS WITHOUT SWAYS	AT	102.0 LBS. PER BENT	= — LBS.
	— BENTS WITH SWAYS	AT	150.0 LBS. PER BENT	= — LBS.
	TOTAL WEIGHT			= 443 LBS.

NAILS	LOCATION	UNIT	30D. COMMON EACH	30D. COMMON TOTAL	30D. GALV. EACH	30D. GALV. TOTAL	40D. COMMON EACH	40D. COMMON TOTAL	T WIRE SPIKES EACH	T WIRE SPIKES TOTAL
	1 SPANS	LBS.	25	25	85	85	160	160	—	—
	2 ABUTMENTS	LBS.	—	—	—	—	5	10	28	56
	4 WINGS	LBS.	—	—	—	—	1	4	9	36
	— BENTS	LBS.	—	—	—	—	7	—	—	—
	TOTAL WEIGHT	LBS.		25		85		174		92

SUMMARY OF QUANTITIES

STRUCTURAL EXCAVATION

ITEM 14 a.	DRY ROCK	CU. YDS.
ITEM 14 b.	DRY COMMON	65 CU. YDS.
ITEM 14 c.	WET ROCK	CU. YDS.
ITEM 14 d.	WET COMMON	CU. YDS.

ITEM 42 a. UNTREATED BRIDGE TIMBER

1 SPANS	AT	280	BD. FT. EACH	=	280 BD. FT.
2 ABUTMENTS	AT	48	BD. FT. EACH	=	96 BD. FT.
4 WINGS	AT	84	BD. FT. EACH	=	336 BD. FT.
— BENTS	AT	48	BD. FT. EACH	=	— BD. FT.
			TOTAL	=	712 BD. FT.

ITEM 42b. TREATED BRIDGE TIMBER

1 SPANS	AT	6791	BD. FT. EACH	=	6791 BD. FT.
— SPANS	AT	—	BD. FT. EACH	=	— BD. FT.
2 ABUTMENTS	AT	2018	BD. FT. EACH	=	4036 BD. FT.
4 WINGS	AT	544	BD. FT. EACH	=	2176 BD. FT.
— BENTS	AT	—	BD. FT. EACH	=	— BD. FT.
			TOTAL	=	13003 BD. FT.

ITEM 43 ASPHALT PLANK WEARING SURFACE

1 SPANS	AT	555	SQ. FT. EACH	=	555 SQ. FT.

ITEM 60a. PILING-TREATED

2 ABUTMENTS	AT	160	LIN. FT. EACH	=	320 LIN. FT.
4 WINGS	AT	96	LIN. FT. EACH	=	384 LIN. FT.
— BENTS	AT	—	LIN. FT. EACH	=	— LIN. FT.
			TOTAL	=	704 LIN. FT.

ITEM 60e METAL PILE SHOES

32 SHOES	AT	35 LBS. EACH	=	32 SHOES

ITEM 89b DRAIN PIPE

2 PIECES 3" DIA. GALV. PIPE 2'-4" LONG WITH ONE 3" GALV. FLANGE ON EACH PIPE			
1 SPANS	AT	2 COMPLETE PER SPAN =	2 PIECES

ONE SPAN OF SUPERSTRUCTURE

UNTREATED TIMBER

DESCRIPTION	SIZE	18'-6" SPAN NO.	18'-6" SPAN LENGTH	18'-6" SPAN TOTAL	22'-6" SPAN NO.	22'-6" SPAN LENGTH	22'-6" SPAN TOTAL	26'-6" SPAN NO.	26'-6" SPAN LENGTH	26'-6" SPAN TOTAL
HANDRAILS S4S.	3"x8"	4	20'-0"	160 BD.FT.	4	24'-0"	192 BD.FT.	4	28'-0"	224 BD.FT.
HANDRAIL POSTS S4S.	6"x8"	6	5'-0"	120 BD.FT.	6	5'-0"	120 BD.FT.	8	5'-0"	160 BD.FT.
TOTAL UNTREATED TIMBER				280 BD.FT.			312 BD.FT.			384 BD.FT.

TREATED TIMBER

FLOORING S4S.	3"x 6"	75	36'-0"	4050 BD.FT.	90	36'-0"	4860 BD.FT.	106	36'-0"	5724 BD.FT.
BRIDGING	3"x 6"	7	10'-0"	105 BD.FT.	13	10'-0"	195 BD.FT.	15	10'-0"	195 BD.FT.
WHEEL GUARDS	6"x10"	2	20'-0"	200 BD.FT.	2	24'-0"	240 BD.FT.	2	28'-0"	280 BD.FT.
STRINGERS OUTSIDE	6"x18"	2	18'-6"	333 BD.FT.						
	6"x20"				2	22'-6"	450 BD.FT.			
INTERMEDIATE SPANS	8"x20"							2	26'-6"	707 BD.FT.
STRINGERS OUTSIDE END SPANS	6"x18"	2	18'-11"	341 BD.FT.						
	6"x20"				2	22'-11"	459 BD.FT.			
	8"x20"							2	26'-10"	716 BD.FT.
STRINGERS INSIDE INTERMEDIATE AND END SPANS	6"x18"	12	20'-0"	2160 BD.FT.						
	6"x20"				12	24'-0"	2880 BD.FT.			
	8"x20"							12	28'-0"	4480 BD.FT.
STRINGERS SINGLE SPAN	6"x18"	14	19'-4"	2436 BD.FT.						
	6"x20"				14	23'-4"	3267 BD.FT.			
	8"x20"							14	27'-3"	5087 BD.FT.
TOTAL TR. TIMBER- SINGLE SPAN				6781 BD.FT.			8562 BD.FT.			11286 BD.FT.
TOTAL TR. TIMBER- END SPANS				6856 BD.FT.			8634 BD.FT.			11395 BD.FT.
TOTAL TR. TIMBER- INTER. SPANS				6848 BD.FT.			8625 BD.FT.			11386 BD.FT.
ASPHALT PLANK WEARING SURF.				555 SQ.FT.			675 SQ.FT.			795 SQ.FT.

ONE ABUTMENT

UNTREATED TIMBER

HANDRAIL POSTS S4S.	2 PCS.	6"x 8" x 6'-0"	48 BD.FT.
TOTAL UNTREATED TIMBER			48 BD.FT.

TREATED TIMBER

TIMBER HEADER	1 PC.	8"x10"x36'-0" FINISH TO 7"x 9"		240 BD.FT.
CAP	1 PC.	12"x 12"x 40'-0"		480 BD.FT.
BULKHEAD PLANKS	4 PCS.	3"x 8"x 38'-0"		304 BD.FT.
BACKING PLANKS	5 PCS.	4"x 12"x 38'-0"		760 BD.FT.
STRINGER BLOCKING	18'-6" & 22'-6" SPANS	1 PC.	6"x 18"x 26'-0"	234 BD.FT.
	26'-6" SPANS	1 PC.	6"x 18"x 22'-0"	188 BD.FT.
TOTAL TREATED TIMBER				2018 BD.FT.
PILING- TREATED	8 PIECES AT 20'	LIN. FT. EACH =		160 LIN. FT.

ONE WING

UNTREATED TIMBER

DESCRIPTION	SIZE	10'-0" LENGTH NO.	10'-0" LENGTH LENGTH	10'-0" LENGTH BD.FT.	16'-0" LENGTH NO.	16'-0" LENGTH LENGTH	16'-0" LENGTH BD.FT.	20'-0" LENGTH NO.	20'-0" LENGTH LENGTH	20'-0" LENGTH BD.FT.
HANDRAILS S4S.	3"x8"	1	10'-0"	20	1	12'-0"	24	1	12'-0"	24
	3"x8"	1	10'-0"	20	1	12'-0"	24	1	12'-0"	24
HANDRAIL POSTS S4S.	6"x6"	3	4'-0"	36	3	4'-0"	36	3	4'-0"	36
TOTAL UNTREATED TIMBER- BD.FT.				76			84			84

TREATED TIMBER

CURB PLANKS	4"x8"	1	10'-0"	27	1	12'-0"	32	1	12'-0"	32
BACKING PLANKS	4"x12"		10'-0"		8	16'-0"	512		20'-0"	
TOTAL TREATED TIMBER- BD.FT.							544			
PILING- TREATED		4 PIECES AT 24'		LIN. FT. EACH =			96			LIN. FT.

ONE BENT

UNTREATED TIMBER

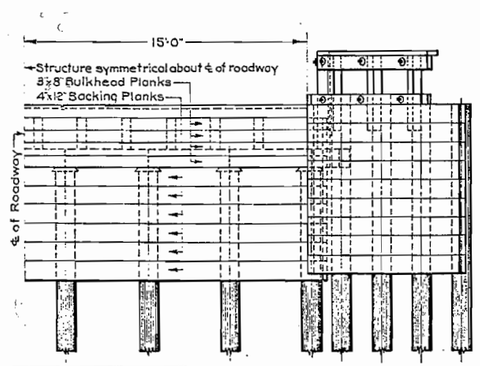
HANDRAIL POSTS S4S.	2 PCS.	6"x 8"x 6'-0"	48 BD.FT.
TOTAL UNTREATED TIMBER			48 BD.FT.

TREATED TIMBER

STRINGER SPLICES	2 PCS.	6"x 18"x 4'-0"		72 BD.FT.
CAP	1 PC.	12"x 12"x 40'-0"		480 BD.FT.
SWAYBRACES	2 PCS.	3"x 12"x		BD.FT.
STRINGER BLOCKING	18'-6" & 22'-6" SPANS	1 PC.	6"x 18"x 18'-0"	162 BD.FT.
	26'-6" SPANS	1 PC.	6"x 18"x 14'-0"	126 BD.FT.
				BD.FT.
TOTAL TREATED TIMBER				— BD.FT.
PILING- TREATED	7 PIECES AT	LIN. FT. EACH =		— LIN. FT.

GENERAL NOTES.

All work shall be done according to the standard specifications of the Colorado State Highway Department, adopted Aug. 1, 1935
All timber and piling to be treated or untreated as shown in bills of material.
All timber and piling shall be dense southern yellow pine or west coast douglas fir.
All caps shall be edged to one even depth before treatment. The ends of all stringers shall be dapped on one edge before treatment, to obtain an even depth over caps.
All cut surfaces or bored holes in treated timber or piles shall be thoroly saturated with hot creosote oil.
All piling supporting caps shall be covered with galvanized pile protectors as specified, all other piling tops shall be saturated with hot creosote oil and covered with a thick layer of heavy asphalt or tar.
Joints in top handrail must be staggered with joints in side rail.
All handrailing and posts above the wheel guards shall be painted white and all handrail posts below the top of wheel guards shall be pointed black as specified.
All bolts more than 12 inches long must be threaded not less than 4 inches.
Bolts in the finished structure shall not project more than one half inch beyond the nut.
All bolts must have std. C.I.O.G. or malleable cast washers under each head and nut.
Bolt lengths are calculated assuming C.I.O.G. washers will be used.
The contractor is cautioned to check bolt lengths before ordering because of variations in thickness of lumber and piling.
The entire exposed surface of all untreated timber shall be painted one coat as specified immediately after the material is delivered to the project.
Before placing handrailing the contact surfacing shall receive the second coat of paint.
When contractor is permitted to drill holes to facilitate pile driving, these holes must be drilled so piling will stand in vertical position after final driving.
Bid price for asphalt plank shall include galvanized barbed nails.



HALF END ELEVATION.

	INITIAL	DATE
SIGNAL BY	W.H.L	7/30/35
CHECKED BY	T.G.	8/5/35
LAYOUT BY	A.G.K.	8/6/35
CHECKED BY	S. J. B.	8/7/35

STANDARD P-117-BH-60

STRUCTURES REQUIRED
1- SPANS AT 18'-6"
SPANS AT

LOADING DATA
LIVE LOAD- A.A.S.H.O. AUG. 1928. CLASS "A" (H-15)
DEAD LOAD- Assumes 25 lbs. per sq. ft. additional wearing surface. This includes 1½" asphalt plank wearing surface.

COLORADO
STATE HIGHWAY DEPARTMENT
TREATED TIMBER PILE TRESTLE
WITH 6" LAMINATED FLOOR AND 1½" ASPHALT PLANK WEARING SURFACE
30 FT. CLEAR ROADWAY
Across CAPRON DITCH
Sta. 1377+55 To 1377+75.23
Near Delta Sec. 21 T. 51 N. R. 10 W.

Designed by A.G.K.
Made by A.G.K.
Check Design H.S.D.
Check Detail H.S.D.

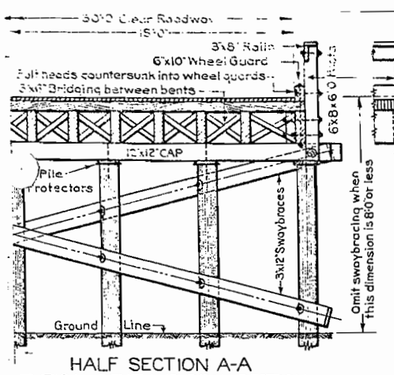
Approved by P. D. Bailey
Bridge Engineer
Date: Feb. 9th, 1935

STRUCTURE NO. U-4-E

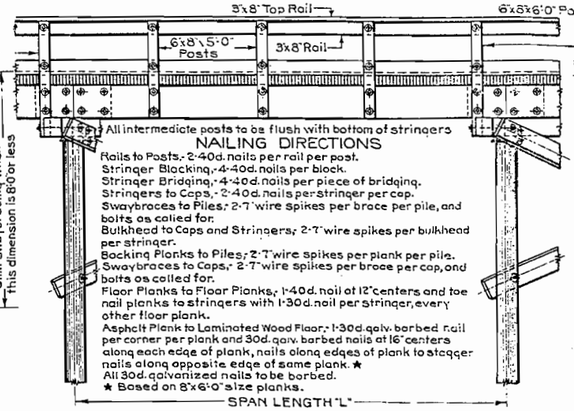
STANDARD P-117-B-H 60

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. Nº	SHEET NO.	TOTAL SHEETS
3	COLO.	23-AR	6	

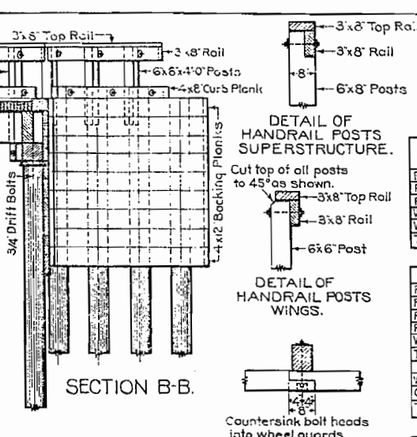
Rev. 8-15-35, tgc ; Aug. 1, 1935 Spec's.



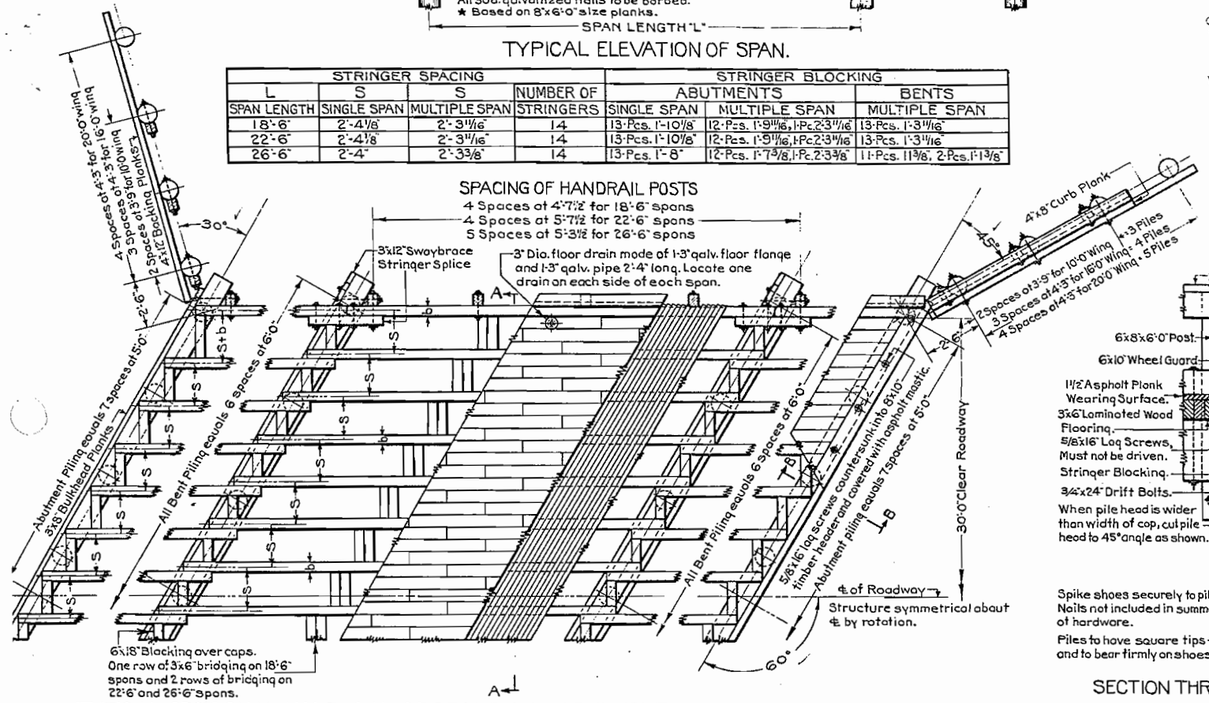
HALF SECTION A-A
TYPICAL BENT AND SPAN SECTION.



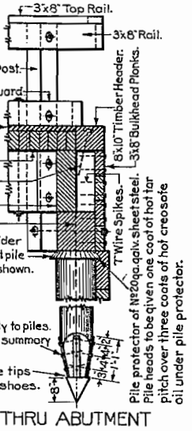
TYPICAL ELEVATION OF SPAN.



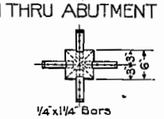
STRINGER SPACING				STRINGER BLOCKING			
L	S	S	NUMBER OF	ABUTMENTS		BENTS	
SPAN LENGTH	SINGLE SPAN	MULTIPLE SPAN	STRINGERS	SINGLE SPAN	MULTIPLE SPAN	MULTIPLE SPAN	
18'-6"	2'-4 1/8"	2'-3 11/16"	14	13-Pcs. 1'-10 1/8"	12-Pcs. 1'-9 11/16", 1-Pc. 2'-3 11/16"	13-Pcs. 1'-3 11/16"	
22'-6"	2'-4 1/8"	2'-3 11/16"	14	13-Pcs. 1'-10 1/8"	12-Pcs. 1'-5 11/16", 1-Pc. 2'-3 11/16"	13-Pcs. 1'-3 11/16"	
26'-6"	2'-4"	2'-3 3/8"	14	13-Pcs. 1'-8"	12-Pcs. 1'-7 5/8", 1-Pc. 2'-3 3/8"	11-Pcs. 11 3/8", 2-Pcs. 1'-3 3/8"	



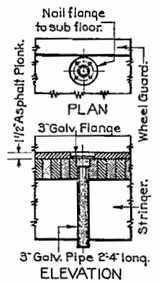
TYPICAL SECTIONAL HALF PLAN OF SPANS AND ABUTMENTS.



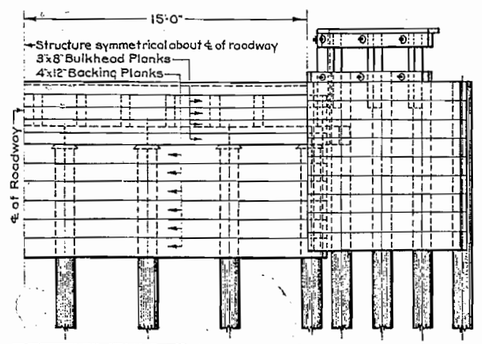
SECTION THRU ABUTMENT



PLAN OF PILE SHOE CAST IRON.



DETAIL OF FLOOR DRAIN.



HALF END ELEVATION.

	INITIAL	DATE
ORIGINAL BY	W.H.L.	7-30-35
CHECKED BY	T.G.	8-5-35
REVISED BY	A.G.K.	8-6-35
CHECKED BY	S.J.B.	8-7-35

STANDARD P-117-BH-60

GENERAL NOTES.

All work shall be done according to the standard specifications of the Colorado State Highway Department, adopted Aug. 1, 1935

All timber and piling to be treated or untreated as shown in bills of material.

All timber and piling shall be dense southern yellow pine or west coast douglas fir.

All caps shall be edged to an even depth before treatment. The ends of all stringers shall be dapped on one edge before treatment, to obtain an even depth over caps.

All cut surfaces or bored holes in treated timber or piles shall be thoroly saturated with hot creosote oil.

All piling supporting caps shall be covered with galvanized pile protectors as specified, all other piling tops shall be saturated with hot creosote oil and covered with a thick layer of heavy asphalt or tar.

Joints in top handrail must be staggered with joints in side rail.

All handrailing and posts above the wheel guards shall be painted white and all handrail posts below the top of wheel guards shall be painted black as specified.

All bolts more than 12 inches long must be threaded not less than 4 inches.

Bolts in the finished structure shall not project more than one half inch beyond the nut.

All bolts must have std. C.I.O.G. or malleable cast washers under each head and nut.

Bolt lengths are calculated assuming C.I.O.G. washers will be used.

The contractor is cautioned to check bolt lengths before ordering because of variations in thickness of lumber and piling.

The entire exposed surface of all untreated timber shall be painted one coat as specified immediately after the material is delivered to the project.

Before placing handrailing the contact surfacing shall receive the second coat of paint.

When contractor is permitted to drill holes to facilitate pile driving, these holes must be drilled so piling will stand in vertical position after final driving.

Bid price for asphalt plank shall include galvonized barbed nails.

BOLTS AND WASHERS FOR ONE SPAN OF SUPERSTRUCTURE

LOCATION	SIZE	18'-6" SPAN			22'-6" SPAN			26'-6" SPAN		
		NO.	LENGTH	LBS.	NO.	LENGTH	LBS.	NO.	LENGTH	LBS.
POSTS TO RAILS	5/8"	6	10"	7.0	6	10"	7.0	8	10"	9.0
POSTS TO WHEEL GUARDS	5/8"	6	14"	8.5	6	14"	8.5	8	14"	11.5
POSTS TO STRINGERS	5/8"	12	16"	19.0	12	16"	19.0	16	18"	27.5
WHEEL GUARD TO STRINGERS	5/8"	6	36"	19.5	6	38"	20.5	8	38"	27.0
WASHERS- STD. C.I.O.G.	5/8"	60		45.0	60		45.0	80		60.0
TOTAL WEIGHT				99.0			100.0			135.0

BOLTS AND WASHERS FOR ONE ABUTMENT

LOCATION	ITEM	SIZE	NO.	LENGTH	WT. EACH	TOTAL WT.
POSTS TO RAILS	BOLTS	5/8"	2	10"	1.08 LBS.	2.2 LBS.
POST TO BULKHEAD TO CAP	BOLTS	5/8"	2	27"	2.48 LBS.	5.0 LBS.
POSTS TO STRINGERS	BOLTS	5/8"	4	18"	1.74 LBS.	7.0 LBS.
POSTS TO WHEEL GUARDS	BOLTS	5/8"	2	14"	1.41 LBS.	2.9 LBS.
WHEEL GUARDS TO STRINGERS	BOLTS	5/8"	2	38"	3.40 LBS.	7.0 LBS.
TIMBER HEADER TO STRINGERS	LAG SCREWS	5/8"	14	16"	1.36 LBS.	19.1 LBS.
						LBS.
WASHERS - STD. C.I.O.G	WASHERS	5/8"	38		0.75 LBS.	28.8 LBS.
CAPS TO PILES	DRIFT BOLTS	3/4"	8	24"	3.00 LBS.	24.0 LBS.
TOTAL WEIGHT						96.0 LBS.

BOLTS AND WASHERS FOR ONE WING

POSTS TO RAILS	BOLTS	5/8"	3	11"	1.16 LBS.	3.4 LBS.
POSTS TO PILES	BOLTS	5/8"	6	20"	1.90 LBS.	11.4 LBS.
PILES TO CURB PLANK	BOLTS	5/8"	3	18"	1.74 LBS.	5.2 LBS.
						LBS.
WASHERS- STD. C.I.O.G.	WASHERS	5/8"	24		0.75 LBS.	18.0 LBS.
TOTAL WEIGHT						38.0 LBS.

BOLTS AND WASHERS FOR ONE BENT

POSTS TO RAILS	BOLTS	5/8"	2	10"	1.08 LBS.	2.2 LBS.
POSTS TO WHEEL GUARDS	BOLTS	5/8"	2	14"	1.41 LBS.	2.9 LBS.
POSTS TO CAPS	BOLTS	5/8"	2	24"	2.23 LBS.	4.5 LBS.
WHEEL GUARDS TO STRINGERS	BOLTS	5/8"	2	38"	3.40 LBS.	6.8 LBS.
POSTS TO STRINGERS TO SPLICES	BOLTS	5/8"	4	24"	2.23 LBS.	8.9 LBS.
SPLICES TO STRINGERS	BOLTS	5/8"	12	16"	1.57 LBS.	18.9 LBS.
POSTS TO CAP TO SWAYBRACES	BOLTS	5/8"	2	27"	2.48 LBS.	5.0 LBS.
SWAYBRACES TO CAPS	BOLTS	5/8"	2	11"	1.66 LBS.	3.3 LBS.
SWAYBRACES TO PILES	BOLTS	5/8"	12	17"	1.66 LBS.	19.9 LBS.
SWAY TO PILE TO SWAY.	BOLTS	5/8"	1	20"	1.90 LBS.	1.9 LBS.
WASHERS STD. C.I.O.G. NO SWAYS	WASHERS	5/8"	48		0.75 LBS.	36.5 LBS.
WASHERS- STD. C.I.O.G. WITH SWAYS	WASHERS	5/8"	78		0.75 LBS.	59.2 LBS.
CAPS TO PILES	DRIFT BOLTS	3/4"	7	24"	3.00 LBS.	21.0 LBS.
TOTAL WEIGHT- WITHOUT SWAYBRACES						102.0 LBS.
TOTAL WEIGHT- WITH SWAYBRACES						150.0 LBS.

NAILS

LOCATION	ITEM	18'-6" SPAN	22'-6" SPAN	26'-6" SPAN
ONE SPAN OF SUPERSTRUCTURE	30D. COMMON	25 LBS.	30 LBS.	35 LBS.
	30D. GALV. BARBED	85 LBS.	105 LBS.	120 LBS.
ONE ABUTMENT	40D. COMMON	160 LBS.	195 LBS.	230 LBS.
	40D. COMMON	5 LBS.	5 LBS.	5 LBS.
	T WIRE SPIKES	32 LBS.	LBS.	LBS.
ONE WING	40D. COMMON	1 LBS.	1 LBS.	1 LBS.
	T WIRE SPIKES	14 LBS.	LBS.	LBS.
ONE BENT	40D. COMMON	7 LBS.	7 LBS.	7 LBS.
	T WIRE SPIKES	— LBS.	LBS.	LBS.

SUMMARY FOR HARDWARE

BOLTS AND WASHERS

1 - SPANS	AT	99.0 LBS. PER SPAN	99 LBS.
2 - ABUTMENTS	AT	96.0 LBS. PER ABUTMENT	192 LBS.
4 - WINGS	AT	38.0 LBS. PER WING	152 LBS.
— BENTS WITHOUT SWAYS	AT	102.0 LBS. PER BENT	— LBS.
— BENTS WITH SWAYS	AT	150.0 LBS. PER BENT	— LBS.
TOTAL WEIGHT			443 LBS.

NAILS

LOCATION	UNIT	30D. COMMON EACH	30D. COMMON TOTAL	30D. GALV. EACH	30D. GALV. TOTAL	40D. COMMON EACH	40D. COMMON TOTAL	T WIRE SPIKES EACH	T WIRE SPIKES TOTAL
1 - SPANS	LBS.	25	25	85	85	160	160	—	—
2 - ABUTMENTS	LBS.	—	—	—	—	5	10	32	64
4 - WINGS	LBS.	—	—	—	—	1	4	14	56
— BENTS	LBS.	—	—	—	—	7	—	—	—
TOTAL WEIGHT	LBS.		25		85		174		120

SUMMARY OF QUANTITIES

STRUCTURAL EXCAVATION

ITEM 14a. DRY ROCK		CU. YDS.
ITEM 14b. DRY COMMON	100	CU. YDS.
ITEM 14c. WET ROCK		CU. YDS.
ITEM 14d. WET COMMON		CU. YDS.

ITEM 42a. UNTREATED BRIDGE TIMBER

1 - SPANS	AT	280 BD. FT. EACH	=	280	BD. FT.
2 - ABUTMENTS	AT	48 BD. FT. EACH	=	96	BD. FT.
4 - WINGS	AT	84 BD. FT. EACH	=	336	BD. FT.
— BENTS	AT	48 BD. FT. EACH	=	—	BD. FT.
		TOTAL	=	712	BD. FT.

ITEM 42b. TREATED BRIDGE TIMBER

1 - SPANS	AT	6791 BD. FT. EACH	=	6791	BD. FT.
— SPANS	AT	— BD. FT. EACH	=	—	BD. FT.
2 - ABUTMENTS	AT	2322 BD. FT. EACH	=	4644	BD. FT.
4 - WINGS	AT	832 BD. FT. EACH	=	3328	BD. FT.
— BENTS	AT	— BD. FT. EACH	=	—	BD. FT.
		TOTAL	=	14763	BD. FT.

ITEM 43 ASPHALT PLANK WEARING SURFACE

1 - SPANS	AT	555 SQ. FT. EACH	=	555 SQ. FT.

ITEM 60a. PILING - TREATED

2 - ABUTMENTS	AT	176 LIN. FT. EACH	=	352 LIN. FT.
4 - WINGS	AT	130 LIN. FT. EACH	=	520 LIN. FT.
— BENTS	AT	LIN. FT. EACH	=	— LIN. FT.
		TOTAL	=	872 LIN. FT.

ITEM 60e METAL PILE SHOES

36 - SHOES	AT	35 LBS. EACH	=	36 SHOES

ITEM 89b DRAIN PIPE.

2 PIECES 3" DIA. GALV. PIPE 2'-4" LONG WITH ONE 3" GALV. FLANGE ON EACH PIPE				
1 SPANS	AT	2 COMPLETE PER SPAN	=	2 PIECES

ONE SPAN OF SUPERSTRUCTURE

UNTREATED TIMBER

DESCRIPTION	SIZE	18'-6" SPAN NO.	18'-6" SPAN LENGTH	18'-6" SPAN TOTAL	22'-6" SPAN NO.	22'-6" SPAN LENGTH	22'-6" SPAN TOTAL	26'-6" SPAN NO.	26'-6" SPAN LENGTH	26'-6" SPAN TOTAL
HANDRAILS S4S.	3"x8"	4	20'-0"	160 BD.FT.	4	24'-0"	192 BD.FT.	4	28'-0"	224 BD.FT.
HANDRAIL POSTS S4S.	6"x8"	6	5'-0"	120 BD.FT.	6	5'-0"	120 BD.FT.	8	5'-0"	160 BD.FT.
TOTAL UNTREATED TIMBER				280 BD.FT.			312 BD.FT.			384 BD.FT.

TREATED TIMBER

FLOORING S4S.	3"x 6"	TS	36'-0"	4050 BD.FT.	90	36'-0"	5724 BD.FT.				
BRIDGING	3"x 6"	1	10'-0"	105 BD.FT.	13	10'-0"	195 BD.FT.	13	10'-0"	195 BD.FT.	
WHEEL GUARDS	6"x10"	2	20'-0"	200 BD.FT.	2	24'-0"	240 BD.FT.	2	28'-0"	280 BD.FT.	
STRINGERS OUTSIDE	6"x18"	2	18'-6"	333 BD.FT.							
INTERMEDIATE SPANS	6"x20"				2	22'-6"	450 BD.FT.				
STRINGERS OUTSIDE	8"x20"							2	26'-6"	707 BD.FT.	
END SPANS	6"x18"	2	18'-11"	341 BD.FT.							
STRINGERS OUTSIDE	6"x20"				2	22'-11"	459 BD.FT.				
END SPANS	8"x20"							2	26'-10"	715 BD.FT.	
STRINGERS INSIDE INTERMEDIATE AND END SPANS	6"x18"	12	20'-0"	2160 BD.FT.							
	6"x20"				12	24'-0"	2880 BD.FT.				
	8"x20"							12	28'-0"	4480 BD.FT.	
STRINGERS SINGLE SPAN	6"x18"	14	19'-4"	2436 BD.FT.							
	6"x20"				14	23'-4"	3267 BD.FT.				
	8"x20"							14	27'-3"	5087 BD.FT.	
TOTAL TR. TIMBER- SINGLE SPAN				6781 BD.FT.			8562 BD.FT.			11286 BD.FT.	
TOTAL TR. TIMBER- END SPANS				6856 BD.FT.			8634 BD.FT.			11395 BD.FT.	
TOTAL TR. TIMBER- INTER. SPANS				6848 BD.FT.			8625 BD.FT.			11386 BD.FT.	
ASPHALT PLANK WEARING SURF.				555 SQ.FT.			675 SQ.FT.			795 SQ.FT.	

ONE ABUTMENT

UNTREATED TIMBER

HANDRAIL POSTS S4S.	2 PCS.	6"x8" x 6'-0"	48 BD.FT.
TOTAL UNTREATED TIMBER			48 BD.FT.

TREATED TIMBER

TIMBER HEADER	1 PC.	8"x10"x36'-0" FINISH TO 7"x9"	240	BD.FT.
CAP	1 PC.	12"x 12"x 40'-0"	480	BD.FT.
BULKHEAD PLANKS	4 PCS.	3"x 8"x 38'-0"	304	BD.FT.
BACKING PLANKS	7 PCS.	4"x 12"x 38'-0"	1064	BD.FT.
STRINGER BLOCKING 18'-6" & 22'-6" SPANS	1 PC.	6"x 18"x 26'-0"	234	BD.FT.
STRINGER BLOCKING 26'-6" SPANS	1 PC.	6"x 18"x 22'-0"	198	BD.FT.
TOTAL TREATED TIMBER			2322	BD.FT.
PILING - TREATED	8 PIECES AT 22' LIN. FT. EACH =		176	LIN.FT.

ONE WING

UNTREATED TIMBER

DESCRIPTION	SIZE	10'-0" LENGTH NO.	10'-0" LENGTH LENGTH	10'-0" LENGTH BD.FT.	16'-0" LENGTH NO.	16'-0" LENGTH LENGTH	16'-0" LENGTH BD.FT.	20'-0" LENGTH NO.	20'-0" LENGTH LENGTH	20'-0" LENGTH BD.FT.
HANDRAILS S4S.	3"x8"	1	10'-0"	20	1	12'-0"	24	1	12'-0"	24
	3"x8"	1	10'-0"	20	1	12'-0"	24	1	12'-0"	24
HANDRAIL POSTS S4S.	6"x6"	3	4'-0"	36	3	4'-0"	36	3	4'-0"	36
TOTAL UNTREATED TIMBER- BD.FT.				76			84			84

TREATED TIMBER

CURB PLANKS	4"x8"	1	10'-0"	27	1	12'-0"	32	1	12'-0"	32
BACKING PLANKS	4"x12"		10'-0"			16'-0"		10	20'-0"	800
TOTAL TREATED TIMBER- BD.FT.										832
PILING - TREATED	5 PIECES AT 26 LIN. FT. EACH =									130 LIN. FT.

ONE BENT

UNTREATED TIMBER

HANDRAIL POSTS S4S.	2 PCS.	6"x 8"x 6'-0"	48 BD.FT.
TOTAL UNTREATED TIMBER			48 BD.FT.

TREATED TIMBER

STRINGER SPLICES	2 PCS.	6"x 18"x 4'-0"	72	BD.FT.
CAP	1 PC.	12"x 12"x 40'-0"	480	BD.FT.
SWAYBRACES	2 PCS.	3"x 12"x		BD.FT.
STRINGER BLOCKING 18'-6" & 22'-6" SPANS	1 PC.	6"x 18"x 18'-0"	162	BD.FT.
STRINGER BLOCKING 26'-6" SPANS	1 PC.	6"x 18"x 14'-0"	126	BD.FT.
				BD.FT.
TOTAL TREATED TIMBER				BD.FT.
PILING - TREATED	7 PIECES AT	LIN. FT. EACH =		LIN. FT.

STRUCTURES REQUIRED
1 - SPANS AT 18'-6"
SPANS AT

LOADING DATA
LIVE LOAD - A.A.S.H.O. AUG. 1928. CLASS "A" (H-15)
DEAD LOAD - Assumes 25 lbs. per sq. ft. additional wearing surface. This includes 1½" asphalt plank wearing surface.

COLORADO
STATE HIGHWAY DEPARTMENT
TREATED TIMBER PILE TRESTLE WITH 6" LAMINATED FLOOR AND 1½" ASPHALT PLANK WEARING SURFACE.
30 FT. CLEAR ROADWAY
Across GARNET CANAL
Sta. 1379+40 To 1379+60.33
Near Delta Sec. 21 T. 51N. R. 10W.

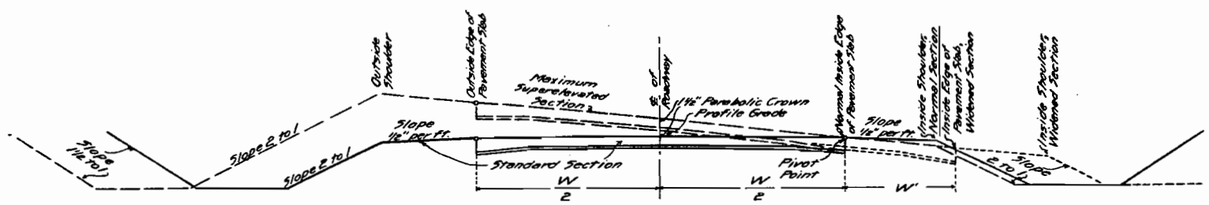
Designed by A.G.K.
Made by A.G.K.
Check Design H.S.D.
Check Detail H.S.D.
Approved by P. A. Bailey
Bridge Engineer
Date: Feb. 9th, 1935

STRUCTURE NO. U-4-A

STANDARD M-I-A

FED. ROAD DIST. No.	STATE	F.A. PROJ. No.	SHEET No.	TOTAL SHEETS
3	COLO.	23AR	7	

Revised 8-17-32 S.B.L. (200' Length)
Revised 8-31-32 S.B.L.
Revised 2-7-34 S.B.L.
Revised 8-24-34 S.B.L. (Special Cases)



PAVEMENT SECTION

SUPERELEVATION AND WIDENING NOTES FOR PAVEMENT SECTION

Curves on projects using the pavement section are to be superelevated and widened as indicated in the accompanying drawings and table.

The normal inside edge of the pavement slab is to remain at the standard elevation of 0.125 ft. below the profile grade, and the outside edge of the slab is to be superelevated at the rate per foot width of roadway given in the table or graph. The section is to be rotated about the normal inside edge of the pavement.

When the degree of curvature exceeds 10, the inside portion of the pavement slab is to be widened from the normal inside edge as per the table below. Curves of 10° or less are not to be widened. The ½" parabolic crown is to be used for curves of 10° and under. The widened section is to have a flat crown.

The slope of the shoulders shall conform to the rate per foot width of roadway required except that the inside shoulder shall maintain the standard slope of 0.04 ft. per foot width until the superelevation rate exceeds this standard slope.

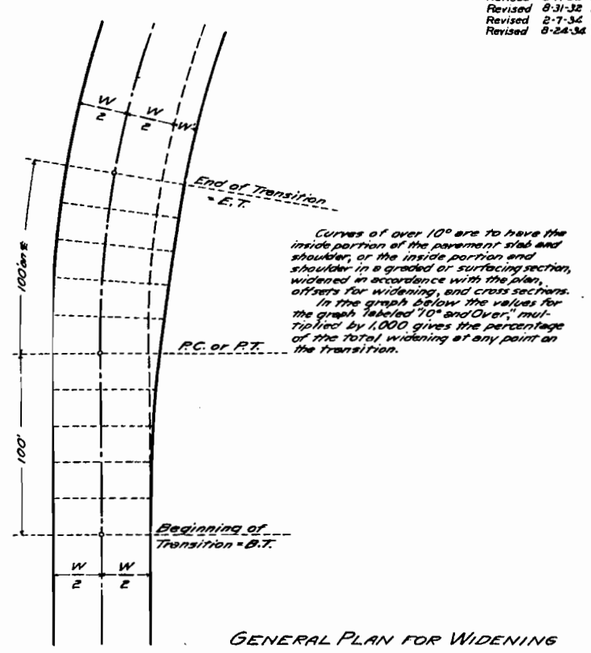
The outside ditch along a superelevated section is to be modified from the standard where a deeper ditch is required to provide drainage.

Details of plans for superelevating and widening are shown on the General Plan for Widening and the Graph of Superelevation Factors.

The subgrade for future pavement is to be constructed to conform to the superelevation and widening requirements for the pavement section.

SUPERELEVATION FACTORS AND OFFSETS FOR WIDENING FOR PAVEMENT SECTION

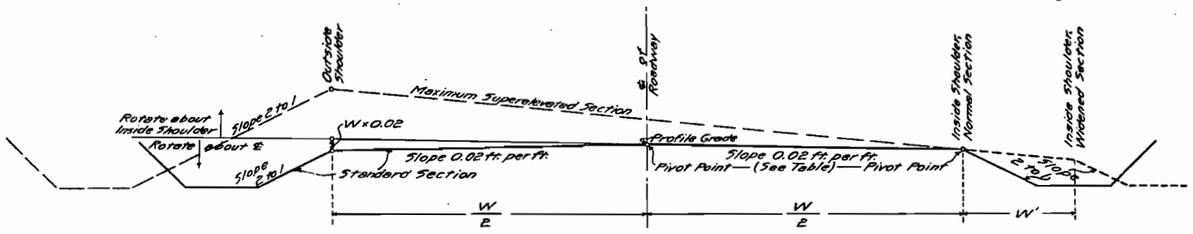
Distance from B.T.	20 Ft.	40 Ft.	60 Ft.	80 Ft.	100 Ft.=P.C.	120 Ft.	140 Ft.	160 Ft.	180 Ft.	200 Ft.=E.T.	On Curve
Factor	0.02	0.08	0.18	0.32	0.50	0.68	0.82	0.92	0.98	1.00	1.00
Degree of Curve	Rate of Superelevation (in Feet) per Foot Width of Roadway										
2° and Under	0.0004	0.0017	0.0038	0.0067	0.0105	0.0143	0.0172	0.0193	0.0206	0.0210	0.0210
3°	0.0006	0.0025	0.0057	0.0101	0.0158	0.0214	0.0258	0.0290	0.0309	0.0315	0.0315
4°	0.0008	0.0034	0.0076	0.0134	0.0210	0.0286	0.0344	0.0386	0.0412	0.0420	0.0420
5°	0.0010	0.0042	0.0094	0.0168	0.0262	0.0357	0.0430	0.0483	0.0514	0.0525	0.0525
6°	0.0013	0.0050	0.0113	0.0202	0.0315	0.0428	0.0517	0.0580	0.0617	0.0630	0.0630
7°	0.0015	0.0059	0.0132	0.0235	0.0368	0.0500	0.0603	0.0676	0.0720	0.0735	0.0735
8°	0.0017	0.0067	0.0151	0.0269	0.0420	0.0571	0.0689	0.0773	0.0823	0.0840	0.0840
9°	0.0019	0.0076	0.0170	0.0302	0.0472	0.0643	0.0775	0.0869	0.0926	0.0945	0.0945
10° and Over	0.0020	0.0080	0.0180	0.0320	0.0500	0.0680	0.0820	0.0920	0.0980	0.1000	0.1000
	Offsets for Widening -W'- (in Feet)										
Over 10° - Under 12°	0.06	0.24	0.54	0.96	1.50	2.04	2.46	2.76	2.94	3.00	3.00
12° - " 15°	0.08	0.32	0.72	1.28	2.00	2.72	3.28	3.68	3.92	4.00	4.00
15° - " 20°	0.10	0.40	0.90	1.60	2.50	3.40	4.10	4.60	4.90	5.00	5.00
Over 20°	0.12	0.48	1.08	1.92	3.00	4.08	4.92	5.52	5.88	6.00	6.00



GENERAL PLAN FOR WIDENING

Curves of over 10° are to have the inside portion of the pavement slab and shoulder, or the inside portion and shoulder in a graded or surfacing section, widened in accordance with the plan, offsets for widening, and cross sections.

In the graph below the values for the graph labeled "10° and Over," multiplied by 1,000 gives the percentage of the total widening at any point on the transition.



GRADED OR SURFACING SECTION

SUPERELEVATION AND WIDENING NOTES FOR GRADED OR SURFACING SECTIONS

Curves on projects using the graded or surfacing section are to be superelevated and widened as indicated in the accompanying sketches and table.

The normal inside shoulder and ditch are to remain as shown in the typical section shown on sheet #2. The outside shoulder is to be the high point of the section.

The outside ditch along a superelevated section is to be modified from the standard where a deeper ditch is required to provide drainage.

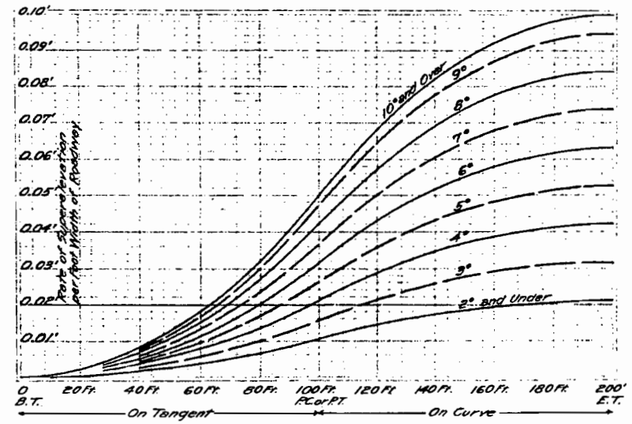
The center line pivot point is to be used as long as the superelevation does not exceed 0.02 Feet per foot width of roadway. The normal inside shoulder pivot point is to be used for a superelevation rate in excess of 0.02 ft. per foot width of roadway.

When the degree of curvature exceeds 10° the inside shoulder is to be widened from the normal inside shoulder line as shown by the table and cross sections. Curves of 10° and less are not to be widened.

Details of plans for superelevation and widening are shown on the General Plan for Widening and the Graph of Superelevation Factors.

SUPERELEVATION FACTORS AND OFFSETS FOR WIDENING FOR GRADED OR SURFACING SECTIONS

Distance from B.T.	20 Ft.	40 Ft.	60 Ft.	80 Ft.	100 Ft.=P.C.	120 Ft.	140 Ft.	160 Ft.	180 Ft.	200'=E.T.	On Curve	Length of Transition Rotated about	
Factor	0.02	0.08	0.18	0.32	0.50	0.68	0.82	0.92	0.98	1.00	1.00	Center Line	Inside Shoulder
Degree of Curve	Rate of Superelevation (in Feet) per Foot Width of Roadway												
2° and Under	0.0004	0.0017	0.0038	0.0067	0.0105	0.0143	0.0172	0.0193	0.0206	0.0210	0.0210	169 Ft.	31 Ft.
3°	0.0006	0.0025	0.0057	0.0101	0.0158	0.0214	0.0258	0.0290	0.0309	0.0315	0.0315	115 "	85 "
4°	0.0008	0.0034	0.0076	0.0134	0.0210	0.0286	0.0344	0.0386	0.0412	0.0420	0.0420	98 "	102 "
5°	0.0010	0.0042	0.0094	0.0168	0.0262	0.0357	0.0430	0.0483	0.0514	0.0525	0.0525	87 "	113 "
6°	0.0013	0.0050	0.0113	0.0202	0.0315	0.0428	0.0517	0.0580	0.0617	0.0630	0.0630	80 Ft.	120 Ft.
7°	0.0015	0.0059	0.0132	0.0235	0.0368	0.0500	0.0603	0.0676	0.0720	0.0735	0.0735	74 "	126 "
8°	0.0017	0.0067	0.0151	0.0269	0.0420	0.0571	0.0689	0.0773	0.0823	0.0840	0.0840	69 "	131 "
9°	0.0019	0.0076	0.0170	0.0302	0.0472	0.0643	0.0775	0.0869	0.0926	0.0945	0.0945	65 "	135 "
10° and Over	0.0020	0.0080	0.0180	0.0320	0.0500	0.0680	0.0820	0.0920	0.0980	0.1000	0.1000	63 "	137 "
	Offsets for Widening -W'- (in Feet)												
Over 10° - Under 12°	0.06	0.24	0.54	0.96	1.50	2.04	2.46	2.76	2.94	3.00	3.00		
12° - " 15°	0.08	0.32	0.72	1.28	2.00	2.72	3.28	3.68	3.92	4.00	4.00		
15° - " 20°	0.10	0.40	0.90	1.60	2.50	3.40	4.10	4.60	4.90	5.00	5.00		
Over 20°	0.12	0.48	1.08	1.92	3.00	4.08	4.92	5.52	5.88	6.00	6.00		



GRAPH OF SUPERELEVATION TRANSITION FACTORS

The rate of superelevation per foot width of roadway to be applied at the outside edge of the pavement slab, and at the outside shoulder of the roadway, is computed as follows:

The full superelevation per foot width of roadway rate for a given degree of curvature is

0.0105 ft. x Degree of Curvature.

The maximum superelevation of 0.10 ft. per foot width, applying to curves of 10° and over, is not to be exceeded.

The above graph has been prepared from the rates of superelevation shown in the tabulations.

SPECIAL CASES - When the roadway alignment does not permit the use of the 200 ft. transition lengths, the segment lengths may be proportionately shortened. A minimum distance of 200 ft. between the points of full superelevation shall be used.

COLORADO STATE HIGHWAY DEPARTMENT

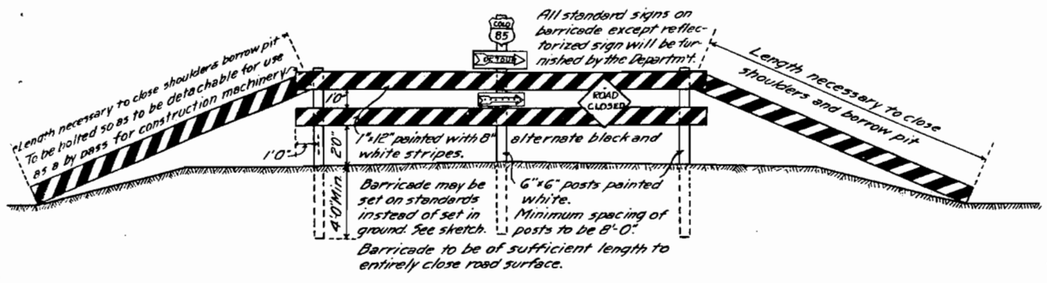
STANDARD METHODS FOR SUPERELEVATION AND WIDENING OF CURVES

Designed by L.A.L.	Approved by
Made by S.B.L.	
Checked by J.C.M.	Date: Aug. 17, 1932.

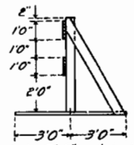
STANDARD M-2-B

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.			

DETAILS OF PERMANENT BARRICADE

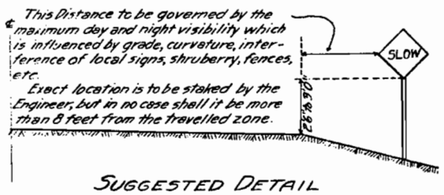


END VIEW OF PORTABLE BARRICADE



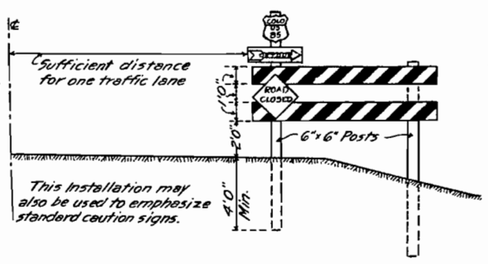
Posts to be 6"x6" painted white. Base and brace to be 2"x6" painted white, and nailed with 12d nails. Base to be weighted if necessary for stability.

POSITION OF SIGNS RELATIVE ROAD BED

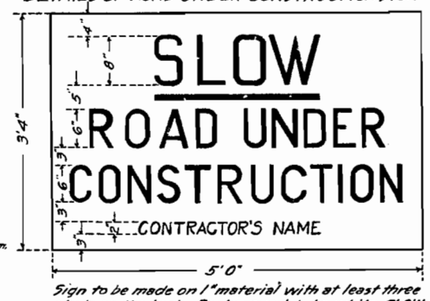


Barricades to be placed as construction conditions require.

DETAILS OF PARTIAL BARRICADE

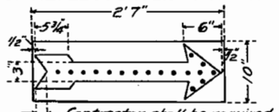


DETAILS OF ROAD UNDER CONSTRUCTION SIGN



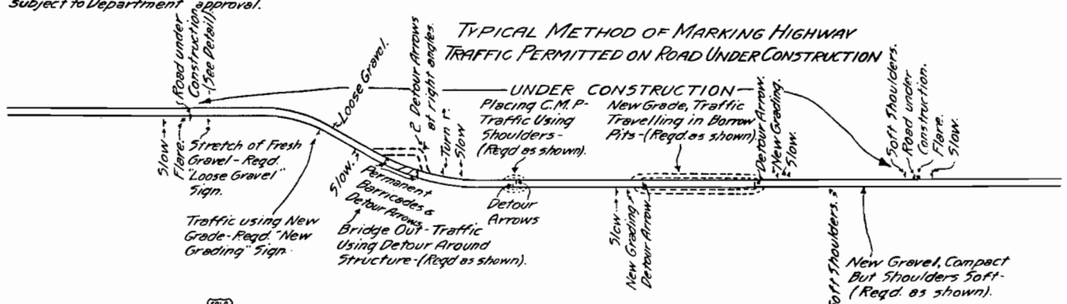
Sign to be made on 1" material with at least three cleats on the back. Background to be white, SLOW and underline to be red, and other lettering to be black. Sign to be set on 2-6"x6" posts 4 ft. in the ground.

SUGGESTED DETAIL OF REFLECTORIZED ARROW

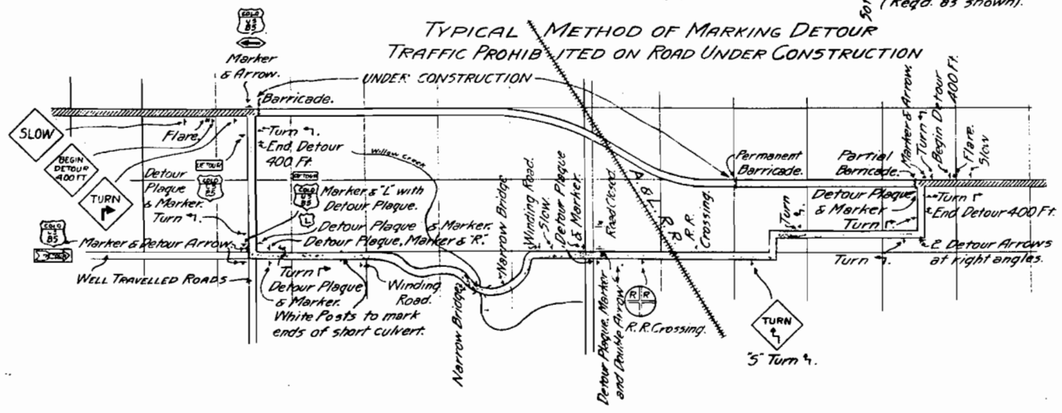


Contractor shall be required to have at least two such arrows for use on barricades at the ends of each project.
Reflector Buttons shall be of a type and size, and the sign shall be subject to Department approval.

TYPICAL METHOD OF MARKING HIGHWAY TRAFFIC PERMITTED ON ROAD UNDER CONSTRUCTION



TYPICAL METHOD OF MARKING DETOUR TRAFFIC PROHIBITED ON ROAD UNDER CONSTRUCTION



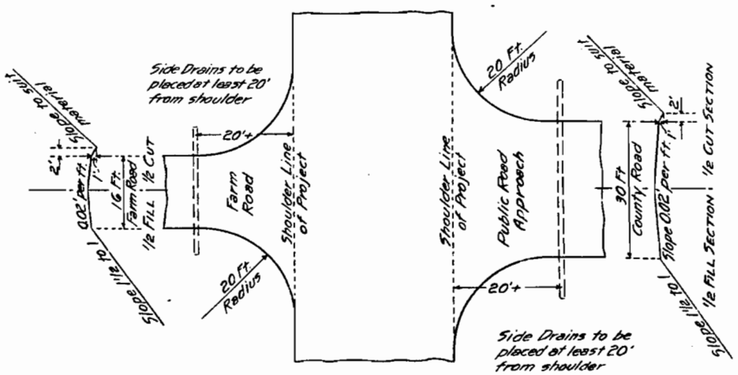
GENERAL NOTES ON APPROACHES

The maximum grades shown are to be the limiting grades for all except extreme cases.

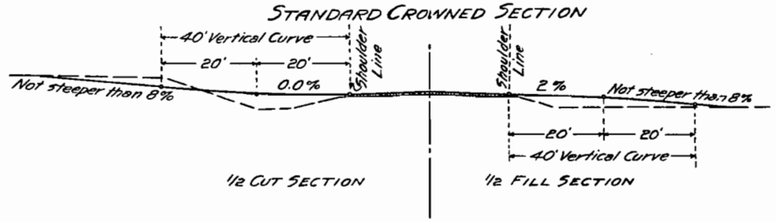
When the length of the approach as determined by the intersection of these grades with the natural ground is such as to damage the Property so served, or cause unreasonable conditions, the grades may be modified.

In such cases, methods used, and maximum grades, shall be as indicated on the plans, or provided by work order.

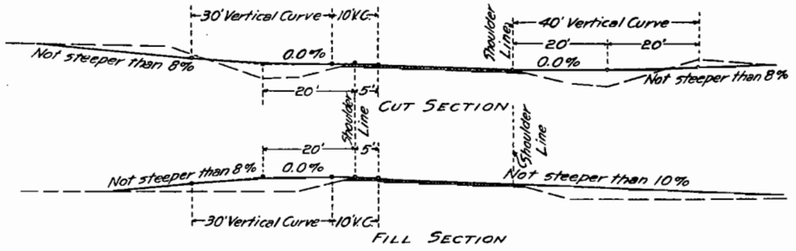
TYPICAL PLAN FOR SIDE APPROACH ROADS



STANDARD CROWNED SECTION



SUPERELEVATED SECTION



GENERAL NOTES FOR ROADWAY CONSTRUCTION TRAFFIC SIGNS

All Work shall be done in accordance with the Standard Specifications of the Colorado State Highway Department adopted August 1, 1935.

Whenever traffic is permitted on a road while under construction, the Contractor shall at all times adequately and appropriately mark any and all hazards on the Project with well painted, well maintained barricades, and standard caution and warning signs. The Contractor shall also mark with standard directional signs any places where the direction of the flow of traffic is not plain.

Whenever traffic is prohibited from a Project under construction, the Detour will be marked by the Department and the barricades at either end of the Project shall be erected and maintained by the Contractor.

All signs and barricades shall be immediately moved, added to, removed, or changed to appropriately mark hazards, or conditions altered, corrected, or changed by construction progress.

The Contractor shall furnish:

(1.) All barricade material. It shall always be well painted, as per sketch, and well maintained.
(2.) A reflectorized arrow of an approved type for each barricade at the ends of the Project, and at other barricades required where traffic is permitted on road under construction.
(3.) "SLOW-ROAD UNDER CONSTRUCTION" signs as required.
(4.) Any special signs the Department may deem necessary for the protection of traffic over the Project.
(5.) At least three (3) flares or torches for each barricade, and other flares to illuminate such signs as are called for on these plans, or as the Department may direct.

Flares or torches shall be placed between 3 and 5 feet ahead of the sign or object to be illuminated, and shall be kept burning from sunset to sunrise.

Costs of all of the foregoing materials and work by the Contractor shall be included in the original contract prices for the Project.

The Highway Department will furnish all standard signs not required to be furnished by the Contractor.

COLORADO STATE HIGHWAY DEPARTMENT

TYPICAL SIDE APPROACH ROADS

ROADWAY CONSTRUCTION TRAFFIC SIGNS

Designed by	J.S.M. K.A.K.
Made by	S.R.L.
Check	J.S.M.
Check	K.A.K.

Approved by C.H. Marshall
Date: Aug. 20, 1935

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	23 A-R	9	

Rev. as const. 11-30-36. A.J.T.

D E L T A

TWP. 95 W.
TWP. 96 W.

N.W.4 SEC. 30, T. 15 S., R. 95 W.

S.W.4 SEC. 24, T. 15 S., R. 96 W.

N.E.4 SEC. 25, T. 15 S., R. 96 W.

12TH ST. · MEEKER ST. · 13TH ST. · GRAND AVE. · 14TH ST. · HOWARD ST. · 15TH ST. · BLUFF ST.

Δ 41°00' L.
D. 6°00'
T. 357.2
L. 683.3
R. 955.0

P.T. 1094+02.9

22+04.2

P.I. 25+61.4

House · House · Shack · House

R.O.W. · Gate · INTERCEPTING DITCH

CITY LIMITS

1095 · 1100 · 1105 · 1110 · 1115 · 1120

S. 41° 07' E. · S. 41° 10' E.

D. & R. G. W. R. R.

P.I. 1104+05
Δ 0°03' L.

1111+30

1116+57

COUNTY ROAD

STA. 1091+60.4
Reqd Project Marker.

STA. 1096+53-
Req. 18"X 58' C.M.P. Culv. and excav. for ditch.
Remove 15"x 34' C.M.P.

STA. 1101+35.0-
Reqd 15" X 50' C.M.P. side drain & emb. for Rd approch, left.

STA. 1102+25-
Reqd 15"X 70'-C.M.P. side drain & embank. for Rd approch, left.

STA. 1102+75-
Remove 15"X 60' C.M.P. side drain, left.

1101+75 to 1117+50: Replace Delta City Water Main.

STA. 1105+25-
Reqd 15"X 30' C.M.P. side drain & embank. for Road approch on left.
Remove present cast iron pipe.

CLEARING & GRUBBING-
Sta. 1104+00-1111+50, Left, Chico.

STA. 1109+94-
Reqd 15"X 30' C.M.P. side drain & embank. for Rd approch, Rt.
Remove 15"X 18' C.M.P.

STA. 1111+58-
Remove 15"X 34' C.M.P. side drain, left.
Relay at Sta. 1111+70.

STA. 1111+70-
Reqd 15"X 30' C.M.P. side drain on left.
Also embank. for Rd approch.
Relay 15"X 34' C.M.P. C.M.P. from Sta. 1111+58.

STA. 1115+85-
Reqd 15"X 30' C.M.P. side drain & embank. for Rd approch. Lt.
Also remove 15"X 34' C.M.P. for ditch, on left.

STA. 1117+31-
Reqd 15"X 40' C.M.P. side drain & embank. for Rd approch.
Remove 15"X 34' C.M.P., on right.
Relay at Sta. 1139+54.

NOTE:- The mail boxes at the following locations are to be removed and replaced for service after construction-

STA. 1157	STA. 1255+	STA. 1327+
" 1163	" 1269+	" 1340+
" 1197+	" 1279+	" 1353+
" 1214	" 1312+	" 1377+
" 1244+		

Total - 13 Mail Boxes

STA. 1092+65: Road Appr. Lt.

Sta. 1096+00: Road Appr. Lt.

STA. 1091+60.4 N.R.M. 23 E = STA. 26+45.4 BEGINNING F.A.P. 23 A-R

76.14

+ 0.65 %

No V.C.

+ 0.74 %

+1.08 %

200 V.C.

95.88 · 96.70 · 97.70

P.I. 96.62

P.I. 79.97

FL. 75.15

5000 · 4990 · 4980 · 4970

Preliminary Information.

EXC. (WET)	785
5% EXCAV.	9926
L. BORR.	785
O.H	9926
O.H.	109,190
SOURCE	8920

From Pit 700' Left of Sta. 1163+00

1092 · 1095 · 1100 · 1105 · 1110 · 1115 · 1120

FED. ROAD SEC. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	23 A-R	10	

Rev. as Const. 11-30-56. A.J.T.

Sta. 1125+15: Req'd. 15"x16' Side Drain.

STA. 1125+27- Req'd 24"X72' C.M.P. Culv. and excav. for ditches. Remove 15"X52' C.M.P.

STA. 1139+54- Req'd 2-15"X30' C.M.P. side drains and embank. for Rd approach. Remove 15"X18' C.M.P. and wood box.

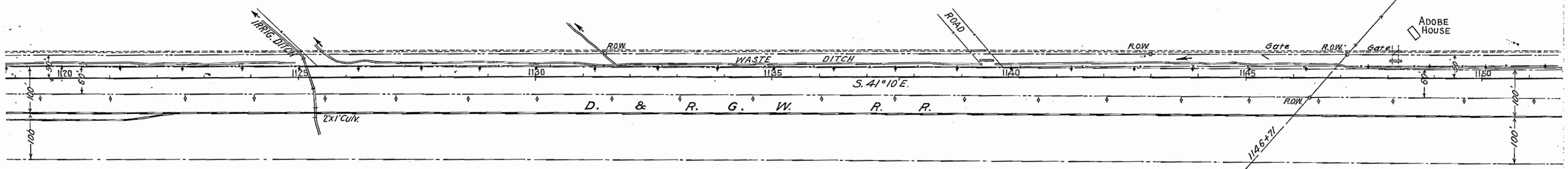
Sta. 1139+10 to 1162+50: Intercepting Ditch Lt.

STA. 1148+12- Req'd. 2-15"X30' C.M.P. side drains and embank. for Rd appr'ch. Remove Wood Box Culvert.

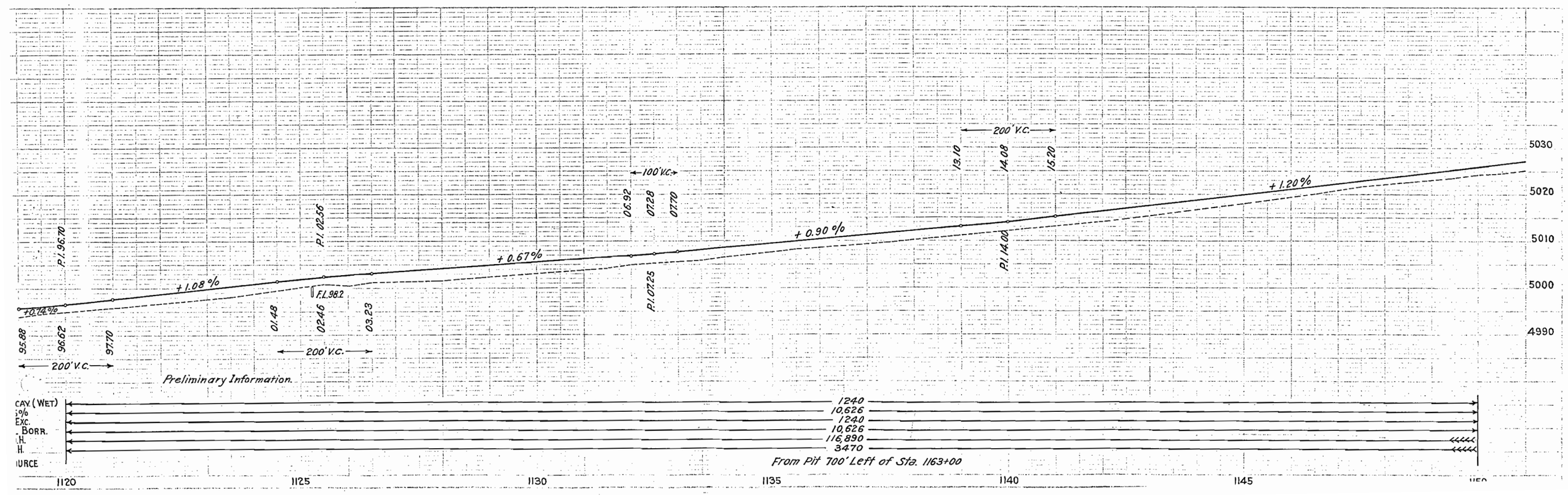
Sta. 1145+50: 2-15"x30' Side Drains. Road Appr. Lt.

N.W.4 SEC. 30, T. 15 S., R. 95 W.

S.W.4 SEC. 30



CLEARING & GRUBBING-
STA. 1132+50 - 1180+50, Right, Chico
" 1139+50 - 1147+00, Left, Willows



		23A-R	11

Rev. as Const. 11-30-36. A.J.T.

S.E.4 SEC. 30, T. 15 S., R. 95 W.

S.W.4 SEC. 30

STA. 1162+50-
Reqd. Embank. for R'd Appr'ch

STA. 1163+50-
Reqd. Embank. for Road Appr'ch. Lt.

STA. 1164+13 to 1173+00-
Reqd. Excav. for intercepting ditch. Lt.

STA. 1172+07-
Remove 10"X12' C.M.P.

STA. 1173+10-
Reqd 15"X30' C.M.P. side drain & embank. for Rd appr'ch.

STA. 1173+10 to 1176+50-
Reqd Road approach. Excav. included in Cross sections.

STA. 1173+40-
Reqd 15"X100' Perforated Metal pipe underdrain, as per details shown below.

TYPICAL CROSS SECTION PERFORATED M.P. UND'DRAIN AT STA. 1173+40

Δ 00°48' L.
D. 1°00'
T. 40.0'
L. 80.0'
R. 5730'

P.C. 1176+56.1
P.T. 1177+36.1

ROCK BACKFILL

STA. 1155+70-
Reqd 18"X70' C.M.P. Culv. and excav. for ditches.
Remove 15"X32' C.M.P.

STA. 1157+15-
Remove 15"X16' C.M.P. side drain.

STA. 1157+22-
Reqd 15"X30' C.M.P. side drain and embank. for Rd appr'ch. Rt.

1157+15.
Remove wood box culvert.

1156+42

STA. 1163+05-
Remove 15"X16' C.M.P.

STA. 1164+13-
Reqd 36"X74' C.M.P. culvert & excav. for ditch.

STA. 1164+65-
Remove 6'X38' Conc. Box Culv.

STA. 1170+40-
Reqd 15"X30' C.M.P. side drain & embank. for Rd appr'ch.
Remove 15"X16' C.M.P.

STA. 1174+03-
Remove 15"X30' C.M.P. Culv.

CLEARING & GRUBBING-
STA. 1164+50-1167+50, Left, Heavy chico.
" 1167+50-1173+00, " , Chico.

DELTA COUNTY GRAVEL PIT

COUNTY ROAD

Waste Ditch

Draw

Power Line

House

Gate

Gate

R.O.W.

M.B.

D. & R. G. W. R. R.

1.5'X1' Culv.

2'X2' Culv.

1.6'X1.0 Culv.

U.S.B.M. EL. 5042.985

IRRIG. DITCH

S. 41° 10' E.

S. 39° 46' E.

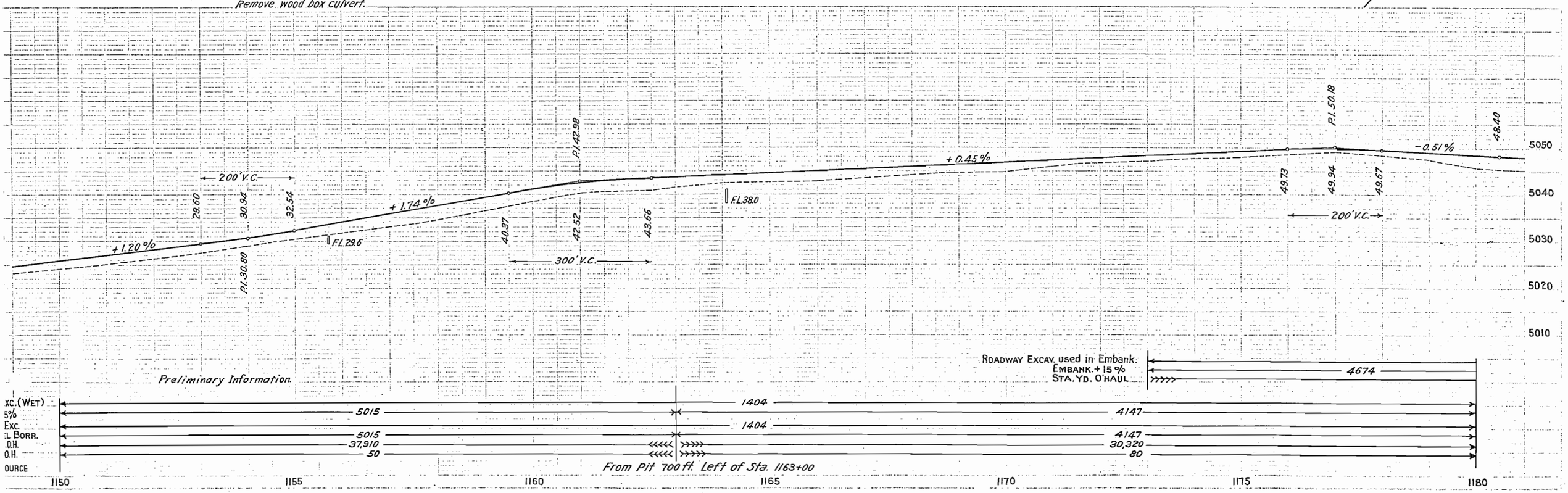
S. 40° 34' E.

Δ = 1°24' R.
D. 1°00'
T. 70'
L. 140'
R. 5730'

P.C. 1163+93.0
P.T. 1165+33.0
P.I. 1164+63.0
P.I. 1176+96.1

1155 1160 1165 1170 1175 1180

11.50 34.9 24.9 34.0 24.0 39.8



Preliminary Information.

ROADWAY EXCAV. used in Embank:
EMBANK. + 15 %
STA. YD. O'HAUL

XC. (WET)	1404	4674
5% EXC.	5015	4147
L BORR.	1404	
.O.H.	5015	4147
O.H.	37,910	30,320
OURCE	50	80

From Pit 700 ft. Left of Sta. 1163+00

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	23A-R	12	

Rev. as Const. 11-30-36. A.J.T.

S.E.4 SEC. 30

N.E.4 SEC. 31

N.W.4 SEC. 32, T. 15 S., R. 95W.

STA. 1180+00 - Reqd. 24"X64' C.M.P. Culv. & excav. for ditch.

STA. 1183+50 - Reqd. 15"x54' C.M.P. side drain & embank. for R'd approch.

STA. 1197+65 - Reqd. 15"X30' C.M.P. side drain & embank. for R'd approch. Remove 15"X20' C.M.P.

STA. 1201+50 - Reqd. 15"x54' C.M.P. side drain and embank. for R'd approch. Remove 15"X16' C.M.P.

STA. 1201+50 to 1207+00 - Reqd. excav. for intercepting ditch.

STA. 1206+50 - Remove 15"X30' C.M.P.

1182+14

P.C. 1187+61.3

P.T. 1189+24.6

Δ 1°38' L.
D. 1°00'
T. 81.7
L. 163.3
R. 5730

1196+41

P.C. 1201+64.2

Δ 11°54' L
D. 4°00'
T. 149.3
L. 297.5
R. 1432.5

P.T. 1204+61.7 Back =
1204+62.1 Ahead

1201+30

COMMUNITY CELLAR

R.O.W.

1180 | 1185 | 1190 | 1195 | 1200 | 1205

S. 40°34' E. | S. 42°12' E. | S. 54°06' E.

70' | 60' | 50' | 100' | 35' | 25' | 12.10

1.6'X1' Culv. | 1'X2' Culv.

D. & R. G. W. R.R.

R.2-R.O.W.

M.B.

IRRIGATION DITCH

BEET DUMP

GARNET DITCH No. 3

P.I. 1188+43.0

P.I. 1203+13.5

SAGE

EQUATION

STA. 1182+35 - Remove 15"X30' C.M.P. Culv.

STA. 1187+80 - Remove wood box side drain.

STA. 1193+00 - Reqd. 18"X66' C.M.P. Culv. & remove 15"X30' C.M.P.

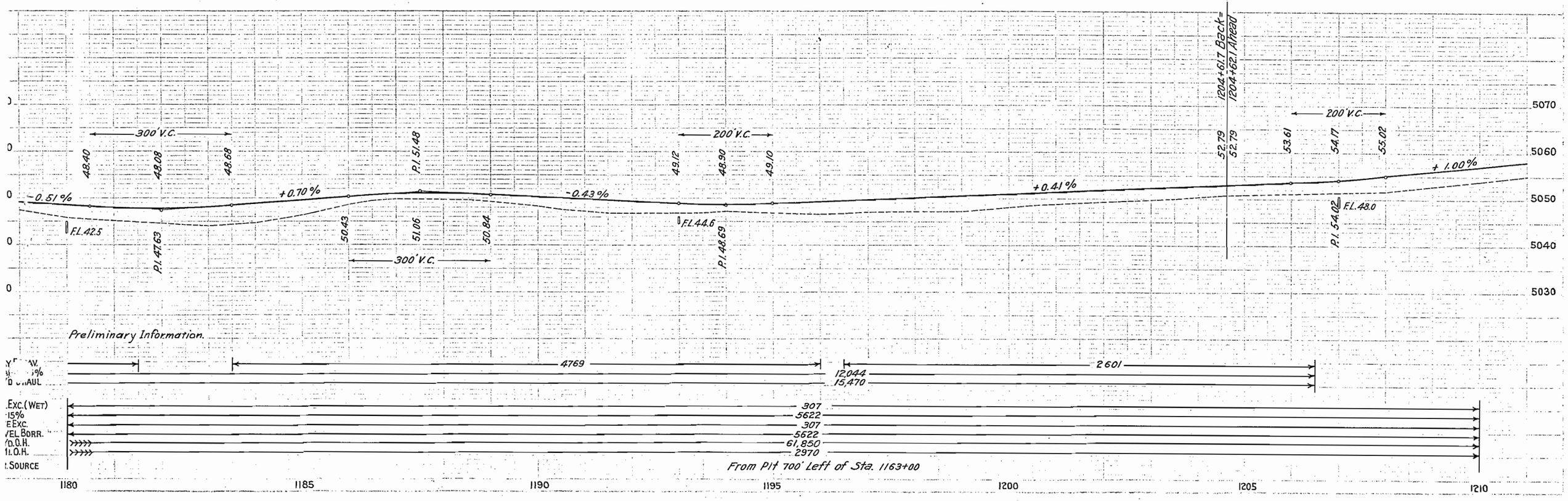
STA. 1198+20 to 1207+00 - Reqd. excav. for ditch change on R.R. R. of W.

STA. 1207+00 - Reqd. 30"X76' C.M.P. Culv. & excav. for ditch. Also reqd 30"X50' C.M.P. Culv. under R.R. tracks by R.R. forces.

STA. 1180+00 - 1192+00 - Reqd to move 8 telegraph poles approx. 10 ft. to the right. Work to be done by Teleg. Co. forces.

STA. 1197+50 - Reqd. 15"X40' C.M.P. side drain & embank. for R'd approch. Remove 15"X55' and 15"X36' C.M.P's, and 15"X26' Vit. pipe.

CLEARING & GRUBBING -
STA. 1174+50 - 1206+00, Left, Heavy chico.
" 1185+50 - 1190+50, Right, Chico.
" 1190+50 - 1206+00, " , Weeds



Preliminary Information.

Y[illegible]AV.		4769	2601
[illegible]%			12,044
'D O'HAUL			15,470
EXC. (WET)		307	
15%		5622	
E EXC.		307	
VEL BORR.		5622	
D.O.H.		61,850	
H.O.H.		2970	
SOURCE		From Pit 700' Left of Sta. 1163+00	

1180 | 1185 | 1190 | 1195 | 1200 | 1205 | 1210

FOR HIGHWAY USE ONLY	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	23A-R	13	

Rev. as Const. 11-30-36. A.J.T.

N.W.4 SEC. 32, T. 15 S., R. 95 W.

S.E.4 SEC. 32

S.W.4 SEC. 32

STA. 1207+00 to 1245+00-
Reqd excav. for drain ditch.
Quantity included in cross sections.

STA. 1215+76-
Remove 15"X 30' C.M.P.

STA. 1214+50-
Reqd. Embank. for R'd Appr'ch.

Remove 15"X 16' C.M.P. and
" 15"X 11' C.M.P.

STA. 1239+69-
Remove 15"X 30' C.M.P.

CLEARING & GRUBBING-
STA. 1206+00 - 1247+00, Left, Woods and Brush.
" 1206+00 - 1261+00, Right, " " "

32

1221+99

1229+99

R.O.W.

IRRIGATION & DRAIN DITCH

D. & R. G. W. R. R.

S. 54° 06' E.

M.B.

100'

65'

35'

1210 1215 1220 1225 1230 1235 1240

+1.00%

+0.84%

P.I. 67.02

P.I. 82.98

66.52 67.00 67.44

82.14 82.88 83.42

100' V.C.

200' V.C.

5080 5070 5060 5050

Preliminary Information.

EXC. (WET)	8449					
5%	16,069					
Exc.	8449					
EL BORR.	16,069					
O.H.	176,760					
O.H.	16,070					
SOURCE	From Pit 700' Left of Sta. 1163+00					
	1210	1215	1220	1225	1230	1235	1240

FED. ROAD D.ST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	23 A-R	14	

Rev. as Const. 11-30-36. A.J.T.

S.E.¼ SEC. 32, T. 15 S., R. 95 W.

S.W.¼ SEC. 33

STA. 1245+50: Reqd. ex cav. for outlet ditch.

1245+50 to 1246+50: Reqd. Drain Ditch. Lt

STA. 1245+90 Outlet Ditch Lt.

1246+25 to 1260+78: Reqd. Intercepting Ditch Lt.

Sta. 1245+96. Reqd 1 Connecting band. 15"x40' Side Drain Lt. Remove C.M.P. R'd app'r.

STA. 1261+00- Reqd 2-15"X30' C.M.P. side drain & embank. for R'd apprch. Lt.

Remove 15"X18' C.M.P. & Wood culv.

STA. 1269+45- Reqd 15"x30' C.M.P. side drain & embank. for R'd apprch. Lt.

STA. 1263+08- Reqd 2-15"X30' C.M.P. side drain & embank. for R'd apprch.

1263+20 to 1277+00: Reqd. Intercepting Ditch Lt.

TWP. 15 SO. / TWP. 51 NO.

1262+49

JARIG DITCH

SCHOOL HOUSE

WASTE DITCH

Gate

R.O.W.

1240 1245 1250 1255 1260 1265 1270

S. 54° 06' E.

D. & R. G. W. R. R.

DYKE

1'X1' Culv.

1X1 Culv.

1267+75

3rd. Correction Line South

STA. 1244+56- Reqd. R'd apprch. Rt.

Remove 15"X16' C.M.P.

STA. 1255+00- Reqd 15"X30' C.M.P. side drain. " 18"x20' " " " R'd appr. R. & L. Rem. C.M.P.

STA. 1260+78- Reqd 18"X66' C.M.P. culv. & ditch.

Remove 15"X50' C.M.P.

STA. 1265+00- Reqd 18"X68' C.M.P. Culv.

STA. 1269+42- Reqd. embank. for R'd appr.

Remove 15"X16' C.M.P.

CLEARING & GRUBBING-
STA. 1247+00 - 1261+00, Left, Chico.
" 1261+00 - 1281+00, Right, Med. chico.

E.½ SEC. 7, T. 51 N., R. 10 W. N.M.P.M.

P.I. 82.98 +0.44 % P.I. 88.26 +0.68 % P.I. 93.70 +0.56 %

82.88 83.42 88.04 88.29 88.60 93.36 93.69 93.98 F.L. 90.3 F.L. 93.2

200' V.C. 100' V.C. 100' V.C.

5100 5090 5080 5070

Preliminary Information.

EXC. (WET)	1368					
15%	16,360					
E EXC.		1368				
'EL. BORR.		16,360				
O.H.			179,960			
I.O.H.			25,570			
SOURCE			From Pit 700' Left of Sta. 1163+00			

1240 1245 1250 1255 1260 1265 1270

FED. AID PROJ. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	23 A-R	15	

Rev. 8-6-35 - A.F.F
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S.W.4 SEC. 33, T. 15 S., R. 95 W.

TWP. 15 So. — 3rd. Corr. Line So.
TWP. 51 NO.

W. ½ SEC. 8, T. 51 N., R. 10 W., N.M.P.M.

N.W.4 SEC. 17

STA. 1277+42-
Reqd 15"X 30' C.M.P. side drain & embank. for R'd apprch.

STA. 1272+42
Reqd. Road approach, Lt.

STA. 1278+32 to 1280+50-
Reqd Excav. for ditch. Lt.

STA. 1279+33-
Reqd Embank. for R'd apprch. Lt.

Relay 24"X27' C.M.P. from 1278+32 and extend same with 24"X8' C.M.P.
Reqd 1 Connecting band.

STA. 1281+00 to 1291+80-
Reqd excavation for intercepting ditch.
Quantities included in cross sections.

STA. 1291+80-1294+00-
Reqd. Excav. for ditch.

STA. 1293+45-
Remove 24"X 32' C.M.P.

STA. 1295+50 to 1325+00-
Reqd Excav. for Intercepting Ditch Lt.

STA. 1295+58-
Reqd 2-15"X 30' C.M.P. side drain & embank. for R'd apprch. Lt.

Remove 15"X 16' C.M.P.

CLEARING & GRUBBING-
STA. 1281+00-1284+50, Left, Heavy chico.
" 1289+00-1295+50, " , Chico.
" 1295+50-1301+00, " , Heavy chico.

HOUSE
Dr. Gate
DITCH
COUNTY ROAD
1279+70
1281+00
R.O.W.
M.B.
IRRIGATION & WASTE DITCH
1270
1275
1280
1285
1290
1291+80
P.I. 1292+75.8
1293+48
1295
Gate
1300
S. 54° 06' E.
S. 39° 20' E.
U.S.B.M.-EL. 5097.818
D. & R. G. W. R. R.
3'X2' Culv.
IRRIG.
IRRIG. DITCH
2'X3' Culv.
1'X1' Culv.
TO RIVER
P.C. 1289+04.6
Δ 14°46' R.
D. 2°00'
T. 371.2
L. 738.3
R. 2865.0'
P.T. 1296+42.9

STA. 1278+32-
Reqd 24"X 62' C.M.P. Culv.

STA. 1280+34-
Remove 24"X 32' C.M.P.

STA. 1281+00-
Reqd 30"X 78' C.M.P. Culv. & Excav. for drain ditch. to River

Also reqd
30"X 50' C.M.P. under R.R., to be placed by R.R. forces.

STA. 1291+80-
Reqd 24"X 72' C.M.P. Culv. & Excav. for ditch.

STA. 1299+58-
Reqd 18"X 66' C.M.P. Culv. & Excav. for ditch.
Remove 15"X 30' C.M.P.

E. ½ SEC. 7, T. 51 N., R. 10 W., N.M.P.M.

+100' V.C.
00.70
01.01
01.40
P.I. 00.98
+0.56%
+0.84%
05.18
05.83
06.12
P.I. 06.02
F.I. 00.5
200' V.C.
+0.10%
06.42
06.64
07.10
F.I. 01.2
P.I. 06.52
+0.58%
12.32
13.01
13.90
200' V.C.
F.I. 06.0
P.I. 12.90
+1.00%
F.I. 49.7
5120
5110
5100
5090
5080

Preliminary Information.

C. (WET)	1063
%	15,101
EXC.	1063
L BORR.	15,101
)H.	166,120
H.	23,340
OURCE	From Pit 3000' Right of Sta. 1353+00

1270 1275 1280 1285 1290 1295 1300

FED. ROAD No. or SEC. No.	STATE	FED. AID PROJ. No.	SHEET No.	TOTAL SHEETS
3	COLO.	23 A-R	16	

Rev. 8-6-35 - A.F.F. Revised Const. 11-30-36. W.H.G.

N. W. 4 SEC. 17

STA. 1310+73-
Remove C.M.P.

STA. 1311+90-
Reqd. 2-15"X30' C.M.P. side drains & embank. for Rd appr. L.
Remove C.M.P.

N. E. 4 SEC. 17, T. 51 N., R. 10 W.

STA. 1311+50 to 1320+67-
Reqd excav. for intercepting ditch.

STA. 1320+67 to 1327+30-
Reqd excav. for ditch.

STA. 1327+50-
Reqd. 2-15"X40' C.M.P. side drain & embank. for Rd. approch L.

STA. 1317+40-
Reqd. 2-15"X30' C.M.P. side drains & embank. for Rd approch.

STA. 1323+50-
Remove 24"X30' C.M.P.

STA. 1327+71-
Remove 24"X30' C.M.P.

STA. 1325+00 - 1327+90-
Reqd excav. for ditch.

STA. 1327+94-
Remove wood box culv.

STA. 1325+00-
Reqd 18"X60' C.M.P. Culv.
1328+00 to 1330+00:
Reqd. Outlet ditch.

1317+49

P.I. 1320+46.6

1327+14

S.E. 4 SEC. 17

1327+75: Reqd 15"X40' Side drain Lt.

WASTE DITCH

Gate

R.O.W.

1300 1305 S. 39° 20' E. 1310 1315 1320 1325 1330

D. & R. G. W. R. R.

1'X1' Culv.

1'X1.5 Culv.

2'X1' Culv.

Dr. Gate

DITCH

S. 28° 23' E.

P.C. 1314+97.4

P.T. 1325+92.4

Δ=10° 57' R
D=1° 00
T=549.2
L=1095.9
R=5730.0

STA. 1309+50-
Reqd 24"X66' C.M.P. & excav. for ditch.
Remove 24"X30' C.M.P.

STA. 1312+20-
Reqd 15"X30' C.M.P. side drain & embank. for Rd approch R.

STA. 1312+59-
Remove 15"X16' C.M.P.

STA. 1320+67-
Reqd 24"X64' C.M.P. Culv. & excav. for ditches.

CLEARING & GRUBBING-
STA. 1301+00 - 1319+00, Left, Med. Chico.
" 1301+00 - 1323+00, Right, Chico.
" 1319+00 - 1327+50, Left, Heavy chico.

+1.00 %
+0.72 %
+0.60%
+0.717 %

P.I. 20.90
P.I. 28.10
P.I. 35.90
P.I. 40.20

F.L. 21.5
F.L. 30.1
F.L. 33.0

20.40 20.87 21.26 27.38 28.07 28.70 35.30 35.93 36.62 39.49 40.15

+100' V.C.
200' V.C.
200' V.C.

5140 5130 5120 5110 5100

Preliminary Information

	1300	1305	1310	1315	1320	1325	1330
Exc. (Wet)	677						
15%	12043						
E Exc.	677						
El. Borr.	12043						
D.O.H.	132,480						
I.O.H.	12,130						

From Pit 3000' Right of Sta. 1353+00

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLO.	23 AR	17	

Rev. 8-6-35 - A.F.F.
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STA. 1327+90 to 1340+38
Reqd excav. for ditch.

STA. 1330+28-
Reqd 15"x30' C.M.P. side drain & embank. for Rd approch Lt.

Sta. 1330+50
Reqd. Inletditch. Lt.
STA. 1330+50 to 1376+50
Reqd. Intercepting ditch. Lt.

S.E.4 SEC. 17, T. 51 N., R. 10 W.

STA. 1335+65 Reqd.
15'x30' Side drain & Road appr. Lt.

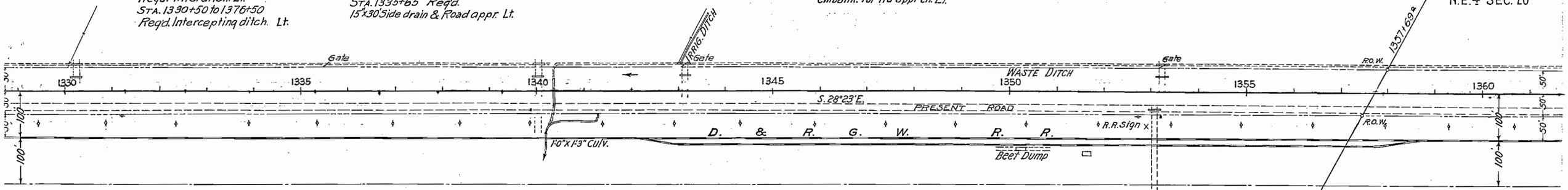
STA. 1340+38 to 1343+00-
Reqd excav. for Inlet ditch.

STA. 1342+90 to 1377+00-
Reqd. excav. for intercepting ditch.

STA. 1343+32-
Reqd. 15"x54' C.M.P. side drain & embank. for Rd approch. Lt.

STA. 1353+32-
Reqd 2-15"x30' C.M.P. side drain & embank. for Rd approch. Lt.
Remove 15"x32' C.M.P.

N.E.4 SEC. 20



STA. 1340+07-
Reqd
Remove plank bridge & 2-15"x16' C.M.P's.
C.M.P.S
STA. 1340+38-
Reqd 18"x64' C.M.P. Culv. & excav. for ditch.

STA. 1341+39-
Remove 15"x50' C.M.P.

STA. 1343+00
Reqd Inlet ditch. Lt.

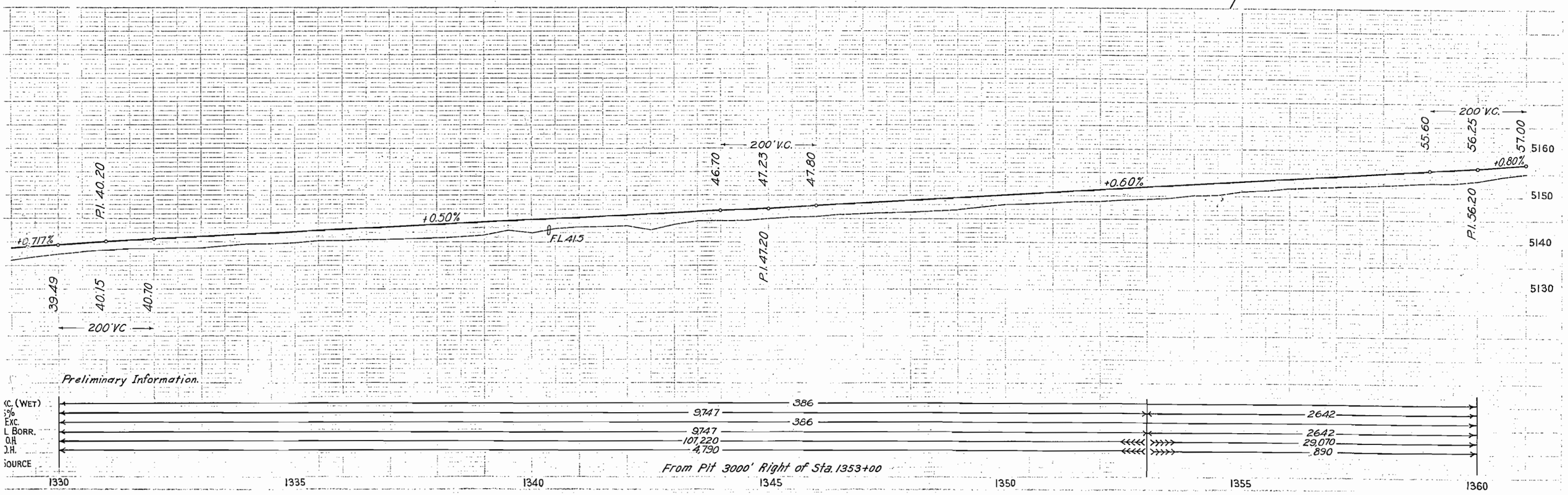
CHIPETA

COUNTY ROAD

½ Mi. to Gravel Pit

STA. 1353+17-
Reqd 18"x30' C.M.P. side drain & embank. for Rd approch.
Remove 15"x36' C.M.P.

CLEARING & GRUBBING-
STA. 1325+00 - 1335+00, Right, Heavy chico.
" 1327+50 - 1331+50, Left, Chico.
" 1332+50 - 1334+50, " , Willows
" 1335+00 - 1381+00, Right, Med. chico.
" 1343+50 - 1353+50, Left, Heavy chico.
" 1353+50 - 1361+50, " , Med. chico.



Preliminary Information.

	1330	1335	1340	1345	1350	1355	1360
EXC. (WET)	←			386			→
5% EXC.	←			9,747		2642	→
L. BORR.	←			386			→
O.H.	←			9,747		2642	→
O.H.	←			101,220		29,070	→
SOURCE	←			4,790		890	→

From Pit 3000' Right of Sta. 1353+00

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	23 A-R	18	

Rev. 8-6-35 - A.F.F. Rev. as const. 11-30-36. W.H.C.

N.E.¼ SEC. 20

N.W.¼ SEC. 21, T. 51 N., R. 10 W.

S.W.¼ SEC. 21

STA. 1374+43-
Req'd 15"X15' C.M.P. side drain & embank. for Rd approch. L.

Remove and reset gate.

STA. 1378+18-
Req'd embank. for Rd approch. Remove 15"X16' C.M.P.

STA. 1380+08-
Req'd embank. for Rd approch. L.

1380+00: Req'd. Outlet ditch Rt

STA. 1388+83-
Req'd 15"X51' C.M.P. side drain & embank. for Rd approch. Remove 15"X16' C.M.P.

STA. 1379+40 to 1390+34.5
Req'd excav. for intercepting ditch.

1371+08

SHED HOUSE

Gate

R.O.W.

Capron Ditch

Garnet Ditch

1377+55 1-15'-6" SPAN TIMBER TRESTLE 1377+83

1379+40.9 1-18'-6" SPAN 1379+60.2 TIMBER TRESTLE

1360 1365 1370 1375 1380 1385 1388+29 1390 S 28° 23' E.

WASTE DITCH

PRESENT ROAD

D. & R. G. W. R. R.

100' 100' 100' 100' 50' 50' 50' 50'

2.5X4' Culv. 5.5X6'-0 Culv. 1X1½' Culv.

STA. 1361+22-
Req'd 18"X14' C.M.P. side drain & embank. for Rd approch.
Remove 15"X16' C.M.P.

STA. 1377+50:
Req'd embank. for Rd approch. Rt.

STA. 1377+55 to 1377+75.2
Remove present conc. Box Culv.
Req'd 1-Span Timber Trestle as per details on Sheet No. 5

STA. 1379+40 to 1379+60.23
Remove present concrete bridge.
Req'd 1-Span Timber Trestle as per details on Sheet No. 6

STA. 1387+03-
Remove 15"X50' C.M.P. Culv.

STA. 1388+38-
Req'd 15"X30' C.M.P. side drain & embank. for Rd approach. Rt.
Remove 15"X16' C.M.P.

STA. 1390+34.5
Req'd Project Marker.

CLEARING & GRUBBING-
STA. 1361+50 - 1372+00, Left, Heavy weeds
" 1372+00 - 1380+00, " , Med. chico.
" 1380+00 - 1390+45, " , Chico.
" 1381+00 - 1390+45 " , Heavy chico.

STA. 1390+34.5 END F.A.P. 23 A R =
STA. 800+00 END N.R.H. 23 A-1

200' V.C. 200' V.C. 200' V.C. 100' V.C.

+0.60% +0.80% +1.10% +0.80% +1.00%

P.I. 56.20 56.25 57.00 61.80 62.68 63.70 P.I. 62.60 71.95 72.46 72.90 P.I. 72.50 78.10 78.85 79.90 P.I. 78.90 84.25 F.L. 76.8

5560 5180 5170 5160 5150

ADOBE GRAVEL Shale

ADOBE TOP OF GRAVEL 5162.0

ADOBE Top of GRAVEL 5159.8

Preliminary Information.

EXC. (WET)	576
15%	12,415
E EXC.	576
EL BORR	12,415
D.O.H.	136,570
I.O.H.	8,280
SOURCE	From Pit 3000 ft. Right of Sta. 1353+00

1360 1365 1370 1375 1380 1385 1390