

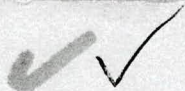
76 to 78

1 scan and

3 GIS

locations

(2) MP 247.4 — 247.5
(3) MP 247.5 — 249.3
(4) MP 252.5 — 255.6



226-A(2); 226-B(3); 226-C(4)

S.H. 3

85

I

085C

226-A(2) UNIT 2	244.2 - 244.4
226-B(3)	248.1 - 248.3
226-C(4)	258.3 - 258.5



AS CONSTRUCTED PLANS
RETURN TO DIST. 4 DESIGN

COLORADO

STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED

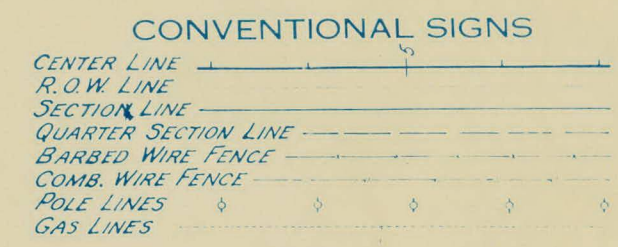
COMB. FEDERAL AID PROJECT NOS 226-A(2) 226-B(3) 226-C(4)

STATE HIGHWAY NO. 3

WELD COUNTY

INDEX OF SHEETS

SHEET NOS.			
F.A.P.	F.A.P.	F.A.P.	
226-A(2)	226-B(3)	226-C(4)	
1.	1.	1.	TITLE SHEET
2.	2.	2.	TYPICAL SECTIONS AND SUMMARY
3&4.			DETAILS OF C.B.C. AND SLABS, STA. 211+
5.			" " DETOUR BRIDGE, STA. 211+
6&7.			" " BRIDGE AND SLABS, STA. 453+
8.			" " DETOUR BRIDGE, STA. 453+
	9&10.		" " STRUCT. & SLABS, STA. 656+
		11&12.	" " " " " " 372+
		13.	OMITTED
14.	14.	14.	STANDARD TIMBER GUARD POSTS M-19-B
15.	15.	15.	" STRUCTURE NUMBER
			LETTERING M-10-A
16.	16.	16.	" " YEAR
			NUMBER MARKING M-14-A
17.	17.	17.	TYPICAL SIDE APPROACH ROADS -
			ROADWAY CONSTRUCTION TRAFFIC SIGNS M-2-B
18.	19.	20.	PLAN AND PROFILE



SCALES ON 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

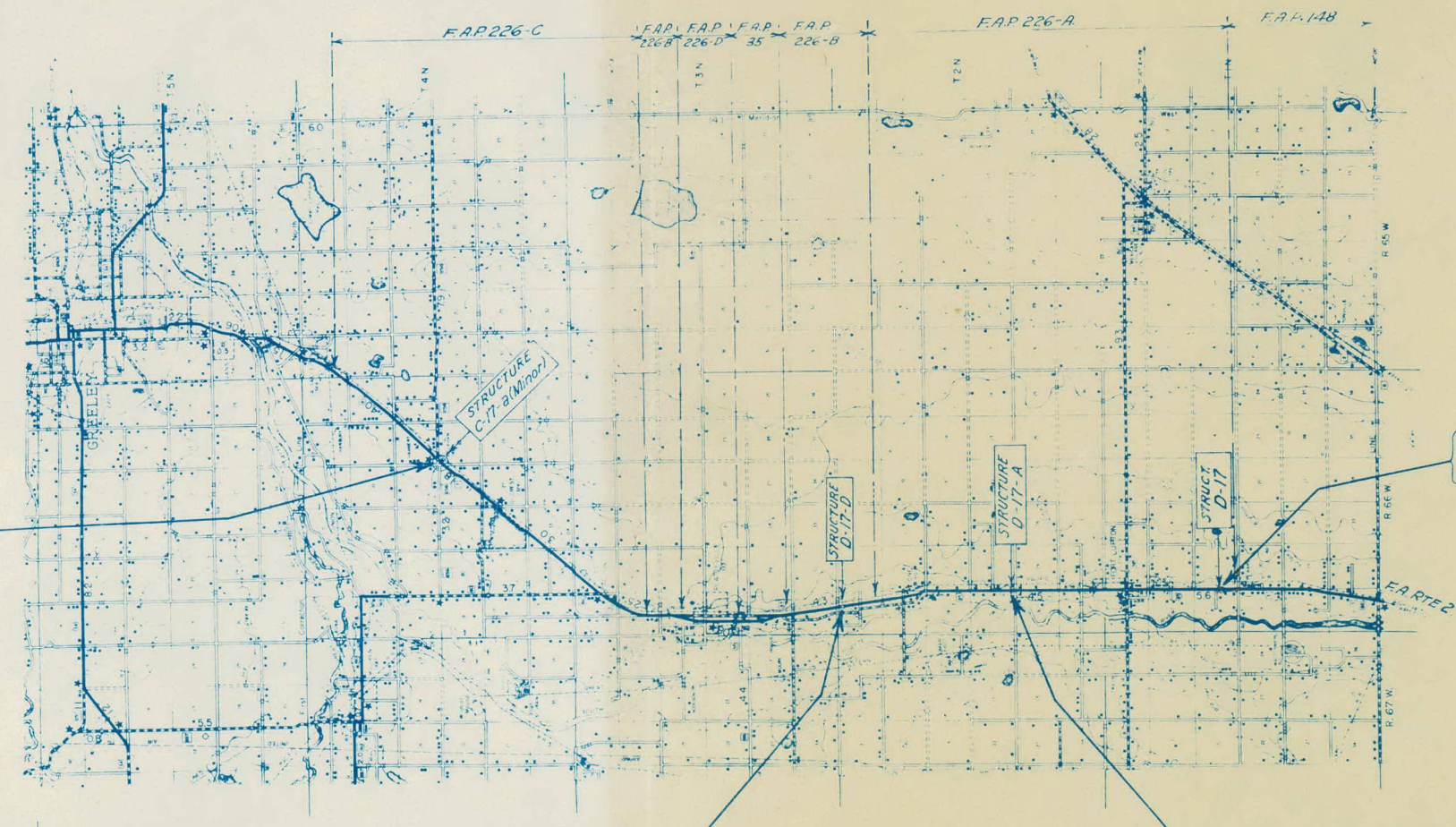
PROJECT	GROSS LENGTH	NET LENGTH
F.A.P. 226-A(2)	FEET MILES	FEET MILES
UNIT NO. 1	55.0 0.010	55.0 0.010
UNIT NO. 2	62.9 0.012	62.9 0.012
TOTAL 226-A(2)	117.9 0.022	117.9 0.022
F.A.P. 226-B(3)	83.0 0.015	83.0 0.015
F.A.P. 226-C(4)	53.5 0.010	53.5 0.010

AS CONSTRUCTED PLANS
RETURN TO DIST. A DESIGN

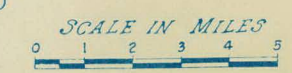
NOTE:
It is recommended that bidders on this project go over the plan details with one of the following field representatives of this department.
R.J. Randall, Division Engineer, Greeley, Colorado
Clyde Walters, Resident Engineer, Greeley, Colorado

PROJECT	STATIONS	ROADWAY LIN. FT.	BRIDGES LIN. FT.
F.A.P. 226-A(2)			
UNIT NO. 1	210+67.0 to 211+22.0	55.0	
UNIT NO. 2	452+81.1 to 453+01.0	19.9	
UNIT NO. 2 (Str. D-17-A)	453+01.0 to 453+24.1		23.1
UNIT NO. 2	453+24.1 to 453+44.0	19.9	
TOTAL 226-A(2)		94.8	23.1
F.A.P. 226-B(3)	656+50 to 656+70	20.0	
(Str. D-17-D)	656+70 to 657+13		43.0
F.A.P. 226-B(3)	657+13 to 657+33	20.0	
TOTAL 226-B(3)		40.0	43.0
F.A.P. 226-C(4)	372+05.5 to 372+59.0	53.5	
TOTAL 226-C(4)		53.5	

F.A.P. 226-C(4)
STA. 372+05.5 TO 372+59.0



F.A.P. 226-B(3)
STA. 656+50 TO 657+33



F.A.P. 226-A(2), UNIT NO. 2
STA. 452+81.1 TO 453+44.0

F.A.P. 226-A(2), UNIT NO. 1
STA. 210+67.0 TO 211+22.0

RECOMMENDED FOR APPROVAL

[Signature]
ASSISTANT ENGINEER
DATE 11/4/41

APPROVED

[Signature]
STATE HIGHWAY ENGINEER
DATE

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

RECOMMENDED FOR APPROVAL

CHIEF, WESTERN REGION
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED

COMMISSIONER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

FED. ROAD DIST. NO.	STATE	COMB. FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	226-A(2) 226-B(3) 226-C(4)	1	

COLORADO
STATE HIGHWAY DEPARTMENT
PLAN AND PROFILE OF PROPOSED
COMB. FEDERAL AID PROJECT NOS { 226-A(2)
226-B(3)
226-C(4) }
STATE HIGHWAY NO. 3
WELD COUNTY

INDEX OF SHEETS

SHEET NOS.			
F.A.P.	F.A.P.	F.A.P.	
226-A(2)	226-B(3)	226-C(4)	
1.	1.	1.	TITLE SHEET
2.	2.	2.	TYPICAL SECTIONS AND SUMMARY
3&4.			DETAILS OF C.B.C. AND SLABS, STA. 211+
5.			" " DETOUR BRIDGE, STA. 211+
6&7.			" " BRIDGE AND SLABS, STA. 453+
8.			" " DETOUR BRIDGE, STA. 453+
	9&10.		" " STRUCT. & SLABS, STA. 656+
		11&12.	" " " " " " 372+
		13.	" " DETOUR BRIDGE, STA. 372+
14.	14.	14.	STANDARD TIMBER GUARD POSTS M-19-B
15.	15.	15.	" " STRUCTURE NUMBER
			LETTERING M-10-A
16.	16.	16.	" " YEAR
			NUMBER MARKING M-14-A
17.	17.	17.	TYPICAL SIDE APPROACH ROADS -
			ROADWAY CONSTRUCTION TRAFFIC SIGNS M-2-B
18.	19.	20.	PLAN AND PROFILE

SCALES ON ORIGINAL TRACINGS
ON PLAN, 1 IN. = 100 FT.
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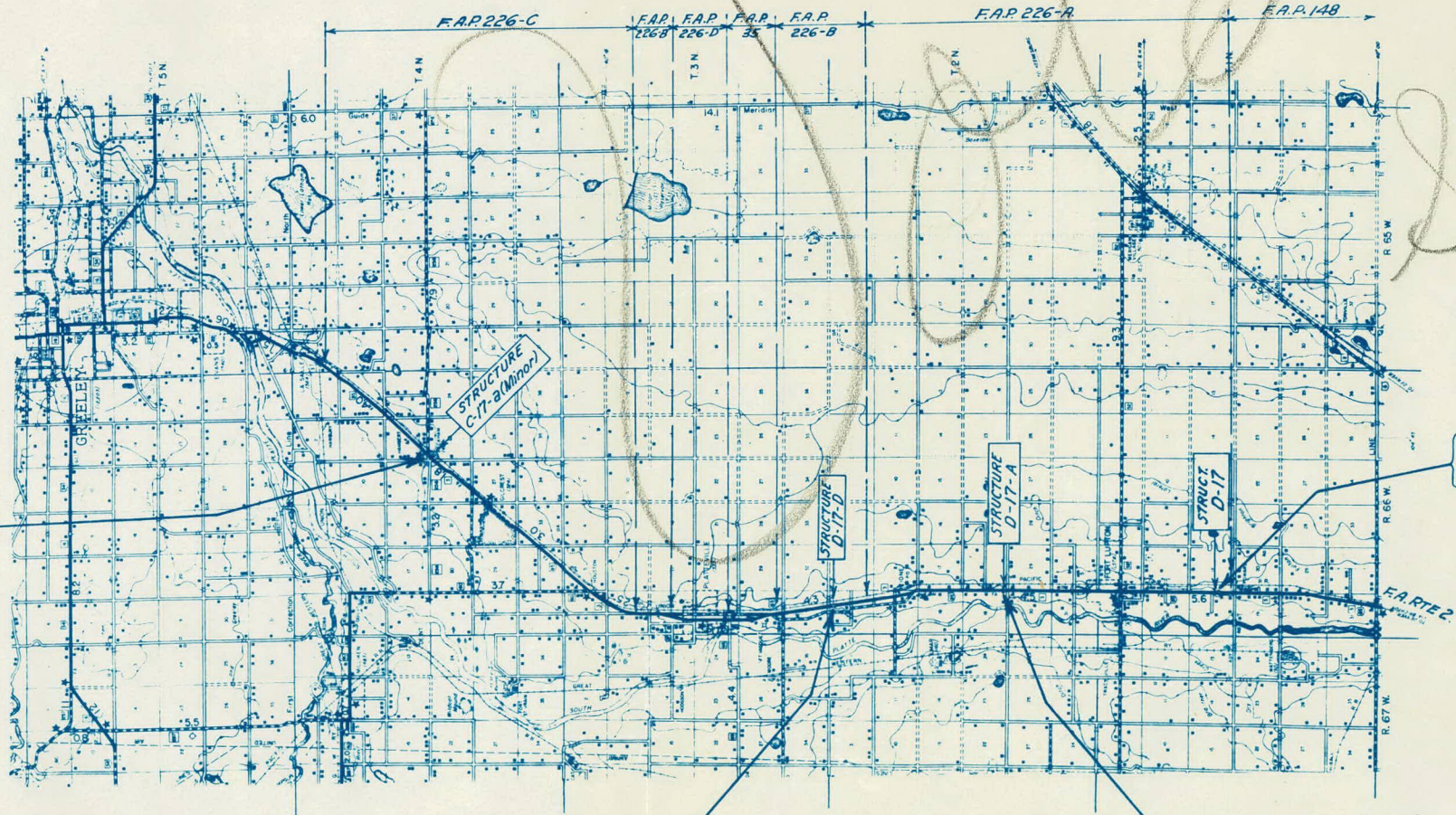
PROJECT	GROSS LENGTH	NET LENGTH
F.A.P. 226-A(2)	FEET	MILES
UNIT NO. 1	55.0	0.010
UNIT NO. 2	62.9	0.012
TOTAL 226-A(2)	117.9	0.022
F.A.P. 226-B(3)	83.0	0.015
F.A.P. 226-C(4)	53.5	0.010

CONVENTIONAL SIGNS
CENTER LINE
R.O.W. LINE
SECTION LINE
QUARTER SECTION LINE
BARBED WIRE FENCE
COMB. WIRE FENCE
POLE LINES
GAS LINES

NOTE:
It is recommended that bidders on this project go over the plan details with one of the following field representatives of this department.
R.J. Randall, Division Engineer, Greeley, Colorado
Clyde Walters, Resident Engineer, Greeley, Colorado

PROJECT	STATIONS	ROADWAY LIN. FT.	BRIDGES LIN. FT.
F.A.P. 226-A(2)			
UNIT No. 1	210+67.0 to 211+22.0	55.0	
UNIT No. 2	452+81.1 to 453+01.0	19.9	
UNIT No. 2			
(Str. D-17-A)	453+01.0 to 453+24.1		23.1
UNIT No. 2	453+24.1 to 453+44.0	19.9	
TOTAL 226-A(2)		94.8	23.1
F.A.P. 226-B(3)	656+50 to 656+70	20.0	
(Str. D-17-D)	656+70 to 657+13		43.0
F.A.P. 226-B(3)	657+13 to 657+33	20.0	
TOTAL 226-B(3)		40.0	43.0
F.A.P. 226-C(4)	372+05.5 to 372+59.0	53.5	
TOTAL 226-C(4)		53.5	

F.A.P. 226-C(4)
STA. 372+05.5 TO 372+59.0



F.A.P. 226-B(3)
STA. 656+50 TO 657+33

F.A.P. 226-A(2), UNIT NO. 2
STA. 452+81.1 TO 453+44.0

F.A.P. 226-A(2), UNIT NO. 1
STA. 210+67.0 TO 211+22.0

RECOMMENDED FOR APPROVAL

ASSISTANT ENGINEER
DATE 11/4/41

APPROVED

STATE HIGHWAY ENGINEER
DATE

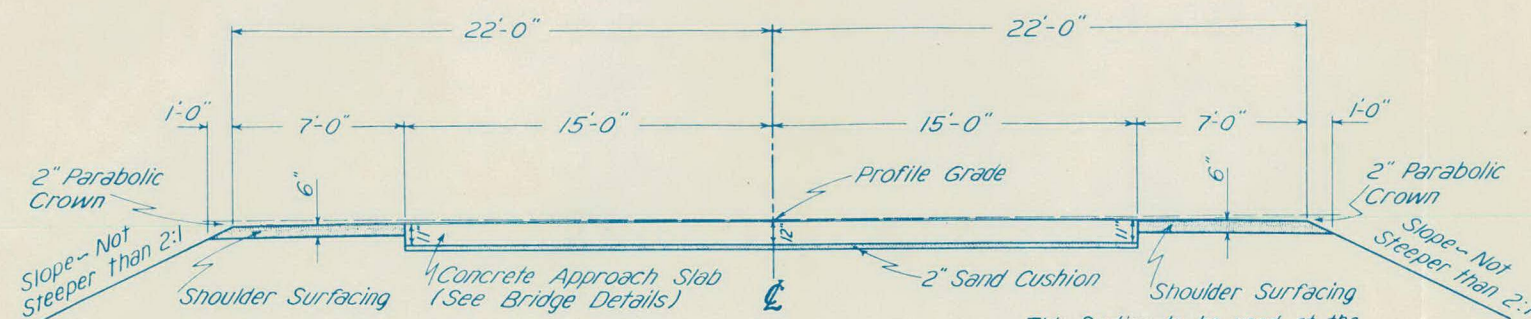
RECOMMENDED FOR APPROVAL
DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

RECOMMENDED FOR APPROVAL
CHIEF, WESTERN REGION
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED
COMMISSIONER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES

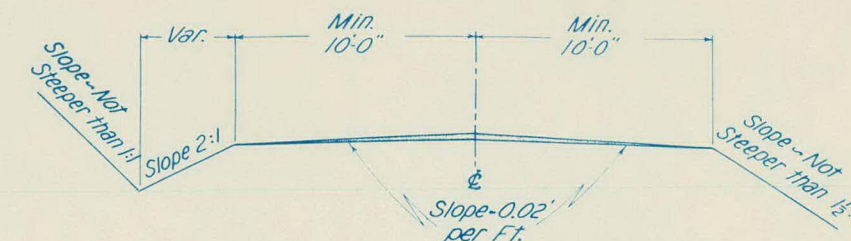
TYPICAL SECTION OF DETOUR



Approximate 6" thickness of Gravel or Crushed Rock Shoulder Surfacing to be placed at the rate of 32 Cu. Yds. per 100 Lin. Ft. of Roadway.

This Section to be used at the following locations:

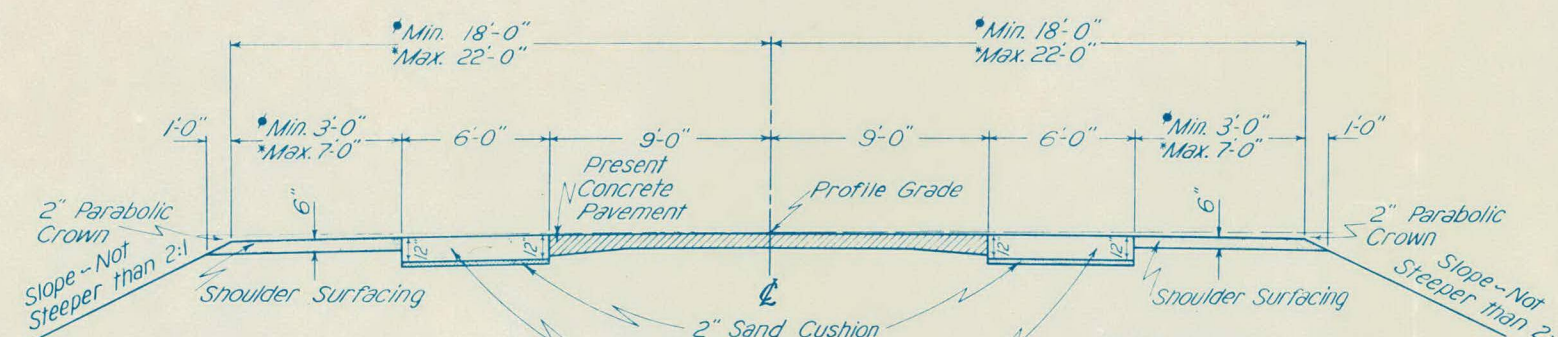
Stas. 210+67 to 211+22
Stas. 452+81.1 to 453+44.0



Gravel or Crushed Rock Surfacing for Detour to be placed at the rate of 20 Cu. Yds. per 100 Lin. Ft.

SUMMARY OF APPROXIMATE QUANTITIES

TYPICAL SECTIONS



Approximate 6" thickness of Gravel or Crushed Rock Shoulder Surfacing to be placed at the rate of 32 Cu. Yds. per 100 Lin. Ft. of Roadway for 7 ft. Shoulders, and at the rate of 15 Cu. Yds. per 100 Lin. Ft. of Roadway for 3 ft. Shoulders.

This Section to be used at the following locations:
Stas. 656+50 to 657+33
Stas. 372+05.5 to 372+59.0

*Use these Dimensions, Stas. 656+50 to 657+33
* " " " " Stas. 372+05.5 to 372+59.0

GENERAL NOTES

This project is to be constructed in conformity with the Standard Specifications of the Colorado State Highway Department adopted June 1, 1940.

All quantities on preliminary plans are to be considered approximate only.

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, either noted on the profile as "Borrow" or on the List of Structures as "Embankment" are to be classified and paid for as "Unclassified Excavation". These quantities are to be staked as part of the original excavation at locations indicated on the plans. Slope stakes beyond the limits of the Typical Section as shown, are subject to change, by the Engineer, to fit conditions actually met in construction.

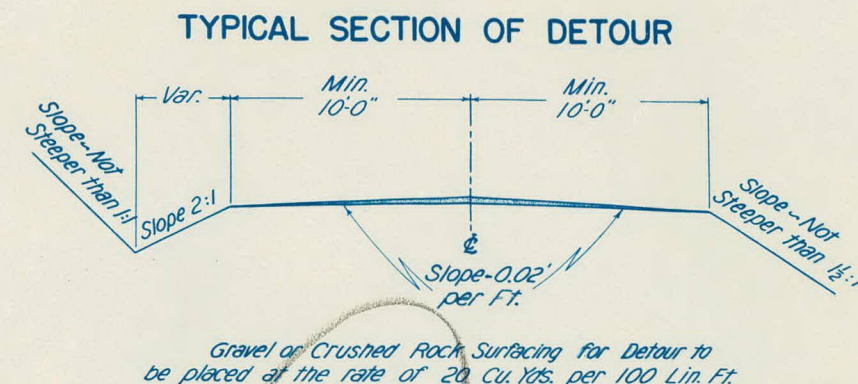
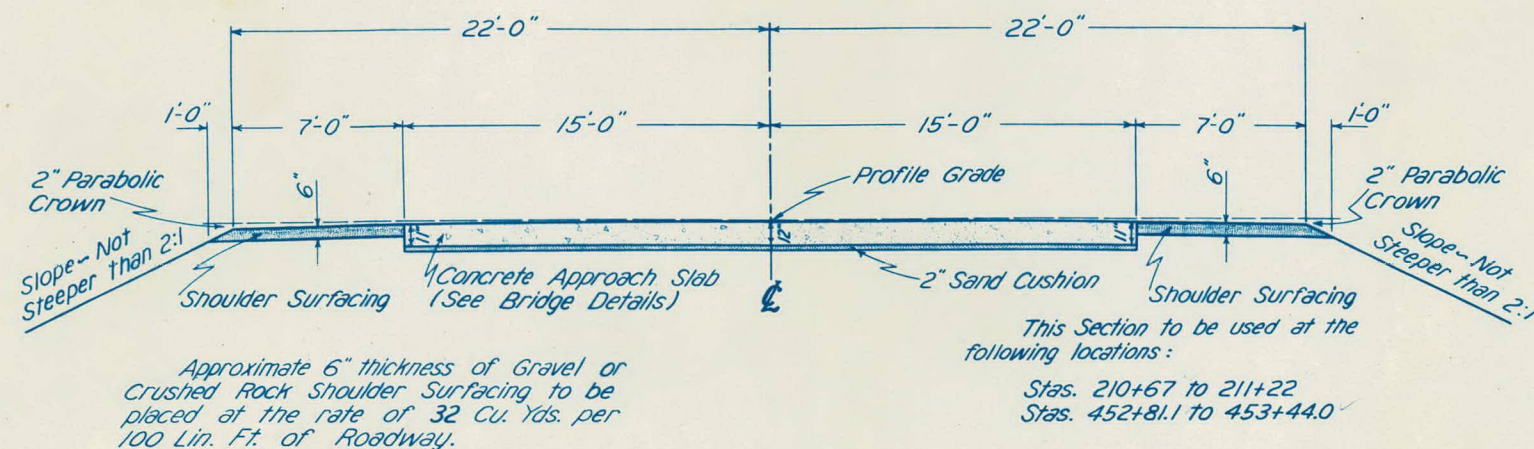
All corrugated Metal Pipe Culverts shall be laid without headwalls unless otherwise noted on the plans.

The ends of the Corrugated Metal Pipe Culverts shall be covered with approximately 6 inches of embankment material in such a manner that a minimum of metal shall be exposed in the completed work. This shall be accomplished by warping embankment slopes around and adjacent to the culvert.

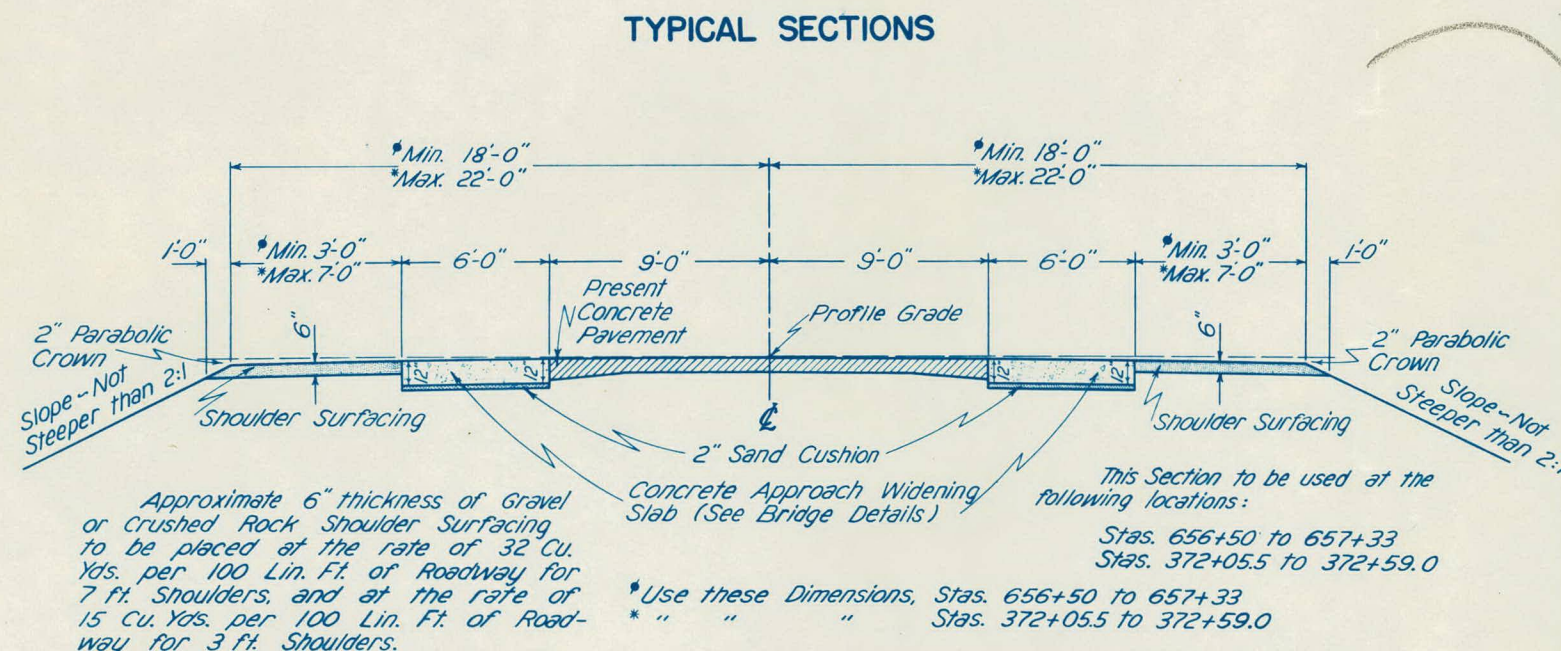
ITEM NO.	ITEM	UNIT	F.A.P. 226-A(2)				F.A.P. 226-B(3)			F.A.P. 226-C(4) RDWAY.	COMB. TOTALS
			UNIT 1 RDWAY.	UNIT 2		TOTAL	RDWAY.	BRIDGE STA. 656+	TOTAL		
				RDWAY.	BRIDGE STA. 453+						
11a	Removal of Pres. Bridges, Rdwy. Slab, & Part Pres. Flume, Sta. 210+	L.S.	•			•				•	
11b	Removal of Detour Bridge, Sta. 211+	L.S.	•			•				•	
11c	Removal of Pres. Structure and Slab, Sta. 452+	L.S.		•		•				•	
11d	Removal of Detour Bridge, Sta. 452+	L.S.		•		•				•	
11e	Removal of Parts of Pres. Structure, Sta. 656+	L.S.					•	•		•	
11f	Removal of Parts of Pres. Structure, Sta. 372+	L.S.							•	•	
11g	Removal of Pres. Detour Bridge, Sta. 372+	L.S.		•		•			•	•	
11h	Removal of 2 Structures	L.S.									
12b	Removing and Rebuilding Fence	Lin. Ft.	350	400		750				750	
13c	Unclassified Excavation	Cu. Yd.	500	1,200		1,700	300	300	300	2,300	
14b	Dry Common Excavation (Structural)	Cu. Yd.	45	5	215	265	15	15	45	325	
14d	Wet Common Excavation (Structural)	Cu. Yd.	25	5	90	120			55	175	
14e	Mechanical Tamping	Hr.	5		45	50	4	4	16	70	
26x	Detour Surfacing	Cu. Yd.	30	50		80				80	
37c	Sand Cushion	Cu. Yd.	8	8		16	5	5	5	26	
37d	Gravel or Crushed Rock Shoulder Surf.	Cu. Yd.	45	50		95	40	40	40	175	
42a	Untreated Bridge Timber	M Ft. b.m.	4.6	5.4	0.2	10.2			0.2	10.4	
44a	Miscellaneous Untreated Timber	M Ft. b.m.	0.1			0.1				0.1	
46a	Class "A" Concrete	Cu. Yd.	111	44	144	299	18	65	83	472	
46r	Class "A" Concrete (Handrails)	Cu. Yd.					6	6		6	
47	Reinforcing Steel	Lb.	14,200	4,800	12,900	31,900	1,950	12,800	14,750	50,900	
53c	24" Corr. Metal Culvert Pipe	Lin. Ft.		60		60				60	
53cx	24" Corr. Metal Culvert Pipe (Paved Invert)	Lin. Ft.	60			60				60	
60b	Untreated Timber Piling	Lin. Ft.		224		224				224	
89a	Drain Pipe (Conc. Floor) 3"x 3'-0"	Ea.					4	4		4	
92	Timber Guard Posts	Ea.	2	20		22	20	20	2	44	
12c	Line Posts (Treated Wood)	Ea.	9	11		20				20	
	Remove Sign, Sta. 211+ (Force Acct.)	Lump Sum	•			•				•	

FED. ROAD DIST. NO.	STATE	COMB. F.A. PROJ. NOS.	SHEET NO.	TOTAL SHEETS
3	COLO.	226-A(2) 226-B(3) 226-C(4)	2	

TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES



SUMMARY OF APPROXIMATE QUANTITIES



GENERAL NOTES

This project is to be constructed in conformity with the Standard Specifications of the Colorado State Highway Department adopted June 1, 1940.

All quantities on preliminary plans are to be considered approximate only.

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, either noted on the profile as "Borrow" or on the List of Structures as "Embankment" are to be classified and paid for as "Unclassified Excavation". These quantities are to be staked as part of the original excavation at locations indicated on the plans.

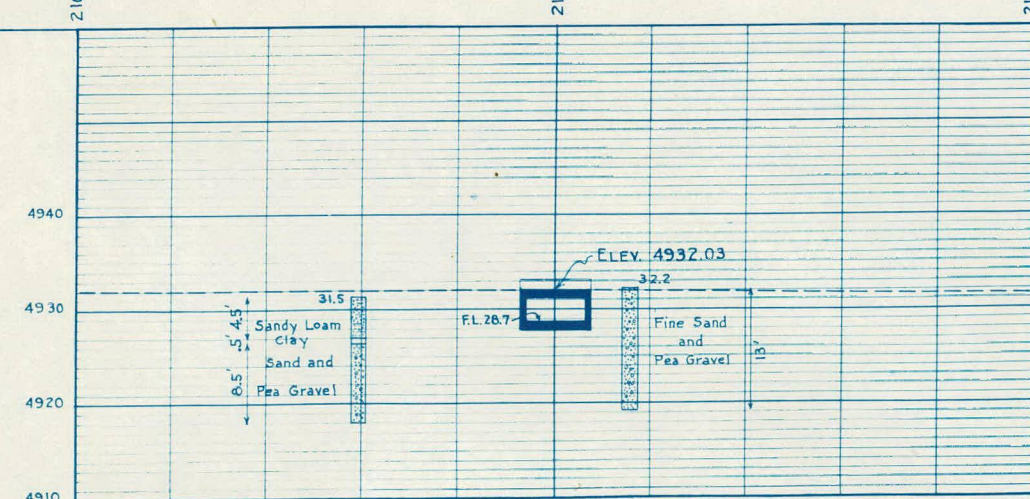
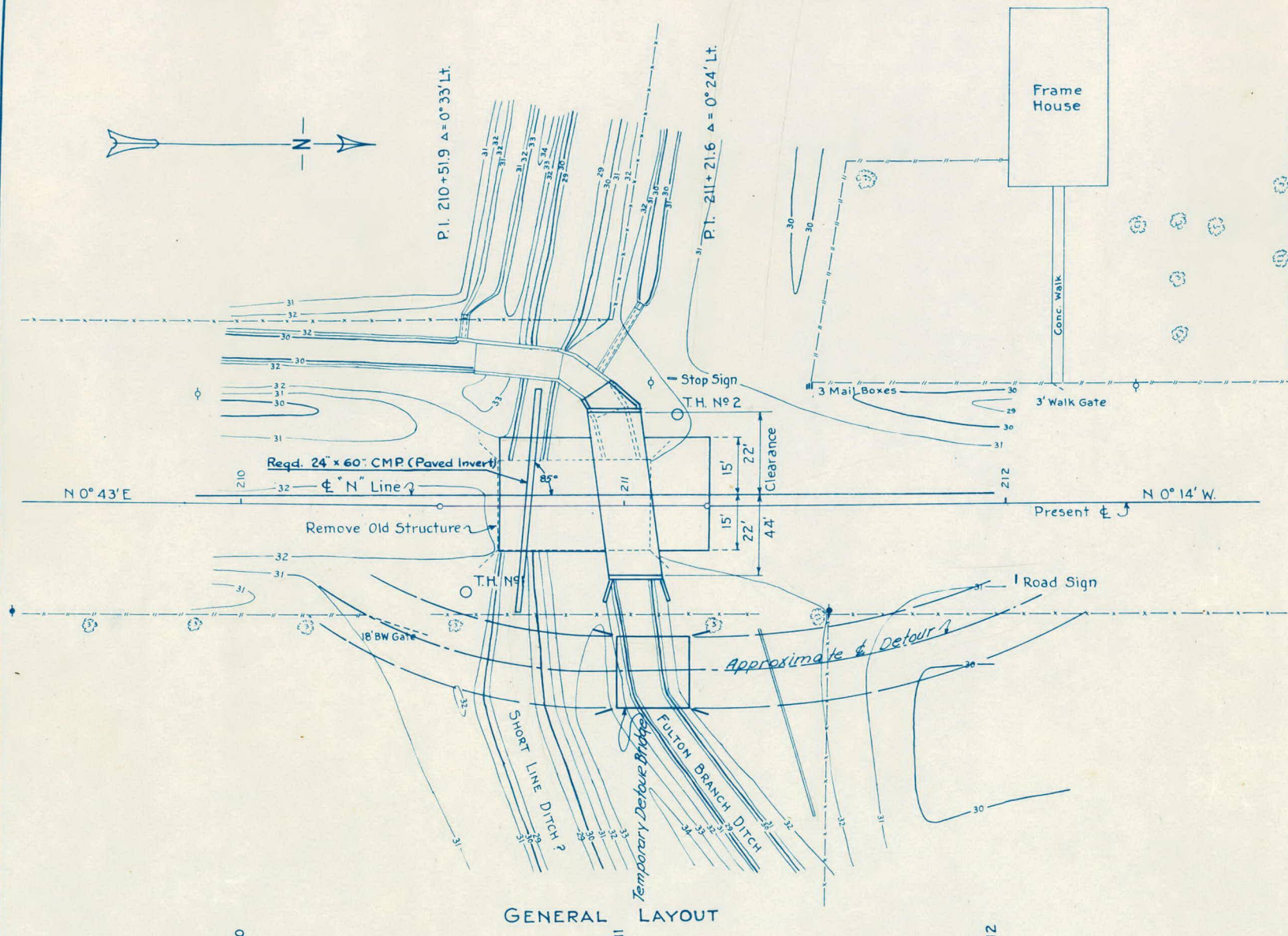
Slope stakes beyond the limits of the Typical Section as shown, are subject to change, by the Engineer, to fit conditions actually met in construction.

All corrugated Metal Pipe Culverts shall be laid without headwalls unless otherwise noted on the plans.

The ends of the Corrugated Metal Pipe Culverts shall be covered with approximately 6 inches of embankment material in such a manner that a minimum of metal shall be exposed in the completed work. This shall be accomplished by warping embankment slopes around and adjacent to the culvert.

ITEM NO.	ITEM	UNIT	F.A.P. 226-A(2)				F.A.P. 226-B(3)			F.A.P. 226-C(4)	COMB. TOTALS
			UNIT 1 RDWAY.	UNIT 2 RDWAY.	BRIDGE STA. 453+	TOTAL	RDWAY.	BRIDGE STA. 656+	TOTAL		
11a	Removal of Pres. Bridges, Rdwy. Slab, & Part Pres. Flume, Sta. 210+	L. S.	.	.	.	.	.	.	.	.	.
11b	Removal of Detour Bridge, Sta. 211+	L. S.	.	.	.	.	.	.	.	.	.
11c	Removal of Pres. Structure and Slab, Sta. 452+	L. S.	.	.	.	.	.	.	.	.	.
11d	Removal of Detour Bridge, Sta. 452+	L. S.	.	.	.	.	.	.	.	.	.
11e	Removal of Parts of Pres. Structure, Sta. 656+	L. S.	.	.	.	.	.	.	.	.	.
11f	Removal of Parts of Pres. Structure, Sta. 372+	L. S.	.	.	.	.	.	.	.	.	.
11g	Removal of Pres. Detour Bridge, Sta. 372+	L. S.	.	.	.	.	.	.	.	.	.
13c	Unclassified Excavation	Cu. Yd.	500	1,200		1,700	300		300	300	2,300
14b	Dry Common Excavation (Structural)	Cu. Yd.	45		215	260		15	15	45	320
14d	Wet Common Excavation (Structural)	Cu. Yd.	25		90	115				55	170
14e	Mechanical Tamping	Hr.	5		45	50		4	4	16	70
26x	Detour Surfacing	Cu. Yd.	30	50		80				40	120
37c	Sand Cushion	Cu. Yd.	8	8		16				5	26
37d	Gravel or Crushed Rock Shoulder Surf.	Cu. Yd.	45	50		95	5	40	45	40	175
42a	Untreated Bridge Timber	M ft. b.m.	4.6	5.4	0.2	10.2				4.6	14.8
44a	Miscellaneous Untreated Timber	M ft. b.m.	0.1			0.1					0.1
46a	Class "A" Concrete	Cu. Yd.	111	44	144	299	18	65	83	90	472
46r	Class "A" Concrete (Handrails)	Cu. Yd.						6	6		6
47	Reinforcing Steel	Lb.	14,200	4,800	12,900	31,900	1,950	12,800	14,750	4,250	50,900
53c	24" Corr. Metal Culvert Pipe (Paved Invert)	Lin. Ft.	60			60					60
60b	Untreated Timber Piling	Lin. Ft.		224		224				144	368
89a	Drain Pipe (Conc. Floor) 3"x3'-0"	Ea.						4	4		4
92	Timber Guard Posts	Ea.	2	20		22	20		20	2	44

FED. ROAD DIST. NO.	STATE	F.A.P.	SHEET NO.	TOTAL SHEETS
3	COLO.	226-A(2)	3	



BAR LIST FOR CONCRETE BOX

MARK	SIZE	No. REQ'D	LENGTH	TYPE	l	m	r	t
A1	3/4"	71	14'-5"	I	12'-5"		3"	2 1/2"
A2	5/8"	134	14'-2"	I	12'-6"		2 1/2"	2"
A3	7/8"	40	15'-4"	I	13'-0"		3 1/2"	3"
A4	7/8"	39	15'-10"	II			3 1/2"	3"
A5	1/2"	110	24'-0"	Str.				
A6	1/2"	12	24'-0"	"				
A7	1/2"	80	4'-6"	III	1'-10"		2"	2"
B1	1/2"	12	5'-5"	IV	3'-2"	0'-10"	2"	2"
B2	1/2"	6	5'-6"	Str.				
B3	5/8"	12	5'-2"	IV	2'-0"	1'-9"	2 1/2"	2"
B4	1/2"	26	4'-6"	V	2'-0"	2'-0"		
B5	1/2"	6	13'-0"	Str.	Field	Bend		
B6	1/2"	6	8'-0"	"	"	"		
B7	1/2"	3	13'-6"	"	"	"		

BAR LIST FOR FLUME

MARK	SIZE	No. REQ'D	LENGTH	TYPE	l	m	r	t
F1	1/2"	14	4'-11"	V	2'-5"	2'-0"		
F2	1/2"	3	10'-3"	Str.	Field	Bend		
F3	1/2"	3	2'-6"	Str.				
F4	1/2"	1 Each	8'-6"	Str.				
F5	1/2"	1 Each	10'-2"	Str.				
F6	1/2"	1 Each	1'-6"	Str.				
F7	1/2"	1 Each	4'-2"	Str.				
F8	1/2"	1 Each	10'-6"	Str.				
F9	1/2"	1 Each	by 7" to	Str.				
F10	1/2"	1 Each	by 7" to	Str.				
F11	1/2"	1 Each	by 7" to	Str.				
F12	1/2"	1 Each	by 7" to	Str.				
F13	1/2"	1 Each	by 7" to	Str.				
F14	1/2"	1 Each	by 7" to	Str.				
F15	1/2"	1 Each	by 7" to	Str.				
F16	1/2"	1 Each	by 7" to	Str.				
F17	1/2"	1 Each	by 7" to	Str.				
F18	1/2"	1 Each	by 7" to	Str.				
F19	1/2"	1 Each	by 7" to	Str.				
F20	1/2"	1 Each	by 7" to	Str.				
F21	1/2"	1 Each	by 7" to	Str.				
F22	1/2"	1 Each	by 7" to	Str.				
F23	1/2"	1 Each	by 7" to	Str.				
F24	1/2"	1 Each	by 7" to	Str.				
F25	1/2"	1 Each	by 7" to	Str.				
F26	1/2"	1 Each	by 7" to	Str.				
F27	1/2"	1 Each	by 7" to	Str.				
F28	1/2"	1 Each	by 7" to	Str.				
F29	1/2"	1 Each	by 7" to	Str.				
F30	1/2"	1 Each	by 7" to	Str.				
F31	1/2"	1 Each	by 7" to	Str.				
F32	1/2"	1 Each	by 7" to	Str.				
F33	1/2"	1 Each	by 7" to	Str.				
F34	1/2"	1 Each	by 7" to	Str.				
F35	1/2"	1 Each	by 7" to	Str.				
F36	1/2"	1 Each	by 7" to	Str.				

BAR LIST FOR NORTH APPROACH SLAB

MARK	SIZE	No. REQ'D	LENGTH	TYPE	l	m	r	t
S1	3/4"	2 Each	12'-8"	Str.				
S2	3/4"	2 Each	by 3 1/2" to	Str.				
S3	3/4"	2 Each	16'-9"	Str.				
S4	3/4"	2 Each	12'-11"	Str.				
S5	3/4"	2 Each	by 3 1/2" to	Str.				
S6	3/4"	2 Each	12'-11"	Str.				
S7	3/4"	2 Each	16'-8 1/2"	Str.				
S8	3/4"	2 Each	16'-9"	Str.				
S9	3/4"	2 Each	16'-9"	Str.				
S10	3/4"	2 Each	16'-9"	Str.				
S11	3/4"	2 Each	16'-9"	Str.				
S12	3/4"	2 Each	16'-9"	Str.				
S13	3/4"	2 Each	16'-9"	Str.				
S14	3/4"	2 Each	16'-9"	Str.				
S15	3/4"	2 Each	16'-9"	Str.				
S16	3/4"	2 Each	16'-9"	Str.				
S17	3/4"	2 Each	16'-9"	Str.				
S18	3/4"	2 Each	16'-9"	Str.				
S19	3/4"	2 Each	16'-9"	Str.				
S20	3/4"	2 Each	16'-9"	Str.				
S21	3/4"	2 Each	16'-9"	Str.				
S22	3/4"	2 Each	16'-9"	Str.				
S23	3/4"	2 Each	16'-9"	Str.				
S24	3/4"	2 Each	16'-9"	Str.				
S25	3/4"	2 Each	16'-9"	Str.				
S26	3/4"	2 Each	16'-9"	Str.				
S27	3/4"	2 Each	16'-9"	Str.				
S28	3/4"	2 Each	16'-9"	Str.				
S29	3/4"	2 Each	16'-9"	Str.				
S30	3/4"	2 Each	16'-9"	Str.				
S31	3/4"	2 Each	16'-9"	Str.				
S32	3/4"	2 Each	16'-9"	Str.				
S33	3/4"	2 Each	16'-9"	Str.				
S34	3/4"	2 Each	16'-9"	Str.				
S35	3/4"	2 Each	16'-9"	Str.				
S36	3/4"	2 Each	16'-9"	Str.				
S37	3/4"	2 Each	16'-9"	Str.				
S38	3/4"	2 Each	16'-9"	Str.				
S39	3/4"	2 Each	16'-9"	Str.				
S40	3/4"	2 Each	16'-9"	Str.				
S41	3/4"	2 Each	16'-9"	Str.				
S42	3/4"	2 Each	16'-9"	Str.				
S43	3/4"	2 Each	16'-9"	Str.				
S44	3/4"	2 Each	16'-9"	Str.				
S45	3/4"	2 Each	16'-9"	Str.				
S46	3/4"	2 Each	16'-9"	Str.				
S47	3/4"	2 Each	16'-9"	Str.				
S48	3/4"	2 Each	16'-9"	Str.				
S49	3/4"	2 Each	16'-9"	Str.				
S50	3/4"	2 Each	16'-9"	Str.				
S51	3/4"	2 Each	16'-9"	Str.				
S52	3/4"	2 Each	16'-9"	Str.				
S53	3/4"	2 Each	16'-9"	Str.				
S54	3/4"	2 Each	16'-9"	Str.				
S55	3/4"	2 Each	16'-9"	Str.				
S56	3/4"	2 Each	16'-9"	Str.				
S57	3/4"	2 Each	16'-9"	Str.				
S58	3/4"	2 Each	16'-9"	Str.				
S59	3/4"	2 Each	16'-9"	Str.				
S60	3/4"	2 Each	16'-9"	Str.				
S61	3/4"	2 Each	16'-9"	Str.				
S62	3/4"	2 Each	16'-9"	Str.				
S63	3/4"	2 Each	16'-9"	Str.				
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S65	3/4"	2 Each	16'-9"	Str.				
S66	3/4"	2 Each	16'-9"	Str.				
S67	3/4"	2 Each	16'-9"	Str.				
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S71	3/4"	2 Each	16'-9"	Str.				
S72	3/4"	2 Each	16'-9"	Str.				
S73	3/4"	2 Each	16'-9"	Str.				
S74	3/4"	2 Each	16'-9"	Str.				
S75	3/4"	2 Each	16'-9"	Str.				
S76	3/4"	2 Each	16'-9"	Str.				
S77	3/4"	2 Each	16'-9"	Str.				
S78	3/4"	2 Each	16'-9"	Str.				
S79	3/4"	2 Each	16'-9"	Str.				
S80	3/4"	2 Each	16'-9"	Str.				
S81	3/4"	2 Each	16'-9"	Str.				
S82	3/4"	2 Each	16'-9"	Str.				
S83	3/4"	2 Each	16'-9"	Str.				
S84	3/4"	2 Each	16'-9"	Str.				
S85	3/4"	2 Each	16'-9"	Str.				
S86	3/4"	2 Each	16'-9"	Str.				
S87	3/4"	2 Each	16'-9"	Str.				
S88	3/4"	2 Each	16'-9"	Str.				
S89	3/4"	2 Each	16'-9"	Str.				
S90	3/4"	2 Each	16'-9"	Str.				
S91	3/4"	2 Each	16'-9"	Str.				
S92	3/4"	2 Each	16'-9"	Str.				
S93	3/4"	2 Each	16'-9"	Str.				
S94	3/4"	2 Each	16'-9"	Str.				
S95	3/4"	2 Each	16'-9"	Str.				
S96	3/4"	2 Each	16'-9"	Str.				
S97	3/4"	2 Each	16'-9"	Str.				
S98	3/4"	2 Each	16'-9"	Str.				
S99	3/4"	2 Each	16'-9"	Str.				
S100	3/4"	2 Each	16'-9"	Str.				

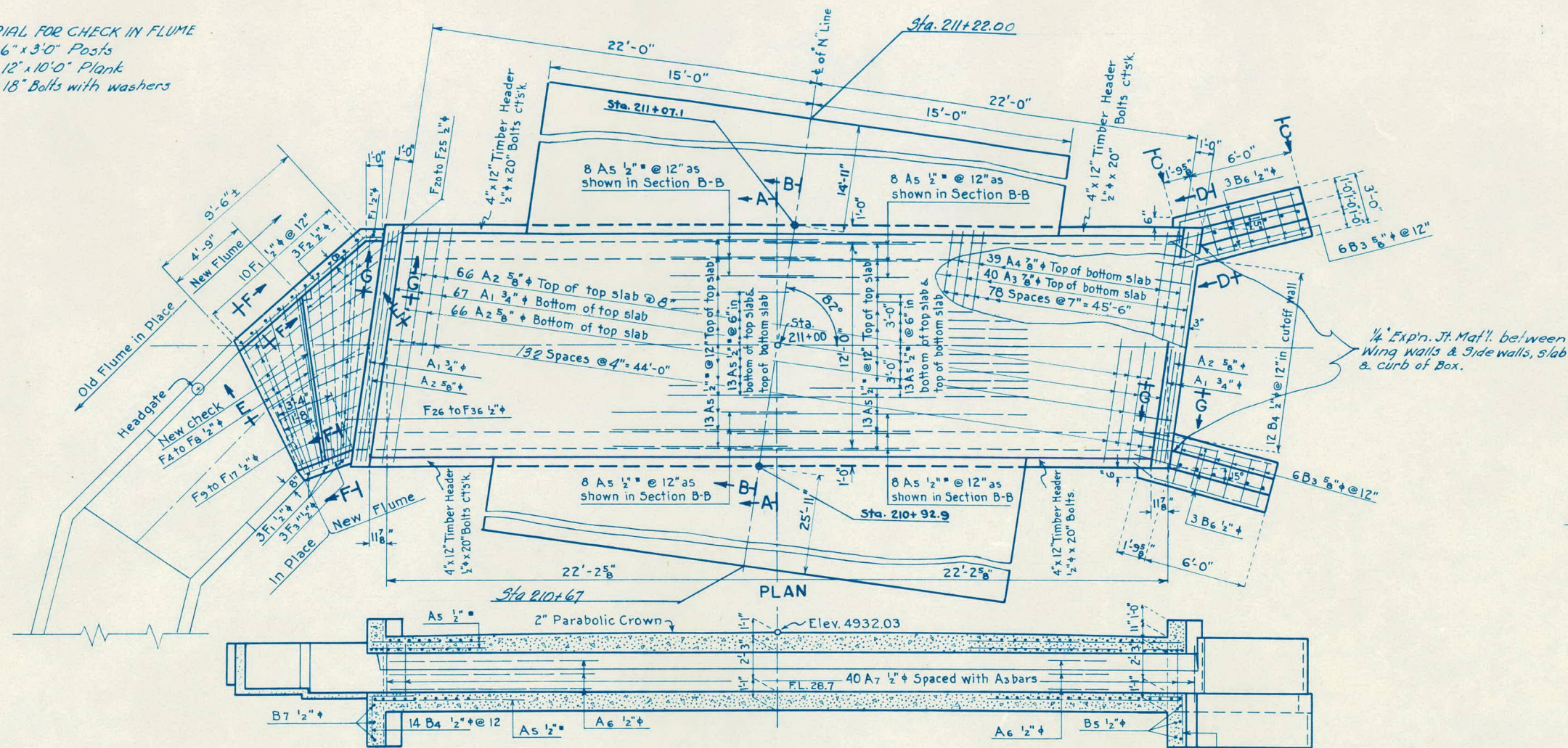
BAR LIST FOR SOUTH APPROACH SLAB

MARK	SIZE	No. REQ'D	LENGTH	TYPE	l	m	r	t
S1	3/4"	2 Each	12'-8"	Str.				
S2	3/4"	2 Each	by 3 1/2" to	Str.				
S3	3/4"	2 Each	16'-9"	Str.				
S4	3/4"	2 Each	12'-11"	Str.				
S5	3/4"	2 Each	by 3 1/2" to	Str.				
S6	3/4"	2 Each	12'-11"	Str.				
S7	3/4"	2 Each	16'-8 1/2"	Str.				
S8	3/4"	2 Each	16'-9"	Str.				
S9	3/4"	2 Each	16'-9"	Str.				
S10	3/4"	2 Each	16'-9"	Str.				
S11	3/4"	2 Each	16'-9"	Str.				
S12	3/4"	2 Each	16'-9"	Str.				
S13	3/4"	2 Each	16'-9"	Str.				
S14	3/4"	2 Each	16'-9"	Str.				
S15	3/4"	2 Each	16'-9"	Str.				
S16	3/4"	2 Each	16'-9"	Str.				
S17	3/4"	2 Each	16'-9"	Str.				
S18	3/4"	2 Each	16'-9"	Str.				
S19	3/4"	2 Each	16'-9"	Str.				
S20	3/4"	2 Each	16'-9"	Str.				
S21	3/4"	2 Each	16'-9"	Str.				
S22	3/4"	2 Each	16'-9"	Str.				
S23	3/4"	2 Each	16'-9"	Str.				
S24	3/4"	2 Each	16'-9"	Str.				
S25	3/4"	2 Each	16'-9"	Str.				
S26	3/4"	2 Each	16'-9"	Str.				
S27	3/4"	2 Each	16'-9"	Str.				
S28	3/4"	2 Each	16'-9"	Str.				
S29	3/4"	2 Each	16'-9"	Str.				
S30	3/4"	2 Each	16'-9"	Str.				
S31	3/4"	2 Each	16'-9"	Str.				
S32	3/4"	2 Each	16'-9"	Str.				
S33	3/4"	2 Each	16'-9"	Str.				
S34	3/4"	2 Each	16'-9"	Str.				
S35	3/4"	2 Each	16'-9"	Str.				
S36	3/4"	2 Each	16'-9"	Str.				
S37	3/4"	2 Each	16'-9"	Str.				
S38	3/4"	2 Each	16'-9"	Str.				
S39	3/4"	2 Each	16'-9"	Str.				
S40	3/4"	2 Each	16'-9"	Str.				
S41	3/4"	2 Each	16'-9"	Str.				
S42	3/4"	2 Each	16'-9"	Str.				
S43	3/4"	2 Each	16'-9"	Str.				
S44	3/4"	2 Each	16'-9"	Str.				

FED. ROAD DIST. NO.	STATE	F.A.P.	SHEET NO.	TOTAL SHEETS
3	COLO.	226 A(2)	4	

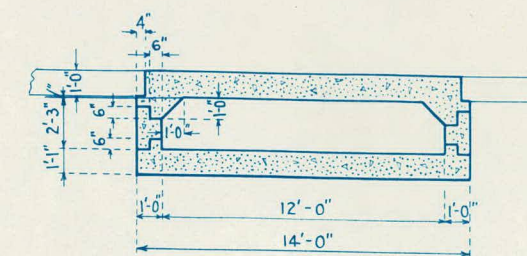
MATERIAL FOR CHECK IN FLUME

2-6"x16"x3'-0" Posts
2-2"x12"x10'-0" Plank
6-3/8"x18" Bolts with washers

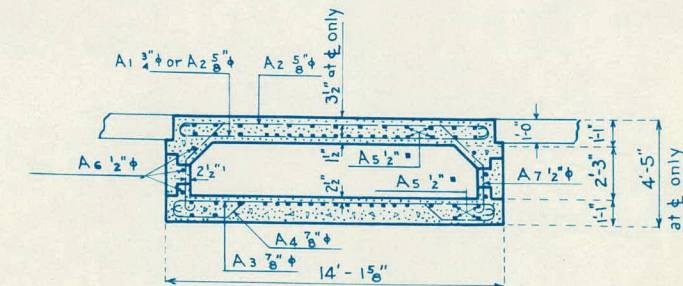


SECTION ALONG C OF BOX

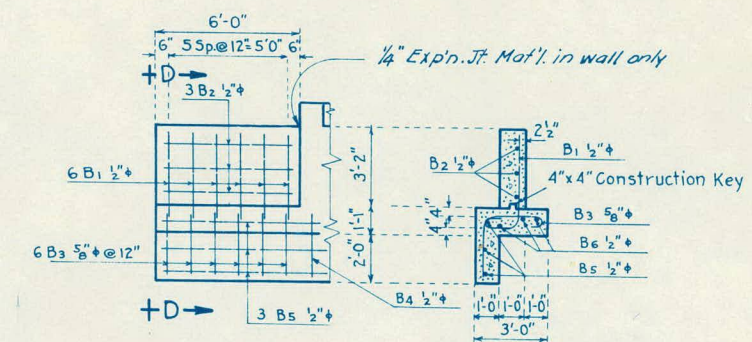
Note. Pour Wing Footings Monolithically with Floor of Box.



SECTION A-A

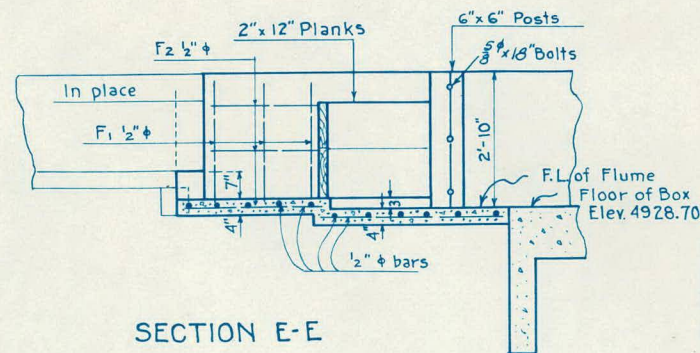


SECTION B-B

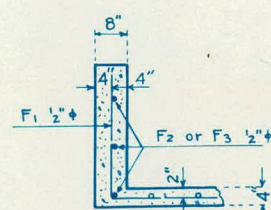


SECTION C-C

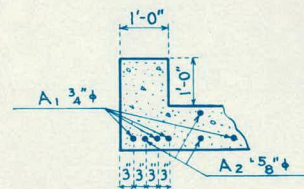
SECTION D-D



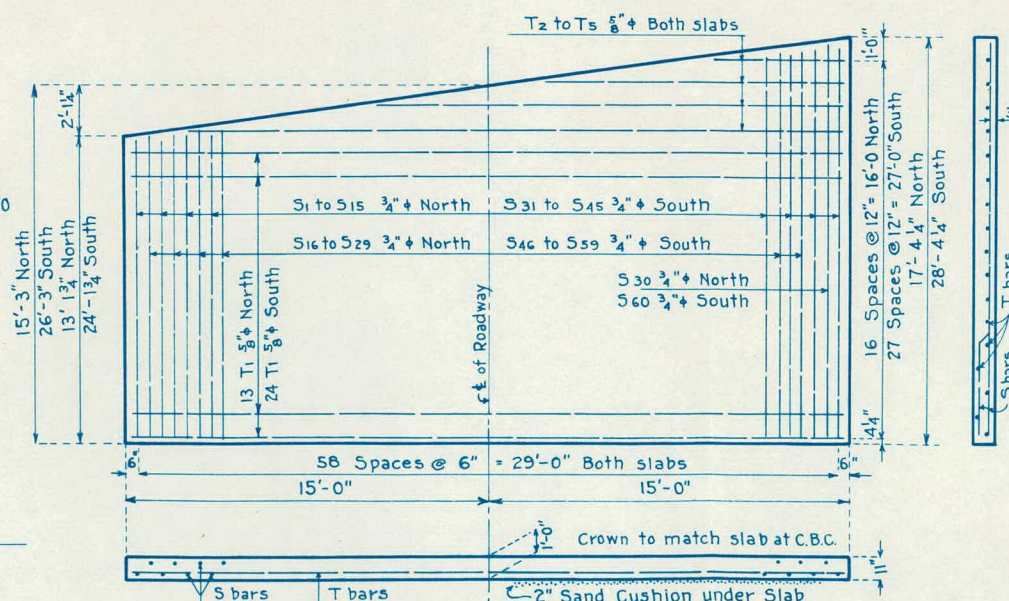
SECTION E-E



SECTION F-F



SECTION G-G



DETAILS OF BOTH APPROACH SLABS

Reference Drawing
Sheet No. 3 General Layout
Bar List
Bar Summary
Summary of Quantities

GENERAL NOTES

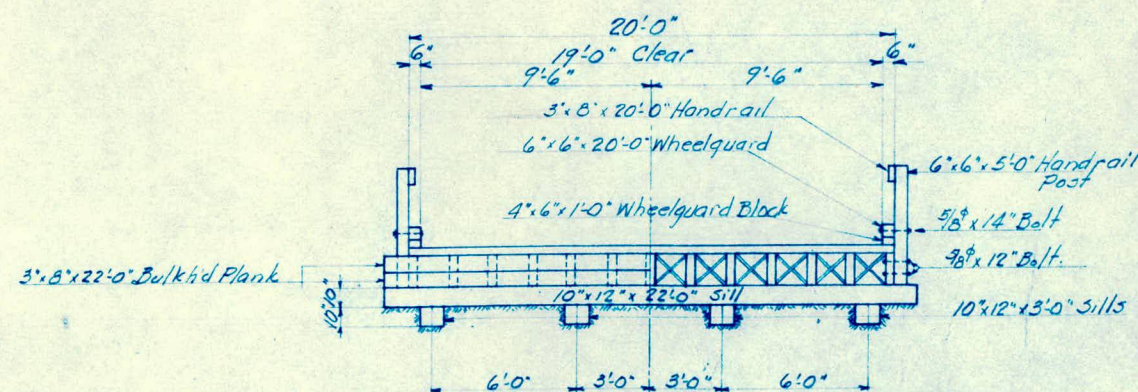
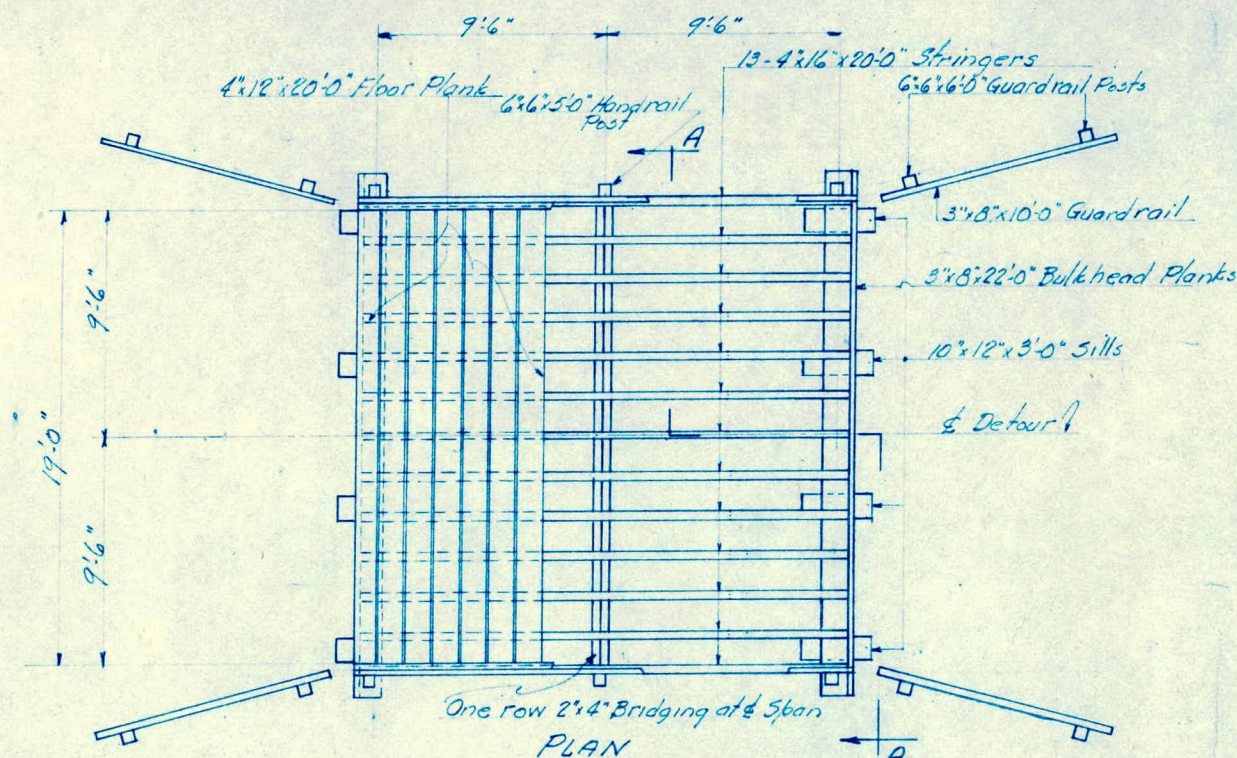
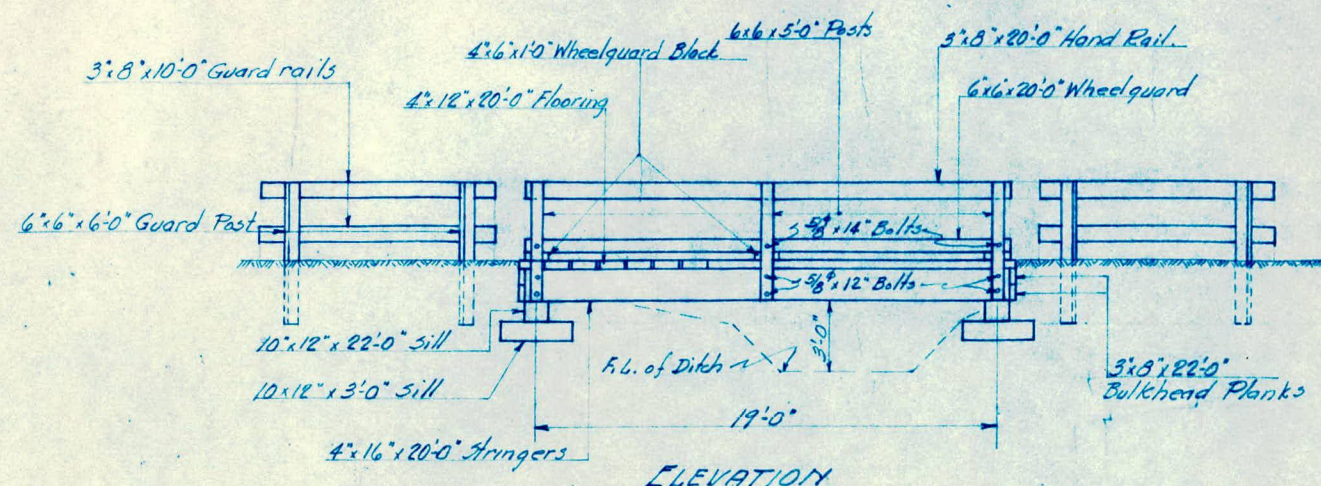
ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE COLORADO STATE HIGHWAY DEPARTMENT.
ALL CONCRETE SHALL BE CLASS "A".
CONFORMS FOR CONCRETE SURFACES EXPOSED IN THE FINISHED WORK SHALL BE CONSTRUCTED OF SHIPLAP OR TONGUE AND GROOVE LUMBER S3S UNLESS FACED WITH PANEL BOARD.
CONCRETE GIRDERS, FLOOR SLABS AND CURB SHALL BE POURED MONOLITHICALLY. FOOTINGS IN ROCK SHALL BE POURED OUT TO THE ROCK AND NOT FORMED.
ALL REINFORCING BARS SHALL BE DEFORMED AND TAGGED WITH THE STATION NUMBER AND LETTER DESIGNATION. MAIN BARS SHALL NOT BE SPLICED.
SOUNDINGS AND DEPTH OF FOOTINGS SHOWN ARE ACCORDING TO THE BEST AVAILABLE DATA. IF ESSENTIALLY DIFFERENT CONDITIONS ARE ENCOUNTERED THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REDESIGN IS NECESSARY.
ALL RIVETS TO BE 3/4" DIA. ALL RIVETS TO BE POWER DRIVEN.

LOADING DATA.
LIVE LOAD-A.A.S.H.O. 1941 CLASS A (W-16)
DEAD LOAD-ASSUMES 15 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE WHICH INCLUDES THE 1/2 INCH CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

DESIGNING DATA.
A.A.S.H.O. 1941
15,18000, 1/2, 0.33, 12, 12

COLORADO
STATE HIGHWAY DEPARTMENT
12'-0" x 2'-3"
CONCRETE BOX CULVERT

Across Fulton Branch Ditch
Sta. 211+00
Near Ft Lupton Sec. 18 T.1N. R.66W
Designed by A.D.N. Approved by R. Bailey
Made by W.P.M. Bridge Engineer
Checked by A.D.N. Date: Oct. 25, 1941.



NAILING DIRECTIONS

Rails to Posts: 2-40d nails per rail per post.
 Wheelguard Blocks to Floor Planks: 2-60d nails per block.
 Wheelguards to Wheelguard Blocks: 2-60d nails per wheelguard per block. Toe nail.
 Floor Planks to Stringers: 2-60d nails per plank per stringer.
 Stringers to Sill: 2-60d nails per stringer per sill.
 Bulkhead Plank to Stringers: 2-60d nails per plank per stringer.
 Bridging to Stringers: 4-20d nails per piece of bridging.
 Sill to Sill: 4-60d nails per sill per sill.

BOLTS AND WASHERS				
SUPERSTRUCTURE				
Description	Size	Wt. Ea.	Nº	Lbs.
Posts to Wheelguard	5/8"x14"	1.41	2	2.8
" " Stringers	5/8"x12"	1.24	4	5.0
C.I.O.G. Washers	5/8"	0.75	12	9.0
Total				17.0
ONE ABUTMENT				
Description	Size	Wt. Ea.	Nº	Lbs.
Posts to Wheelguard	5/8"x14"	1.41	2	2.8
" " Stringers	5/8"x12"	1.24	4	5.0
C.I.O.G. Washers	5/8"	0.75	12	9.0
Total				17.0

NAILS		
Location	Item	Wt.
Superstructure	20d Common	4 Lb.
	40d "	1 "
	60d "	46 "
One Abutment	40d "	1 Lb.
	60d "	8 Lb.

SUMMARY OF HARDWARE				
BOLTS & WASHERS				
1-Superstructure @ 17.0 Lb. =				17
2-Abutments @ 17.0 Lb. =				34
Total				51
NAILS				
Location	Unit	20d Com.	40d Com.	60d Com.
	Lb.	Ea.	Total	Total
1-Super	"	4	1	1
2-Abuts	"		1	2
Total	Lb.	4	3	62

SUMMARY OF QUANTITIES		
ITEM Nº 42a UNTREATED STRUCTURAL TIMBER		
1-Superstructure @ 1387		1387
2-Abutments @ 220 Ea		440
Total bd. ft.		1827
ITEM Nº 42a UNTREATED NATIVE TIMBER		
1-Superstructure @ 1784		1784
2-Abutments @ 394 Ea		788
Total bd. ft.		2572
ITEM Nº 11b Removal of Detour Bridge L.S.		

GENERAL NOTES

All work shall be done in accordance with the Standard Specifications of the Colorado State Highway Department adopted June 1, 1940.

Structural Timber shall be West Coast Douglas Fir or Dense Southern Yellow Pine.

Timber not called for as Structural Timber may be a good grade of Native Timber.

Floor Planks must be evenly spaced with 1/2" between planks.

The entire structure shall be securely nailed together as per nailing directions.

When structure is removed all nails and hardware shall be salvaged and placed in separate containers.

NOTICE
 MAXIMUM LOAD
 OVER THIS BRIDGE
 24,000 LBS.
 COLORADO STATE
 HIGHWAY DEPARTMENT

This notice, made of 1" boards is to be posted conspicuously on bridge at right hand side of each end.

LOADING DATA
 DL-TIMBER @ 3 1/4" bd. ft.
 LL-TYPE D-12: 24,000 Lb.
 NO IMPACT

3'-0" width, 2'-0" height, 10'-0" length, 6'-0" total length.

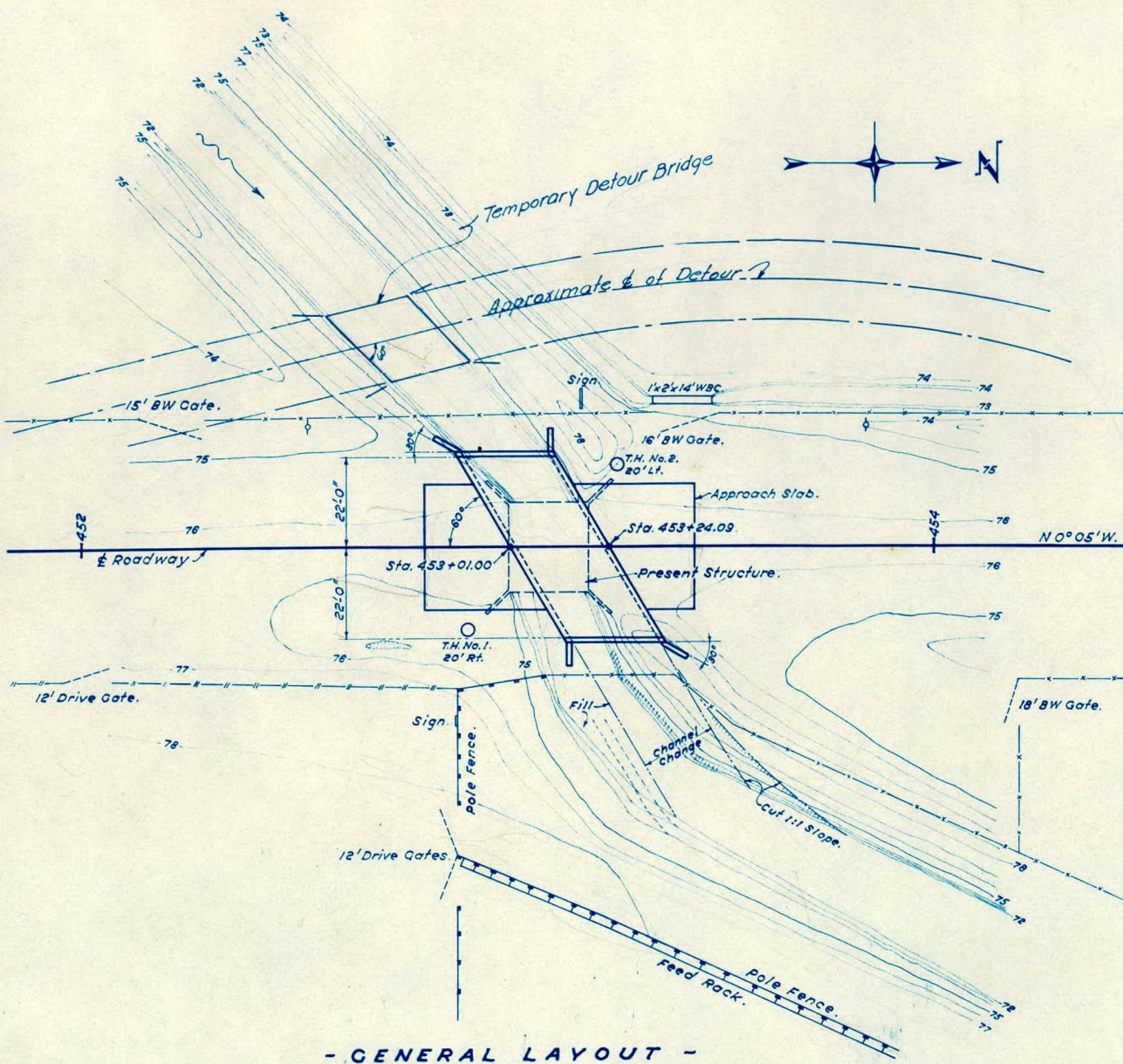
TYPICAL TRUCK

COLORADO
 STATE HIGHWAY DEPARTMENT
 STANDARD TEMPORARY
 DETOUR TREXLE
 1-SPAN @ 19'-0"

FOR USE DURING CONSTRUCTION OF BRIDGE
 Across Fulton Ditch
 Elated Sta 2111
 Near Ft. Collins, Sec. 16 T. 1N. R. 66W.

Design by P.D.A. Approved by G.D. Bailey
 Made by R.M. Bridge Eng.
 Checked by J.H.B. Date: Oct. 25, 1941.

FED. ROAD DIST. NO.	STATE	F. A. P.	SHEET NO.	TOTAL SHEETS
3	COLO.	226-A(2).	6	



BAR LIST FOR ABUT. NO. 1. (ABUT. NO. 2 SAME.)

Mark	Size	Nº	Req.	Length	Type	ℓ	m	r	t	Bending Diagrams.
B 1	1/2"	53	9'-2"	IV	5'-10"	1'-6"	2"	2"		
B 2	1/2"	14	10'-10"	IV	7'-6"	1'-6"	2"	2"		
B 3	1/2"	10	28'-3"	Str.						
B 4	1/2"	14	5'-6"	Str.						
F 1	3/8"	112	5'-0"	III	4'-2"		2 1/2"	2"		III
F 2	3/8"	4	5'-4"	III	4'-6"		2 1/2"	2"		
F 3	1/2"	16	20'-0"	Str.	Field bend.					
F 4	1/2"	2	28'-0"	Str.						
F 5	1/2"	2	29'-6"	Str.						
F 6	1/2"	2	32'-0"	Str.						
F 7	1/2"	2	33'-0"	Str.						

Summary (One Abut.)
 638-Lin. Ft. - 1/2" Bars @ 0.850 Lbs. per ft. = 542 Lbs.
 925 - " - 1/2" Bars @ 0.668 " " = 618 "
 581 - " - 3/8" Bars @ 1.043 " " = 606 "
 Plus 1% ± for overrun = 174 "
TOTAL = 1940 "

BAR LIST FOR SUPERSTRUCTURE.

Mark	Size	Nº	Req.	Length	Type	ℓ	r	t	Bending Diagrams.
A 1	1"	46	23'-11"	I	21'-3"	4"	3 1/2"		
A 2	1"	44	24'-11"	II		4"	3 1/2"		
A 3	1"	4	23'-11"	I	21'-3"	4"	3 1/2"		
A 4	3/8"	46	28'-0"	Str.					
A 5	3/8"	4	27'-3"	Str.					

Summary.
 109-Lin. Ft. - 1/2" Bars @ 0.668 Lbs. per ft. = 73 Lbs.
 1288 - " - 3/8" Bars @ 2.044 " " = 2633 "
 2197 - " - 1" Bars @ 2.670 " " = 5866 "
 96 - " - 1" Bars @ 3.400 " " = 326 "
 Plus 1% ± for overrun = 102 "
TOTAL = 9000 "

BAR LIST FOR ONE APPROACH SLAB.

Mark	Size	Nº	Req.	Length	Type	ℓ	Bending Diagram.
S 1	3/4"	1	each	11'-0"	Str.		
S 30	3/4"	1	each	27'-11"	Str.		
S 31	3/4"	1	each	10'-11"	Str.	6'-4"	
S 60	3/4"	1	each	27'-10"	Str.	by 7" to 23'-3"	
S 61	3/4"	11	each	29'-6"	Str.		
S 62	3/4"	1	each	1'-7"	Str.		
S 78	3/4"	1	each	29'-2"	Str.		

Summary (One Appr. Slab.)
 1165-Lin. Ft. - 3/4" Bars @ 1.502 Lbs. per ft. = 1750 Lbs.
 586 - " - 3/8" Bars @ 1.043 " " = 611 "
 Plus 1% ± for overrun = 24 "
TOTAL = 2385 "

SUMMARY OF QUANTITIES.

Item Nº	Description	Unit	Superst.	Abut. #1	Abut. #2	Appr. Slabs	Total
11c	Removal of Present Structure & Slab.	Lump Sum					
14b	Dry Common Structural Excavation.	Cu. Yd.		91	120		211
14d	Wet " " "	Cu. Yd.		40	50		90
14e	Mechanical Tamping.	Hour		22	22		44
37c	Sand Cushion	Cu. Yd.				4	4
42a	Untreated Bridge Timber	Mft. b.m.		0.065	0.065		0.13
46a	Class "A" Concrete.	Cu. Yd.	66	39	39	22	166
47	Reinforcing Steel.	Lb.	9000	1940	1940	2385	17650
13c	Unclassified Excavation	Cu. Yd.				14	14
*	Nº 12 Ga. Galv. Sheet Metal.	Lb.	241				241
*	1/2" Expansion Joint Material.	Sq. Ft.	94				94
*	1/4" " " "	Sq. Ft.		14	14		28

* Include in Bid Price of Class "A" Concrete.

Reference Drawing:
 Sheet No. 7 Details of Superstructure and Abutments.

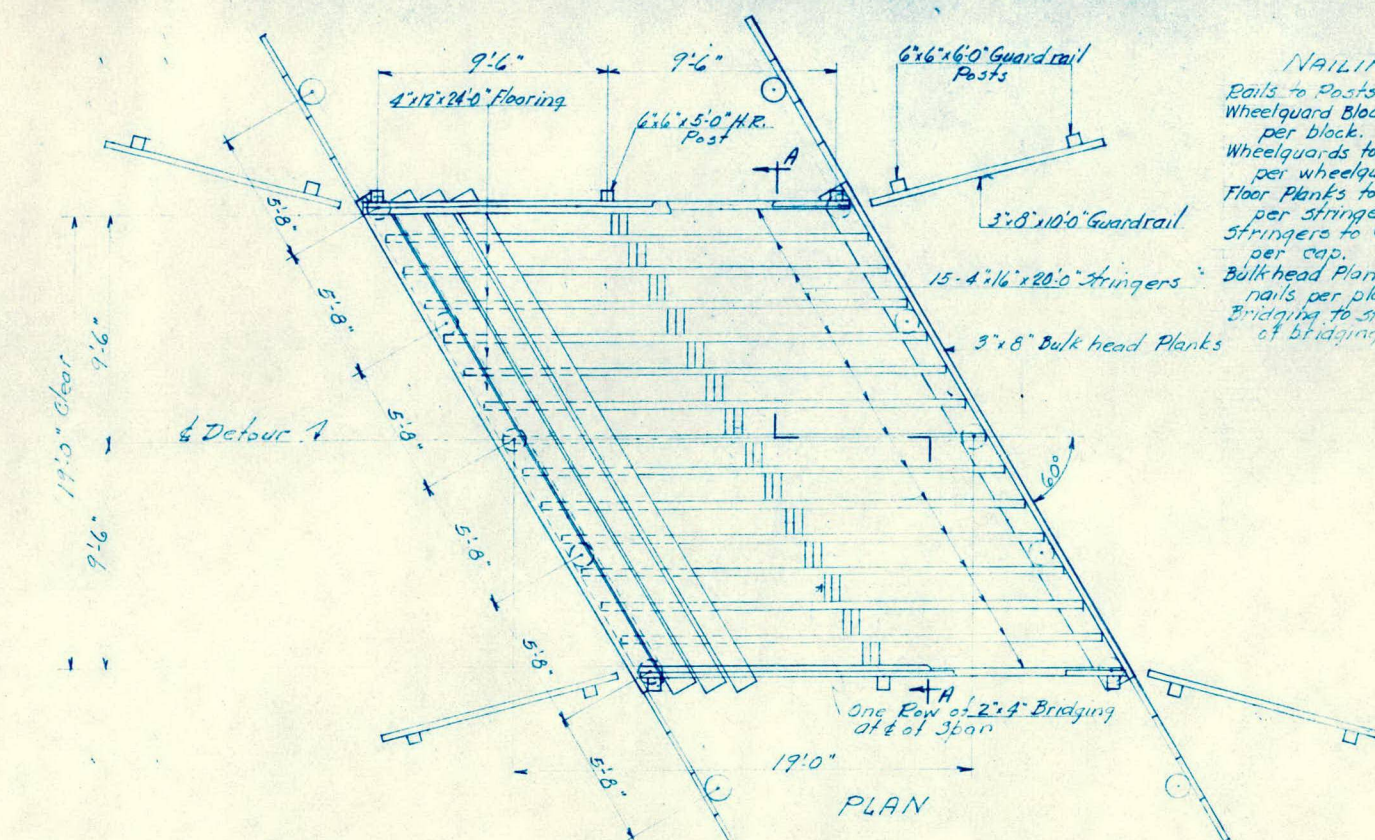
LOADING DATA.
 LIVE LOAD-A. A. S. H. O. 1941 CLASS A, (H-15)
 DEAD LOAD-ASSUMES 15 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE WHICH INCLUDES THE 1/2 INCH CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

DESIGNING DATA.
 A.A.S.H.O. 1941. -
 f'c = 18000 LBS./SQ. IN.
 f's = 833 " " "
 n = 12.

GENERAL NOTES
 ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE COLORADO STATE HIGHWAY DEPARTMENT.
 ALL CONCRETE SHALL BE CLASS "A."
 FORMS FOR CONCRETE SURFACES EXPOSED IN THE FINISHED WORK SHALL BE CONSTRUCTED OF SHIPLAP OR TONGUE AND GROOVE LUMBER S3S UNLESS FACED WITH PANEL BOARD.
 CONCRETE GIRDERS, FLOOR SLABS AND CURB SHALL BE POURED MONOLITHICALLY. FOOTINGS IN ROCK SHALL BE POURED OUT TO THE ROCK AND NOT FORMED.
 ALL REINFORCING BARS SHALL BE DEFORMED AND TAGGED WITH THE STATION NUMBER AND LETTER DESIGNATION. MAIN BARS SHALL NOT BE SPLICED.
 SOUNDINGS AND DEPTH OF FOOTINGS SHOWN ARE ACCORDING TO THE BEST AVAILABLE DATA. IF ESSENTIALLY DIFFERENT CONDITIONS ARE ENCOUNTERED THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REDESIGN IS NECESSARY.
 ALL RIVETS TO BE 3/4" DIA. ALL RIVETS TO BE POWER DRIVEN.

COLORADO STATE HIGHWAY DEPARTMENT
ONE 23'-1 1/2" CONCRETE SLAB SPAN.
GENERAL LAYOUT, BAR LISTS AND SUMMARY OF QUANTITIES.
 Across PLATTEVILLE DITCH.
 Sta. 453+01.00 to 453+24.09.
 Near IONE Sec. 18/20 T. 2 N. R. 68 W.
 Designed by A.D.N. Approved by J.A.V.
 Made by J.A.V. Bridge Engineer
 Checked by A.D.N. Date: Oct. 25, 1941.

FED. ROAD DIST. NO	STATE	F.A.P.	SHEET No	TOTAL SHEETS
3	COLO	226 A (2)	8	



NAILING DIRECTIONS

Rails to Posts: 2-40d nails per rail per post.
Wheelguard Blocks to Floor Planks: 2-60d nails per block.
Wheelguards to Wheelguard Blocks 2-60d nails per wheelguard per block. (78 nail
Floor Planks to Stringers: 2-60d nails per plank per stringer.
Stringers to Caps: 2-60d nails per stringer per cap.
Bulkhead Planks to Stringers or Piles: 20-60d nails per plank per stringer or pile.
Bridging to stringers: 4-20d nails per piece of bridging.

BOLTS AND WASHERS				
SUPERSTRUCTURE				
Description	Size	Wt Ea	Nº	Lbs
Posts to Wheelguard	5/8" 14"	1.41	2	2.8
" " Stringers	5/8" 12"	1.24	4	5.0
C.I.O.G. Washers	9/8"	0.75	12	9.0
Total				17.8
ONE ABUTMENT				
Description	Size	Wt Ea	Nº	Lbs
Posts to Wheelguards	5/8" 14"	1.41	2	2.8
" " Stringers	5/8" 12"	1.24	4	5.0
Cup to Pins (Joint Bolts)	7/8" 18"	1.00	5	5.0
C.I.O.G. Washers	9/8"	0.75	12	9.0
Total				22.8

NAILS		
Location	Item	Wt.
Superstructure	20d Common	4 LB
	40d "	1 "
	60d "	46 "
One Abutment	40d "	1 "
	60d "	13 "

SUMMARY OF HARDWARE							
BOLTS & WASHERS							
1. Superstructure	@	17.0	Lb =				17
2. Abutments	@	22.0	" =				44
Total			Lbs =				61

NAILS							
Location	Unit	20d Com.		40d Com.		60d Com.	
		Ea	Total	Ea	Total	Ea	Total
Leeper	"	4	4	1	1	46	46
2 Abuts	"			1	2	13	26
Total	"		4		3		72

SUMMARY OF QUANTITIES	
ITEM N ^o 42a UNTREATED STRUCTURAL TIMBER	
1- Superstructure @ 1600	= 1600 bd.ft.
2- Abutments @ 240 bd.ft. ea	= 480 "
Total	2080 bd.ft.
ITEM N ^o 42a UNTREATED NATIVE TIMBER	
1- Superstructure @ 1892 bd.ft.	= 1892 bd.ft.
2- Abutments @ 682 " " ea	= 1364 "
Total	= 3256 bd.ft.
ITEM N ^o 60b UNTREATED TIMBER PILING	
2- Abutments @ 112 Lin Ft. ea	= 224 Lin. Ft.
ITEM N ^o 11d Removal of Detour Bridge	L.S.

GENERAL NOTES

All work shall be done in accordance with the Standard Specifications of the Colo. State Highway Dept. Adopted June 1, 1940.
Structural Timber shall be West Coast Douglas Fir, or Dense Southern Yellow Pine. Timber not listed as structural may be a good grade of Native Timber.
Piling shall be West Coast Douglas Fir, Dense Southern Yellow Pine, Oak, Southern Cypress or Rocky Mountain Douglas Fir.
Floor planks must be evenly spaced with $\frac{1}{2}$ " between planks.
The entire structure shall be securely nailed together as per nailing directions.
When structure is removed all nails & hardware shall be salvaged and placed in separate containers. All lumber and piles shall be salvaged and piled as directed by the engineer.
All piling must be pulled and not cut or broken off.

SUPERSTRUCTURE			
UNTREATED STRUCTURAL TIMBER			
Description	Size	Nº	Bd Ft
Stringers	4"x16"x20'0"	15	1600
Total			1600
UNTREATED NATIVE TIMBER			
Description	Size	Nº	Bd. Ft
Handrails	3"x8"x10'0"	2	80
" Posts	6"x6"x15'0"	2	30
Wheelguards	6"x6"x20'0"	2	120
" Blocking	4"x6"x1'0"	2	4
Floor Plank	4"x12"x24'0"	17	1632
Bridging	2"x4"x12'0"	4	32
Total			1898

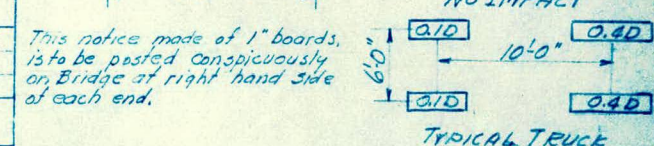
ONE ABUTMENT			
UNTREATED STRUCTURAL TIMBER			
Description	Size	Nº	Ed. Ft.
Cap	10"x12"x24'-0"	1	240
Total			240
UNTREATED NATIVE TIMBER			
Description	Size	Nº	Ed. Ft.
Handrail Posts	6"x6"x5'-0"	2	30
Guardrail "	6"x6"x6'-0"	4	72
"	3"x8"x10'-0"	4	80
Wheelguard Blocks	4"x6"x1'-0"	2	4
Bulkhead Planks	3"x8"x14'-0"	2	56
"	3"x8"x16'-0"	2	64
"	3"x8"x18'-0"	6	216
"	3"x8"x20'-0"	4	160
Total			682

UNTREATED TIMBER PILING	082
7-Pieces @ 16'-0" Ea.	112 Lin. Ft.

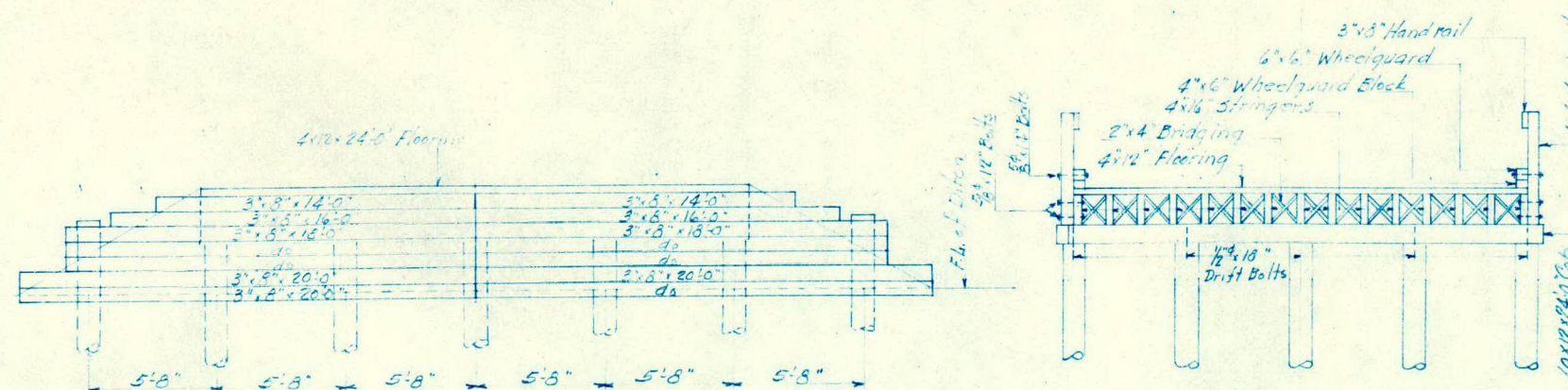
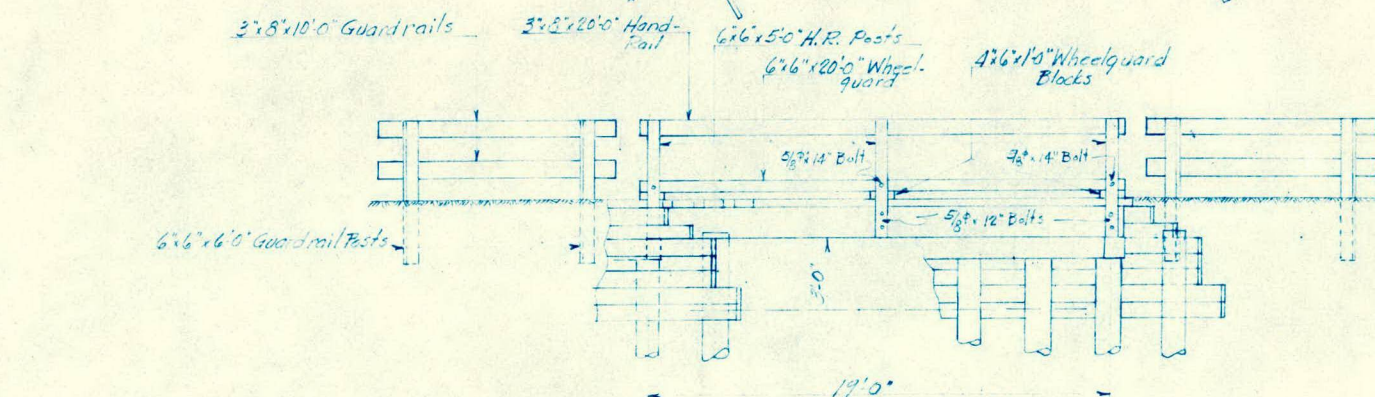
2'0"

NOTICE
MAXIMUM LOAD
OVER THIS BRIDGE
24000 LBS.
COLORADO STATE
HIGHWAY DEPARTMENT

LOADING DATA
DL: TIMBER @ 3 1/2" / bd. ft.
LL: TYPE D-12: 2400066
NO IMPACT



TYPICAL TRUCK



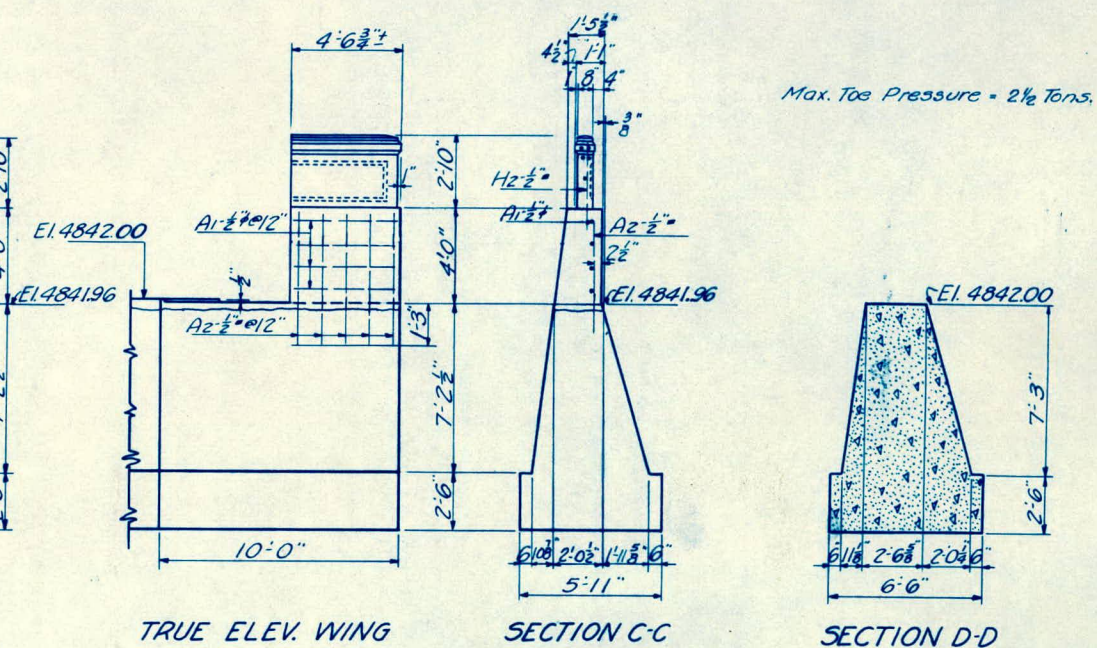
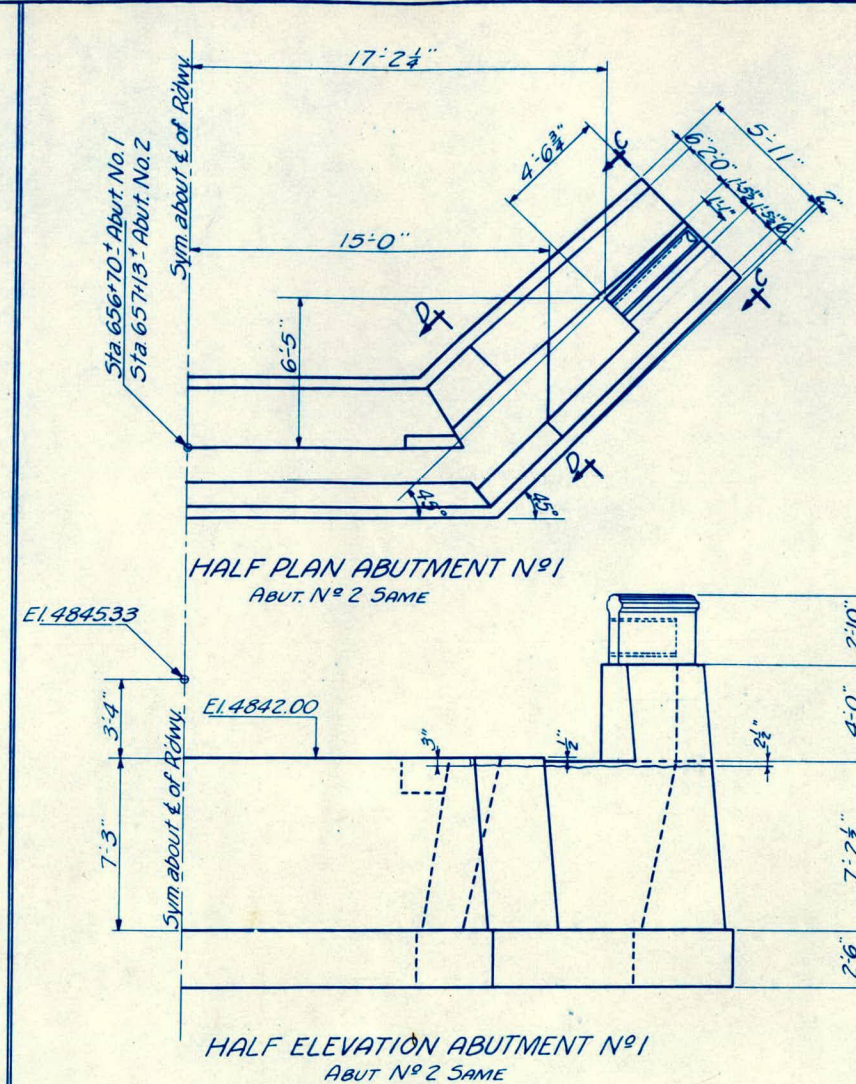
SECTION A-A

END VIEW

Showing Bulkhead Planks & Pile Spacing Only

COLORADO
STATE HIGHWAY DEPARTMENT
STANDARD TEMPORARY
DETOUR TRESTLE
1-3 PAN @ 14'-0"
FOR USE DURING CONSTRUCTION OF BRIDGES
Across Platteville Ditch
Lt. of Sta. 453+
Near Town Sec. 24E T4N. R66W

Design by BOWEN	Approved by <i>C. E. Bailey</i>
Made by RDN	Bridge Engineer
Checked by	Int. Oct. 25, 1941.



DETAILS OF ABUTMENTS AS REMODELED

REINFORCEMENT BAR LIST FOR ABUTMENT No. 1 (ABUTMENT No. 2 SAME)										LMR.												
MARK	SIZE	NO. REQ'D.	LENGTH	TYPE	ℓ	m	r	t	BENDING DIAGRAM													
H1	1/2" #	10	4'-0"	Straight					TYPE I													
H2	1/2" #	6	8'-0"	I 2'-10"																		
A1	1/2" #	8	4'-2"	Straight																		
A2	1/2" #	10	5'-0"	Straight																		
SUMMARY <table><tr><td>74 Lin. Ft. 1/2" # @ 0.668 #</td><td>50 Lbs.</td></tr><tr><td>98 Lin. Ft. 1/2" # @ 0.850</td><td>83 "</td></tr><tr><td>Plus 1% ± Overrun</td><td>7 "</td></tr><tr><td>Total For one Abutment</td><td>140 Lbs.</td></tr></table>										74 Lin. Ft. 1/2" # @ 0.668 #	50 Lbs.	98 Lin. Ft. 1/2" # @ 0.850	83 "	Plus 1% ± Overrun	7 "	Total For one Abutment	140 Lbs.					
74 Lin. Ft. 1/2" # @ 0.668 #	50 Lbs.																					
98 Lin. Ft. 1/2" # @ 0.850	83 "																					
Plus 1% ± Overrun	7 "																					
Total For one Abutment	140 Lbs.																					
REINFORCEMENT BAR LIST SOUTH APPROACH SLAB (NORTH SLAB SAME)																						
MARK	SIZE	NO. REQ'D.	LENGTH	TYPE	ℓ	m	r	t	BENDING DIAGRAM	LMR.												
B1	3/4" #	2	16'-4"	VI 11'-9"					TYPE VI													
B2	3/4" #	2	17'-4"	VI 12'-9"																		
B3	3/4" #	2	18'-4"	VI 13'-9"																		
B4	3/4" #	6	19'-8"	VI 15'-1"																		
B5	3/4" #	2	16'-8"	Straight																		
B6	3/4" #	2	17'-8"	Straight																		
B7	3/4" #	2	18'-8"	Straight																		
B8	3/4" #	6	19'-6"	Straight																		
B9	5/8" #	34	5'-8"	Straight																		
B10	5/8" #	2	4'-8"	Straight																		
B11	5/8" #	2	3'-8"	Straight																		
B12	5/8" #	2	2'-8"	Straight																		
B13	1/2" #	10	4'-7"	VII																		
B14	1/2" #	10	2'-3"	Straight																		
SUMMARY <table><tr><td>445 Lin. Ft. 3/4" # @ 1.502 #</td><td>668 Lb.</td></tr><tr><td>215 Lin. Ft. 5/8" # @ 1.043 #</td><td>224 "</td></tr><tr><td>46 Lin. Ft. 1/2" # @ 0.850 #</td><td>39 "</td></tr><tr><td>23 Lin. Ft. 1/2" # @ 0.668 #</td><td>15 "</td></tr><tr><td>Plus 1% ± Overrun</td><td>14 "</td></tr><tr><td>Total For one Approach Slab</td><td>960 Lbs.</td></tr></table>										445 Lin. Ft. 3/4" # @ 1.502 #	668 Lb.	215 Lin. Ft. 5/8" # @ 1.043 #	224 "	46 Lin. Ft. 1/2" # @ 0.850 #	39 "	23 Lin. Ft. 1/2" # @ 0.668 #	15 "	Plus 1% ± Overrun	14 "	Total For one Approach Slab	960 Lbs.	
445 Lin. Ft. 3/4" # @ 1.502 #	668 Lb.																					
215 Lin. Ft. 5/8" # @ 1.043 #	224 "																					
46 Lin. Ft. 1/2" # @ 0.850 #	39 "																					
23 Lin. Ft. 1/2" # @ 0.668 #	15 "																					
Plus 1% ± Overrun	14 "																					
Total For one Approach Slab	960 Lbs.																					
TYPE VII TYPE VII																						

ITEM NO.	DESCRIPTION	UNIT	SUPER-STRUCTURE	ABUT. NO.1	ABUT. NO.2	APPRO. SLABS		TOTAL
						NORTH	SOUTH	
11e	Rem. of Parts of Pres. Structure	L.S.						•
14b	Dry Comm. Excav. (Str.)	Cu. Yd.		6	6			12
14e	Mechanical Tamping	Hr.		2	2			4
37c	Sand Cushion	Cu. Yd.				15	15	3
42a	Untreated Bridge Timber	M.Fk. b.m.						
46a	Class "A" Concrete	Cu. Yd.	59	3	3	9	9	83
46r	Class "A" Concrete (Handrail)	Cu. Yd.	45	0.6	0.6			5.7
47	Reinforcing Steel	Lb.	12,440	140	140	960	960	14,640
89a	Drain Pipe (Concr. Floor) 3" x 3'-0"	Ea.	4					4
13c	Unclassified Excavation	Cu. Yd.				10	10	20
*	3/4" Expansion Joint Material	Sq. Ft.	75					75
*	12 Ga. Sheet Metal	Lb.	250					250

GENERAL NOTES

All work shall be done according to the Standard Specifications of the Colorado State Highway Department.

All Concrete shall be Class "A".

Forms For Concrete surfaces exposed in the finished work shall be constructed of shiplap or tongue and groove lumber S3S unless faced with panel board.

Concrete girders, floor slabs and curb shall be poured monolithically.

Footings in rock shall be poured out to the rock and not formed.

All reinforcing bars shall be deformed and tagged with the station number and letter designation. Main bars shall not be spliced.

Soundings and depth of Footings shown are according to the best available data. If essentially different conditions are encountered the bridge Engineer will inspect and determine if re-design is necessary.

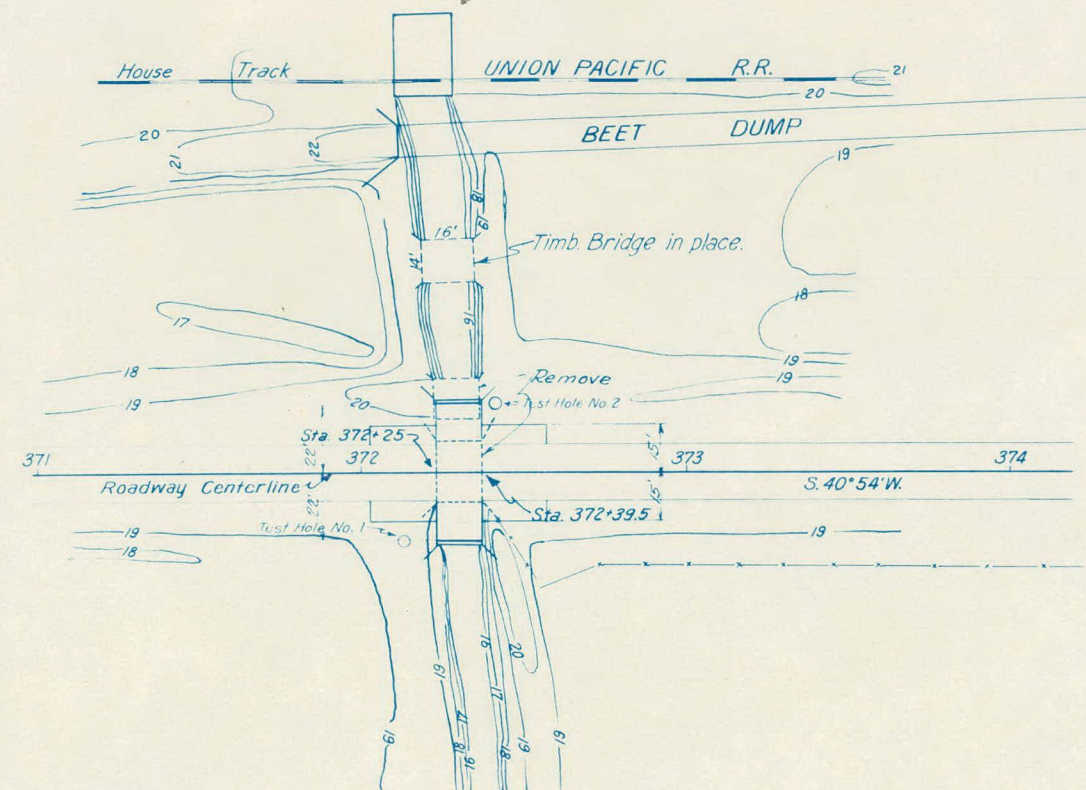
LOADING DATA
LIVE LOAD-A.A.S.H.O. 1941-CLASS A-(H-15)
DEAD LOAD-ASSUMES 15 LBS. PER SQ. FT.
ADDITIONAL WEARING SURFACE, WHICH
INCLUDES THE 1/2 INCH CONCRETE MONO-
LITHIC WEARING SURFACE SHOWN.

DESIGNING DATA
 $f_s = 18,000\#$
 $f_c = 833\#$
 $n = 12$

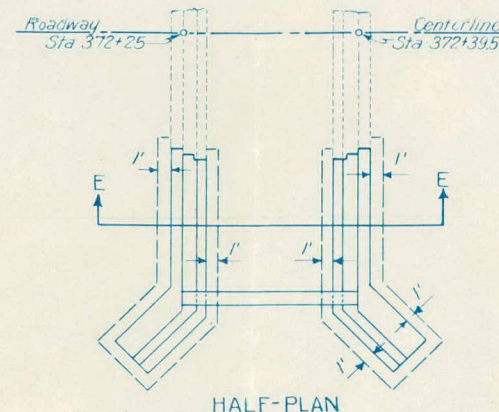
COLORADO
STATE HIGHWAY DEPARTMENT
*DETAILS FOR WIDENING ABUT-
MENTS 5'-0" EACH SIDE, BAR
LISTS, SUMMARY OF QUANTITIES,
& GENERAL NOTES*
Across Platte Valley Canal
Sta. 656+70.3 to Sta. 657+13.3
Near El Siquez Sec. 6 T.2N. R.66W

Designed by <u>ADN.</u>	Approved by <u>C. L. Bailey</u>
Made by <u>DDW.</u>	Bridge Engineer
Checked by <u>ADN.</u>	Date: <u>Oct. 25, 1941.</u>

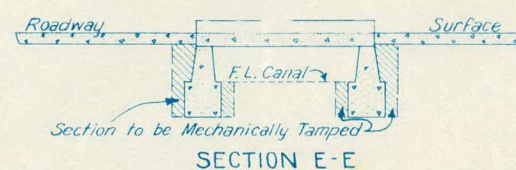
FED. ROAD DIST. NO.	STATE	F.A.P.	SHEET NO.	TOTAL SHEETS
3	COLO.	226-C (4)	11	



GENERAL PLAN



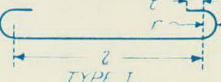
HALF-PLAN



MECHANICALLY TAMPED BACKFILL

Contractor's attention is called to Specifications covering Mechanical Tamping. Especial care shall be taken to prevent deflection of the wing walls by wedging action.

REINFORCEMENT BAR LIST FOR SUPERSTRUCTURE

MARK	SIZE	No. REQ'D	LENGTH	TYPE	ℓ	m	n	p	s	r	t	BENDING DIAGRAM
A1	7/8" φ	26	14'-9"	I	12'-5"					3 1/2"	3"	
A2	7/8" φ	22	15'-5"	II						3 1/2"	3"	
A3	1/2" ■	38	13'-0"	Straight								

REINFORCEMENT BAR LIST FOR APPROACH SLABS

REINFORCEMENT BAR LIST FOR APPROACH SLABS												TYPE	
MARK	SIZE	No. REQ'D	LENGTH	TYPE	ℓ	m	n	p	s	r	t	BENDING DIAGRAM	
S ₁	3/4" φ	24	19'-6"	Straight									
S ₂	3/4" φ	24	19'-8"	V									
S ₃	5/8" φ	80	5'-6"	Straight									
SUMMARY													
440 Lin. Ft. 5/8" φ Bars @ 1.043#										459 Lb.			
940 " " 3/4" φ " @ 1.502#										1412 "			
										1871 Lb.			
										Plus 1% ± Over. 19 "			
										TOTAL 1890 Lbs.			

SUMMARY OF QUANTITIES

ITEM No.	ITEM	UNIT	SUPERSTR.	ABUT. NO. 1	ABUT. NO. 2	APPR. NORTH	SLAB SOUTH	TOTAL
11f	Rem. Parts Pres. Str.	L. Sum						
11g	Rem. Pres. Detour Br.	L. Sum						
14b	Dry Comm. Exc. (Str.)	Cu. Yd.		21	21			42
14d	Wet " " (Str.)	" "		26	26			52
14e	Mechanical Tamping	Hr.		8	8			16
37c	Sand Cushion	Cu. Yd.				1.5	1.5	3
42a	Untreated Br. Timber	Mft. b.m.		0.091	0.091			0.182
46a	Class "A" Concrete	Cu. Yd.	16	23	23	9	9	80
47	Reinf. Steel	Lb.	1920	200	200	945	945	4210
13c	Unclassified Excavation	Cu. Yd.				14	14	28
* 1/2" Expn. Joint Mat'l.	Sq. Ft.			27	27			54
* 12 Ga. Galv. Sheet Metal	Lbs.		143					143

* Include in Bid Price of Class "A" Concrete.

REFERENCE DRAWINGS
For Details of Abutments, Superstructure
& Approach Slabs See sheet N^o 12

BAR LIST FOR ONE ABUTMENT

MARK	SIZE	No.	Length	BENDING DIAGRAM
B1	3/4" φ	12	8'-0"	
B2	1/2" φ	36	3'-6"	
BAR SUMMARY				
48 Lin. Ft. 3/4" φ @ 2.044 Lb/Ft. = 98 Lbs.				
126 " " 1/2" φ @ 0.668 " " = 84 "				
17% ± Overrun = 18 "				
				200 "

LOADING DATA.
LIVE LOAD A.A.S.H.O. 1941 CLASS A H-15.
DEAD LOAD ASSUMES 15 LBS. PER SQ. FT. ADDITION-
AL WEARING SURFACE WHICH INCLUDES THE 1/2 INCH
CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

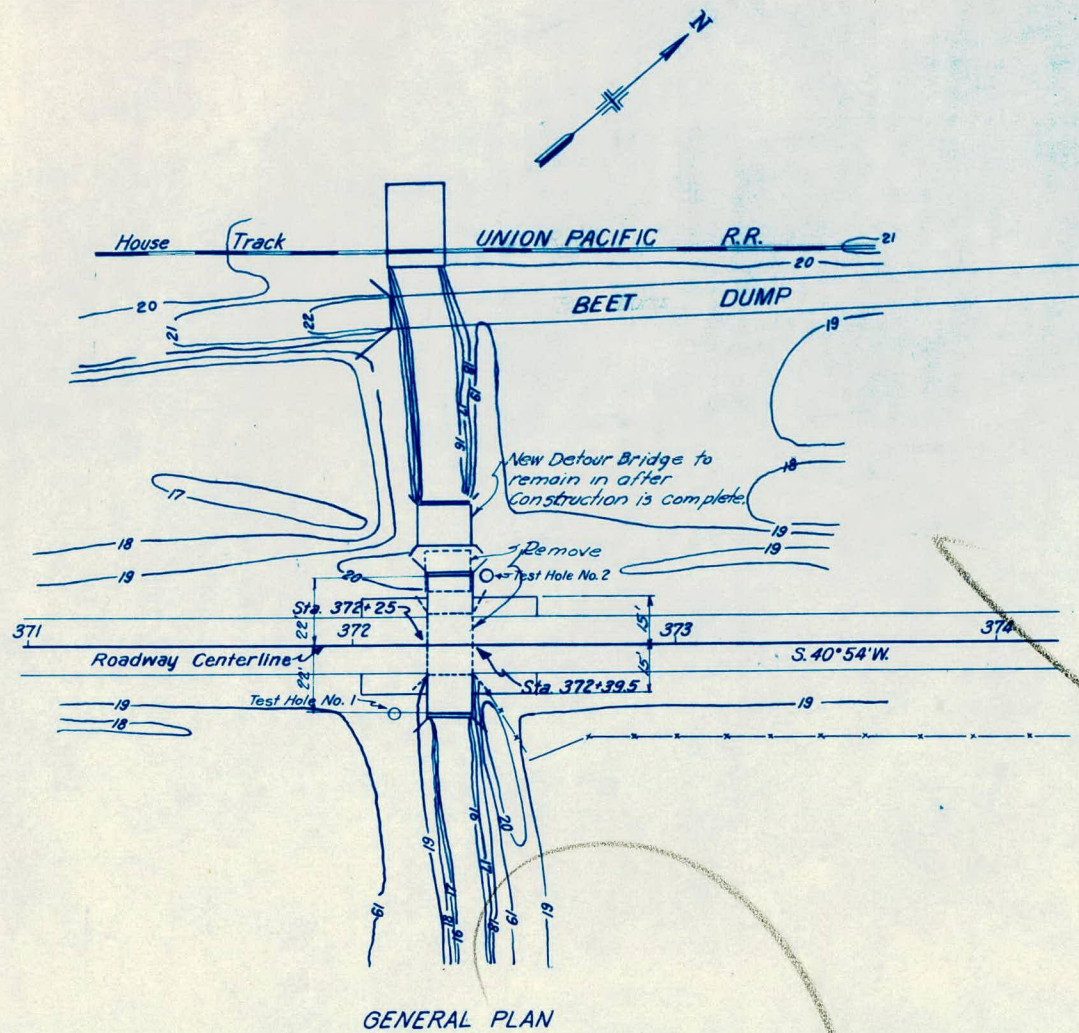
DESIGNING DATA.
Fs 18,000#/in.sq
Fc 833 "
n 12

GENERAL NOTES

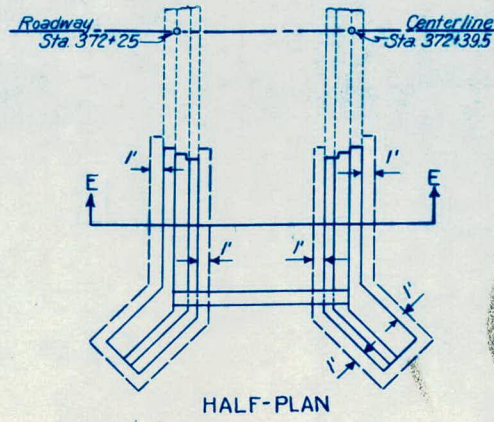
ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE COLORADO STATE HIGHWAY DEPARTMENT.
ALL CONCRETE SHALL BE CLASS "A".
FORMS FOR CONCRETE SURFACES EXPOSED IN THE FINISHED WORK SHALL BE CONSTRUCTED OF SHIPLAP OR TONGUE AND GROOVE LUMBER S3S UNLESS FACED WITH PANEL BOARD.
CONCRETE CORDERS, FLOOR SLABS AND CURB SHALL BE POURED MONOLITHICALLY.
FOOTINGS IN ROCK SHALL BE POURED OUT TO THE ROCK AND NOT FORMED.
ALL REINFORCING BARS SHALL BE DEFORMED AND TAGGED WITH THE STATION NUMBER AND LETTER DESIGNATION. MAIN BARS SHALL NOT BE SPLICED.
SOUNDINGS AND DEPTH OF FOOTINGS SHOWN ARE ACCORDING TO THE BEST AVAILABLE DATA. IF ESSENTIALLY DIFFERENT CONDITIONS ARE ENCOUNTERED THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REVISION IS NECESSARY.

COLORADO

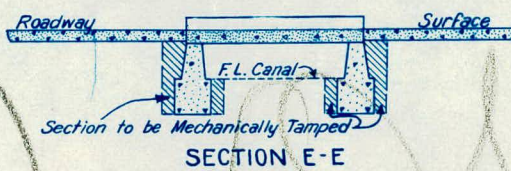
STATE HIGHWAY DEPARTMENT
WIDENING OF 1-12 FT. CLEAR
SPAN ON GRAVITY ABUTMENTS.
GENERAL LAYOUT, BAR LISTS,
SUMMARY OF QUANTITIES, &
GENERAL NOTES
Across WESTERN MUTUAL DITCH
Sta. 372+25 TO 372+39.5
Near PECKHAM Sps. 23 T.M. R.C.H.
Designed by A.D.N. Approved by G.D. Bailey
Made by I.M.R. Bridge Engineer
Checked by A.D.N. Date: Oct 25th, 1941.



GENERAL PLAN



HALF-PLAN



MECHANICALLY TAMPED BACKFILL

Contractor's attention is called to Specifications covering Mechanical Tamping. Especial care shall be taken to prevent deflection of the wing walls by wedging action.

REINFORCEMENT BAR LIST FOR SUPERSTRUCTURE													BENDING DIAGRAM	
MARK	SIZE	No. REQ'D	LENGTH	TYPE	l	m	n	p	s	r	t			
A1	7/8" ϕ	26	14'-9"	I	12'-5"					3 1/2"	3"			
A2	7/8" ϕ	22	15'-5"	II						3 1/2"	3"			
A3	1/2" "	38	13'-0"	Straight										

REINFORCEMENT BAR LIST FOR APPROACH SLABS													v I.M.B.	
MARK	SIZE	No. Req'd	LENGTH	TYPE	l	m	n	p	s	r	t	BENDING DIAGRAM		
S1	3/4" ϕ	24	19'-6"	Straight										
S2	3/4" ϕ	24	19'-8"	V										
S3	5/8" ϕ	80	5'-6"	Straight										
SUMMARY														
440 Lin. Ft. 5/8" ϕ Bars @ 1.043*													459 Lb.	
940 " " 3/4" ϕ " @ 1.502*													1412 "	
													1877 Lb.	
Plus 1% $\pm$ Over.													19 "	
TOTAL													1890 Lbs.	

ITEM No.	ITEM	UNIT	SUPERSTR.	ABUT. NO. 1	ABUT. NO. 2	APPR. SLAB NORTH	APPR. SLAB SOUTH	TOTAL
11f	Rem. Parts Pres. Str.	L. Sum						
11g	Rem. Pres. Detour Br.	L. Sum						
14b	Dry Comm. Exc. (Str.)	Cu. Yd.		21	21			42
14d	Wet " (Str.)	"		26	26			52
14e	Mechanical Tamping	"		8	8			16
37c	Sand Cushion	Hr.				1.5	1.5	3
42a	Untreated Br. Timber	M.Ft. bm.		0.091	0.091			0.182
46a	Class "A" Concrete	Cu. Yd.	16	23	23	9	9	80
47	Reinf. Steel	Lb.	1920	200	200	945	945	4210
13c	Unclassified Excavation	Cu. Yd.				14	14	28
* 1/2" Exp'n. Joint Mat'l.		Sq. Ft.		27	27			54
* 12 Ga. Galv. Sheet Metal		Lbs.	143					143

* Include in Bid Price of Class "A" Concrete

REFERENCE DRAWINGS
For Details of Abutments, Superstructure
& Approach Slabs See Sheet No. 12

GENERAL NOTES
ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE COLORADO STATE HIGHWAY DEPARTMENT.
ALL CONCRETE SHALL BE CLASS "A".
FORMS FOR CONCRETE SURFACES EXPOSED IN THE FINISHED WORK SHALL BE CONSTRUCTED OF SHIPLAP OR TONGUE AND GROOVE LUMBER S3S UNLESS FACED WITH PANEL BOARD.
CONCRETE GIRDERS, FLOOR SLABS AND CURB SHALL BE POURED MONOLITHICALLY. FOOTINGS IN ROCK SHALL BE POURED OUT TO THE ROCK AND NOT FORMED.
ALL REINFORCING BARS SHALL BE DEFORMED AND TAGGED WITH THE STATION NUMBER AND LETTER DESIGNATION. MAIN BARS SHALL NOT BE SPLICED.
SOUNDINGS AND DEPTH OF FOOTINGS SHOWN ARE ACCORDING TO THE BEST AVAILABLE DATA. IF ESSENTIALLY DIFFERENT CONDITIONS ARE ENCOUNTERED THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REDESIGN IS NECESSARY.

BAR LIST FOR ONE ABUTMENT					APR.
MARK	SIZE	No	Length	Bending Diagram	
B ₁	7/8"	12	8'-0"		
B ₂	1/2"	36	3'-6"	Straight	

BAR SUMMARY 48-Lin. Ft. 7/8" @ 2.044 Lb/ft. = 98 Lbs. 126" " 1/2" @ 0.668 " = 84 " + 1% ± Over run = 18 " 200 "		LOADING LIVE LOAD=A.
--	--	--------------------------------

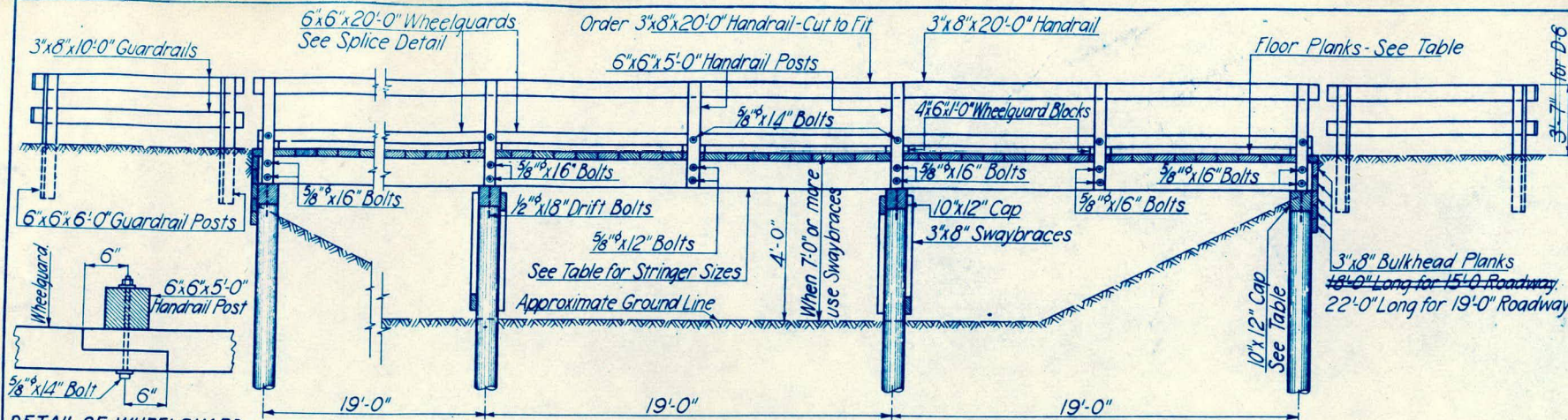
LOADING DATA.
LIVE LOAD-A. A. S. H. O. 1941 CLASS A. (H-15)
DEAD LOAD-ASSUMES 15 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE WHICH INCLUDES THE 1/2 INCH CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

DESIGNING DATA.
Fs 18,000#/in. sq.
Fc 833 "
n 12

COLORADO
STATE HIGHWAY DEPARTMENT
WIDENING OF 1-12 FT. CLEAR
SPAN ON GRAVITY ABUTMENTS.
GENERAL LAYOUT, BAR LISTS,
SUMMARY OF QUANTITIES, &
GENERAL NOTES
Across **WESTERN MUTUAL DITCH**
Sta. **372+25 TO 372+395**
Near **PECKHAM** Sec. 23 T. 4N. R. 66W.
Designed by **A.D.N.** Approved by **Ed. Bailey**
Made by **I.M.R.** Bridge Engineer
Checked by **A.D.N.** Date: **Oct. 25, 1941.**

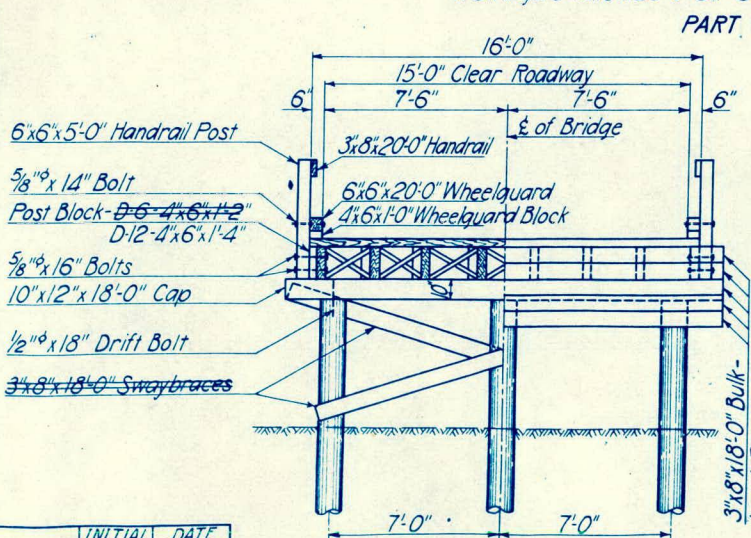
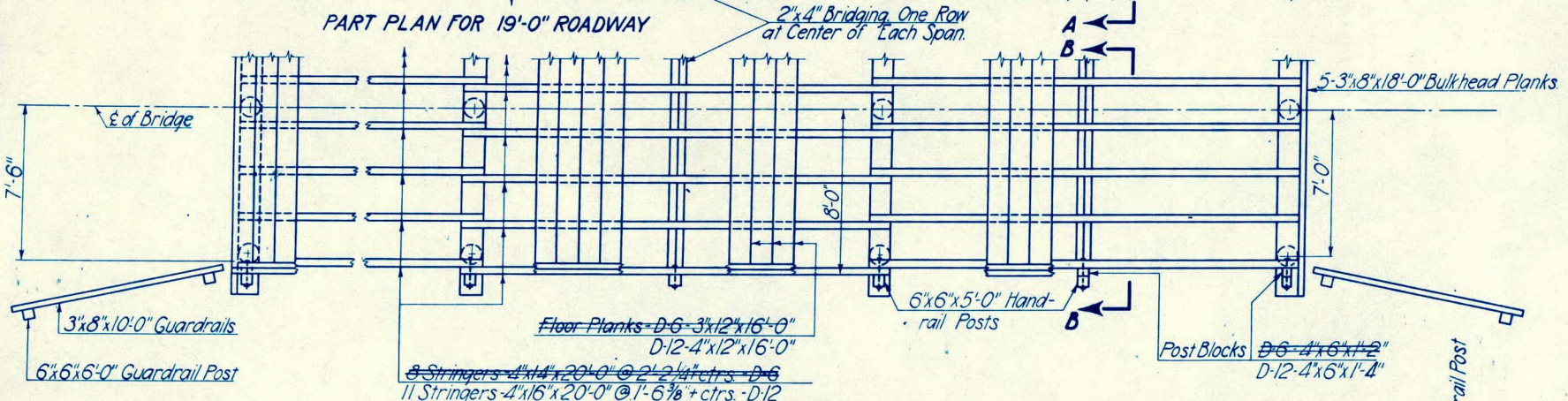
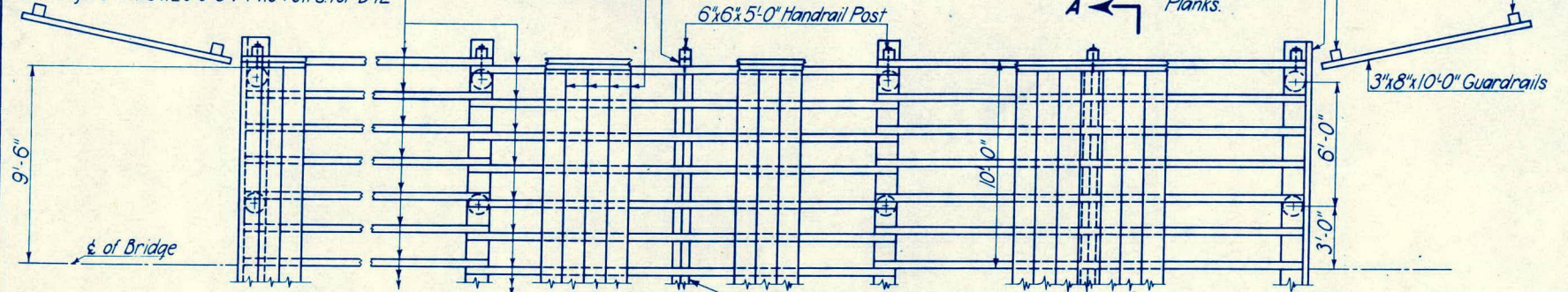
FED. ROAD DIST. NO.	STATE	F.A.P.	SHEET NO.	TOTAL SHEETS
3	COLO.	226 C (4)	13	

P-100-C

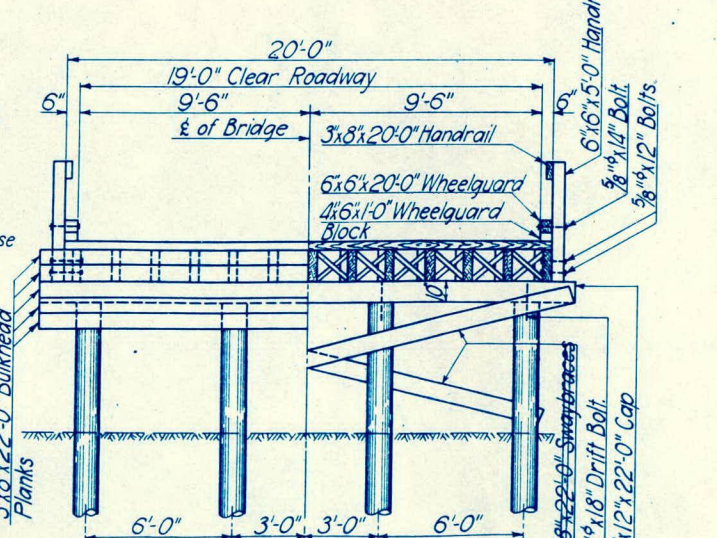
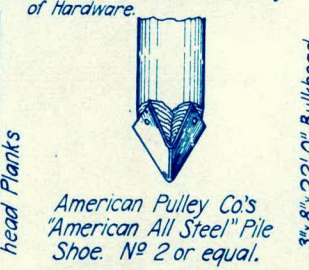


DETAIL OF WHEELGUARD SPLICE (AT BENTS)

10 Stringers-4"x14"x20'-0" @ 2'-1 1/2' ctrs for D-6
13 Stringers-4"x16"x20'-0" @ 1'-7 7/8' ctrs for D-12



DETAILS OF PILE SHOE



NAILING DIRECTIONS

Rails to Posts: 2-40d nails per rail per post.
Wheelguard Blocks to Floor Planks: 2-60d nails per block.
Wheelguards to Wheelguard Blocks: 2-60d nails per wheelguard per block. Toe nail.
Floor Planks to Stringers: 2-60d nails per plank per stringer.
Stringers to Cap: 2-60d nails per stringer per cap.
Bulkhead Planks to Stringers or Piles: 2-60d nails per plank per stringer or per pile.
Swaybraces to Caps or Piles: 2-60d nails per brace per cap or per pile.
Bridging to Stringers: 4-20d nails per piece of bridging.

FOR ONE SPAN OF SUPERSTRUCTURE

DESCRIPTION	SIZE	WEIGHT EACH	15'-0" ROADWAY No.	15'-0" ROADWAY LBS.	19'-0" ROADWAY No.	19'-0" ROADWAY LBS.
BOLTS-Post to Wheelguard	5/8"x14"	1.41	2	2.8	2	2.8
BOLTS-Post to Stringer	5/8"x12"	1.24	2	2.5	2	2.5
BOLTS-Post to Block to Stringer	5/8"x16"	1.57	2	3.1	2	3.1
C.O.G. WASHERS	5/8"	0.75	12	9.0	12	9.0
TOTAL WEIGHT				18 Lbs		18 Lbs

FOR ONE ABUTMENT

BOLTS-Post to Wheelguard	5/8"x14"	1.41	2	2.8	2	2.8
BOLTS-Post to Stringer	5/8"x12"	1.24	2	2.5	2	2.5
BOLTS-Post to Block to Stringer	5/8"x16"	1.57	2	3.1	2	3.1
C.O.G. WASHERS	5/8"	0.75	12	9.0	12	9.0
DRIFT BOLTS-Cap to Piles	1/2"x18"	1.00	3	3.0	4	4.0
TOTAL WEIGHT				22 Lbs		22 Lbs

FOR ONE BENT

BOLTS-Post to Wheelguard	5/8"x14"	1.41	2	2.8	2	2.8
BOLTS-Post to Stringer to Stringer	5/8"x16"	1.57	4	6.2	4	6.2
C.O.G. WASHERS	5/8"	0.75	12	9.0	12	9.0
DRIFT BOLTS-Cap to Piles	1/2"x18"	1.00	3	3.0	4	4.0
TOTAL WEIGHT				22 Lbs		22 Lbs

NAILS

LOCATION	ITEM	15'-0" ROADWAY TYPE D-6	15'-0" ROADWAY TYPE D-12	19'-0" ROADWAY TYPE D-6	19'-0" ROADWAY TYPE D-12
ONE SPAN OF SUPERSTRUCTURE	20d Common	2 Lbs	3 Lbs	3 Lbs	4 Lbs
	40d Common	1 Lb	1 Lb	1 Lb	1 Lb
	60d Common	29 Lbs	39 Lbs	36 Lbs	46 Lbs
ONE ABUTMENT	40d Common	1 Lb	1 Lb	1 Lb	1 Lb
	60d Common	7 Lbs	9 Lbs	9 Lbs	10 Lbs
ONE BENT WITHOUT SWAYBRACES	40d Common	1 Lb	1 Lb	1 Lb	1 Lb
	60d Common	4 Lbs	6 Lbs	5 Lbs	6 Lbs
ONE BENT WITH SWAYBRACES	40d Common	1 Lb	1 Lb	1 Lb	1 Lb
	60d Common	6 Lbs	7 Lbs	7 Lbs	8 Lbs

SUMMARY OF HARDWARE

1- SPANS	AT 18 LBS. PER SPAN	= 18 LBS.
2- ABUTMENTS	AT 22 LBS. PER ABUTMENT	= 44 LBS.
BENTS	AT 22 LBS. PER BENT	= 44 LBS.
TOTAL WEIGHT		62 LBS.

SUMMARY OF QUANTITIES

ITEM No. 42a-UNTREATED STRUCTURAL TIMBER	AT 1387 BD. FT. EACH	= 1387 BD. FT.
2- ABUTMENTS	AT 220 BD. FT. EACH	= 440 BD. FT.
BENTS	AT 1827 BD. FT. EACH	= 1827 BD. FT.
TOTAL		3654 BD. FT.

ITEM No. 42a-UNTREATED NATIVE TIMBER

1- SPANS	AT 1787 BD. FT. EACH	= 1787 BD. FT.
2- ABUTMENTS	AT 406 BD. FT. EACH	= 812 BD. FT.
BENTS	AT 812 BD. FT. EACH	= 1624 BD. FT.
TOTAL		3223 BD. FT.

ITEM No. 60b-UNTREATED TIMBER PILING

2- ABUTMENTS	AT 72 LIN. FT. EACH	= 144 LIN. FT.
BENTS	AT 144 LIN. FT. EACH	= 288 LIN. FT.
TOTAL		432 LIN. FT.

ITEM No. 60c-METAL PILE SHOES

SHOES	AT 13 1/2 LBS. EACH	= 13 1/2 LBS.
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GENERAL NOTES

All work shall be done in accordance with the Standard Specifications of the Colorado State Highway Department adopted June 1, 1940.
Caps and Stringers shall be West Coast Douglas Fir or Dense Southern Yellow Pine.
Handrails, handrail posts, post blocking, wheelguards, wheelguard blocking, floor planks, bulkhead planks, bridging and swaybraces may be good grade native lumber.
Floor planks must be evenly spaced with 1/2" between planks.
The entire structure shall be securely nailed together as per nailing directions.
Piling shall be West Coast Douglas Fir, Dense Southern Yellow Pine, Oak, Southern Cypress or Rocky Mountain Douglas Fir.
All nails and spikes to be galvanized.
All other hardware shall be dipped in red lead paint before shipment.

ONE SPAN OF SUPERSTRUCTURE

UNTREATED STRUCTURAL TIMBER

DESCRIPTION	SIZE	15'-0" ROADWAY TYPE D-6	15'-0" ROADWAY TYPE D-12	19'-0" ROADWAY TYPE D-6	19'-0" ROADWAY TYPE D-12
STRINGERS	4"x14"x20'-0" 8	747	1174	934	1387
TOTAL BD. FT. UNTREATED STRUCTURAL TIMBER		747	1174	934	1387

UNTREATED NATIVE TIMBER

HANDRAILS	3"x8"x20'-0" 2	80	2	80	2
HANDRAIL POSTS	6"x6"x5'-0" 2	30	2	30	2
POST BLOCKING	4"x6"x1'-2" 1	3	1	3	1
WHEELGUARDS	6"x6"x20'-0" 2	120	2	120	2
WHEELGUARD BLOCKING	4"x6"x1'-0" 2	4	2	4	2
FLOOR PLANKS	3"x12"x20'-0" 19	1140	19	1140	19
BRIDGING	2"x4"x12'-2" 14	21	25	24	30
TOTAL BD. FT. UNTREATED NATIVE TIMBER		1398	1782	1403	1787

ONE ABUTMENT

UNTREATED STRUCTURAL TIMBER

CAP	10"x12"x18'-0" 1	180	1	180	1
TOTAL BD. FT. UNTREATED STRUCTURAL TIMBER		180	1	180	1

UNTREATED NATIVE TIMBER

HANDRAIL POSTS	6"x6"x5'-0" 2	30	2	30	2
GUARDRAIL POSTS	6"x6"x6'-0" 4	72	4	72	4
GUARDRAILS	3"x8"x10'-0" 4	80	4	80	4
POST BLOCKING	4"x6"x1'-2" 1	3	1	3	1
WHEELGUARD BLOCKING	4"x6"x1'-0" 2	4	2	4	2
BULKHEAD PLANKS	3"x8"x18'-0" 5	180	5	220	5
TOTAL BD. FT. UNTREATED NATIVE TIMBER		369	369	402	406

ONE BENT

UNTREATED STRUCTURAL TIMBER

CAP	10"x12"x18'-0" 1	180	1	180	1
TOTAL BD. FT. UNTREATED STRUCTURAL TIMBER		180	1	180	1

UNTREATED NATIVE TIMBER

HANDRAIL POSTS	6"x6"x5'-0" 2	30	2	30	2
WHEELGUARD BLOCKING	4"x6"x1'-0" 2	4	2	4	2
SWAYBRACES	3"x8"x18'-0" 2	72	2	72	2
TOTAL BD. FT. UNTREATED NATIVE TIMBER		106	106	106	106

LOADING DATA

DL-TIMBER @ 3 1/2" PER BD. FT.
LL-TYPE D-6-12000 LBS.
LL-TYPE D-12-24000 LBS.
NO IMPACT.

REQUIRED

1- SPANS @ 19'-0"
19 FT. CLEAR ROADWAY
TYPE D-12 LOADING

TYPICAL TRUCK

NOTICE
MAXIMUM LOAD
OVER THIS BRIDGE
24000 LBS.
COLORADO STATE
HIGHWAY DEPARTMENT

This Notice, made of 1" Boards, is to be posted conspicuously on Bridge at right hand side of each end.

STRUCTURE NO. C-17-A1

COLORADO STATE HIGHWAY DEPARTMENT
STANDARD TEMPORARY DETOUR TRESTLE
FOR USE DURING CONSTRUCTION OF BRIDGE
Across Western Mutual Ditch
Sta. 47+50 to 51+72
Near Packham Sec. 23 T. 4 N. R. 66 W.
Designed by P.D.W. Approved by P.D.W.
Made by M.T. Bridge Engineer
Checked by R.S.S. Date: June 15, 1939.

ORIGINAL BY	D.D.W.	8-24-41
CHECKED BY	A.D.N.	10-3-41
DESIGNED BY	A.D.N.	10-6-41
CHECKED BY	K.R.F.	10-8-41

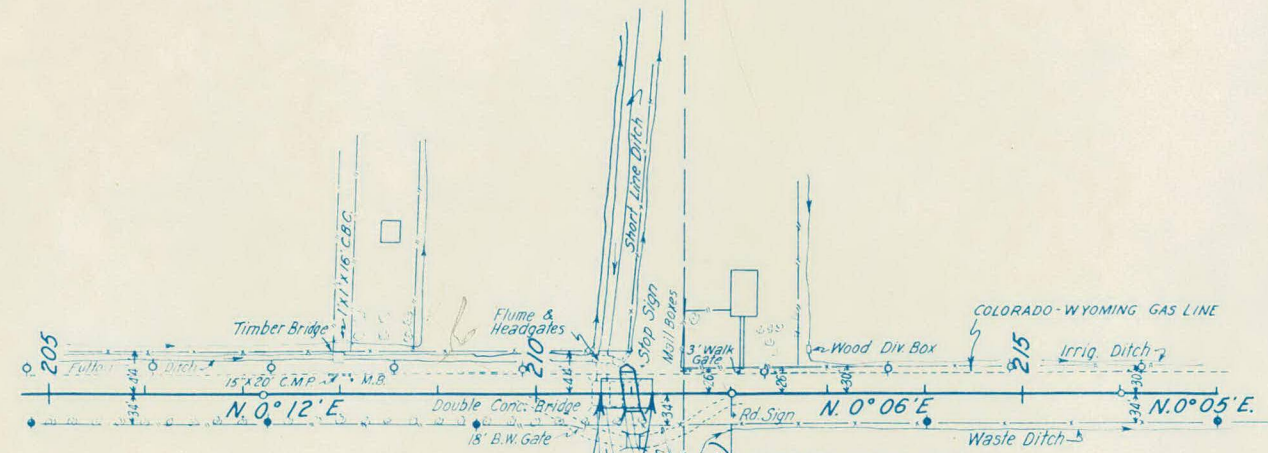
S.E. 1/4 SEC. 18
T.1N., R.66W.

N.E. 1/4 SEC. 18
T.1N., R.66W.

S.E. 1/4 SEC. 19
T.2N., R.66W.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	226-A(2)	18	

Rev. 11-25-41-JWS- List of Structures



N.W. 1/4 SEC. 17, T.1N., R.66W.

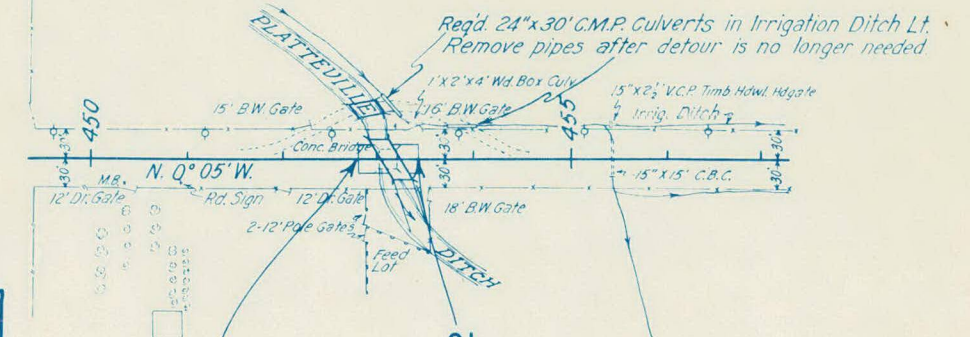
LIST OF STRUCTURE REQUIREMENTS

LOCATION	DESCRIPTION	EXCAVATION CU. YD.		STRUCT. EXCAV. CU. YD.	SHOULDER SURF. CU. YD.	MECH. TAMING HR.	CONCRETE CU. YD.	REINF. STEEL LBS.	C.M.P. LIN. FT.	SAND CUSHION CU. YD.	MISCELLANEOUS
		UNCL.	EMB.								
210+67 TO 210+75	APPROAC. TO PROJECT C.M.P. CROSS CULV. WITH PAV. INVERT (SK. 85' LT.)		75	{D.C. 2 W.C. 2	15				*60		
211+ TO 211+	REM. BRIDGES, ROWY SLAB & PART OF PRES. FLUME										REM. BRIDGES, ROWY SLAB & PART OF PRES. FLUME
211+67 TO 211+92.9	CONC. APPR. SLAB	6					27.5	3030		5	
211+67 TO 211+92.9	ROADWAY & DETOUR		250		15						30 CU. YDS. DETOUR SURF.
211+92.9 TO 211+97.1	SPEC. 12" X 24" C.B.C. (SKEIN 82° RT.)			{D.C. 4 W.C. 23		5	67.0	9320			612 UNTR. BR. TIMBER
211+97.1 TO 211+102.1	TIMBER GUARD POSTS LT. RT.										12 TIMBER GUARD POSTS (MINOR STRUCT.)
211+102.1 TO 211+122	CONC. APPR. SLAB	5					10.0	1790		3	
211+122 TO 211+144	DETOUR BRIDGE RT-REM. DETOUR BR. & DETOUR FILL REM. & REBUILD FENCE ON RT.		50								44 M UNTR. BR. TIMB. REM. DETOUR BRIDGE REM. & REBUILD 350 LIN. FT. FENCE *
211+144 TO 211+222	REMOVE SIGN ON RT. APPR. TO PROJECT		75	{FORCE ACCOUNT}	15						
TOTAL (UNIT-1)		64	400	42 D.C. 25 W.C.	45	5	110.5	14,140	*60	8	
452+81.1 TO 453+01	APPR. TO PROJECT (TIMBER GD. POSTS (BR. SPAC.) CONC. APPR. SLAB. ROADWAY & DETOUR	14	500		20		22.0	2385		4	10 TIMBER GD. POSTS
453+01 TO 453+44	DETOUR BRIDGE LT. + REM. DETOUR BR. & DETOUR FILL C.M.P. CULVS. IN IRRIG. DITCH LT. - REM. 2-24" C.M.P. 4" LT. REM. & REBUILD FENCE LT.		400	{D.C. 5 W.C. 5					{30 30		50 CU. YDS. DETOUR SURF. 54 M UNTR. BR. TIMB. 224 LIN. FT. UNTR. TIMB. PILING - REM. DETOUR BR. REM. 2 STRUCTURES REM. & REBUILD 400 LIN. FT. FENCE *
453+44 TO 453+24.1	BRIDGE; REM. PRES. BR. & SLABS			{SEE SUMMARY FOR QUANTITIES}							
453+24.1 TO 453+44	CONC. APPR. SLAB	14					22.0	2385		4	
453+44 TO 453+44	APPR. TO PROJECT TIMBER GD. POSTS (BR. SPAC.)		100		15						10 TIMBER GD. POSTS
TOTAL UNIT-2		428	700	42 D.C. 25 W.C.	50		44.0	4770	60	8	

* Paved Invert required for this pipe.

* Estimated number of new Line Posts required for rebuilding fence is as follows:

UNIT 1 - 9 Line Posts (Trt. Wood)
UNIT 2 - 11 Line Posts (Trt. Wood)



STA. 452+81.1 = BEGIN F.A.P. 226-A(2) UNIT 2

STA. 453+44.0 = END F.A.P. 226-A(2) UNIT 2

S.W. 1/4 SEC. 20
T.2N., R.66W.

4940

4930

4920

4880

4870

205

210

215

450

455

PLAN

SURVEYED	DATE
OK	
ALIGNED	
CHECKED	
RT. OF WAY	

PROFILE

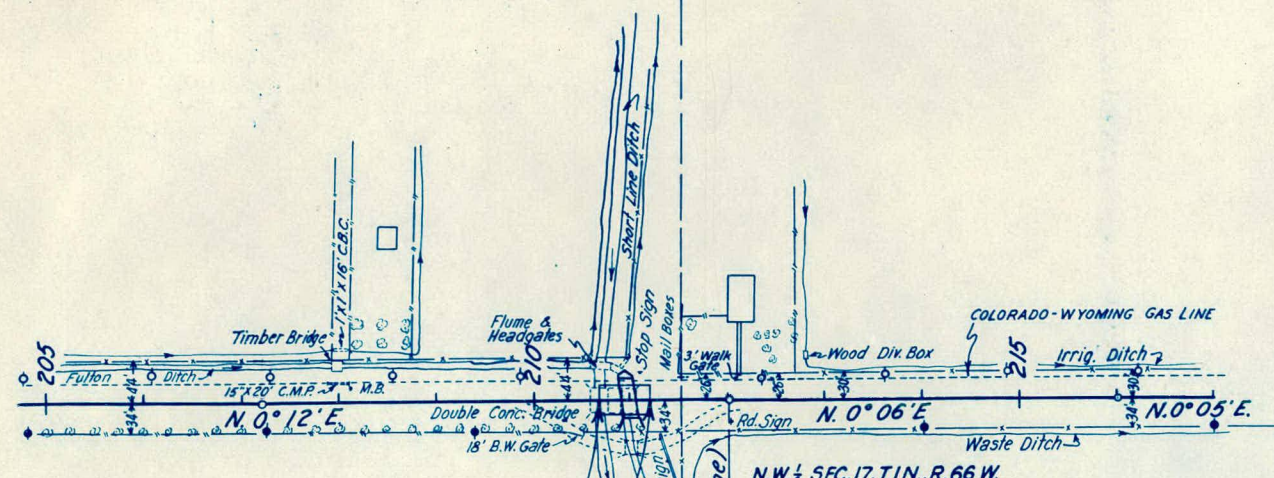
SURVEYED	DATE
PLOTTED	
NOTE BOOK	
GRADES CHECKED	
B.M. 3 NOTED	
STRUCTURE NOTATION CHECKED	

S.E. 1/4 SEC. 18
T. 1 N., R. 66 W.

N.E. 1/4 SEC. 18
T. 1 N., R. 66 W.

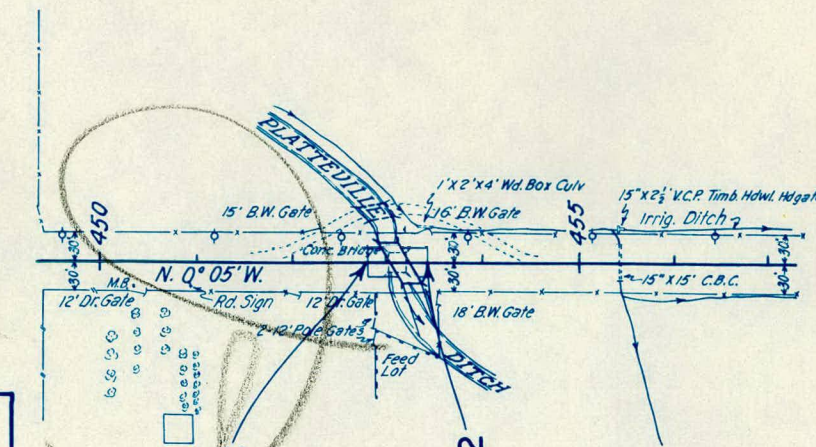
S.E. 1/4 SEC. 19
T. 2 N., R. 66 W.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	226-A(2)	18	



LIST OF STRUCTURES REQUIREMENTS

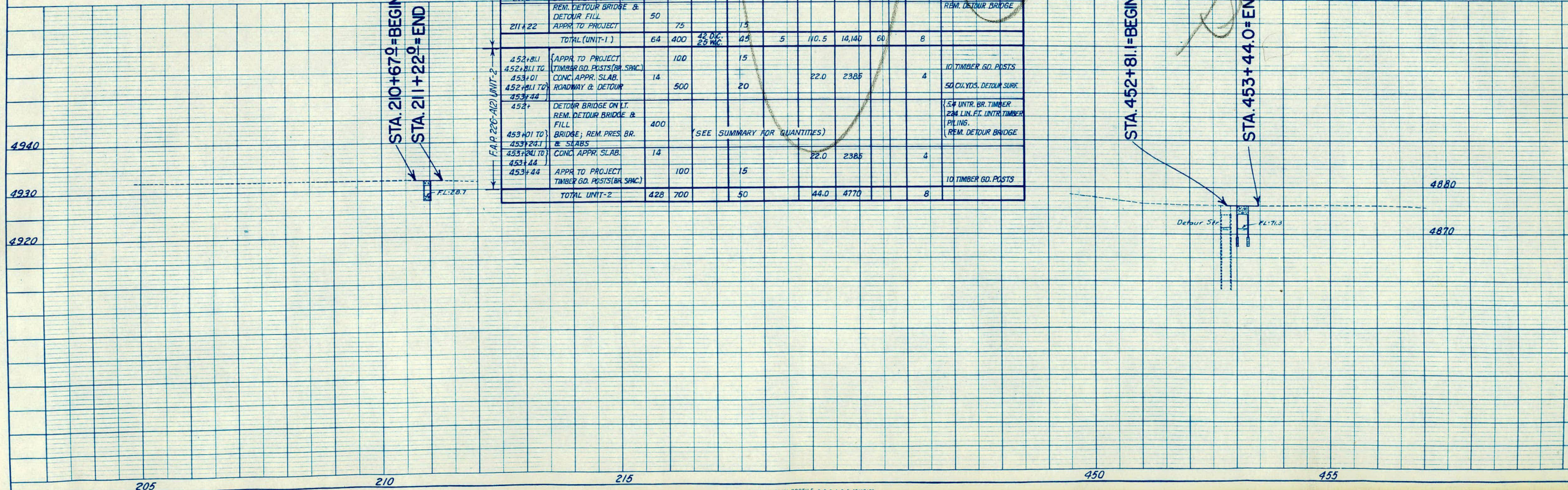
LOCATION	DESCRIPTION	EXCAVATION CU. YD.		STRUCT. EXCAV. CU. YD.	SHOULDER SURF. CU. YD.	MECH. TAMING HR.	CONCRETE CU. YD.	REINF. STEEL LBS.	C.M.P. LIN. FT.		SAND CUSHION CU. YD.	MISCELLANEOUS
		UNCL.	EMBANK.						24"	30"		
210+67 210+75 210+ TO 211+	APPROACH TO PROJECT C.M.P. CROSS GULV. WITH PAV. INVERT. (SK. 85° LT.) REM. BRIDGES, ROWY SLAB & PART OF PRES. FLUME		75	{D.C. 2 W.C. 2	15				60			REM. BRIDGES, ROWY SLAB & PART OF PRES FLUME
210+67 TO 210+92.9 210+67 TO 211+22 210+92.9	ROADWAY & DETOUR SPEC. 12"x2'-3" C.B.C. (SKEW 82° RT.)	6	250	{D.C. 40 W.C. 23	15	5	27.5	3030			5	30 CU. YDS. DETOUR SURF.
211+00 211+07.1 TO 211+22.0 211+22	TIMBER GUARD POSTS LT. RT. CONC. APPR. SLAB DETOUR BRIDGE RT.	8					16.0	1790			3	0.06 MISC. UNTR. TIMBER 2-TIMBER GUARD POSTS (MINOR STRUCT.) 4.4 UNTR. BR. TIMBER REM. DETOUR BRIDGE
211+22	REM. DETOUR BRIDGE & DETOUR FILL APPR. TO PROJECT		50		15							
TOTAL (UNIT-1)		64	400	42 D.C. 25 W.C.	45	5	110.5	14,140	60		8	
452+81.1 452+81.1 TO 453+01 452+81.1 TO 453+44	APPR. TO PROJECT TIMBER GD. POSTS (BR. SPAC.) CONC. APPR. SLAB ROADWAY & DETOUR		100		15		22.0	2385			4	10 TIMBER GD. POSTS 50 CU. YDS. DETOUR SURF.
452+ 452+ TO 453+01 TO 453+44	DETOUR BRIDGE ON LT. REM. DETOUR BRIDGE & FILL BRIDGE; REM. PRES. BR. & SLABS CONC. APPR. SLAB		400	(SEE SUMMARY FOR QUANTITIES)								5.4 UNTR. BR. TIMBER 2.4 LIN. FT. UNTR. TIMBER PILING REM. DETOUR BRIDGE
453+44 453+44	APPR. TO PROJECT TIMBER GD. POSTS (BR. SPAC.)	14	100		15		22.0	2385			4	10 TIMBER GD. POSTS
TOTAL UNIT-2		428	700		50		44.0	4770			8	



STA. 210+67.9=BEGIN F.A.P. 226-A(2) UNIT 1
STA. 211+22.0=END F.A.P. 226-A(2) UNIT 1

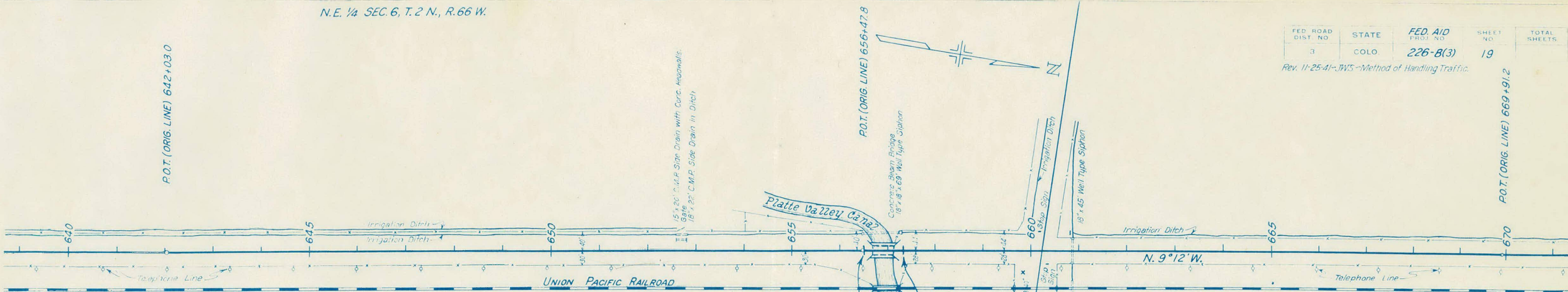
STA. 452+81.1=BEGIN F.A.P. 226-A(2) UNIT 2
STA. 453+44.0=END F.A.P. 226-A(2) UNIT 2

Bavision



P.O.T. (ORIG. LINE) 642+03.0

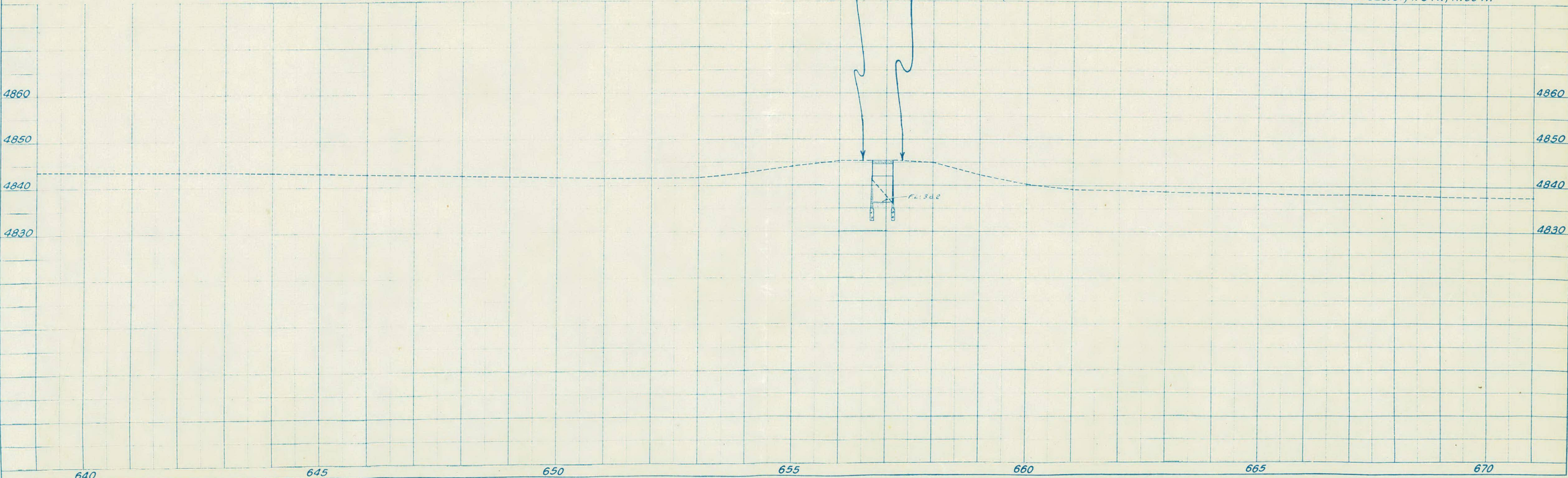
P.O.T. (ORIG. LINE) 669+91.2



LIST OF STRUCTURE REQUIREMENTS

STATION	DESCRIPTION	EXCAVATION		STRUCTURAL EXCAVATION	SHOULDER SAND SURF CUSHION	CLASS "A" CONC.	REINF. STEEL	MISC.
		UNCL.	FMB	CU. YD.	CU. YD.	CU. YD.	LB.	
656+50	Approach to Project, Timber Guard Posts (Bridge Spacing)		50		15			10 Timb. Gd. Posts
656+50 to 656+70	Concrete Approach Slab & Surf. Shoulder	10	50		5	1.5	9.0	
656+70 to 657+13	Remove Parts of Present Bridge, Widen Bridge			(See Summary for Quantities)				
657+13 to 657+33	Concrete Approach Slab & Surf. Shoulders	10	50		5	1.5	9.0	
657+33	Approach to Project, Timber Guard Posts (Bridge Spacing)		50		15			10 Timb. Gd. Posts
TOTAL		20	200		40	3.0	18.0	1920

NOTE:
At Sta. 656± Traffic will use present roadway and bridge and the Contractor will be required to adequately maintain traffic at his own expense.



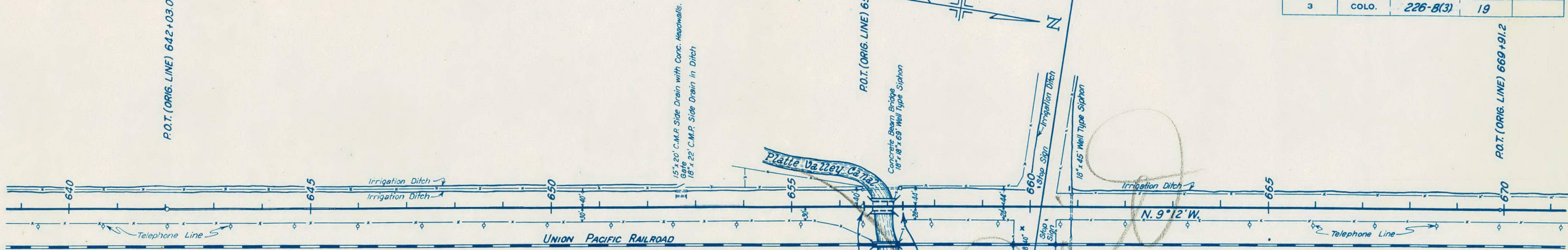
N.E. 1/4 SEC. 6, T. 2 N., R. 66 W.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	226-B(3)	19	

P.O.T. (ORIG. LINE) 642+03.0

P.O.T. (ORIG. LINE) 656+47.8

P.O.T. (ORIG. LINE) 669+91.2



LIST OF STRUCTURE REQUIREMENTS

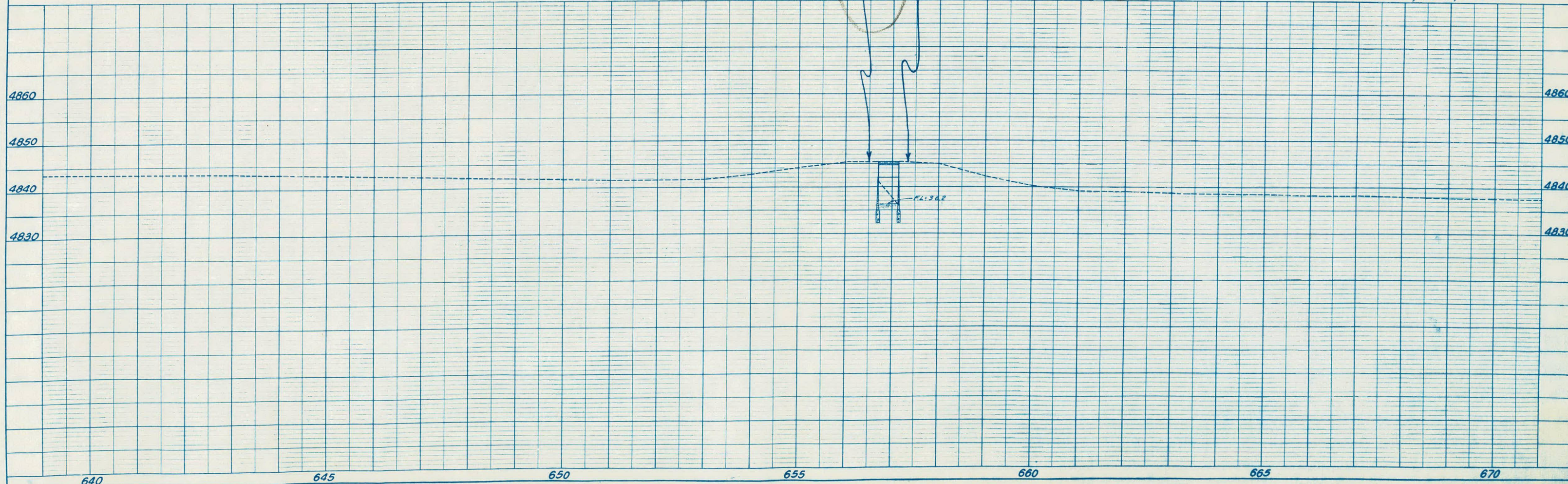
STATION	DESCRIPTION	EXCAVATION CU. YD.		STRUCTURAL EXCAVATION CU. YD.	SHOULDER SURF. CU. YD.	SAND CUSHION CU. YD.	CLASS "A" CONC. CU. YD.	REINF. STEEL LB.	MISC.
		UNCL.	EMB.						
656+50	Approach to Project, Timber Guard Posts (Bridge Spacing)		50		15				10 Timb. Gd. Posts
656+50 to 656+70	Concrete Approach Slab & Surf. Shoulder	10	50		5	1.5	9.0	960	
656+70 to 657+13	Remove Parts of Present Bridge, Widen Bridge			(See Summary for Quantities)					
657+13 to 657+33	Concrete Approach Slab & Surf. Shoulders	10	50		5	1.5	9.0	960	
657+33	Approach to Project, Timber Guard Posts (Bridge Spacing)		50		15				10 Timb. Gd. Posts
TOTAL		20	200		40	3.0	18.0	1920	

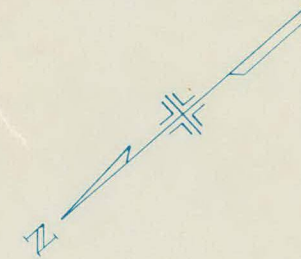
STA. 656+50 - BEGIN. OF F.A.P. 226-B(3)

STA. 657+33 - END OF F.A.P. 226-B(3)

SECTION LINE

S.E. 1/4 SEC. 31, T. 3 N., R. 66 W.



[illegible]

LOCATION	DESCRIPTION	EXCAVATION		STRUCT EXCAV		SHOULDER SURFACING	MECHANICAL TAMPING	CONCRETE	REINFORCING STEEL	DETOUR SURFACING	C.M.P.		SAND CUSHION	MISCELLANEOUS		
		CU. YD.		CU. YD.	D.C.						LIN. FT.					
		UNCL.	EMBANK.			CU. YD.	HRS	CLASS "A"	LBS.	CU. YD.	24"		CU. YD.			
372+05.5 372+05.5-372+25.5 372 +	APPROACH TO PROJECT CONC. APPR. SLAB & SURF SHOULDERS TIMBER GUARD POSTS (MINOR STRUCTURE SPACING)	14	50 20			15 5		9.0	945				1.5	2 TIMBER GUARD POSTS		
372+32 372+25 - 372+39.5	REM. PRES. DETOUR BRIDGE ON LT. REM. PARTS OF PRES. STRUCTURE WIDEN. EXIST. STRUCTURE			52	42		16	72.0	2320					REM. PRES. DETOUR BRIDGE REM. PARTS OF PRES. STR. 0.2 M.F. WID. UNTR. BR. TIMBER		
372+39 - 372+59 372+59	CONC. APPR. SLAB & SURF. SHOULDERS APPROACH TO PROJECT	14	20 50			5 15		9.0	945				1.5			
	TOTALS	28	140	52	42	40	16	90.0	4210				3.0			

STA. 372+59=END F.A.P. 226-C(4)

NO	STRUCTURE NOTATION CH.D.	BY	TE
NOTE BOOK	8 M. NOTED		
PROBES CHECKED			
PLOTTED			
SURVEYED			
PROFILE			

4710

4710

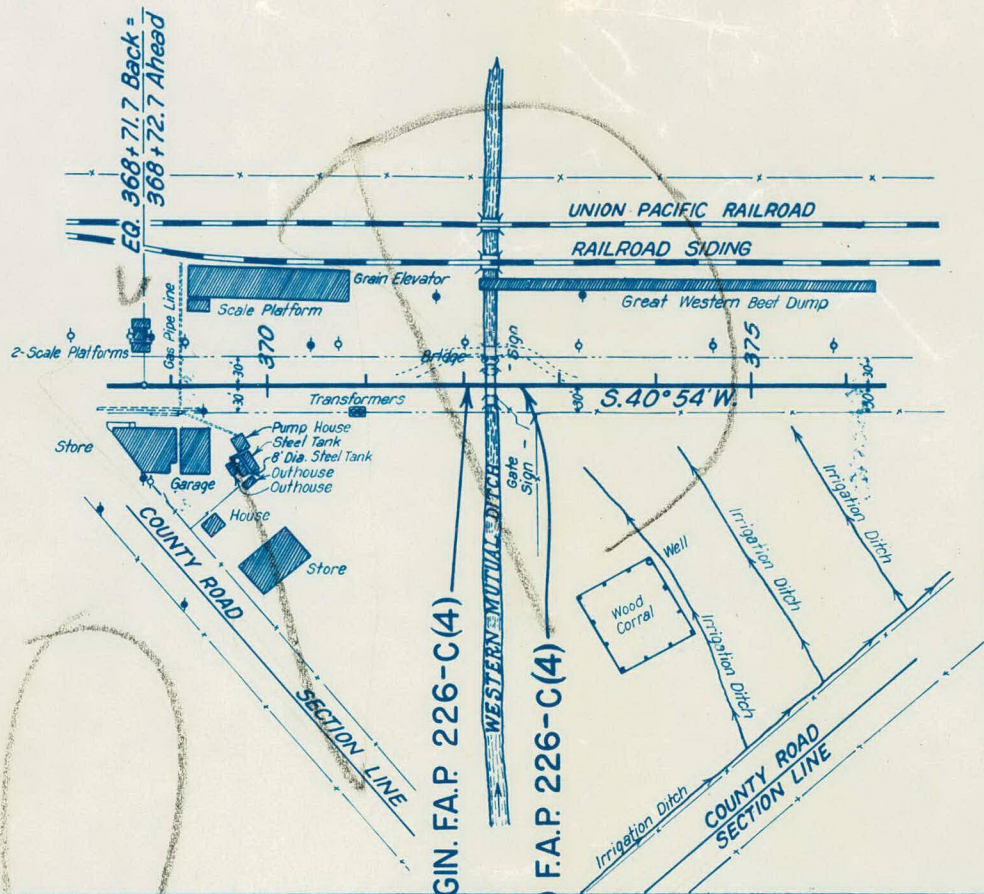
375



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	226-C(4)	20	

PLAN	SURVEYED	DATE
BY		
PLANNED		
ALIGNED		
RT. OF WAY		

PROFILE	SURVEYED	DATE
BY		
PLANNED		
GRADES		
STRUCTURE		



LIST OF STRUCTURES REQUIREMENTS

LOCATION	DESCRIPTION	EXCAVATION		STRUCT. EXCH.	SHOULDER SURFACING	MECHANICAL TAMPING	CONCRETE	REINFORCING STEEL	DETOUR SURFACING	C.M.P.	SAND CUSHION	MISCELLANEOUS
		UNCL.	EMBANK.									
372+05.5	APPROACH TO PROJECT		50									
372+05.5-372+25.5	CONC. APPR. SLAB & SURF.	14	20				9.0	945			1.5	
372+	TIMBER GUARD POSTS (MINOR STRUCTURE SPACING)											2-TIMBER GUARD POSTS
372+32	REM. PRES. DETOUR BRIDGE ON LT.											REM. PRES. DETOUR BRIDGE
372+25-372+39.5	REM. PARTS OF PRES. STRUCTURE											REM. PARTS OF PRES. STR.
372+	WIDEN PRESENT STRUCTURE			52	42	16	72.0	2320				0.2 M. H. D.M. UNTR. BR. TIMBER
372+39-372+59	DETOUR BRIDGE ON LT.		50						40			4.4 M. H. D.M. UNTR. BR. TIMBER
372+59	DETOUR FILL & SURF.											144 LIN. FT. UNTR. TIMBER PILING
372+59	CONC. APPR. SLAB & SURF. SHOULDERS.	14	20				9.0	945			1.5	
372+59	APPROACH TO PROJECT		50									
TOTALS		28	190	52	42	40	90.0	4210	40		3.0	

