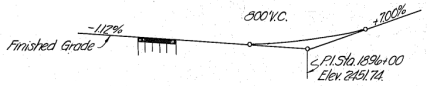
ENGINEERING CONSTRUCTION CONTRACTING SECTION
MONTANA DEPARTMENT OF TRANSPORTATION

As-Built Drawings

The following are as-built drawings for the structures. MDT provides them for informational purposes only. They do not include drawings for modifications to the structures, such as joint replacements and guardrail revisions and may not completely represent current conditions. Thus, some of the information contained in these documents may be out of date or not applicable with regard to the advertised project. The contractor should not rely solely on the as-built drawings provided for bidding purposes nor does any data in these files supersede the data in the contract documents.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MONT.	247(10)2		1	5



Note:- Finished grade of bridge shall be on a straight line between elevations shown at center-lines of end bents.

NOTES

SPECIFICATIONS:- Montana State Highway Commission Standard Specifications for Road and Bridge Construction, revised April, 1935; Design Specifications for Highway Structures revised July, 1935, and Special Provisions shall govern unless otherwise noted.

DETAILS:- Structures shown on these sheets shall be built in accordance with details shown on Dwgs. No. E24-TT19, No. E24-TT25 and No. E24-TT Details with modifications shown hereon. Ice breakers for bridges as shown shall be built in accordance with details on Dwg. No. TT-100.

GRAVEL BALLAST:- Gravel ballast shall be placed by bridge contractor. It shall meet requirements for top course gravel surfacing, except that crushing will not be required.

PILE PENETRATION:- In case 8 Ft. of pile penetration cannot be obtained by ordinary driving, the contractor shall do the necessary shooting to obtain the required penetration, or he shall excavate and set the piles 6 Ft. deep and strike the piles with the pile-hammer to bring them to a firm bearing. No additional compensation shall be allowed for such work.

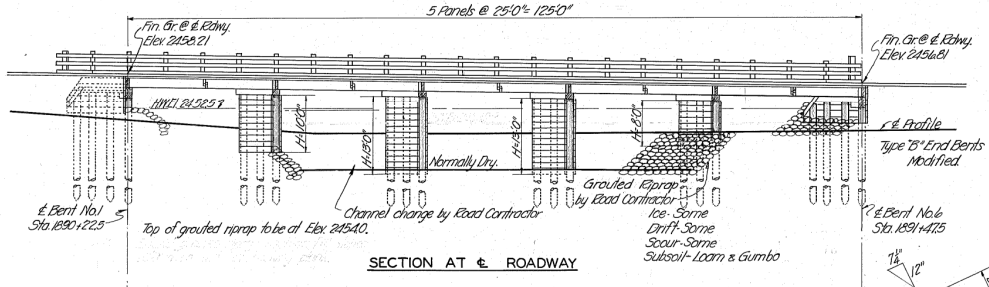
EXCAVATION:- Payment for all excavation necessary to the driving and cutting off of piles and to the placing of caps, stringers, backing plank, bracing and ice-breakers shall be included in the unit price bid for treated lumber.

FINISHED GRADE:- Finished plan grade of bridges is 0.5 Ft. above profile grade shown on road plans.

GROUTED RIPRAP:- At points where riprap is shown carried into channel changes, extend riprap 50 Ft. from ℄ Rdwy. in each direction, turn back and key 3 Ft. into bank.

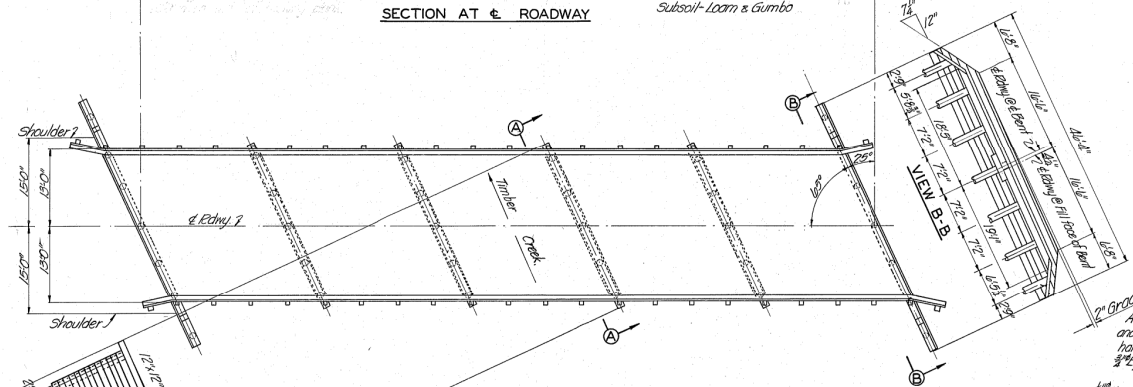
STOCK PASS:- At Sta. 2376+00 and Sta. 2425+00 a Standard Stock Pass 7 Ft. high with a 28 Ft. roadway (R28-H7) shall be constructed in accordance with details shown on Dwg. No. SP11.

STEEL NOSE PLATES:- Steel nose plates on ice breakers shall be paid for as structural steel.



SECTION AT ℄ ROADWAY

THIS CONTRACT: NH0002(393)
EXISTING TIMBER BRIDGE RAIL REPLACED WITH T101 RAIL SEE DWG.NO.18750

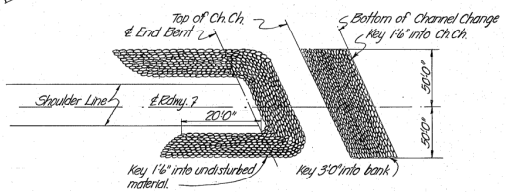


BRIDGE AT STA. 1890+85.0 (Alignment Tangent Bearing N 89°33'E)
Name on markers:- TIMBER CREEK.

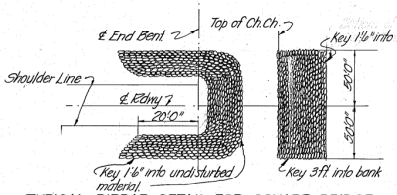
DETAIL OF PILE ANCHOR
Scale: 1/4" = 1'0"

PILING						
STATION	20'	25'	30'	35'	40'	45'
1890+85.0		14		20		
1939+67.5		19	6	12		
2112+78.0	2	6	20			
2129+48.5	1	5	10	10		
2200+00.0		2	2	16	12	
2209+64.0	2	2	19	10		
2234+62.5	2		2	7	7	20
~~2331+90.0~~ 2332+12.5	2	2	4	20		
2376+06.5	16					
2425+00	16					
Total	41	50	63	95	19	20

REFERENCES	
DWG. NO.	DESCRIPTION
1813	Other Bridges on F.A.P. No. 247 F(1)2
1813A	" " " " " " " "
E24-TT19	Standard Timber Trestle
E24-TT25	Standard Timber Trestle
E24-TT Details	Standard Trestle Details
TT100	Standard Ice Breaker
SP11	Standard Stock Pass



TYPICAL RIPRAP DETAIL FOR SKEWED BRIDGE



TYPICAL RIPRAP DETAIL FOR SQUARE BRIDGE

REVISION	L.M.S.	6-19-03

DESIGNED BY	L.G.H.	10-8-36
DRAWN BY		
TRACED BY	T.C.E.	6-25-39
CHECKED BY	A.L.H.	6-25-39
CHECKED BY		
REVISED BY		
REVISED BY		

STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGE AT STA. 1890+85.0

FED AID PROJ. NO. 247 F(1) UNIT 2
Mc CONE COUNTY
GENERAL LAYOUT
Scale: 1"=10'0" except as noted.

APPROVED BY _____ BRIDGE DESIGNING ENGINEER

FILE NO. 755 DRAWING NO. 1812

STATE OF MONTANA

STATE HIGHWAY COMMISSION

BRIDGE PLANS & QUANTITIES

FEDERAL AID PROJECT NO. 247 F (1) UNIT 2

JORDAN-CIRCLE HIGHWAY

McCONE COUNTY

LIST OF DRAWINGS

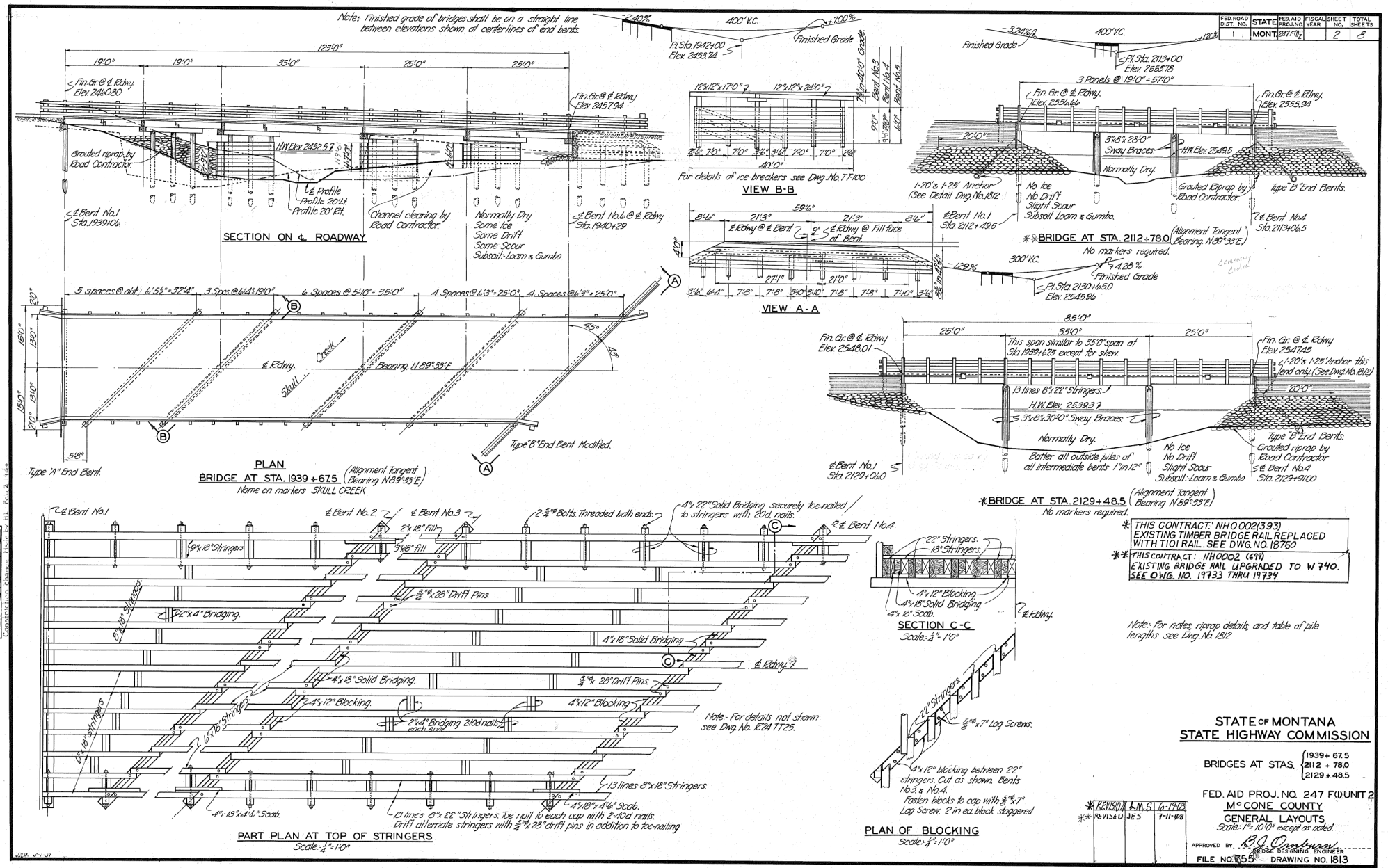
SHEET NO.	DWG. NO.	TITLE	STATION
1	1812	GENERAL LAYOUT	1890 + 85.0
2	1813	GENERAL LAYOUTS	1939 + 67.5 2112 + 78.0 2129 + 48.5
3	1813A	GENERAL LAYOUTS	2206+00.0 2209+64.0 2234+62.5 ~~2331+90.0~~ 2332 + 72.5
4	R24TT19	STANDARD TIMBER TRESTLE	
5	R24TT25	" " "	
6	R24TT DETAILS	STANDARD TRESTLE DETAILS	
7	TT 100	STANDARD IGE BREAKER	
8	SP11	STANDARD STOCK PASS	

BRIDGE QUANTITIES

STATION	LENGTH IN FEET	STRUCTURAL STEEL LBS.	TREATED LUMBER M.F.B.M.	UNTREATED LUMBER M.F.B.M.	TREATED TIMBER PILES 20'	25'	30'	35'	40'	45'	GRAVEL BALLAST CU.YDS.
MAJOR STRUCTURES											
1890+85.0	125	2750	55.55	2.80		14		20			34
1939+67.5	123	1400	52.44	2.75		19	6	12			33
2112+78.0	57		20.62	1.51	2	6	20				16
2129+48.5	85		33.26	2.06	1	5	10	10			23
2206+00.0	85		35.70	2.03		2	2	16	12		23
2209+64.0	76		26.61	1.86	2	2	19	10			21
2234+62.5	95	2950	44.40	2.22	2		2	7	7	20	26
2331+90.0 2332+72.5	75		28.46	1.86	2	2	4	20			20
TOTAL MAJOR STRUCTURES	721	7100	297.04	17.09	9	50	63	95	19	20	196
MINOR STRUCTURES											
2376+00.0 2376+16.5	(R28-H7)11		7.17	0.26	16						4
2425+00.0	(R28-H7)11		7.17	0.26	16						4
TOTAL MINOR STRUCTURES	22		14.34	0.52	32						8
TOTAL ALL STRUCTURES	743	7100	311.38	17.61	41	50	63	95	19	20	204

Made by D.W.B. 4-27-39 Checked by H.W.H. 4-27-39

DRAWING NO. 1812 Q



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MONT.	247 F(1)2		2	5

DESIGNED BY	NLS	4-25-69
DRAWN BY	NLS	4-27-69
TRACED BY	NLS	4-28-69
CHECKED BY	RJ.C.	
REVISED BY		
REVISED BY		

REVISION	BY	DATE
REVISED	J.E.S.	7-11-78

STATE OF MONTANA
STATE HIGHWAY COMMISSION

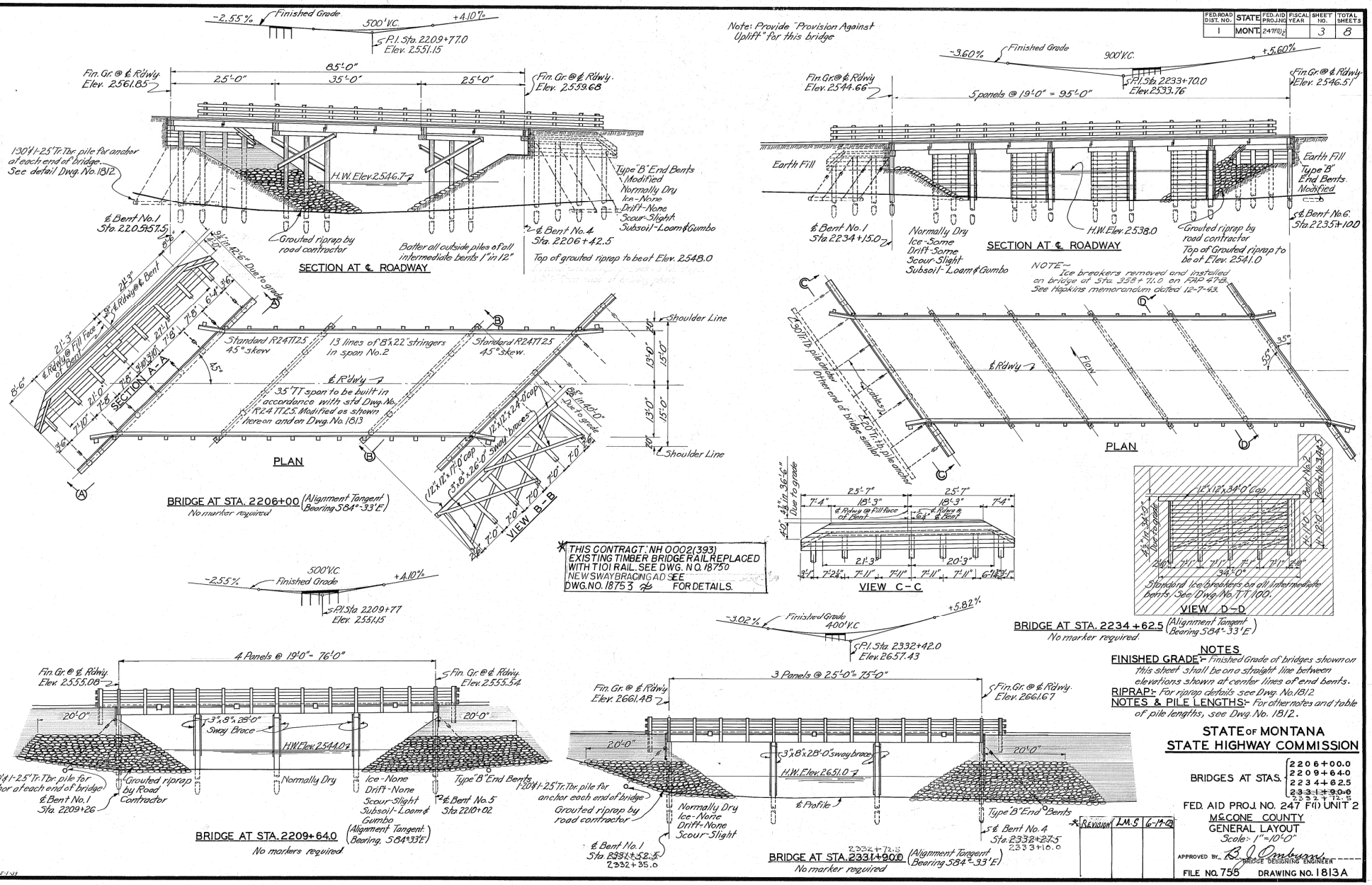
BRIDGES AT STAS. 1939+67.5, 2112+78.0, 2129+48.5

FED. AID PROJ. NO. 247 F(1) UNIT 2
McCONE COUNTY
GENERAL LAYOUTS
Scale: 1" = 10'0" except as noted.

APPROVED BY: R.J. Cranbrun
BRIDGE DESIGNING ENGINEER

FILE NO. 755 DRAWING NO. 1813

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MONT.	247(10)2		3	8



NOTES

FINISHED GRADE:- Finished Grade of bridges shown on this sheet shall be on a straight line between elevations shown at center lines of end bents.

RIPRAP:- For riprap details see Dwg. No. 1812

NOTES & PILE LENGTHS:- For other notes and table of pile lengths, see Dwg. No. 1812.

STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGES AT STAS. 2206+00.0, 2209+64.0, 2234+62.5, ~~2331+90.0~~ 2332+73.5

FED. AID PROJ. NO. 247 F(1) UNIT 2

McCONE COUNTY

GENERAL LAYOUT

Scale: 1"=10'-0"

REVISION	J.M.S.	6-14-43

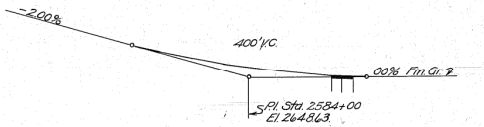
APPROVED BY: B. J. Amburn, BRIDGE DESIGNING ENGINEER

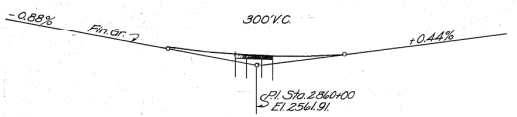
FILE NO. 755 DRAWING NO. 1813A

DESIGNED	BY	M.B. 4-24-43
DRAWN	BY	D.W.B. 4-25-43
TRACED	BY	A.L.M. 4-29-43
CHECKED	BY	
REVISED	BY	
REVISED	BY	

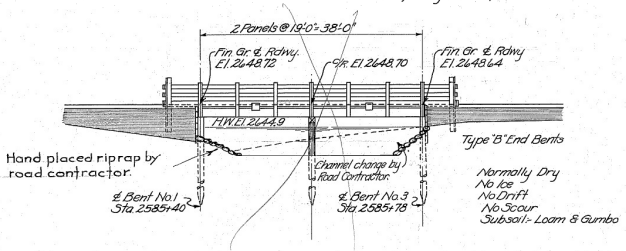
Construction Drawing No. 1813 for H.L. Feb. 3, 1944

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MONT.	FAP 247D			



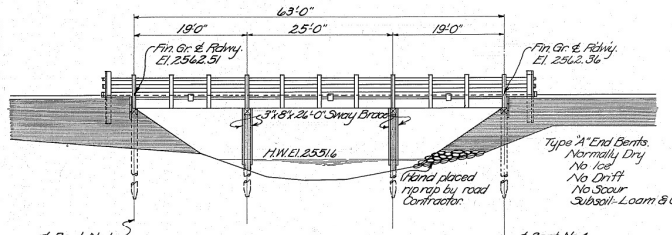


Note:- Finished grade elevation shown at centerline of roadway at intermediate bent varies from finished plan grade to provide camber of structure.



BRIDGE AT STA. 2585+59 Alignment Tangent (Bearing S 34°-33' E)
Name on marker: "Beauty Creek"

Note:- Finished grade of bridge shall be on a straight line between elevations shown at center lines of end bents.



BRIDGE AT STA. 2859+955 (Alignment Tangent (Bearing N 89°-01' E)
Name on marker "Cotter Creek."

BRIDGE QUANTITIES

STATION	LENGTH IN FEET	TREATED LUMBER M.F.B.M.	UNTREATED LUMBER M.F.B.M.	TREATED TIMBER PILES 20'	25'	30'	GRAVEL BALLAST CU.YDS.	STRUCTURE EXCAVATION CU.YDS.	REMOVAL OF EXISTING STRUCTURE	REMARKS
MAJOR STRUCTURES										
2585+59.0	38	12.86	1.21	19			10			
2859+95.5	63	19.58	1.70		10	10	16			
TOTAL MAJOR STRUCTURES	101	32.44	2.91	19	10	10	26			
MINOR STRUCTURES										
2489+95	II H7-A28	6.86	0.26	16			4			
2565+30	II H7-A28	6.86	0.26	16			4			
TOTAL MINOR STRUCTURES	22	13.72	0.52	32			8			
BOX CULVERTS										
2566+13	4x5x32	6.40						46	1	FILL 0'-15' RD. APP. LT-SQ
2731+80	4x5x48	8.65						34		FILL 0'-15' SQUARE
TOTAL BOX CULVERTS		15.05						80	1	
TOTAL ALL STRUCTURES	*123	61.21	3.43	51	10	10	34	80	1	

* Box Culverts are not included.

SHEET PILING:- Sheet piling cut off wall shall be used at each end of box culvert as shown on Dwg. No. TT Box Culv. The piling shall be driven 4 ft. into undisturbed material.

* THIS CONTRACT, NH 0002(39)3 EXISTING TIMBER RAIL REPLACED WITH T101 RAIL SEE DWG. NO. 18750

NOTES

SPECIFICATIONS:- Montana State Highway Commission Standard Specifications for Road and Bridge Construction, revised April 1935, Design Specifications for Highway Structures, revised July, 1935, and Special Provisions shall govern unless otherwise noted.

DETAILS:- Structures shown on this sheet shall be built in accordance with details shown on Dwgs. No. R23-TT19 and No. R23-TT25.

FINISHED GRADE:- Finished plan grade of bridges is 0.50 ft. above profile grade shown on road plans.

GRAVEL BALLAST:- Gravel ballast shall be placed by the bridge contractor. It shall meet requirements for top course gravel surfacing, except that crushing will not be required.

PILE PENETRATION:- In case 8 ft. of pile penetration cannot be obtained by ordinary driving, the contractor shall do the necessary shooting, to obtain the required penetration, or he shall excavate and set the piles 6 ft. deep and strike the piles with the pile hammer to bring them to a firm bearing. No additional compensation shall be allowed for such work.

EXCAVATION:- Payment for all excavation necessary to the driving and cutting off of piles and to the placing of caps, stringers, blocking plank and bracing shall be included in the unit price bid for treated lumber. Excavation for the box culverts to be paid for as a separate item.

HAND RAIL:- All posts shall be set vertical and rails shall be parallel to grade.

STOCK PASS:- Standard Stock Passes at Sta. 2489+95 and Sta. 2565+30 shall be constructed in accordance with details shown on Dwg. No. SP11A.

RIPRAP:- At points where riprap is shown carried into channel changes, extend riprap to toes of slopes at sides, turn back and key 3 ft. into bank.

BOX CULVERT:- Box Culverts at Sta. 2566+13 and Sta. 2731+80 shall be constructed in accordance with details shown on Dwg. No. TT Box Culv.

REFERENCES

DWG. NO.	DESCRIPTION
SP11A	Standard Stock Pass
R23TT19	Standard Trestle
R23TT25	Standard Trestle
TT Box Culv.	Standard Timber Culverts

DESIGNED	BY	HWK	11-14-36
DRAWN	BY	TCR	12-18-36
TRACED	BY	JE	12-18-36
CHECKED	BY	RWJ	4-14-37
REVISED	BY		
REVISED	BY		

* REVISION	L.M.S	6-19-03

STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGES AT STAS. {2585+59.0 / 2859+95.5}
STOCKPASSES AT STAS. {2489+95.0 / 2565+30.0}
FED. AID PROJ. NO. 247 D UNIT 2

McCONE COUNTY

GENERAL LAYOUTS
Scale: 1" = 10'-0"

APPROVED BY R. D. Ambrum
BRIDGE DESIGNING ENGINEER

FILE NO. 755 DRAWING NO. 1814

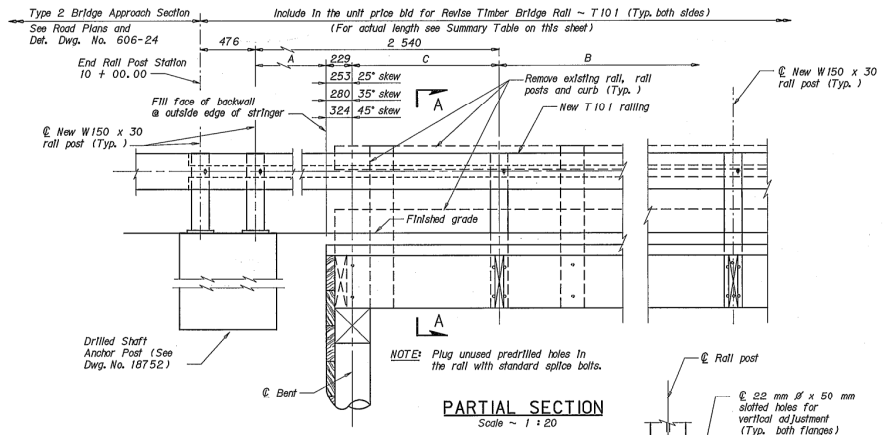
BK JWK 1-28-37

STATE	PROJECT NUMBER	SHEET NO.
MONTANA	NHTSA 0002(393)	B9

NOTE: See Dwg. No. 18749 for Section B-B, Detail A, Detail B and additional notes and details.

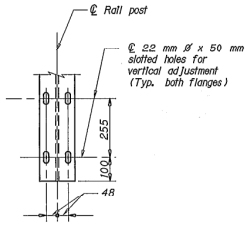
RAIL REVISION SUMMARY TABLE (Details shown apply to both sides of the structure)

STRUCTURE LOCATION		GENERAL LAYOUT DWG. NO.	SKEW	WEARING SURFACE DEPTH (mm)	DIMENSIONS A	DIMENSIONS B	DIMENSIONS C	LENGTH OF RAIL (ONE SIDE ONLY) (m)	TOTAL LENGTH FOR PAYMENT (m)	ANCHOR POST (EACH)
Route N-1	645+0.625	3700	0°	178 ±	1 244	6 Spa. @ 2 540 = 15 240	1 067	21.272	42.544	4
Route N-57	232+0.566	2057	0°	152 ±	1 041	2 Spa. @ 2 540 = 5 080	1 270	11.112	22.224	4
Route N-57	234+0.523	2176	0°	178 ±	889	11 Spa. @ 2 540 = 27 940	1 422	33.972	67.944	4
Route N-57	235+0.652	2057	35°	178 ±	787	10 Spa. @ 2 540 = 25 400	1 473	31.432	62.864	4
Route N-57	247+0.394	1949A	0°	102 ±	1 803	11 Spa. @ 2 540 = 27 940	508	33.972	67.944	4
Route N-57	248+0.831	1812	25°	178 ±	1 017	14 Spa. @ 2 540 = 35 560	1 270	41.592	83.184	4
Route N-57	249+0.748 Lt.	1813	0°/45°	178 ±	635~0° 540~45°	15 Spa. @ 2 540 = 38 100	1 676	44.132	80.644	2
Route N-57	249+0.748 Rt.	1813	0°/45°	178 ±	787~0° 692~45°	12 Spa. @ 2 540 = 30 480	1 524	36.512		2
Route N-57	253+0.331	1813	0°	203 ±	787	9 Spa. @ 2 540 = 22 860	1 524	28.892	57.784	4
Route N-57	254+0.769	1813A	45°	229 ±	692	9 Spa. @ 2 540 = 22 860	1 524	28.892	57.784	4
Route N-57	254+0.838	1813A	0°	229 ±	889	8 Spa. @ 2 540 = 20 320	1 422	26.352	52.704	4
Route N-57	255+0.300	1813A	35°	203 ±	482	10 Spa. @ 2 540 = 25 400	1 778	31.432	62.864	4
Route N-57	257+0.150	1813A	0°	203 ±	1 041	8 Spa. @ 2 540 = 20 320	1 270	26.352	52.704	4
Route N-57	260+0.150	1814	0°	279 ±	1 905	1 Spa. @ 2 540 = 2 540	406	8.572	17.144	4
Route N-61	133+0.425	2280	0°	102 ±	1 041	11 Spa. @ 2 540 = 27 940	1 270	33.972	67.944	4
Route N-61	136+0.511	2280	0°	102 ±	1 244	6 Spa. @ 2 540 = 15 240	1 067	21.272	42.544	4
Route N-61	137+0.076	2177	0°	127 ±	1 041	11 Spa. @ 2 540 = 27 940	1 270	33.972	67.944	4
* Route N-99	017+0.400	3044	0°	178 ±	889	8 Spa. @ 2 540 = 20 320	1 422	26.352	52.704	4

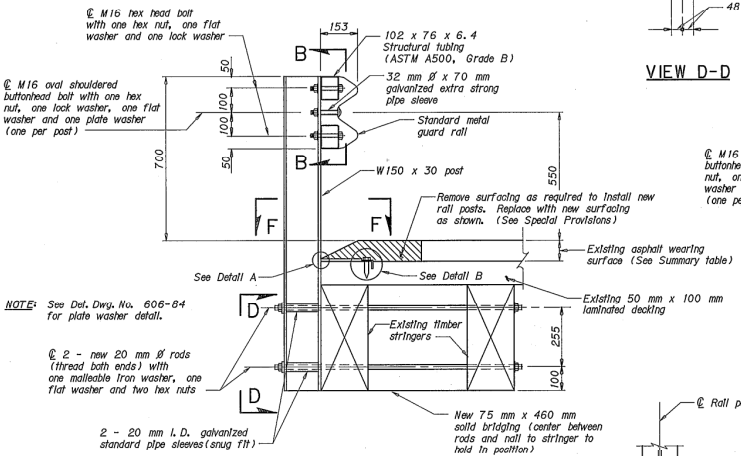


PARTIAL SECTION
Scale ~ 1 : 20

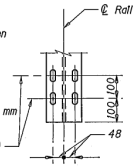
NOTE: Attach panel lengths of tube members continuously to a minimum of three posts.



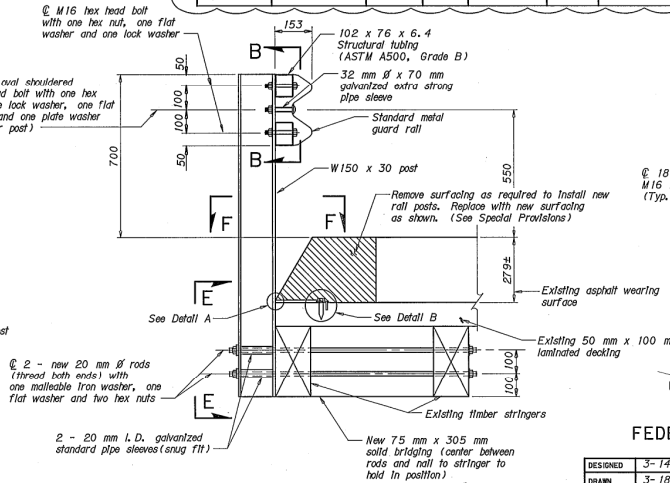
VIEW D-D



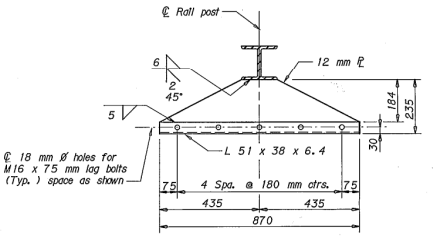
SECTION A-A



VIEW E-E



SECTION A-A
(At Structure N-57 260+0.150 only)



SECTION F-F

MONTANA DEPARTMENT OF TRANSPORTATION

D4-NON-INTERSTATE GUARDRAIL ON ROUTES N-1, N-57, N-61 AND N-99* LOCATIONS AS SHOWN

FEDERAL AID PROJECT NO. NHTSA 0002(393)

VARIOUS COUNTIES

BRIDGE RAIL REVISION

Scale ~ 1 : 10 except as noted

DESIGNED	3-14-03	L.MS/KFM
DRAWN	3-18-03	L. M. S.
CHECKED	6-21-03	D. J. R.
* REVISED	12-9-03	L. M. S.
REVISED		
REVISED		

FILENAME: D457BRRRV003.DGN DRAWING NO. 18750

...\457brrr003.dgn
03/04/04
07:38:21 AMCPS - U8667