

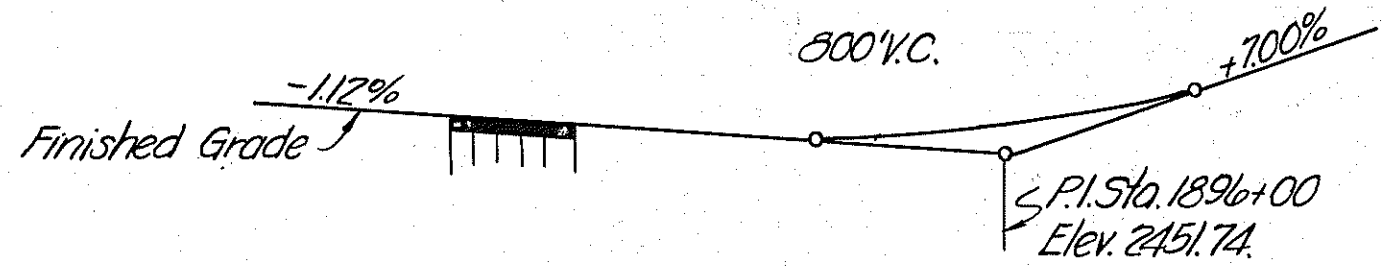
STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGE PLANS & QUANTITIES
FEDERAL AID PROJECT NO. 247 F (I) 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	R24TT9	STANDARD TIMBER TRESTLE	
5	R24TT25	" "	
6	R24TTDETAILS	STANDARD TRESTLE DETAILS	
7	TT 100	STANDARD ICE BREAKER	
8	SP 11	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					GRAVEL BALLAST CU.YDS.
					20'	25'	30'	35'	40'	
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	
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	
2331+90.0	75		28.46	1.86	2	2	4	20	20	
TOTAL MAJOR STRUCTURES	721	7100	297.04	17.09	9	50	63	95	19	
MINOR STRUCTURES										
2376+00.0	(R28-H7)II		7.17	0.26	16				4	
2425+00.0	(R28-H7)I		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	20	



Note: Finished grade of bridge shall be on a straight line between elevations shown at centerlines 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 Dwg. 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.

ROUTED RIPRAP: At points where riprap is shown carried into channel changes, extend riprap 50 ft. from E. Rdwy. in each direction, turn back and key 3 ft. into bank.

STOCKPASS: At Sta. 2376+00 and Sta. 2425+00 a Standard Stock Pass 7 ft. high with a 28 ft. roadway (E28-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.

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

PILING						
STATION	20'	25'	30'	35'	40'	45'
1890+850		14		20		
1939+675		19	6	12		
2112+780	2	6	20			
2129+485	1	5	10	10		
2206+000		2	2	16	12	
2209+640	2	2	19	10		
2234+625	2		2	7	7	20
2351+900	2	2	4	20		
2376+00	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
TT-100	Standard Ice Breaker
SP11	Standard Stock Pass

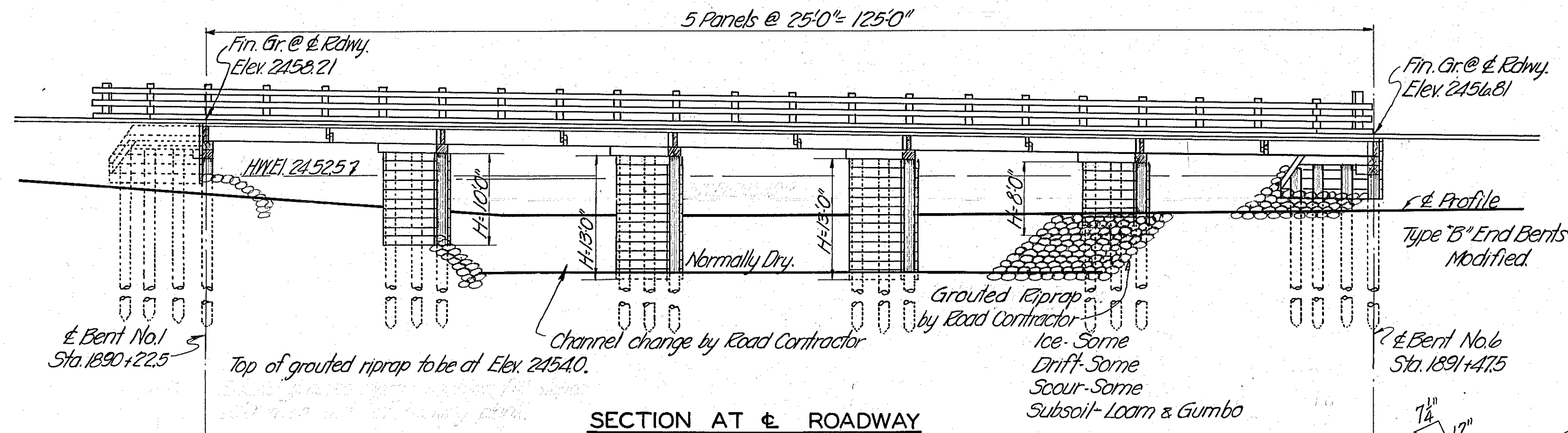
STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGE AT STA. 1890+850

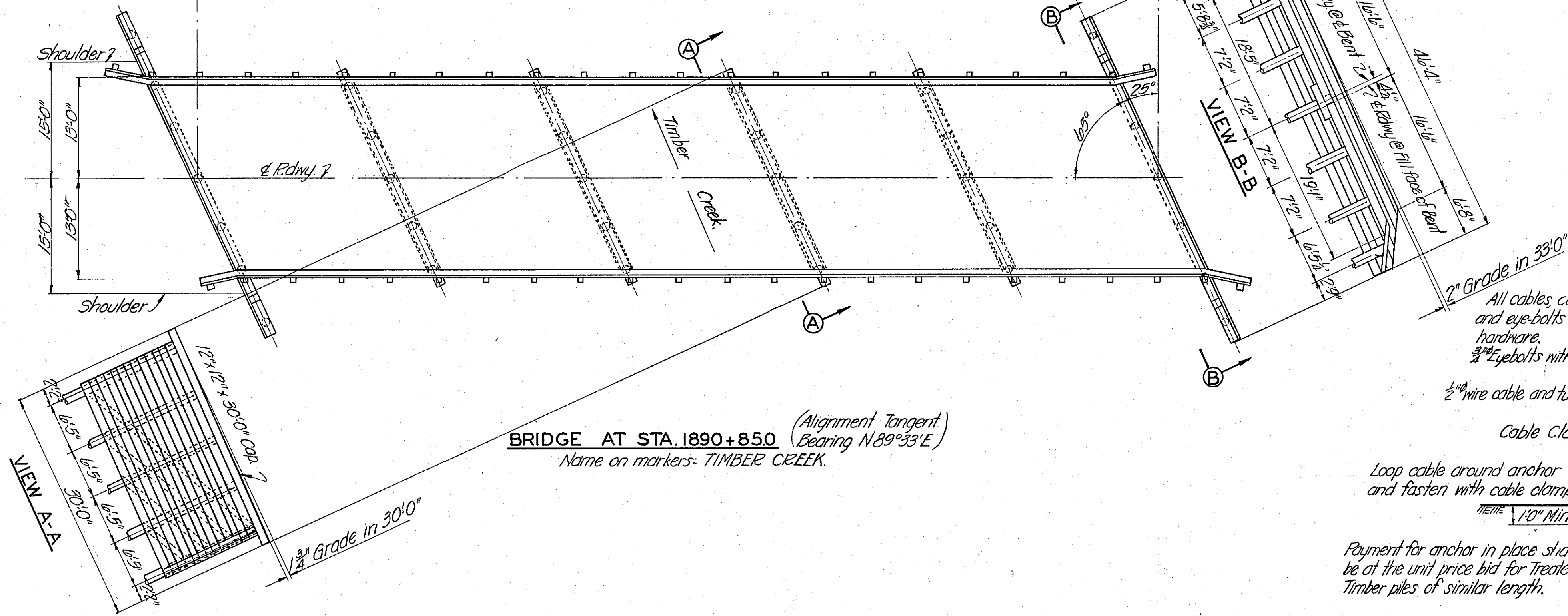
FED AID PROJ. NO. 247 F(1) UNIT 2
M^C CONE COUNTY
GENERAL LAYOUT
Scale: 1"=10'0" except as noted.

APPROVED BY: *B. J. Osburn*
BRIDGE DESIGNING ENGINEER

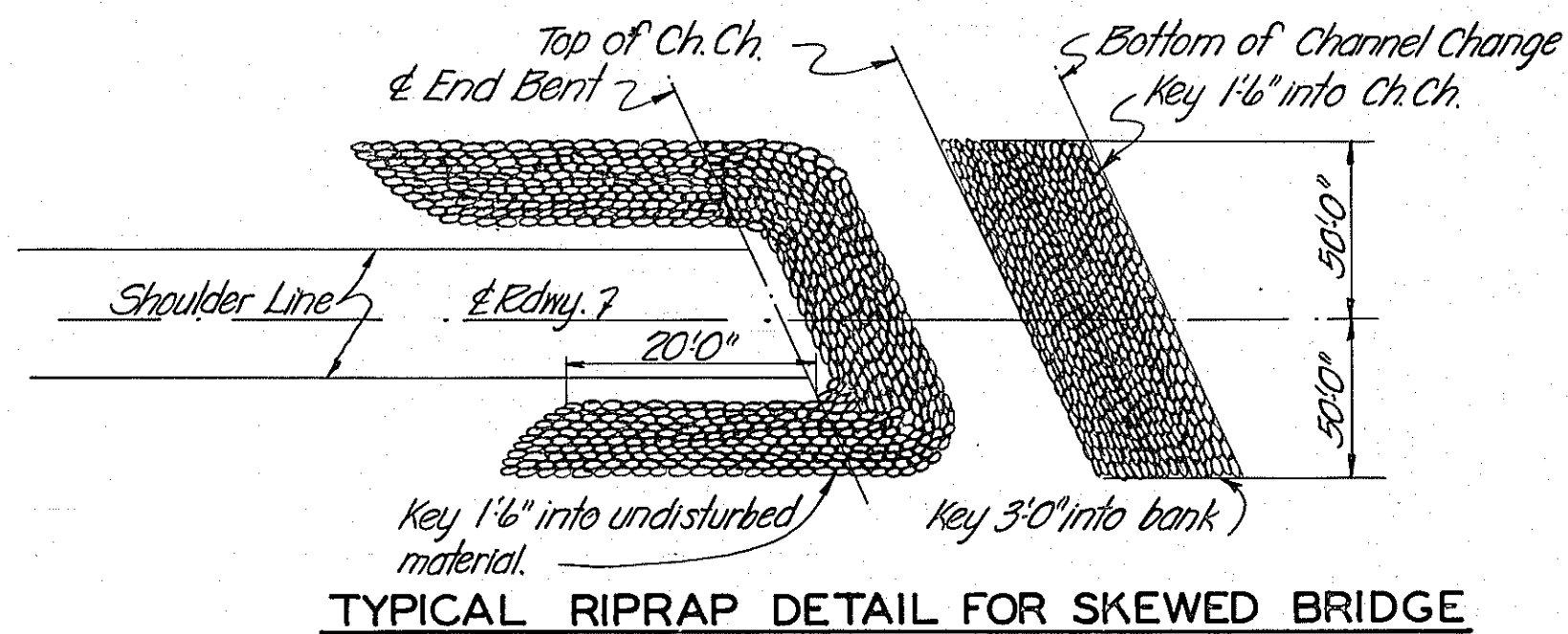
FILE NO. 755 DRAWING NO. 1812



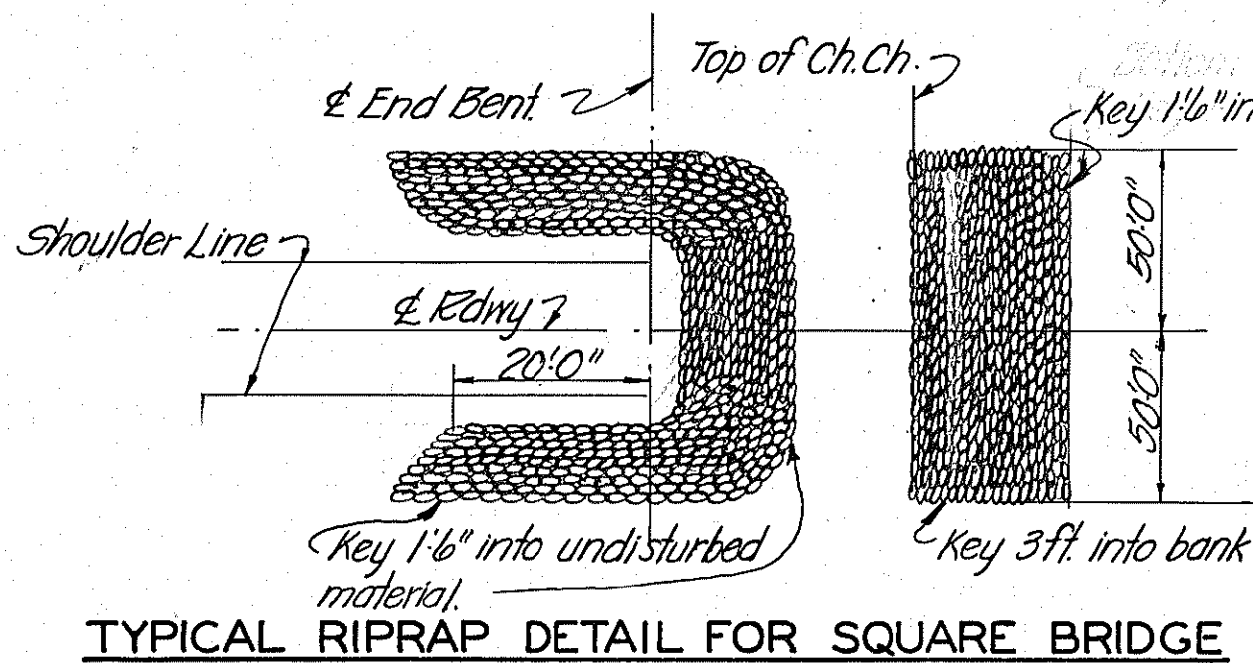
SECTION AT ROADWAY



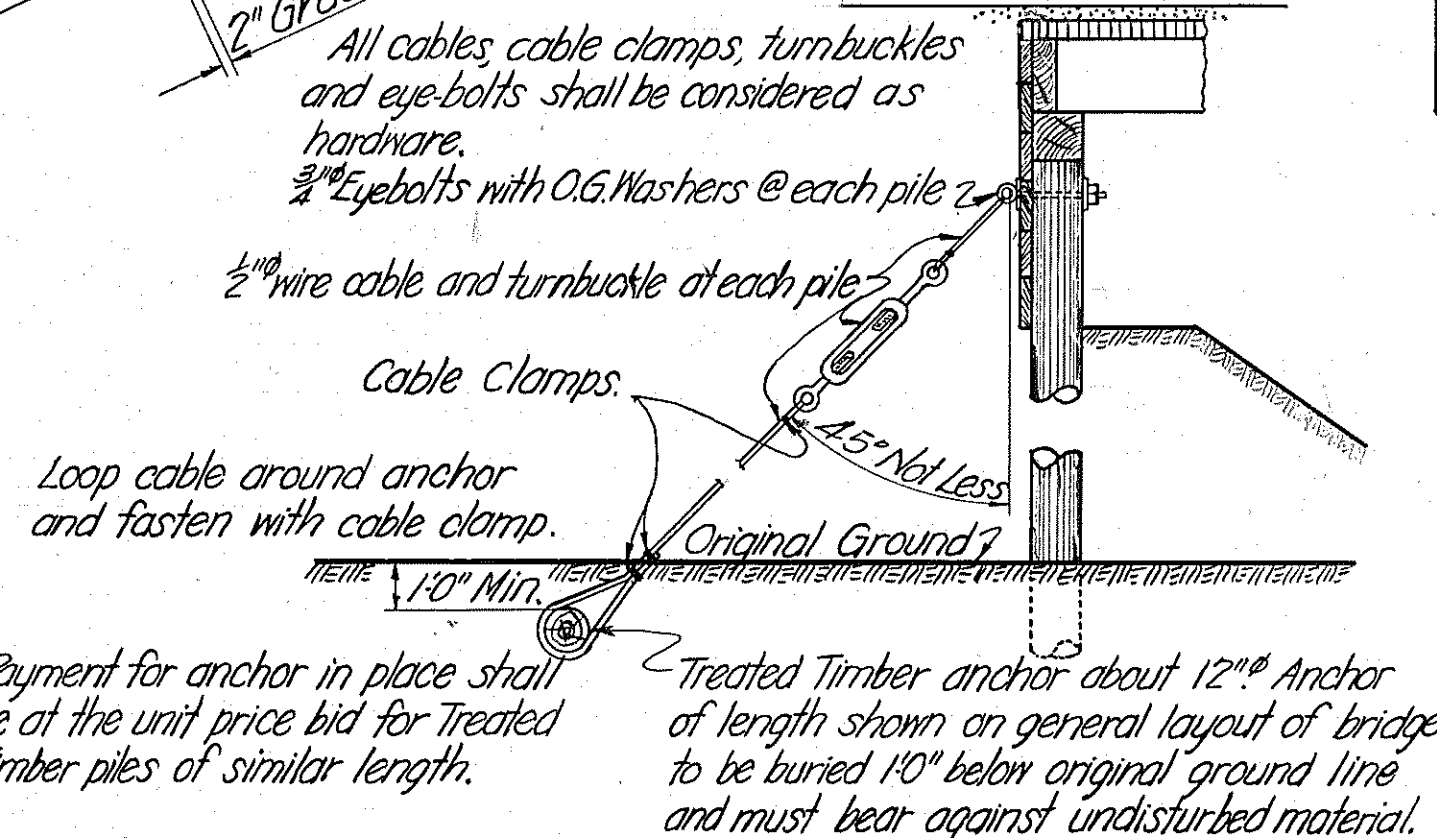
BRIDGE AT STA. 1890+850 (Alignment Tangent Bearing N89°33'E)
Name on markers: TIMBER CREEK.



TYPICAL RIPRAP DETAIL FOR SKEWED BRIDGE



TYPICAL RIPRAP DETAIL FOR SQUARE BRIDGE



DETAIL OF PILE ANCHOR

Scale: 1/4"=1'-0"

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

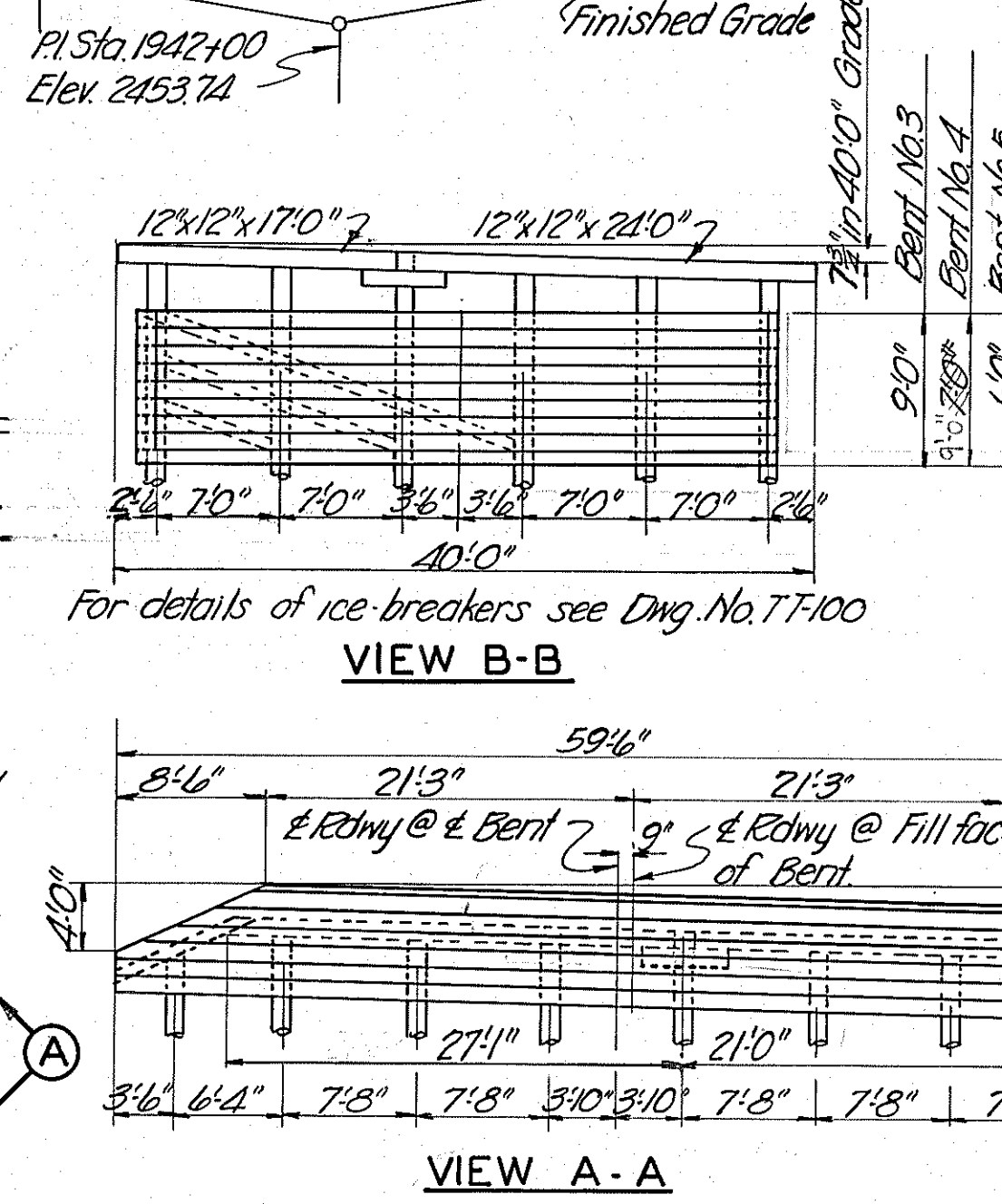
[illegible]

Technical drawing of a bridge structure, showing a cross-section and plan view. The drawing includes a table of project details and various annotations.

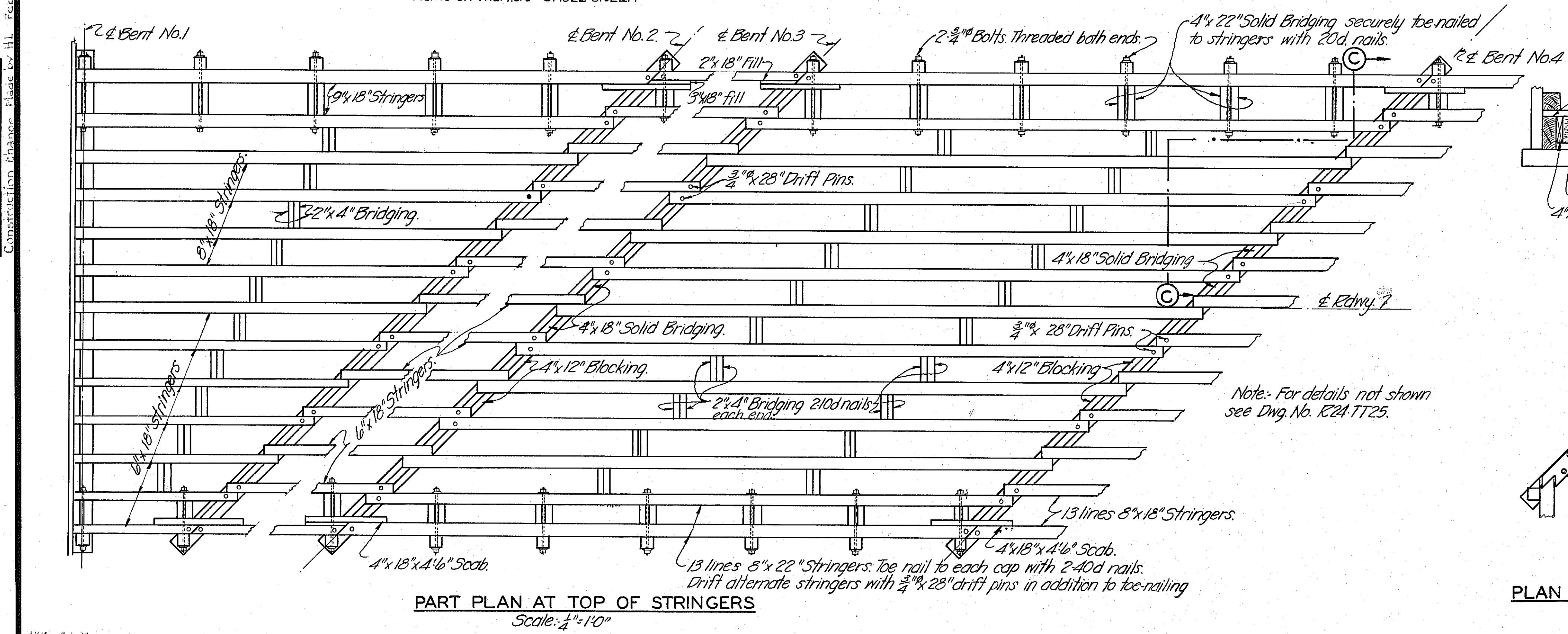
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MONT.	217.F01/2		2	8

Key features and annotations:

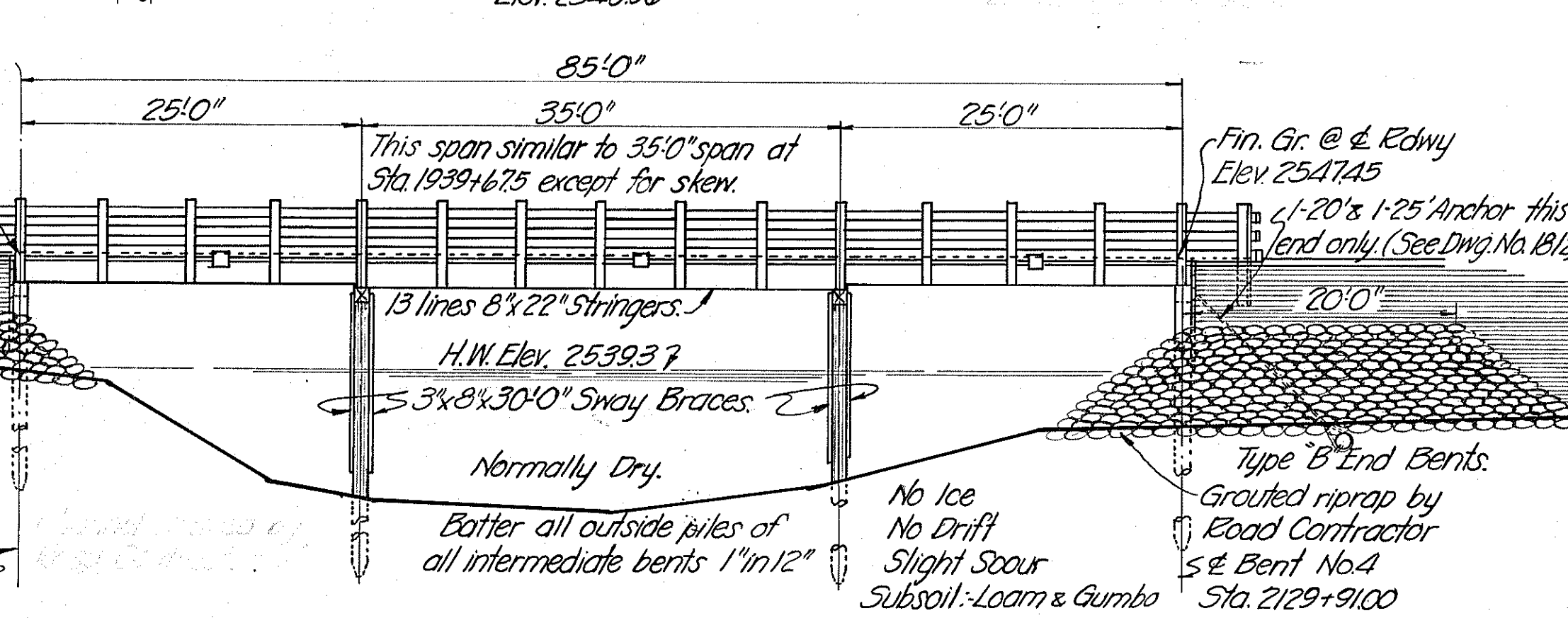
- Top Section:** Shows a cross-section of the bridge deck with a width of 400' V.C. and a finished grade elevation of 2553.73. The bridge is supported by three panels, each 19'-0" wide, totaling 57'-0".
- Side Section:** Shows a side view of the bridge with a width of 20'-0". The bridge is supported by two bents, each 8'-6" wide. The bridge is constructed of concrete and has a normal dry condition.
- Annotations:**
 - Fin. Gr. @ E. Rdwy. Elev. 2554.66
 - Fin. Gr. @ E. Rdwy. Elev. 2555.94
 - 3" x 8" x 28'-0" Sway Braces
 - Normally Dry
 - Grouted Riprap by Road Contractor
 - Type "B" End Bents
 - 2 Bent No. 1 Sta. 2112+49.5
 - 2 Bent No. 4 Sta. 2113+06.5
 - 1-20' x 1-25' Anchor (See Detail Dwg. No. 1812)
 - No Ice
 - No Drift
 - Slight Scour
 - Subsail Loam & Gumbo.
 - No markers required.
 - Alignment Tangent Bearing: N 89° 33' E.
 - Concrete Curb



PLAN
BRIDGE AT STA. 1939 + 67.5 (Alignment Tangent
Bearing N 89° 33' E)
Name on markers SKULL CREEK



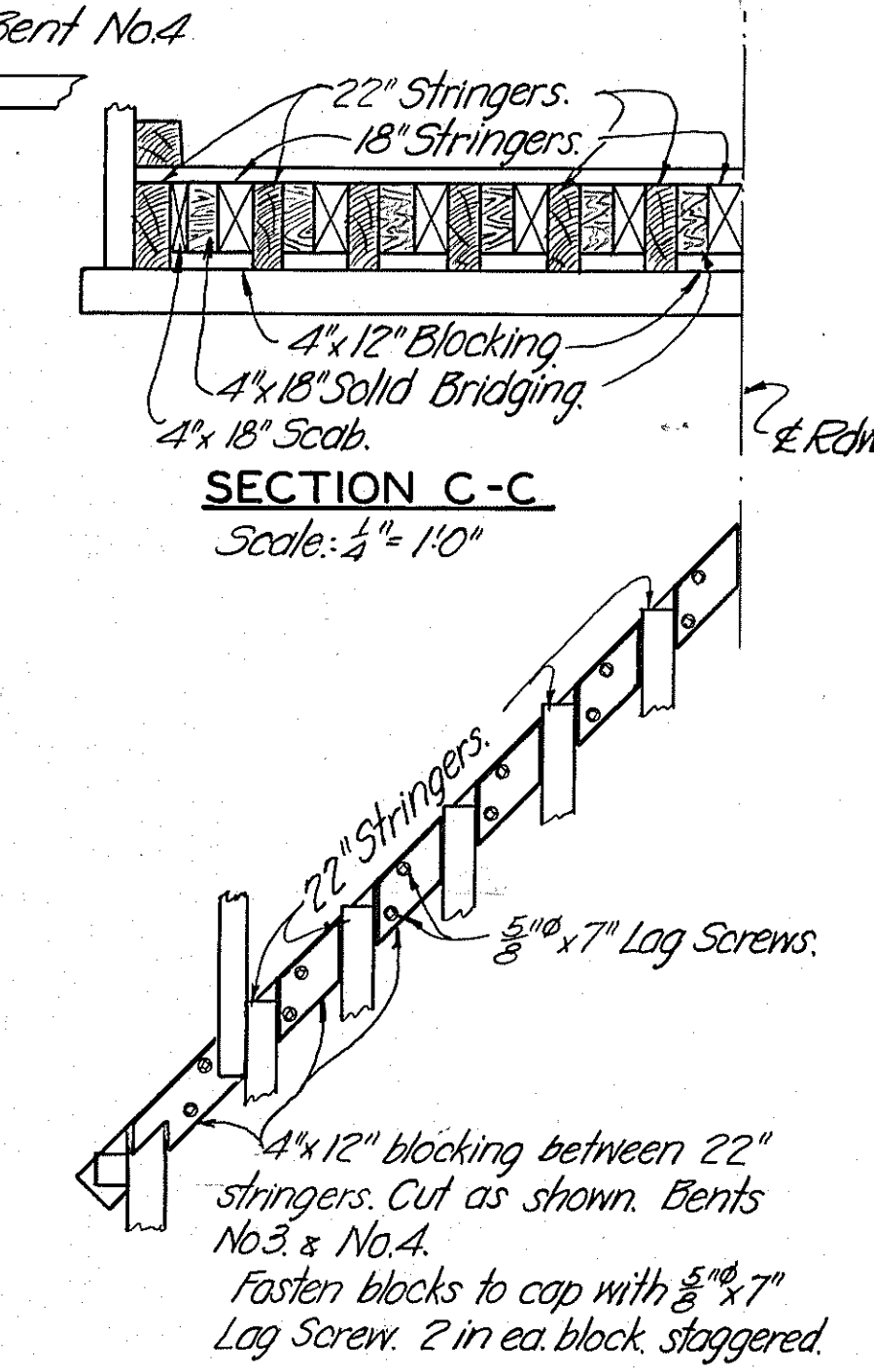
Case: 07-2537



*BRIDGE AT STA. 2129+48.5 (Alignment Tangent)
(Bearing N 89° 33' E)
No markers required.

* THIS CONTRACT: NHO002(3993)
EXISTING TIMBER BRIDGE RAIL REPLACED
WITH TIOI RAIL. SEE DWG. NO. 18750

** THIS CONTRACT: NHO002 (699)
EXISTING BRIDGE RAIL UPGRADED TO W740.
SEE DWG. NO. 19733 THRU 19734



PLAN OF BLOCKING
Scale: $\frac{1}{2}'' = 1'-0''$

Note: For notes, riprap details, and table of pile lengths see Dwg. No. 1812

STATE OF MONTANA
STATE HIGHWAY COMMISSION

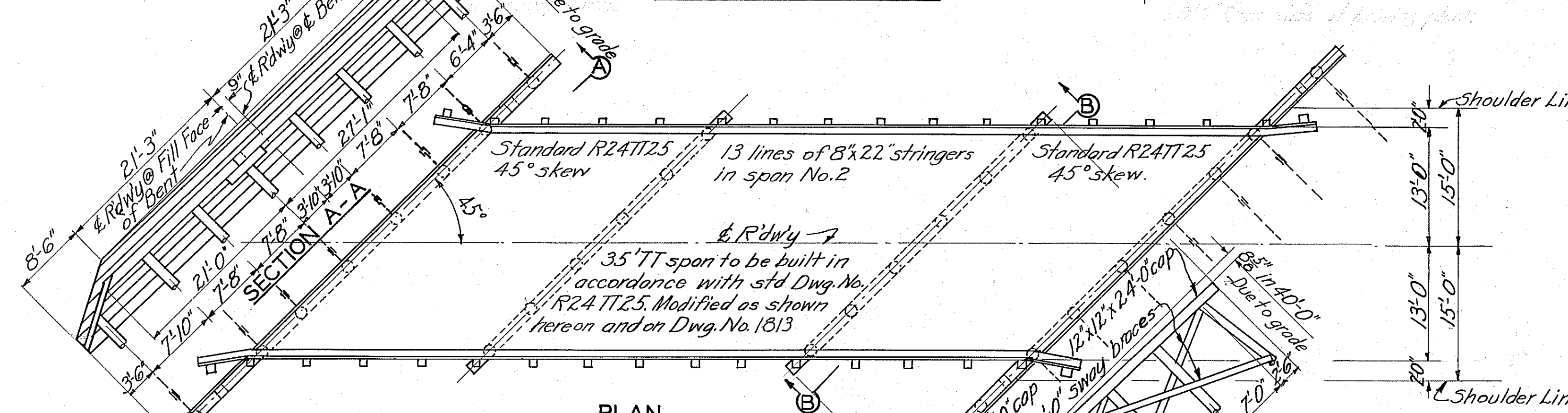
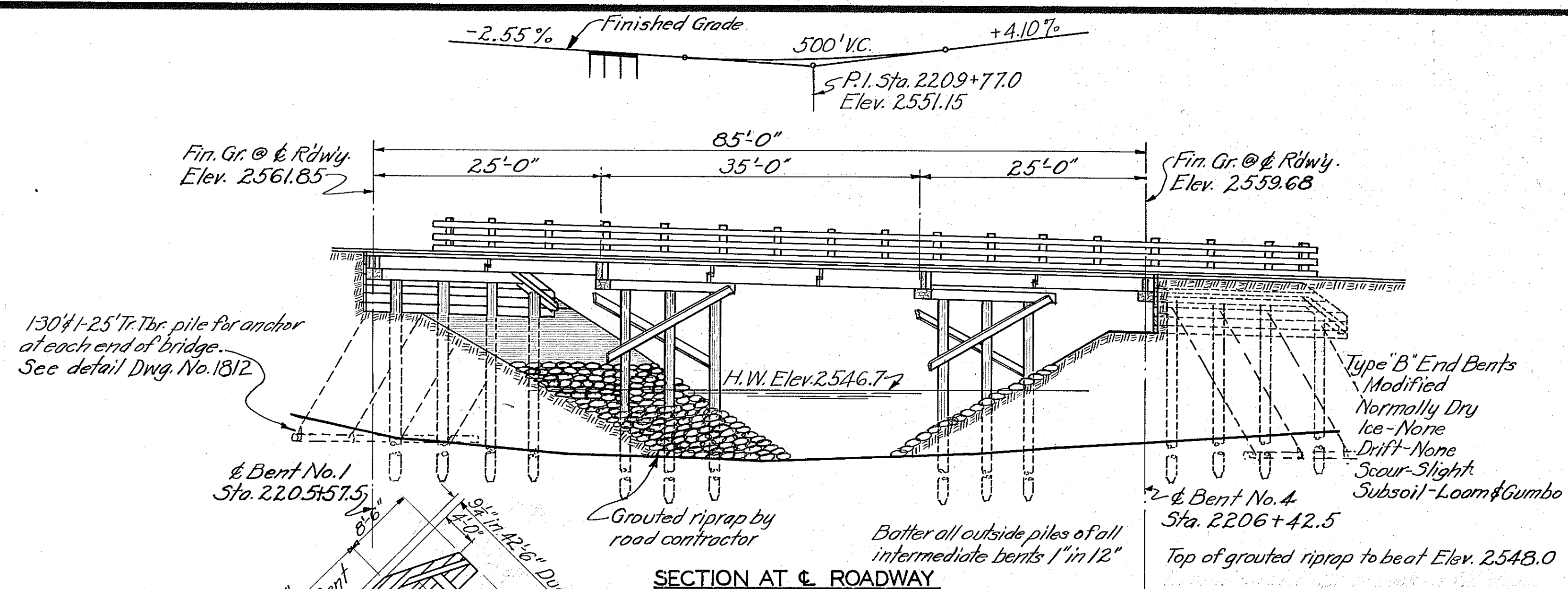
BRIDGES AT STAS. $\begin{cases} 1939 + 67.5 \\ 2112 + 78.0 \\ 2129 + 48.5 \end{cases}$

FED. AID PROJ. NO. 247 F(1) UNIT
M^c CONE COUNTY
GENERAL LAYOUTS
Scale: 1" = 10' 10" measured as noted

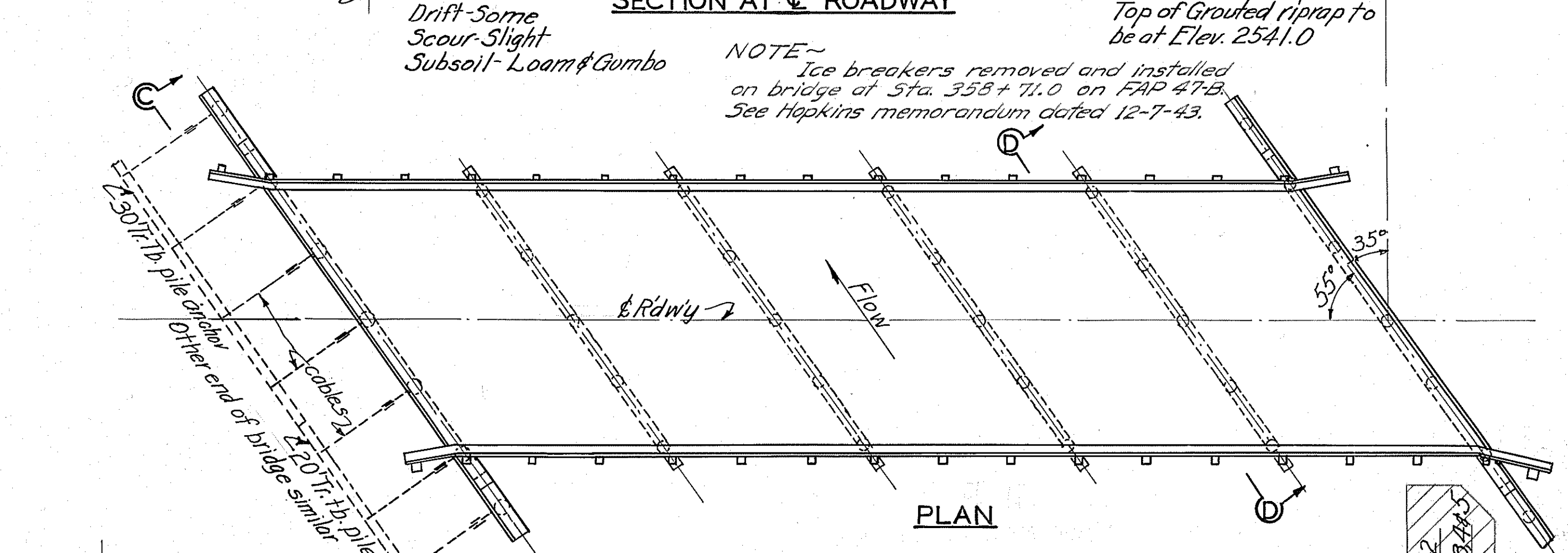
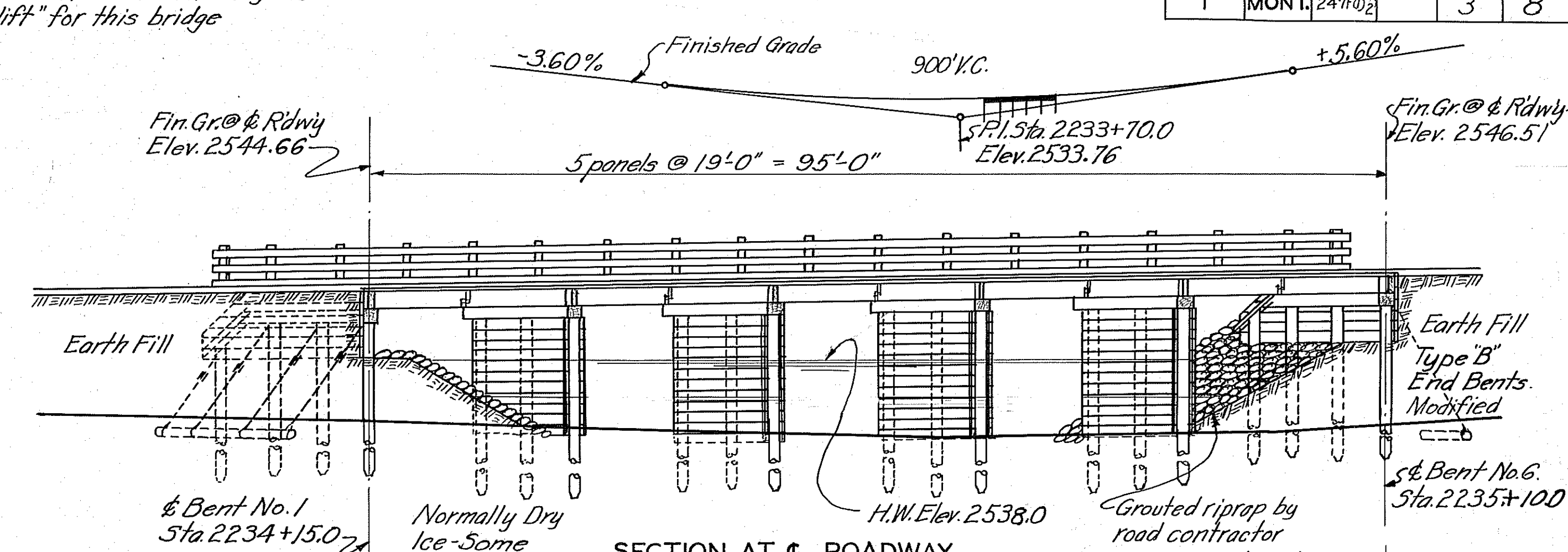
APPROVED BY B. J. Orsburn
BRIDGE DESIGNING ENGINEER
FILE NO. 755 DRAWING NO. 1813

DESIGNED	BY		
DRAWN	BY	M.B.	4-25-39
TRACED	BY	T.C.R.	4-27-39
CHECKED	BY	A.L.H.	4-27-39
REVISED	BY		
REVISED	BY		

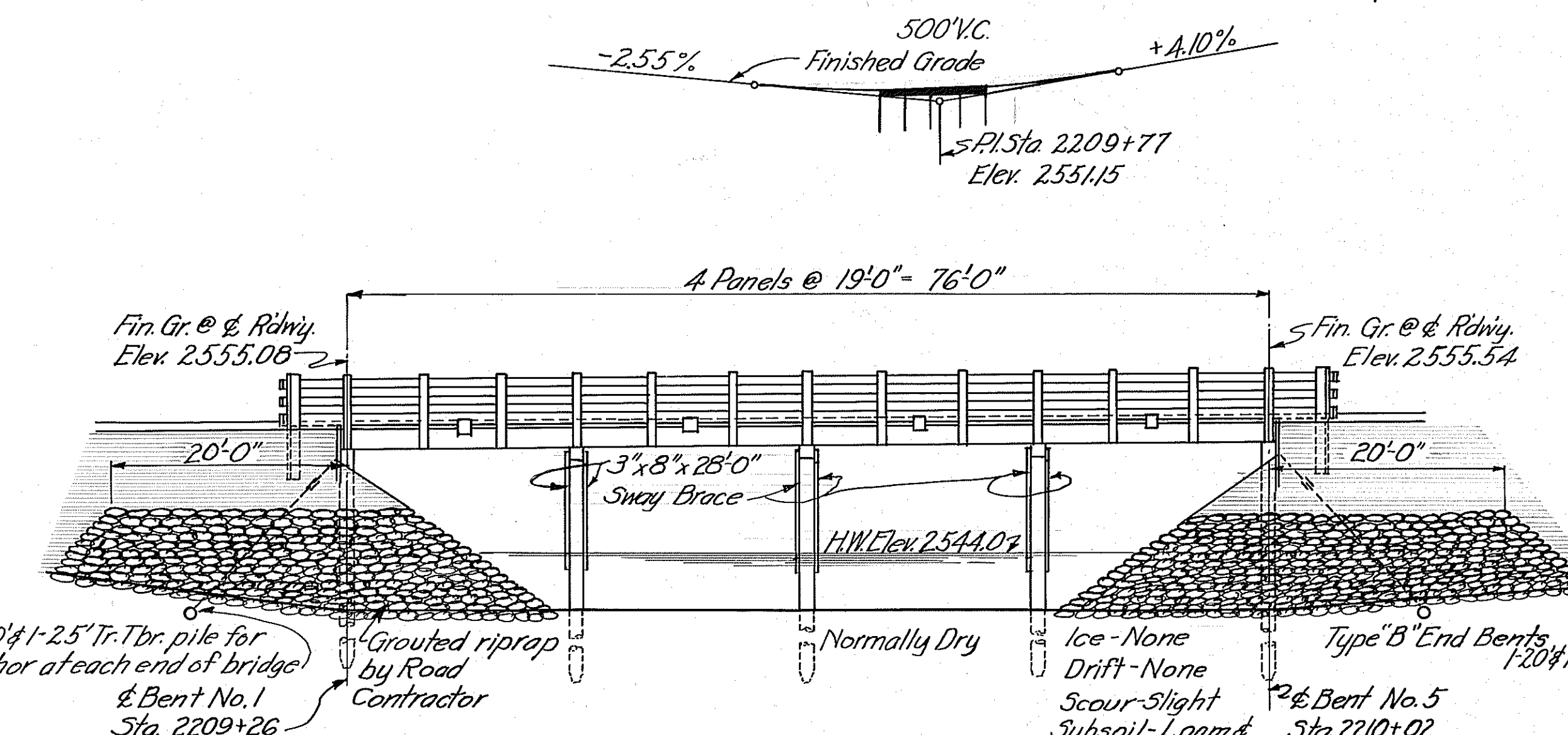
Note: Provide "Provision Against Uplift" for this bridge



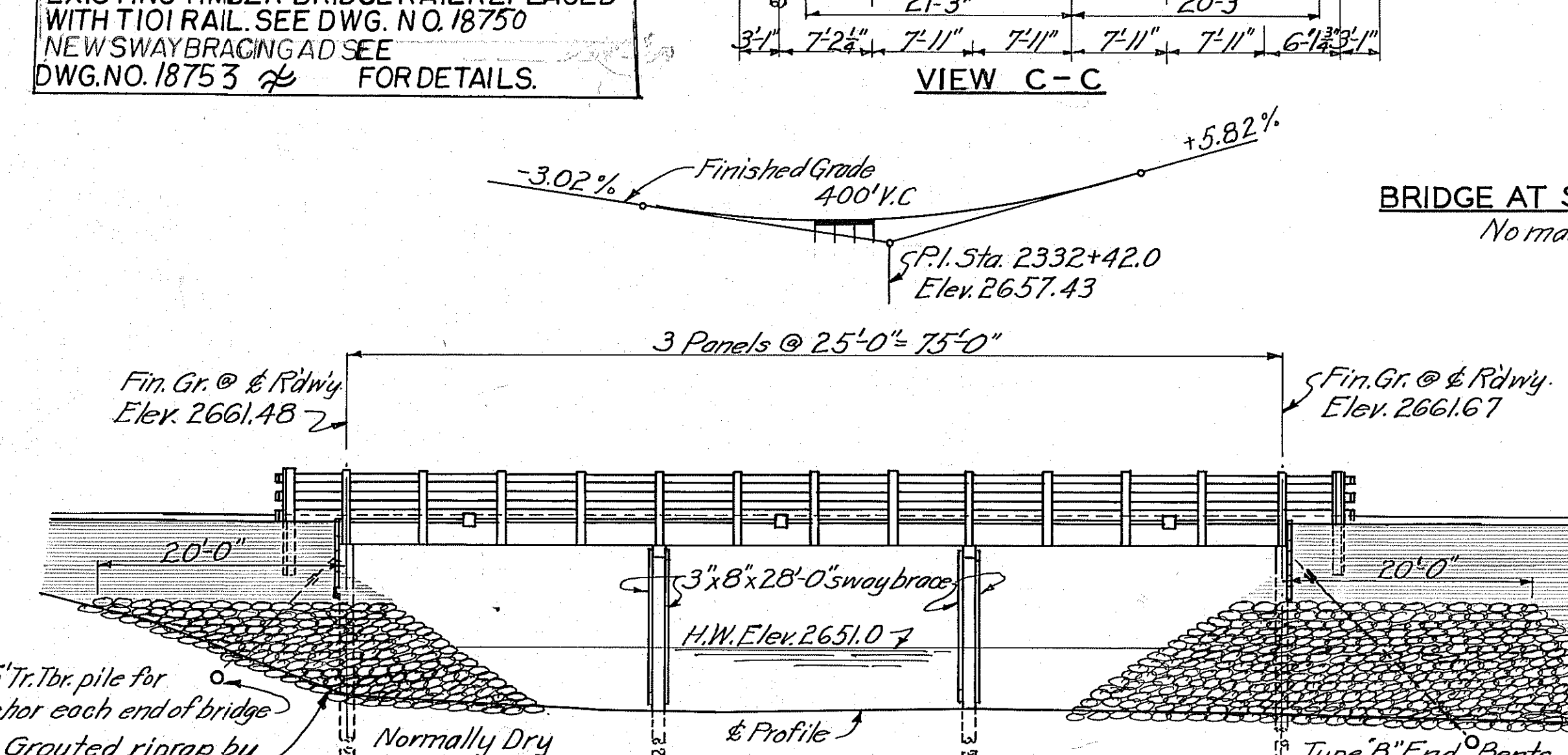
BRIDGE AT STA. 2206+00 (Alignment Tangent) Bearing 584° 33' E. No marker required



BRIDGE AT STA. 2234+62.5 (Alignment Tangent) Bearing 584° 33' E. No marker required



BRIDGE AT STA. 2209+64.0 (Alignment Tangent) Bearing 584° 33' E. No markers required



BRIDGE AT STA. 2332+90.0 (Alignment Tangent) Bearing 584° 33' E. No marker required

* THIS CONTRACT: NH 0002(393) EXISTING TIMBER BRIDGE RAIL REPLACED WITH T101 RAIL. SEE DWG. NO. 18750 NEW SWAY BRACING SEE DWG. NO. 18753 FOR DETAILS.

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
 2332+90.0

FED. AID PROJ. NO. 247 F(1) UNIT 2
 M&CONE COUNTY
 GENERAL LAYOUT
 Scale: 1" = 10'-0"

APPROVED BY: *B. J. Omburn*
 FILE NO. 755 DRAWING NO. 1813A

DESIGNED BY	MB	4-24-39
DRAWN BY	MB	4-24-39
CHECKED BY	DMB	4-29-39
REVIEWED BY	RAH	4-29-39
REVISOR		

Construction changes: None by H.L. Feb. 2, 1944.