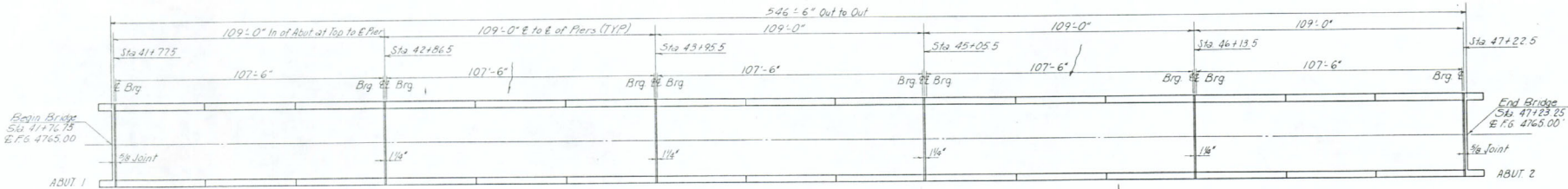
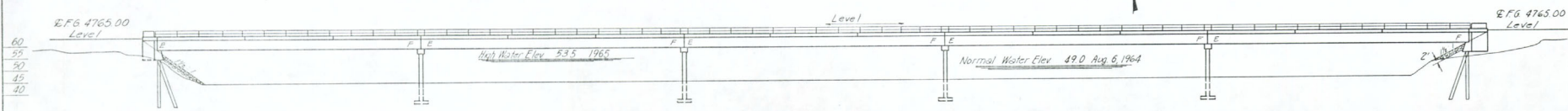


FEDERAL ROAD DISTRICT NUMBER	STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8	IDAHO	S-6731(3)		



GENERAL PLAN  
1" = 20'



ELEVATION  
1" = 20'

**BRIDGE QUANTITIES**

206-B	Exc. for Str. Sch. No 1	384	C.Y.
213	Mech. Tamp.	85	C.Y.
506-A-1	Concrete C1 "M" Sch No 1	386	C.Y.
506-A-2	Concrete C1 "M" Sch No 2	461	C.Y.
506-AA	Concrete C1 "M"	413	C.Y.
506-C	Concrete C1 "C"	20	C.Y.
507-A	Metal Reinf. Sch No 1	41,107	Lbs.
507-B	Metal Reinf. Sch No 2	70,260	Lbs.
508-A	Structural Steel	15,079	Lbs.
509-D	Str. Steel Handrail for Conc. Str.	1090	LF
510-A	Furnish Pile Driving Equip.	1/2	LS
510-H	Furnish Steel Piles	495	LF
510-I	Driving Steel Piles	440	LF
510-J	Driving Test Piles	55	LF
511-J	Self Lubricating Bronze Bearing Plates	1	LS
521-A-2	Prestress Reinforcement	1	LS
601	Loose Riprap	99	C.Y.
SR-1	Unwater Foundations	1	LS

**DESIGN NOTES**

Structure design in accordance with AASHTO Specifications of 1961 and Interim Specifications.  
 Live Load: H20-44 Variable Impact.  
 Roadway Slab design for a 1/2" wearing surface and a future wearing surface of 15 p.s.f.  
 Wing Walls & Abut. Backwall designed for a 3' live load surcharge.  
 Unit Stresses:  
 Class "A" Concrete:  $f_c = 3000$  psi in 28 days  $f_c = 1200$  psi  
 Reinforcing Steel:  $f_s = 20,000$  psi  
 Great Western of Idaho Canal Bridges: Class "AA" Concrete  
 $f_c = 5000$  psi in 28 days  $f_c = 2000$  psi  
 Snake River Bridge: Class "AA" Concrete  $f_c = 6000$  psi in 28 days  $f_c = 2400$  psi  
 Prestressing Steel- Min Ultimate Strength- Alloy Steel bars  $f_s = 145,000$  psi  
 High tensile strength wire  $f_s = 220,000$  psi  
 Cable Strand:  $f_s = 200,000$  psi  
 Prestress working force per beam = 533,000 lbs for Idaho Canal, 533,000 lbs for Great Western Canal Bridge and 751,000 lbs for the Snake River Bridge.  
 Great Western Canal Bridge Steel piles shall be driven to a bearing value of not less than 35 tons per pile.  
 Snake River Bridge Steel piles shall be a min. of 12 H53 and shall be driven to a bearing value of not less than 35 tons per pile.  
 Piling shall be driven to a min penetration of 15 ft or to rock.  
 \* The use of 1/2" dia Type 270K Prestressing Strand will be permitted on this specific project.

**GENERAL NOTES**

Use Idaho Department of Highways Standard Specifications, 1961 Edition and Current Supplemental Specs.  
 Concrete in prestressed stringers shall be Class "AA" No. 1 coarse aggregate. All other concrete shall be Class "A" No. 1 coarse aggregate.  
 All steel reinforcing bars shall have a 2" covering outside of bars unless otherwise noted. Dimensions refer to centerline of bars.  
 Prestressed stringers shall have a min compressive strength at the time of prestressing of 4000 psi for Canal Bridges & 4800 psi for Snake River Bridges.  
 A grillage of #2 bars @ 2' or #3 @ 3' shall be placed 1/2" from post tensioning anchors. Cost of furnishing and placing grillage shall be included in the Lump Sum bid for Item 521A, Prestressing, Reinforce.  
 The Contractor shall provide an approved method of supporting deck slab forms on prestressed stringers.  
 Item 506-A Concrete Class "A" shall include the furnishing and installing neoprene bearing plates & joint filler.  
 Item 508-A "Structural Steel" shall include galvanized anchor bolts, joint angles, bearing plate guide angles, Bearing Plates & Pipe Brims.  
 Prestressed stringers shall be handled in such a manner that the points of support and the directions of reactions are approximately the same as the beam will have in its final position.  
 The plans are for Pre-tensioned stringers. However, the Contractor will be permitted to prestress by Post-tensioning methods.  
 All welding shall conform to the current Specifications for welded Highway and Railway Bridges, design, construction and repair of the American Welding Society.  
 One test pile shall be driven at Abutment No 1 and Abutment No 2 for each structure in such location that they may be an integral part of the final structure.  
 Neoprene pads shall be individually cast and shall have a durometer hardness of 60.  
 Beam handrail 509-D shall include Posts and End Caps.  
 Spreadfootings shall have a uniform bearing on basalt or Class "C" concrete.  
 If Pier foundations do not place footings on basalt boulders, excavate to boulders and backfill with Class "C" conc. on clean basalt boulders to footing elevation.

**GENERAL NOTES (Cont'd)**

Cap plates, Splicing etc to be included in Item 510-D.  
 Abutment backfill quantities shall be included in Roadway Drawings.  
 Contractor will remove existing bridge over Idaho Canal and remove from site.  
 Existing Abutments will be broken up and used as loose riprap.

**LIST OF DRAWINGS**

Drawing	No
Title Sheet	11832
Slab Plan	11833
Roadway Crosssection	11834
Stringers	11835
Bearing Details	11836
Rolling	11838
Abutment No. 1 & No 2	11838
Piers	11839
Rebar Schedule	11840
Contour Map	11841

**GENERAL NOTES (Cont'd)**

Bid Item SR-1 Unwater foundation shall consist of all the necessary dewatering, pumping, bailing, sheeting, shoring, stream diversion, etc., and the construction of cribs and cofferdams and their subsequent removal in accordance with the applicable provisions of section 606 Excavation for Structures. This item will be paid for at the contract lump sum price for Unwater Foundation, which shall include all necessary dewatering, bailing, sheeting, shoring, cribs, cofferdams and stream diversion required for the construction of the Bridge complete in place.

MICROFILM RECORD	DATE	ROLL NO.	AP-CARD or FRAME NO.
	03-28-78	06	254
METRIC 2	3	4	5
INCHES	1	2	3

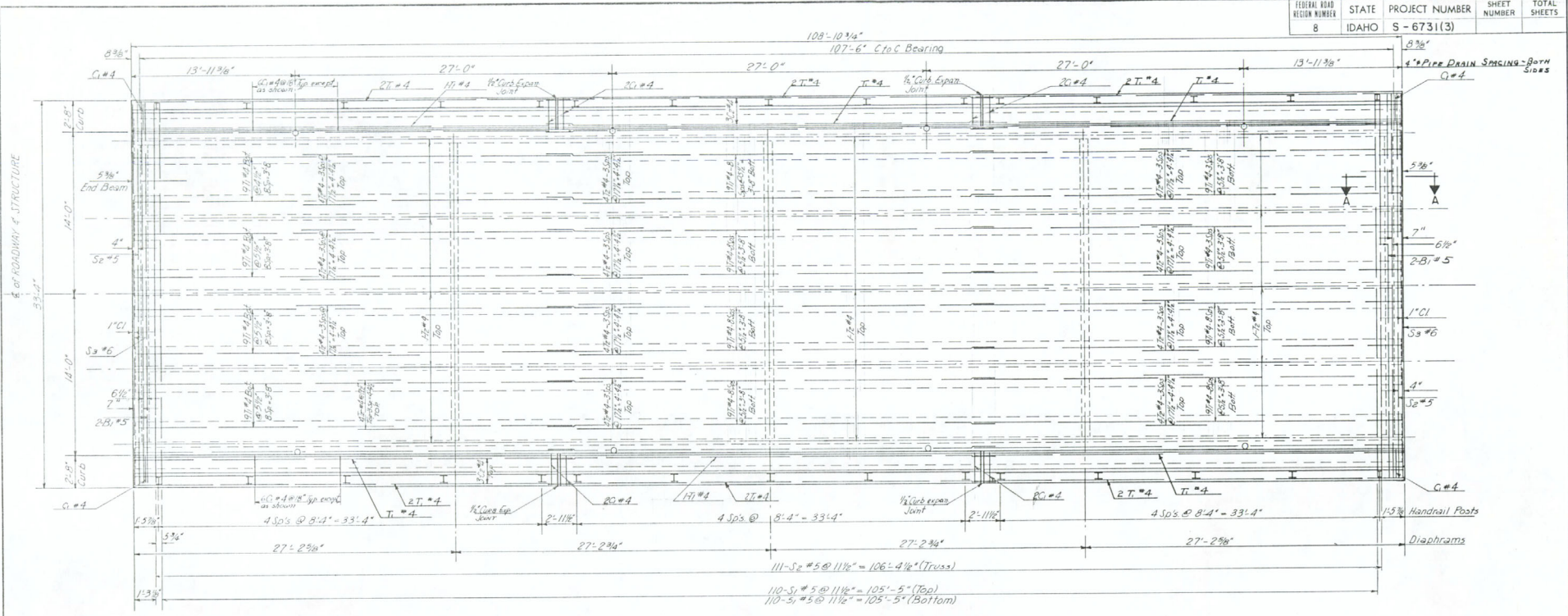


**546' CONCRETE BRIDGE OVER SNAKE RIVER**  
 STA. 44 + 50

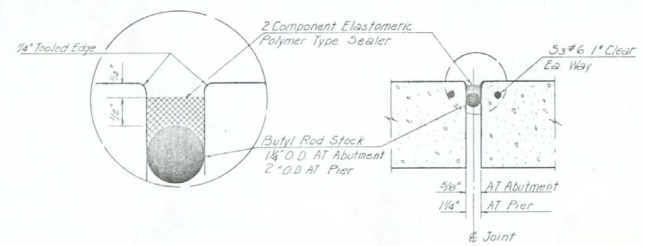
AT COUNTY LINE ROAD EXT. BONNEVILLE & JEFFERSON COUNTIES

DESIGNED FOR <b>IDAHO DEPARTMENT OF HIGHWAYS</b>	DESIGNED BY <b>MURRAY V. JOHNSON &amp; ASSOCIATES</b> CONSULTING ENGINEERS 802 MAIN STREET BOISE, IDAHO
DESIGNED FOR <b>STATE OF IDAHO DEPARTMENT OF HIGHWAYS</b>	APPROVED BRIDGE ENGINEER FILE 1470 DRAWING NO. 11832

FEDERAL ROAD REGION NUMBER	STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8	IDAHO	S-6731(3)		



TYPICAL DECK PLAN  
1/4" = 1'-0"



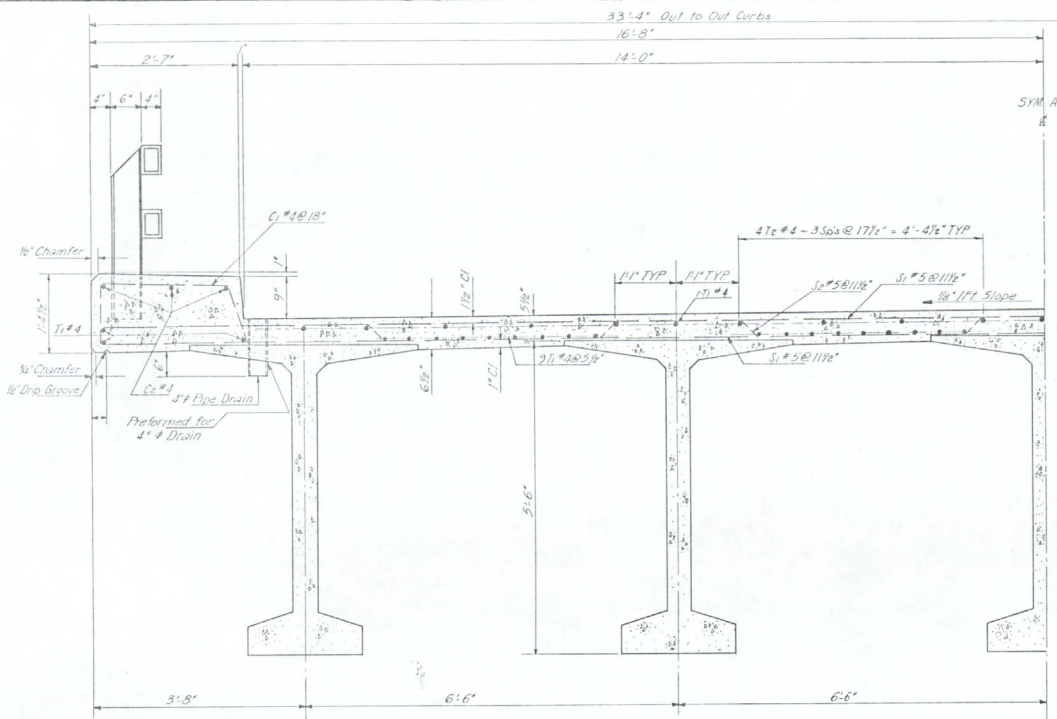
SECTION A-A  
TYPICAL JOINT DETAIL



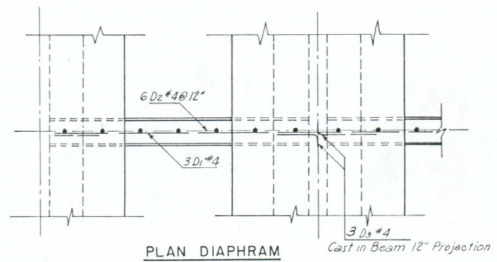
546' CONCRETE BRIDGE OVER SNAKE RIVER STA. 44+50	
AT COUNTY LINE ROAD EXT. BONNEVILLE & JEFFERSON COUNTIES	
DESIGNED FOR IDAHO DEPARTMENT OF HIGHWAYS	DESIGNED BY STATE OF IDAHO DEPARTMENT OF HIGHWAYS
DESIGNED BY MURRAY V. JOHNSON & ASSOCIATES CONSULTING ENGINEERS 802 MAIN STREET BOISE, IDAHO	APPROVED BRIDGE ENGINEER MURRAY V. JOHNSON DATE 11-11-66
FILE 1470 DRAWING NO. 11833	

MICROFILM RECORD	ROLL NO. 147-CARD OF FRAME NO.
DATE	20878
METRIC	2 3 4 5 6 7 8 9 10
INCHES	1 2 3 4

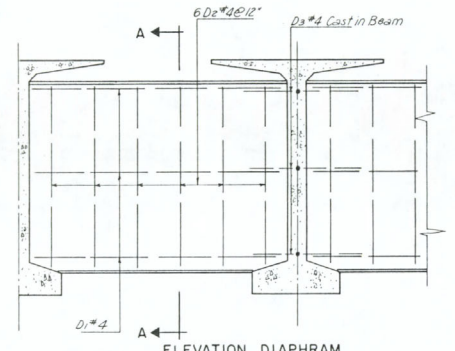
FEDERAL ROAD REGION NUMBER	STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8	IDAHO	S-6731(3)		



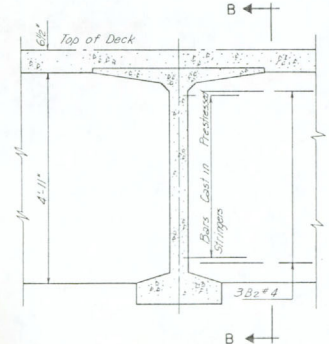
TYPICAL HALF ROADWAY SECTION  
1" = 1'-0"



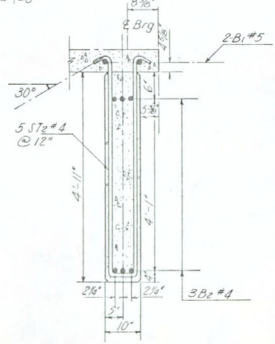
PLAN DIAPHRAM



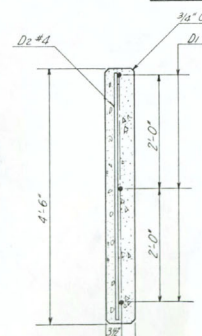
ELEVATION DIAPHRAM



END BEAM  
3/4" = 1'-0"



SECTION B-B



SECTION A-A

MICROFILM RECORD	DATE	ROLL NO.	AP CARD or FRAME NO.
	2-28-78	26	205

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



546' CONCRETE BRIDGE OVER SNAKE RIVER  
STA. 44 + 50

AT COUNTY LINE ROAD EXT. BONNEVILLE & JEFFERSON COUNTIES

DESIGNED FOR  
IDAHO DEPARTMENT OF HIGHWAYS

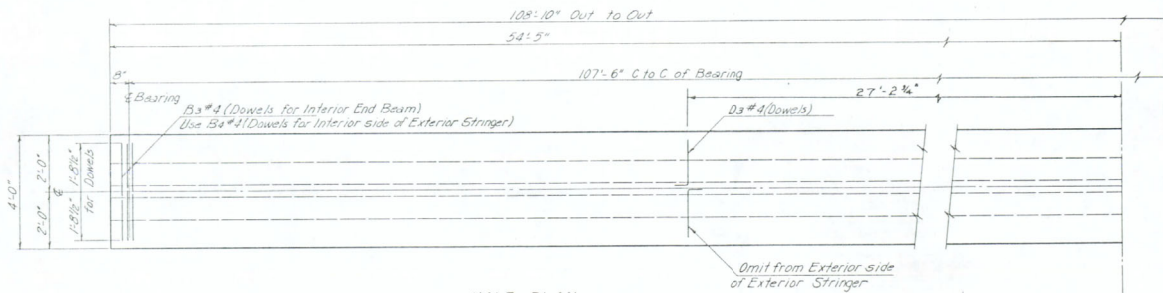
DESIGNED BY  
MURRAY V. JOHNSON & ASSOCIATES  
CONSULTING ENGINEERS  
602 MAIN STREET BOISE, IDAHO

STATE OF IDAHO  
DEPARTMENT OF HIGHWAYS  
BOISE, IDAHO

APPROVED  
BRIDGE ENGINEER  
C. J. Johnson  
DATE: 4-21-66

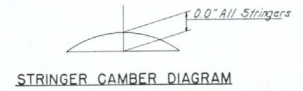
FILE 1470 DRAWING NO. 11834

FEDERAL ROAD REGION NUMBER	STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8	IDAHO	S-673(3)		

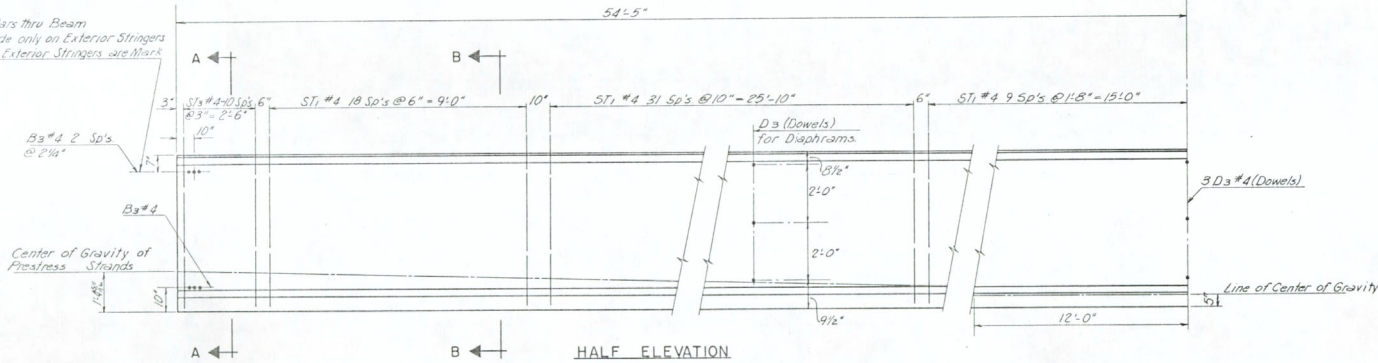


Note: See Deck Plan for holes in Stringer Flange.

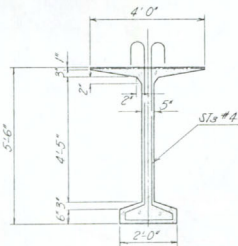
HALF PLAN



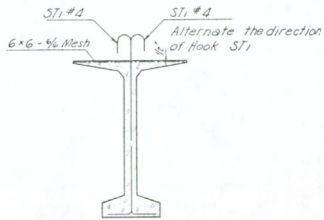
B3 Bars thru Beam  
One side only on Exterior Stringers  
Bars in Exterior Stringers are Mark B3



HALF ELEVATION



SECTION A-A



SECTION B-B

STRINGER (108'-10") TYPICAL  
25 REQ'D  
1/2" = 1'-0"

NOTE: REINFORCING STEEL SHOWN ON THIS DRAWING IS NOT INCLUDED IN QUANTITIES OF BID ITEM 507B METAL REINFORCEMENT SCHEDULE No. 2

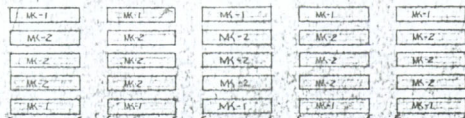


546' CONCRETE BRIDGE OVER SNAKE RIVER  
STA. 44+50

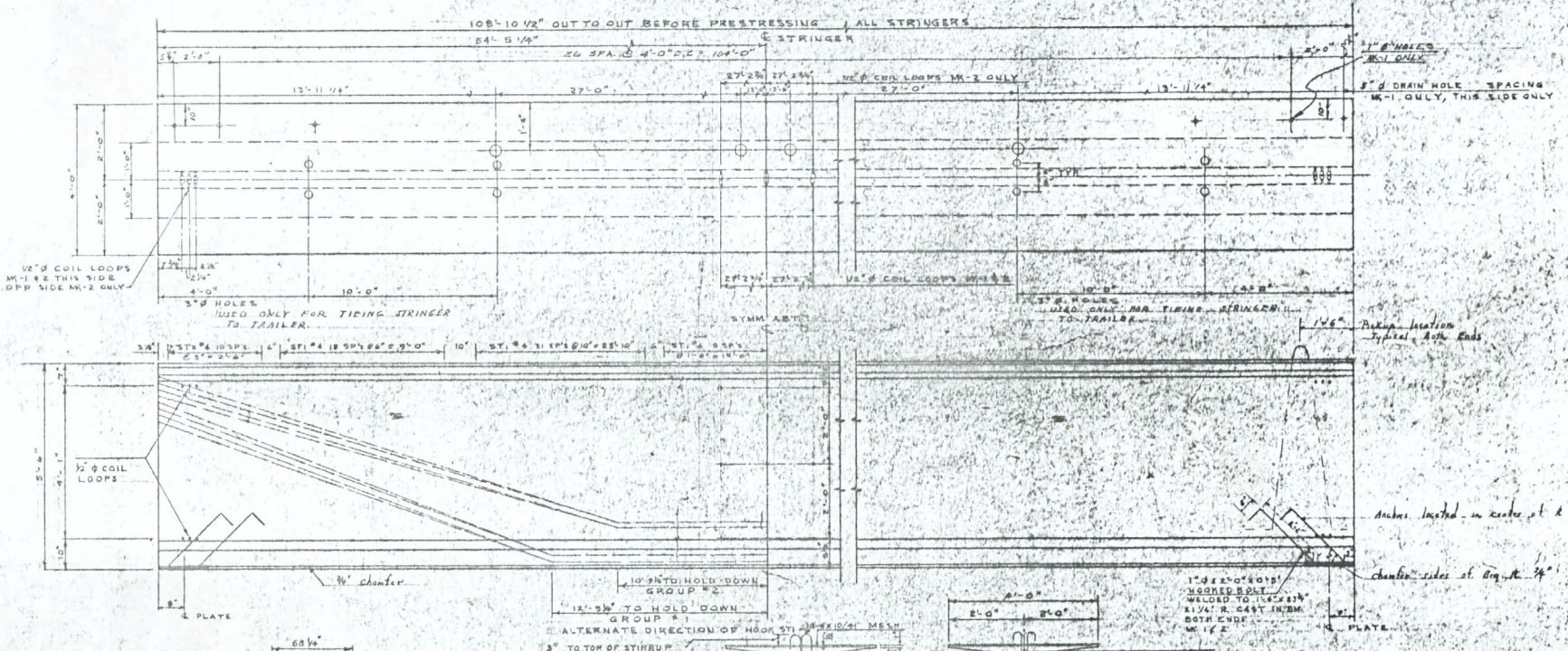
AT COUNTY LINE ROAD EXT	BONNEVILLE & JEFFERSON COUNTIES
DESIGNED FOR IDAHO DEPARTMENT OF HIGHWAYS	STATE OF IDAHO DEPARTMENT OF HIGHWAYS
DESIGNED BY MURRAY V. JOHNSON & ASSOCIATES	BOISE APPROVED BRIDGE ENGINEER DATE: 10-1-66
CONSULTING ENGINEERS 602 MAIN STREET BOISE, IDAHO	FILE 1470 DRAWING NO. I1835

MICROFILM RECORD	ROLL NO. 1P-1000	FRAME NO.
DATE	3-28-80	204
METER	2	3
INCHES	1	2
	3	4

STRINGER LAYOUT



STA. 44+50

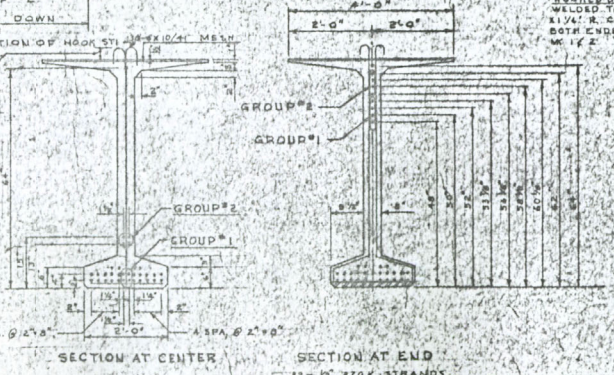


MATERIAL RECORD

DATE	2-28-88	BY	CLB
METRIC	2	3	4
INCHES	1	2	3

TYPE 1	TYPE 2	TYPE 3	TYPE 4
TOTAL QUANTITY PER BEAM	NO. REQ. PER BEAM	MARK NO.	SEND TYPE
218 M4	4	ST1	7'-0"
100	4	ST3	8'-5"
840	2	2" Ø THREADED ROD	2'-0"
840	2	1/2" Ø COIL LOOPS	

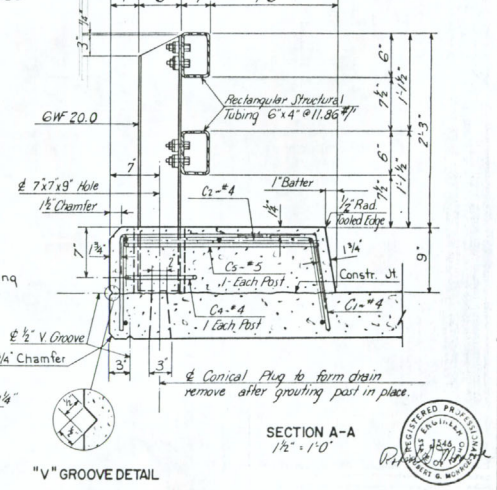
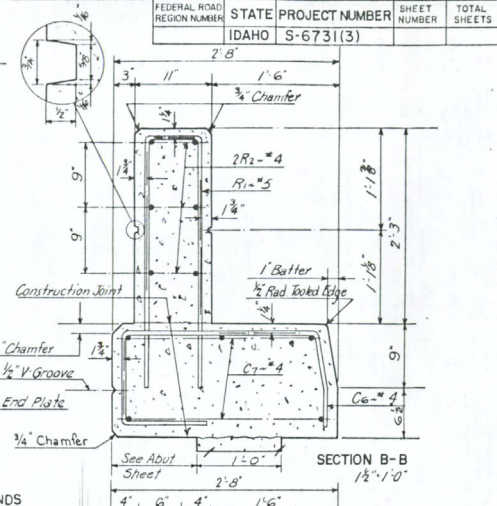
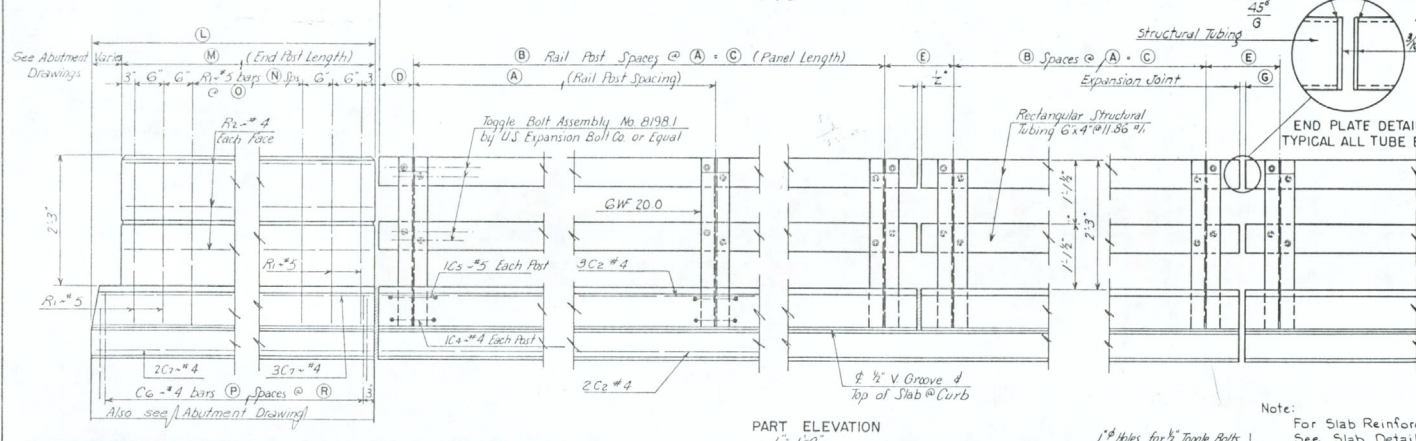
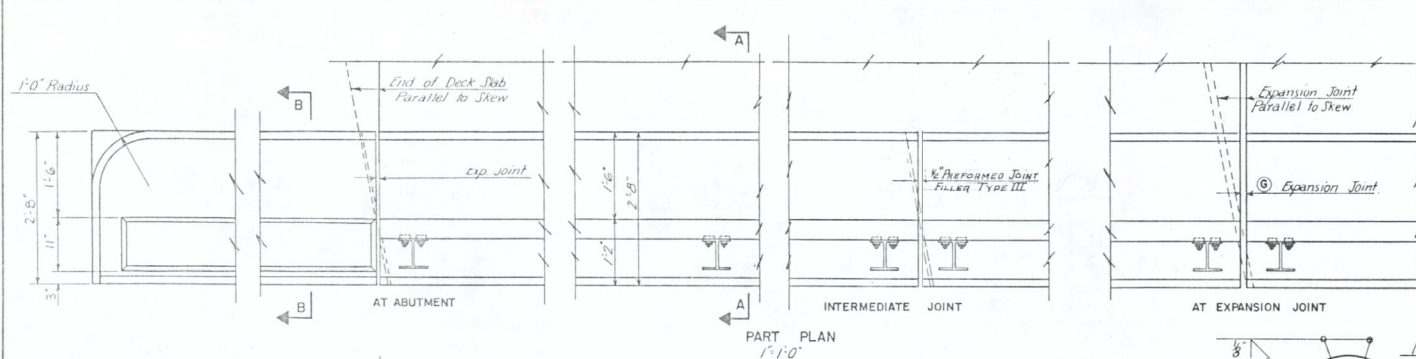
- Notes:
1. Use a 67,000 psi
  2. Release strength = 6500 psi
  3. 23 day strength = 8110 psi



IDAHO PROJECT NO. S-6731 (3)  
 STA. 44+50 SPANS 123, 4, 5  
 NELSEN & MILLER CONST. CO.  
 STRINGER

READY-TO-POUR CONCRETE CO.  
 2166-13E





**"V" GROOVE DETAIL**

1" Holes for 1/2" Toggle Bolts Assembly No. 8198-1 as Mfg. by U.S. Expansion Bolt Co. or Equal

Note: For Slab Reinforcing See Slab Details

DESIGNED FOR  
IDAHO DEPARTMENT OF HIGHWAYS

DESIGNED BY  
MURRAY V. JOHNSON & ASSOCIATES  
CONSULTING ENGINEERS  
602 MAIN STREET BOISE, IDAHO

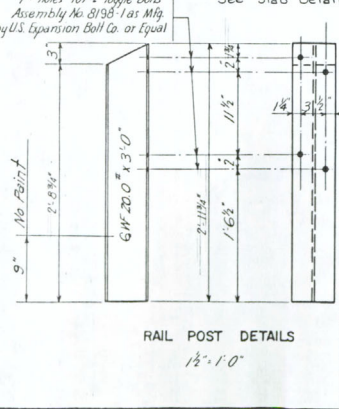
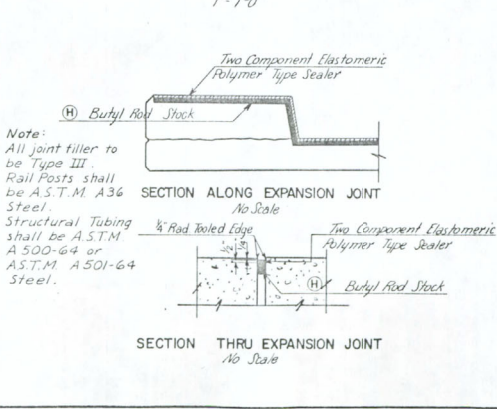
STATE OF IDAHO  
DEPARTMENT OF HIGHWAYS  
BOISE IDAHO

APPROVED  
BRIDGE ENGINEER  
DATE

FILE 1470 DRAWING NO. 11837

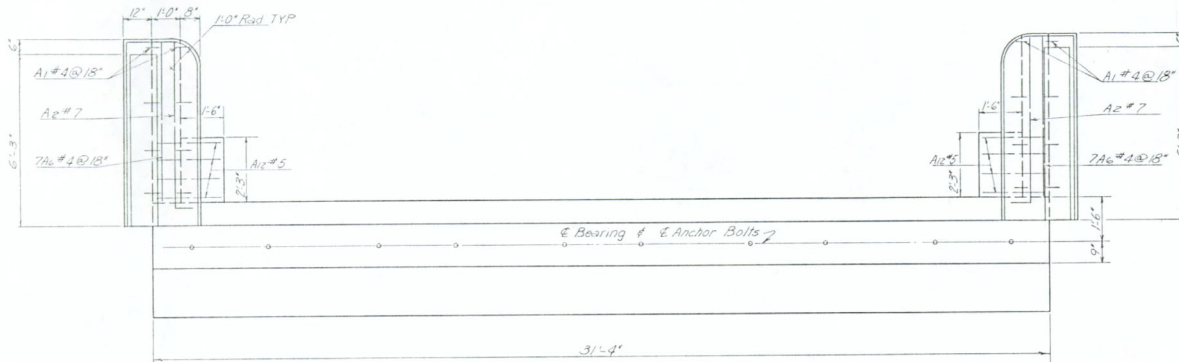
LOCATION	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(J)
Idaho Canal	8'-0"	4	32'-0"	1'-5 1/2"	2'-10 1/2"	3/4"	1 1/4"		
Great Western Canal	8'-0"	4	32'-0"	1'-5"	2'-8 1/2"	3/4"	1 1/4"		
Snake River	5'-4"	4	33'-4"	1'-5 1/2"	2'-11 1/2"	*	**		

LOCATION	(K)	(L)	(M)	(N)	(O)	(P)	(R)	NO OF PANELS BOTH SIDES
Idaho Canal	6'-0"	5'-6"	3	12	6	11"	4	
Great Western Canal	6'-0"	5'-6"	3	12	6	11"	4	
Snake River	6'-9"	6'-3"	5	9	6	12"	6	



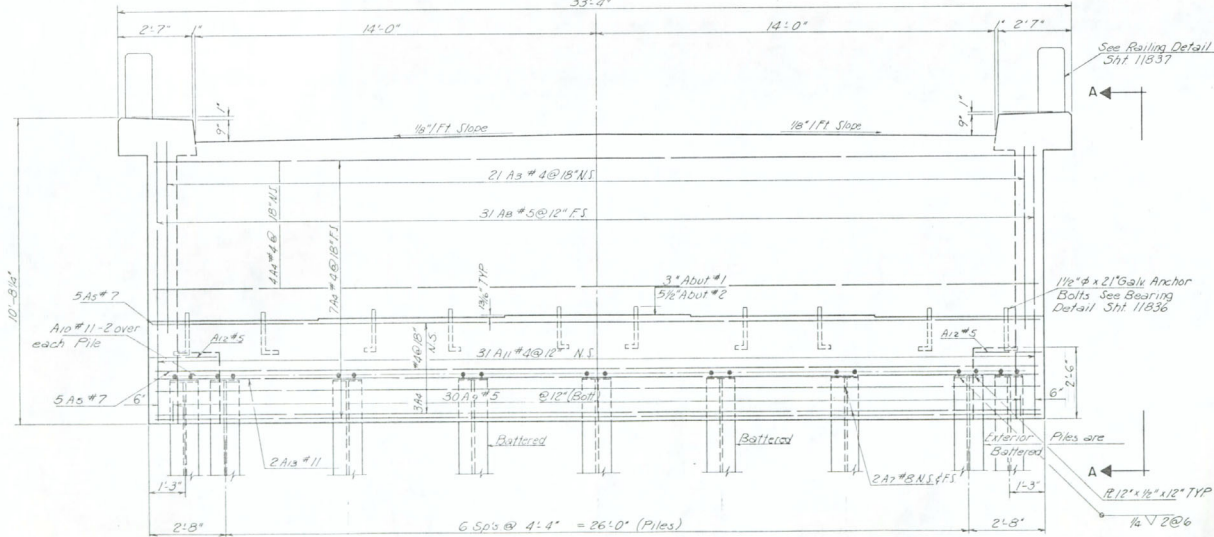
MICROFILM RECORD  
ROLL NO. IAP-CARD NO. FRAME NO.  
DATE 3-28-78 26 247  
REVISIONS:  
REVISION NO. DATE  
INCHES 1 2 3 4 5 6 7 8 9 10  
FEET 1 2 3 4 5 6 7 8 9 10

FEDERAL ROAD DISTRICT NUMBER	STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8	IDAHO	S-6731(3)		



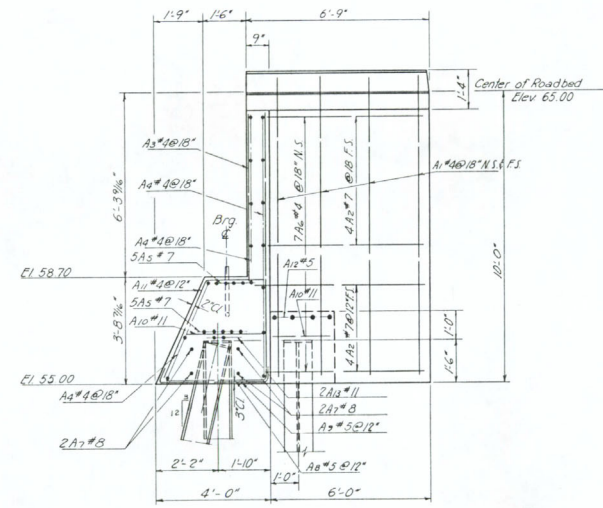
PLAN ABUTMENT NO. 1 & 2

ROADWAY & ABUTMENT  
33'-4"



ELEVATION ABUTMENT NO. 1 & 2

1/2" = 1'-0"



VIEW A-A

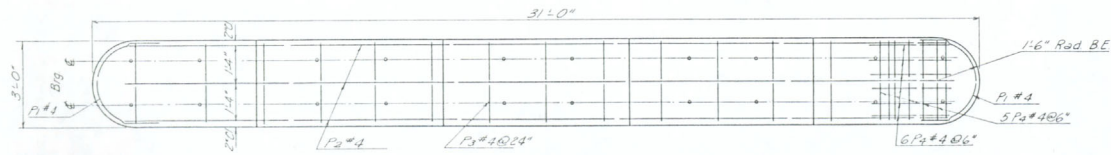


546' CONCRETE BRIDGE OVER SNAKE RIVER  
STA. 44+50

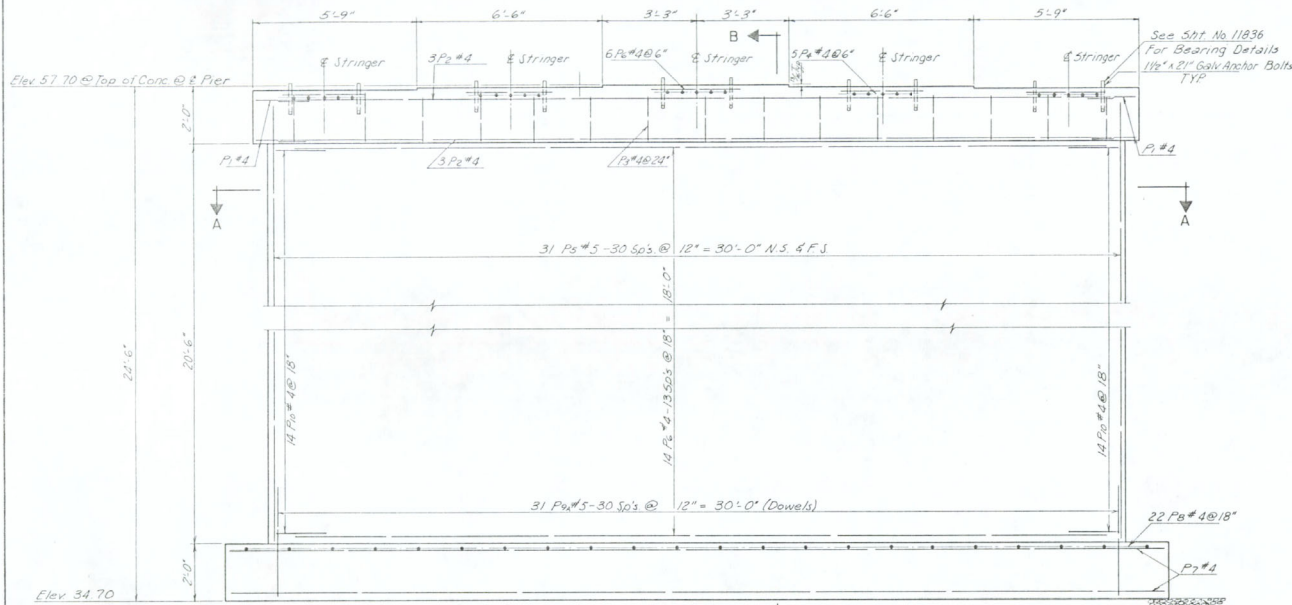
AT COUNTY LINE ROAD EXT.	BONNEVILLE & JEFFERSON COUNTIES
DESIGNED FOR IDAHO DEPARTMENT OF HIGHWAYS	STATE OF IDAHO DEPARTMENT OF HIGHWAYS
DESIGNED BY MURRAY V. JOHNSON & ASSOCIATES CONSULTING ENGINEERS	BOISE APPROVED BRIDGE ENGINEER C. T. Johnson DATE 4/11/66
602 MAIN STREET BOISE, IDAHO	FILE 1470 DRAWING NO. 11838

MICROFILM RECORD	DATE	ROLL NO.	AP-CARD #	FRAME NO.
	2-28-76	24	24	
METERS	2	3	4	5
INCHES	1	2	3	4

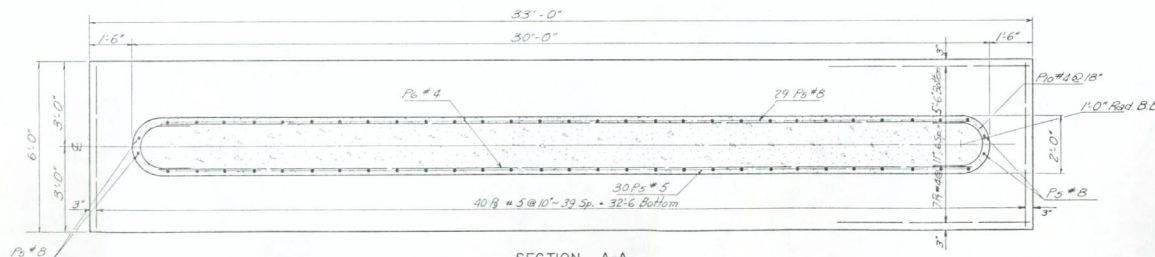
FEDERAL ROAD REGION NUMBER	STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8	IDAHO	S - 673(13)		



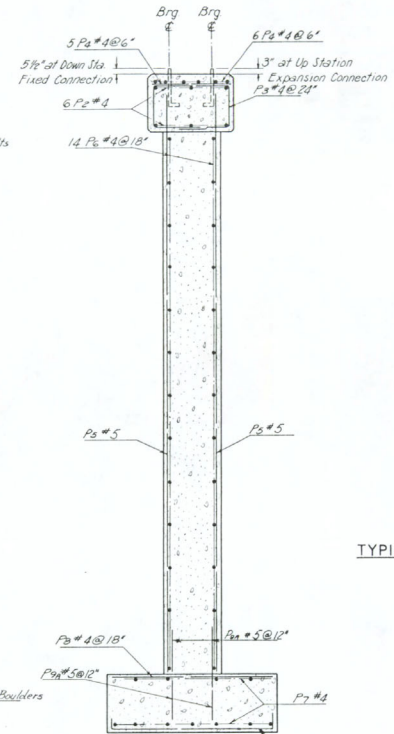
PIER CAP PLAN



PARTIAL ELEVATION



SECTION A-A  
Scale 1/2" = 1'-0"



TYPICAL PIER DETAILS  
1/2" = 1'-0"



MICROFILM RECORD	DATE	ROLL NO.	AP. CARD #	FRAME NO.
	5-28-78	18-556	249	
METERS	2	3	4	5
INCHES	1	2	3	4

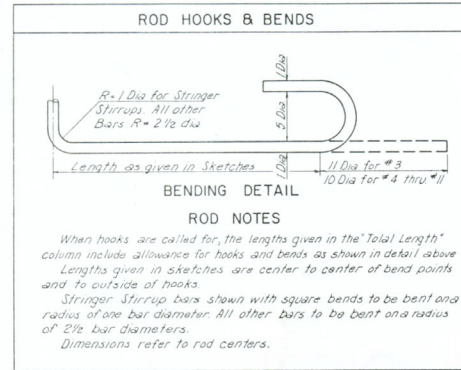
546' CONCRETE BRIDGE OVER SNAKE RIVER STA. 44+50	
AT COUNTY LINE ROAD EXT.	BONNEVILLE & JEFFERSON COUNTIES
DESIGNED FOR IDAHO DEPARTMENT OF HIGHWAYS	STATE OF IDAHO DEPARTMENT OF HIGHWAYS
DESIGNED BY MURRAY V. JOHNSON & ASSOCIATES CONSULTING ENGINEERS	BOISE IDAHO
602 MAIN STREET BOISE, IDAHO	APPROVED BRIDGE ENGINEER C. Tolson DATE 4-11-62
	FILE 1470 DRAWING NO. 11839

FEDERAL ROAD DISTRICT NUMBER	STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8	IDAHO	S-673(3)		

MARK	LOCATION	TOTAL LENGTH	NO	SKETCH
A1	Abut 1 & 2	10:8'	32	6" 10'-3"
A2	"	7 6:10'	32	1:0" 6:0"
A3	"	4 6:10'	22	
A4	"	4 3:50'	28	
A5	"	7 3:50'	20	
A6	"	4 3:50'	28	
A7	"	8 3:50'	8	
AB	"	5 13:0'	62	4'-7" 3'-6"
A9	"	5 4:4'	60	6" 3'-6" 6"
A10	"	11 2:9'	30	
A11	"	4 5:8'	62	10" 2'-0" 3'-9"
A12	"	5 2:0'	16	
A13	"	11 3:0'	4	
B1	Slab	5 33:0'	20	
B2	End Beam	4 5:7'	280	
B3	Stringers	4 3:5'	180	
B4	"	4 2:2'	60	6" 1:9"
C1	Slab	4 4:1'	780	2'-3" 1:0" 11" 1:0"
C2	"	4 3:5'	30	
C4	"	4 2:8'	150	8" 6" 8"
C6	"	5 4:11'	150	8" 2'-3"
D1	Diaphragm	4 6:2'	180	
D2	"	4 4:2'	360	
D3	Stringers	4 2:2'	360	6" 1:9"
P1	Pier	4 5:11'	16	7:0" 1:0" 1:8" Rod
P2	"	4 28:6'	24	
P3	"	4 9:1'	60	2'-8" 1:0" 1:10" 1:10" 1:6 1/2"
P4	"	4 2:8'	220	
P5	"	5 2:4'	248	
P6	"	4 28:6'	112	
P7	"	4 32:8'	44	
P8	"	4 5:8'	88	
P9	"	5 6:6'	160	6" 5:8" 6"
P9A	"	5 4:0'	248	4'-0"
P10	"	4 4:8'	112	7:0" 10" Rod 1:0"
S1	Slab	5 33:0'	1200	
S2	"	5 32:11'	555	4:2" 2:2" 1:1 2-9/16" 1:10" 3-9/16"
T1	"	4 3:5'	660	
T2	"	4 3:5'	315	

MARK	LOCATION	TOTAL LENGTH	NO	SKETCH
ST1	Stringers	4 7:0'	3000	5" Hook=4" 5:9"
ST2	End Beam	4 11:4'	200	3" 3" 5:2" 5:2" 30"
ST3	Stringers	3 14:7'	550	3" Hook=4" 3" 5:2" 5:2" 3" 3" 3" 3" 7/8"
C6	Wing Curb	4 4:4'	28	12" 2'-3" 11" 4"
C7	"	4 6:5'	20	
R1	"	5 5:4'	24	2'-4" 7" 2'-4"
R2	"	4 5:11'	24	

\* Note Stringer Rebar is not included in Quantity Bid Item 507-B Metal Reinforcement Schedule No. 2.



**ROD WEIGHTS**

Size No	Linear FT	Wt / FT	Weight
4	60 228	0.668	40,200
5	64 427	1.043	67,197
6	330	1.502	496
7	238	2.044	1,713
8	248	2.670	662
11	207	5.313	1,099
Total Wt			111,367



**546' CONCRETE BRIDGE OVER SNAKE RIVER**  
STA. 44+50

AT COUNTY LINE ROAD EXT. BONNEVILLE & JEFFERSON COUNTIES

DESIGNED FOR  
IDAHO DEPARTMENT OF HIGHWAYS

DESIGNED BY  
MURRAY V. JOHNSON & ASSOCIATES  
CONSULTING ENGINEERS  
802 MAIN STREET BOISE, IDAHO

STATE OF IDAHO  
DEPARTMENT OF HIGHWAYS

BOISE IDAHO

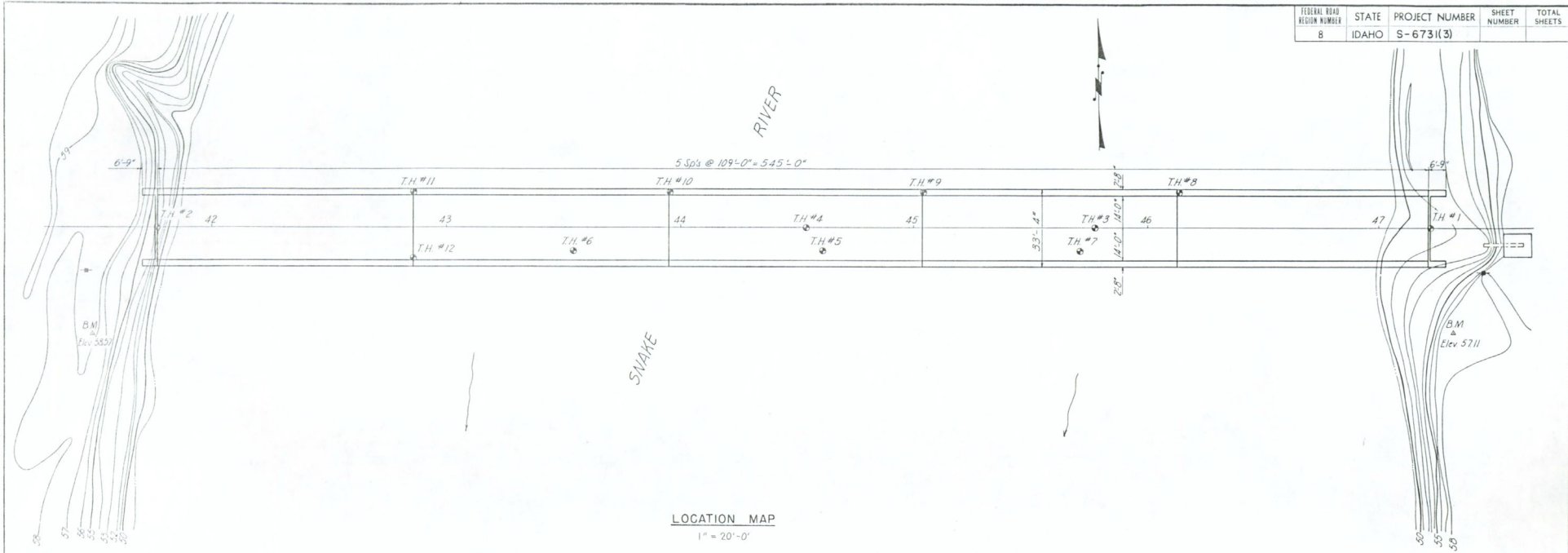
APPROVED  
BRIDGE ENGINEER  
DATE: 11-66

FILE 1470 DRAWING NO. 11840

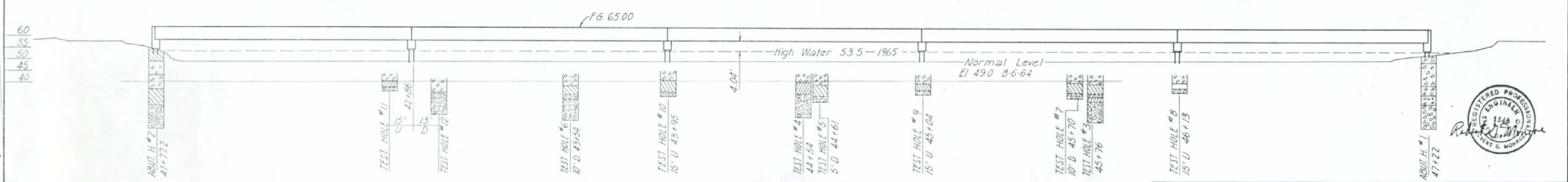
MICROFILM RECORD  
DATE 2-28-78  
ROLL NO. 514  
AP-CARD # FRAME NO. 250

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

FEDERAL ROAD REGION NUMBER	STATE	PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
8	IDAHO	S-673(3)		



LOCATION MAP  
1" = 20'-0"



PROFILE

- LEGEND**
- Residue & Silt
  - Sand & Gravel
  - Silty Sand
  - Basalt Boulders
  - U - Up
  - D - Down

MICROFILM RECORD	ROLL NO.	FRAME NO.
DATE	2-28-78	216-257
METERIC	3	4
INCHES	1	2
	3	4
	5	6
	7	8
	9	10

<b>546' CONCRETE BRIDGE OVER SNAKE RIVER</b> STA. 44+50	
AT COUNTY LINE ROAD EXT.	BONNEVILLE & JEFFERSON COUNTIES
DESIGNED FOR IDAHO DEPARTMENT OF HIGHWAYS	STATE OF IDAHO DEPARTMENT OF HIGHWAYS
DESIGNED BY MURRAY V. JOHNSON & ASSOCIATES CONSULTING ENGINEERS	APPROVED BRIDGE ENGINEER <i>[Signature]</i> DATE: 4-17-66
602 MAIN STREET BOISE, IDAHO	FILE 1470 DRAWING NO. 11841

