

STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGE PLANS & QUANTITIES
FEDERAL AID PROJECT NO. F-250(6) P.E.
F-250(8) CONSTRUCTION
LIBBY — NORTHWEST
LINCOLN COUNTY

LIST OF DRAWINGS

SHEET NO.	DWG. NO.	TITLE
1	9049	GENERAL LAYOUT AT STA. 1801+59.00
2	9050	FOOTING PLAN
3	9051	ABUTMENT DETAILS
4	9052	SLAB & WING WALL DETAILS
5	9053	GENERAL LAYOUT AT STA. 1849+67.00
6	9054	FOOTING PLAN
7	9055	ABUTMENT DETAILS
8	9056	SLAB & WING WALL DETAILS
9	9057	BRIDGE RAIL DETAILS
10	* SBR-T5 (Rev. 1-22-69)	STANDARD STEEL BRIDGE RAIL TYPE NO. 5

* SBR-T5 To be modified as shown on Drawing No. 9057

ESTIMATED BRIDGE PLAN QUANTITIES											5 % Swell in Substructure Concrete
											15 % Swell in Structure Excavation
	LOCATION	LENGTH IN FEET	REINFORCING STEEL LBS.	STRUCTURAL STEEL LUMP SUM	CLASS "A" CONCRETE CU. YDS.	* STEEL BRIDGE RAIL TYPE NO. 5 LIN. FT.	STEEL BRIDGE RAIL LIN. FT.	STRUCTURE EXC. TYPE I CU. YDS.	TREATED TIMBER TEST PILES LUMP SUM	TREATED TIMBER PILES	
										FURNISHING LIN. FT.	DRIVING LIN. FT.
STRUCTURE AT STA. 1801+59.00	ABUTMENT NO. 1		4324 4597	49 LUMP SUM	87.2 82.4449			223.78 185	.50 LUMP SUM	930.0	899.0 719.5
	ABUTMENT NO. 2		4324 4639		87.2 82.4449			235 239.66		930.0	899.0 887.6
	SUPERSTRUCTURE	25.0	17947 17659		118.1 103.3260						
	SUB-TOTAL	25.0	26596 26895	49 LUMP SUM	292.5 268.2158			420 442.84	.50 LUMP SUM	1860.0	1798.0 1801.1
STRUCTURE AT STA. 1849+67.00	ABUTMENT NO. 1		2238 2328	51 LUMP SUM	67.8 63.7011			250 196.59	.50 LUMP SUM	750.0	725.0 736.4
	ABUTMENT NO. 2		2238 2400		67.8 63.7011			265 189.72		750.0	725.0 719.8
	SUPERSTRUCTURE	25.0	19214 19234		199.7 198.9464	18.92	24.92				
	SUB-TOTAL	25.0	23690 23962	51 LUMP SUM	245.3 236.3486	18.92	24.92	515 386.31	.50 LUMP SUM	1500.0	1450.0 1456.2
	TOTAL	50.0	50285 50857	1.0 LUMP SUM	537.8 504.5644	18.92	24.92	935 829.15	1.0 LUMP SUM	3360.0	3248.0 3258.3

Made by: D.E.Milot 8-1-68 Checked by: R.N.D. 8-22-68

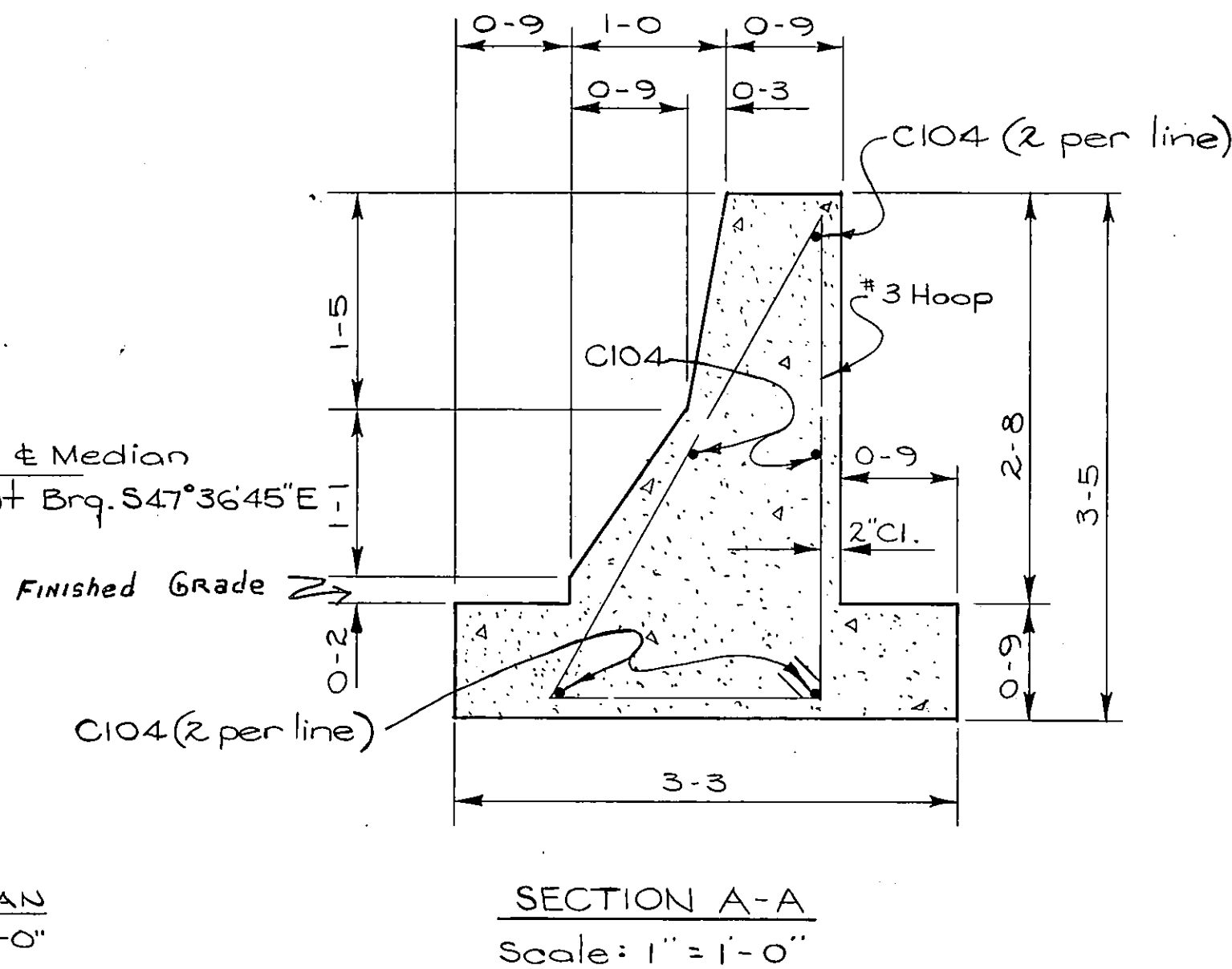
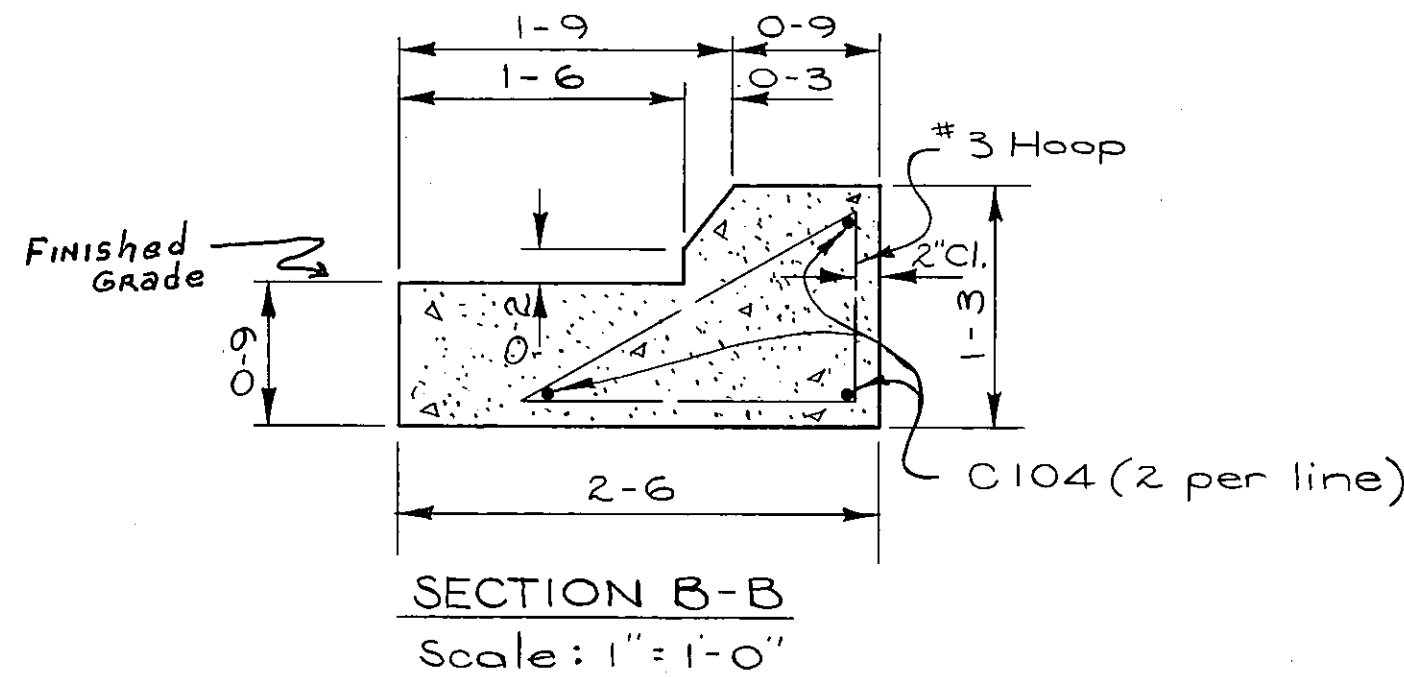
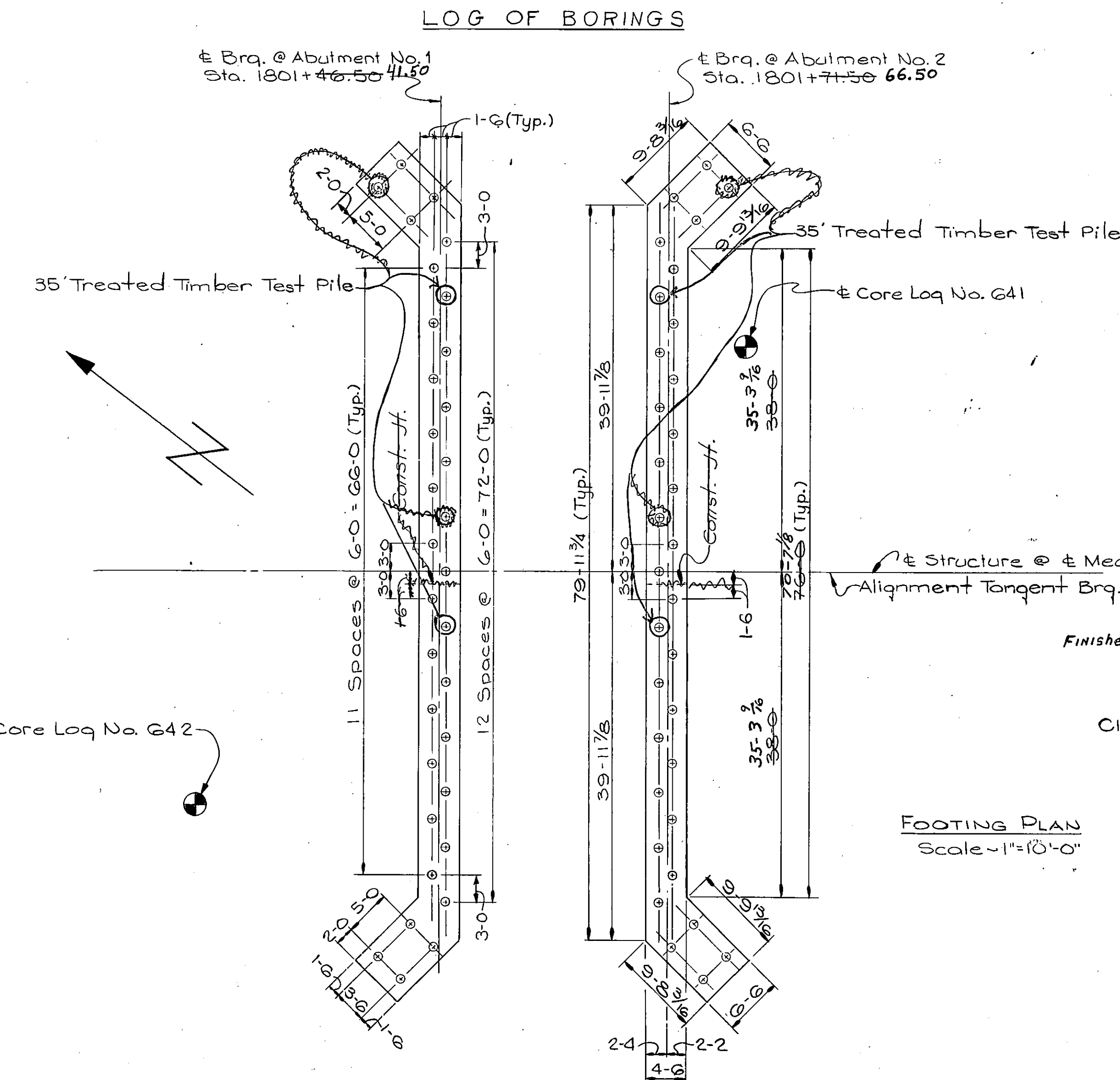
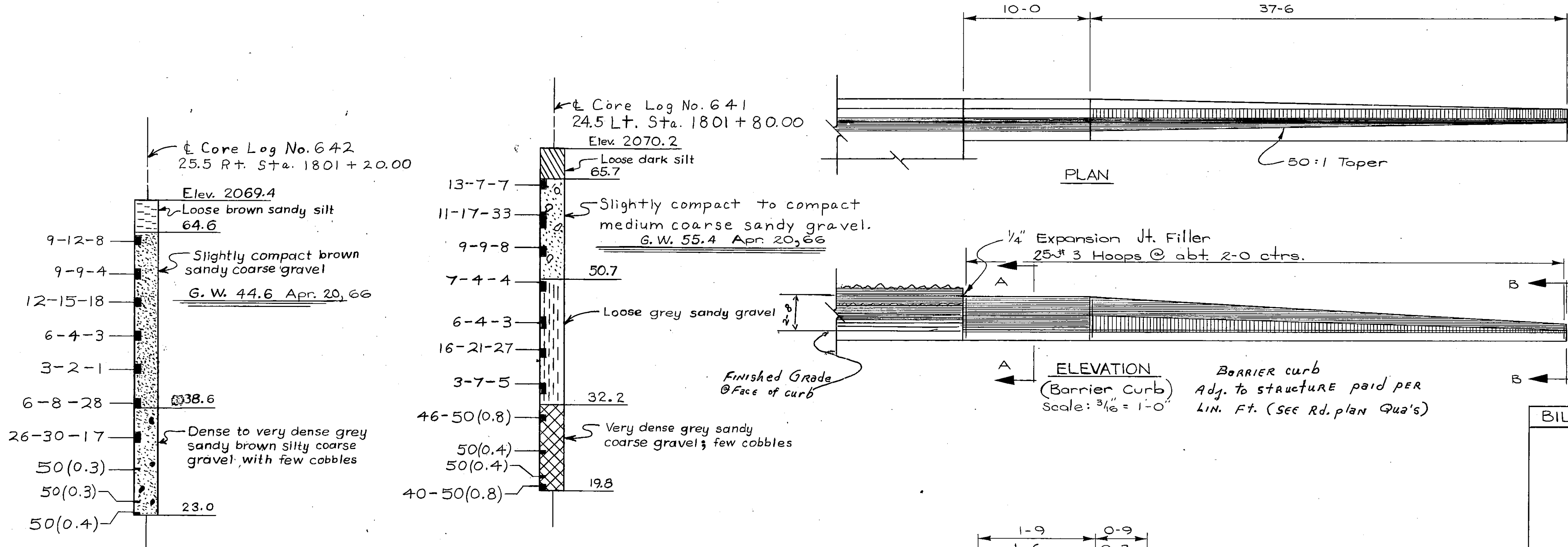
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F 250(8)	2	10

NOTES

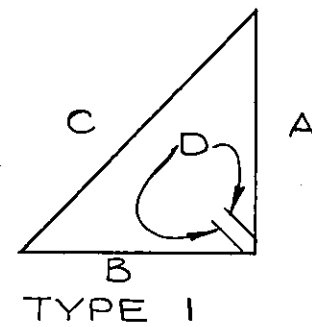
SOILS AND FOUNDATION MATERIALS: BORINGS WERE TAKEN BY THE MONTANA STATE HIGHWAY DEPARTMENT AT THE POINTS SHOWN ON THE GENERAL LAYOUT OR FOOTING PLAN.

THE SERIES OF NUMBERS SHOWN ON THE LOG OF BORINGS INDICATES THE NUMBER OF BLOWS PER 6" PENETRATION FOR EACH NUMBER OF THE SERIES OF A 2" SAMPLE TUBE WHICH WAS DRIVEN IN ACCORDANCE WITH THE STANDARD PENETRATION TEST MADE WITH A 2" SPLIT TUBE SAMPLER USING A 140# HAMMER HAVING A 30" DROP. THE TOTAL PENETRATION OF THE SAMPLER TUBE IS INDICATED ON THE CORE LOGS AFTER EACH SERIES IF 6" PENETRATION WAS NOT ACHIEVED IN 50 BLOWS.

THE STATE HIGHWAY DEPARTMENT DOES NOT ASSUME ANY RESPONSIBILITY FOR ANY VARIATION OR MISINTERPRETATION OF THE CLASSES OF MATERIALS AND ADJUSTMENT IN BID PRICES WILL NOT BE MADE IF THE MATERIALS FOUND DO NOT AGREE WITH THOSE SHOWN IN THE LOG OF BORINGS.



BILL OF REINFORCING STEEL *



Mark	Size	No.	Type	Length	A	B	C	D
C104	3	8	Str	24-1				
C106	3	6	1	9-2	3-2	1-9	3-7	0-4
C107		1		8-11	3-0		3-6	
C108				8-9	2-11		3-5	
C109				8-7	2-10		3-4	
C110				8-3	2-8		3-2	
C111				8-1	2-7		3-1	
C112				7-10	2-5		3-0	
C113				7-8	2-4		2-11	
C114				7-5	2-2		2-10	
C115				7-3	2-1		2-9	
C116				7-1	2-0		2-8	
C117				6-9	1-10		2-6	
C118				6-7	1-9		2-5	
C119				6-6	1-8		2-5	
C120				6-3	1-6		2-4	
C121				6-1	1-5		2-3	
C122				5-11	1-4		2-2	
C123				5-8	1-2		2-1	
C124				5-7	1-1		2-1	
C125	3	1	1	5-5	1-0	1-9	2-0	0-4

* For one curb only

STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGE OVER PARMENTER CREEK
AT STA. 1801+59:00
FEDERAL AID PROJECT NO. F 250(8)
LINCOLN COUNTY
FOOTING PLAN

Scale: As noted

DRAWING NO. 9050

DESIGNED		
DRAWN	5-4-66	SM
TRACED		
CHECKED	8-22-68	R.N.D.
REVISED		
REVISED		

BILL OF REINFORCING STEEL (One abut only)

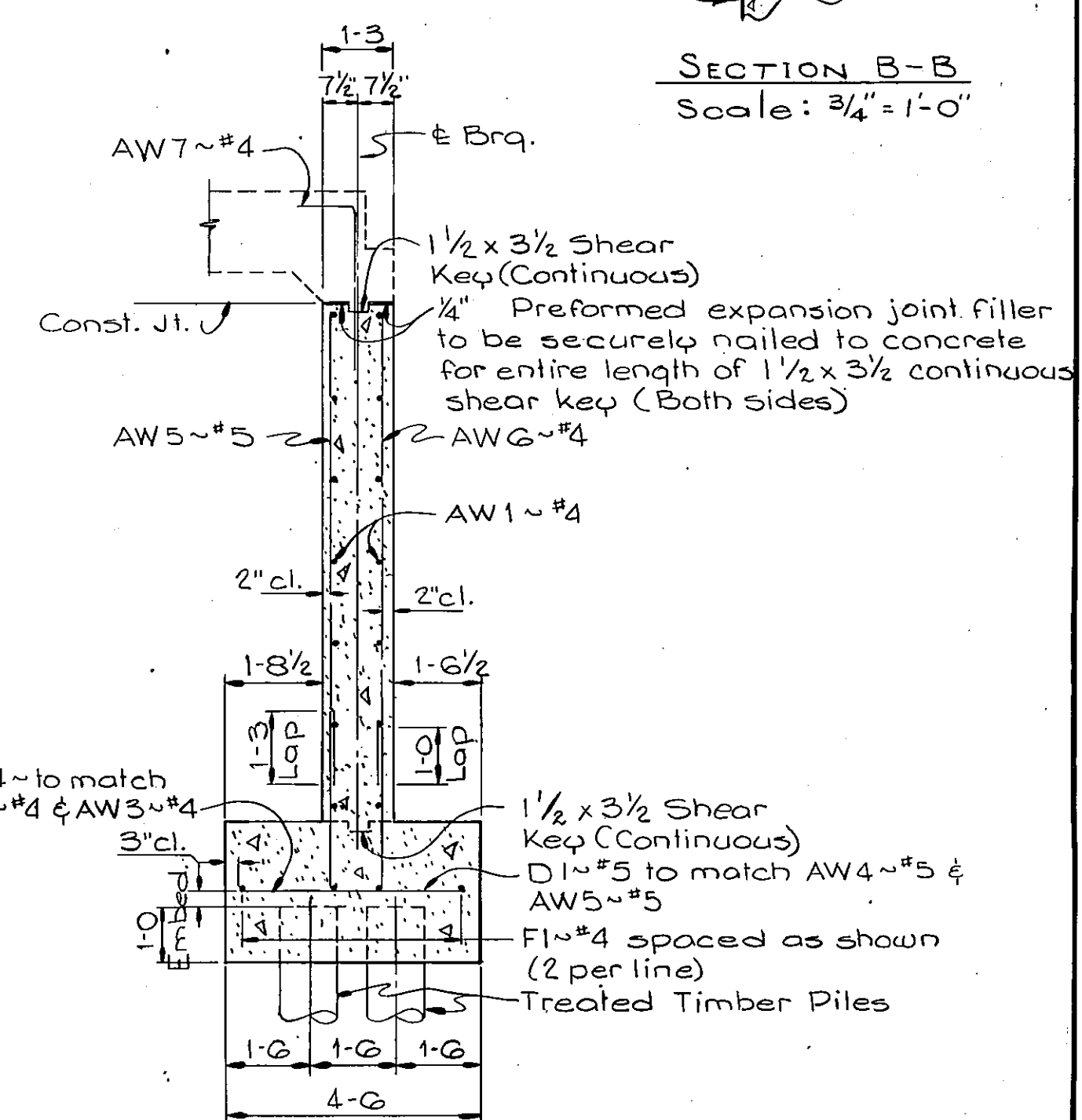
TYPE 1							
Note - All dimensions are out to out.							
Mark	Size	No.	Type	Length	A	B	C
F1	#4	8	str.	40'-4"			
D1	5	83	1	5-8	3-3	2-5"	
D2	4	83	1	5-7	3-0	2-7	
AW1	4	14	str.	40'-0			
AW2	4	8	str.	2'-10			
AW3	4	8	str.	11'-0			
AW4	5	8	str.	11'-0			
AW5	5	75	str.	9'-0			
AW6	4	75	str.	9'-0			
AW7	4	70	1	4'-2	3-2	1'-0	
*AW8	(4)	32	str.	4'-0	(Abut. No. 1 only)		
AW9	4	14	str.	37'-4			
AW10	4	2	str.	18'-8			
AW11	4	2	str.	20'-0			

TABLE OF ELEVATIONS			
LOCATION	Abut. No. 1	Abut. No. 2	
A	2076.15	2076.30	
B	2075.48	2075.63	
C	2061.85	2062.00	

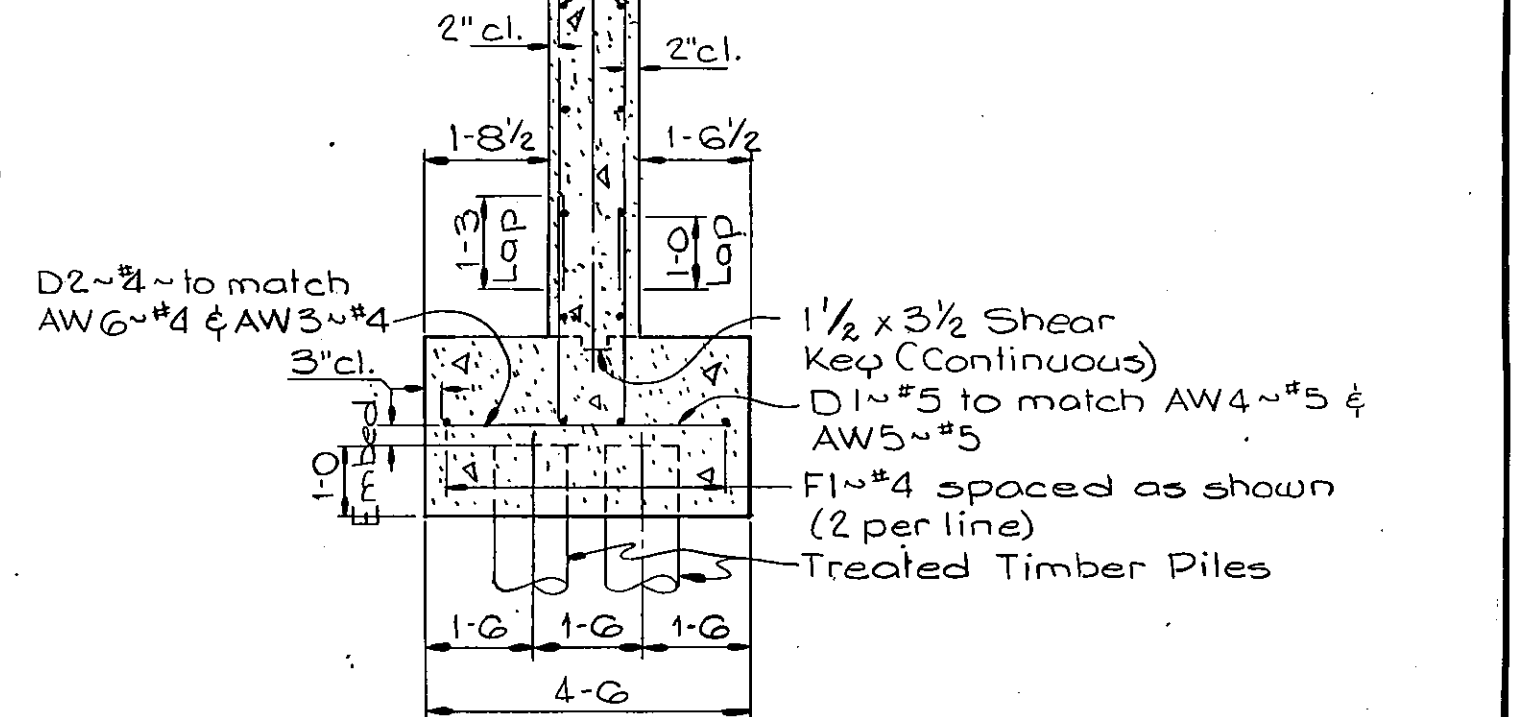
Slope Up .003' for 15" RCP Abut. No. 1
Slope Up .0129' for 15" RCP Abut. No. 2
Slope Up .0578' for 12" RCP Abut. No. 2

Fill Face
Near Face

SECTION B-B
Scale: 3/4" = 1'-0"



SECTION A-A
Scale: 3/8" = 1'-0"

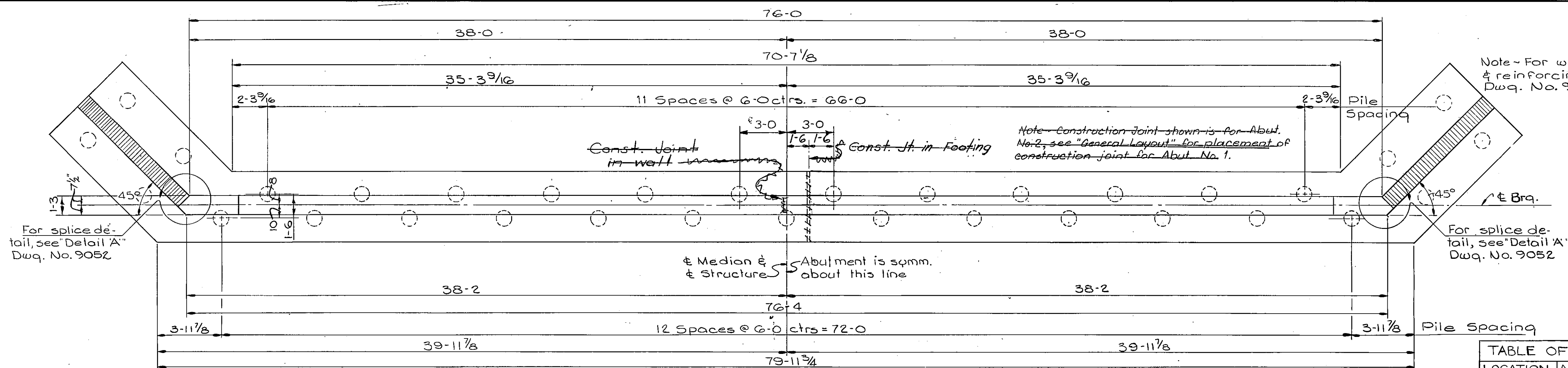


STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGE OVER PARMENTER CREEK
AT STA. 180+59.00
FEDERAL AID PROJECT NO. F-250(8)
LINCOLN COUNTY
ABUTMENT DETAILS
Scale: 1/4" = 1'-0" (Except as noted)

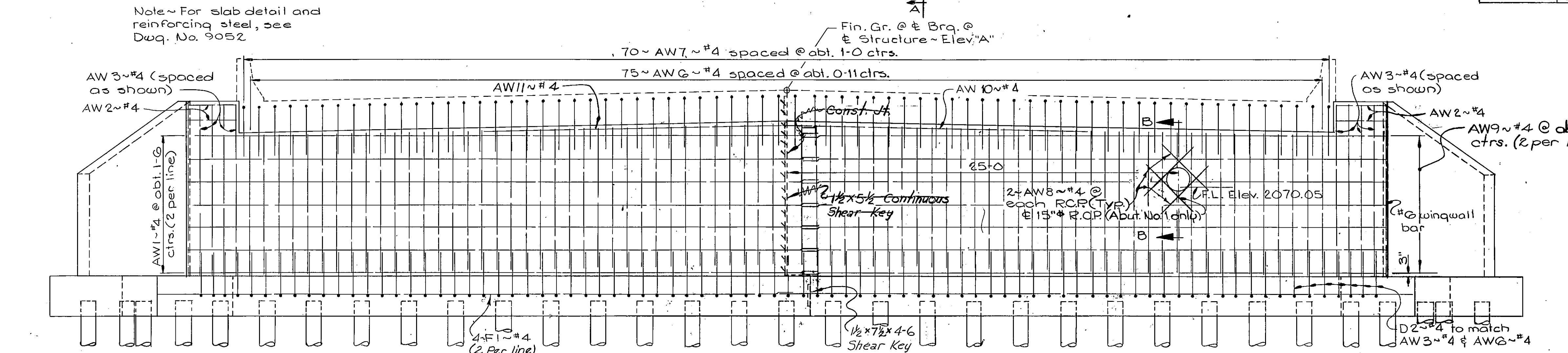
DESIGNED	M.R.T.	3-29-68
DRAWN	J.V.G.	4-30-68
CHECKED	R.N.D.	8-22-68

DRAWING No. 9051



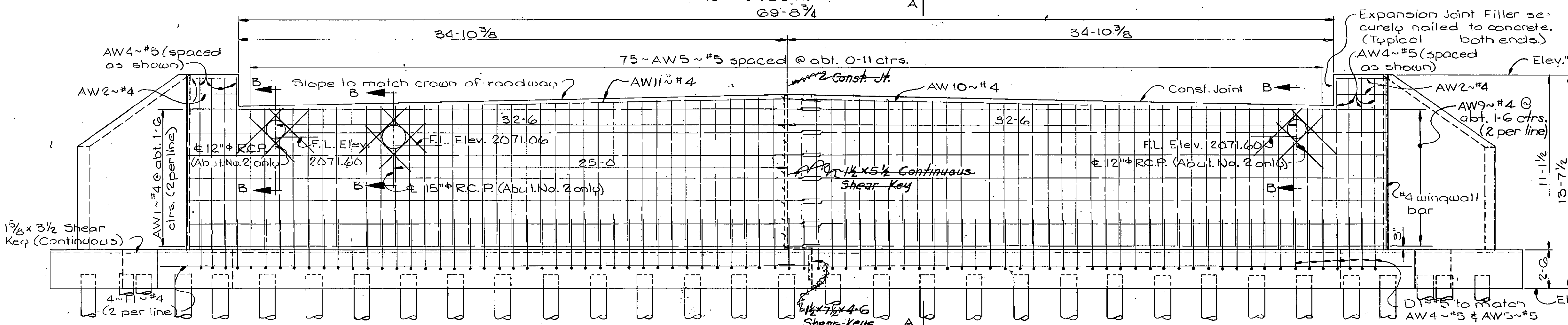
PLAN
Abutment No. 2 shown
Abutment No. 1 similar

Note - For slab detail and reinforcing steel, see Dwg. No. 9052



ELEVATION
(Showing Fill Face Bars)
Abut. No. 1 (Back on line)
Abut. No. 2 (Ahead on line)
69'-8 3/4"

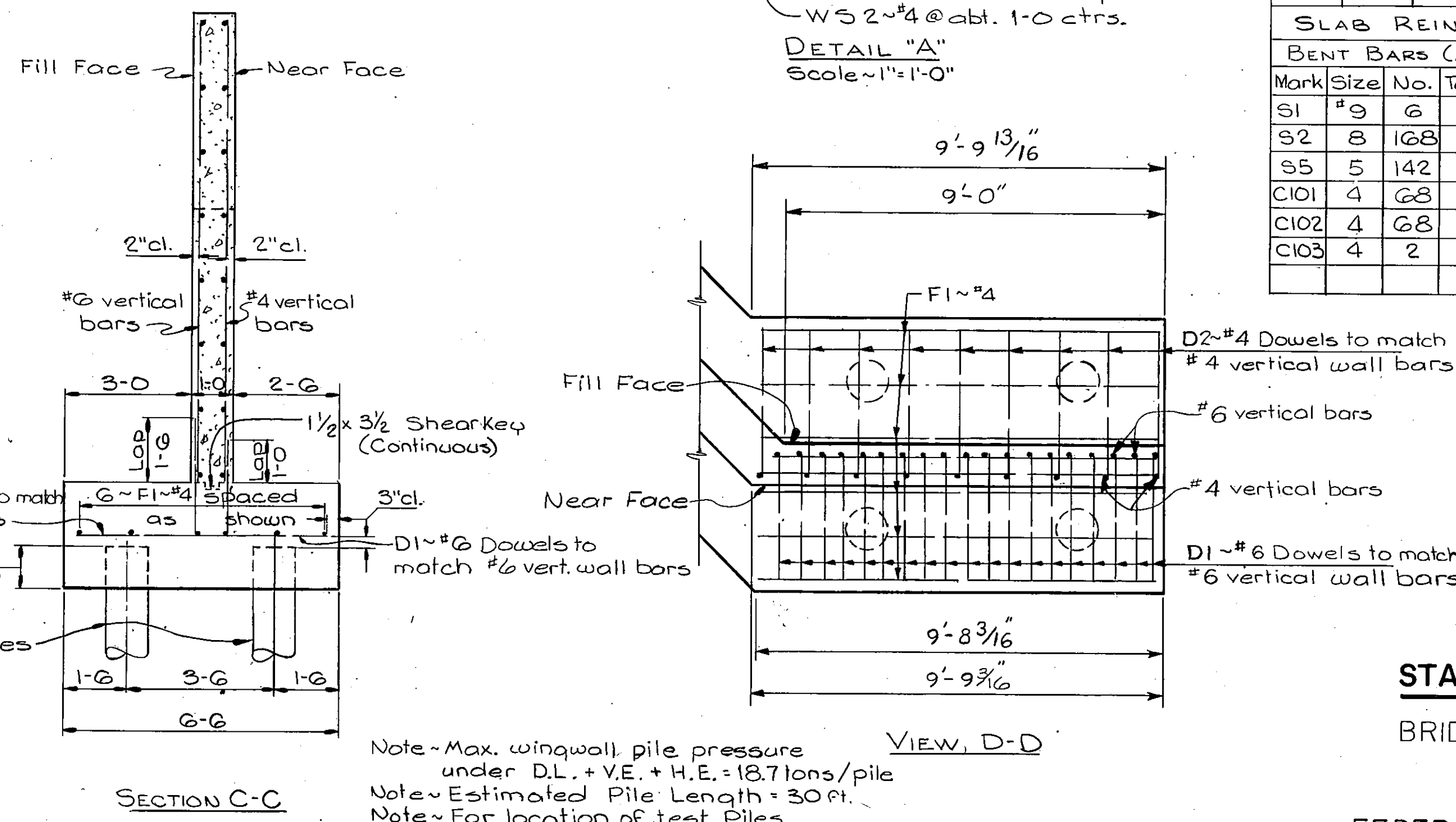
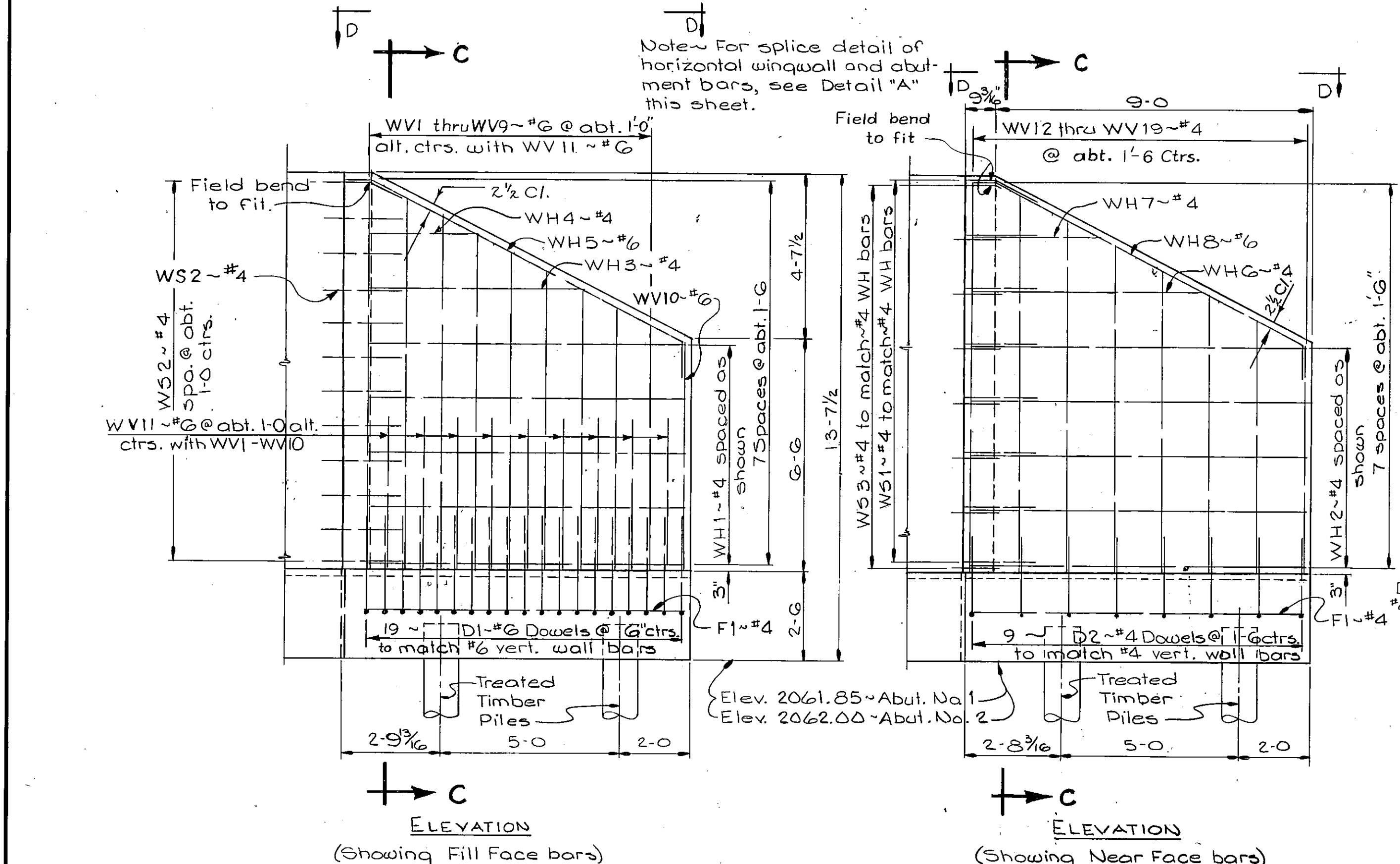
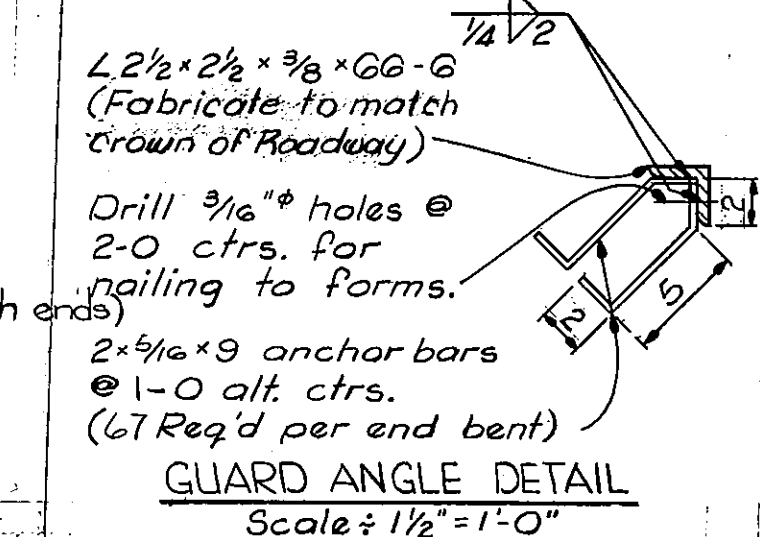
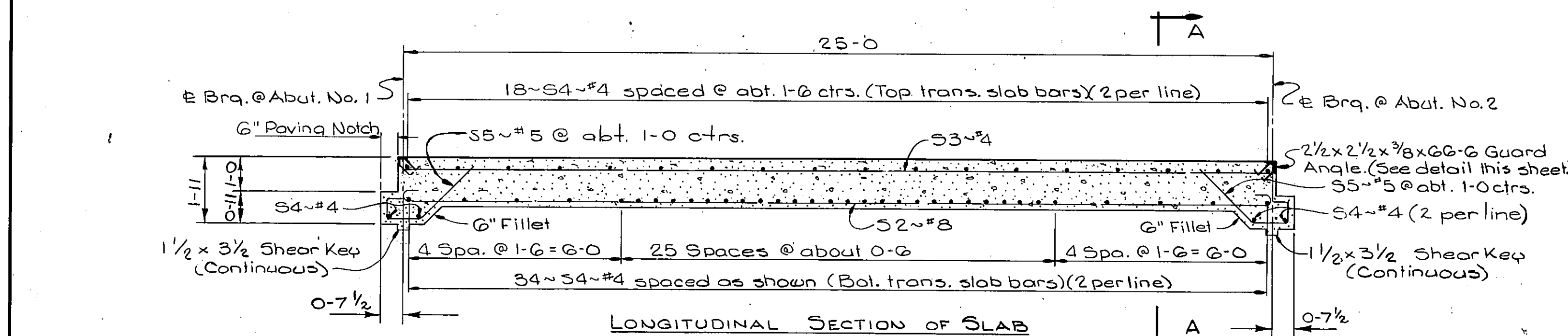
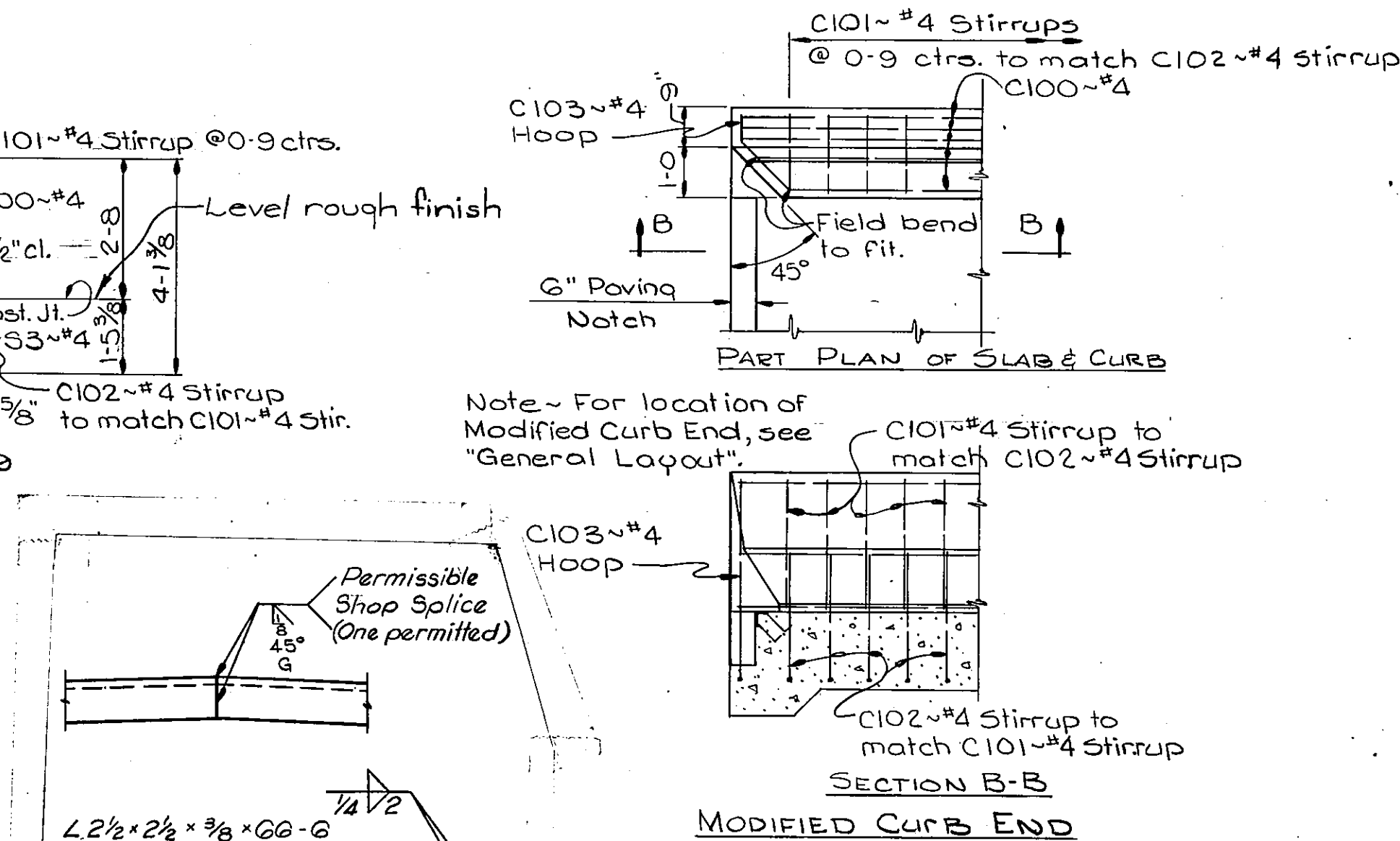
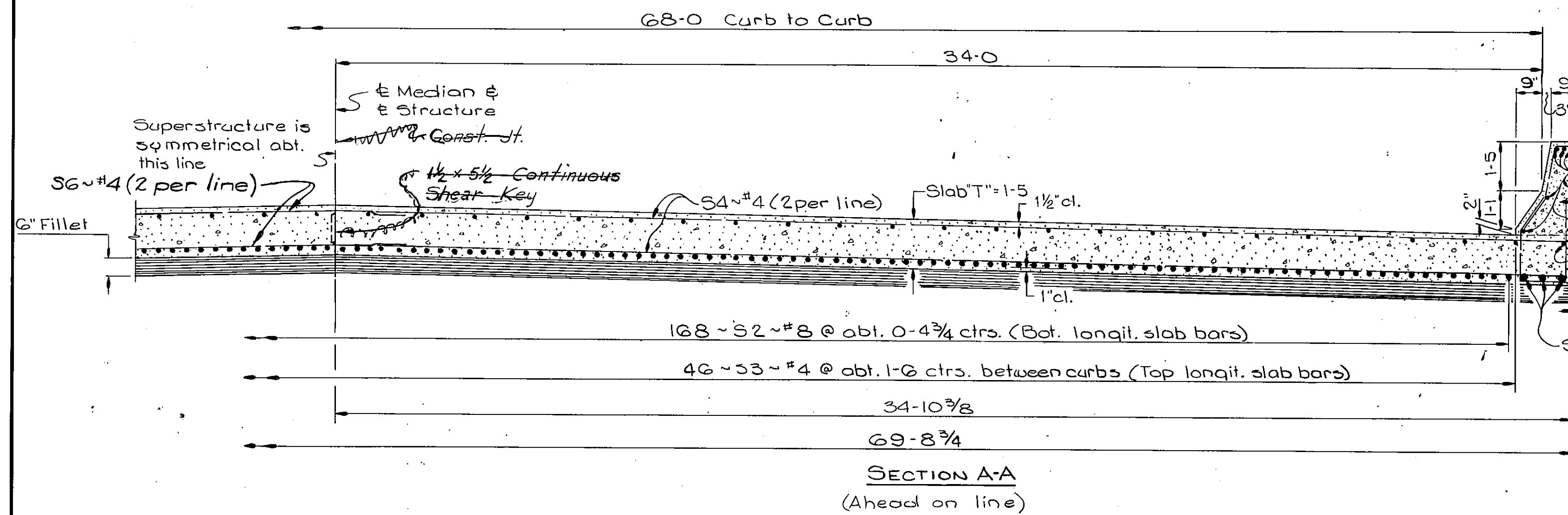
Note - Cut wall bars as required to clear opening for pipes.



ELEVATION
(Showing Near Face Bars)
Abut. No. 1 (Back on line)
Abut. No. 2 (Ahead on line)

Note - Max. Pile Pressure under D.L. + L.L. + H.E. + V.E. = 21.3 Tons/pile
Note - Estimated Pile Length = 30 Ft.
Note - For location of test pile see Dwg. No. 9050

R.D.K.



BILL OF REINFORCING STEEL									
TYPE	MARK	SIZE	NO.	TYPE	LENGTH	A	B	C	D
TYPE 1	D1	#6	19	TYPE 2	4'-7 1/10	1'-6"	3'-1"		
TYPE 3	D2	#4	28	TYPE 4	4'-7 1/10	1'-6"	3'-7"		
TYPE 5	WH5	#6	1	TYPE 6	12'-1	9'-11	0'-8	1'-6"	0'-3 1/2"
TYPE 7	WH8	#6	1	TYPE 8	11'-5	9'-11	1'-6	1'-4	
TYPE 8	WS1	#4	8		2'-8	1'-8	1'-0	0'-7	
	WS2	#4	12		3'-1	2'-1	1'-0	0'-7	
	WS3	#4	8		2'-6	1'-0	1'-6	0'-7	

WINGWALL REINFORCING STEEL (for one wingwall only)									
BENT BARS (All dimensions are out to out.)									
Mark	Size	No.	Type	Length	A	B	C	D	E
WH5	#6	1	2	12'-1	9'-11	0'-8	1'-6"	0'-3 1/2"	1'-4"
WH8	#6	1	3	11'-5	9'-11	1'-6	1'-4		
WS1	#4	8	3	2'-8	1'-8	1'-0	0'-7		
WS2	#4	12	3	3'-1	2'-1	1'-0	0'-7		
WS3	#4	8	3	2'-6	1'-0	1'-6	0'-7		

STRAIGHT BARS									
Mark	Size	No.	Length	Mark	Size	No.	Length		
F1	#4	6	9'-5"	WV7	#6	1	8'-0"		
WH1	#4	5	8'-10	WV8	#6	1	7'-6		
WH2	#4	5	9'-7	WV9	#6	1	7'-0		
WH3	#4	1	6'-3	WV10	#6	9	4'-3		
WH4	#4	1	3'-3	WV11	#6	4	11'-0		
WH6	#4	1	7'-0	WV12	#6	1	10'-7		
WH7	#4	1	4'-1	WV13	#6	1	9'-11		
WV1	#6	1	11'-0	WV14	#6	1	9'-3		
WV2	#6	1	10'-6	WV15	#6	1	8'-7		
WV3	#6	1	10'-0	WV16	#6	1	7'-11		
WV4	#6	1	9'-6	WV17	#6	1	7'-2		
WV5	#6	1	9'-0	WV18	#6	1	6'-5		
WV6	#6	1	8'-6"						

SLAB REINFORCING STEEL									
BENT BARS (All dimensions are out to out.)									
Mark	Size	No.	Type	Length	A	B	C	D	E
S1	#9	6	4	27'-0"	25'-0"	1'-3"			
S2	#8	168	4	27'-2	25'-0	1'-1			
S5	#5	142	5	4'-7	2'-4	1'-1	0'-8"	0'-6"	1'-8"
C101	#4	28	6	5'-7	2'-5	0'-6	1'-5	1'-3	
C102	#4	28	7	6'-5	1'-4 1/2	2'-4	1'-5 1/2	1'-3	0'-9
C103	#4	2	8	9'-6	3'-10 1/2	0'-6	0'-4 1/2		

STRAIGHT BARS									
Mark	Size	No.	Length						
S3	#4	48	25'-0"						
S4	#4	56	33'-8						
S6	#4	56	36'-8						
C100	#4	14	26'-0						

STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGE OVER PARMENTER CREEK
AT STA 1801+59.00
FEDERAL AID PROJECT NO F-250(8)
LINCOLN COUNTY
SLAB & WINGWALL DETAILS
Scale: 3/8" = 1'-0" (Except as noted)

DESIGNED	M.R.T.	3-29-68
DRAWN	J.V.G.	4-25-68
CHECKED	R.N.D.	8-22-68

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F250(8)	5	10

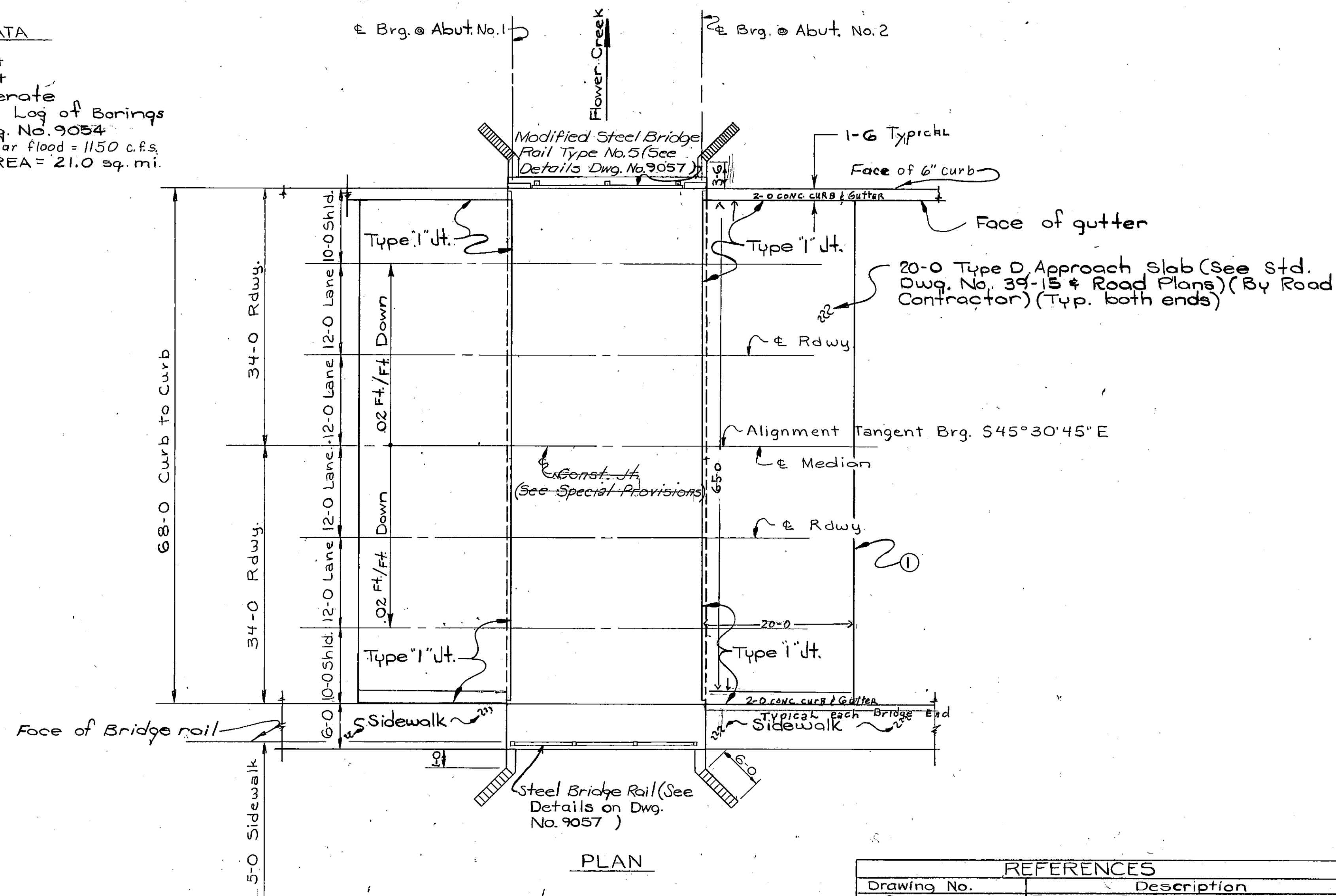
The contractor shall remove the existing 21'x20' concrete slab bridge and maintain traffic. See Special Provisions

LIVE LOAD: Standard HS20-44
Loading.

FOOTINGS: Elevations shown for bottom of footings are approximate only. Final elevations to be determined by the engineer.



ICE: Light
DRIFT: Light
SCOUR: Moderate
SUBSOIL: See Log of Borings
Dwg. No. 9054
Estimated 50 year flood = 1150 c.f.s.
DRAINAGE AREA = 21.0 sq. mi.



REFERENCES	
Drawing No.	Description
9054	FOOTING PLAN
9055	ABUTMENT DETAILS
9056	SLAB & WINGWALL DETAILS
9057	BRIDGE RAIL DETAILS
SBRT5 (Rev. 1-22-69)	Standard Steel Bridge Rail Type No. 5

DESIGNED		
DRAWN	1-5-68	G.L.L
TRACED		
CHECKED	8-22-68	R.N.D
REVISED	2-18-70	NHR
REVISED		

Scale: 1"=10'-0" Except as Noted
APPROVED BY: 

BRIDGE ENGINEER
DRAWING NO. 9053

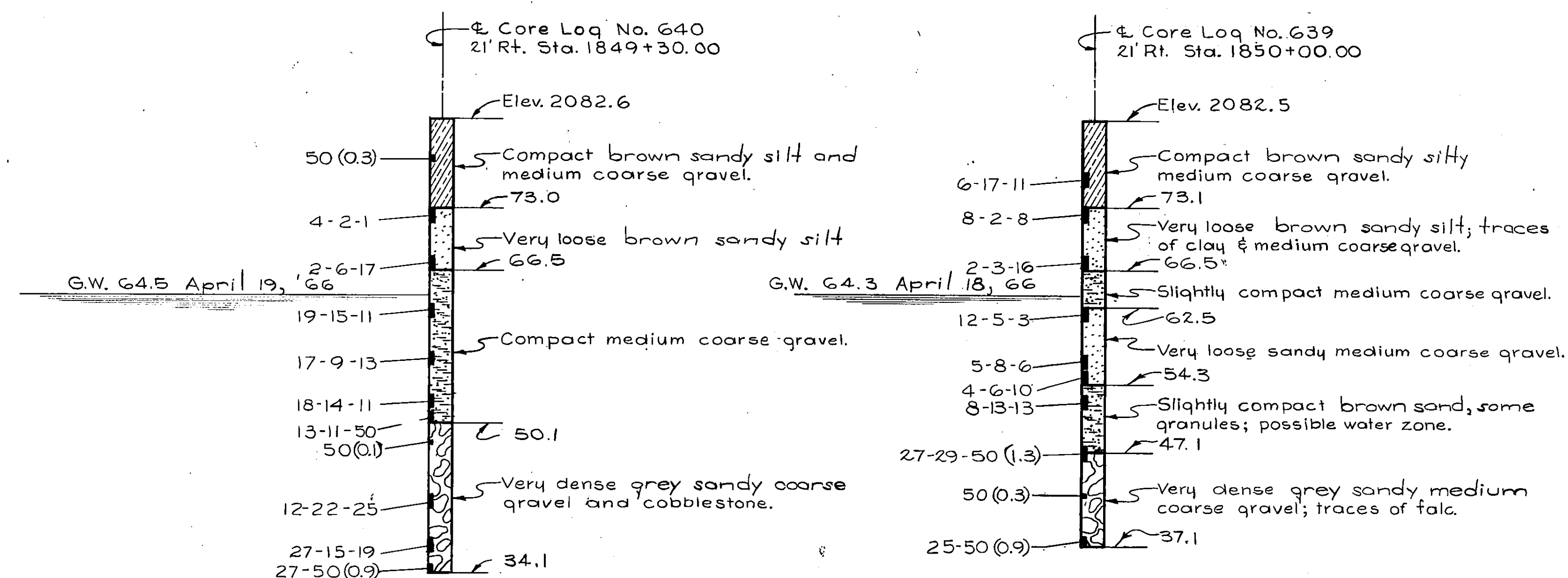
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	MONT.	F250(8)	6	10

NOTES

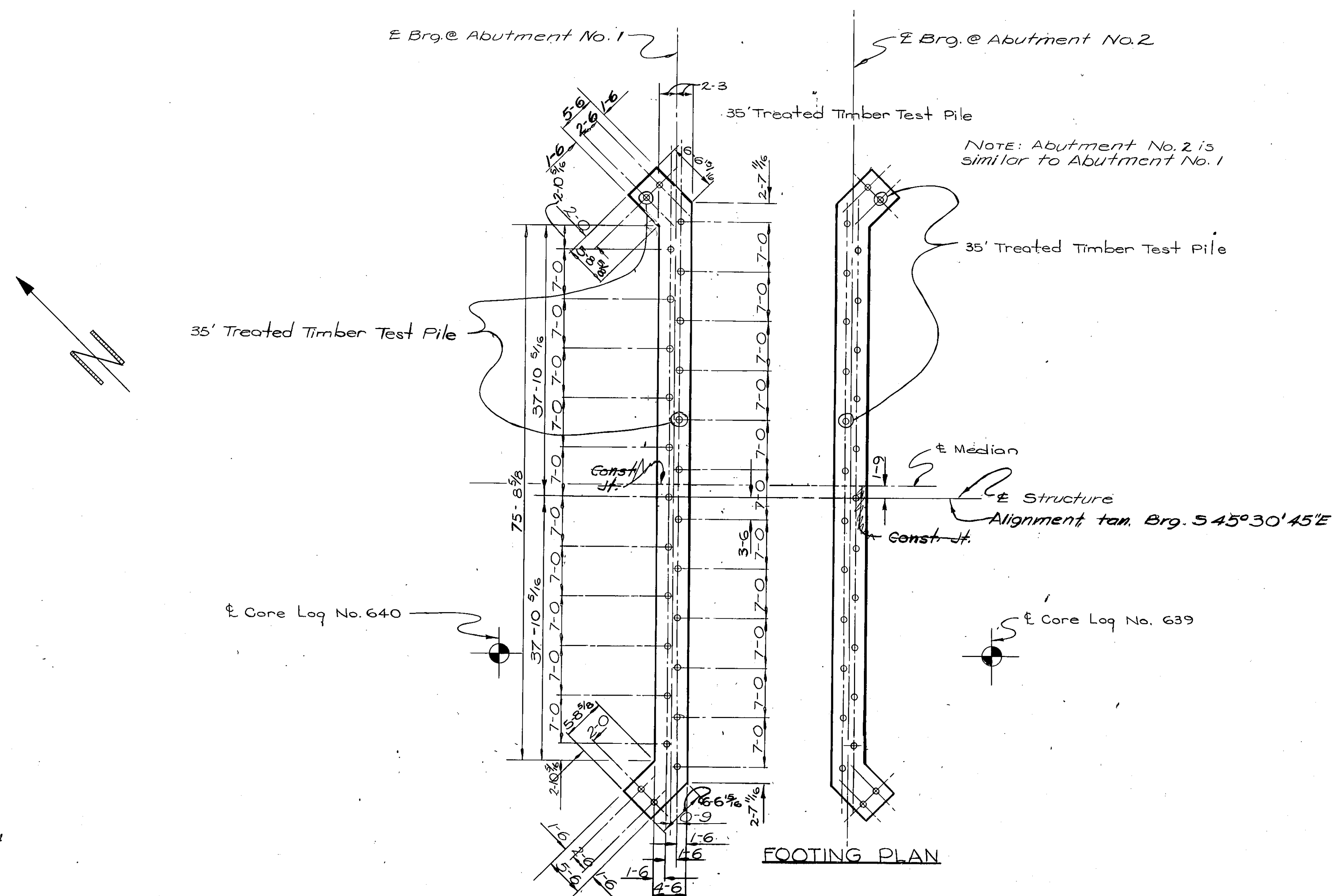
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LOG OF BORINGS



STATE OF MONTANA
STATE HIGHWAY COMMISSION

BRIDGE OVER FLOWER CREEK

AT STA. 1849+67.00

FEDERAL AID PROJECT NO. F 250(8)

LINCOLN COUNTY

FOOTING PLAN

Scale $\approx 1" = 10'-0"$

DESIGNED		
DRAWN	5-4-66	J.V.C.
TRACED		
CHECKED	8-22-68	R.N.D.
REVISED		
REVISED		

DRAWING NO. 9054

