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MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT IM 94-1(92)13
PLANT MIX BIT. SURF., COLD MILLING, S&C, GUARDRAIL
BALLANTINE - POMPEYS PILLAR
YELLOWSTONE COUNTY

LENGTH 10.5 MILES

Surfacing Sources – Contractor Furnished

PROJECT DESIGN DATA

PRESENT	2025	A.D.T. =	5,370
LETTING	2025	A.D.T. =	5,370
DESIGN	2045	A.D.T. =	6,550
		D.H.V. =	550
		TRUCKS =	28.9%
		V. =	70 MPH
		18 KIP ESAL'S =	842 DAILY
		GROWTH RATE =	1.0% ANNUAL

2072+50.00 (ENG.) RP 17.41
38.0' X 153.5' WB CONCRETE BRIDGE
I00094017+04162
Str. ID #01877
EAST 1 ROAD
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

2072+50.00 (ENG.) RP 17.41
38.0' X 153.5' EB CONCRETE BRIDGE
I00094017+04161
Str. ID #01876
EAST 1 ROAD
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

2187+51.80 (ENG.) RP 19.57
38.0' X 118.0' WB CONCRETE BRIDGE
I00094019+05762
Str. ID #01879
SOUTH 25TH ROAD
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

2187+51.80 (ENG.) RP 19.57
38.0' X 128.0' EB CONCRETE BRIDGE
I00094019+05761
Str. ID #01878
SOUTH 25TH ROAD
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

2237+94.40 (ENG.) RP 20.53
38.0' X 116.5' WB CONCRETE BRIDGE
I00094020+05302
Str. ID #01881
LOWER CANAL ROAD
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

2237+94.40 (ENG.) RP 20.53
38.0' X 106.5' EB CONCRETE BRIDGE
I00094020+05301
Str. ID #01880
LOWER CANAL ROAD
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

2382+15.00 (ENG.) RP 23.26
31.6' X 259' CONCRETE BRIDGE
S00568000+00001
Str. ID #06936
S 568-A / FLY CR. ROAD ABOVE GRADE CROSSING
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

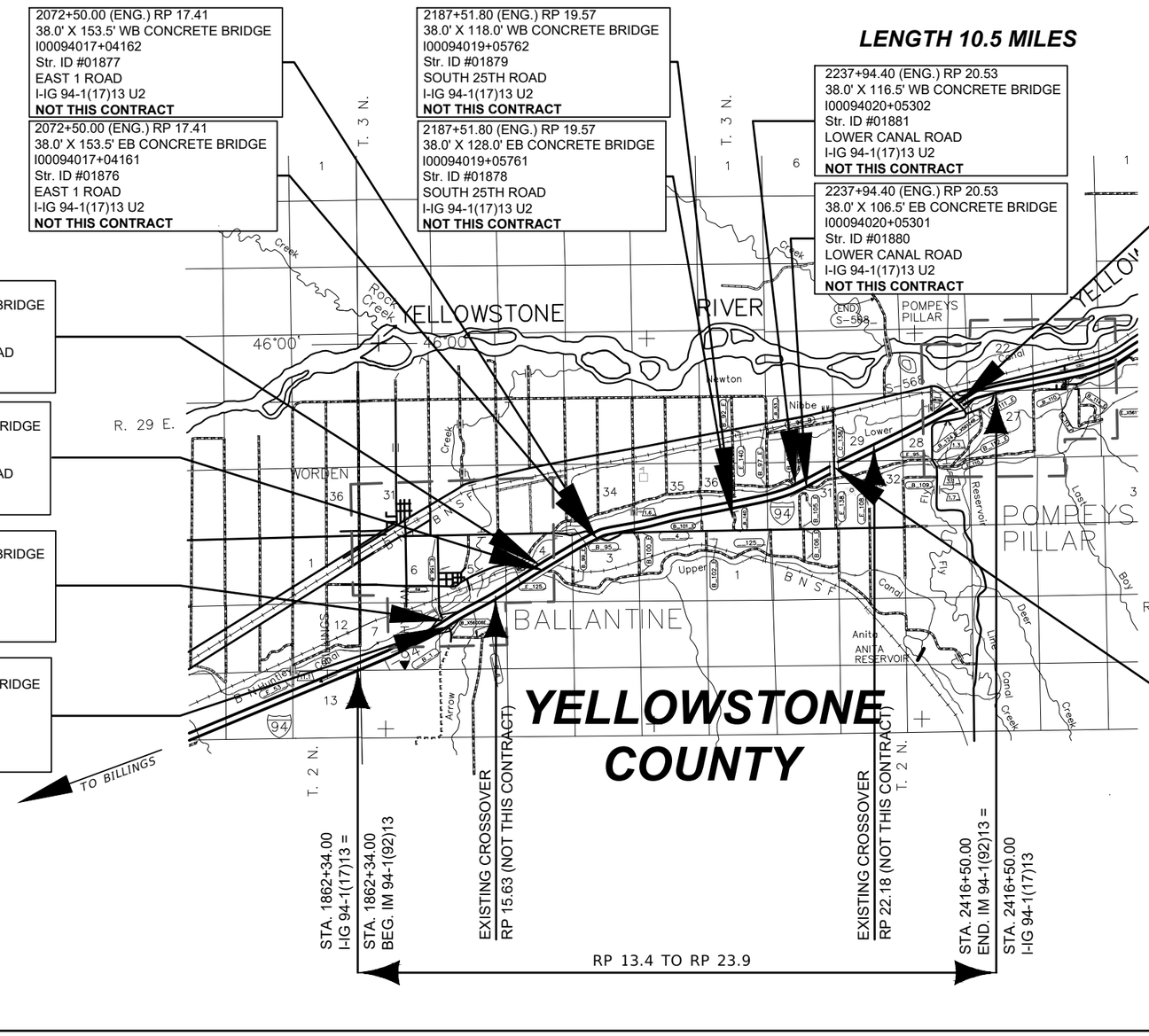
2025+79.10 (ENG.) RP 16.86
38.0' X 446.0' WB CONCRETE BRIDGE
I00094016+05182
Str. ID #01875
RR AND HIGHLINE CANAL ROAD
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

2025+79.10 (ENG.) RP 16.42
38.0' X 477.5' EB CONCRETE BRIDGE
I00094016+05181
Str. ID #01874
RR AND HIGHLINE CANAL ROAD
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

1936+65.00 (ENG.) RP 14.84
38.0' X 128.0' WB CONCRETE BRIDGE
I00094014+08432
Str. ID #01872
W Arrow Creek Rd
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

1936+65.00 (ENG.) RP 14.84
38.0' X 128.0' EB CONCRETE BRIDGE
I00094014+08431
Str. ID #01871
W Arrow Creek Rd
I-IG 94-1(17)13 U2
NOT THIS CONTRACT

2273+82.30 (ENG.) RP 21.21
29.6' X 276.0' CONCRETE BRIDGE
L56138001+03201
Str. ID #04768
SOUTH 28TH ROAD ABOVE GRADE CROSSING
I-IG 94-1(17)13 U2
NOT THIS CONTRACT



STA. 1862+34.00
I-IG 94-1(17)13 =
STA. 1862+34.00
BEG. IM 94-1(92)13

EXISTING CROSSOVER
RP 15.63 (NOT THIS CONTRACT)

EXISTING CROSSOVER
RP 22.18 (NOT THIS CONTRACT)

STA. 2416+50.00
END. IM 94-1(92)13 =
STA. 2416+50.00
I-IG 94-1(17)13

RP 13.4 TO RP 23.9

SHEET NO. 1

TITLE SHEET

PROJECT NAME: BALLANTINE - POMPEYS PILLAR
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(92)13
UPN: 10070000

DESIGNED BY	A. BOSE	06/2023
REVIEWED BY	J. BROTZLER	06/2023
CHECKED BY	J. FLEMING	06/2023

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MONTANA
Department of Transportation

ROAD PLANS

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NOTES

BASIS OF PLAN QUANTITIES

COMP. WEIGHT OF PL. MIX BIT. SURF.	= 4167 LBS. PER CUBIC YARD
ASPHALT BINDER - GRADE S - 3/4" AGG.	= 4.9% OF PL. MIX BIT. SURF.
HYDRATED LIME	= 1.4% OF PL. MIX BIT. SURF.
BITUMINOUS MATERIAL	= 8.5 LBS. PER GAL.
EMULSIFIED ASPHALT - TACK	= 0.05 GAL. PER SQ. YARD
EMULSIFIED ASPHALT - FOG SEAL (RUMBLE STRIPS)	= 0.10 GAL. PER SQ. YARD (UNDILUTED)
SEAL	= 0.42 GAL. PER SQ.YARD
COVER	= 25 LBS. PER SQ.YARD
CRACK SEALING	= 0.70 LBS. PER LNFT

UTILITIES

CALL THE UTILITIES UNDERGROUND LOCATION CENTER (811) OR OTHER NOTIFICATION SYSTEM FOR THE MARKING AND LOCATION OF ALL LINES AND SERVICES BEFORE EXCAVATING. ALL CLEARANCES OR DEPTHS PROVIDED FOR UTILITIES ARE FROM EXISTING GROUND LINE.

AS-BUILTS

FOR HORIZONTAL ALIGNMENT AND STATIONING, REFER TO AS-BUILT PROJECT
I-IG 94-1(17)13 (CONSTRUCTED 1969)

WETLANDS

WETLANDS MAY EXIST ADJACENT TO THE ROADWAY AND BEYOND THE PROJECT LIMITS.
A WETLAND DELINEATION HAS NOT BEEN COMPLETED FOR THIS PROJECT.
IMPACTS TO WETLANDS ARE NOT ANTICIPATED IN ASSOCIATION WITH THE PROPOSED WORK.
NO PERMITS HAVE BEEN OBTAINED. ANY ACTION IMPACTING WETLAND AREAS WITHOUT THE PROPER PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.

SHEET NO.
2

TABLE OF CONTENTS & NOTES

PROJECT NAME: BALLANTINE - POMPEYS PILLAR
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(92)13
UPN: 10070000

DESIGNED BY		CHECKED BY	
A. BOSE	06/2023	J. FLEMING	06/2023
REVIEWED BY			
J. BROTZLER	06/2023		

MONTANA
Department of Transportation

ROAD PLANS

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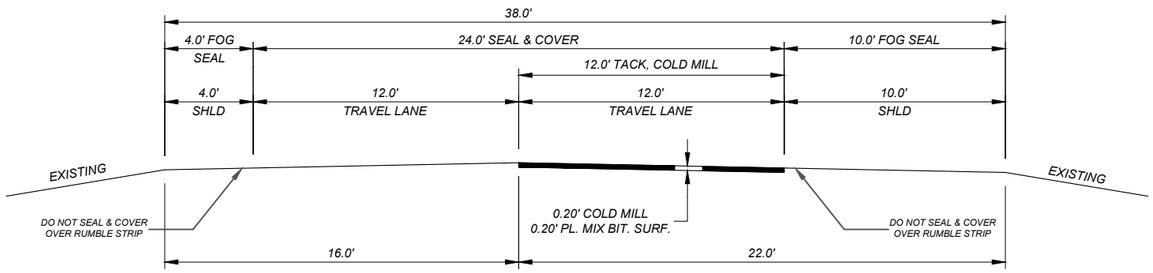
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TYPICAL SECTION NO. 1

MAINLINE

EASTBOUND (REVERSE FOR WESTBOUND)



EASTBOUND

CENTER LINE

STA. 1862+34.00	TO STA. 1934+01.00
STA. 1939+29.00	TO STA. 2021+28.90
STA. 2030+06.40	TO STA. 2070+07.22
STA. 2075+60.72	TO STA. 2184+78.98
STA. 2190+06.98	TO STA. 2235+54.35
STA. 2240+60.85	TO STA. 2416+50.00

WESTBOUND

CENTER LINE

STA. 1862+34.00	TO STA. 1934+01.00
STA. 1939+29.00	TO STA. 2020+23.35
STA. 2028+69.35	TO STA. 2069+40.00
STA. 2074+93.50	TO STA. 2185+01.62
STA. 2190+19.62	TO STA. 2235+12.95
STA. 2240+29.45	TO STA. 2416+50.00

QUANTITIES

UNIT	AGGREGATE		UNIT	BITUMINOUS ASPHALT				COLD MILLING
	COVER	PLANT MIX		ASPHALT BINDER	SEAL	EMULSIFIED ASPHALT		
						TACK	FOG SEAL	
AREA square feet		2.40	square yards PER STATION		267	133	156	133
cubic yards PER STATION		8.9	tons PER STATION	0.91	0.48			
tons PER STATION		18.5	gals. PER STATION			7	16	
square yards PER STATION	267							

SHEET NO.

3

TYPICAL SECTIONS

PROJECT NAME
BALLANTINE - POMPEYS PILLAR

COUNTY
YELLOWSTONE COUNTY

PROJECT ID
IM 94-1(92)13

UPN
10070000

DESIGNED BY		DRAWN BY		CHECKED BY	
A. BOSE	06/2023	J. BROTZLER	06/2023	J. FLEMING	06/2023

MONTANA
Department of Transportation

ROAD PLANS

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SUMMARY

SURFACING

STATION FROM	STATION TO	linear feet GROSS	linear feet NET	linear feet +	linear feet -	FOR	tons HYDRATED LIME	AGGREGATE sq. yards COVER TYPE 2	AGGREGATE tons PLANT MIX BIT. SURF. GR. S - 3/4"	BITUMINOUS MATERIAL tons ASPHALT CEMENT PG 58V-34	BITUMINOUS MATERIAL tons EMULSIFIED ASPHALT CHFRS-2P SEAL	BITUMINOUS MATERIAL gals. EMULSIFIED ASPHALT TACK	BITUMINOUS MATERIAL gals. EMULSIFIED ASPHALT FOG SEAL	REMARKS
EASTBOUND														
1862+34.00														
1934+01.00	1939+29.00				528.00	BALLANTINE INTERCHANGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2021+28.90	2030+06.40				877.50	RR-HIGHLAND CANAL ROAD BRIDGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2070+07.22	2075+60.72				553.50	EAST 1 ROAD BRIDGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2087+30.50 BK	2088+52.90 AH				122.40	STATION EQUATION								
2184+78.98	2190+06.98				528.00	SOUTH 25TH ROAD BRIDGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2235+54.35	2240+60.85				506.50	HUNTLEY CANAL BRIDGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2409+50.40 BK	2409+65.50 AH				15.10	STATION EQUATION								
	2416+50.00	55,416.00	52,285.00					139,601	9,673	475.8	251.0	3,660	8,366	TYPICAL SECTION NO. 1
SUBTOTAL		55,416.00	52,285.00	~				139,601	9,673	475.8	251.0	3,660	8,366	I-94 EASTBOUND
WESTBOUND														
1862+34.00														
1934+01.00	1939+29.00				528.00	BALLANTINE INTERCHANGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2020+23.35	2028+69.35				846.00	RR-HIGHLAND CANAL ROAD BRIDGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2069+40.00	2074+93.50				553.50	EAST 1 ROAD BRIDGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2087+30.50 BK	2088+52.90 AH				122.40	STATION EQUATION								
2185+01.62	2190+19.62				518.00	SOUTH 25TH ROAD BRIDGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2235+12.95	2240+29.45				516.50	HUNTLEY CANAL BRIDGE								BRIDGE WORK COMPLETED UNDER I-94 BR PRES MP 14-21 [9585000]
2409+50.40 BK	2409+65.50 AH				15.10	STATION EQUATION								
	2416+50.00	55,416.00	52,316.50					139,685	9,679	476.1	251.1	3,662	8,371	TYPICAL SECTION NO. 1
SUBTOTAL		55,416.00	52,316.50	~				139,685	9,679	476.1	251.1	3,662	8,371	I-94 WESTBOUND
						ADDITIONAL SURFACING		28,878			51.7			
TOTAL		~	~	~	~		271	308,164	19,352	951.9	553.8	7,322	16,737	

ADDITIONAL SURFACING (INCLUDED IN SURFACING FRAME)

STATION FROM	STATION TO	linear feet GROSS	linear feet NET	linear feet +	linear feet -	FOR	AGGREGATE sq. yards COVER TYPE 2	BITUMINOUS MATERIAL tons EMULSIFIED ASPHALT CHFRS-2P SEAL	REMARKS
1915+00.00	1936+65.10	2,165.10				WB ON RAMP B1	4,187	7.5	BALLANTINE INTERCHANGE*
1936+65.10	1952+00.00	1,534.90				WB OFF RAMP B2	3,627	6.5	BALLANTINE INTERCHANGE*
1936+63.70	1957+00.00	2,036.30				EB ON RAMP B3	3,565	6.4	BALLANTINE INTERCHANGE*
1923+00.00	1936+66.80	1,366.80				EB OFF RAMP B4	3,188	5.7	BALLANTINE INTERCHANGE*
2361+00.00	2381+19.00	2,019.00				WB ON RAMP J1	3,619	6.5	POMPEY'S PILLAR INTERCHANGE*
2385+56.40	2399+12.80	1,356.40				WB OFF RAMP J2	3,969	7.1	POMPEY'S PILLAR INTERCHANGE*
2383+41.00	2403+00.00	1,959.00				EB ON RAMP J3	3,484	6.2	POMPEY'S PILLAR INTERCHANGE*
2370+00.00	2383+20.60	1,320.60				EB OFF RAMP J4	3,239	5.8	POMPEY'S PILLAR INTERCHANGE*
SUBTOTAL		~	~	~	~		28,878	51.7	

*ALL RAMP AREAS MEASURED IN CADD

SHEET NO. 4

SUMMARIES

PROJECT NAME BALLANTINE - POMPEYS PILLAR
COUNTY YELLOWSTONE COUNTY
PROJECT ID IM 94-1(92)13
UPN 10070000

DESIGNED BY	A. BOSE	06/2023
REVIEWED BY	J. BROTZLER	06/2023
CHECKED BY	J. FLEMING	06/2023

10070RDSUM001.DWG

MONTANA Department of Transportation

ROAD PLANS

2/18/2025 9:35 AM

SUMMARY

GUARDRAIL

STATION		linear feet				each				REMARKS
		REMOVE GUARDRAIL		MGS GUARDRAIL		MASH W-BEAM TERMINAL SECTION		MGS ONE-WAY DEPARTURE TERMINAL SECTION		
FROM	TO	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	
WESTBOUND & RAMPS										
NEW RAIL										
1909+50.00	1918+12.50			815.6		1		1		
1928+25.00	1933+21.88			450.0		1		1		B-1 RAMP LT. "BALLANTINE INTERCHANGE"
1931+88.50	1935+63.50			362.5				1		CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
1937+66.50	1944+79.00			678.1		1				CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
1937+66.50	1941+04.00				303.1		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
1963+20.00	1972+29.38			862.5		1		1		
1993+12.50	1999+50.00			603.1		1				CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2015+10.85	2021+85.85			675.0						CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION AND EX. THRIE BEAM BRIDGE APPROACH SECTION
2026+69.35	2035+81.85			878.1		1				CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2026+69.35	2030+69.35				365.6		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2057+93.00	2063+68.00			540.6		1				CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2073+16.00	2076+03.50			253.1		1				CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2073+43.00	2076+05.50				228.1		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2107+44.00	2121+69.00			1,390.6		1				CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2188+56.00	2195+43.50			653.1		1				CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2188+53.00	2190+90.50				203.1		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2211+81.00	2218+06.00			590.6		1				CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2238+48.00	2242+60.50			378.1		1				CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2238+65.00	2241+27.50				228.1		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2273+49.00	2276+11.50			228.1		1				CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2273+20.00	2275+82.50			228.1		1				CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
REMOVE RAIL										
1909+37.50	1918+12.50	875.0								
1928+25.00	1933+37.50	512.5								B-1 RAMP LT. "BALLANTINE INTERCHANGE"
1931+88.50	1935+63.50	375.0								LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
1937+66.50	1944+91.50	725.0								LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
1937+66.50	1941+16.50		350.0							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
1963+20.00	1972+45.00	925.0								
1993+12.50	1999+62.50	650.0								LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2015+10.85	2021+85.85	675.0								LEAVE EX. MASH OPTIONAL TERMINAL SECTION AND EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2026+69.35	2035+94.35	925.0								LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2026+69.35	2030+81.85		412.5							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2057+93.00	2063+80.50	587.5								LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2073+16.00	2076+16.00	300.0								LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2073+43.00	2076+18.00		275.0							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2107+44.00	2121+81.50	1,437.5								LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2188+56.00	2195+56.00	700.0								LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2188+53.00	2191+03.00		250.0							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2211+81.00	2218+18.50	637.5								LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2238+48.00	2242+73.00	425.0								LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2238+65.00	2241+40.00		275.0							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2273+49.00	2276+24.00	275.0								LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2273+20.00	2275+95.00	275.0								LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
SUBTOTAL		10,300.0	1,562.5	9,587.5	1,328.1	14	5	4	~	

SHEET NO. 5

SUMMARIES

PROJECT NAME BALLANTINE - POMPEYS PILLAR
COUNTY YELLOWSTONE COUNTY
PROJECT ID IM 94-1(92)13
UPN 10070000

DESIGNED BY	REVIEWED BY	CHECKED BY
A. BOSE 06/2023	J. BROTZLER 06/2023	J. FLEMING 06/2023

MONTANA Department of Transportation

ROAD PLANS

2/18/2025 9:35 AM

10070RDSUM001.DWG

AWARD COPY

SUMMARY

GUARDRAIL

STATION		linear feet				each				REMARKS
		REMOVE GUARDRAIL		MGS GUARDRAIL		MASH W-BEAM TERMINAL SECTION		MGS ONE-WAY DEPARTURE TERMINAL SECTION		
FROM	TO	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	
EASTBOUND & RAMPS										
NEW RAIL										
1883+53.12	1889+25.00				525.0		1		1	
1926+00.00	1930+87.50				453.1		1		1	B-4 RAMP RT. "BALLANTINE INTERCHANGE"
1931+13.50	1935+63.50				415.6		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
1932+76.00	1935+63.50			253.1		1				CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
1937+79.00	1941+16.50				325.0				1	
1958+72.50	1963+85.00				478.1		1			CONNECT TO EX. MASH GUARDRAIL
1991+92.00	1997+54.50				528.1		1			CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2017+91.40	2022+91.40				465.6		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2019+66.40	2022+91.40			290.6		1				CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2028+43.90	2034+18.85				575.0					CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION AND EX. MASH OPTIONAL TERMINAL SECTION
2055+23.50	2061+36.00				578.1		1			CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2068+84.50	2071+84.50				265.6		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2068+98.00	2071+60.50			228.1		1				CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2104+56.00	2118+06.00				1,315.6		1			CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2183+62.50	2186+37.50				240.6		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2184+17.50	2186+80.00			228.1		1				CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2188+41.00	2190+66.00				225.0					CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION AND EX. MASH OPTIONAL TERMINAL SECTION
2208+66.10	2214+28.60				528.1		1			CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2235+24.50	2237+24.50				165.6		1			CONNECT TO EX. THRIE BEAM BRIDGE APPROACH SECTION
2234+60.00	2237+10.00			215.6		1				CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2271+49.50	2274+12.00				228.1		1			CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
2271+69.50	2274+32.00			228.1		1				CONNECT TO EX. MASH OPTIONAL TERMINAL SECTION
REMOVE RAIL										
1883+37.50	1889+25.00		587.5							
1925+87.50	1930+87.50		500.0							B-4 RAMP RT. "BALLANTINE INTERCHANGE"
1931+01.00	1935+63.50		462.5							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
1932+63.50	1935+63.50	300.0								LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
1937+66.50	1941+16.50		350.0							
1958+60.00	1963+85.00		525.0							LEAVE EX. MASH GUARDRAIL IN PLACE
1991+79.50	1997+54.50		575.0							LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2017+78.90	2022+91.40		512.5							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2019+53.90	2022+91.40	337.5								LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2028+43.90	2034+18.85		575.0							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION AND EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2055+11.00	2061+36.00		625.0							LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2068+72.00	2071+84.50		312.5							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2068+85.50	2071+60.50		275.0							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2104+43.50	2118+06.00		1,362.5							LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2183+50.00	2186+37.50		287.5							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2184+05.00	2186+80.00	275.0								LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2188+41.00	2190+66.00		225.0							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION AND EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2208+53.60	2214+28.60		575.0							LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2235+12.00	2237+24.50		212.5							LEAVE EX. THRIE BEAM BRIDGE APPROACH SECTION IN PLACE
2234+47.50	2237+10.00	262.5								LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2271+37.00	2274+12.00		275.0							LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
2271+57.00	2274+32.00	275.0								LEAVE EX. MASH OPTIONAL TERMINAL SECTION IN PLACE
SUBTOTAL		1,450.0	8,237.5	1,443.6	7,312.2	6	13	~	3	
TOTAL		21,550.0		19,671.4		38		7		

SHEET NO.
6

SUMMARIES

PROJECT NAME BALLANTINE - POMPEYS PILLAR
COUNTY YELLOWSTONE COUNTY
PROJECT ID IM 94-1(92)13
UPN 10070000

DESIGNED BY	REVIEWED BY	CHECKED BY
A. BOSE 06/2023	J. BROTZLER 06/2023	J. FLEMING 06/2023

MONTANA
Department of Transportation

ROAD PLANS

10070RDSUM001.DWG

2/18/2025 9:35 AM

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SUMMARY

PAVEMENT MARKINGS

ITEM	UNIT	INTERIM APPLICA-TION #	FINAL APPLICA-TION	TOTAL
STRIPING - WHITE PAINT	gallon	1,036		1,036
STRIPING - YELLOW PAINT	gallon	820		820
WORDS & SYMBOLS - WHITE PAINT	gallon	18		18
STRIPING - WHITE EPOXY	gallon		691	691
STRIPING - YELLOW EPOXY	gallon		546	546
YELLOW CURB EPOXY	gallons		1	1
WORDS & SYMBOLS - WHITE EPOXY	gallon		11	11
TEMPORARY STRIPING	linear feet	360,549		360,549
FINAL SWEEP AND BROOM	course mile	21		21.0

BASED ON 2 APPLICATIONS

CRACK SEALING

STATION		CRACK SEALING				REMARKS
		NEW	EXISTING	NEW	EXISTING	
FROM	TO	pounds	pounds	linear feet	linear feet	
1862+34.00	2416+50.00	11,338		13,498		MAINLINE
1915+00.00 *	1936+53.20 *	847		1,008		RAMP "B1"
1936+76.34 *	1952+00.00 *	685		816		RAMP "B2"
1936+76.95 *	1957+00.00 *	1,109		1,320		RAMP "B3"
1923+00.00 *	1936+52.98 *	746		888		RAMP "B4"
2361+00.00 *	2381+19.00 *	685		816		RAMP "J1"
2385+56.40 *	2399+12.80 *	524		624		RAMP "J2"
2383+41.00 *	2403+00.00 *	685		816		RAMP "J3"
2370+00.00 *	2383+20.60 *	665		792		RAMP "J4"
SUBTOTAL		17,286	~	#	#	
TOTAL		17,286		#	#	

* RAMP STATIONING
# FOR INFORMATION ONLY

COLD MILLING *

STATION		sq. yards	REMARKS
		COLD MILLING	
FROM	TO	0.20 ft	
EASTBOUND			
1862+34.00	1936+01.00	9,823	12' WIDTH
1937+29.00	2023+28.90	11,467	12' WIDTH
2028+06.40	2072+07.20	5,868	12' WIDTH
2073+60.70	2087+30.50	1,826	12' WIDTH
2088+52.90	2186+78.98	13,101	12' WIDTH
2188+06.98	2237+54.35	6,596	12' WIDTH
2238+60.85	2409+50.40	22,786	12' WIDTH
2409+65.50	2416+50.00	913	12' WIDTH
SUBTOTAL		72,380	
WESTBOUND			
1862+34.00	1936+01.00	9,823	12' WIDTH
1937+29.00	2022+23.40	11,326	12' WIDTH
2026+69.40	2071+40.00	5,961	12' WIDTH
2072+93.50	2087+30.50	1,916	12' WIDTH
2088+52.90	2187+01.62	13,132	12' WIDTH
2188+19.62	2237+12.95	6,524	12' WIDTH
2238+29.45	2409+50.40	22,828	12' WIDTH
2409+65.50	2416+50.00	913	12' WIDTH
SUBTOTAL		72,423	
TOTAL		144,803	

* SEE TYPICAL SECTION NO. 1

* SEE TYPICAL SECTION NO. 1

SHEET NO. 7

SUMMARIES

PROJECT NAME BALLANTINE - POMPEYS PILLAR
COUNTY YELLOWSTONE COUNTY
PROJECT ID IM 94-1(92)13
UPN 10070000

DESIGNED BY		06/2023
A. BOSE		
REVIEWED BY		06/2023
J. BROTZLER		
CHECKED BY		06/2023
J. FLEMING		

MONTANA
Department of Transportation

ROAD PLANS

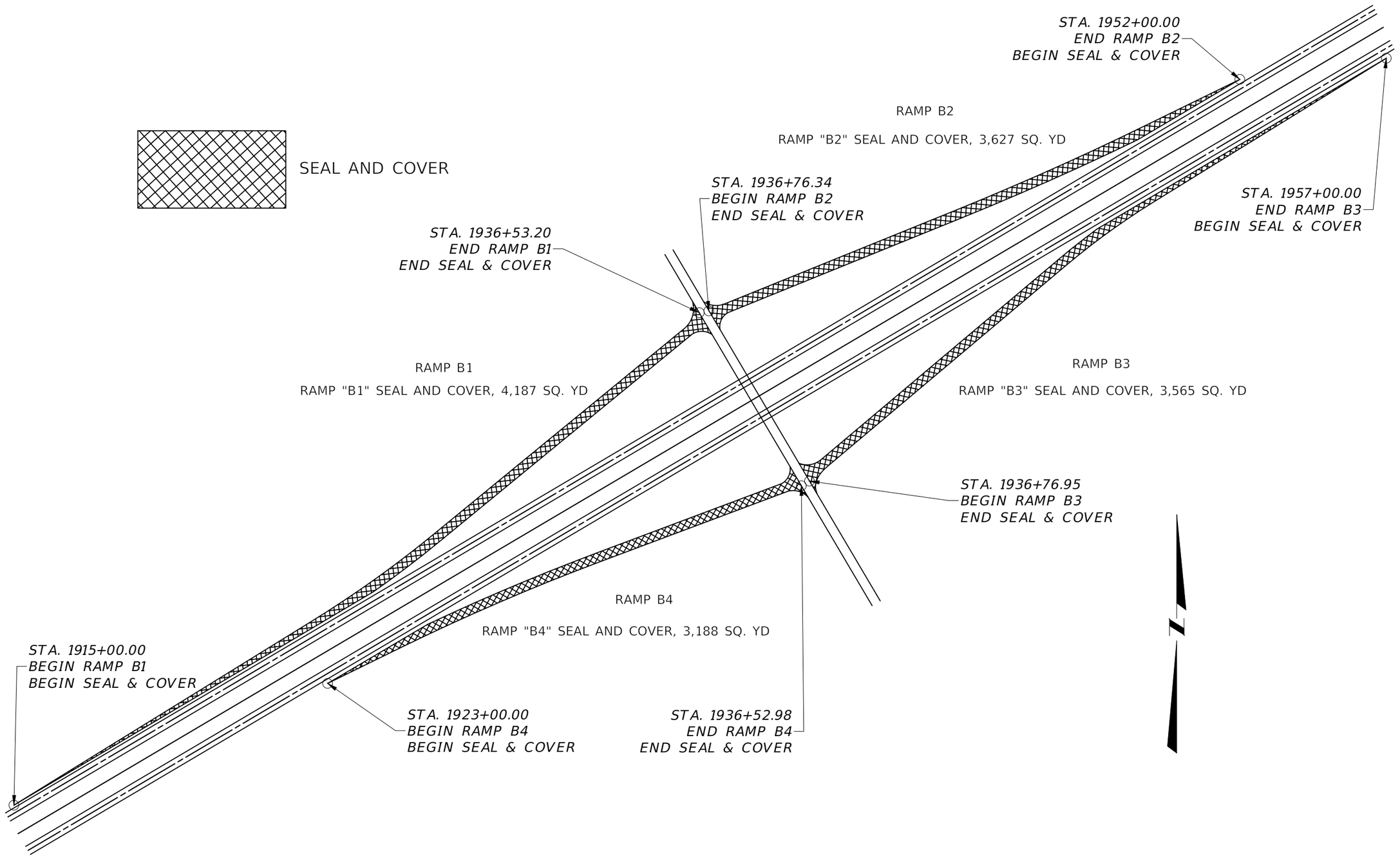
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2/18/2025 9:35 AM

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BALLANTINE INTERCHANGE

SEAL AND COVER



SEE ADDITIONAL SURFACING FRAME FOR QUANTITIES

SHEET NO. 8

BALLANTINE INTERCHANGE DETAILS

PROJECT NAME: BALLANTINE - POMPEYS PILLAR
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(92)13
UPN: 10070000

DESIGNED BY	A. BOSE	06/2023
REVIEWED BY	J. BROTZLER	06/2023
CHECKED BY	J. FLEMING	06/2023

10070RDDET001.DWG

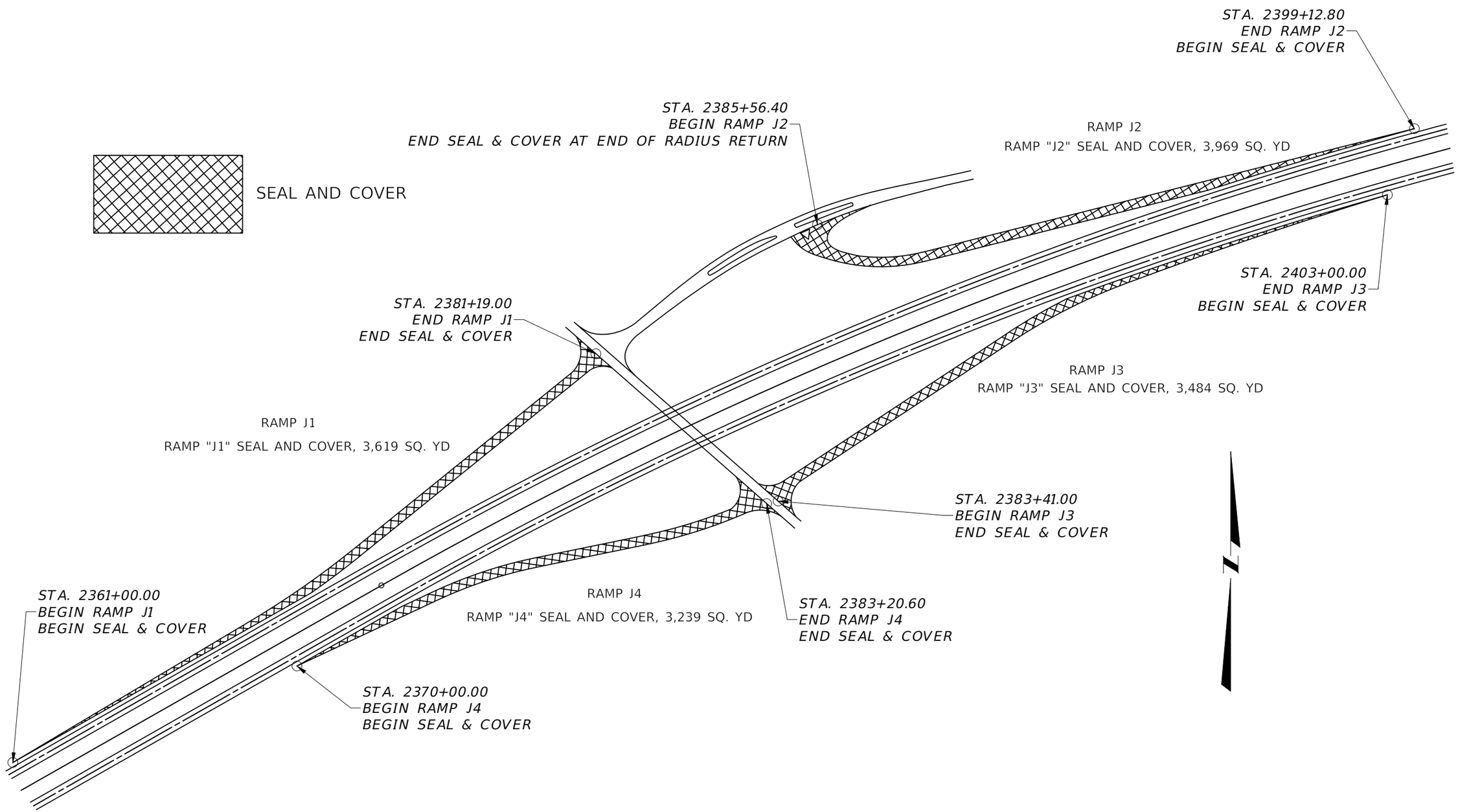
MONTANA Department of Transportation

ROAD PLANS

1/31/2025 8:30 PM

AWARD COPY

POMPEYS PILLAR INTERCHANGE



SEE ADDITIONAL SURFACING FRAME FOR QUANTITIES

SHEET NO. 9

POMPEYS PILLAR INTERCHANGE DETAILS

PROJECT NAME: BALLANTINE - POMPEYS PILLAR
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(92)13
UPN: 10070000

DESIGNED BY	A. BOSE	06/2023
REVIEWED BY	J. BROTZLER	06/2023
CHECKED BY	J. FLEMING	06/2023

10070RDDET001.DWG

MONTANA Department of Transportation

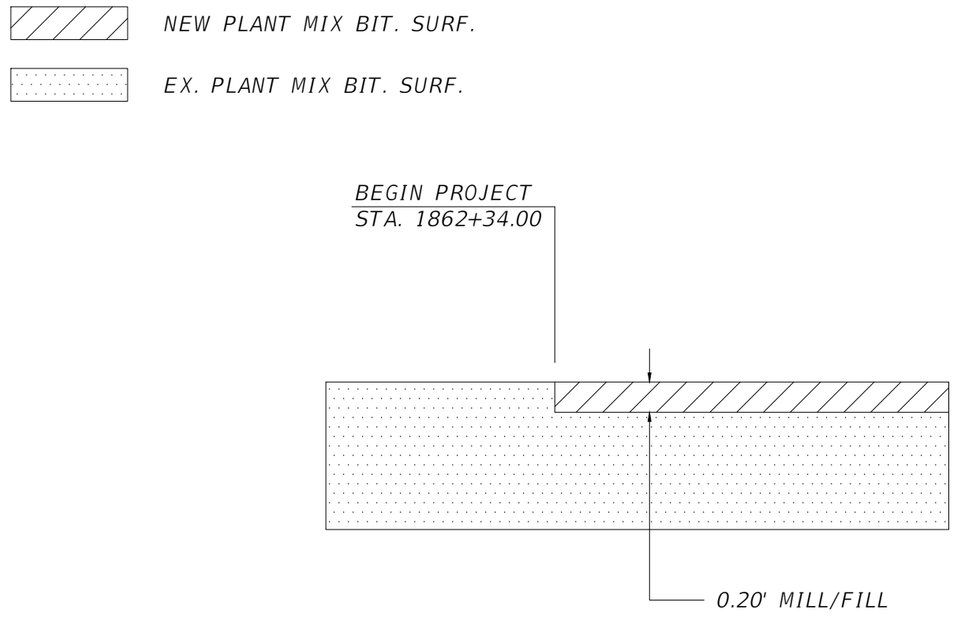
ROAD PLANS

1/31/2025 8:30 PM

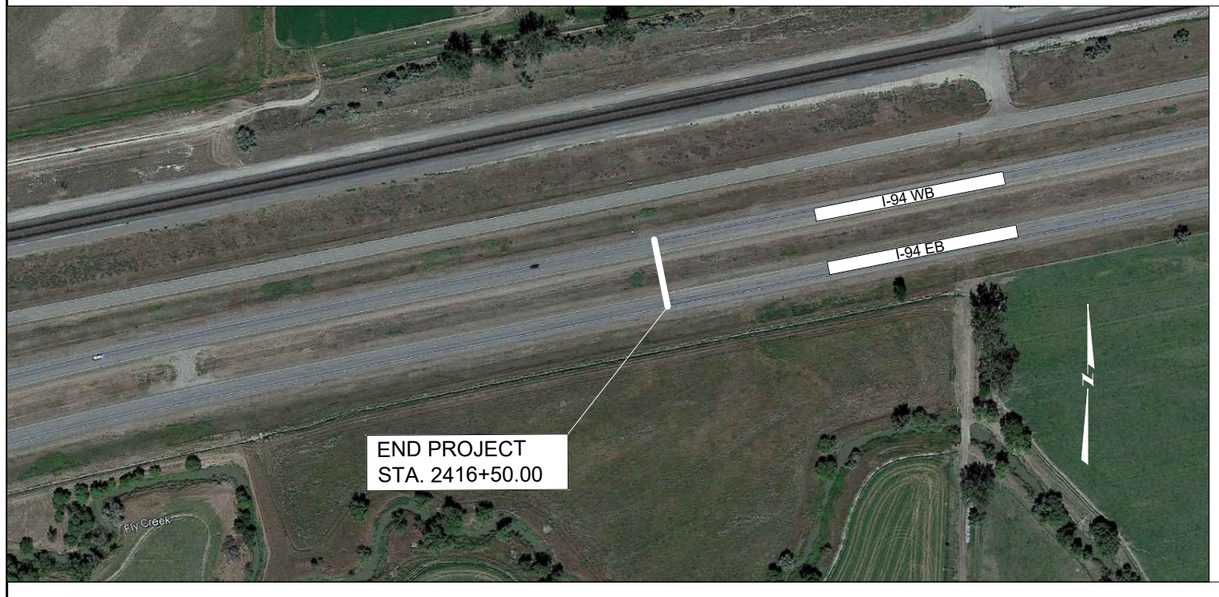
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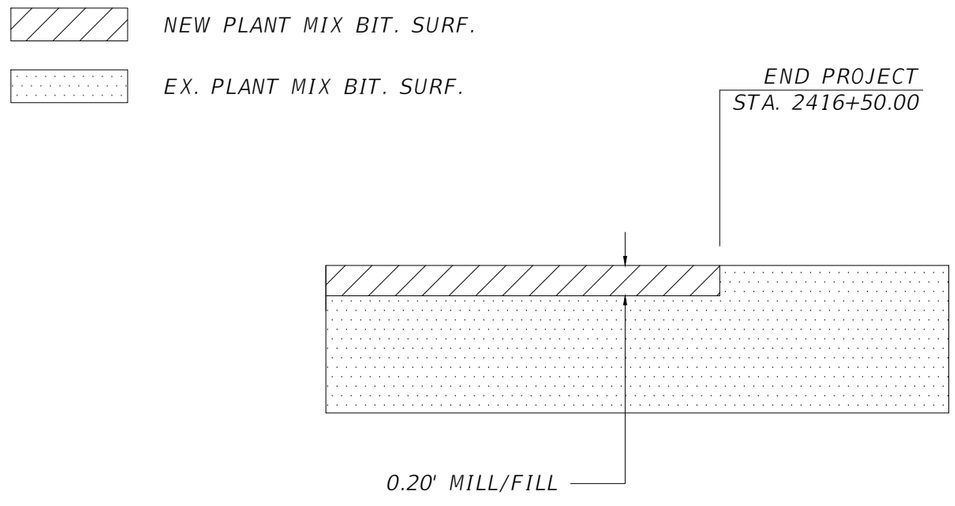
PROJECT BEGIN CONNECTION





PROJECT END CONNECTION





SHEET NO.
10

PROJECT BEGIN & END CONNECTION DETAIL

PROJECT NAME BALLANTINE - POMPEYS PILLAR
COUNTY YELLOWSTONE COUNTY
PROJECT ID IM 94-1(92)13
UPN 10070000

DESIGNED BY	06/2023
A. BOSE	
REVIEWED BY	06/2023
J. BROTZLER	
CHECKED BY	06/2023
J. FLEMING	

10070RDDET002.DWG

MONTANA
Department of Transportation

ROAD PLANS

1/31/2025 8:30 PM

CRACK SEALING

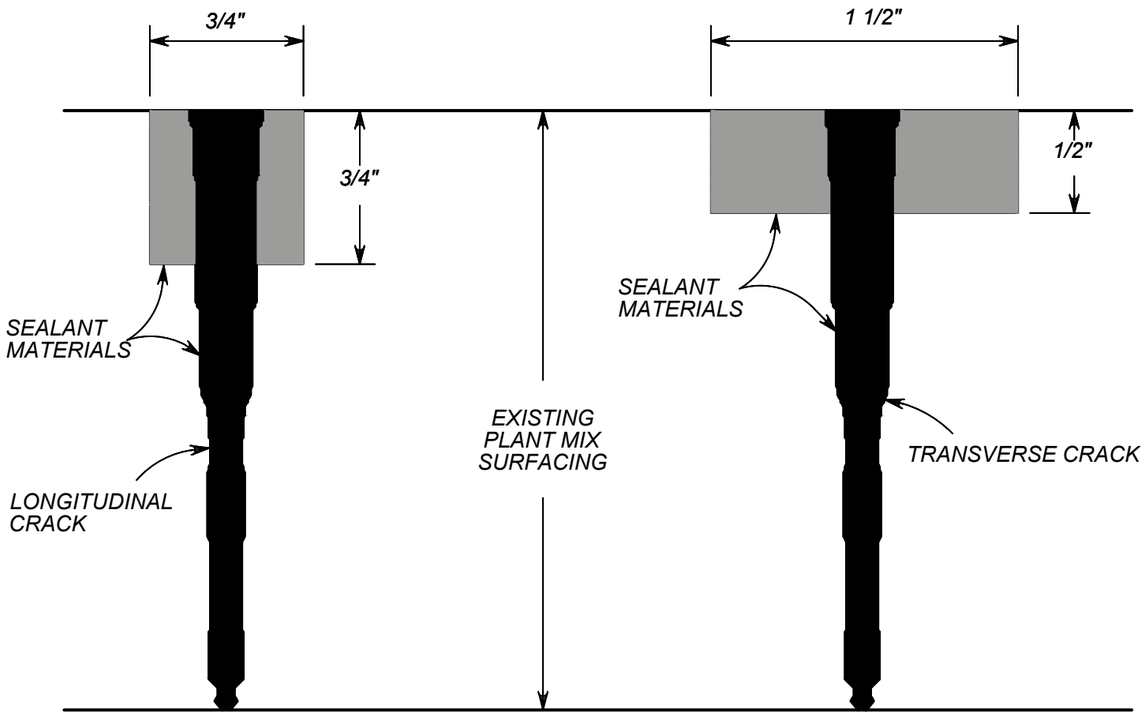
CRACKS 1/8" TO 1.5" WIDE

LONGITUDINAL CRACK

ROUT 3/4" WIDE x 3/4" DEEP
PRIOR TO APPLYING SEALANT

TRANSVERSE CRACK

ROUT 1 1/2" WIDE x 1/2" DEEP
PRIOR TO APPLYING SEALANT



SHEET NO. 11

CRACK SEALING DETAIL

PROJECT NAME BALLANTINE - POMPEYS PILLAR
COUNTY YELLOWSTONE COUNTY
PROJECT ID IM 94-1(92)13
UPN 10070000

DESIGNED BY		REVIEWED BY		CHECKED BY	
A. BOSE	06/2023	J. BROTZLER	06/2023	J. FLEMING	06/2023

MONTANA Department of Transportation

ROAD PLANS

1/31/2025 8:30 PM

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SUMMARY
SIGNING & DELINEATION QUANTITIES

MATERIAL	TOTALS	UNIT
SIGNS-SHEET ALUM SHT INCR XI	**2,105.3**	SQFT
SIGNS-ALUM REFL SHEET XI	**847.5**	SQFT
REMOVE SIGN	**100**	EACH
REMOVE SIGN-GUIDE	**29**	EACH
POSTS-TUBULAR STEEL	**926**	LB
POSTS-STEEL U SIGN	**537**	LB
POSTS-STEEL STRUCTURAL SIGN	**518**	LB
POLES-TREATED WOOD 4 IN	**12**	LNFT
POLES-TREATED WOOD 5 IN	**198**	LNFT
FRANG SIGN POST BKWY-3 IN RD (76 MM)	**8**	EACH
FRANG SIGN POST BKWY-3.5 IN RD (89MM)	**2**	EACH
DELINEATOR TYPE 1	**906**	EACH

SANDERSON STEWART

AWARD COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / RP	Rt.	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG BACK- GRND	REFL SHTG LEGEND	FEET CLEARANCE	FEET SIGN SUPPORT SPACING	TYPE OF SUPPORT	CANTILEVER	FEET SUPPORT LENGTH (ESTIMATED)	FEET SUPPORT LENGTH (INSTALLED)	FEET MOUNTING HEIGHT	FEET FOUNDATION DEPTH	SIGN PANEL (SQ. FT.) SHEET ALUMINUM XI	SIGN PANEL (SQ. FT.) ALUM. SHEET INCREMENT XI	SIGN PANEL (SQ. FT.) ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	TIMBER POLE (LINEAR FT.) 5" TOP DIA.	TIMBER POLE (LINEAR FT.) 6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	STEEL POST (LBS.) SQUARE TUBULAR	STEEL POST (LBS.) STRUCTURAL STEEL	STEEL POST (LBS.) "U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
I-94																																	
Lt.	13.49		WB	N7-1	3-0 x 4-0	XI	XI									12.0											1						RSFO, BBR
	13.49	Rt.	EB	N7-1 N7-1P	3-0 x 4-0 USE AS IS	XI	XI	20-0		5" WOOD POLE		19-2		7-0	3-6	12.0				20						X	1					BBR Huntley Project Museum
	13.71	Rt.	EB	E-14 G3-118	9-0 x 2-6 14-0 x 8-6	XI XI	XI XI										22.5 119.0							*74					1			*	RSFO, Exit 14 RSFO, Ballantine Worden 1 Mile
	13.80	Med.		(2) R5-11	2-6 x 2-0	XI										10.0											1					RSFO, Mount back-to-back
Lt.	13.94		WB	G11-405	8-0 x 5-0	XI	XI										40.0												1				RSFO, Huntley 8; Jct I-90 14; Billings 18
	14.00	Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1						RP 14
Lt.	14.00		WB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1						RP 14
	14.13	Rt.	EB	IS21-2 D9-3	10-6 x 5-6 2-0 x 2-0	XI XI	XI XI									4.0	57.8												1				RSFO, Amenities Next Right
Lt.	14.15		WB	R2-1 R2-2	4-0 x 5-0 4-0 x 3-0	XI XI											20.0 12.0										1						RSFO, Speed Limit 80 RSFO, Trucks 70
Lt.	14.34		WB	M3-4A M1-1	USE AS IS 3-0 x 3-0	XI	XI									7.2											1						RSFO, WEST RSFO, I-94
	14.55	Rt.	EB	E-14 G5-115	9-0 x 2-6 14-0 x 8-6	XI XI	XI XI										22.5 119.0							*74					1			*	RSFO, Exit 14 RSFO, Ballantine Worden Right
	14.68	Rt.	EB	EG-14	6-0 x 5-0	XI	XI										30.0												1				RSFO, Exit 14
	15.00	Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1						RP 15
Lt.	15.00		WB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1						RP 15
Lt.	15.04		WB	EG-14	6-0 x 5-0	XI	XI										30.0												1				RSFO, Exit 14
Lt.	15.18		WB	E-14 G5-115	9-0 x 2-6 14-0 x 8-6	XI XI	XI XI										22.5 119.0							*74					1			*	RSFO, Exit 14 RSFO, Ballantine Worden Right
	15.32	Rt.	EB	M3-2A M1-1	2-6 x 1-3 USE AS IS	XI	XI									3.2											1						RSFO, EAST RSFO, I-94

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

RSFO = REPLACE SIGN FACE ONLY
BBR = BACKBRACING REQUIRED

X = STANDARD BREAKAWAY DEVICE:
-FOR WOOD POST SEE DETAILED DRAWING 619-20.

■ = FRANGIBLE SIGN POST BREAKAWAY DEVICE REQUIRED.
-FOR STRUCURAL STEEL SEE DETAILED DRAWING 619-13.
-FOR METAL POLE SEE DETAILED DRAWING 619-12.

FY = TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.

* = 2 EA. 2½"x2½"x⅜"x6'-4" Angle Iron Required (74 lbs.)

SANDERSON STEWART

AWARD COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / RP	Rt.	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG BACK- GRND	REFL SHTG LEGEND	FEET CLEARANCE	FEET SIGN SUPPORT SPACING	TYPE OF SUPPORT	CANTILEVER	FEET SUPPORT LENGTH (ESTIMATED)	FEET SUPPORT LENGTH (INSTALLED)	FEET MOUNTING HEIGHT	FEET FOUNDATION DEPTH	SIGN PANEL (SQ. FT.) SHEET ALUMINUM	SIGN PANEL (SQ. FT.) ALUM. SHEET INCREMENT	SIGN PANEL (SQ. FT.) ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	TIMBER POLE (LINEAR FT.) 5" TOP DIA.	TIMBER POLE (LINEAR FT.) 6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	STEEL POST (LBS.) SQUARE TUBULAR	STEEL POST (LBS.) STRUCTURAL STEEL	STEEL POST (LBS.) "U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	15.51			R2-1	4-0 x 5-0	XI											20.0																
		Rt.	EB	R2-2	4-0 x 3-0	XI											12.0										1							RSFO, Speed Limit 80 RSFO, Trucks 70
	15.56																																
	Med.			(2) R5-11	2-6 x 2-0	XI										10.0										1							RSFO, Mount back-to-back
	15.61			IS21-2	10-6 x 5-6	XI	XI										57.8																RSFO, Amenities Next Right
Lt.			WB	D9-3	2-0 x 2-0	XI	XI									4.0													1				RSFO
	15.68																																RSFO, Pompeys Piller 8; Miles City 123;
		Rt.	EB	G11-406	12-6 x 5-0	XI	XI										62.5												1				Bismarck 395
	15.76			N7-1	3-0 x 4-0	XI	XI									12.0																	RSFO, BBR
		Rt.	EB	N7-1P	USE AS IS																					1							Billings Lions Club
	15.77			N7-1	3-0 x 4-0	XI	XI									12.0																	RSFO, BBR
Lt.			WB	N7-1P	USE AS IS																					1							Huntley Project Museum
	15.99			E-14	9-0 x 2-6	XI	XI										22.5															*	RSFO, Exit 14
Lt.			WB	G3-118	14-0 x 8-6	XI	XI										119.0							*74				1					RSFO, Ballantine Worden 1 Mile
	16.00									2.0 LB																							
		Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		U POST		10-6		4-0	3-0	3.0									21		1						RP 16
	16.00									2.0 LB																							
Lt.			WB	D10-5	1-0 x 3-0	XI	XI	6-0		U POST		10-6		4-0	3-0	3.0									21		1						RP 16
	16.35																																
		Rt.	EB	W8-12B	USE AS IS																												Hinged, Watch for Ice on Bridge
	16.70																																
Lt.			WB	W8-12B	USE AS IS																												Hinged, Watch for Ice on Bridge
	16.95																																
	Med.			(2) R5-11	2-6 x 2-0	XI										10.0										1							RSFO, Mount back-to-back
	17.00									2.0 LB																							
Lt.			WB	D10-5	1-0 x 3-0	XI	XI	6-0		U POST		10-6		4-0	3-0	3.0									21		1						RP 17
	17.00									2.0 LB																							
		Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		U POST		10-6		4-0	3-0	3.0									21		1						RP 17
	17.27																																
		Rt.	EB	W8-12B	4-0 x 4-0	XI										16.0											1						RSFO, Hinged, Watch for Ice on Bridge
	17.52			N7-1	3-0 x 4-0	XI	XI									12.0																	RSFO, BBR
Lt.			WB	N7-1P	3-0 x 1-0	XI	XI									3.0										1							RSFO, BBR, Billings Lions Club
	17.53			FATALITY																													
Lt.			WB	MARKER	USE AS IS																												
	17.54																																
Lt.			WB	W8-12B	4-0 x 4-0	XI										16.0										1							RSFO, Hinged, Watch for Ice on Bridge

MOUNTING HEIGHT REQUIREMENTS:
MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

RSFO = REPLACE SIGN FACE ONLY
BBR = BACKBRACING REQUIRED

X — STANDARD BREAKAWAY DEVICE:
-FOR WOOD POST SEE DETAILED DRAWING 619-20.

■ — FRANGIBLE SIGN POST BREAKAWAY DEVICE REQUIRED.
-FOR STRUCURAL STEEL SEE DETAILED DRAWING 619-13.
-FOR METAL POLE SEE DETAILED DRAWING 619-12.

FY = TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.

* = 2 EA. 2½"x2½"x⅜"x6'-4" Angle Iron Required (74 lbs.)

SANDERSON STEWART

3	MONTANA Department of Transportation	...\SI\10070000SISUMZ01.DGN	DESIGNED BY: R. TEIXEIRA 5/2023	SIGNING PLANS		BALLANTINE - POMPEYS PILLAR / IM 94-1(92)13
2		1/24/2025	CHECKED BY: J. STASZCUK 5/2023			
1		1:40:02 PM rteixeira	REVIEWED BY: R. SCHROEDER 6/2023	YELLOWSTONE COUNTY		UPN 10070000 / S3

AWARD COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / RP	Rt.	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG BACK- GRND	REFL SHTG LEGEND	FEET CLEARANCE	FEET SIGN SUPPORT SPACING	TYPE OF SUPPORT	CANTILEVER	FEET SUPPORT LENGTH (ESTIMATED)	FEET SUPPORT LENGTH (INSTALLED)	FEET MOUNTING HEIGHT	FEET FOUNDATION DEPTH	SIGN PANEL (SQ. FT.) SHEET ALUMINUM	SIGN PANEL (SQ. FT.) ALUM. SHEET INCREMENT	SIGN PANEL (SQ. FT.) ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	TIMBER POLE (LINEAR FT.) 5" TOP DIA.	TIMBER POLE (LINEAR FT.) 6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	STEEL POST (LBS.) SQUARE TUBULAR	STEEL POST (LBS.) STRUCTURAL STEEL	STEEL POST (LBS.) "U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	18.00	Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1							RP 18
Lt.	18.00		WB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1							RP 18
	18.60 Med.			(2) R5-11	2-6 x 2-0	XI										10.0											1						RSFO, Mount back-to-back
	19.00	Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1							RP 19
Lt.	19.00		WB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1							RP 19
Lt.	19.00		WB	FATALITY MARKER	USE AS IS																												
Lt.	19.87		WB	M11-1	2-0 x 2-6	XI	XI									5.0											1						RSFO
	20.00	Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1							RP 20
Lt.	20.00		WB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1							RP 20
	20.33	Rt.	EB	W8-12B	4-0 x 4-0	XI										16.0											1						RSFO, Hinged, Watch for Ice on Bridge
Lt.	20.70		WB	W8-12B	4-0 x 4-0	XI										16.0											1						RSFO, Hinged, Watch for Ice on Bridge
	21.00	Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1							RP 21
Lt.	21.00		WB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-6		4-0	3-0	3.0									21		1							RP 21
	21.38	Rt.	EB	G30-93	USE AS IS																												Popmeys Pillar National Monument Next Right; Visitor's Center Open 9AM-4PM
	22.00	Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		10-2		4-0	3-0	3.0									21		1							RP 22
Lt.	22.00		WB	D10-5	1-0 x 3-0	XI	XI	6-0		2.0 LB U POST		11-0		4-0	3-0	3.0									22		1							RP 22
	22.12	Rt.	EB	E-23 G3-119	9-0 x 2-6 12-0 x 8-6	XI XI	XI XI										22.5 102.0							*74					1			*	RSFO, Exit 23 RSFO, Pompeys Pillar 1 Mile

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-FOR STRUCURAL STEEL SEE DETAILED DRAWING 619-13.
-FOR METAL POLE SEE DETAILED DRAWING 619-12.

FY = TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.

* = 2 EA. 2½"x2½"x⅜"x6'-4" Angle Iron Required (74 lbs.)

SANDERSON STEWART

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / RP	Rt.	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG BACK- GRND	REFL SHTG LEGEND	FEET CLEARANCE	FEET SIGN SUPPORT SPACING	TYPE OF SUPPORT	CANTILEVER	FEET SUPPORT LENGTH (ESTIMATED)	FEET SUPPORT LENGTH (INSTALLED)	FEET MOUNTING HEIGHT	FEET FOUNDATION DEPTH	SIGN PANEL (SQ. FT.) SHEET ALUMINUM	SIGN PANEL (SQ. FT.) ALUM. SHEET INCREMENT	SIGN PANEL (SQ. FT.) ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	TIMBER POLE (LINEAR FT.) 5" TOP DIA.	TIMBER POLE (LINEAR FT.) 6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	STEEL POST (LBS.) SQUARE TUBULAR	STEEL POST (LBS.) STRUCTURAL STEEL	STEEL POST (LBS.) "U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	22.37																																
Lt.			WB	G11-407	9-6 x 5-0	XI	XI										47.5												1					RSFO, Ballantine 7; Jct I-90 22; Billings 25
	22.58			R2-1	4-0 x 5-0	XI											20.0																	RSFO, Speed Limit 80
Lt.			WB	R2-2	4-0 x 3-0	XI											12.0										1							RSFO, Trucks 70
	22.77			M3-4A	USE AS IS																													WEST
Lt.			WB	M1-1	USE AS IS																													I-94
	22.80																																
	Med.			(2) R5-11	2-6 x 2-0	XI										10.0										1							RSFO, Mount back-to-back
	22.99			E-23	9-0 x 2-6	XI	XI										22.5							*74				1			*		RSFO, Exit 23
		Rt.	EB	G5-116	12-0 x 8-6	XI	XI										102.0																RSFO, Pompeys Pillar Right
	23.00									2.0 LB																							
Lt.			WB	D10-5	1-0 x 3-0	XI	XI	6-0		U POST		11-0		4-0	3-0	3.0									22		1							RP 23
	23.00									2.0 LB																							
		Rt.	EB	D10-5	1-0 x 3-0	XI	XI	6-0		U POST		11-0		4-0	3-0	3.0									22		1							RP 23
	23.14																																
		Rt.	EB	EG-23	6-0 x 5-0	XI	XI										30.0												1					RSFO, Exit 23
	23.46																																
Lt.			WB	EG-23	6-0 x 5-0	XI	XI										30.0												1					RSFO, Exit 23
	23.58			E-23	9-0 x 2-6	XI	XI										22.5							*74				1			*		RSFO, Exit 23
Lt.			WB	G5-116	12-0 x 8-6	XI	XI										102.0																RSFO, Pompeys Pillar Right
	23.73			M3-2A	USE AS IS																													EAST
		Rt.	EB	M1-1	USE AS IS																													I-94
	23.74																																
	Med.			(2) R5-11	2-6 x 2-0	XI										10.0										1							RSFO, Mount back-to-back
	23.94			R2-1	4-0 x 5-0	XI											20.0																RSFO, Speed Limit 80
		Rt.	EB	R2-2	4-0 x 3-0	XI											12.0										1						RSFO, Trucks 70
I-94 OFF-RAMPS																																	
	14.72		14																														
		Rt.	A	W3-1A	4-0 x 4-0	XI	XI	5-0		3.5" STEEL PIPE		14-7		7-0	3-0	16.0						133			■	1							BBR
	14.76		14																														
		Rt.	A	R5-1A	3-6 x 2-6	XI	XI									8.8										1							RSFO
	14.76		14																														
Lt.			A	R5-1A	3-6 x 2-6	XI	XI									8.8										1							RSFO
	14.78		14	GS10-31	9-0 x 6-0	XI	XI										54.0																RSFO, Ballentine Worden Left; Amenities
		Rt.	A	D9-3	2-0 x 2-0	XI	XI									4.0																	RSFO
				M6-1A	1-9 x 1-3	XI	XI									2.2													1				RSFO

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SANDERSON STEWART

AWARD COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / RP	Rt.	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG BACK- GRND	REFL SHTG LEGEND	FEET CLEARANCE	FEET SIGN SUPPORT SPACING	TYPE OF SUPPORT	CANTILEVER	FEET SUPPORT LENGTH (ESTIMATED)	FEET SUPPORT LENGTH (INSTALLED)	FEET MOUNTING HEIGHT	FEET FOUNDATION DEPTH	SIGN PANEL (SQ. FT.) SHEET ALUMINUM	SIGN PANEL (SQ. FT.) ALUM. SHEET INCREMENT	SIGN PANEL (SQ. FT.) ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	TIMBER POLE (LINEAR FT.) 5" TOP DIA.	TIMBER POLE (LINEAR FT.) 6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	STEEL POST (LBS.) SQUARE TUBULAR	STEEL POST (LBS.) STRUCTURAL STEEL	STEEL POST (LBS.) "U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	14.80		14																														
		Rt.	A	LA-2	2-0 x 1-0	XI										2.0											1						RSFO
	14.84		14	R6-1L	3-0 x 1-0	XI										3.0																	
		Rt.	A	R6-1R	3-0 x 1-0	XI										3.0																	Mount on Back
				R5-1	3-0 x 3-0	XI	XI	5-0		5" WOOD POST		13-7		5-0	3-6	9.0				14						X	1						
	14.84		14	R6-1L	3-0 x 1-0	XI										3.0																	
Lt.			A	R6-1R	3-0 x 1-0	XI										3.0																	Mount on Back
				R5-1	3-0 x 3-0	XI	XI	5-0		5" WOOD POST		13-0		5-0	3-6	9.0				14						X	1						
	14.84		14																														
		Rt.	A	R1-1	USE AS IS																												
	14.85		14																														
Lt.			C	R1-1	USE AS IS																												
	14.86		14	R6-1L	3-0 x 1-0	XI										3.0																	RSFO
		Rt.	C	R6-1R	3-0 x 1-0	XI										3.0																	RSFO, Mount on Back
				R5-1	3-0 x 3-0	XI	XI									9.0											1						RSFO
	14.86		14	R6-1L	3-0 x 1-0	XI										3.0																	RSFO
Lt.			C	R6-1R	3-0 x 1-0	XI										3.0																	RSFO, Mount on Back
				R5-1	3-0 x 3-0	XI	XI									9.0											1						RSFO
	14.89		14																														
Lt.			C	LA-2	2-0 x 1-0	XI										2.0											1						RSFO
	14.93		14	GS10-32	9-0 x 6-0	XI	XI										54.0																RSFO, Ballentine Worden Right; Amenities
Lt.			C	D9-3	2-0 x 2-0	XI	XI									4.0																	RSFO
				M6-1A	1-9 x 1-3	XI	XI									2.2													1				RSFO
	14.95		14																														
		Rt.	C	R5-1A	3-6 x 2-6	XI	XI									8.8											1						RSFO
	14.95		14																														
Lt.			C	R5-1A	3-6 x 2-6	XI	XI									8.8											1						RSFO
	14.98		14																														
Lt.			C	W3-1A	USE AS IS																												
	23.17		23																														
		Rt.	A	W3-1A	USE AS IS																												
	23.19		23																														
		Rt.	A	R5-1A	3-6 x 2-6	XI	XI									8.8											1						RSFO
	23.19		23																														
Lt.			A	R5-1A	3-6 x 2-6	XI	XI									8.8											1						RSFO

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FY — *= TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.*

✳ — *= 2 EA. 2½"x2½"x⅜"x6'-4" Angle Iron Required (74 lbs.)*

SANDERSON STEWART

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SIGN LOCATION AND SPECIFICATION

Lt.	STATION / RP	Rt.	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG BACK- GRND	REFL SHTG LEGEND	FEET CLEARANCE	FEET SIGN SUPPORT SPACING	TYPE OF SUPPORT	CANTILEVER	FEET SUPPORT LENGTH (ESTIMATED)	FEET SUPPORT LENGTH (INSTALLED)	FEET MOUNTING HEIGHT	FEET FOUNDATION DEPTH	SIGN PANEL (SQ. FT.) SHEET ALUMINUM	SIGN PANEL (SQ. FT.) ALUM. SHEET INCREMENT	SIGN PANEL (SQ. FT.) ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	TIMBER POLE (LINEAR FT.) 5" TOP DIA.	TIMBER POLE (LINEAR FT.) 6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	STEEL POST (LBS.) SQUARE TUBULAR	STEEL POST (LBS.) STRUCTURAL STEEL	STEEL POST (LBS.) "U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	23.21		23	GS8-107	11-6 x 4-0	XI	XI										46.0																RSFO, LEFT Pompeys Pillar, no services
		Rt.	A	G30-95	11-6 x 3-6	XI	XI										40.3													1				RSFO, LEFT Pompeys Pillar Nat'l Park
	23.23		23																														
		Rt.	A	LA-2	REMOVE																						1						REMOVE
	23.25		23																														
		Rt.	A	LA-2	2-0 x 1-0	XI										2.0											1						RSFO
	23.26		23	R6-1L	3-0 x 1-0	XI										3.0																	RSFO
Lt.			A	R6-1R	3-0 x 1-0	XI										3.0																	RSFO, Mount on Back
				R5-1	3-0 x 3-0	XI	XI									9.0											1						RSFO
	23.26		23	(2) D3-1	3-0 x 0-10	XI	XI			3.5" STEEL						5.0										■							S 31st ST, Mount back-to-back
		Rt.	A	R1-1	4-0 x 4-0	XI	XI	2-0		PIPE		11-11		7-0	3-0	13.3						109					1						
	23.34		23																														
		Rt.	C	R3-1B	3-0 x 4-0	XI										12.0											1						RSFO
	23.34		23	R6-1L	3-0 x 1-0	XI										3.0																	RSFO
		Rt.	C	R6-1R	3-0 x 1-0	XI										3.0																	RSFO
				R5-1	3-0 x 3-0	XI	XI									9.0											1						RSFO
	23.35		23							3" STEEL																							
		Rt.	C	R1-1	4-0 x 4-0	XI	XI	2-0		PIPE		11-0		7-0	3-0	13.3						83				■	1						BBR
	23.35		23							3" STEEL																							
		Med.	C	R1-1	4-0 x 4-0	XI	XI	2-0		PIPE		11-0		7-0	3-0	13.3						83				■	1						BBR
	23.36		23	R6-1L	3-0 x 1-0	XI										3.0																	
Lt.			C	R6-1R	3-0 x 1-0	XI										3.0																	Mount on Back
				R5-1	3-0 x 3-0	XI	XI	2-0		5" WOOD POST		15-2		5-0	3-6	9.0				16						X	1						
	23.37		23																														
Lt.			C	LA-2	2-0 x 1-0	XI										2.0											1						RSFO
	23.41		23																														
		Rt.	C	R5-1A	3-6 x 2-6	XI	XI									8.8											1						RSFO
	23.41		23																														
Lt.			C	R5-1A	3-6 x 2-6	XI	XI									8.8											1						RSFO
	23.45		23																														
Lt.			C	W3-1A	USE AS IS																												
I-94																																	
	14.79		14																														
Lt.			B	LA-1	2-0 x 1-0	XI										2.0											1						RSFO
	14.81		14																														
Lt.			B	D13-3	4-0 x 2-6	XI	XI									10.0											1						RSFO
	14.90		14																														
		Rt.	D	D13-3	4-0 x 2-6	XI	XI									10.0											1						RSFO

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SANDERSON STEWART

SIGN LOCATION AND SPECIFICATION

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	14.94		14																														
		Rt.	D	LA-1	2-0 x 1-0	XI		6-0		2.0 LB U-POST			10-6	5-0	3-0	2.0									21								
	23.19		23																														
Lt.			B	LA-1	2-0 x 1-0	XI										2.0											1						RSFO
	23.22		23																														
Lt.			B	D13-3	4-0 x 2-6	XI	XI									10.0											1						RSFO
	23.31		23																														
		Rt.	D	D13-3	4-0 x 2-6	XI	XI									10.0											1						RSFO
	23.34		23																														
		Rt.	D	LA-1	2-0 x 1-0	XI										2.0											1						RSFO
West Arrow Creek Rd[1]																																	
	0.18																																
		Rt.	NB	G9-127	8-0 x 4-0	XI	XI										32.0												1				RSFO, Billings Straight, Bismarck Right
	0.23																																
		Rt.	NB	R3-2B	3-0 x 4-0	XI		5-0		5" WOOD POST		15-7		5-0	3-6	12.0				16						X	1						BBR
	0.25																																
Lt.			SB	G8-101	8-0 x 2-0	XI	XI										16.0												1				RSFO, Bismarck Left
	0.25			M3-4A	2-0 x 1-0	XI	XI									2.0																RSFO, BBR
		Rt.	NB	M3-2A	2-0 x 1-0	XI	XI									2.0																RSFO, BBR
				M1-1	2-0 x 2-0	XI	XI									3.2																RSFO, I-94, BBR
				M1-1	2-0 x 2-0	XI	XI									3.2																RSFO, I-94, BBR
				M6-3A	1-9 x 1-3	XI	XI									2.2																RSFO, BBR
				M6-1AR	1-9 x 1-3	XI	XI									2.2																RSFO, BBR
				M3-2A	2-0 x 1-0	XI	XI									2.0																RSFO, Mount on Back
				M1-1	2-0 x 2-0	XI	XI									3.2																RSFO, I-94, Mount on Back
				M6-1AL	1-9 x 1-3	XI	XI									2.2																RSFO, Mount on Back
																											1					
	0.26																																
Lt.			SB	R3-1B	3-0 x 4-0	XI		6-0		5" WOOD POST		15-0		5-0	3-6	12.0				16						X	1						BBR
S 16th Rd[1]																																	
	0.32																																
		Rt.	NB	G8-53	7-0 x 2-0	XI	XI										14.0												1				RSFO, Left Billings
	0.33																																
		Rt.	NB	R3-1B	3-0 x 4-0	XI		5-0		5" WOOD POST		13-6		5-0	3-6	12.0				14						X	1						BBR
	0.33			M3-2A	2-0 x 1-0	XI	XI									2.0																RSFO, BBR
Lt.			SB	M3-4A	2-0 x 1-0	XI	XI									2.0																RSFO, BBR
				M1-1	2-0 x 2-0	XI	XI									3.2																RSFO, I-94, BBR
				M1-1	2-0 x 2-0	XI	XI									3.2																RSFO, I-94, BBR
				M6-3A	1-9 x 1-3	XI	XI									2.2																RSFO, BBR
				M6-1AR	1-9 x 1-3	XI	XI									2.2																RSFO, BBR
				M3-4A	2-0 x 1-0	XI	XI									2.0																RSFO, Mount on Back
				M1-1	2-0 x 2-0	XI	XI									3.2																RSFO, I-94, Mount on Back
				M6-1AL	1-9 x 1-3	XI	XI									2.2																RSFO, Mount on Back
																											1					
	0.35																																
Lt.			SB	R3-2B	3-0 x 4-0	XI		10-0		5" WOOD POST		14-5		5-0	3-6	12.0				16						X	1						BBR

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

RSFO = REPLACE SIGN FACE ONLY
BBR = BACKBRACING REQUIRED

X — *STANDARD BREAKAWAY DEVICE: -FOR WOOD POST SEE DETAILED DRAWING 619-20.*

■ — *FRANGIBLE SIGN POST BREAKAWAY DEVICE REQUIRED. -FOR STRUCURAL STEEL SEE DETAILED DRAWING 619-13. -FOR METAL POLE SEE DETAILED DRAWING 619-12.*

FY — *= TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.*

✳ — *= 2 EA. 2½"x2½"x⅜"x6'-4" Angle Iron Required (74 lbs.)*

NOTE:

1. WEST ARROW CREEK RD REFERENCE POSTS BEGIN AT RP 0.00 AT THE INTERSECTION OF WEST ARROW CREEK RD AND EAST ARROW CREEK ROAD AND INCREASE TO THE NORTH.

WEST ARROW CREEK RD CHANGES TO SOUTH 16TH RD AT THE I-94 CROSSING.

SANDERSON STEWART

AWARD COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / RP	Rt.	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG BACK- GRND	REFL SHTG LEGEND	FEET CLEARANCE	FEET SIGN SUPPORT SPACING	TYPE OF SUPPORT	CANTILEVER	FEET SUPPORT LENGTH (ESTIMATED)	FEET SUPPORT LENGTH (INSTALLED)	FEET MOUNTING HEIGHT	FEET FOUNDATION DEPTH	SIGN PANEL (SQ. FT.) SHEET ALUMINUM	SIGN PANEL (SQ. FT.) ALUM. SHEET INCREMENT	SIGN PANEL (SQ. FT.) ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	TIMBER POLE (LINEAR FT.) 5" TOP DIA.	TIMBER POLE (LINEAR FT.) 6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	STEEL POST (LBS.) SQUARE TUBULAR	STEEL POST (LBS.) STRUCTURAL STEEL	STEEL POST (LBS.) "U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	0.35																																
		Rt.	NB	W11-15	USE AS IS																												Const. Orange, Trucks Entering 400 FT
	0.36																																
		Rt.	NB	R2-1	2-0 x 2-6	XI										5.0												1					RSFO, Speed Limit 45
	0.38																																
Lt.			SB	G9-128	8-0 x 4-0	XI	XI										32.0													1				RSFO, Straight Bismarck, Right Billings
	0.38																																
		Rt.	NB	W1-2R	4-0 x 4-0	XI										16.0																FY		RSFO
Fly Creek Rd[1]																																	
	0.02																																
		Rt.	SB	G8-101	8-0 x 2-0	XI	XI										16.0													1				RSFO, Bismarck Left
	0.02																																
		Rt.	SB	R3-1B	3-0 x 4-0	XI		5-0		5" WOOD POST		13-0		5-0	3-6	12.0				14						X	1							BBR
	0.02																																
Lt.			NB	R99-1	2-0 x 1-6	XI		2-0		3.0 LB U-POST		10-3		5-0	3-0	3.0									31		1						SKEW BRIDGE RAISE SNOW PLOW
	0.03																																
			NB	M3-4A	REUSE																												BBR
Lt.				M3-2A	REUSE																												BBR
				M1-1	REUSE																												BBR, I-94
				M1-1	REUSE																												BBR, I-94
				M6-3A	REUSE																												BBR
				M6-1AR	REUSE																												BBR
				M3-2A	REUSE																												Mount on Back
				M1-1	REUSE																												Mount on Back, I-94
				M6-1AL	REUSE			2-0		3" STEEL PIPE		10-5		5-0	3-0							79				■	1						Mount on Back
	0.06																																
Lt.			NB	R3-2B	3-0 x 4-0	XI		5-0		5" WOOD POST		13-0		5-0	3-6	12.0				14						X	1							BBR
	0.06																																
		Rt.	SB	W1-2R	4-0 x 4-0	XI		5-0		3" STEEL PIPE		11-10		5-0	3-0	16.0						90				■	1				FY		BBR
	0.08																																
Lt.			NB	G9-127	8-0 x 4-0	XI	XI										32.0													1				RSFO, Billings Straight, Bismarck Right
	0.12																																
Lt.			NB	W8-12B	4-0 x 4-0	XI										16.0												1					RSFO, Hinged, Watch for Ice on Bridge
Highway 312[2]																																	
	0.04																																
		Rt.	NB	G8-105	11-6 x 4-0	XI	XI										46.0																RSFO, Left Billings; Right Pompeys Pillar
				G30-96	11-6 x 3-6	XI	XI										40.3												1				RSFO, Straight Pompeys Pillar Nat'l Monument
	0.05																																
Lt.			SB	M3-2A	REUSE																												BBR
				M3-4A	REUSE																												BBR
				M1-1	REUSE																												BBR, I-94
				M1-1	REUSE																												BBR, I-94
				M6-3A	REUSE																												BBR
				M6-1AR	REUSE																												BBR
				M3-4A	REUSE																												Mount on Back
				M1-1	REUSE																												I-94, Mount on Back
				M6-1AL	REUSE			6-0		3" STEEL PIPE		10-5		5-0	3-0							79				■	1						Mount on Back

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

RSFO = REPLACE SIGN FACE ONLY
BBR = BACKBRACING REQUIRED

X — STANDARD BREAKAWAY DEVICE:
-FOR WOOD POST SEE DETAILED DRAWING 619-20.

■ — FRANGIBLE SIGN POST BREAKAWAY DEVICE REQUIRED.
-FOR STRUCURAL STEEL SEE DETAILED DRAWING 619-13.
-FOR METAL POLE SEE DETAILED DRAWING 619-12.

FY = TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.

* = 2 EA. 2½"x2½"x⅜"x6'-4" Angle Iron Required (74 lbs.)

NOTES:

1. FLY CREEK RD REFERENCE POSTS BEGIN AT RP 0.00 AT THE CROSSING OF EASTBOUND I-94 AND FLY CREEK RD, AND INCREASE TO THE SOUTH.

2. HIGHWAY 312 REFERENCE POSTS BEGIN AT RP 0.00 AT THE CROSSING OF EASTBOUND I-94 AND HIGHWAY 312, AND INCREASE TO THE NORTH.

SANDERSON STEWART

AWARD COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / RP	Rt.	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG BACK- GRND	REFL SHTG LEGEND	FEET CLEARANCE	FEET SIGN SUPPORT SPACING	TYPE OF SUPPORT	CANTILEVER	FEET SUPPORT LENGTH (ESTIMATED)	FEET SUPPORT LENGTH (INSTALLED)	FEET MOUNTING HEIGHT	FEET FOUNDATION DEPTH	SIGN PANEL (SQ. FT.) SHEET ALUMINUM	SIGN PANEL (SQ. FT.) ALUM. SHEET INCREMENT	SIGN PANEL (SQ. FT.) ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	TIMBER POLE (LINEAR FT.) 5" TOP DIA.	TIMBER POLE (LINEAR FT.) 6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	STEEL POST (LBS.) SQUARE TUBULAR	STEEL POST (LBS.) STRUCTURAL STEEL	STEEL POST (LBS.) "U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	0.07			R6-1L	3-0 x 1-0	XI										3.0																	RSFO
Lt.			SB	R6-1R	3-0 x 1-0	XI										3.0											1						RSFO, Mount on Back
	0.08																																
		Rt.	NB	R1-1	REUSE			6-0		5" WOOD POST		15-8		5-0	3-6					16						X	1						BBR
	0.11																																
		Rt.	NB	W8-12B	4-0 x 4-0	XI		6-0		3" STEEL PIPE		12-2		5-0	3-0	16.0						92				■	1						BBR, Hinged, Watch for Ice on Bridge
	0.12																																
Lt.			SB	W8-12B	4-0 x 4-0	XI		6-0		3" STEEL PIPE		12-2		5-0	3-0	16.0						92				■	1						BBR, Hinged, Watch for Ice on Bridge
	0.13																																
		Rt.	NB	R99-1	2-0 x 1-6	XI		2-0		3.0 LB U-POST		10-3		5-0	3-0	3.0									31		1						SKEW BRIDGE RAISE SNOW PLOW
	0.14																																
		Rt.	NB	M11-1	2-0 x 2-6	XI	XI	2-0		4" WOOD POST		11-0		5-0	3-0	5.0			12								1						
	0.14																																
Lt.			SB	G13-135	11-6 x 6-0	XI	XI										69.0												1				RSFO, Staight Miles City; Left Pompeys Pillar; Right Billings
	0.22			M3-1	2-0 x 1-0	XI										2.0																	RSFO
		Rt.	NB	M1-12	2-0 x 2-0	XI										4.0											1						RSFO, RM 568
	0.22																																
Lt.			SB	R99-1	2-0 x 1-6	XI		2-0		3.0 LB U-POST		10-3		5-0	3-0	3.0									31		1						SKEW BRIDGE RAISE SNOW PLOW
Custer Frontage Rd																																	
	25.53																																
Lt.			WB	R1-1	REUSE			6-0		5" WOOD POST		13-10		5-0	3-6					14						X	1						BBR
	25.57			G9-230	8-6 x 4-0	XI	XI										34.0												1				RSFO, Straight Billings; Left Miles City
Lt.			WB	G30-95a	11-6 x 3-6	XI	XI										40.3																RSFO, Right Pompeys Pillar Nat'l Monument
	25.62																																
	Med.		WB	R4-7	2-0 x 2-6	XI										5.0											1						RSFO
	25.62																																BBR
		Rt.	WB	W3-1A	4-0 x 4-0	XI	XI	10-0		3" STEEL PIPE		11-6		5-0	3-0	16.0						86				■	1						Mount on Back
	25.63			GS8-108	11-6 x 4-0	XI	XI										46.0																RSFO, Right Pompeys Pillar, no services
Lt.			WB	G30-95	11-6 x 3-6	XI	XI										40.3												1				RSFO, Left Pompeys Pillar Nat'l Monument
	25.65																																
Lt.			WB	R3-2B	3-0 x 4-0	XI		6-0		5" WOOD POST		13-7		5-0	3-6	12.0				14						X	1						BBR
													TOTALS			847.5	2,105.3		12	198		926		518	537		100		29				

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08.

RSFO = REPLACE SIGN FACE ONLY
BBR = BACKBRACING REQUIRED

X — *STANDARD BREAKAWAY DEVICE: -FOR WOOD POST SEE DETAILED DRAWING 619-20.*

■ — *FRANGIBLE SIGN POST BREAKAWAY DEVICE REQUIRED. -FOR STRUCURAL STEEL SEE DETAILED DRAWING 619-13. -FOR METAL POLE SEE DETAILED DRAWING 619-12.*

FY — *= TYPE XI FLUORESCENT YELLOW SHEETING REQUIRED.*

✱ — *= 2 EA. 2½"x2½"x⅜"x6'-4" Angle Iron Required (74 lbs.)*

DELINEATOR LEGEND

⊣	DELINEATOR DES "A"	343
⊣	DELINEATOR DES "B"	62
⊢	DELINEATOR DES "D"	16
≺	DELINEATOR DES "G"	90
⊣	DELINEATOR DES "H"	294
⊢	DELINEATOR DES "BJ"	66
≺	DELINEATOR DES "GJ"	35

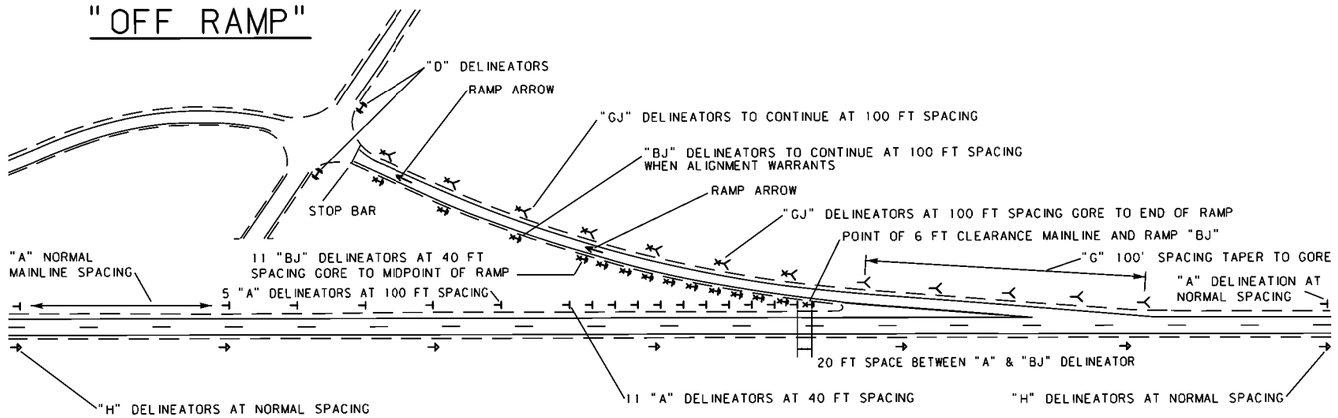
SANDERSON STEWART

AWARD COPY

DETAILS

NEW
RAMP DELINEATION DETAIL

"OFF RAMP"

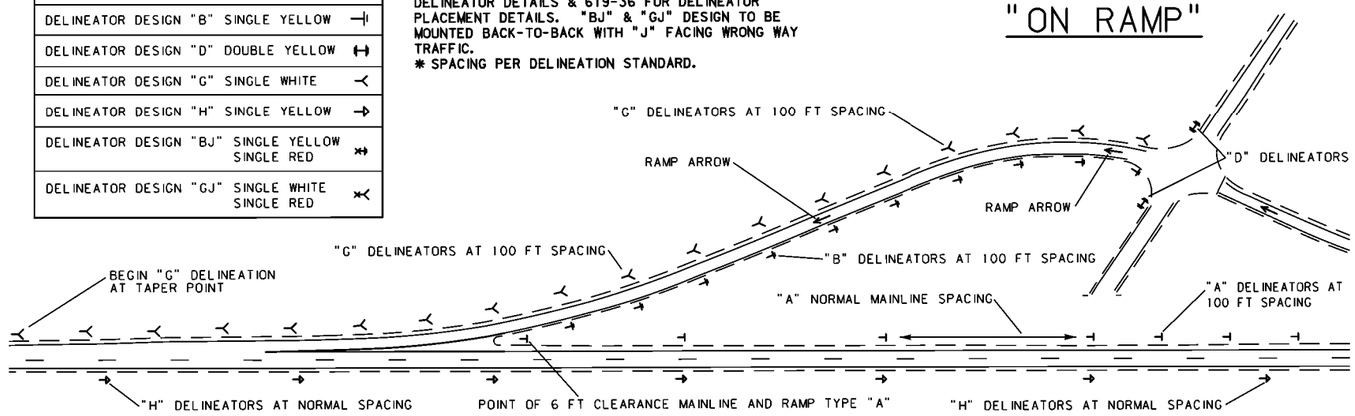


LEGEND

DELINEATOR DESIGN "A" SINGLE WHITE	⊣
DELINEATOR DESIGN "B" SINGLE YELLOW	⊣
DELINEATOR DESIGN "D" DOUBLE YELLOW	⊢⊣
DELINEATOR DESIGN "G" SINGLE WHITE	≺
DELINEATOR DESIGN "H" SINGLE YELLOW	⊣
DELINEATOR DESIGN "BJ" SINGLE YELLOW SINGLE RED	⊣⊣
DELINEATOR DESIGN "GJ" SINGLE WHITE SINGLE RED	≺

NOTE:
ALL DELINEATORS AT 6 FT CLEARANCE FROM EDGE OF PAVEMENT. SEE DETAILED DRAWING 619-34 FOR DELINEATOR DETAILS & 619-36 FOR DELINEATOR PLACEMENT DETAILS. "BJ" & "GJ" DESIGN TO BE MOUNTED BACK-TO-BACK WITH "J" FACING WRONG WAY TRAFFIC.
✱ SPACING PER DELINEATION STANDARD.

"ON RAMP"



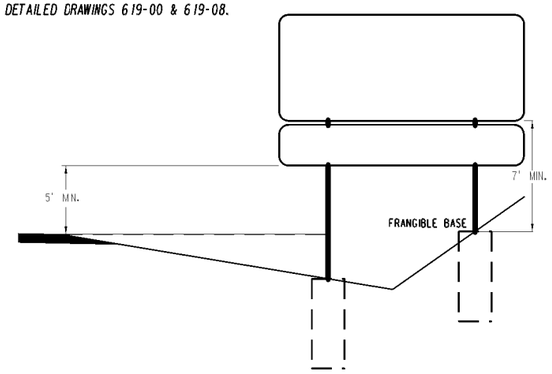
SANDERSON STEWART

3	MONTANA Department of Transportation	$FILEABBREV$	DESIGNED BY:	R. TEIXEIRA	5/2023	SIGNING PLANS	BALLANTINE - POMPEYS PILLAR	IM 94-1(92)13
2		$DATE$	CHECKED BY:	J. STASZCUK	5/2023			
1		$TIME$ $username$	REVIEWED BY:	R. SCHROEDER	6/2023	YELLOWSTONE COUNTY	UPN 10070000	S11

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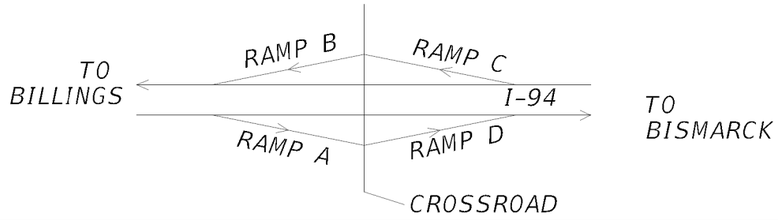
DETAILS

MINIMUM MOUNTING HEIGHTS SHOWN IN LOCATION AND SPECIFICATION SHEETS REFER TO THE BOTTOM OF THE MAJOR PANEL. MOUNTING HEIGHTS WILL INCREASE WITH ADDITIONAL PANELS.
SEE DETAILED DRAWINGS 619-00 & 619-08.

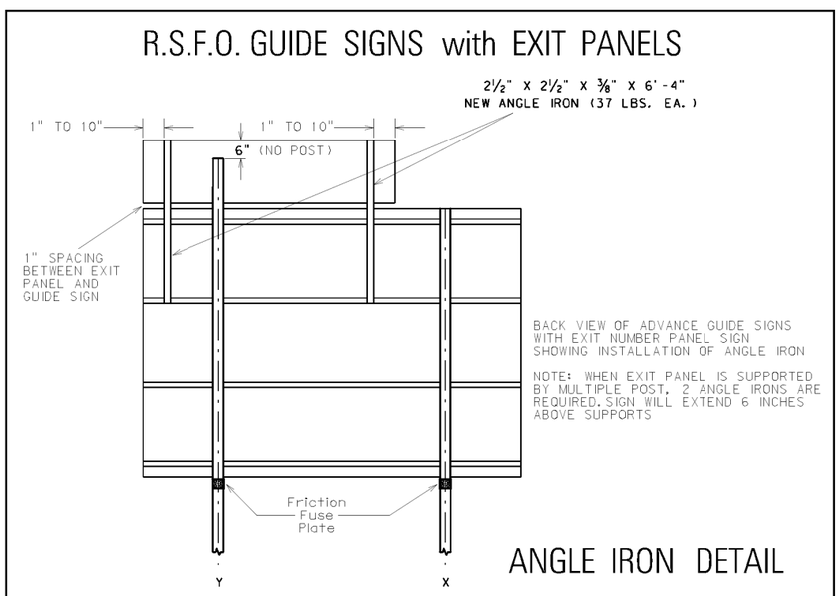


GUIDE SIGN MOUNTING HEIGHT DETAIL

TYPICAL RAMP LAYOUT

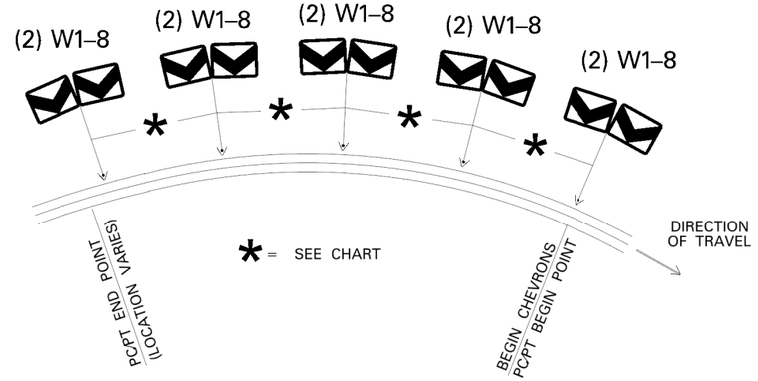


R.S.F.O. GUIDE SIGNS with EXIT PANELS



ANGLE IRON DETAIL

CHEVRON PLACEMENT DETAIL
(GUIDANCE ONLY)



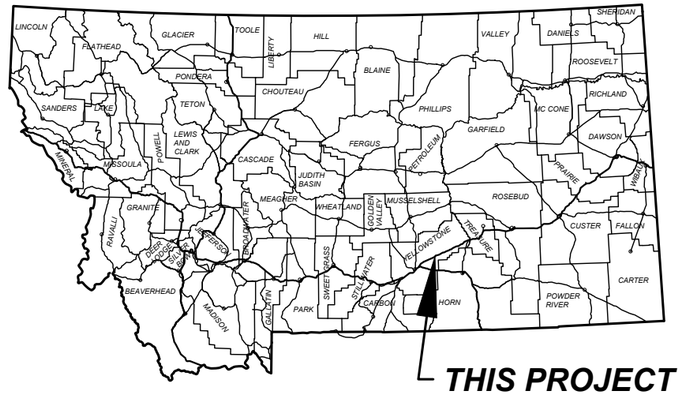
CURVE RADIUS	SIGN SPACING		R.P. CONVERSION
< 200′	40′	=	.008 +–
200′ – 400′	80′	=	.015 +–
401′ – 700′	120′	=	.023 +–
701′ – 1250′	160′	=	.030 +–
> 1250′	200′	=	.038 +–

1) SEE SPEC SHEET FOR CHEVRON PLACEMENT

2) USE BEGINNING OF CURVE LOCATION AS REFERENCE POINT TO INSTALL CHEVRONS (BEGIN POINT – ALWAYS ON OUTSIDE OF CURVE IN DIRECTION OF TRAVEL)

SANDERSON STEWART

AWARD COPY



MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT IM 94-1(96)7

CRACK SEAL / SEAL AND COVER

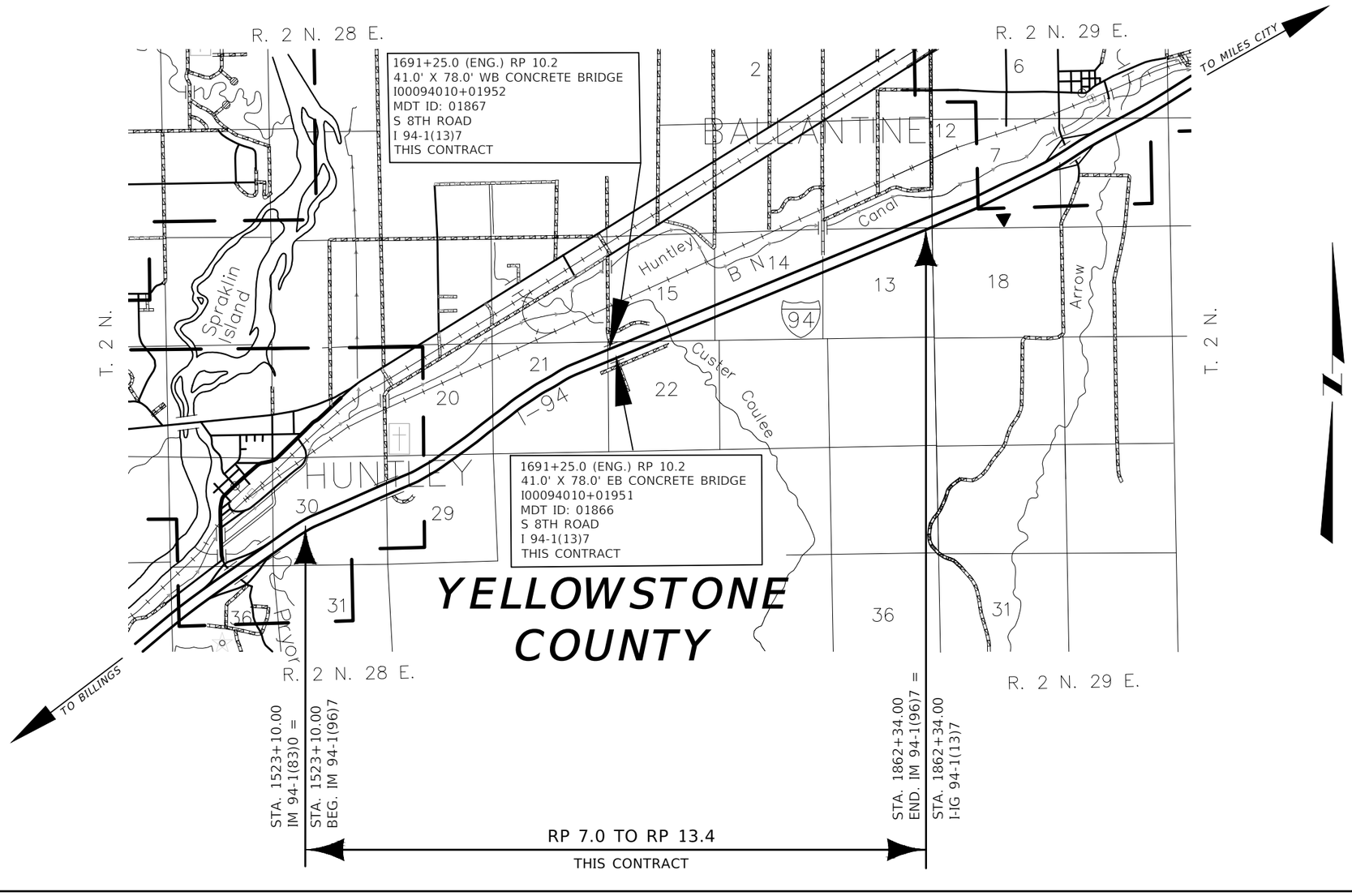
HUNTLEY - EAST

YELLOWSTONE COUNTY

LENGTH 6.4 MILES

PROJECT DESIGN DATA			
PRESENT	2025	A.D.T. =	6,210
LETTING	2025	A.D.T. =	6,210
DESIGN	2045	A.D.T. =	7,580
		D.H.V. =	640
		TRUCKS =	24.9%
		V. =	70 MPH
		18 KIP ESAL'S =	843 DAILY
		GROWTH RATE =	1.0% ANNUAL

SURFACING SOURCES -
CONTRACTOR FURNISHED



SHEET NO. 1

TITLE SHEET

PROJECT NAME: HUNTLEY - EAST
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(96)7
UPN: 10222000

DESIGNED BY	REVIEWED BY	CHECKED BY
S. ERETH 11/2024	J. BROTZLER 09/2023	J. SOLIDAY 11/2024

10222000RDTTL001.DWG

MONTANA
Department of Transportation

ROAD PLANS

1/16/2025 6:32 AM

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ROAD PLANS	SHEET NO.
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DETAILS	B2

NOTES

BASIS OF PLAN QUANTITIES

BITUMINOUS MATERIAL	= 8.5 LBS. PER GAL.
SEAL	= 0.42 GAL. PER SQ.YARD
COVER	= 25 LBS. PER SQ.YARD
CRACK SEALING	= 0.70 LBS. PER LN. FT.
EMULSIFIED ASPHALT - FOG SEAL (RUMBLE STRIPS)	= 0.10 GAL. PER SQ. YARD (UNDILUTED)

UTILITIES

CALL THE UTILITIES UNDERGROUND LOCATION CENTER (811) OR OTHER NOTIFICATION SYSTEM FOR THE MARKING AND LOCATION OF ALL LINES AND SERVICES BEFORE EXCAVATING. ALL CLEARANCES OR DEPTHS PROVIDED FOR UTILITIES ARE FROM EXISTING GROUND LINE.

LIMITED ACCESS CONTROL

THIS PROJECT IS A LIMITED ACCESS CONTROL FACILITY. OBTAIN APPROVAL FROM THE CHIEF OF THE RIGHT-OF-WAY BUREAU PRIOR TO ADDING, DELETING OR RELOCATING ANY APPROACHES.

AS-BUILTS

FOR ALIGNMENT AND STATIONING REFER TO AS-BUILT PROJECTS: FAP I 94-1(13)7, JCT. INTERSTATE 90 - TREASURE COUNTY LINE, HUNTLEY - BALLANTINE. (1969)
IM 94 1(83)0 PINEHILLS INTCH - PRIOR CR INTCH

WETLANDS

WETLANDS MAY EXIST ADJACENT TO THE ROADWAY AND BEYOND THE PROJECT LIMITS.
A WETLAND DELINEATION HAS NOT BEEN COMPLETED FOR THIS PROJECT.
IMPACTS TO WETLANDS ARE NOT ANTICIPATED IN ASSOCIATION WITH THE PROPOSED WORK.
NO PERMITS HAVE BEEN OBTAINED. ANY ACTION IMPACTING WETLAND AREAS WITHOUT THE PROPER PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.

SHEET NO.
2

TABLE OF CONTENTS & NOTES

PROJECT NAME: HUNTLEY - EAST
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(96)7
UPN: 10222000

DESIGNED BY	S. ERETH	11/2024
REVIEWED BY	J. BROTZLER	09/2023
CHECKED BY	J. SOLIDAY	11/2024

MONTANA Department of Transportation

ROAD PLANS

1/16/2025 6:32 AM

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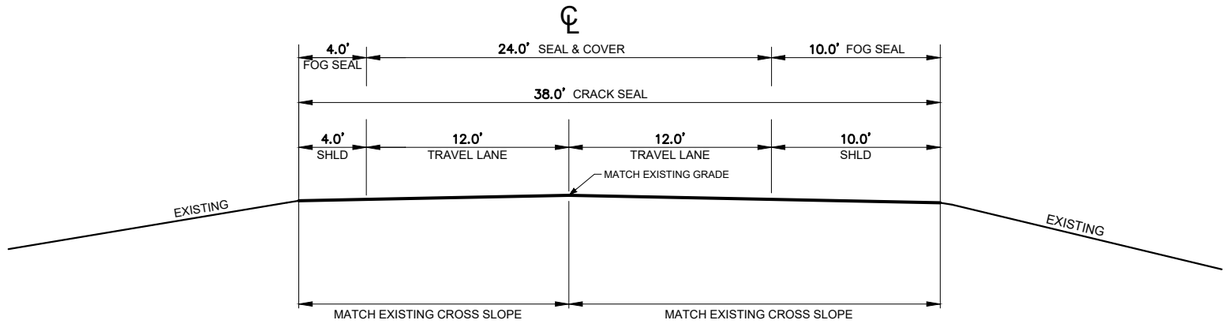
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TYPICAL SECTION NO. 1

MAINLINE

EAST BOUND (REVERSE FOR WEST BOUND)

1523+10.00	TO	1542+07.70	TYPICAL NO. 1
1542+07.70 BK.	TO	1541+98.20 AH.	STATION EQUATION
1541+98.20	TO	1690+86.00 B.E.	TYPICAL NO. 1
1691+64.00 B.E.	TO	1862+34.00	TYPICAL NO. 1



QUANTITIES						
UNIT	AGGREGATE		UNIT	BITUMINOUS MATERIAL		
	COVER			SEAL	FOG SEAL	
AREA square feet			square yards PER STATION	267	156	
cubic yards PER STATION			tons PER STATION	0.48		
tons PER STATION			gals PER STATION		16	
square yards PER STATION	267					

SHEET NO.
3

TYPICAL SECTION

PROJECT NAME: HUNTLEY - EAST
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(96)7
UPN: 10222000

DESIGNED BY	REVIEWED BY	CHECKED BY
S. ERETH 11/2024	J. BROTZLER 09/2023	J. SOLIDAY 11/2024

MONTANA
Department of Transportation

ROAD PLANS

11/26/2024 12:16 PM

10222000RDTYP001.DWG

AWARD COPY

SUMMARY

SURFACING

STATION FROM	STATION TO	linear feet GROSS	linear feet NET	linear feet +	linear feet -	FOR	AGGREGATE sq. yards COVER TYPE II	BITUMINOUS MATERIAL tons EMULSIFIED ASPHALT CHFRS-2P	BITUMINOUS MATERIAL gallons EMULSIFIED ASPHALT FOG SEAL	REMARKS
EASTBOUND										
1523+10.00										
1542+07.70 BK	1541+98.20 AH			9.50		STATION EQUATION				
1690+86.00 BE	1691+64.00 BE				78.00	BRIDGE				
	1862+34.00	33,924.00	33,855.50							TYPICAL SECTION NO. 1
SUBTOTAL		33,924.00	33,855.50				90,394	162.5	5,417	I-94 EASTBOUND
WESTBOUND										
1523+10.00										
1542+07.70 BK	1541+98.20 AH			9.50		STATION EQUATION				
1690+86.00 BE	1691+64.00 BE				78.00	BRIDGE				
	1862+34.00	33,924.00	33,855.50							TYPICAL SECTION NO. 1
SUBTOTAL		33,924.00	33,855.50				90,394	162.5	5,417	I-94 WESTBOUND
TOTAL		~	~	~	~		180,788	325.0	10,834	

GUARDRAIL END SECTION WIDENING

STATION FROM	STATION TO	each WIDENING SECTIONS LEFT	each WIDENING SECTIONS RIGHT	REMARKS
EASTBOUND				
1616+00.00	1616+12.50		1	
1667+37.50	1667+50.00		1	
1708+37.50	1708+50.00		1	
1741+37.50	1741+50.00		1	
1845+87.50	1846+00.00		1	
WESTBOUND				
1555+87.50	1556+00.00	1		
1726+62.50	1726+75.00	1		
1853+20.00	1853+32.50	1		
SUBTOTAL		3	5	
TOTAL		8		

PAVEMENT MARKINGS

ITEM	UNIT	INTERIM APPLICATION	FINAL APPLICATION	TOTAL
STRIPING - WHITE PAINT	gallon	292		292
STRIPING - YELLOW PAINT	gallon	234		234
STRIPING - WHITE EPOXY	gallon		389	389
STRIPING - YELLOW EPOXY	gallon		312	312
TEMPORARY STRIPING	linear feet			67,711
FINAL SWEEP AND BROOM	course mile			12.8

SHEET NO. 4

SUMMARIES

PROJECT NAME: HUNTLEY - EAST
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(96)7
UPN: 10222000

DESIGNED BY S. ERETH 11/2024
REVIEWED BY J. BROTZLER 09/2023
CHECKED BY J. SOLIDAY 11/2024

10222000RDSUM001.DWG

MONTANA Department of Transportation

ROAD PLANS

11/26/2024 2:47 PM

AWARD COPY

SUMMARY

GUARDRAIL

STATION		linear feet				each				REMARKS
		REMOVE GUARDRAIL		MGS GUARDRAIL		MASH W-BEAM TERMINAL SECTION		MGS ONE-WAY DEPARTURE TERMINAL SECTION		
FROM	TO	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	
WESTBOUND										
NEW RAIL										
1524+40.63	1555+87.50			3,100.00		1		1		
1712+90.63	1726+62.50			1,325.00		1		1		
1846+85.63	1853+20.00			587.50		1		1		
REMOVE RAIL										
1524+50.00	1556+00.00	3,150.00								
1713+00.00	1726+75.00	1,375.00								
1846+95.00	1853+32.50	637.50								
SUBTOTAL		5,162.50	~	5,012.50	~	3	~	3	~	
TOTAL		5,162.50		5,012.50		3		3		

GUARDRAIL

STATION		linear feet				each				REMARKS
		REMOVE GUARDRAIL		MGS GUARDRAIL		MASH W-BEAM TERMINAL SECTION		MGS ONE-WAY DEPARTURE TERMINAL SECTION		
FROM	TO	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	
EASTBOUND										
NEW RAIL										
1616+12.50	1622+21.88				562.50		1		1	
1667+50.00	1675+34.38				737.50		1		1	
1708+50.00	1722+59.38				1,362.50		1		1	
1741+50.00	1748+09.38				612.50		1		1	
1846+00.00	1851+59.38				512.50		1		1	
REMOVE RAIL										
1616+00.00	1622+12.50		612.50							
1667+37.50	1675+25.00		787.50							
1708+37.50	1722+50.00		1,412.50							
1741+37.50	1748+00.00		662.50							
1845+87.50	1850+50.00		462.50							
SUBTOTAL		~	3,937.50	~	3,787.50	~	5	~	5	
TOTAL		3,937.50		3,787.50		5		5		

CRACK SEALING

STATION		TRANSVERSE & LONGITUDINAL CRACK SEALING				REMARKS
		CRACK SEALING				
		NEW	EXISTING	NEW	EXISTING	
FROM	TO	pounds	pounds	linear feet	linear feet	
1523+10.00	1862+34.00	9,914		11,802		
SUBTOTAL		9,914	~	#	#	
TOTAL		9,914		#	#	

FOR INFORMATION ONLY

SHEET NO.
5

SUMMARIES

PROJECT NAME: HUNTLEY - EAST
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(96)7
UPN: 10222000

DESIGNED BY	REVIEWED BY	CHECKED BY
S. ERETH 11/2024	J. BROTZLER 09/2023	J. SOLIDAY 11/2024

MONTANA Department of Transportation

ROAD PLANS

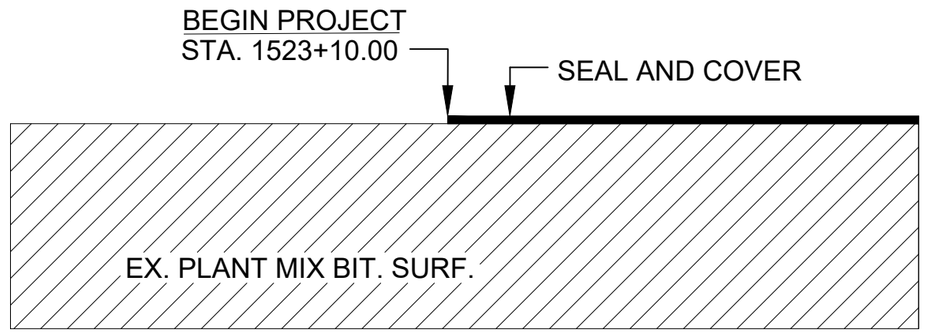
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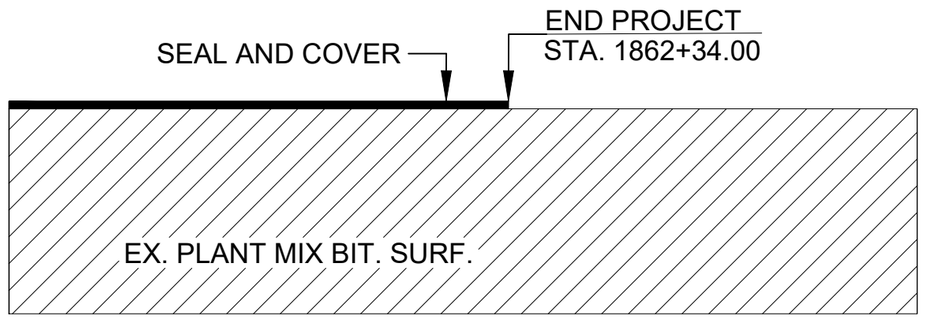
PROJECT BEGIN CONNECTION





PROJECT END CONNECTION





SHEET NO.
6

PROJECT BEGIN AND END CONNECTION DETAILS

PROJECT NAME	HUNTLEY - EAST
COUNTY	YELLOWSTONE COUNTY
PROJECT ID	IM 94-1(96)7
UPN	1022200

DESIGNED BY	S. ERETH	11/2024
REVIEWED BY	J. BROTZLER	09/2023
CHECKED BY	J. SOLIDAY	11/2024

MONTANA Department of Transportation

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CRACK SEALING

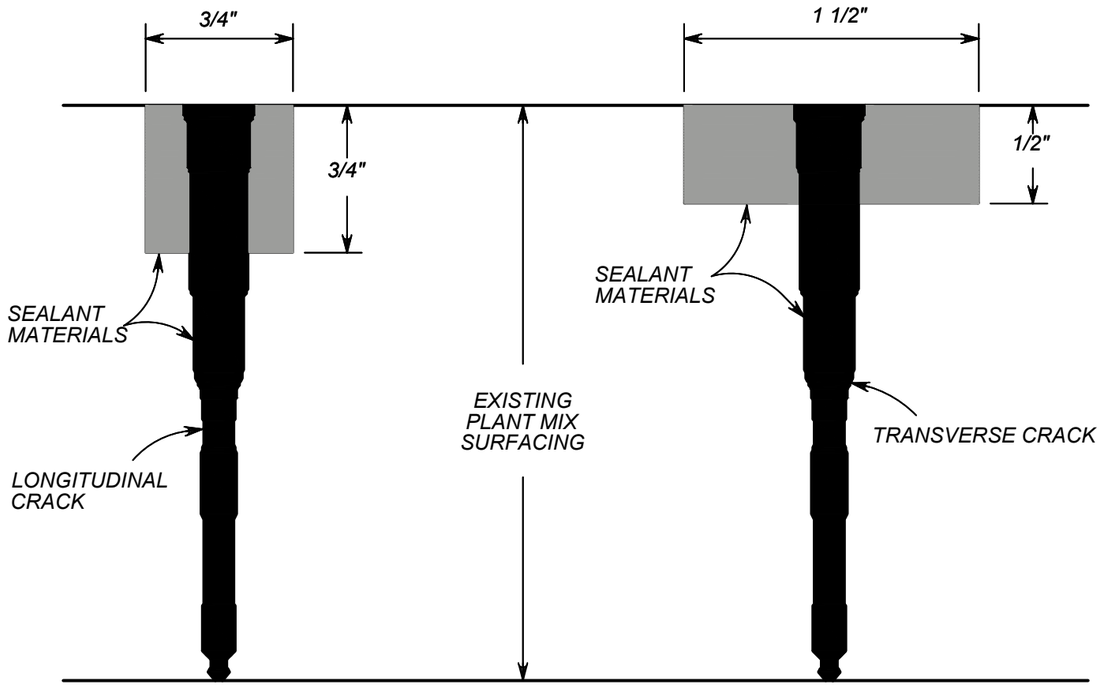
CRACKS 1/8" TO 1.5" WIDE

LONGITUDINAL CRACK

ROUT 3/4" WIDE x 3/4" DEEP
PRIOR TO APPLYING SEALANT

TRANSVERSE CRACK

ROUT 1 1/2" WIDE x 1/2" DEEP
PRIOR TO APPLYING SEALANT



N

SHEET NO. 7

CRACK SEALING DETAIL

PROJECT NAME HUNTLEY - EAST
COUNTY YELLOWSTONE COUNTY
PROJECT ID IM 94-1(96)7
UPN 10222000

DESIGNED BY		CHECKED BY	
S. ERETH	11/2024	J. SOLIDAY	11/2024
REVIEWED BY			
J. BROTZLER	09/2023		

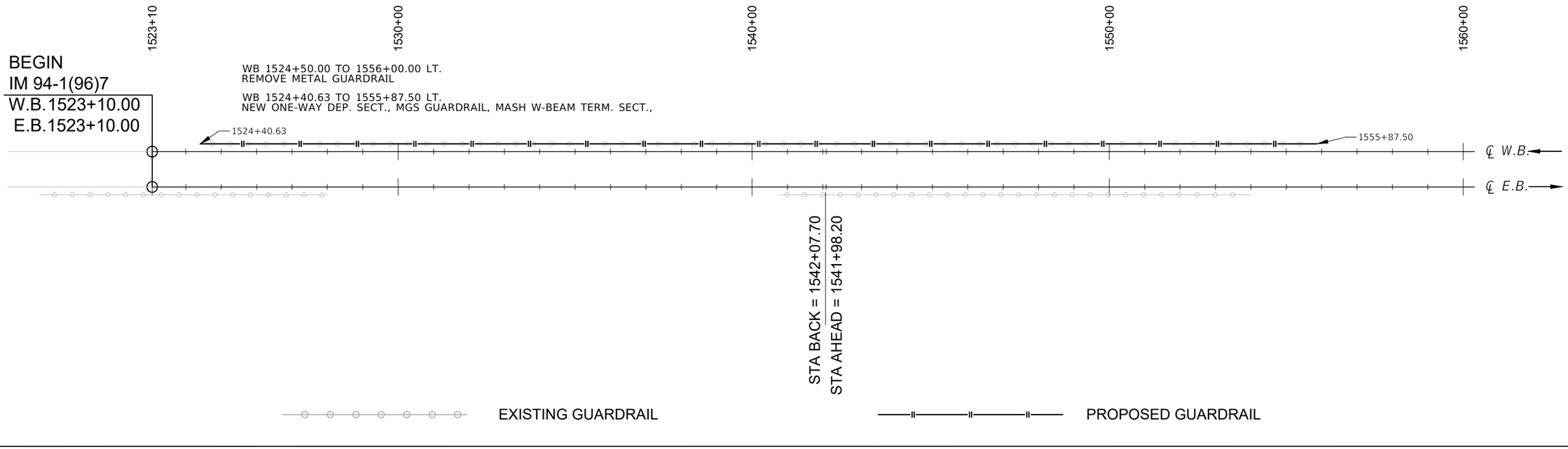
MONTANA Department of Transportation

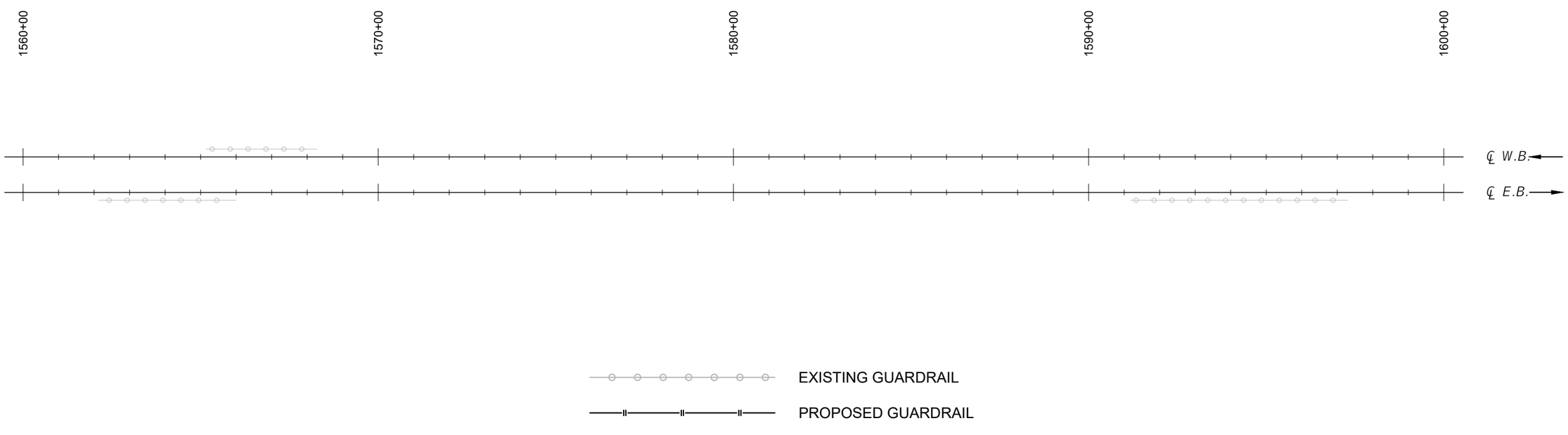
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SHEET NO.
8

STRAIGHT LINE DIAGRAM PLANS

PROJECT NAME: HUNTLEY - EAST
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(96)7
UPN: 10222000

DESIGNED BY	S. ERETH	09/2023
REVIEWED BY	J. BROTZLER	09/2023
CHECKED BY	J. SOLIDAY	11/2024

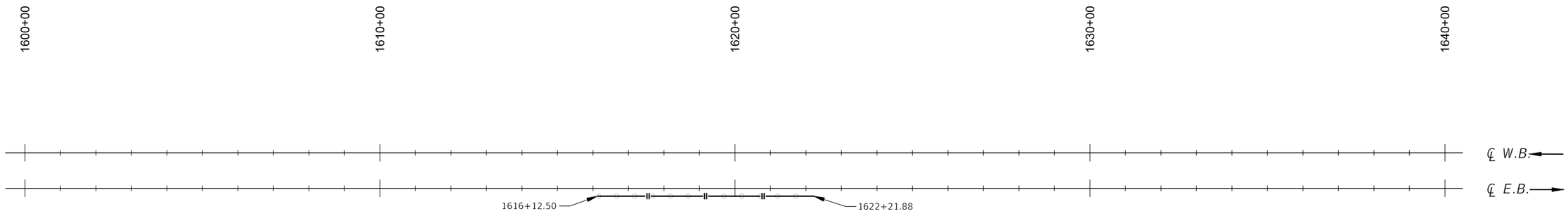
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MONTANA
Department of Transportation

ROAD PLANS

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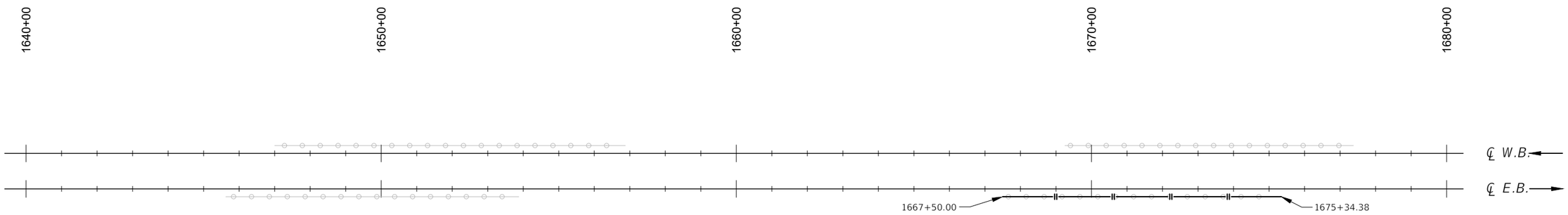


EB 1616+00.00 TO 1622+12.50 RT.
REMOVE METAL GUARDRAIL

EB 1616+12.50 TO 1622+21.88 RT.
NEW MGS GUARDRAIL, MASH W-BEAM TERM. SECT., ONE-WAY DEP. SECT.

EXISTING GUARDRAIL

PROPOSED GUARDRAIL



EB 1667+37.50 TO 1675+25.00 RT.
REMOVE METAL GUARDRAIL

EB 1667+50.00 TO 1675+34.38 RT.
NEW MGS GUARDRAIL, MASH W-BEAM TERM. SECT., ONE-WAY DEP. SECT.

EXISTING GUARDRAIL

PROPOSED GUARDRAIL

SHEET NO. 9

STRAIGHT LINE DIAGRAM PLANS

PROJECT NAME: HUNTLEY - EAST
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(96)7
UPN: 10222000

DESIGNED BY	S. ERETH	11/2024
REVIEWED BY	J. BROTZLER	09/2023
CHECKED BY	J. SOLIDAY	11/2024

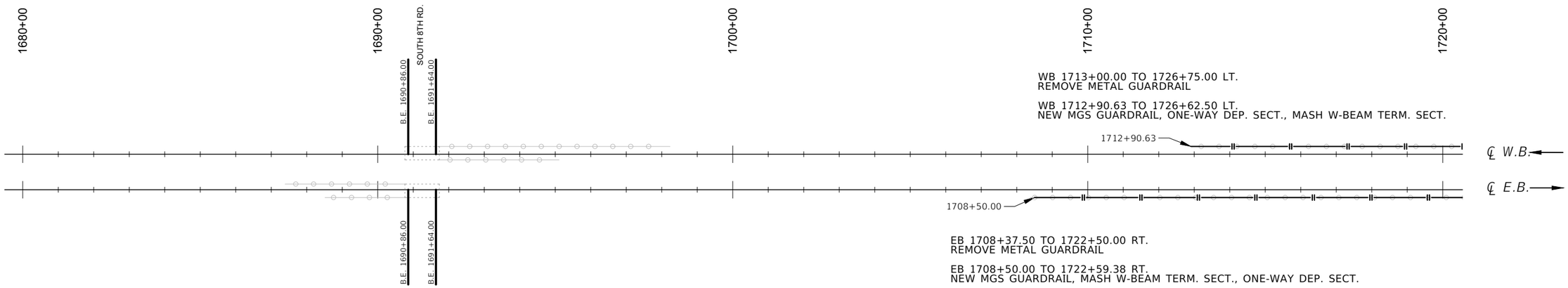
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MONTANA Department of Transportation

ROAD PLANS

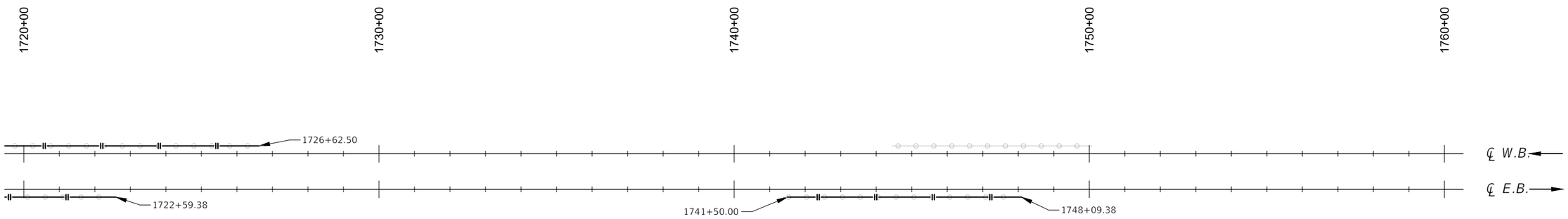
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EXISTING GUARDRAIL

PROPOSED GUARDRAIL



EXISTING GUARDRAIL

PROPOSED GUARDRAIL

SHEET NO.
10

STRAIGHT LINE DIAGRAM PLANS

PROJECT NAME: HUNTLEY - EAST
COUNTY: YELLOWSTONE COUNTY
PROJECT ID: IM 94-1(96)7
UPN: 10222000

DESIGNED BY	S. ERETH	11/2024
REVIEWED BY	J. BROTZLER	09/2023
CHECKED BY	J. SOLIDAY	11/2024

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MONTANA Department of Transportation

ROAD PLANS

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EXISTING GUARDRAIL

PROPOSED GUARDRAIL

EXISTING GUARDRAIL

PROPOSED GUARDRAIL

SHEET NO. 11

STRAIGHT LINE DIAGRAM PLANS

PROJECT NAME: HUNTLEY - EAST

COUNTY: YELLOWSTONE COUNTY

PROJECT ID: IM 94-1(96)7

UPN: 10222000

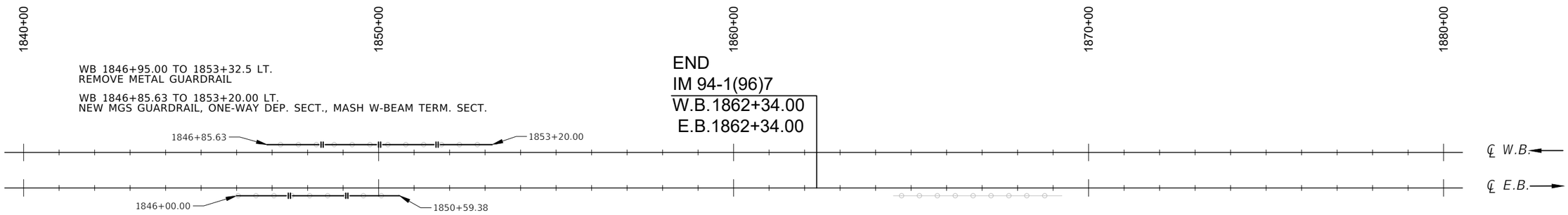
DESIGNED BY	REVIEWED BY	CHECKED BY
S. ERETH 11/2024	J. BROTZLER 09/2023	J. SOLIDAY 11/2024

MONTANA Department of Transportation

ROAD PLANS

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EXISTING GUARDRAIL

PROPOSED GUARDRAIL

SHEET NO. 12

STRAIGHT LINE DIAGRAM PLANS

PROJECT NAME	HUNTLEY - EAST
COUNTY	YELLOWSTONE COUNTY
PROJECT ID	IM 94-1(96)7
UPN	10222000

DESIGNED BY		
S. ERETH	11/2024	
REVIEWED BY		
J. BROTZLER	09/2023	
CHECKED BY		
J. SOLIDAY	11/2024	

MONTANA
Department of Transportation

ROAD PLANS

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ASSOCIATED PROJECT AGREEMENT NUMBERS	
P.E.	IM 94-1(95)7

MONTANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS AND QUANTITIES

FEDERAL AID PROJECT IM 94-1(96)7

HUNTLEY - EAST

YELLOWSTONE COUNTY

BRIDGE IDENTIFICATION	
MDT STR ID	NBI NUMBER
01866	I00094010+01951
01867	I00094010+01952

SCALES SHOWN ON BRIDGE PLANS SHEETS
ARE FOR HALF SIZE (11X17) PRINTS
FULL SIZE PRINTS ARE APPROXIMATELY TWICE
ORIGINAL SCALE

LIST OF DRAWINGS

SHEET NO.	DWG. NO.	TITLE
B1	28730	LIST OF DRAWINGS & ESTIMATED BRIDGE PLAN QUANTITIES
B2	28731	GENERAL NOTES, BRIDGE DECK REPAIR & GUARD ANGLE DETAILS

ESTIMATED BRIDGE PLAN QUANTITIES

MDT I.D. STRUCTURE NUMBER	FEATURE INTERSECTED	GENERAL LAYOUT DRAWING NUMBER	REMOVE GUARD ANGLE (LN FT)	BRIDGE DECK CRACK SEAL (YD^2)	* CLASS A BRIDGE DECK REPAIR (YD^2)	** CLASS B BRIDGE DECK REPAIR (YD^2)
01866	S 8TH ROAD	8033	76.0	333.7	3.9	
01867	S 8TH ROAD	8033	76.0	333.7	0.8	
		PROJECT TOTAL	152.0	667.4	4.7	1.0

* NOTE: Class A Bridge Deck Repair quantities are estimated based on deck condition surveys. The Project Manager will identify additional Class A Bridge Deck Repair areas if they are needed.

** NOTE: Class B Bridge Deck Repair quantities are provided for contingency. The Project Manager will identify any Class B Bridge Deck Repair areas if they are needed.

SHEET NO.
B1

LIST OF DRAWINGS & ESTIMATED BRIDGE PLAN QUANTITIES

REVISED	REVISED	REVISED	REVISED	CHECKED	DRAWN	DESIGNED	11-26-24	04-03-24	04-03-24
				J.A.N.	G.J.N.	G.J.N.		

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11/24/2025 9:52:29 AM

MONTANA Department of Transportation

BRIDGE BUREAU

UPN NUMBER
10222000

DRAWING NO.
28730

AWARD COPY

GENERAL NOTES

SPECIFICATIONS:
Plans were prepared from original drawings and as-built drawings. No additional survey information was procured for this project. Existing structure dimensions may vary from those shown on the drawings. Verify all dimensions necessary to complete the work.

The current version of the Standard and Supplemental Specifications for Road and Bridge Construction, adopted by the Montana Department of Transportation, applies.

See Standard Specifications and Special Provisions for Traffic Control and Sequence of Operations.

All dimensions are in feet and inches except as noted. Verify all necessary dimensions of the existing structures in the field before ordering materials. Obtain approval of shop plans from the State of Montana, Department of Transportation before beginning fabrication. If the dimensions and details of the existing structure are not as shown on the plans, vary construction as necessary to best suit existing conditions and the nature of the intended work.

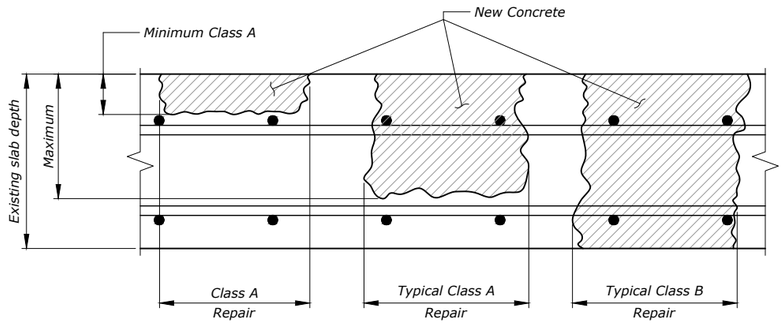
BRIDGE DECK REPAIR:
See the bridge deck repair section of the Standard Specifications for allowable repair concrete options.

Do not allow traffic onto the repaired deck until the repair concrete has reached 3500-psi compressive strength minimum.

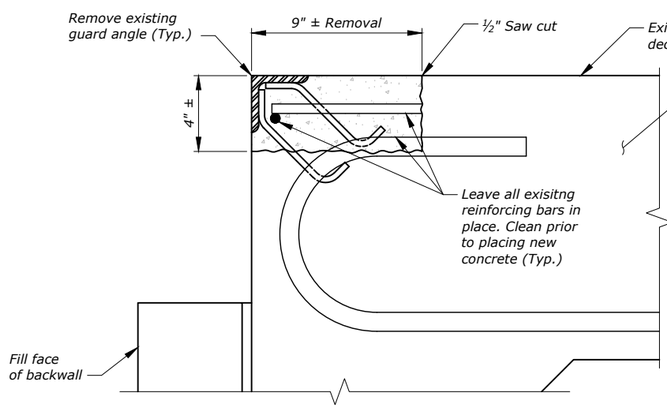
Submit for approval any substitution of rapid setting Portland cement concrete for Concrete Class Deck or Concrete Class Structure. Traffic will not be permitted on concrete repairs until the specified strength is attained.

BRIDGE WORK SUMMARY

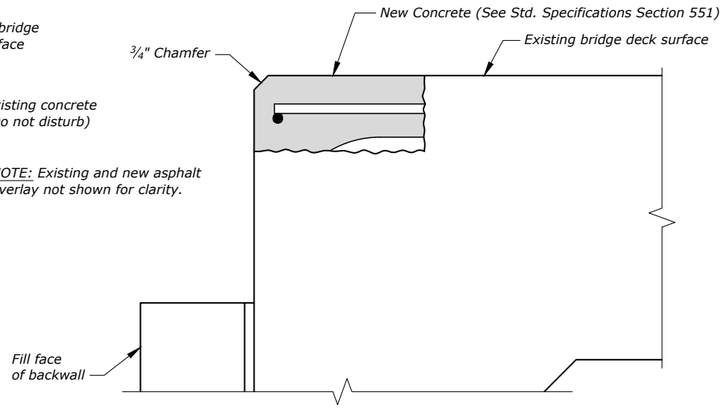
MDT. I.D. STRUCTURE NUMBER	STRUCTURE NAME	CLASS A BRIDGE DECK REPAIR	CLASS B BRIDGE DECK REPAIR	REMOVE GUARD ANGLE
01866	S 8TH ROAD	✓	✓	✓
01867	S 8TH ROAD	✓	✓	✓



BRIDGE DECK REPAIR AND THIN OVERLAY DEFINITION
No Scale



EXISTING GUARD ANGLE REMOVAL



NEW BRIDGE END

GUARD ANGLE REMOVAL DETAIL
No Scale

NOTE: If two transverse reinforcing bars are not present within 3" of top of the slab, place new epoxy coated #4 transverse bars as necessary so there are two bars within the repair area. Ensure new bars have a minimum 1 ½" clear cover.

NOTE: Include all costs associated with removing the existing guard angle, placing new reinforcing steel and concrete, and removing and replacing any asphalt that is required to complete the work in the unit price bid for Remove Guard Angle.

Existing Concrete

New Concrete

SHEET NO. B2

GENERAL NOTES, BRIDGE DECK REPAIR & GUARD ANGLE DETAILS

SCALE: As Noted

PROJECT NAME **HUNTLEY - EAST**

MDT STRUCTURE ID **01866 & 01867**

FEDERAL AID PROJECT **IM 94-1(96)7**

COUNTY **YELLOWSTONE**

REVISED	REVISED	REVISED	REVISED	CHECKED	DRAWN	DESIGNED
				T.A.N.	G.J.N.	G.J.N.
				11-26-24	4-3-24	4-3-24

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MONTANA Department of Transportation — BRIDGE BUREAU

1/24/2025 9:52:34 AM

UPN NUMBER 10222000

DRAWING NO. 28731