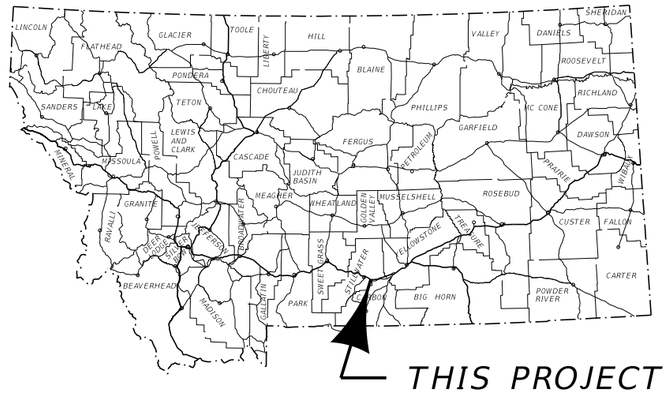
ADVERTISED COPY



MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT IM 90-8(194)408
MILL/FILL, GUARDRAIL & RUMBLE STRIPS
COLUMBUS - EAST
STILLWATER COUNTY

PROJECT DESIGN DATA		
PRESENT 2020	A.D.T. =	11,930
LETTING 2022	A.D.T. =	12,250
DESIGN 2042	A.D.T. =	15,860
	D.H.V. =	1,840
	TRUCKS =	23.7%
	V. =	70 MPH
	18 KIP ESAL'S =	1,374
	GROWTH RATE =	1.3%

SURFACING SOURCES –
CONTRACTOR FURNISHED

LENGTH 8.7 MILES

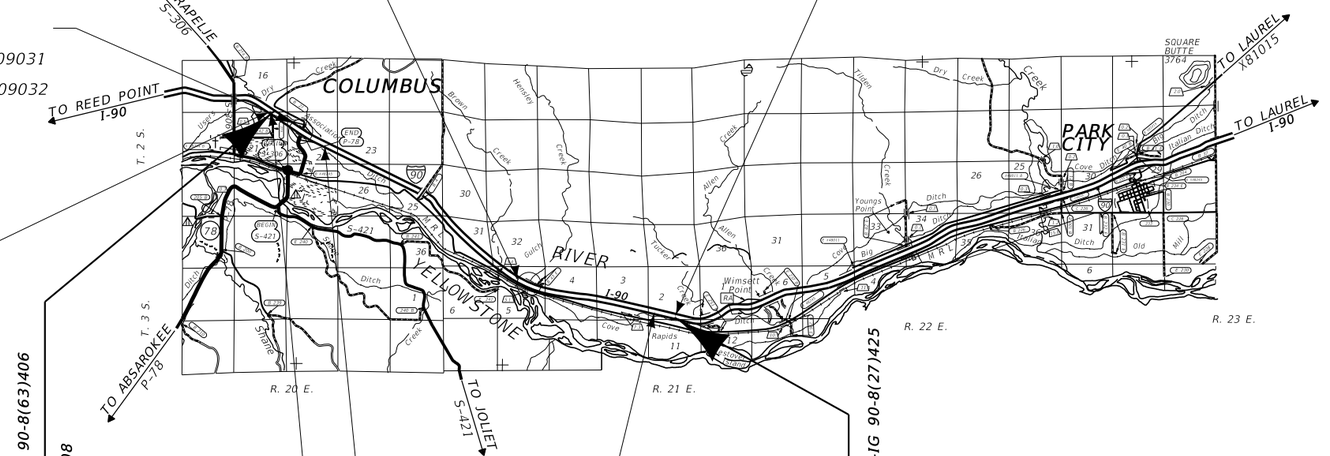
STILLWATER COUNTY

HENSLEY CREEK BRIDGE
STA. 310+89.40 (AS-BUILT STA. 310+89.40)
41.9' X 224.5' BR. IN PL. E.B. NBI #I00090414+02351
MDT STRUCT. ID #01716
40.6' X 244.4' BR. IN PL. W.B. NBI #I00090414+02352
MDT STRUCT. ID #01717
R.P. 414.2 (THIS CONTRACT)

COLUMBUS INTERCHANGE BRIDGE
STA. 29+22.00 (AS-BUILT STA. 29+22.00)
40.7' X 141.0' BR. IN PL. E.B. NBI #I00090408+09031
MDT STRUCT. ID #01710
40.7' X 141.0' BR. IN PL. W.B. NBI #I00090408+09032
MDT STRUCT. ID #01711
R.P. 408.9 (THIS CONTRACT)

PROJECT CONNECTION
STA. 940+65.60 TO STA. 942+65.60

PROJECT CONNECTION
STA. 456+00.00 TO STA. 458+00.00



ASSOCIATED PROJECT AGREEMENT NUMBERS	
R / W	
I.C.	
P. E.	IM 90-8(193)408

3	MONTANA Department of Transportation	C:\DGN\9859000rdtl002.dgn	DESIGNED BY	R. MCNEELY	4/13/2023	ROAD PLANS
2		8/18/2023	REVIEWED BY	K. SHUCK	4/13/2023	
		2:39:59 PM CPS - U6575	CHECKED BY	J. FLEMING	4/13/2023	UPN 9859000

ADVERTISED COPY

TABLE OF CONTENTS

ROAD PLANS	SHEET NO.
TITLE SHEET	1
TABLE OF CONTENTS	2
NOTES	2
TYPICAL SECTION	3
SUMMARIES	4-6
SURFACING	4
ADDITIONAL SURFACING	4
COLD MILLING	5
GUARDRAIL	5
RUMBLE STRIPS	6
PAVEMENT MARKINGS	6
TRAFFIC CONTROL	6
MEDIAN CROSSOVER	6
EQUIPMENT	6
EMBANKMENT PROTECTORS	6
DETAILS	7-14
BEGIN PROJECT CONNECTION DETAIL	7
END PROJECT CONNECTION DETAIL	7
BRIDGE APPROACH SLAB TAPER CONNECTION & TEMPORARY RAMP AT BRIDGE DETAIL	8
COLUMBUS MOLT RD OVERPASS MILL TAPER DETAIL	9
COLUMBUS INTERCHANGE MILLING DETAIL	10
MEDIAN CROSSOVER RP 408.0 DETAIL	11
MEDIAN CROSSOVER RP 409.5 DETAIL	12
MEDIAN CROSSOVER RP 416.8 DETAIL	13
U-TURN MEDIAN OPENING DETAIL	14
SIGNING PLANS	
SUMMARY	S1
SPECIFICATIONS	S2-S13
DETAILS	S14-S15
BRIDGE PLANS	
PLANS	B1-B5

NOTES

BASIS OF PLAN QUANTITIES

(QUANTITIES FOR ESTIMATING PURPOSES ONLY)

COMP. AGGREGATE WEIGHT	= 3750 LBS. PER CUBIC YARD
COMP. WEIGHT OF PL. MIX BIT. SURF.	= 4167 LBS. PER CUBIC YARD
ASPHALT CEMENT - 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 (ALL OTHER SURFACES)	= 0.05 GAL. PER SQ.YARD (UNDILUTED)
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

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.

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 WETLAND AREAS ARE NOT ANTICIPATED IN ASSOCIATION WITH THE PROPOSED WORK. NO PERMITS HAVE BEEN OBTAINED. ANY ACTION IMPACTING WETLAND AREAS WITHOUT THE APPROPRIATE PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.

AS-BUILTS

FOR HORIZONTAL ALIGNMENT, REFER TO THE FOLLOWING "AS-BUILT" PROJECT(S):
I 90-8(63)406 (REHABILITATION - 1972)
I-90 8(36)407 (RECONSTRUCTION - 1970)

STATIONING

FOR STATIONING, REFER TO THE FOLLOWING "AS-BUILT" PROJECT(S):
I 90-8(63)406 (REHABILITATION - 1972)
I-90 8(36)407 (RECONSTRUCTION - 1970)

WEIGH IN MOTION (WIM)

CONTACT TED LITTLE: (406)444-9417, TWO WEEKS PRIOR TO MILLING. THIS IS TO ENSURE THAT THE WIM SENSORS AT RP 416.28 (EB & WB) ARE DISCONNECTED FROM THE POWER SOURCE PRIOR TO MILLING.

ADVERTISED COPY

TYPICAL SECTION NO. 1

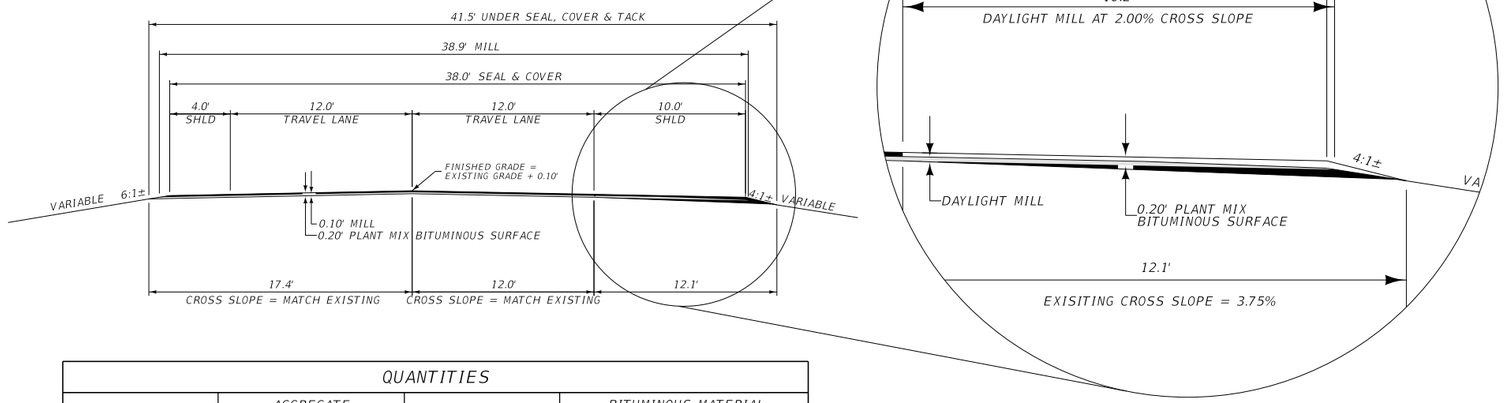
EASTBOUND
(REVERSE FOR WESTBOUND)

EASTBOUND

942+65.60	TO	965+00.50
18+55.70	TO	28+46.00 BE
30+26.00 BE	TO	197+47.10
197+10.60	TO	301+41.20
301+21.40	TO	309+03.90 BE
311+28.40 BE	TO	355+03.00
354+55.40	TO	456+00.00

WESTBOUND

942+65.60	TO	965+00.50
18+55.70	TO	28+18.50 BE
29+98.50 BE	TO	197+47.10
197+10.60	TO	301+41.20
301+21.40	TO	309+40.55 BE
311+84.95 BE	TO	355+03.00
354+55.40	TO	456+00.00



QUANTITIES

UNIT	AGGREGATE			UNIT	BITUMINOUS MATERIAL			
	COVER (STANDARD)	COVER (UNDER-SEAL)	PLANT MIX		ASPHALT CEMENT	SEAL	UNDERSEAL	TACK*
AREA square feet			7.93	square yards PER STATION		422	459	459
cubic yards PER STATION			29.4	tons PER STATION	3.00	0.75	0.82	
tons PER STATION			61.3	gals. PER STATION				23
square yards PER STATION	422	459						

*BASED ON 1 APPLICATION

3	MONTANA Department of Transportation	C:\DGN\9859000rdtyp002.dgn	DESIGNED BY	R. MCNEELY	4/13/2023	ROAD PLANS	COLUMBUS - EAST / IM 90-8(194)408
2		8/18/2023	REVIEWED BY	K. SHUCK	4/13/2023		
		2:40:12 PM CPS - U6575	CHECKED BY	J. FLEMING	4/13/2023	STILLWATER COUNTY	UPN 9859000 / 3

ADVERTISED COPY

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 sq. yards COVER TYPE 1 (UNDER SEAL)	AGGREGATE tons PLANT MIX BIT. SURF. GR. S - 3/4"	AGGREGATE tons PLANT MIX BIT. SURF. GR. S - MISC.	AGGREGATE cubic yards CRUSHED AGG. COURSE	BITUMINOUS MATERIAL tons ASPHALT CEMENT PG 70-28	BITUMINOUS MATERIAL tons EMULSIFIED ASPHALT CHFRS-2P	BITUMINOUS MATERIAL tons EMULSIFIED ASPHALT CRS-2P (UNDERSEAL)	BITUMINOUS MATERIAL gals. EMULSIFIED ASPHALT TACK	REMARKS
EASTBOUND																	
942+65.60																	
965+00.50 BK	18+55.70 AH			94,644.80		EQUATION											
28+46.00 BE	30+26.00 BE				180.00	#COLUMBUS INTERCHANGE											
	63+24.30	-87,941.30	6,523.50														
63+24.30																	
197+47.10 BK	197+10.60 AH			36.50		EQUATION											
301+41.20 BK	301+21.40 AH			19.80		EQUATION											
309+03.90 BE	311+28.40 BE				224.50	HENSLEY CREEK BRIDGE											
355+03.00 BK	354+55.40 AH			47.60		EQUATION											
	449+12.00	38,587.70	38,467.10														
449+12.00																	
	456+00.00	688.00	688.00					192,764	209,665	28,001			1,370.4	342.6	374.6	10,506	TYP. NO. 1
SUBTOTAL		-48,665.60	45,678.60	94,748.70	404.50		~	192,764	209,665	28,001	~	~	1,370.4	342.6	374.6	10,506	
WESTBOUND																	
942+65.60																	
965+00.50 BK	18+55.70 AH			94,644.80		EQUATION											
28+18.50 BE	29+98.50 BE				180.00	#COLUMBUS INTERCHANGE											
	63+24.30	-87,941.30	6,523.50														
63+24.30																	
197+47.10 BK	197+10.60 AH			36.50		EQUATION											
301+41.20 BK	301+21.40 AH			19.80		EQUATION											
309+40.55 BE	311+84.95 BE				244.40	HENSLEY CREEK BRIDGE											
355+03.00 BK	354+55.40 AH			47.60		EQUATION											
	449+12.00	38,587.70	38,447.20														
449+12.00																	
	456+00.00	688.00	688.00					192,680	209,573	27,989			1,369.8	342.4	374.4	10,502	TYP. NO. 1
SUBTOTAL		-48,665.60	45,658.70	94,748.70	424.40		~	192,680	209,573	27,989	~	~	1,369.8	342.4	374.4	10,502	
						ADDITIONAL SURFACING		21,832	23,746	3,524	246	175	184.6	39.0	42.4	2,183	
TOTAL		-97,331.20	91,337.30	189,497.40	828.90		837	407,276	442,984	59,514	246	175	2,924.8	724.0	791.4	23,191	

BRIDGE APPROACH SLABS INCLUDED

ADDITIONAL SURFACING (INCLUDED IN SURFACING FRAME)

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 sq. yards COVER TYPE 1 (UNDER SEAL)	AGGREGATE tons PLANT MIX BIT. SURF. GR. S - 3/4"	AGGREGATE tons PLANT MIX BIT. SURF. GR. S - MISC.	AGGREGATE cubic yards CRUSHED AGG. COURSE	BITUMINOUS MATERIAL tons ASPHALT CEMENT PG 70-28	BITUMINOUS MATERIAL tons EMULSIFIED ASPHALT CHFRS-2P	BITUMINOUS MATERIAL tons EMULSIFIED ASPHALT CRS-2P (UNDERSEAL)	BITUMINOUS MATERIAL gals. EMULSIFIED ASPHALT TACK	REMARKS
						COLUMBUS INTERCHANGE		21,832	23,746	3,032			148.6	39.0	42.4	2,183	SEE COLUMBUS INT. MILLING DETAIL
940+65.60	942+65.60	200.00	200.00			BEGIN PROJECT CONNECTION				123			6.0				SEE BEGIN PROJ. CONNCETION DETAIL - E.B.
940+65.60	942+65.60	200.00	200.00			BEGIN PROJECT CONNECTION				123			6.0				SEE BEGIN PROJ. CONNCETION DETAIL - W.B.
456+00.00	458+00.00	200.00	200.00			END PROJECT CONNECTION				123			6.0				SEE END PROJ. TAPER DETAIL - E.B.
456+00.00	458+00.00	200.00	200.00			END PROJECT CONNECTION				123			6.0				SEE END PROJ. TAPER DETAIL - W.B.
944+97.87						*U-TURN MEDIAN OPENING					41		2.0				PAVE EXISTING GRAVEL U-TURN OPENING; RP 408.3
70+60.21						*U-TURN MEDIAN OPENING					41		2.0				PAVE EXISTING GRAVEL U-TURN OPENING; RP 409.7
139+73.44						*U-TURN MEDIAN OPENING					41	175	2.0				CONSTRUCT & PAVE U-TURN OPENING; RP 411.0
228+36.30						*U-TURN MEDIAN OPENING					41		2.0				PAVE EXISTING GRAVEL U-TURN OPENING; RP 412.7
321+41.13						*U-TURN MEDIAN OPENING					41		2.0				PAVE EXISTING GRAVEL U-TURN OPENING; RP 414.4
456+00.00						*U-TURN MEDIAN OPENING					41		2.0				PAVE EXISTING GRAVEL U-TURN OPENING; RP 417.0
SUBTOTAL		~	~	~	~		~	21,832	23,746	3,524	246	175	184.6	39.0	42.4	2,183	

*SEE DETAILS

ADVERTISED COPY

GUARDRAIL

STATION		linear feet				each				REMARKS
		REMOVE GUARDRAIL		MGS GUARDRAIL		MASH W-BEAM TERMINAL SECTION		MASH THRIE-BEAM BRIDGE APPROACH SECTION		
FROM	TO	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	
EASTBOUND										
NEW RAIL										
25+26.10	28+60.47 BE			262.5		1		1		COLUMBUS INT. BRIDGE - APP. LT.
26+37.06	28+71.43 BE				162.5		1		1	COLUMBUS INT. BRIDGE - APP. RT.
30+00.47 BE	32+09.85			137.5		1		1		COLUMBUS INT. BRIDGE - DEP. LT.
30+11.43 BE	30+83.31				0.0		1		1	COLUMBUS INT. BRIDGE - DEP. RT.
53+17.27	62+86.02				900.0		2			RT.
69+79.18	76+10.43				562.5		2			RT.
125+88.33	139+19.58				1,262.5		2			RT.
145+69.17	154+25.42				787.5		2			RT.
162+22.49	166+53.74			362.5		2				COLUMBUS MOLT RD - LT.
162+44.73	166+50.98				337.5		2			COLUMBUS MOLT RD - RT.
188+80.82	194+87.07				537.5		2			RT.
217+47.53	228+28.78				1012.5		2			RT.
238+87.71	246+31.46				675.0		2			RT.
272+27.18	279+20.93				625.0		2			RT.
272+50.14	279+31.39			612.5		2				LT.
303+69.63	308+91.50 BE				450.0		1		1	HENSLEY CREEK BRIDGE - APP. RT.
305+75.52	309+09.89 BE			262.5		1		1		HENSLEY CREEK BRIDGE - APP. LT.
311+19.55 BE	320+66.43				875.0		1		1	HENSLEY CREEK BRIDGE - DEP. RT.
311+28.55 BE	312+00.43			0.0		1		1		HENSLEY CREEK BRIDGE - DEP. LT.
SUBTOTAL				1,637.5	8,187.5	8	22	4	4	
REMOVE RAIL										
25+10.47	28+60.47 BE	350.0								COLUMBUS INT. BRIDGE - APP. LT.
26+21.43	28+71.43 BE		250.0							COLUMBUS INT. BRIDGE - APP. RT.
53+01.64	62+64.14		962.5							RT.
69+63.55	75+88.55		625.0							RT.
125+72.70	138+97.70		1,325.0							RT.
145+53.54	154+03.54		850.0							RT.
162+06.86	166+31.86	425.0								COLUMBUS MOLT RD - LT.
162+29.10	166+29.10		400.0							COLUMBUS MOLT RD - RT.
188+65.19	194+65.19		600.0							RT.
217+31.90	228+06.90		1,075.0							RT.
238+72.08	246+09.58		737.5							RT.
272+11.55	278+99.05		687.5							RT.
272+34.51	279+09.51	675.0								LT.
303+54.00	308+91.50 BE		537.5							HENSLEY CREEK BRIDGE - APP. RT.
305+59.89	309+09.89 BE	350.0								HENSLEY CREEK BRIDGE - APP. LT.
311+19.55 BE	320+82.05		962.5							HENSLEY CREEK BRIDGE - DEP. RT.
SUBTOTAL		1,800.0	9,012.5							
WESTBOUND										
NEW RAIL										
26+34.02	28+43.39 BE				137.5		1		1	COLUMBUS INT. BRIDGE - DEP. RT.
27+60.56	28+32.43 BE			0.0		1		1		COLUMBUS INT. BRIDGE - DEP. LT.
29+72.43 BE	32+19.31			175.0		1		1		COLUMBUS INT. BRIDGE - APP. LT.
29+83.39 BE	33+05.27				250.0		1		1	COLUMBUS INT. BRIDGE - APP. RT.
165+78.49	170+22.24				375.0		2			COLUMBUS MOLT RD - RT.
165+93.85	170+12.60			350.0		2				COLUMBUS MOLT RD - LT.
181+05.53	188+24.28			650.0		2				LT.
209+82.46	232+76.21			2225.0		2				LT.
264+32.13	277+13.38			1212.5		2				LT.
272+73.43	281+92.18				850.0		2			RT.
288+53.13	301+84.38				1262.5		2			RT.
308+62.68	309+34.55 BE				0.0		1		1	HENSLEY CREEK RD BRIDGE - DEP. RT.
308+76.68	309+48.55 BE			0.0		1		1		HENSLEY CREEK RD BRIDGE - DEP. LT.
311+78.98 BE	318+50.86				600.0		1		1	HENSLEY CREEK RD BRIDGE - APP. RT.
311+97.37 BE	325+44.25			1275.0		1		1		HENSLEY CREEK RD BRIDGE - APP. LT.
SUBTOTAL				5,887.5	3,475.0	12	10	4	4	
REMOVE RAIL										
29+72.43 BE	32+34.93	262.5								COLUMBUS INT. BRIDGE - APP. LT.
29+83.39 BE	33+20.89		337.5							COLUMBUS INT. BRIDGE - APP. RT.
166+00.36	170+37.86		437.5							COLUMBUS MOLT RD - RT.
166+15.72	170+28.22	412.5								COLUMBUS MOLT RD - LT.
181+27.40	188+39.90	712.5								LT.
210+04.33	232+91.83	2,287.5								LT.
264+54.00	277+29.00	1,275.0								LT.
272+95.30	282+07.80		912.5							RT.
288+75.00	302+00.00		1,325.0							RT.
311+78.98 BE	318+66.48		687.5							HENSLEY CREEK RD BRIDGE - APP. RT.
311+97.37 BE	325+59.87	1,362.5								HENSLEY CREEK RD BRIDGE - APP. LT.
SUBTOTAL		6,312.5	3,700.0							
SUBTOTAL		8,112.5	12,712.5	7,525.0	11,662.5	20	32	8	8	
TOTAL		20,825.0		19,187.5		52		16		

SUMMARY

COLD MILLING

STATION		sq. yards COLD MILLING		REMARKS
FROM	TO	0.10 ft	0.20 ft	
EASTBOUND				
940+65.60	942+65.60		940	*PROJECT BEGIN CONNECTION - TYP. NO. 1
942+65.60	965+00.50	9,908		EASTBOUND - TYPICAL NO. 1
18+55.70	26+15.50	3,368		EASTBOUND - TYPICAL NO. 1
26+15.50	28+45.50 BE		1,081	*COLUMBUS INT. BRIDGE TAPER
30+26.50 BE	32+56.50		1,081	*COLUMBUS INT. BRIDGE TAPER
32+56.50	163+95.13	58,248		EASTBOUND - TYPICAL NO. 1
163+95.13	168+95.13		2,350	*COLUMBUS MOLT RD TAPER
168+95.13	306+73.90	61,086		EASTBOUND - TYPICAL NO. 1
306+73.90	309+03.90 BE		1,081	*HENSLEY CREEK BRIDGE TAPER
311+28.40 BE	313+58.40		1,081	*HENSLEY CREEK BRIDGE TAPER
313+58.40	456+00.00	63,138		EASTBOUND - TYPICAL NO. 1
456+00.00	458+00.00		940	*PROJECT END CONNECTION - TYP. NO. 1
WESTBOUND				
940+65.60	942+65.60		940	*PROJECT BEGIN CONNECTION - TYP. NO. 1
942+65.60	965+00.50	9,908		WESTBOUND - TYPICAL NO. 1
18+55.70	25+89.00	3,251		WESTBOUND - TYPICAL NO. 1
25+89.00	28+19.00 BE		1,081	*COLUMBUS INT. BRIDGE TAPER CONNECTION
29+98.50 BE	32+28.50		1,081	*COLUMBUS INT. BRIDGE TAPER CONNECTION
32+28.50	163+97.06	58,381		WESTBOUND - TYPICAL NO. 1
163+97.06	168+97.06		2,350	*COLUMBUS MOLT RD TAPER
168+97.06	307+10.55	61,240		WESTBOUND - TYPICAL NO. 1
307+10.55	309+40.55 BE		1,081	*HENSLEY CREEK BRIDGE TAPER
311+84.95 BE	314+14.95		1,081	*HENSLEY CREEK BRIDGE TAPER
314+14.95	456+00.00	62,887		WESTBOUND - TYPICAL NO. 1
456+00.00	458+00.00		940	*PROJECT END CONNECTION - TYP. NO. 1
INTERCHANGE				
			21,832	COLUMBUS INTERCHANGE
SUBTOTAL		391,415	38,940	
TOTAL		430,355		

#SEE DETAIL

*QUATITIES BASED ON 39' EXISTING TOP WIDTH

ADVERTISED COPY

SUMMARY

RUMBLE STRIPS

STATION		miles		gals	REMARKS
		RUMBLE STRIPS		EMULSIFIED ASPHALT FOG SEAL #	
FROM	TO	CONTIN-UOUS	INTER-MITTENT		
942+65.60	456+00.00		8.5	997	E.B. I-90 RT.
942+65.60	456+00.00	8.6		1,009	E.B. I-90 RT.
942+65.60	456+00.00	8.6		1,009	W.B. I-90 LT.
942+65.60	456+00.00		8.3	974	W.B. I-90 LT.
SUBTOTAL		17.2	16.8	3,989	
TOTAL		34.0		~	

#FOR INFORMATION ONLY, INCLUDE IN THE COST OF RUMBLE STRIPS

EMBANKMENT PROTECTORS *

STATION		linear feet		REMARKS
		CURB 4 IN - CONCRETE		
FROM	TO	LEFT	RIGHT	
276+59.51	278+84.51	225.0		EB LT.
SUBTOTAL		225.0	0.0	
TOTAL		225.0		

* EXISTING CURB REMOVAL INCLUDED IN THE COST OF CURB 4 IN -CONCRETE

PAVEMENT MARKINGS

ITEM	UNIT	INTERIM APPLICA-TION #	FINAL APPLICA-TION	TOTAL
STRIPING - WHITE PAINT	gallon	451		451
STRIPING - YELLOW PAINT	gallon	364		364
WORDS & SYMBOLS - WHITE PAINT	gallon	4		4
WORDS & SYMBOLS - YELLOW PAINT	gallon	0		0
STRIPING - WHITE EPOXY	gallon		601	601
STRIPING - YELLOW EPOXY	gallon		486	486
WORDS & SYMBOLS - WHITE EPOXY	gallon		5	5
WORDS & SYMBOLS - YELLOW EPOXY	gallon		0	0
TEMPORARY STRIPING	linear feet			104,900
FINAL SWEEP AND BROOM	course mile			17.4

BASED ON 1 APPLICATION

EQUIPMENT

STATION		hours		REMARKS
		MOTOR GRADER	MISC. EQUIPMENT	
FROM	TO			
944+97.87		1		EXISTING U-TURN MEDIAN OPENING
70+60.21		1		EXISTING U-TURN MEDIAN OPENING
139+73.44		2		NEW U-TURN MEDIAN OPENING
228+36.30		1		EXISTING U-TURN MEDIAN OPENING
321+41.13		1		EXISTING U-TURN MEDIAN OPENING
456+00.00		1		EXISTING U-TURN MEDIAN OPENING
TOTAL		7	~	

TRAFFIC CONTROL

STATION		each	miles	REMARKS
		CROSS OVER	TWO-WAY TRAFFIC	
FROM	TO			
939+19.40	950+00.00	2		MEDIAN CROSSOVER AT RP 408.0
59+90.40	66+71.00	2		MEDIAN CROSSOVER AT RP 409.5
433+50.00	454+50.50	2		MEDIAN CROSSOVER AT RP 416.8
939+19.40	454+50.50		8.8	RP 408.0 TO RP 416.8 EASTBOUND
939+19.40	454+50.50		8.8	RP 408.0 TO RP 416.8 WESTBOUND
TOTAL		6	17.5	

MEDIAN CROSSOVER *

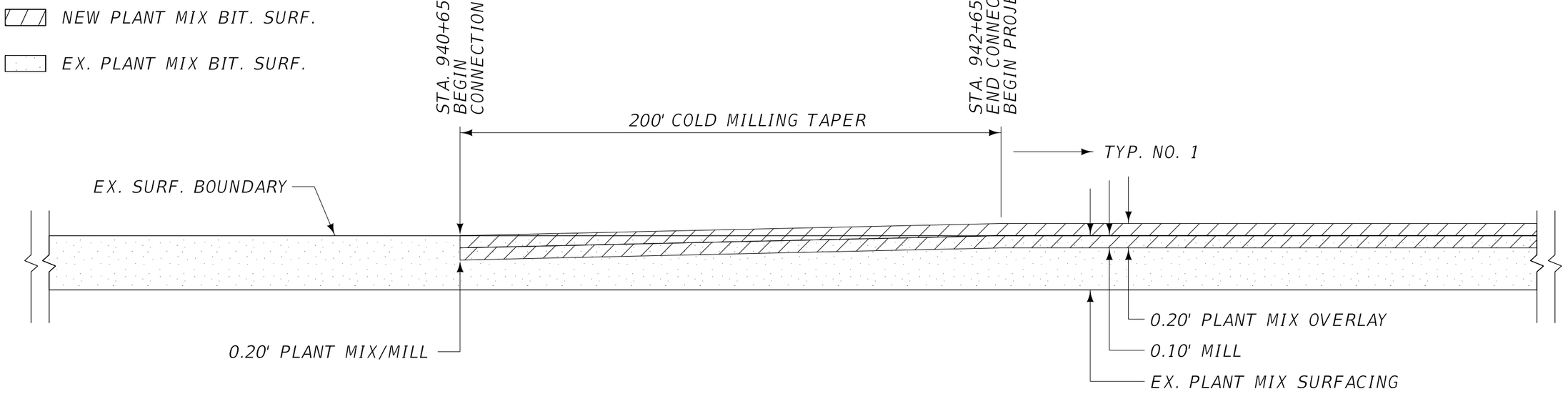
STATION		each		REMARKS
		CROSSOVER - CONST., MAINTAIN, & CLOSE	CROSSOVER RECLAMATION	
FROM	TO			
939+19.40	950+00.00	1	1	RP 408.0
59+90.40	66+71.00	1	1	RP 409.5
433+49.70	454+50.30	1	1	RP 416.8
TOTAL		3	3	

* SEE DETAIL

ADVERTISED COPY

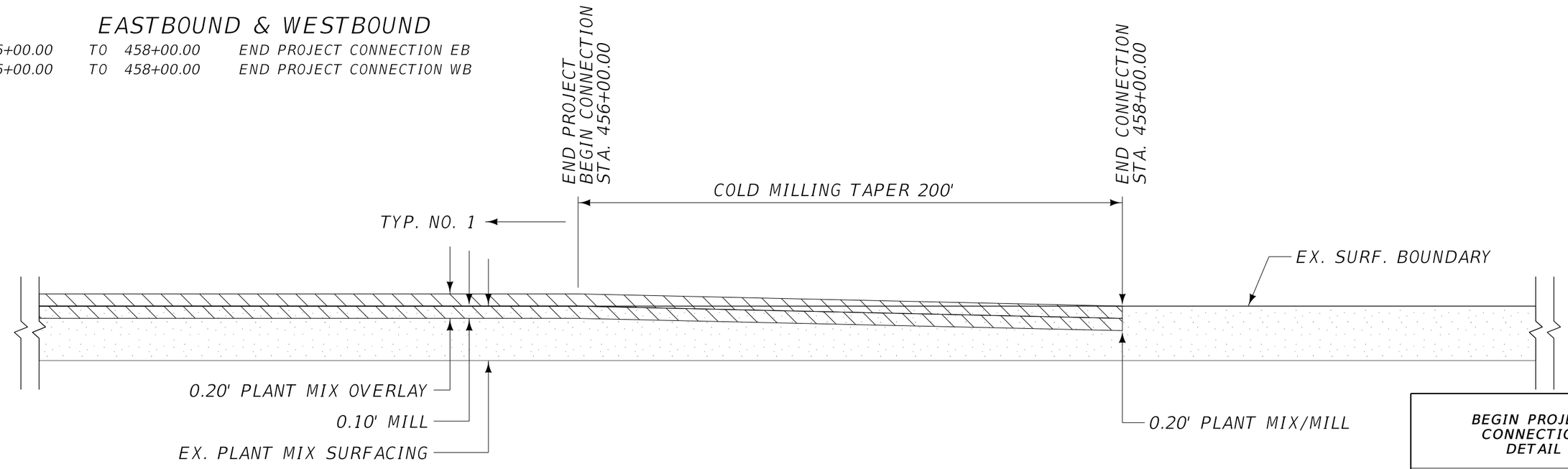
EASTBOUND & WESTBOUND

940+65.60 TO 942+65.60 BEGINNING OF PROJECT CONNECTION EB
940+65.60 TO 942+65.60 BEGINNING OF PROJECT CONNECTION WB



EASTBOUND & WESTBOUND

456+00.00 TO 458+00.00 END PROJECT CONNECTION EB
456+00.00 TO 458+00.00 END PROJECT CONNECTION WB



BEGIN PROJECT CONNECTION DETAIL

END PROJECT CONNECTION DETAIL
NO SCALE

3	MONTANA Department of Transportation	C:\DGN\9859000rddet012.dgn	DESIGNED BY R. MCNEELY	4/13/2023	ROAD PLANS	COLUMBUS - EAST	IM 90-8(194)408
2		8/18/2023	REVIEWED BY K. SHUCK	4/13/2023			
		2:40:54 PM CPS - U6575	CHECKED BY J. FLEMING	4/13/2023	STILLWATER COUNTY	UPN 9859000	7

ADVERTISED COPY

NEW PLANT MIX BIT. SURF.

EX. PLANT MIX BIT. SURF.

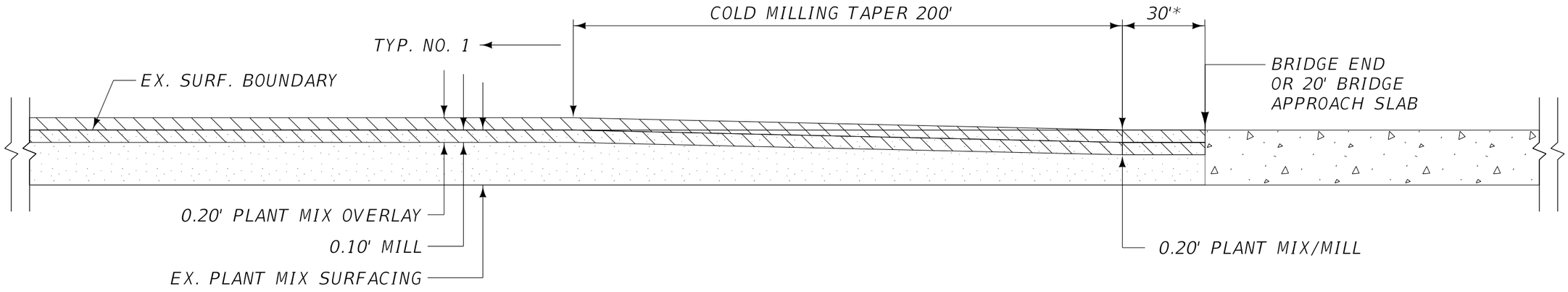
BRIDGE END OR 20' BRIDGE APPROACH SLAB

EASTBOUND

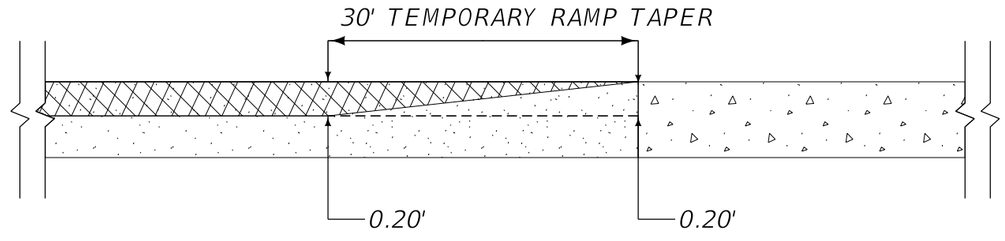
26+46.00	TO	28+46.00	COLUMBUS INTERCHANGE BRIDGE
30+26.00	TO	32+26.00	COLUMBUS INTERCHANGE BRIDGE
307+03.90	TO	309+03.90 BE	HENSLEY CREEK BRIDGE
311+28.40 BE	TO	313+28.40	HENSLEY CREEK BRIDGE

WESTBOUND

26+18.50	TO	28+18.50	COLUMBUS INTERCHANGE BRIDGE
29+98.50	TO	31+98.50	COLUMBUS INTERCHANGE BRIDGE
307+40.55	TO	309+40.55 BE	HENSLEY CREEK BRIDGE
311+84.95 BE	TO	313+84.95	HENSLEY CREEK BRIDGE



COLD MILLING



EX. PAVEMENT - LEAVE IN PLACE FOR RAMP.
REMOVE NO SOONER THAN 24 HOURS BEFORE PAVING.

*ACTUAL REMOVAL DISTANCES TO BE DETERMINED DURING CONSTRUCTION BY THE PROJECT MANAGER

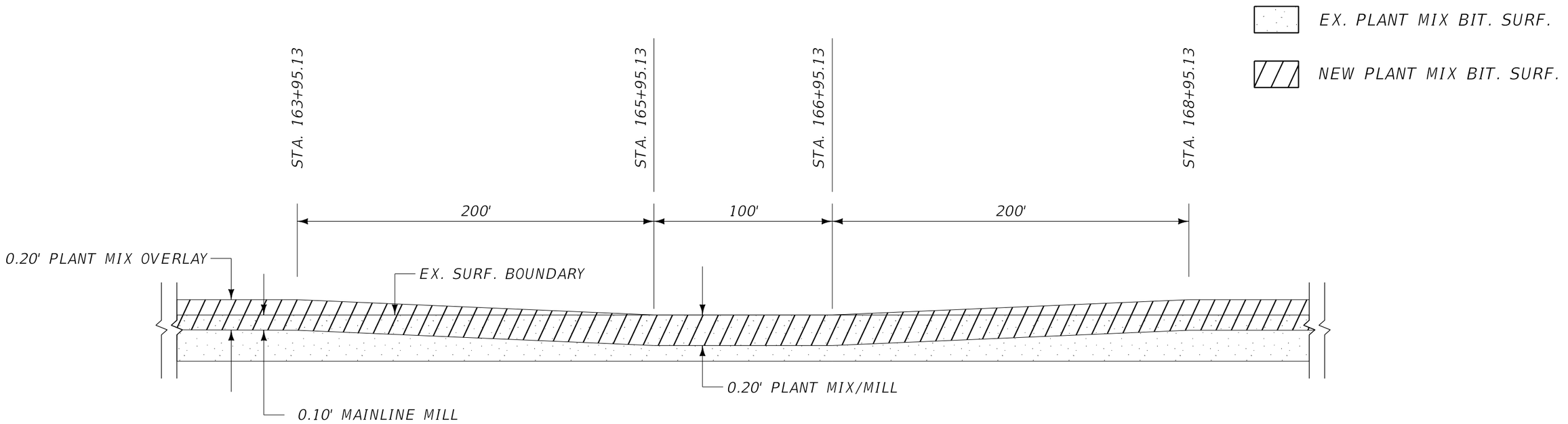
BRIDGE APPROACH SLAB TAPER CONNECTION DETAIL

TEMPORARY RAMP AT BRIDGE ENDS DETAIL

NO SCALE

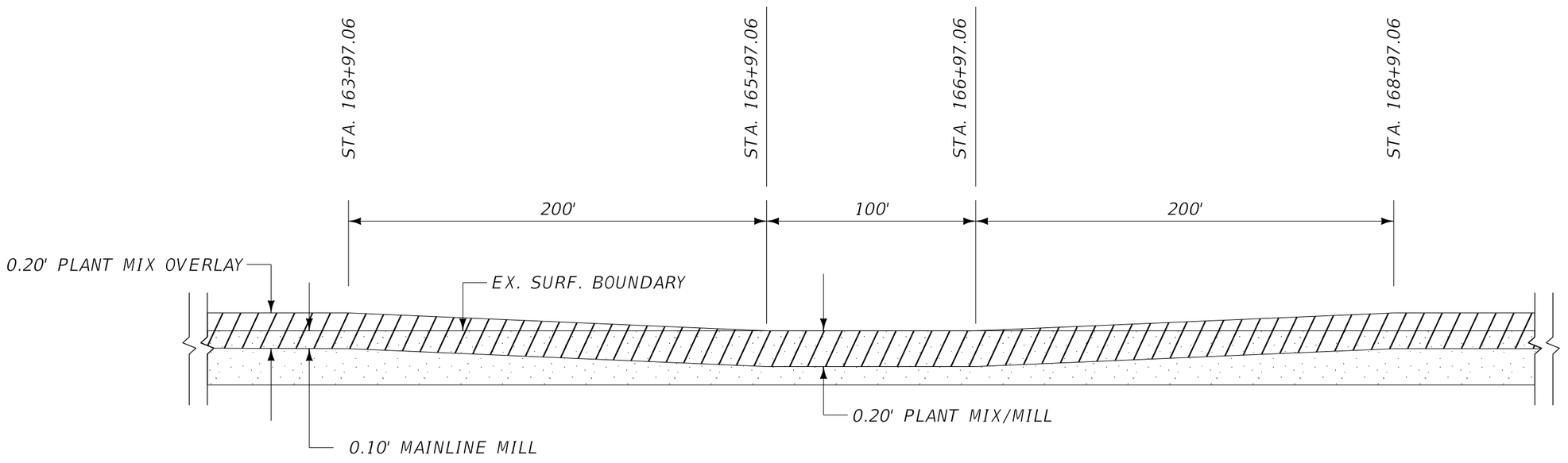
ADVERTISED COPY

EASTBOUND



MAINTAIN EXISTING VERTICAL CLEARANCE

WESTBOUND



MAINTAIN EXISTING VERTICAL CLEARANCE

COLUMBUS MOLT RD OVERPASS MILL TAPER DETAIL

NO SCALE

2 1	MONTANA Department of Transportation	C:\DGN\9859000rddet012.dgn	DESIGNED BY R. MCNEELY	4/13/2023	ROAD PLANS	COLUMBUS - EAST	IM 90-8(194)408
		8/18/2023	REVIEWED BY K.SHUCK	4/13/2023			
		2:41:03 PM CPS - U6575	CHECKED BY J. FLEMING	4/13/2023	STILLWATER COUNTY	UPN 9859000	9

ADVERTISED COPY



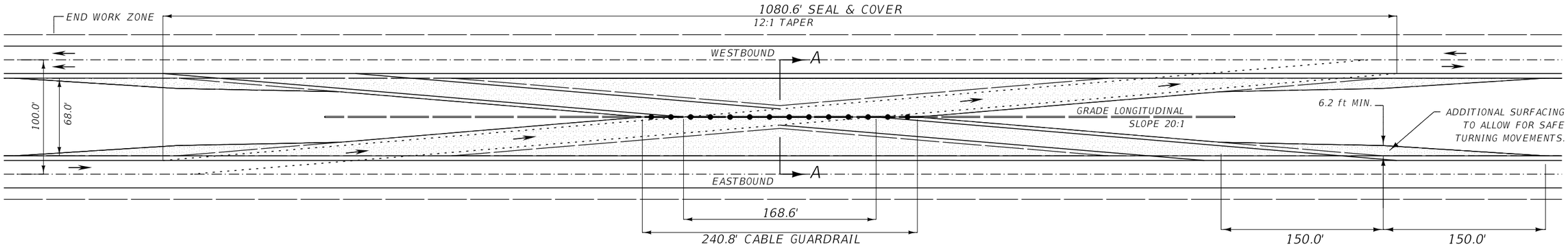
COLUMBUS
INTERCHANGE MILLING
DETAIL

NO SCALE

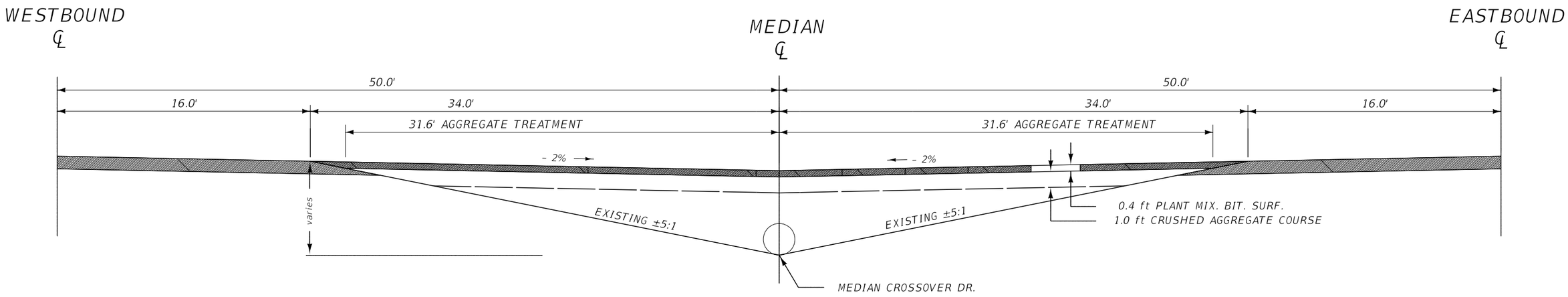
3	MONTANA Department of Transportation	C:\DGN\9859000rddet022.dgn	DESIGNED BY	R. MCNEELY	4/13/2023	ROAD PLANS	COLUMBUS - EAST	IM 90-8(194)408
2		8/18/2023	REVIEWED BY	K. SHUCK	4/13/2023			
		2:41:13 PM CPS - U6575	CHECKED BY	J. FLEMING	4/13/2023	STILLWATER COUNTY	UPN 9859000	10

ADVERTISED COPY

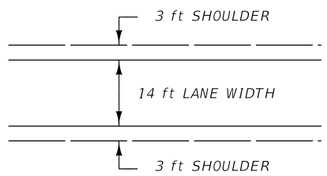
STA. 939+19.4 TO STA. 950+00.0



SECTION A-A



TYPICAL CROSS - OVER SECTION



QUANTITIES FOR ONE MEDIAN CROSSOVER
(FOR INFORMATIONAL PURPOSES ONLY)

- PLANT MIX BIT. SURF. GR. S - 3/4" = 1,494 TONS
- ASPHALT CEMENT PG 70-28 = 76.2 TONS
- CRUSHED AGGREGATE COURSE = 1,926 C.Y.
- EMB+ = 1,540 C.Y.
- 12 in. MEDIAN DR. = 720 ft.
- CABLE GUARDRAIL = 240.8 ft.
- EMULSIFIED ASPHALT - TACK = 250 GALS.
- AGGREGATE TREATMENT = 4,992 SQ. YARDS
- SEAL = 8.9 TONS
- COVER = 4,992 SQ. YARDS

NOTES:

1) STATIONING IS APPROXIMATE, FIELD ADJUSTMENT MAY BE NECESSARY AS DIRECTED BY PROJECT MANAGER, AVOID EXISTING MEDIAN DRAIN INLETS. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE FOR THE WORK ZONE. MEDIAN INSLOPES 20:1 FOR PERMANENT CROSSOVER.

2) CABLE GUARDRAIL TO BE AN NCHRP 350 APPROVED FOR USE IN MEDIANS FOR BOTH TEMPORARY AND PERMANENT APPLICATIONS.

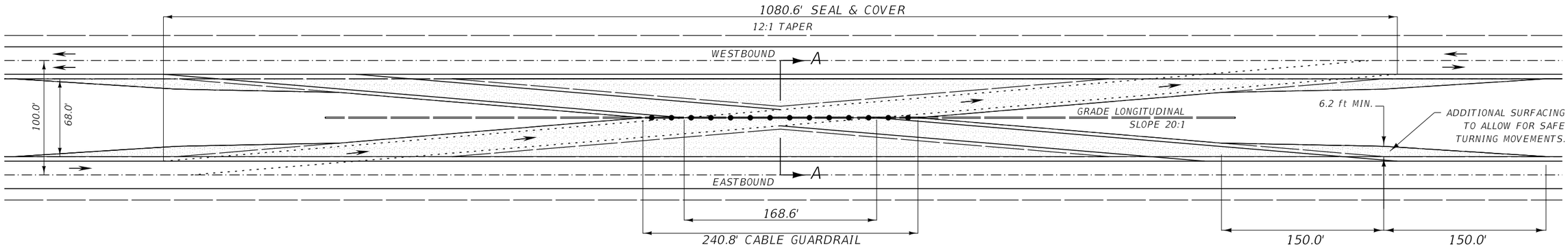
MEDIAN CROSSOVER
RP 408.0
DETAIL

NO SCALE

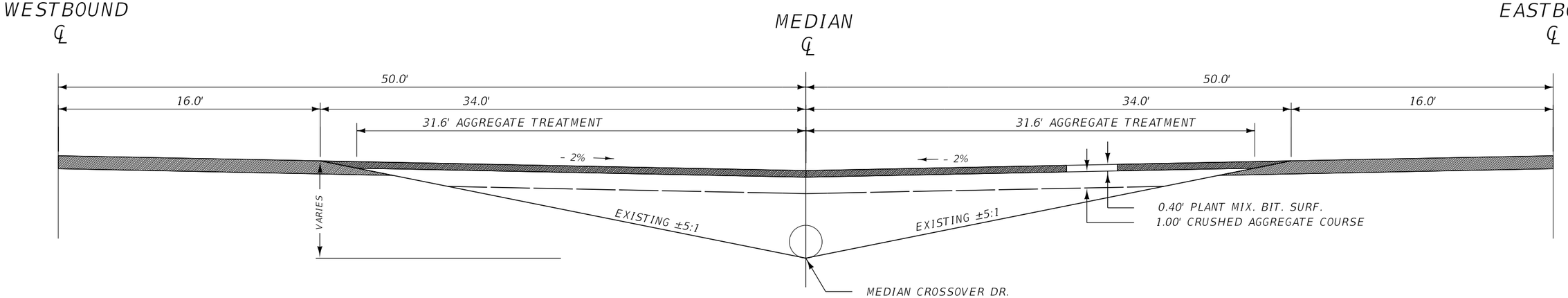
3	MONTANA Department of Transportation	C:\DGN\9859000rddet032.dgn	DESIGNED BY R. MCNEELY	4/13/2023	ROAD PLANS	COLUMBUS - EAST	IM 90-8(194)408
2		8/18/2023	REVIEWED BY K. SHUCK	4/13/2023			
		2:42:21 PM CPS - U6575	CHECKED BY J. FLEMING	4/13/2023	STILLWATER COUNTY	UPN 9859000	11

ADVERTISED COPY

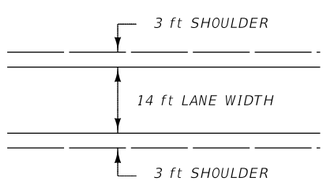
STA. 59+90.40 TO STA. 66+71.00



SECTION A-A



TYPICAL CROSS - OVER SECTION



QUANTITIES FOR ONE MEDIAN CROSSOVER
(FOR INFORMATIONAL PURPOSES ONLY)

- PLANT MIX BIT. SURF. GR. S - 3/4" = 1,494 TONS
- ASPHALT CEMENT PG 70-28 = 76.2 TONS
- CRUSHED AGGREGATE COURSE = 1,926 C.Y.
- EMB+ = 1,540 C.Y.
- 12 in. MEDIAN DR. = 720 ft.
- CABLE GUARDRAIL = 240.8 ft.
- EMULSIFIED ASPHALT - TACK = 250 GALS.
- AGGREGATE TREATMENT = 4,992 SQ. YARDS
- SEAL = 8.9 TONS
- COVER = 4,992 SQ. YARDS

NOTES:

1) STATIONING IS APPROXIMATE, FIELD ADJUSTMENT MAY BE NECESSARY AS DIRECTED BY PROJECT MANAGER, AVOID EXISTING MEDIAN DRAIN INLETS. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE FOR THE WORK ZONE. MEDIAN INSLOPES 20:1 FOR PERMANENT CROSSOVER.

2) CABLE GUARDRAIL TO BE AN NCHRP 350 APPROVED FOR USE IN MEDIANS FOR BOTH TEMPORARY AND PERMANENT APPLICATIONS.

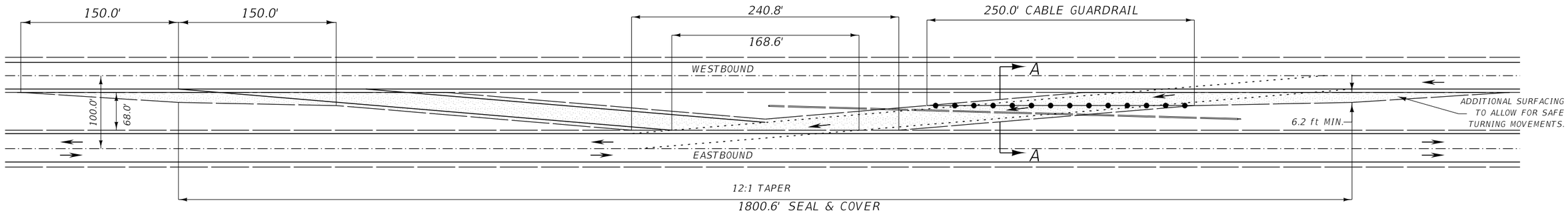
MEDIAN CROSSOVER
RP 409.5
DETAIL

NO SCALE

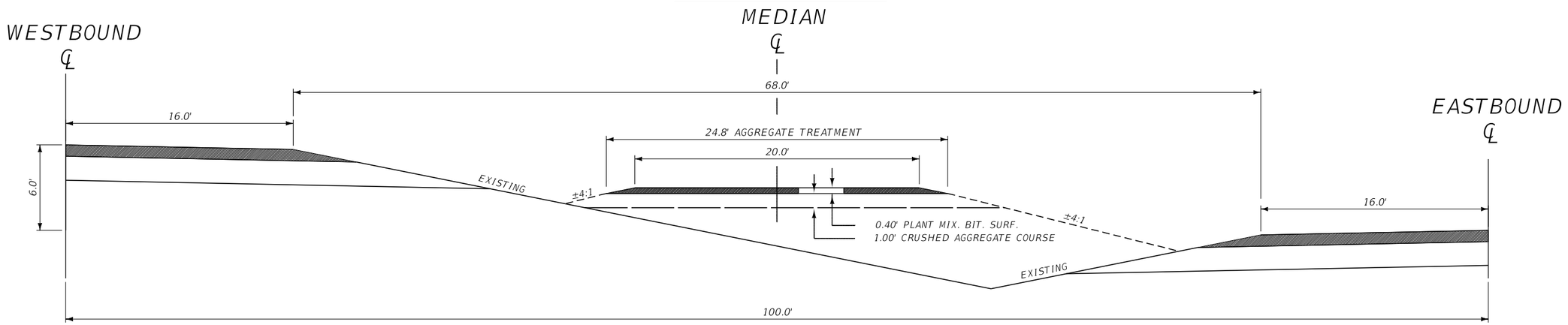
3 / 1	MONTANA Department of Transportation	C:\DGN\9859000rddet032.dgn	DESIGNED BY	R. MCNEELY	4/13/2023	ROAD PLANS	COLUMBUS - EAST / IM 90-8(194)408
		8/18/2023	REVIEWED BY	K. SHUCK	4/13/2023		
		2:42:25 PM CPS - U6575	CHECKED BY	J. FLEMING	4/13/2023	STILLWATER COUNTY	UPN 9859000 / 12

ADVERTISED COPY

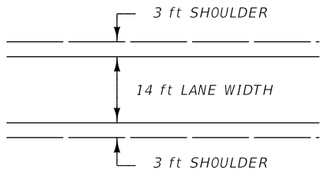
STA. 433+49.70 TO STA. 454+50.30



SECTION A-A



TYPICAL CROSS - OVER SECTION



QUANTITIES FOR ONE MEDIAN CROSSOVER

(FOR INFORMATIONAL PURPOSES ONLY)

PLANT MIX BIT. SURF. GR. S - 3/4" = 1,057 TONS
ASPHALT CEMENT PG 70-28 = 51.8 TONS
CRUSHED AGGREGATE COURSE = 1,204 C.Y.
EMB+ = 1,935 C.Y.
12 in. MEDIAN DR. = 620 ft.
CABLE GUARDRAIL = 607.6 ft.
EMULSIFIED ASPHALT - TACK = 191 GALS.
AGGREGATE TREATMENT = 3,803 SQ. YARDS
SEAL = 6.8 TONS
COVER = 3,803 SQ. YARDS

NOTES:

1) STATIONING IS APPROXIMATE, FIELD ADJUSTMENT MAY BE NECESSARY AS DIRECTED BY PROJECT MANAGER, AVOID EXISTING MEDIAN DRAIN INLETS. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE FOR THE WORK ZONE. MEDIAN INSLOPES 20:1 FOR PERMANENT CROSSOVER.

2) CABLE GUARDRAIL TO BE AN NCHRP 350 APPROVED FOR USE IN MEDIANS FOR BOTH TEMPORARY AND PERMANENT APPLICATIONS.

MEDIAN CROSSOVER
RP 416.8
DETAIL

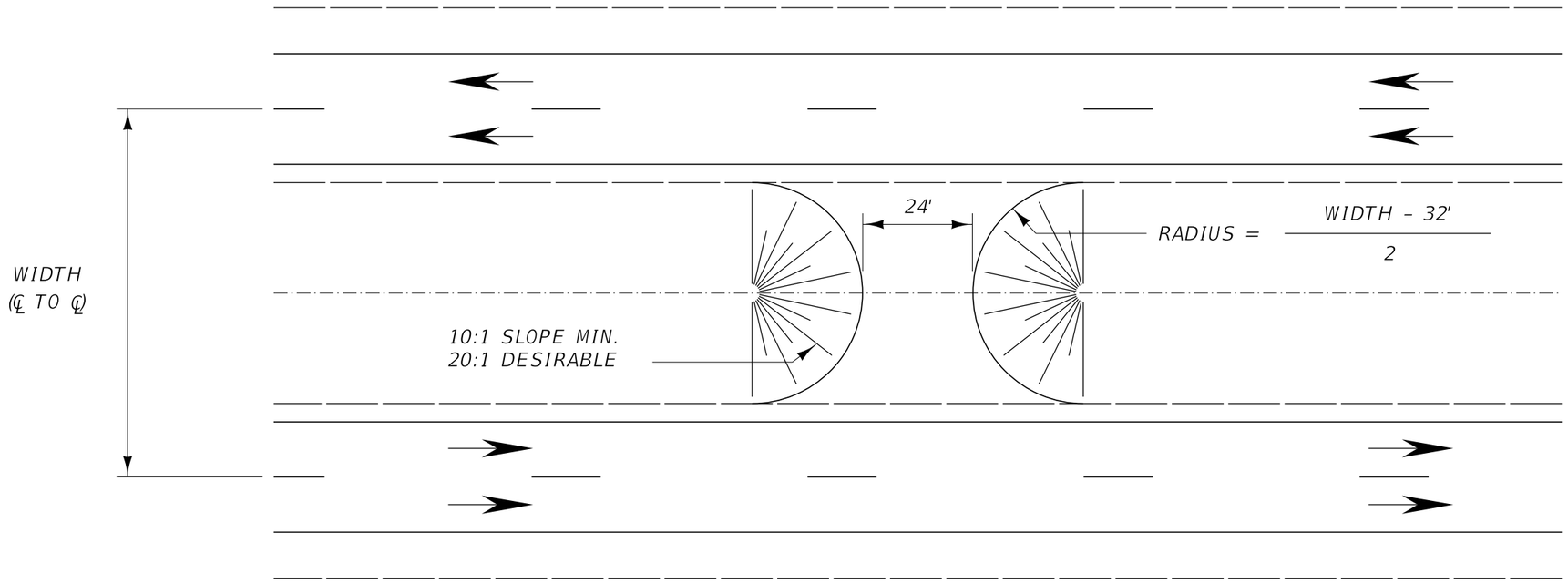
NO SCALE

2	MONTANA Department of Transportation	C:\DGN\9859000rddet032.dgn	DESIGNED BY R. MCNEELY	4/13/2023	ROAD PLANS	COLUMBUS - EAST	IM 90-8(194)408
1		8/18/2023	REVIEWED BY K. SHUCK	4/13/2023			
		2:42:30 PM CPS - U6575	CHECKED BY J. FLEMING	4/13/2023	STILLWATER COUNTY	UPN 9859000	13

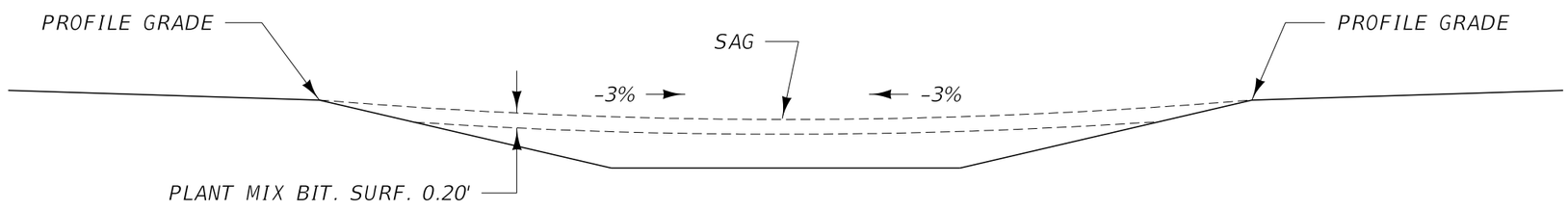
ADVERTISED COPY

LOCATION

944+97.87	PAVE EXISTING U-TURN OPENING RP 408.3
70+60.21	PAVE EXISTING U-TURN OPENING RP 409.7
139+73.44	CONSTRUCT & PAVE NEW U-TURN OPENING R.P. 411.0
228+36.30	PAVE EXISTING U-TURN OPENING RP 412.7
321+41.13	PAVE EXISTING U-TURN OPENING RP 414.4
456+00.00	PAVE EXISTING U-TURN OPENING RP 417.0



PLAN



PROFILE

QUANTITIES FOR NEW U-TURN MEDIAN OPENING

PLANT MIX BIT. SURF. GR. S - MISC. = 41.0 TONS
ASPHALT CEMENT PG 70-28 = 2.0 TONS
CRUSHED AGGREGATE COURSE = 175 C.Y.

NOTE: SEE ADDITIONAL SURFACING SUMMARY FRAME FOR QUANTITIES

MEDIAN WIDTHS 36' TO 76'

LOCATE AND CONSTRUCT TURNOUTS ABOVE IN CONJUNCTION WITH DITCH BLOCKS IF AT ALL POSSIBLE. PROVIDE DRAINAGE WHEN NECESSARY.

U-TURN MEDIAN OPENING DETAIL

NO SCALE

3 / 1	MONTANA Department of Transportation	C:\DGN\9859000rddet042.dgn	DESIGNED BY R. MCNEELY	4/13/2023	ROAD PLANS	COLUMBUS - EAST	IM 90-8(194)408
		8/18/2023	REVIEWED BY K. SHUCK	4/13/2023	STILLWATER COUNTY	UPN 9859000	14
		2:42:39 PM CPS - U6575	CHECKED BY J. FLEMING	4/13/2023			

ADVERTISED COPY

SUMMARY
SIGNING & DELINEATION QUANTITIES

SUMMARY
SIGNING & DELINEATION QUANTITIES

9859000SIQMGZ01.

MATERIAL	TOTALS	UNIT
SIGNS-SHEET ALUM SHT INCR XI	2,159.3	SQFT
SIGNS-ALUM REFL SHEET XI	1,385.3	SQFT
REMOVE SIGN	133	EACH
REMOVE SIGN-GUIDE	29	EACH
POSTS-TUBULAR STEEL	491	LB
POSTS-STEEL U SIGN	1,461	LB
POSTS-STEEL STRUCTURAL SIGN	2,343	LB
POLES-TREATED WOOD 4 IN	132	LNFT
POLES-TREATED WOOD 5 IN	72	LNFT
FRANG SIGN POST BKWY-S5 X 10 (S130X15)	2	EACH
FRANG SIGN POST BKWY-W12 X 30(W300X43)	2	EACH
FRANG SIGN POST BKWY-3 IN RD (89MM)	1	EACH
FRANG SIGN POST BKWY-3.5 IN RD (89MM)	2	EACH
FRANG SIGN POST BKWY-4 IN RD (100 MM)	1	EACH
DELINEATOR DES A	621	EACH
DELINEATOR DES B	74	EACH
DELINEATOR DES D	16	EACH
DELINEATOR DES G	91	EACH
DELINEATOR DES H	560	EACH
DELINEATOR DES BJ	69	EACH
DELINEATOR DES GJ	44	EACH
TOP MTD BARRIER DELIN-SGL FACE-YELLOW	6	EACH
TOP MTD BARRIER DELIN-SGL FACE-WHITE	6	EACH
DELINEATION-LINEAR-WHITE-W-BEAM	2	EACH

SANDERSON STEWART

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
I-90 MAINLINE																																			
	408.32		EB	(2) R5-11	2-6 x 2-0	XI												10.0																	RSFO
	Med.		WB											7-0															1						
	408.38			M3-4A	2-6 x 1-3	XI	XI			5.0"		14-10						2.0																	
Lt.			WB	M1-1	3-0 x 3-0	XI	XI	20-0		POLE				7-0	3-6			9.0				16						X	1						M1-1=I-90
	408.40			D7-1	USE AS IS																														"Yellowstone Nat'l Park; INQUIRE LOCALLY"
		Rt.	EB																																
	408.59			E-408	9-0 x 2-6	XI	XI												22.5																RSFO, "EXIT 408"
		Rt.	EB	G4-408	13-6 x 11-6	XI	XI							8-0					155.3						*74				1			*	RSFO, "MT 78; Columbus"
				D9-2	2-6 x 2-6	XI	XI											6.3																RSFO
				D9-99	2-0 x 2-0	XI	XI											4.0																RSFO
				I-5	2-6 x 2-6	XI	XI											6.3																RSFO
	408.62			W13-3	REMOVE																														"RAMP 50 MPH"
		Rt.	EB	W13-2	4-0 x 5-0	XI								7-0				20.0											1				FY		RSFO, BBR, "EXIT 50 MPH"
	408.70			EG-408	8-0 x 5-0	XI	XI												40.0																RSFO, "EXIT 408"
		Rt.	EB											7-0															1						
	409.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																	RP 409
Lt.			WB					6-0		STEEL U				4-0	3-0												36		1						
	409.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																	RP 409
		Rt.	EB					6-0		STEEL U				4-0	3-0												36		1						
	409.09			EG-408	8-0 x 5-0	XI	XI												40.0																RSFO, "EXIT 408"
Lt.			WB											7-0															1						
	409.17			W13-3	REMOVE																														"RAMP 50 MPH"
Lt.			WB	W13-2	4-0 x 5-0	XI								7-0				20.0											1				FY		RSFO, BBR, "EXIT 50 MPH"
	409.18			N7-1	USE AS IS																														
Lt.			WB	N7-1P	USE AS IS																														"Columbus Key Club and Kiwanis"
	409.20			N7-1	USE AS IS																														
		Rt.	EB																																
	409.28			E-408	9-0 x 2-6	XI	XI												22.5																RSFO, "EXIT 408"
Lt.			WB	G4-408	13-6 x 11-6	XI	XI							8-0					155.3						*74				1			*	RSFO, "MT 78; Columbus"
				D9-2	2-6 x 2-6	XI	XI											6.3																RSFO
				D9-99	2-0 x 2-0	XI	XI											4.0																RSFO
				I-5	2-6 x 2-6	XI	XI											6.3																RSFO

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	C:\DGN\9859000sisumz01.dgn		SIGNING PLANS	COLUMBUS - EAST / IM 90-8(194)408
2		10/30/2023			
1		1:47:06 PM CPS - U137d		STILLWATER COUNTY	UPN 9859000 / S2

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	409.41			M3-2A	2-6 x 1-3	XI	XI			5.0"		11-0						3.1																	
		Rt.	EB	M1-1	3-0 x 3-0	XI	XI	6-0		POLE				7-0	3-6			9.0				12						X	1						BBR, M1-1-tl-90
	409.47			W11-3	4-0 x 4-0	XI												16.0											1						RSFO, BBR
		Rt.	EB											7-0																				
Lt.	409.55		WB	LOGO-1	USE AS IS																														EXIT 408, FOOD, CAMPING
	409.60			R2-1	4-0 x 5-0	XI												20.0																RSFO, BBR, 80 MPH
		Rt.	EB	R2-2	4-0 x 3-0	XI								9-1				12.0											1						RSFO, BBR, TRUCKS 70 MPH
	409.69		EB	(2) R5-11	2-6 x 2-0	XI				4.0"		13-6						10.0																
	Med.		WB					30-0		POLE				7-0	3-0						14								1						
Lt.	409.70		WB	LOGO-2	USE AS IS																														EXIT 408, GAS, FOOD
	409.82			G11-409A	9-0 x 4-6	XI	XI												40.5																RSFO, "Park City 17; Laurel 25; Billings 39"
		Rt.	EB											7-0																	1				
Lt.	409.87		WB	G7-408A	11-0 x 5-6	XI	XI							7-0					60.5												1				RSFO, "Absarokee Exit 408"
	409.99			G13-424A	12-0 x 3-6	XI	XI			S5x10		X=12-6							42.0																"ROBERT E. EWING MEMORIAL HIGHWAY"
		Rt.	EB					20-0	7-2			Y=13-7		5-0	3-6												261				1				
Lt.	410.00		WB	D10-6	1-0 x 4-0	XI	XI	6-0		3 LB STEEL U		12-0		4-0	3-0			4.0									36		1						RP 410
	410.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 410
		Rt.	EB					6-0		STEEL U				4-0	3-0												36		1					
Lt.	410.05		WB	VMS	USE AS IS																														Variable Message Sign
	410.12			E-408	9-0 x 2-6	XI	XI			W12x30		X=21-6							22.5																"EXIT 408"
Lt.			WB	G2-410A	14-0 x 10-6	XI	XI	30-0	8-5			Y=24-6		8-0	8-0				147.0								1,454				1				"Hwy 78, Columbus 1 MILE"
				D9-2	2-6 x 2-6	XI	XI											6.3																
				D9-99	2-0 x 2-0	XI	XI											4.0																
				I-5	2-6 x 2-6	XI	XI											6.3																
				D7-6	2-6 x 2-6	XI	XI											4.0																
	410.76			N6-410A	7-6 x 3-6	XI	XI												26.3																RSFO, "Beartooth Mtn Range"
		Rt.	EB	M6-1BR	1-9 x 1-3	XI	XI							7-0				2.2													1				RSFO
Lt.	411.00		WB	D10-6	1-0 x 4-0	XI	XI	6-0		3 LB STEEL U		12-0		4-0	3-0			4.0									36		1						RP 411
	411.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 411
		Rt.	EB					6-0		STEEL U				4-0	3-0												36		1					

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	C:\DGN\9859000sisumz01.dgn		SIGNING PLANS		COLUMBUS - EAST / IM 90-8(194)408
2		10/30/2023				UPN 9859000 / S3
1		1:47:18 PM CPS - U1376		STILLWATER COUNTY		

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	411.30			N6-410A	7-6 x 3-6	XI	XI												26.3																RSFO, "Beartooth Mtn Range"
Lt.			WB	M6-1BL	1-9 x 1-3	XI	XI							5-0				2.2													1				RSFO
	412.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 412
Lt.			WB					6-0		STEEL U				4-0	3-0																			
	412.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 412
		Rt.	EB					6-0		STEEL U				4-0	3-0																			
	412.04			W11-3	4-0 x 4-0	XI												16.0											1						RSFO, BBR
		Rt.	EB	W7-3A	2-6 x 2-0	XI								8-1				5.0																RSFO, "NEXT 7 MILES"
	412.57		EB	(2) R5-11	2-6 x 2-0	XI				4" DIA		13-6						10.0																
	Med		WB					30-0		POLE				7-0	3-0						14													
	413.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 413
Lt.			WB					6-0		STEEL U				4-0	3-0																			
	413.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 413
		Rt.	EB					6-0		STEEL U				4-0	3-0																			
	414.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 414
Lt.			WB					6-0		STEEL U				4-0	3-0																			
	414.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 414
		Rt.	EB					6-0		STEEL U				4-0	3-0																			
	414.08			W8-12	4-0 x 4-0	XI												16.0											1						RSFO, BBR
		Rt.	EB											7-0																				
	414.41			W8-12	4-0 x 4-0	XI												16.0											1						RSFO, BBR
Lt.			WB											7-0																				
	414.44		EB	(2) R5-11	2-6 x 2-0	XI												10.0											1						RSFO
	Med.		WB											7-0																				
	415.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 415
Lt.			WB					6-0		STEEL U				4-0	3-0																			
	415.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 415
		Rt.	EB					6-0		STEEL U				4-0	3-0																			
	415.95			M1-9	USE AS IS																													"LEWIS AND CLARK TRAIL"
Lt.			WB																															
	416.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 416
Lt.			WB					6-0		STEEL U				4-0	3-0																			
	416.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0									36		1						RP 416
		Rt.	EB					6-0		STEEL U				4-0	3-0																			
	416.50			R99	2-6 x 2-0					4.0"		14-6																	1						"FIRE DANGER NO STOPPING OFF PAVEMENT"
Lt.			WB					15-0		POLE				7-0	3-0						16													REUSE SIGN FACE

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

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	417.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 417
Lt.			WB					6-0		STEEL U				4-0	3-0												36		1						
	417.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 417
		Rt.	EB					6-0		STEEL U				4-0	3-0												36		1						
	417.01		EB	(2) R5-11	2-6 x 2-0	XI												10.0																RSFO
	Med.		WB											7-0															1					
	417.06			D5-1	5-0 X 12-0	XI	XI												60.0														RSFO, "REST AREA 2 MILES"
		Rt.	EB	IS6-417A	11-0 X 4-0	XI	XI							12-0					44.0											1		RSFO, "NEXT REST AREA 59 MILES"
				D9-6	2-6 X 2-6	XI	XI											6.3																RSFO
	417.25			R99	2-6 x 2-0					4.0"		14-6																						" FIRE DANGER NO STOPPING OFF PAVEMENT"
Lt.			WB					15-0		POLE				7-0	3-0						16								1					REUSE SIGN FACE
	417.55			W8-12	4-0 x 4-0	XI												16.0																RSFO, BBR
		Rt.	EB											7-0															1					
	417.89			W8-12	4-0 x 4-0	XI												16.0																RSFO, BBR
Lt.			WB											7-0															1					
	418.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 418
Lt.			WB					6-0		STEEL U				4-0	3-0												36		1						
	418.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 418
		Rt.	EB					6-0		STEEL U				4-0	3-0												36		1						
	418.01			D5-1A	5-0 x 12-0	XI	XI												60.0														RSFO
		Rt.	EB	IS3	2-0 x 12-0	XI	XI							10-6					24.0											1		RSFO	
				D9-6	2-6 x 2-6	XI	XI											6.3																RSFO
	418.08			R99	2-6 x 2-0					4.0"		14-6																						" FIRE DANGER NO STOPPING OFF PAVEMENT"
Lt.			WB					15-0		POLE				7-0	3-0						16								1					REUSE SIGN FACE
	418.23			W11-3	4-0 x 4-0	XI												16.0																RSFO, BBR
Lt.			WB											6-0															1					
	418.32		EB	(2) R5-11	2-6 x 2-0	XI												10.0																RSFO
	Med.		WB											7-0															1					
	418.38			R99	2-6 x 2-0					4.0"		14-3																						" FIRE DANGER NO STOPPING OFF PAVEMENT"
Lt.			WB					15-0		POLE				7-0	3-0						16								1					REUSE SIGN FACE
	418.42			M3-4A	2-6 x 1-3	XI	XI			3.5 in STEEL		15-3						3.1								139								
Lt.			WB	M1-1	3-0 x 3-0	XI	XI	10-0		PIPE				7-0	3-0			9.0											1					BBR, M1-1=I-90
	418.71			D5-2	6-6 x 6-6	XI	XI												42.3														RSFO
		Rt.	EB											7-0															1					
	418.97			D5-2	6-6 x 6-6	XI	XI												42.3														RSFO
Lt.			WB											7-0															1					

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

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
Lt.	419.00		WB	D10-6	1-0 x 4-0	XI	XI	6-0		3 LB STEEL U		12-0		4-0	3-0			4.0									36		1							RP 419
	419.00	Rt.	EB	D10-6	1-0 x 4-0	XI	XI	6-0		3 LB STEEL U		12-0		4-0	3-0			4.0									36		1							RP 419
	419.14	Rt.	EB	W11-3	4-0 x 4-0	XI								7-0				16.0											1						RSFO, BBR
	419.30	Rt.	EB	M3-2A M1-1	2-6 x 1-3 3-0 x 3-0	XI XI	XI XI							7-0				3.1 9.0											1						RSFO RSFO, BBR, M1-1=I-90
	419.46 Med.		EB WB	(2) R5-11	2-6 x 2-0	XI								7-0				10.0											1						RSFO
Lt.	419.60		WB	D5-1A IS3	5-0 X 12-0 2-0 X 12-0	XI XI	XI XI							7-6					60.0 24.0										1						RSFO RSFO
				D9-6	2-6 X 2-6	XI	XI											6.3																	RSFO
	419.80	Rt.	EB	W8-12	4-0 x 4-0	XI		5-0		4 in STEEL PIPE		14-5		7-0	3-0			16.0						155				■	1						BBR
Lt.	419.82		WB	W11-3	4-0 x 4-0	XI								7-0				16.0											1						RSFO, BBR
Lt.	419.90		WB	D10-6a	1-0 x 5-0	XI	XI	6-0		3 LB STEEL U		13-0		4-0	3-0			4.0									39		1						RP 419.9
	419.90	Rt.	EB	D10-6a	1-0 x 5-0	XI	XI	6-0		3 LB STEEL U		13-0		4-0	3-0			4.0									39		1						RP 419.9
Lt.	420.14		WB	W8-12	4-0 x 4-0	XI								7-0				16.0											1						RSFO, BBR
	420.15	Rt.	EB	D12-1	12-6 x 7-0	XI	XI							5-0					87.5											1				RSFO, "WEATHER INFO, TUNE RADIO TO 790AM, 94.1FM, 102.9FM, 103.7FM"
Lt.	420.71		WB	D5-1 IS6-420A	5-0 X 12-0 11-0 X 4-0	XI XI	XI XI							12-0					60.0 44.0											1				RSFO, "REST AREA 2 MILES" RSFO, "NEXT REST AREA 42 MILES"
				D9-6	2-6 X 2-6	XI	XI											6.3																RSFO
	420.78 Med.		EB WB	(2) R5-11	2-6 x 2-0	XI		35-0		4.0" POLE		12-5		7-0	3-0			10.0				16							1						RSFO
Lt.	421.00		WB	D10-6	1-0 x 4-0	XI	XI	6-0		3 LB STEEL U		12-0		4-0	3-0			4.0									36		1						RP 421
	421.00	Rt.	EB	D10-6	1-0 x 4-0	XI	XI	6-0		3 LB STEEL U		12-0		4-0	3-0			4.0									36		1						RP 421

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

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	422.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 422
Lt.			WB					2-0		STEEL U				4-0	3-0												36		1					
	422.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 422
		Rt.	EB					6-0		STEEL U				4-0	3-0												36		1					
	423.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 423
Lt.			WB					6-0		STEEL U				4-0	3-0												36		1					
	423.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 423
		Rt.	EB					6-0		STEEL U				4-0	3-0												36		1					
	423.67		EB	(2) R5-11	2-6 x 2-0	XI												10.0																RSFO
	Med.		WB											7-0															1					
	424.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 424
Lt.			WB					6-0		STEEL U				4-0	3-0												36		1					
	424.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 424
		Rt.	EB					6-0		STEEL U				4-0	3-0												36		1					
	424.01			G13-424A	12-0 x 3-6	XI	XI			S5x10		X=12-4							42.0																"ROBERT E. EWING MEMORIAL HIGHWAY"
Lt.			WB					20-0	7-2			Y=13-5		5-0	3-6											258		■			1				
	425.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 425
Lt.			WB					6-0		STEEL U				4-0	3-0												36		1					
	425.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 425
		Rt.	EB					2-0		STEEL U				4-0	3-0												36		1					
	425.09			E-426	9-0 x 2-6	XI	XI												22.5															*	RSFO, "EXIT 426"
		Rt.	EB	G12-425A	13-6 x 6-0	XI	XI							7-0					81.0								*74			1				RSFO, "Park City 1 Mile"
				D9-1	REMOVE																													
	425.41			G11-425A	9-0 x 4-6	XI	XI												40.5																RSFO, "Columbus 18; Bozeman 116; Butte 201"
Lt.			WB											5-0															1					
	425.77		EB	(2) R5-11	2-6 x 2-0	XI												10.0																RSFO
	Med.		WB											7-0															1					
	425.88			R2-1	4-0 x 5-0	XI												20.0																RSFO, BBR, 80 MPH
Lt.			WB	R2-2	4-0 x 3-0	XI								9-1				12.0												1				RSFO, BBR, TRUCKS 70 MPH
	426.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 426
Lt.			WB					6-0		STEEL U				4-0	3-0												36		1					
	426.00			D10-6	1-0 x 4-0	XI	XI			3 LB								4.0																RP 426
		Rt.	EB					6-0		STEEL U		12-0		4-0	3-0												36		1					
	426.09			LOGO-3	USE AS IS																													
		Rt.	EB	D9-6	USE AS IS																													
				D9-9	USE AS IS																													

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

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	426.16			M3-4A	2-6 x 1-3	XI	XI			3 in STEEL		13-4						3.1																
Lt.			WB	M1-1	3-0 x 3-0	XI	XI	10-0		PIPE				7-0	3-0			9.0						101					1						BBR, M1-1=I-90
	426.28			E-426	9-0 x 2-6	XI	XI												22.5															RSFO, "EXIT 426"
		Rt.	EB	G5-426A	13-6 x 7-6	XI	XI							5-0					101.3							*74				1			*	RSFO, "PARK CITY"
	426.44			EG-426	8-0 x 5-0	XI	XI												40.0															RSFO, "EXIT 426"
		Rt.	EB											7-0															1				
	426.50			W8-12	4-0 x 4-0	XI												16.0																RSFO, BBR
		Rt.	WB											7-0															1				
	426.69			W8-12	4-0 x 4-0	XI												16.0																RSFO, BBR
Lt.			EB											7-0															1				
	426.78			EG-426	8-0 x 5-0	XI	XI												40.0															RSFO, "EXIT 426"
Lt.			EB											7-0																1			
	426.94			E-426	9-0 x 2-6	XI	XI												22.5															RSFO, "EXIT 426"
Lt.			EB	G5-426A	13-6 x 7-6	XI	XI							5-0					101.3							*74				1			*	RSFO, "PARK CITY"
	427.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 427
Lt.			EB					6-0		STEEL U				4-0	3-0												36		1					
	427.00			D10-6	1-0 x 4-0	XI	XI			3 LB		12-0						4.0																RP 427
		Rt.	WB					6-0		STEEL U				4-0	3-0												36		1					
COLUMBUS RAMP A - EB OFF-RAMP																																		
	408.76			LOGO-4	USE AS IS																													FOOD, CAMPING
Lt.			A																															
	408.76			W3-1A	4-0 X 4-0	XI	XI											16.0																RSFO, BBR
		Rt.	A											7-0															1				
	408.79			D9-3A	2-0 x 2-0	XI	XI			5.0"		15-4						4.0																BBR
		Rt.	A	M6-4A	1-9 x 1-3	XI	XI	10-0		POLE				7-0	3-6			2.2					16					X	1					
				RS-047	2-0 x 2-0	XI	XI											4.0																
				D9-99CR	2-0 x 0-6	XI	XI											1.0																
				R5-1A	REMOVE																													
	408.80			R5-1A	3-6 x 2-6	XI	XI			4.0"		11-0						8.8					12											
		Rt.	A					10-0		POLE				4-0	3-0																			
	408.80			R5-1A	3-6 x 2-6	XI	XI											8.8																RSFO
Lt.			A											4-0															1				
	408.83			G10-408B	9-6 x 6-0	XI	XI												57.0															RSFO,"Columbus, Absarokee, Rapelje"
		Rt.	A	D9-2	2-0 X 2-0	XI	XI							7-0				4.0													1			RSFO
				M6-1AR	1-9 x 1-3	XI	XI											2.2																RSFO
				D9-99	REMOVE																													
				D9-99C	REMOVE																													
				I-5	REMOVE																													
				M6-1BR	REMOVE																													

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

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	408.85			D9-99	2-0 x 2-0	XI	XI			5.0"		11-4						4.0										X							
		Rt.	A	D9-99C	2-0 x 0-6	XI	XI	10-0		POLE				7-0	3-6			1.0				12													
				I-5	2-0 x 2-0	XI	XI											4.0																	
				M6-1BR	1-9 x 1-3	XI	XI											2.2																	
	408.88			LA-2	2-0 x 1-0	XI												2.0											1						RSFO
		Rt.	A											5-0																				
	408.89			M4-5	2-0 x 1-0	XI												2.0											1						RSFO
		Rt.	A	M1-5	USE AS IS									8-4																				MT 78
				M6-1R	1-9 x 1-3	XI												2.2																	RSFO
	408.89			R1-1	4-0 x 4-0	XI	XI											13.5											1						RSFO, BBR
		Rt.	A											7-0																				
	408.90			R6-1R	3-0 x 1-0	XI												3.0																	RSFO
Lt.			A	R6-1L	3-0 x 1-0	XI								4-0				3.0											1						RSFO
				R5-1	3-0 x 3-0	XI	XI											9.0																	RSFO, BBR
	408.90			R6-1R	3-0 x 1-0	XI												3.0																	RSFO
		Rt.	A	R6-1L	3-0 x 1-0	XI								4-0				3.0											1						RSFO
				R5-1	3-0 x 3-0	XI	XI											9.0																	RSFO, BBR
COLUMBUS RAMP B - WB ON-RAMP																																			
	408.84			LA-1	2-0 x 1-0	XI												2.0																	RSFO
Lt.			B											5-0													1						
	408.86			D13-3	4-0 x 2-6	XI	XI											10.0																	RSFO, BBR
Lt.			B											7-0													1						
	408.87			M4-5	2-0 x 1-0	XI												2.0																	RSFO
Lt.			B	M1-5	2-0 x 2-0	XI								8-4				4.0											1						RSFO, MT 78
				M6-1L	1-9 x 1-3	XI												2.2																	RSFO
COLUMBUS RAMP C - WB OFF-RAMP																																			
	408.91			R6-1R	3-0 x 1-0	XI												3.0																	RSFO
Lt.			C	R6-1L	3-0 x 1-0	XI								4-0				3.0											1						RSFO
				R5-1	3-0 x 3-0	XI	XI											9.0																	RSFO, BBR
	408.91			R6-1R	3-0 x 1-0	XI												3.0																	RSFO
		Rt.	C	R6-1L	3-0 x 1-0	XI								4-0				3.0											1						RSFO
				R5-1	3-0 x 3-0	XI	XI											9.0																	RSFO, BBR
	408.91			R1-1	4-0 x 4-0	XI	XI											13.5											1						RSFO, BBR
		Rt.	C											7-0																				
	408.92			LA-2	2-0 x 1-0	XI		6-0		3 LB STEEL U		9-6		5-0	3-0			2.0									29		1						
Lt.			C																																

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

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
	408.93			LOGO-5	USE AS IS																														
Lt.			C																																
	408.96			G10-408A	9-6 x 6-0	XI	XI												57.0																RSFO, "Columbus, Absarokee, Rapelje"
Lt.			C	D9-2	2-0 X 2-0	XI	XI							7-0				4.0												1			RSFO
				M6-1AL	1-9 x 1-3	XI	XI											2.2															RSFO
				D9-99	REMOVE																												
				D9-99C	REMOVE																												
				I-5	REMOVE																												
				M6-1BL	REMOVE																												
	408.98			D9-99	2-0 x 2-0	XI	XI			5.0"		15-4						4.0															BBR
		Rt.	C	D9-99CL	0-6 x 2-0	XI	XI	10-0		POLE				7-0	3-6			1.0				16						X					
				I-5	2-0 x 2-0	XI	XI											4.0															
				M6-1BL	1-9 x 1-3	XI	XI											2.2															
	409.00			R5-1A	3-6 x 2-6	XI	XI											6.3															RSFO
Lt.			C											4-0															1				
	409.00			R5-1A	3-6 x 2-6	XI	XI			4.0"		11-0						6.3															
		Rt.	C					10-0		POLE				4-0	3-0							12							1				
	409.00			W3-1A	4-0 x 4-0	XI	XI											16.0															RSFO, BBR
Lt.			C											7-0															1				
COLUMBUS RAMP D - EB ON-RAMP																																			
	408.94			D13-3	4-0 x 2-6	XI	XI											6.0															RSFO, BBR
		Rt.	D											7-0															1				
	408.97			LA-1	2-0 x 1-0	XI				3 LB								2.0															
		Rt.	D					6-0		STEEL U		10-6		5-0	3-0												32		1				
N 9th ST																																			
	47.71			G9-47A	7-6 x 4-0	XI	XI												30.0															RSFO
		Rt.	NB											7-0																1				
	47.75			R3-2B	3-0 x 4-0	XI												12.0															RSFO, BBR
		Rt.	NB											7-0															1				
	47.76			M3-4A	2-0 x 1-0	XI	XI											2.0															RSFO, BBR
		Rt.	NB	M1-1	2-0 x 2-0	XI	XI							7-0				4.0											1				RSFO, M1-1=I-90
				M6-3A	1-9 x 1-3	XI	XI											2.2															RSFO
				M3-2A	2-0 x 1-0	XI	XI											2.0															RSFO
				M1-1	2-0 x 2-0	XI	XI											4.0															RSFO, M1-1=I-90
				M6-1AR	1-9 x 1-3	XI	XI											2.2															RSFO
	47.79			M3-4A	2-0 x 1-0	XI	XI											2.0															RSFO, BBR
		Rt.	NB	M1-1	2-0 x 2-0	XI	XI	MOUNT ON LUMINAIRE						7-0				4.0											1				RSFO, M1-1=I-90
				M6-3A	1-9 x 1-3	XI	XI											2.2															RSFO
				M3-2A	2-0 x 1-0	XI	XI											2.0															RSFO, MOUNT ON BACK OF LUMINAIRE
				M1-1	2-0 x 2-0	XI	XI											4.0															RSFO, M1-1=I-90, MOUNT ON BACK OF LUMINAIRE
																		2.2															RSFO, MOUNT ON BACK OF LUMINAIRE
	47.80			R3-1B	3-0 x 4-0	XI												12.0															RSFO, BBR
Lt.			SB											7-0															1				
	47.83		SB	G8-47A	7-6 x 2-0	XI	XI							7-0					15.0											1			RSFO, "Billings"
Lt.																																			

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	C:\DGN\9859000sisumz04.dgn		SIGNING PLANS	COLUMBUS - EAST / IM 90-8(194)408
2		10/30/2023		STILLWATER COUNTY	UPN 9859000 / S10
1		1:49:00 PM CPS - U1376			

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
Sheep Dip Road																																			
	0.06			G9-1A	11-0 x 4-0	XI	XI												44.0																	RSFO, "Frontage Road, Butte"
		Rt.	NB											7-0																	1				
	0.07			M3-2A	2-0 x 1-0	XI	XI											2.0																		RSFO, BBR
Lt.			SB	M1-1	2-0 x 2-0	XI	XI							7-0				4.0											1						RSFO, M1-1=I-90
				M6-3A	1-9 x 1-3	XI	XI											2.2																		RSFO
				M3-4A	2-0 x 1-0	XI	XI											2.0																		RSFO
				M1-1	2-0 x 2-0	XI	XI											4.0																		RSFO, M1-1=I-90
				M6-1AR	1-9 x 1-3	XI	XI											2.2																		RSFO
				M3-4A	2-0 x 1-0	XI	XI											2.0																		RSFO, MOUNT ON BACK OF POST
				M1-1	2-0 x 2-0	XI	XI											4.0																		RSFO, M1-1=I-90, MOUNT ON BACK OF POST
				M6-1AL	1-9 x 1-3	XI	XI											2.2																		RSFO, MOUNT ON BACK OF POST
	0.07			R3-1B	3-0 x 4-0	XI												12.0													1					RSFO, BBR
		Rt.	NB											7-0																					
	0.10			R3-2B	3-0 x 4-0	XI												12.0																		RSFO, BBR
Lt.			SB	R5-2	3-0 x 3-0	XI	XI							7-0				9.0											1						RSFO
	0.11			R5-2	2-6 x 2-6	XI	XI											6.3																		RSFO
		Rt.	NB	CUSTOM	USE AS IS									5-0															1						"LOCAL ACCESS ONLY"
	0.12			W1-6L	4-0 x 2-0	XI												8.0																		RSFO
		Rt.	NB											5-0															1				FY		
	0.13			W1-6L	4-0 x 2-0	XI												8.0																		RSFO
		Rt.	NB											5-0															1				FY		
	0.16			LA-1	2-0 x 1-0	XI												2.0																		RSFO
Lt.			SB											5-0															1						
PARK CITY RAMP A - EB OFF-RAMP																																			
	426.44			W3-1A	4-0 x 4-0	XI	XI											16.0																		RSFO, BBR
		Rt.	A											7-0															1						
	426.50			R5-1A	3-6 x 2-6	XI	XI											8.8																		RSFO
		Rt.	A											4-0															1						
	426.50			R5-1A	3-6 x 2-6	XI	XI											8.8																		RSFO
Lt.			A											4-0															1						
	426.51			G8-426B	8-6 x 2-0	XI	XI												17.0													1				RSFO, "Park City"
		Rt.	A	D9-1	REMOVE									7-0																					
				M6-1AR	1-9 x 1-3	XI	XI											2.2																		RSFO
	426.57			LA-2	2-0 x 1-0	XI		6-0		3 LB STEEL U			10-6	5-0	3-0			2.0										32		1						
		Rt.	A																																
	426.58			R6-1L	3-0 x 1-0	XI												3.0																		RSFO
Lt.			A	R6-1R	3-0 x 1-0	XI								4-0				3.0											1						RSFO
				R5-1	3-0 x 3-0	XI	XI											9.0																		RSFO, 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.)*

SANDERSON STEWART

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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.) 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
	426.58			R6-1L	3-0 x 1-0	XI												3.0																	RSFO
		Rt.	A	R6-1R	3-0 x 1-0	XI								4-0				3.0												1					RSFO
				R5-1	3-0 x 3-0	XI	XI											9.0																	RSFO, BBR
	426.59			R1-1	4-0 x 4-0	XI	XI											13.5																	RSFO, BBR
		Rt.	A											7-0														1					
PARK CITY RAMP B - WB ON-RAMP																																			
	426.53			LA-1	1-0 x 2-0	XI				3 LB								2.0																	
		Rt.	B					6-0		STEEL U			10-0	5-0	3-0													30		1					
	426.54			D13-3	4-0 x 2-6	XI	XI											6.0																	RSFO, BBR
		Rt.	B											7-0														1					
PARK CITY RAMP C - WB OFF-RAMP																																			
	426.58			R1-1	4-0 x 4-0	XI	XI											16.0																	RSFO, BBR
		Rt.	C											7-0														1					
	426.59			R6-1L	3-0 x 1-0	XI												3.0																	RSFO
Lt.			C	R6-1R	3-0 x 1-0	XI								4-0				3.0												1					RSFO
				R5-1	3-0 x 3-0	XI	XI											9.0																	RSFO, BBR
	426.59			R6-1L	3-0 x 1-0	XI												3.0																	RSFO
		Rt.	C	R6-1R	3-0 x 1-0	XI								4-0				3.0												1					RSFO
				R5-1	3-0 x 3-0	XI	XI											9.0																	RSFO, BBR
	426.64			G8-426A	8-6 x 2-0	XI	XI												17.0														1		RSFO, "Park City"
		Rt.	C	D9-1	REMOVE									7-0																				
				M6-1AL	1-9 x 1-3	XI	XI											2.2																	RSFO
	426.68			LOGO-6	USE AS IS																														GAS
		Rt.	C																																
	426.69			R5-1A	3-6 x 2-6	XI	XI											6.3																	RSFO
Lt.			C											4-0														1					
	426.69			R5-1A	3-6 x 2-6	XI	XI											6.3																	RSFO
		Rt.	C											4-0														1					
	426.72			W3-1A	4-0 x 4-0	XI	XI											16.0																	RSFO, BBR
		Rt.	C											7-0														1					
PARK CITY RAMP D - EB ON-RAMP																																			
	426.62			D13-3	4-0 x 2-6	XI	XI											6.0																	RSFO, BBR
		Rt.	D											7-0														1					
	426.65			LA-1	1-0 x 2-0	XI												2.0																	RSFO
		Rt.	D											5-0														1					

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

ADVERTISED COPY

SIGN LOCATION AND SPECIFICATION

Lt.	STATION / M.P.	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 IV	ALUM. SHEET INCREMENT IV	SHEET ALUMINUM XI	ALUM. SHEET INCREMENT XI	ALUMINUM SHT OVERLAY	TIMBER POLE (LINEAR FT.) 4" TOP DIA.	5" TOP DIA.	6" TOP DIA.	STEEL POST (LBS.) ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	ANGLE IRON	REMARKS
RONAN RANCH ROAD																																		
	17.75			G9-47A	7-6 x 4-0	XI	XI												30.0																RSFO, "Butte, Billings"
		Rt.	NB											5-0																1				
	17.78			R3-2B	3-0 x 4-0	XI												12.0																		RSFO, BBR
		Rt.	NB											7-0																1				
	17.81			R3-1B	3-0 x 4-0	XI												12.0																		RSFO, BBR
Lt.			SB											7-0																1				
	17.81			M3-4A	2-0 x 1-0	XI	XI											2.0																		RSFO, BBR
		Rt.	NB	M1-1	2-0 x 2-0	XI	XI							7-0				4.0												1					RSFO, M1-1=I-90
				M6-3A	1-9 x 1-3	XI	XI											2.2																	RSFO
				M3-2A	2-0 x 1-0	XI	XI											2.0																	RSFO
				M1-1	2-0 x 2-0	XI	XI											4.0																	RSFO, M1-1=I-90
																		2.2																	RSFO
				M3-2A	2-0 x 1-0	XI	XI											2.0																	RSFO, MOUNT ON BACK OF POST
																		4.0																	RSFO, M1-1=I-90, MOUNT ON BACK OF POST
				M6-1AL	1-9 x 1-3	XI	XI											2.2																	RSFO, MOUNT ON BACK OF POST
	17.82			W12-2	4-0 x 4-0	XI												16.0																		RSFO, BBR
		Rt.	NB	CUSTOM	USE AS IS									6-0																1					"LOW CLEARANCE"
	17.82			G8-4	USE AS IS																														
		Rt.	NB																																
	17.85			R3-1B	3-0 x 4-0	XI												12.0																		RSFO, BBR
		Rt.	NB											7-0																1				
	17.85			W12-2	4-0 x 4-0	XI				3.5 in DIA		11-8						16.0																		RSFO, BBR, "14'-5" CLEARANCE"
Lt.			SB					2-0		PIPE				6-0	3-0									96						1					
	17.86			M3-2A	2-0 x 1-0	XI	XI											2.0																		RSFO, BBR
Lt.			SB	M1-1	2-0 x 2-0	XI	XI							5-0				4.0												1					RSFO, M1-1=I-90
				M6-3A	1-9 x 1-3	XI	XI											2.2																	RSFO
				M3-4A	2-0 x 1-0	XI	XI											2.0																	RSFO
				M1-1	2-0 x 2-0	XI	XI											4.0																	RSFO, M1-1=I-90
				M6-1AR	1-9 x 1-3	XI	XI											2.2																	RSFO
				M3-4A	2-0 x 1-0	XI	XI											2.0																	RSFO, MOUNT ON BACK OF POST
				M1-1	2-0 x 2-0	XI	XI											4.0																	RSFO, M1-1=I-90, MOUNT ON BACK OF POST
				M6-1AL	1-9 x 1-3	XI	XI											2.2																	RSFO, MOUNT ON BACK OF POST
	17.88			R3-2B	3-0 x 4-0	XI												12.0																		RSFO, BBR
Lt.			SB											7-0																1					
	17.89			R2-1	USE AS IS																														35 MPH
Lt.			SB																																
	17.89			G9-17A	7-6 x 4-0	XI	XI												30.0																		RSFO, "Billings, Butte"
Lt.			SB											7-0																1					
												TOTAL:						1,385.3	2,159.3		132	72		491		2,343	1,461		133		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.)*

SIGNS NOT LISTED ON SPECIFICATION SHEET TO BE USED AS IS.

DELINEATION TABLE		
⊣	DESIGN "A"	621
⊣|	DESIGN "B"	74
⊢⊤	DESIGN "C"	
⊣⊢	DESIGN "D"	16
⊣|||	DESIGN "E"	
⊢	DESIGN "F"	
⊣<	DESIGN "G"	91
⊣▷	DESIGN "H"	560
⊣×	DESIGN "J"	
×⊣	DESIGN "BJ"	69
×<	DESIGN "GJ"	44
	TOP MTD BARRIER DELIN-SGL FACE-WHITE	6
	TOP MTD BARRIER DELIN-SGL FACE-YELLOW	6
	TOP MTD GUARDRAIL DELIN-SGL FACE-WHITE	2

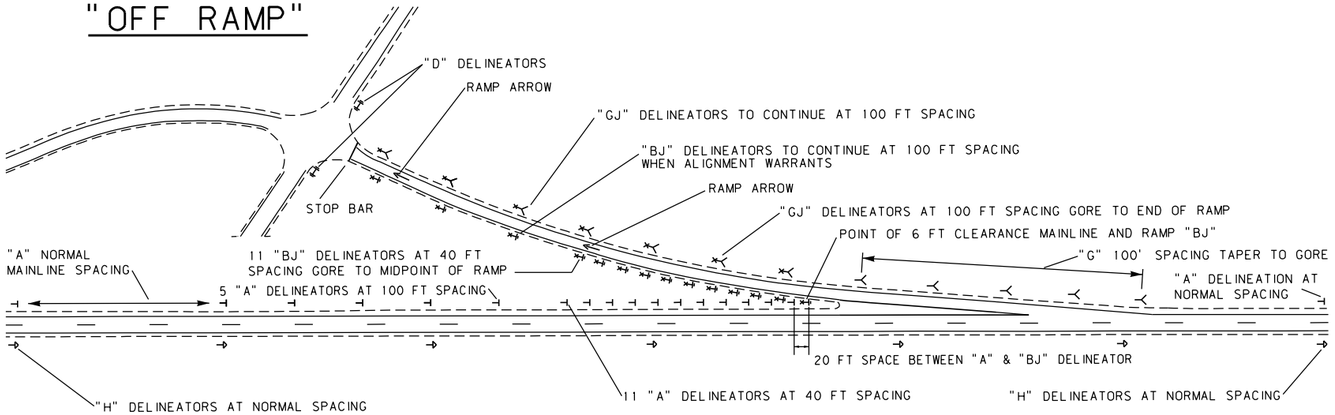
SANDERSON STEWART

ADVERTISED COPY

DETAILS

NEW
RAMP DELINEATION DETAIL

"OFF RAMP"

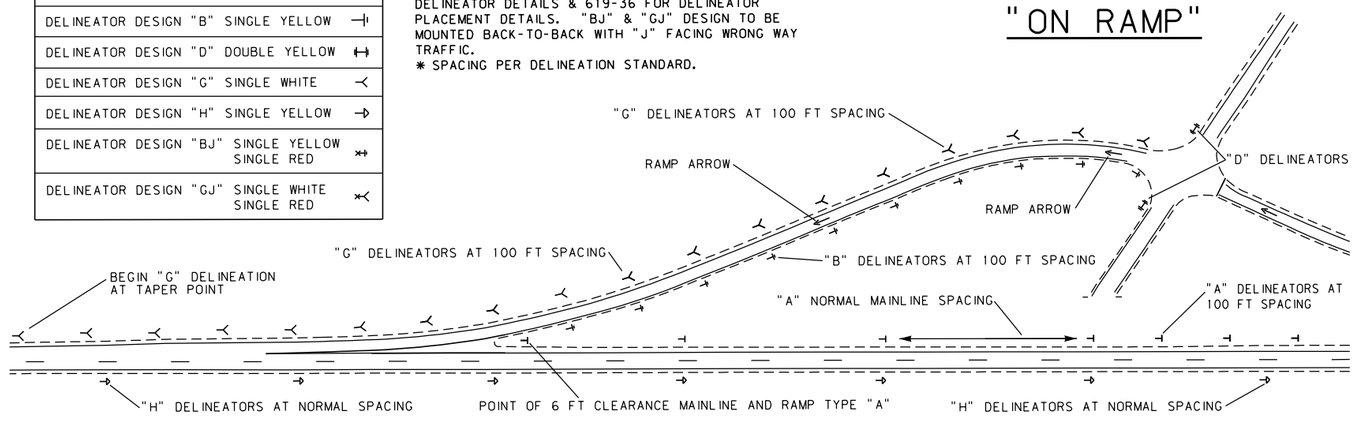


LEGEND

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"

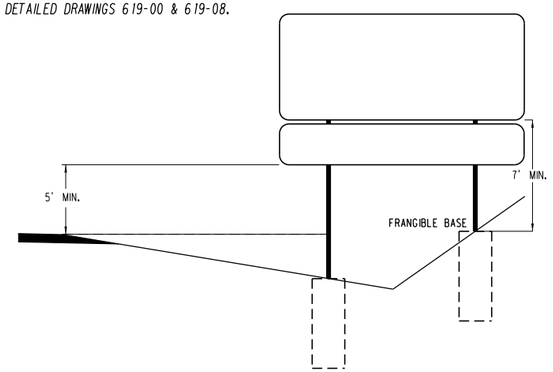


SANDERSON STEWART

3	MONTANA Department of Transportation	C:\DGN\9859000sidetz01.dgn			SIGNING PLANS	COLUMBUS - EAST	IM 90-8(194)408
2		10/30/2023			STILLWATER COUNTY	UPN 9859000	S14
1		1:49:59 PM CPS - U1376					

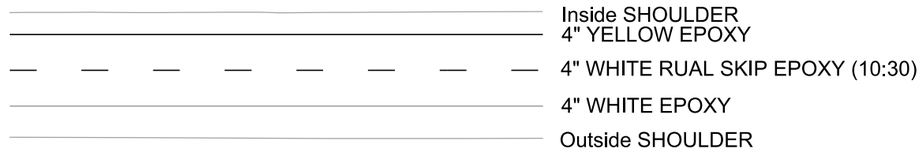
ADVERTISED COPY

DETAILS

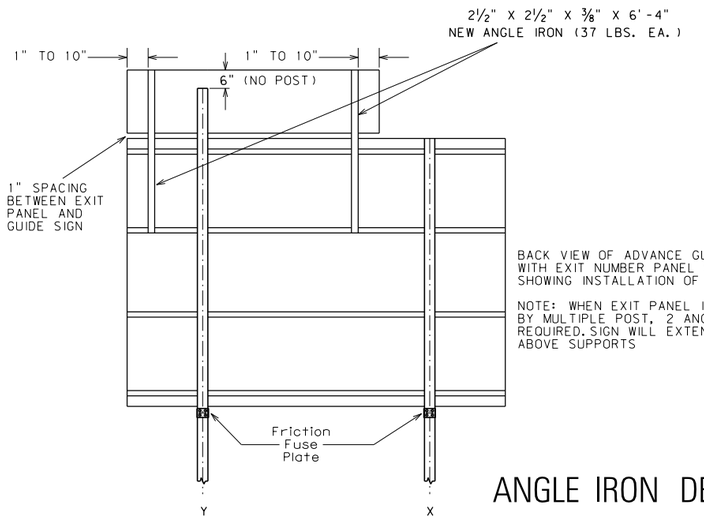


GUIDE SIGN MOUNTING HEIGHT DETAIL

INTERSTATE RURAL SKIP STRIPING



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



ANGLE IRON DETAIL

SANDERSON STEWART

ADVERTISED COPY

ASSOCIATED PROJECT AGREEMENT NUMBERS

P.E. | IM 90-8(193)408

MONTANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS AND QUANTITIES

FEDERAL AID PROJECT IM 90-8(194)408

COLUMBUS - EAST

STILLWATER COUNTY

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	27870	LIST OF DRAWINGS AND ESTIMATED BRIDGE PLAN QUANTITIES
B2	27871	GENERAL NOTES, DETAILS AND REHABILITATION WORK SUMMARY
INT COLUMBUS - 9TH ST N (01710 EB & 01711 WB)		
B3	27872	REVISE CONCRETE BARRIER DETAILS
HENSLEY CR - HENSLEY CR RD (01716 EB & 01717 WB)		
B4	27873	EXISTING & NEW ELEVATION VIEWS
B5	27874	BARRIER DETAILS & BILL OF REINFORCING STEEL

BRIDGE INFORMATION

MDT STRUCTURE NUMBER	NBI NUMBER	FEATURE CROSSED	ROUTE	REFERENCE POINT	ROADWAY	GENERAL LAYOUT DRAWING NO.
01710	I00090408+09031	INT COLUMBUS - 9TH ST N	I-90	408+0.901	EB	8690
01711	I00090408+09032	INT COLUMBUS - 9TH ST N	I90	408+0.901	WB	8690
01716	I00090414+02351	HENSLEY CR - HENSLEY CR RD	I90	414+0.231	EB	8712
01717	I00090414+02352	HENSLEY CR - HENSLEY CR RD	I90	414+0.231	WB	8712

ESTIMATED BRIDGE PLAN QUANTITIES

MDT STRUCTURE NUMBER	BRIDGE DECK CRACK SEAL (YD²)	JOINT SEALS -POLYURETHANE (LN. FT.)	* CLASS A BRIDGE DECK REPAIR (YD²)	**CLASS B BRIDGE DECK REPAIR (YD²)	REVISE CONC BARRIER RAIL END-BR (EA)
01710	759.0	79.0	2.5	1.0	2.0
01711		79.0			2.0
01716	955.0		1.0	1.0	2.0
01717	1039.0		1.0	1.0	2.0
PROJECT TOTAL	2753.0	158.0	4.5	3.0	8.0

* NOTE: Class A Bridge Deck Repair quantities are estimated based on deck condition surveys. The Project Manager may 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 AND ESTIMATED BRIDGE PLAN QUANTITIES

REVISED | REVISED | REVISED | REVISED | CHECKED J.A.N. 06-03-22
DRAWN J.D.C. 05-04-22
DESIGNED J.D.C. 05-04-22
9859000BRREH001.dwg \ QSH001
8/22/2023 7:09:33 AM

MONTANA DEPARTMENT OF TRANSPORTATION BRIDGE BUREAU

UPN NUMBER 9859000

DRAWING NO. 27870

ADVERTISED 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.

The design was prepared in accordance with AASHTO LRFD Bridge Design Specifications, Eighth edition - 2017.

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.

REINFORCING STEEL:
Unless specified otherwise on the drawings, provide 2" minimum concrete cover measured from the face of the concrete to the face of any reinforcing steel, except as noted below:

Bottom of Slab	1"
Top of Slab	2 ½"
Bottom of Abutment Caps	3"
Concrete Barriers and Curbs	1 ½"

Concrete cover to any tie bar is ½" less than what is listed above.

Use new deformed type reinforcing steel meeting the requirements of AASHTO M31 Grade 60. Include all costs associated with furnishing and placing new reinforcing steel in the unit price bid for Revise Concrete Barrier Rail End - BR.

Replace existing reinforcing steel damage during construction that is called out to remain in place at no additional cost to the State.

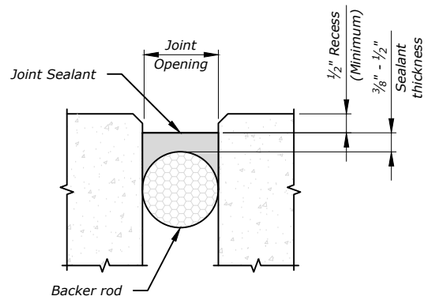
BRIDGE DECK REPAIR:
See the bridge deck repair section of the Standard Specifications for allowable repair concrete options.

Quantities shown for Class A and B Bridge Deck Repair may vary from actual field quantities.

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 no be permitted on concrete repairs until the specified strength is attained.

All bridge deck treatments include the approach slabs.



JOINT SEALANT DETAIL
No Scale

NOTE: Remove existing joint sealant between end bent and approach slab and replace with polyurethane joint sealant according to the Special Provisions and manufacturer recommendations.

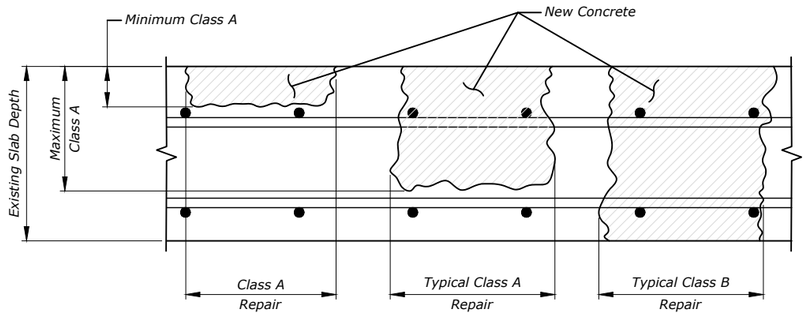
NOTE: Fully clean out existing joint before installing new joint sealant.

NOTE: Include all costs associated with providing and placing new joint seal in the unit price for Joint Seals - Polyurethane.

BRIDGE WORK SUMMARY

MDT STRUCTURE NUMBER	BRIDGE DECK CRACK SEAL	JOINT SEALS -POLYURETHANE	CLASS A BRIDGE DECK REPAIR	CLASS B BRIDGE DECK REPAIR	REVISE CONCRETE BARRIER RAIL END
01710	✓	✓	✓	✓	✓
01711		✓			✓
01716	✓		✓	✓	✓
01717	✓		✓	✓	✓

NOTE: A bridge deck condition survey was performed on these structures. This information is available for review upon request. Contact Andy Cullison at phone (406)444-9221. Bridge deck condition surveys are not warranted to be representative of the actual conditions.



BRIDGE DECK REPAIR
No Scale

SHEET NO. B2

GENERAL NOTES, DETAILS AND REHABILITATION WORK SUMMARY

SCALE: No Scale

PROJECT NAME **COLUMBUS - EAST**

MDT STRUCTURE ID **MULTIPLE**

FEDERAL AID PROJECT **IM 90-8(194)408**

COUNTY **STILLWATER**

REVISED					CHECKED	I.A.N.	06-03-22
REVISED					DRAWN	L.D.C.	05-04-22
REVISED					DESIGNED	L.D.C.	05-04-22

9859000BRREH001.dwg \ SUM001

8/22/2023 7:09:34 AM

UPN NUMBER 9859000

DRAWING NO. 27871

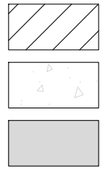
ADVERTISED COPY

REVISE CONCRETE BARRIER RAIL END NOTES:
Include all costs associated with removing existing barrier end, cleaning exposed reinforcing steel, preparation of surfaces, placing new reinforcing steel and barrier end hardware, and placing new concrete in the unit price bid for Revise Concrete Barrier Rail End - BR.

Replace existing reinforcing steel damage during construction that is called out to remain in place at no additional cost to the State.

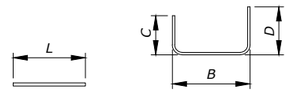
See Road Plans and Detail Dwg. No. 606-23 for MGS Thrie Beam Approach Section information.

Right and left side of structure is referenced to traffic flow.



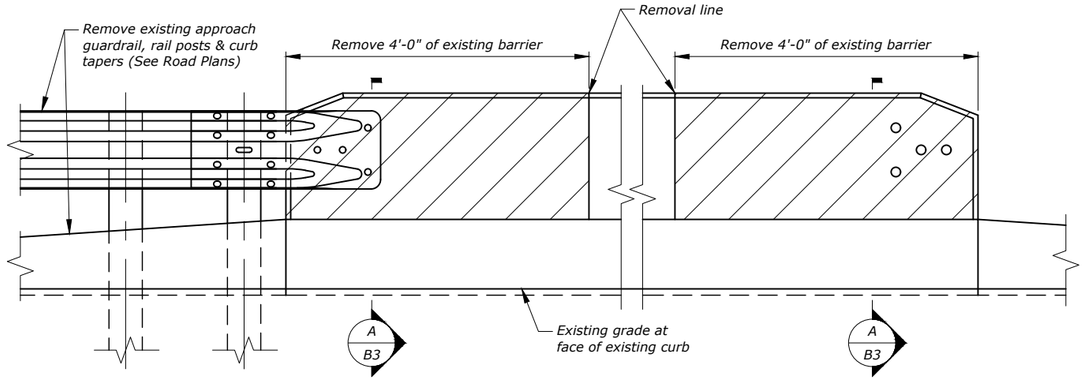
BILL OF REINFORCING STEEL

(ALL DIMENSIONS ARE OUT TO OUT)
(For information purposes only)



TYPE STR TYPE 17

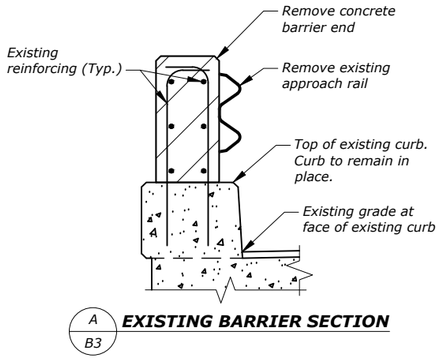
Mark	Size	No.	Type	Length	A	B	C	D	E	G	N
B1	#6	28	17	2-10		1-6	0-8	0-8			
B2	#5	12	STR	2-3							



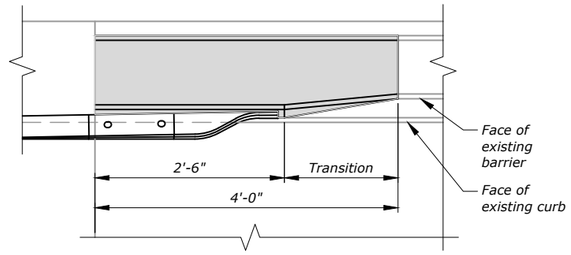
NOTE: Place a ½" deep neat saw cut at the removal line around the surface of the barrier, as shown.

EXISTING BARRIER END ELEVATION VIEW

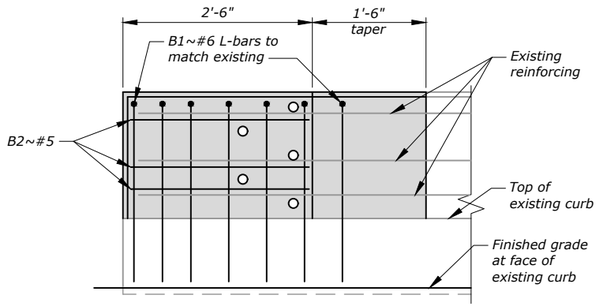
01710: E.B. Left side of structure shown, Right side of structure similar
(01711: W.B. Left & Right side of structure similar)



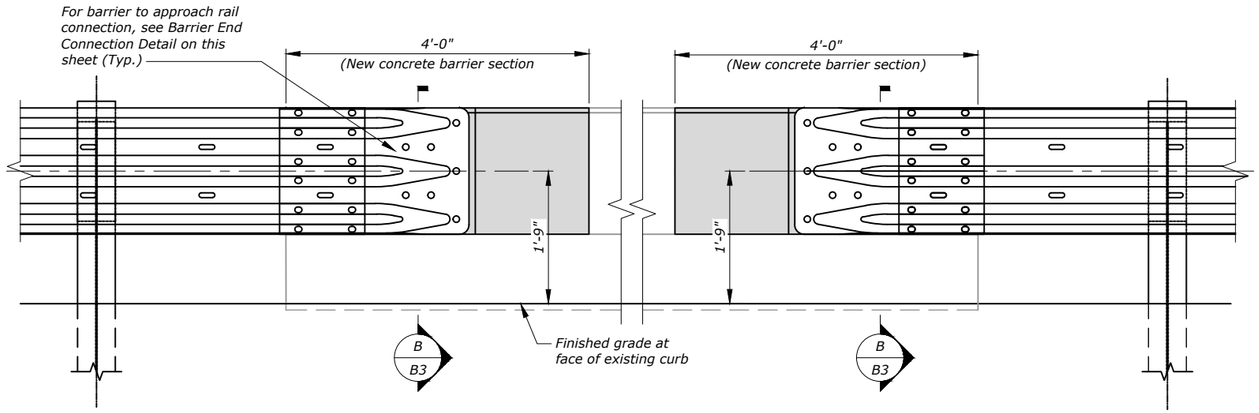
EXISTING BARRIER SECTION



BARRIER END PLAN VIEW

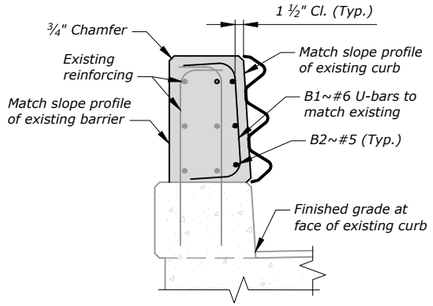


BARRIER END REINFORCING ELEVATION VIEW

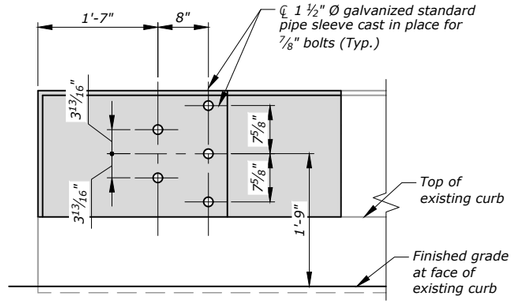


NEW BARRIER END ELEVATION VIEW

01710: E.B. Left side of structure shown, Right side of structure similar
(01711: W.B. Left & Right side of structure similar)



NEW BARRIER SECTION



BARRIER END CONNECTION DETAIL

SHEET NO.
B3

REVISE CONCRETE BARRIER DETAILS

SCALE: 1/2" = 1'-0"

PROJECT NAME
COLUMBUS - EAST

MDT STRUCTURE ID
01710 (E.B.) & 01711 (W.B.)

FEDERAL AID PROJECT
IM 90-8(194)408

COUNTY
STILLWATER

REVISED							
REVISED							
REVISED							
REVISED							
CHECKED	J.A.N.	06-03-22					
DRAWN	L.D.C.	05-04-22					
DESIGNED	L.D.C.	05-04-22					

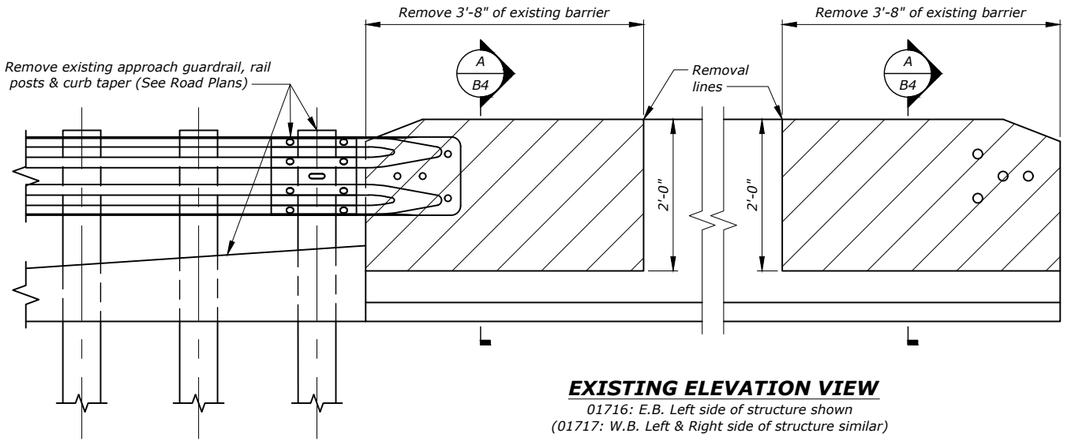
9859000BRREH001.dwg \ REH001

8/22/2023 7:09:39 AM

UPN NUMBER
9859000

DRAWING NO.
27872

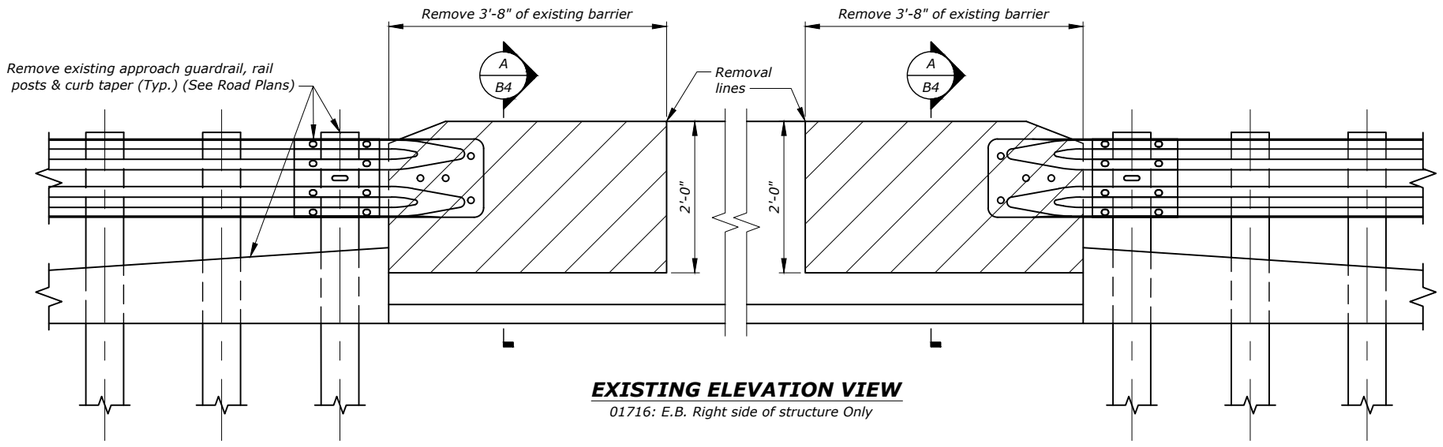
ADVERTISED COPY



EXISTING ELEVATION VIEW

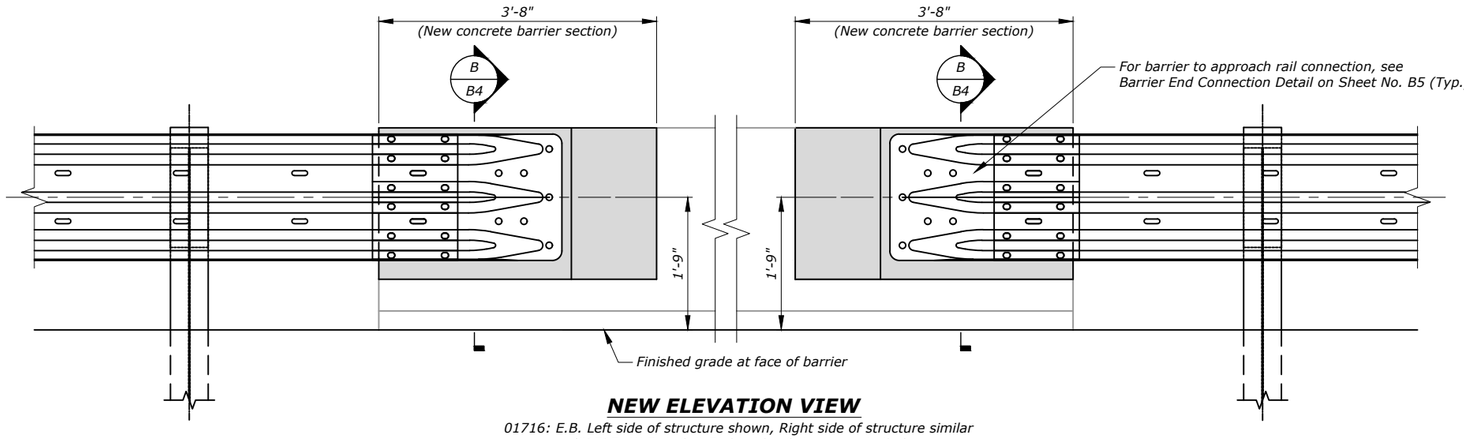
01716: E.B. Left side of structure shown
(01717: W.B. Left & Right side of structure similar)

NOTE: Place a ½" deep neat saw cut at the removal line around the surface of the barrier, as shown.



EXISTING ELEVATION VIEW

01716: E.B. Right side of structure Only



NEW ELEVATION VIEW

01716: E.B. Left side of structure shown, Right side of structure similar
(01717: W.B. Left & Right side of structure similar)

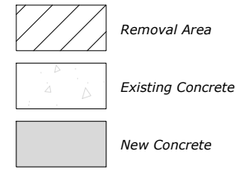
REVISE CONCRETE BARRIER RAIL END NOTES:
Include all costs associated with removing existing barrier end, cleaning exposed reinforcing steel, preparation of surfaces, placing new reinforcing steel and barrier end hardware, and placing new concrete in the unit price bid for Revise Concrete Barrier Rail End - BR.

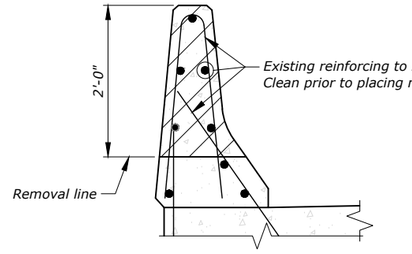
Replace existing reinforcing steel damage during construction that is called out to remain in place at no additional cost to the State.

See Road Plans and Detail Dwg. No. 606-23 for MGS Thrie Beam Approach Section information.

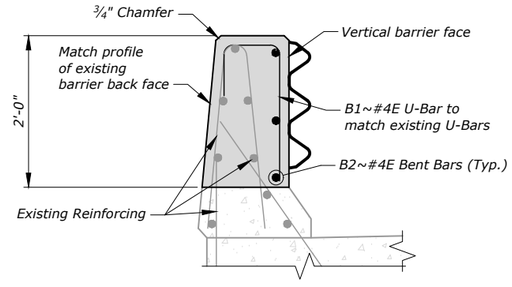
Right and left side of structure is referenced to traffic flow.

See Sheet No. B5 for Barrier End Reinforcing Detail and Bill of Reinforcing Steel.





A B4 **EXISTING BARRIER SECTION**



B B4 **NEW BARRIER SECTION**

SHEET NO. B4

EXISTING & NEW ELEVATION VIEWS

SCALE: 1/2" = 1'-0"

PROJECT NAME **COLUMBUS - EAST**

MDT STRUCTURE ID **01716 (E.B.) & 01717 (W.B.)**

FEDERAL AID PROJECT **IM 90-8(194)408**

COUNTY **STILLWATER**

						09-08-22	REVISED
						07-14-22	REVISED
						07-14-22	REVISED
						J.A.N.	CHECKED
						G.J.N.	DRAWN
						G.J.N.	DESIGNED

9859000BRREH001.dwg \ REH002

8/22/2023 7:09:44 AM

STATE OF MONTANA MDT MONTANA DEPARTMENT OF TRANSPORTATION — BRIDGE BUREAU

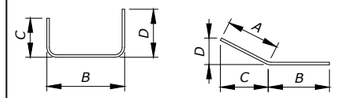
UPN NUMBER 9859000

DRAWING NO. 27873

ADVERTISED COPY

BILL OF REINFORCING STEEL

(ALL DIMENSIONS ARE OUT TO OUT)
FOR INFORMATION PURPOSES ONLY



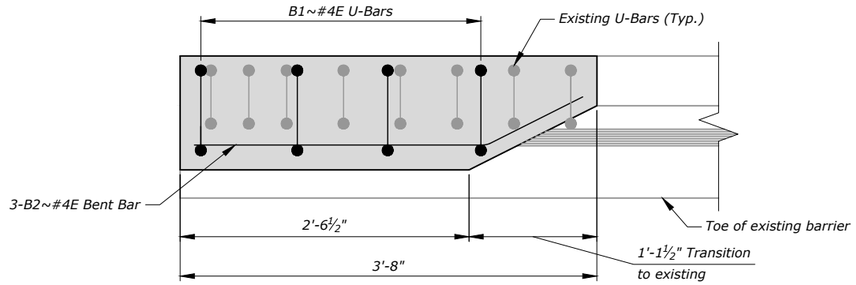
TYPE 17 TYPE 28

Mark	Size	No.	Type	Length	A	B	C	D	E	G	N
FOR 01716 E.B.											
B1	#4E	16	17	3'-1"		8½"	7½"	1'-9"			
B2	#4E	12	28	3'-6"	1'-0"	2'-6"	11"	4½"			
FOR 01717 W.B.											
B1	#4E	16	17	3'-1"		8½"	7½"	1'-9"			
B2	#4E	12	28	3'-6"	1'-0"	2'-6"	11"	4½"			

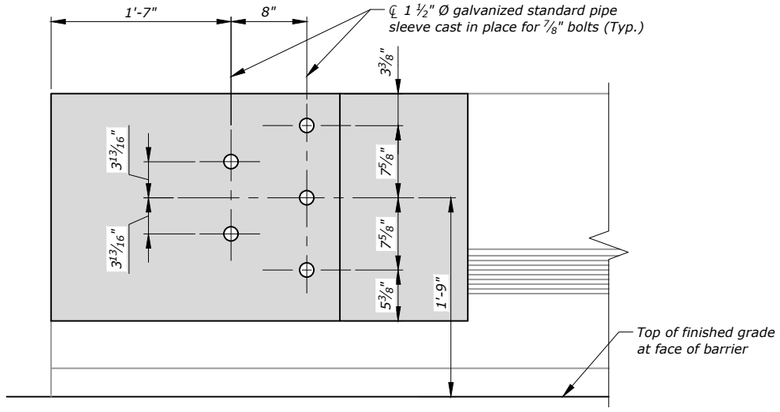
NOTES

Verify all dimensions in the field before ordering materials and fabrication.

The suffix E denotes epoxy coated reinforcing.

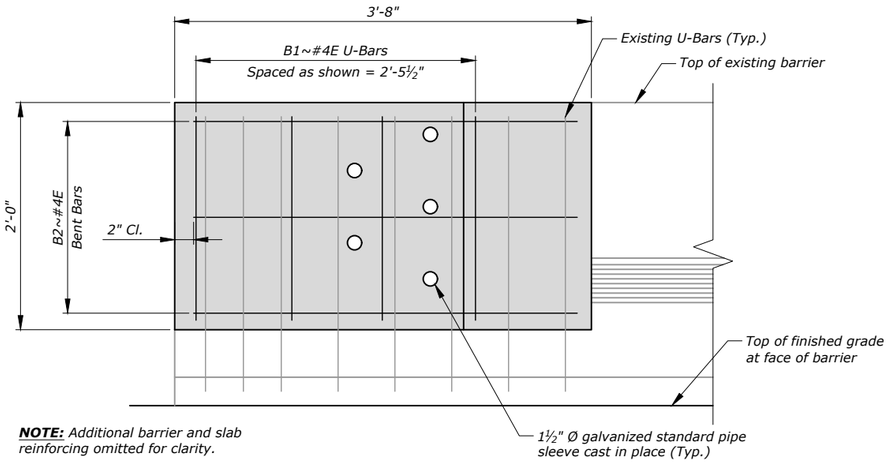


BARRIER END REINFORCING DETAIL
PLAN VIEW



BARRIER END CONNECTION DETAIL
ELEVATION VIEW

(Typical for approach and departure ends)



NOTE: Additional barrier and slab reinforcing omitted for clarity.

BARRIER END REINFORCING DETAIL
ELEVATION VIEW

(Typical at barrier ends)

SHEET NO.
B5

BARRIER DEDETAILS & BILL OF REINFORCING STEEL

SCALE: 3/4" = 1'-0"

PROJECT NAME
COLUMBUS - EAST

MDT STRUCTURE ID
01716 (E.B.) & 01717 (W.B.)

FEDERAL AID PROJECT
IM 90-8(194)408

COUNTY
STILLWATER

REVISED		
REVISED		
REVISED		
REVISED	CHECKED	09-08-22
	DRAWN	07-14-22
	DESIGNED	07-14-22

9859000BREH001.dwg \ REH003

8/22/2023 7:09:49 AM

UPN NUMBER
9859000

DRAWING NO.
27874