ENGINEERING CONSTRUCTION CONTRACTING SECTION
MONTANA DEPARTMENT OF TRANSPORTATION

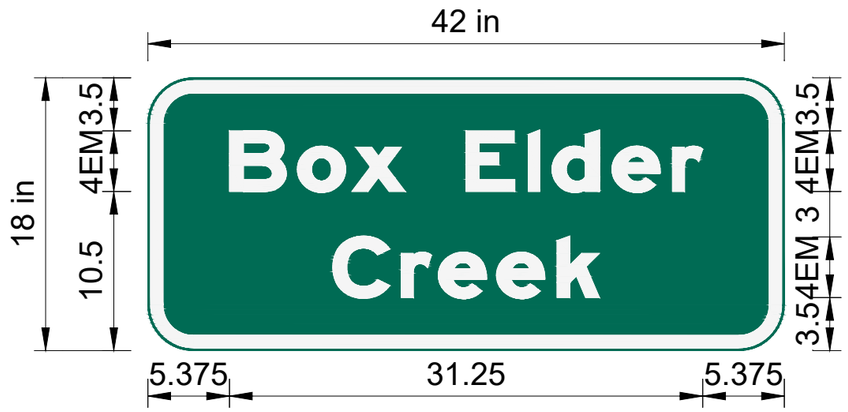
Sign Design Calculations

SIGN DESIGN CALCS The requested files are only design files. The Department cannot guarantee the accuracy of the electronic data, particularly as it may be called up by your computer, nor does any data in these files supersede the data in the contract documents.

In addition, the Department will not make any revisions to the electronic files prior to award. Changes needed via change ordered work, or changes that are made during construction to fit field conditions, will be provided at that time. See the requirements of Subsection 619.03.2.

FPR

PRELIMINARY



Panel Style: guide_exp_boundary.ssi
Dimensions are in inches

SIGN NUMBER	I2-2		
WIDTH x HEIGHT	3'-6" x 1'-6"	5.25 Sq.Ft.	
BORDER WIDTH	1"	MARGIN 0"	
CORNER RADIUS	3"	ALUMINUM TYPE	
MOUNTING	Ground	SHEET	
BACKGROUND	TYPE: Reflective		
	COLOR: Green		
LEGEND/BORDER	TYPE: Reflective		
	COLOR: White/White		

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)

REDUCTION: 10% 20% 30%

																														LENGTH	SERIES/SIZE
	B	o	x		E	l	d	e	r																						
5.375	4.5	3.6	3.5	4	4.125	1.6	4	4	2	5.375																				31.25	EM 2000 4/3
	C	r	e	e	k																										
12.2	4.5	2.4	3.8	4	2.8	12.2																								17.6	EM 2000 4/3

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

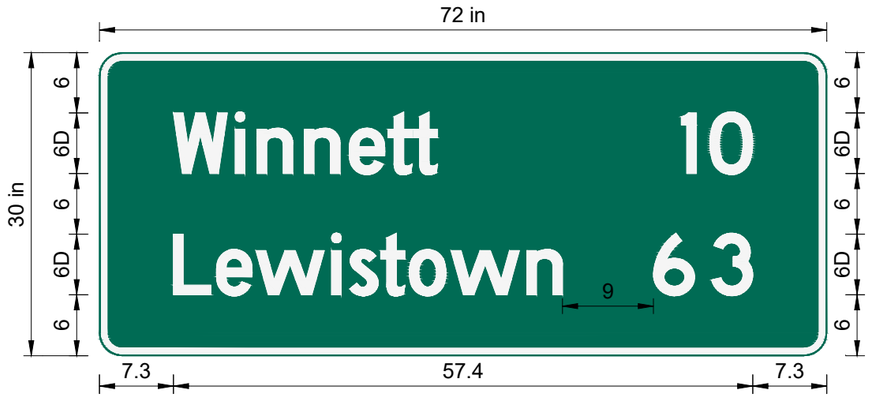
SIGNING PLANS

DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	
PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

FPR

PRELIMINARY



Panel Style: guide_con_destination_2-line_2023.ssi
Dimensions are in inches

SIGN NUMBER	D2-2	
WIDTH x HEIGHT	6'-0" x 2'-6"	15 Sq.Ft.
BORDER WIDTH	0-3/4"	MARGIN 0"
CORNER RADIUS	2-1/4"	ALUMINUM TYPE
MOUNTING	Ground	INCREMENT
BACKGROUND	TYPE: Reflective	
	COLOR: Green	
LEGEND/BORDER	TYPE: Reflective	
	COLOR: White/White	

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)

REDUCTION: 10% 20% 30%

																														LENGTH	SERIES/SIZE
	W	i	n	n	e	t	t		1	0																				D 2000
7.3	6.125	2.2	4.7	4.4	3.8	2.5	2.4	24.125	2.8	4.25	7.3																		57.4	6/4.5
	L	e	w	i	s	t	o	w	n		6	3																		D 2000
7.3	4.25	3.9	7.5	1.8	3.1	2.8	4.1	7.5	3.5	9	5.75	4.1	7.3																57.4	6/4.5

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

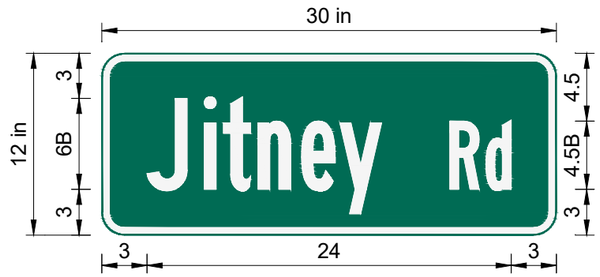
SIGNING PLANS

DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	
PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

FPR

PRELIMINARY



SIGN NUMBER	D3-1	
WIDTH x HEIGHT	2'-6" x 1'-0"	2.5 Sq.Ft.
BORDER WIDTH	0-1/2"	MARGIN 0"
CORNER RADIUS	1-1/2"	ALUMINUM TYPE
MOUNTING	Ground	SHEET
BACKGROUND	TYPE: Reflective	
	COLOR: Green	
LEGEND/BORDER	TYPE: Reflective	
	COLOR: White/White	

none

SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_con_street.ssi
Dimensions are in inches

LETTER POSITIONS (X) REDUCTION: 10% 20% 30%

	J	i	t	n	e	y		R	d																					LENGTH	SERIES/SIZE
																															B 2000
3	3.8	1.3	2.3	2.875	2.5	2.8	4.5	2.4	1.7	3																				24	6/4.5,4.5/3.375

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

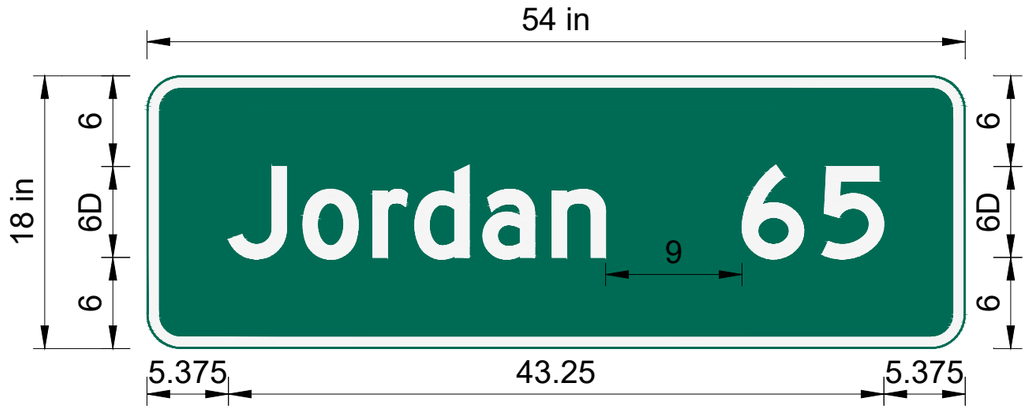
SIGNING PLANS

DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	
PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

FPR

PRELIMINARY



Panel Style: guide_con_destination_2-line_2023.ssi
Dimensions are in inches

SIGN NUMBER	D2-1	
WIDTH x HEIGHT	4'-6" x 1'-6"	6.75 Sq.Ft.
BORDER WIDTH	0-3/4"	MARGIN 0"
CORNER RADIUS	2-1/4"	ALUMINUM TYPE
MOUNTING	Ground	INCREMENT
BACKGROUND	TYPE: Reflective	
	COLOR: Green	
LEGEND/BORDER	TYPE: Reflective	
	COLOR: White/White	

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)

REDUCTION: 10% 20% 30%

	J	o	r	d	a	n		6	5																					LENGTH	SERIES/SIZE
																															D 2000
5.375	5	4.625	2.8	4.5	4.6	3.5	9	5.3	4.1	5.375																				43.25	6/4.5

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

SIGNING PLANS

DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	
PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	10071000

5/16/2025 8:51 AM 10071000SISDC001.DWG

FPR

PRELIMINARY



Panel Style: guide_con_street.ssi
Dimensions are in inches

SIGN NUMBER	D3-1
WIDTH x HEIGHT	3'-6" x 1'-0" — 3.5 Sq.Ft.
BORDER WIDTH	0-1/2" — MARGIN 0"
CORNER RADIUS	1-1/2" — ALUMINUM TYPE
MOUNTING	Ground — SHEET
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)

REDUCTION: 10% 20% 30%

	C	a	t		C	r	e	e	k		R	d																		LENGTH	SERIES/SIZE
																															B 2000
3.1	3.25	2.6	1.8	6	3.5	2	2.7	2.875	2.4	4.5	2.4	1.7	3.1																	35.7	6/4.5,4.5/3.375

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

SIGNING PLANS

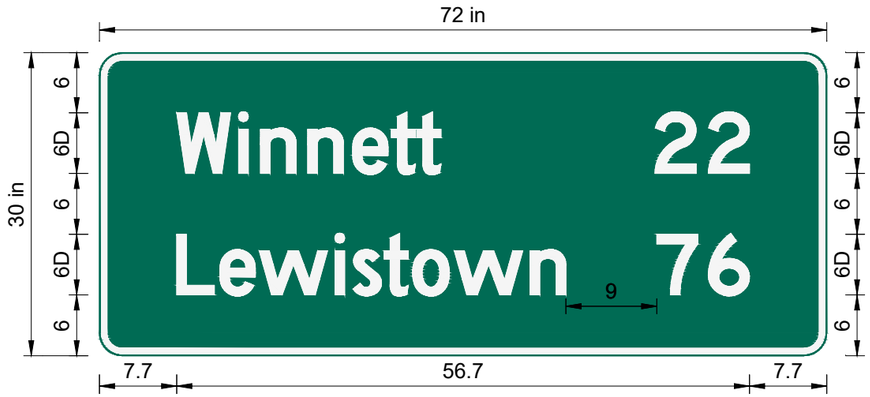
DESIGNED BY S. WATSON 5/2025
REVIEWED BY
CHECKED BY

PROJECT NAME MOSBY-WEST
COUNTY MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID NH 57-4(18)145
UPN 100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

FPR

PRELIMINARY



Panel Style: guide_con_destination_2-line_2023.ssi
Dimensions are in inches

SIGN NUMBER	D2-2	
WIDTH x HEIGHT	6'-0" x 2'-6"	15 Sq.Ft.
BORDER WIDTH	0-3/4"	MARGIN 0"
CORNER RADIUS	2-1/4"	ALUMINUM TYPE
MOUNTING	Ground	INCREMENT
BACKGROUND	TYPE: Reflective	
	COLOR: Green	
LEGEND/BORDER	TYPE: Reflective	
	COLOR: White/White	

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)

REDUCTION: 10% 20% 30%

																														LENGTH	SERIES/SIZE
	W	i	n	n	e	t	t		2	2																					D 2000
7.7	6.125	2.2	4.7	4.4	3.8	2.5	2.4	21.2	5.3	4.1	7.7																			56.7	6/4.5
	L	e	w	i	s	t	o	w	n		7	6																			D 2000
7.7	4.25	3.9	7.5	1.8	3.1	2.8	4.1	7.5	3.5	9	5.1	4.1	7.7																	56.7	6/4.5

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

SIGNING PLANS

DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	
PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

FPR

PRELIMINARY



SIGN NUMBER	D3-1		
WIDTH x HEIGHT	3'-0" x 1'-0"	3 Sq.Ft.	
BORDER WIDTH	0-1/2"	MARGIN 0"	
CORNER RADIUS	1-1/2"	ALUMINUM TYPE	
MOUNTING	Ground	SHEET	
BACKGROUND	TYPE: Reflective		
	COLOR: Green		
LEGEND/BORDER	TYPE: Reflective		
	COLOR: White/White		

none

SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_con_street.ssi
Dimensions are in inches

LETTER POSITIONS (X)

REDUCTION: 10% 20% 30%

	M	e	l	s	t	o	n	e		R	d																			LENGTH	SERIES/SIZE
3.5	3.9	2.875	1.4	2	2.1	3	2.875	2.2	4.5	2.4	1.7	3.5																		29	B 2000 6/4.5,4.5/3.375

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

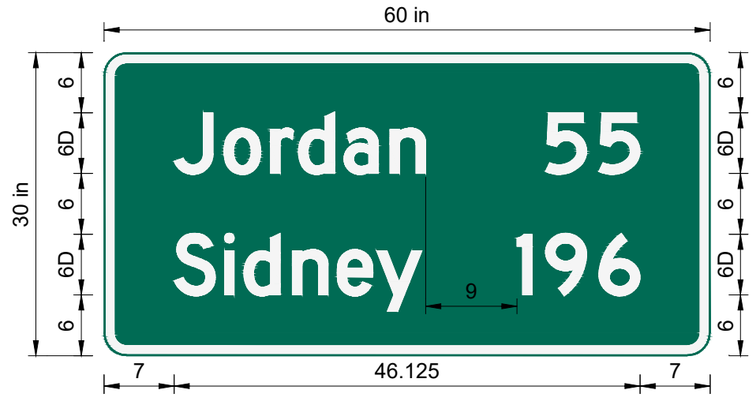
SIGNING PLANS

DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	
PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

FPR

PRELIMINARY



Panel Style: guide_con_destination_2-line_2023.ssi
Dimensions are in inches

SIGN NUMBER	D2-2
WIDTH x HEIGHT	5'-0" x 2'-6" — 12.5 Sq.Ft.
BORDER WIDTH	1" — MARGIN 0"
CORNER RADIUS	2-1/4" — ALUMINUM TYPE
MOUNTING	Ground — INCREMENT
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)

REDUCTION: 10% 20% 30%

																													LENGTH	SERIES/SIZE
	J	o	r	d	a	n		5	5																					D 2000
7	5	4.625	2.8	4.5	4.6	3.5	11.9	5.3	4.1	7																			46.125	6/4.5
	S	i	d	n	e	y		1	9	6																				D 2000
7	5	2	4.8	4.4	3.9	4.5	9.4	2.8	5.3	4.1	7																		46.125	6/4.5

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

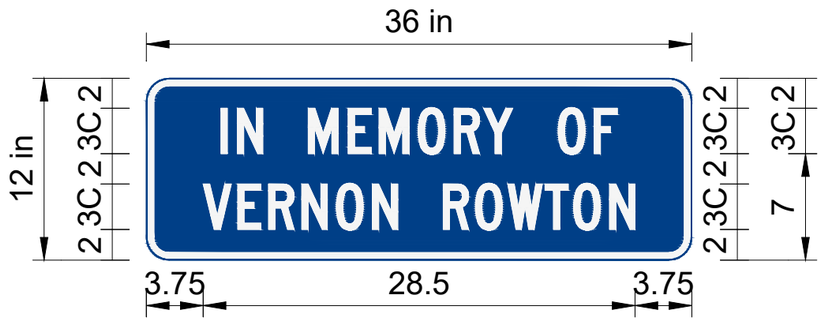
SIGNING PLANS

DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	
PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

FPR

PRELIMINARY



Panel Style: N7-1P.ssi
Dimensions are in inches

SIGN NUMBER	N7-1P MT
WIDTH x HEIGHT	3'-0" x 1'-0" — 3 Sq.Ft.
BORDER WIDTH	0-1/2" — MARGIN 0"
CORNER RADIUS	1-1/2" — ALUMINUM TYPE SHEET
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Blue
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X) — REDUCTION: 10% 20% 30% — LENGTH — SERIES/SIZE

	I	N		M	E	M	O	R	Y		O	F																								C 2000
5	1.1	1.7	3	2.6	2	2.6	2.375	2	2	3	2.375	1.5	5																						26.2	3
	V	E	R	N	O	N		R	O	W	T	O	N																							C 2000
3.75	2.3	2	2.2	2.3	2.375	1.7	3	2.125	2.125	2.5	1.9	2.375	1.7	3.75																					28.5	3

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

SIGNING PLANS

DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	
PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

FPR

PRELIMINARY



Panel Style: guide_exp_boundary.ssi
Dimensions are in inches

SIGN NUMBER	I2-2
WIDTH x HEIGHT	4'-0" x 1'-6" — 6 Sq.Ft.
BORDER WIDTH	1" — MARGIN 0"
CORNER RADIUS	3" — ALUMINUM TYPE
MOUNTING	Ground — SHEET
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X) — REDUCTION: 10% 20% 30% — LENGTH — SERIES/SIZE

																																	LENGTH	SERIES/SIZE
	R	i	v	e	r																													EM 2000
16	4.3	2	3.875	3.875	2	16																											16	4/3

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

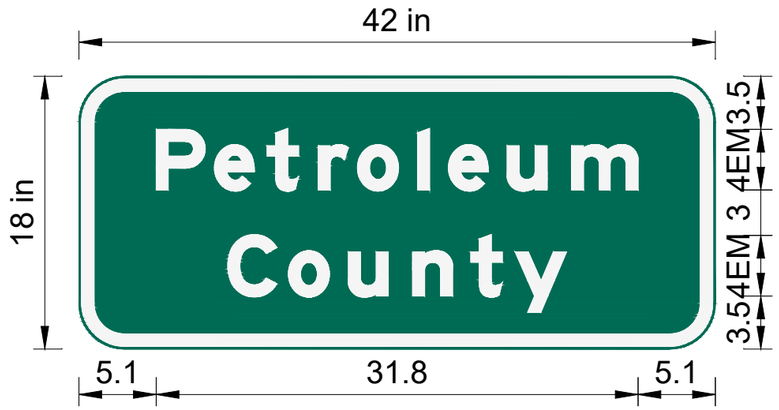
SIGNING PLANS

PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	10071000
DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	

5/16/2025 8:51 AM
10071000SISDC001.DWG

FPR

PRELIMINARY



Panel Style: guide_exp_boundary.ssi
Dimensions are in inches

SIGN NUMBER	I2-1		
WIDTH x HEIGHT	3'-6" x 1'-6"	5.25 Sq.Ft.	
BORDER WIDTH	1"	MARGIN 0"	
CORNER RADIUS	3"	ALUMINUM TYPE	
MOUNTING	Ground	SHEET	
BACKGROUND	TYPE: Reflective		
	COLOR: Green		
LEGEND/BORDER	TYPE: Reflective		
	COLOR: White/White		

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X) REDUCTION: 10% 20% 30%

																														LENGTH	SERIES/SIZE
	P	e	t	r	o	l	e	u	m																						EM 2000
5.1	3.8	3.5	3.4	2.6	4	2	3.875	4.25	4.4	5.1																			31.8	4/3
	C	o	u	n	t	y																									EM 2000
9.8	4	4	4.25	3.8	3	3.4	9.8																							22.4	4/3

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

SIGNING PLANS

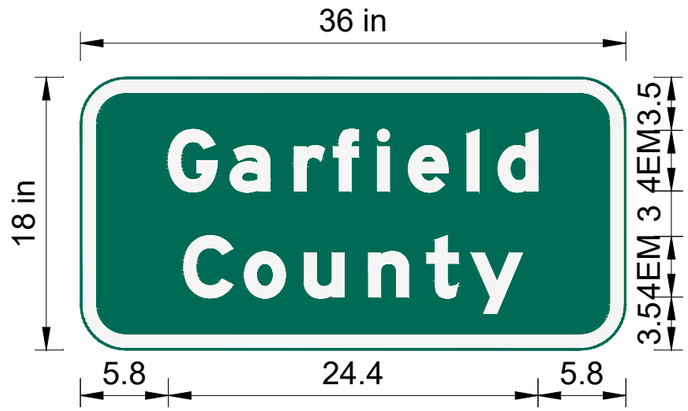
DESIGNED BY S. WATSON 5/2025
REVIEWED BY
CHECKED BY

PROJECT NAME MOSBY-WEST
COUNTY MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID NH 57-4(18)145
UPN 100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

FPR

PRELIMINARY



Panel Style: guide_exp_boundary.ssi
Dimensions are in inches

SIGN NUMBER	I2-1
WIDTH x HEIGHT	3'-0" x 1'-6" — 4.5 Sq.Ft.
BORDER WIDTH	1" — MARGIN 0"
CORNER RADIUS	3" — ALUMINUM TYPE
MOUNTING	Ground — SHEET
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

none

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)

REDUCTION: 10% 20% 30%

																														LENGTH	SERIES/SIZE
	G	a	r	f	i	e	l	d																							
5.8	4.1	4.25	2.6	3	2	3.875	2	2.6	5.8																				24.4	EM 2000 4/3
	C	o	u	n	t	y																									
6.8	4	4	4.25	3.8	3	3.4	6.8																						22.4	EM 2000 4/3

SHEET NO.

SIGN DESIGN CALCULATIONS

MONTANA
Department of Transportation

SIGNING PLANS

DESIGNED BY	S. WATSON 5/2025
REVIEWED BY	
CHECKED BY	
PROJECT NAME	MOSBY-WEST
COUNTY	MUSSELSHELL AND GARFIELD COUNTIES
PROJECT ID	NH 57-4(18)145
UPN	100710000

5/16/2025 8:51 AM 100710000SISDC001.DWG

C:\dgn\ArrowsSISDC001.DGN

SHEET 3

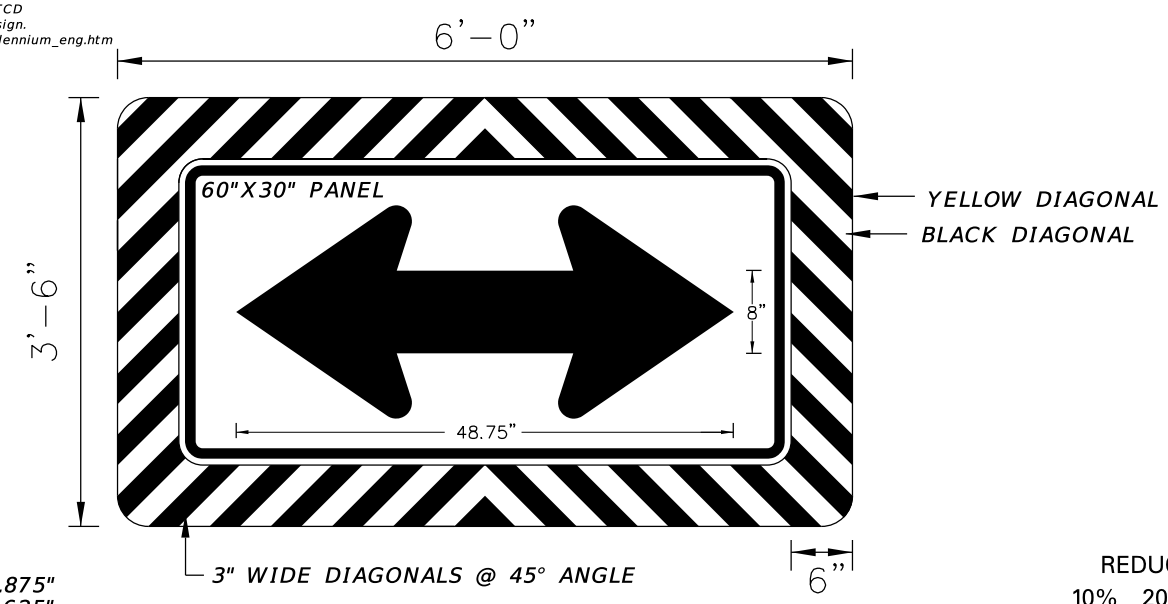
9:59:41 AM
3/9/2023
u1376

MONTANA
Department of Transportation

SIGN DESIGN CALCULATIONS

PROJ. NO. _____
PROJ. TITLE _____

*See page 6-2 of the MUTCD sign catalog for arrow design.
https://mutcd.fhwa.dot.gov/ser-shs_millennium_eng.htm



INSIDE BORDER = 0.875"
INSIDE MARGIN = 0.625"
INSIDE RADIUS = 2.25"

REDUCTION
10% ☐ 20% ☐ 30% ☐

Panel Style:
Dimensions are in inches. tenths

SIGN NAME: W1-7A

SHT ALUM ☐
ALUM INCR ☒

SIGN DETAIL

SIGN NUMBER	name
WIDTH x HGHT.	6'-0" x 3'-6"
MARGIN	0"
BORDER WIDTH	0"
CORNER RADIUS	3"
SQ. FEET	21 Sq.Ft.
MOUNTING	Ground
TYPE: BACKGROUND COLOR:	Florescent Yellow Type XI
TYPE: LEGEND/BORDER COLOR:	Non-Reflective Black

DESIGNED:	NMS	DATE:	03/2023
CHECKED:	SDR	DATE:	03/2023

Stations:

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)	LENGTH	SERIES SIZE