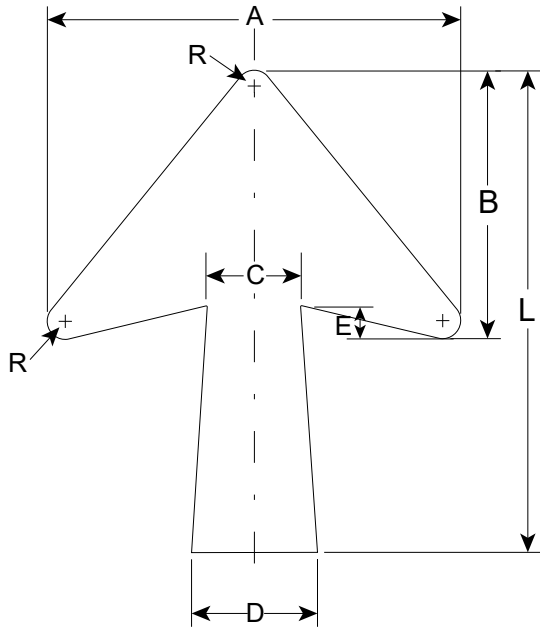


MnDOT Standard Signs and Markings Manual 2020

Standard Sign Details - Arrows

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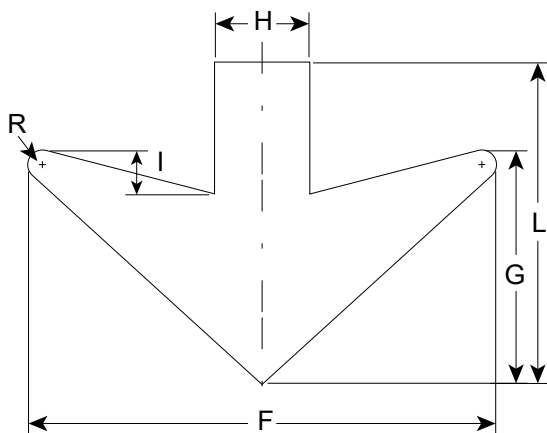
NOTES:

1. Arrow Code: First number specifies the head to be used. Second number specifies the length L. Thus, a 5-13 arrow has head #5 and length 13".
2. For each legend size there is a corresponding short shaft and long shaft arrow.

Table 1 - Short Shaft Arrows								
Head	Matching Letter Size	Standard Length L	Dimensions in Inches					
			A	B	C	D	E	R
1	4", 4.3"	6"	5.58	3.63	1.28	1.72	.47	.26
2	5"	8"	7.06	4.60	1.61	2.18	.56	.32
3	6", 6-4.5"	10"	8.35	5.44	1.91	2.58	.67	.38
4			9.75	6.35	2.23	3.02	.78	.44
5	8", 8-6"	13"	11.16	7.27	2.55	3.44	.89	.51
6	10", 10.67-8"	17"	15.09	9.83	3.45	4.65	1.21	.69
7	10", 12", 13.33-10"	20"	17.72	11.54	4.05	5.47	1.42	.81
8	16-12"	25"	21.88	14.25	5.00	6.75	1.75	1.00

Table 2 - Long Shaft Arrows								
Head	Matching Letter Size	Standard Length L	Dimensions in Inches					
			A	B	C	D	E	R
11	4", 4.3"	9"	5.70	4.36	1.38	1.83	.45	.26
12	5"	12"	7.18	5.48	1.74	2.30	.56	.32
13	6", 6-4.5"	14"	8.56	6.54	2.07	2.74	.67	.38
14	8", 8-6"	18"	11.41	8.72	2.76	3.66	.90	.51
15	10", 10.67-8"	24"	15.14	11.56	3.66	4.85	1.19	.68
16	10", 12", 13.33-10"	29"	18.24	13.93	4.41	5.84	1.43	.82
17	16-12", 20-15"	36"	22.25	17.00	5.38	7.13	1.75	1.00
17		42"	22.25	17.00	5.38	8.39	1.75	1.00
18		36"	26.18	20.00	6.33	7.13	2.06	1.18
18		42"	26.18	20.00	6.33	8.39	2.06	1.18

Overhead Signs Only							
Arrow	Letter and Overlay Size	Dimensions in Inches					
		F	G	H	I	L	R
16"	13.33-10", 10" and less	24.0	12.0	4.88	2.25	16.5	.75
22"	16-12", 12" and greater	32.0	16.0	6.5	3.0	22.0	1.00



ARROW SELECTION:

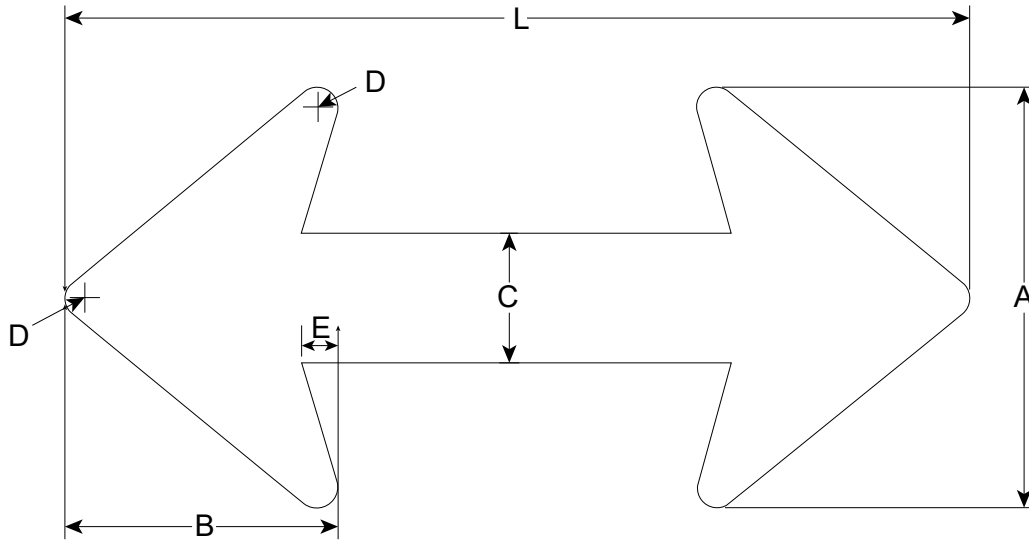
- Adjacent to one line of legend - use Table 1 for vertical, horizontal, or diagonal arrow.
- Adjacent to two or more lines of legend - use Table 2 for vertical or diagonal arrow; Table 1 for horizontal arrow.
- Beneath one or more lines of legend - use Table 2 for horizontal or diagonal arrow. Use Table 1 for vertical arrow.
- ALL FREEWAY SIGNS AND EXPRESSWAY INTERCHANGE SIGNS - use Table 2.

ARROW SIZE:

Arrow head numbers determine which straight arrow corresponds with which advance turn, double head, and double head 90° arrows and legend.

For example, a 5-13 arrow and a 5-24 double head arrow (both have #5 heads) would be appropriate arrows to use with an 8-6" legend.

Straight Arrows

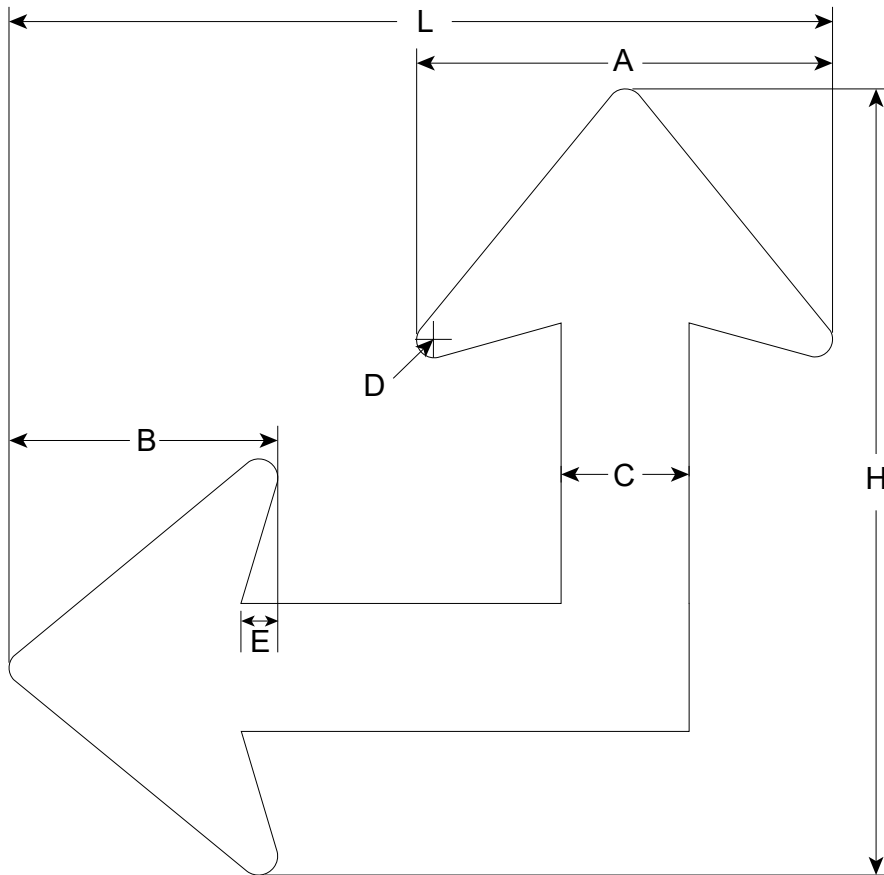


Size	1 Head	3 Head	5 Head	6 head	7 Head
A	5.58	8.35	11.16	15.09	17.72
B	3.63	5.44	7.27	9.83	11.54
C	1.72	2.58	3.44	4.65	5.47
D	.26	.38	.51	.69	.81
E	.47	.67	.89	1.21	1.42
L-Minimum	12	18	24	30	36

NOTE:

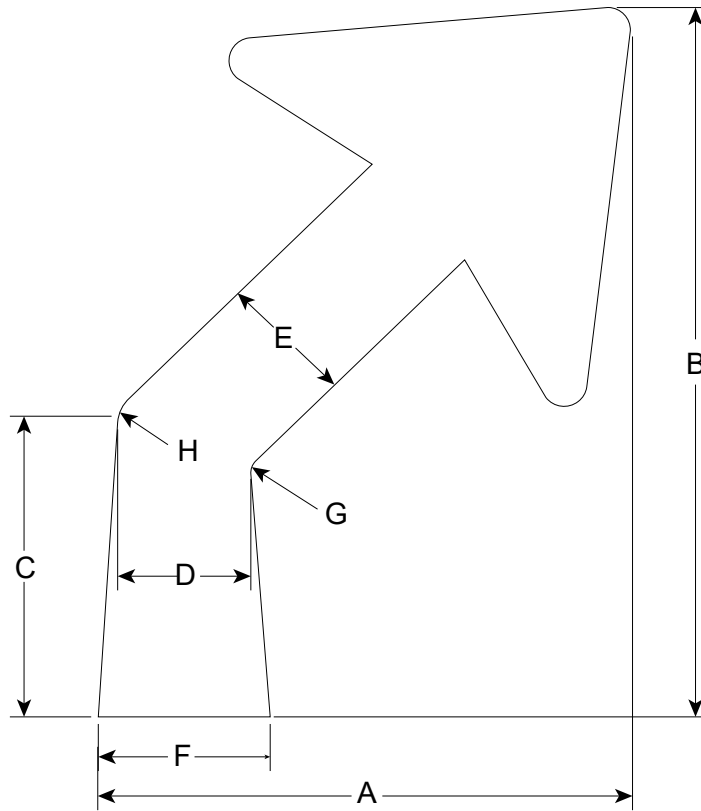
1. Arrow lengths shall be sized in 6 inch increments.

Double Head Arrows



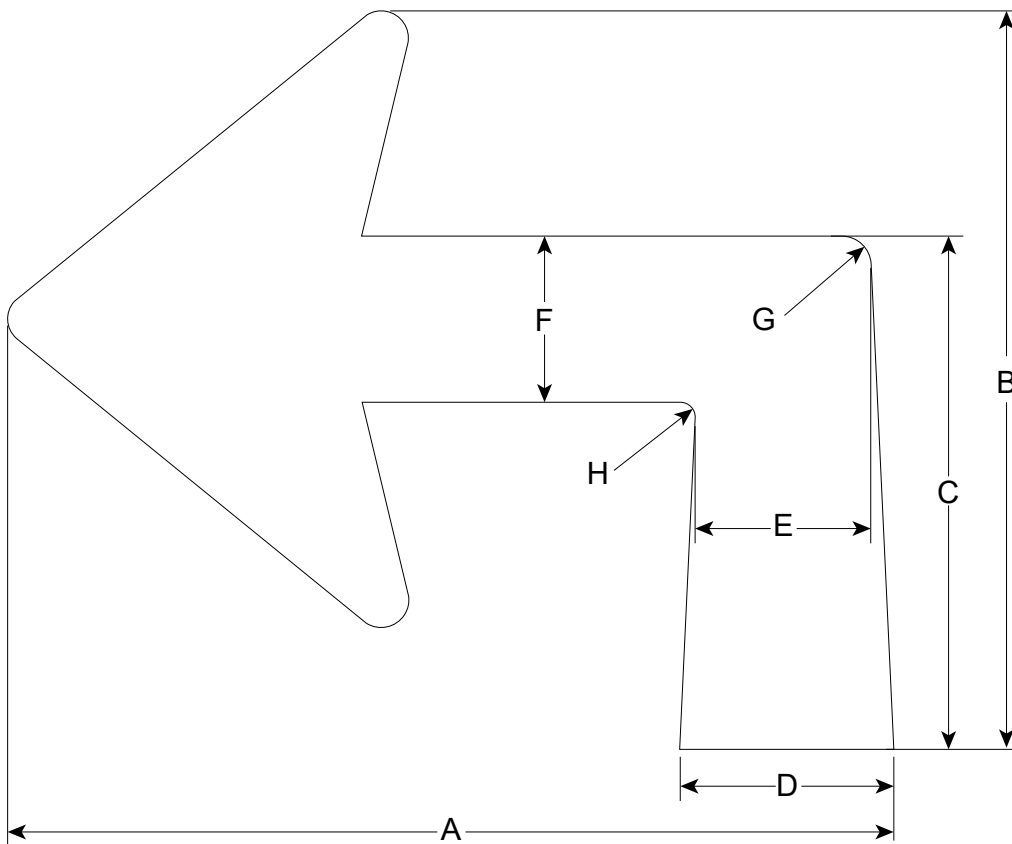
Size	1-11	3-16	5-22	6-29
A	5.58	8.35	11.16	15.09
B	3.63	5.44	7.27	9.83
C	1.75	2.5	3.5	4.75
D	.26	.38	.51	.69
E	.47	.67	.89	1.21
L	11	16.5	22	29.5
H	10.5	15.75	21	28

Double Head Arrows - 90 Degrees



Size	6 x 8	9 x 12	12 x 16	15 x 20	17 x 24
ARROW HEAD	1	3	5	6	7
A	6	9	12	15	17
B	8	12	16	20	24
C	3.3	5	6.6	8.3	11
D	1.5	2.25	3	4.2	5
E	1.5	2.25	3	4.2	5
F	1.94	3	3.88	5	6
G-rad.	.2	.3	.4	.44	.55
H-rad.	.4	.6	.8	.94	1.1

Advance Turn Arrows - 45 Degrees



Size	8 x 6.5	12 x 10	16 x 13	18 x 16	22 x 18	25 x 21
ARROW HEAD	1	3	5	14	6	7
A	8	12	16	18	22	25
B	6.5	10	13	16	18	21
C	4.45	6.95	8.92	11.9	12.48	14.52
D	1.95	2.9	3.9	4.1	5.25	6.2
E	1.5	2.25	3	3.2	4.05	4.75
F	1.5	2.25	3	3.2	4.05	4.75
G-rad.	.27	.4	.5	.5	.7	.8
H-rad.	.13	.2	.25	.25	.35	.4

Advance Turn Arrows - 90 Degrees