

- The static sign background shall meet MnDOT specifications for retroreflective sheeting for the appropriate color for the type of speed limit zone usage:
 - School Zones w/plaque (S4-3): White or Fluorescent Yellow-Green*
 - Work Zone Advisory: Fluorescent Orange
 - Work Zone w/plaque (R2-6a): White or Fluorescent Orange*
 - Temporary Work Zones: White
 - Advisory Speed zones: Yellow or Fluorescent Yellow
 - Speed zones: White
- * **Note:** allowed when the appropriate plaque is used on the speed limit sign
- The Minnesota Standard Signs Plate for “Dynamic Speed Display Signs” (see attached figure) should be followed for the static sign design and layout minimum standards. Variations of the standards may be approved based upon field review and readability performance.

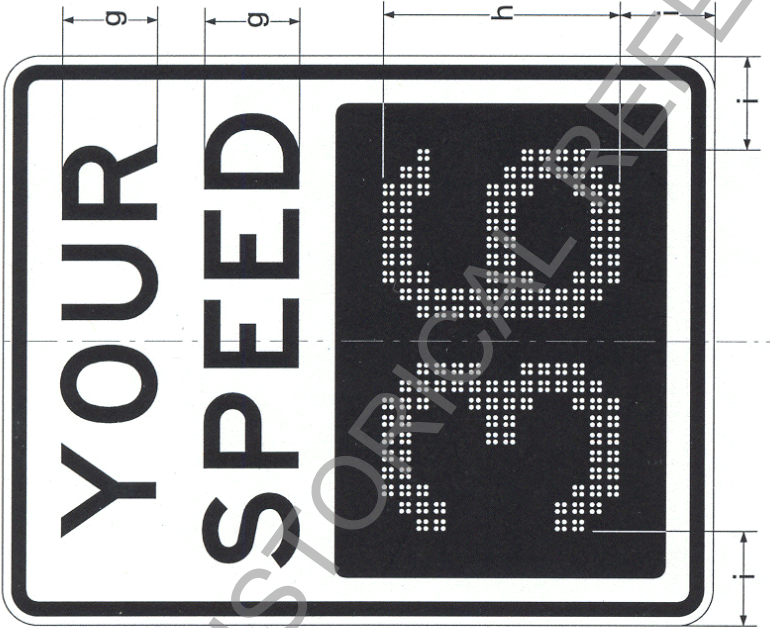
The DSD sign’s operational requirements:

- The DSD sign shall monitor traffic for advancing vehicles via radar.
- The manufacturer / vendor must supply data on power requirements and performance for DSD sign.
- The DSD sign shall be programmable for the posted speed limit and the threshold speed.
- The DSD sign shall detect and activate the alert when the posted speed is exceeded by one mph.
- When the alert is activated, the display shall flash at a rate of 50 to 60 cycles per minute.
- When the detected speed exceeds the maximum, the display shall go blank (or black).
- When no advancing traffic detected, the display shall be blank.
- The DSD sign shall not have any strobes or flashing lights.

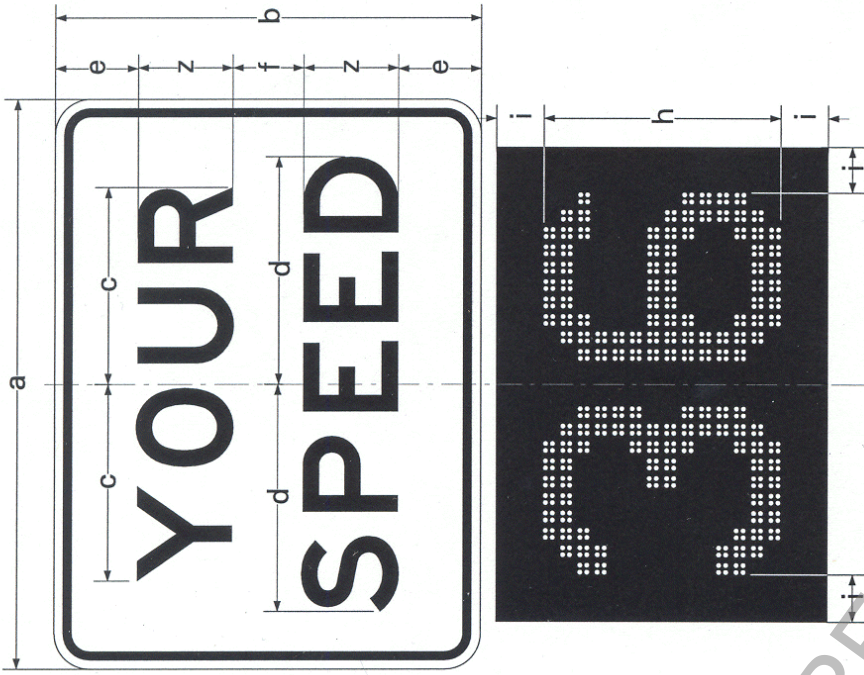
The DSD sign’s mounting / installation requirements:

- DSD signs on permanent sign structures shall be crashworthy.
- Portable sign structures that are typically provided with the DSD sign by the manufacturer / vendor shall meet NCHRP 350 Category 4 requirements.
- The manufacturer / vendor shall supply any documentation of any crash testing the DSD sign structure has passed or documentation of exemption from crashworthy requirements.
- The DSD sign shall have all installation, programming, and maintenance manuals.

SIZE DIMENSION	Small Signs	Large Signs
RADIUS	1.5	1.5
MARGIN	.38	.38
BORDER	.38	.63
a	24	36
b	18	24
c	8.3	12.4
d	9.6	14.4
e	3.5	4
f	3	4
g	4 Min. ⁵	6 Min. ⁵
h	10 Min.	14 Min.
i	2 Min. ⁴	2 Min. ⁴
j		
k		
l		
m		
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v		
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x		
y		
z	4E	6E




Complete Static Sign & Dynamic Display



Separate Static Sign & Dynamic Display

- NOTES: 1. All dimensions are in inches.
 2. Color - Black legend and border on reflective background. See Technical Memorandum (#) for background color.
 3. Display shall use amber or yellow LEDs, 580nm - 592nm.
 4. There shall be a minimum of 2" of opaque contrasting area between the usable display and the edge of the panel.
 5. Use D Series or E Series Highway Font.

	DYNAMIC SPEED DISPLAY SIGNS	
	APPROVED	DATE OF REV.