

- NOTES:
1. Use the appropriate layout for advance signing and spacing.
  2. In long work zones, this sign assembly should be repeated at 1 mile intervals.
  3. The flashing arrow board shall be used when the posted speed limit is 45 mph or greater.
  4. An OPTIONAL Dynamic Speed Display may be used. See Layout 2 for spacing details and sign specifications.

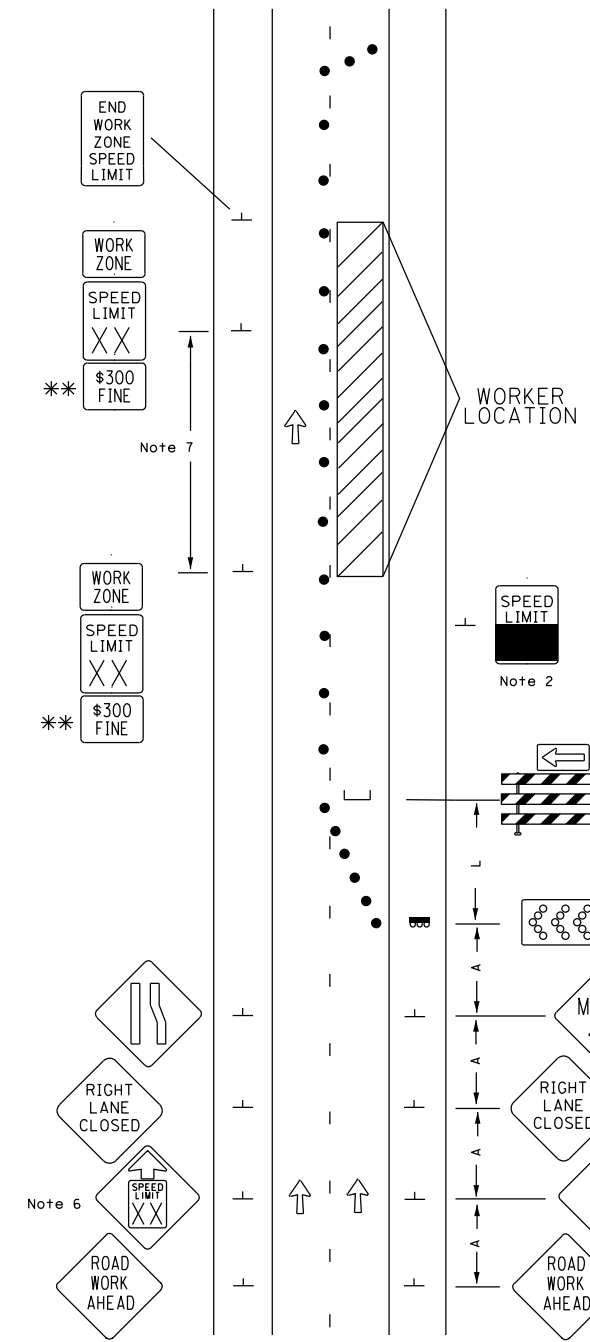
Posted Speed Limit Prior to Work Starting mph	Advance Warning Sign Spacing -A- feet
0-30	250
35-40	325
45-50	600
55	750
60-65	1000
70-75	1200

Minimum Sign Sizes For Advisory Speed Limit Signing

Sign	Posted Speed Limit Prior to Work Starting	
	0-40 mph	45-75 mph
WORKER AHEAD (W21-1)	36" x 36"	48" x 48"
ADVISORY SPEED PLAQUE (W13-1P)	18" x 18"	24" x 24"

• -Retroreflective channelizing device

ADVISORY SPEED LIMIT  
MULTI-LANE ROAD



- NOTES:
1. Use the appropriate layout for temporary traffic control.
  2. All in-place speed limit signs shall be removed or covered when the workers present speed limit is implemented.
  3. Workers present speed limit assemblies shall be removed when workers are not present directly adjacent to traveled lanes.
  4. Workers present speed limit assemblies may be placed in the buffer or work space as long as the assemblies are not blocked by vehicles or devices.
  5. As workers proceed through the work area, the assembly shall be no greater than 1 mile in advance of the work crew. For workers present speed limits of less than 40 mph, the assembly should be no greater than 1/2 mile in advance of the work crew.
  6. The reduced speed ahead sign should be used when the workers present speed limit is more than 10 mph below the in-place speed limit.
  7. When workers are present adjacent to traveled lanes throughout the work area, confirming workers present speed limit assemblies may be placed according to the spacing table below:

Typical Spacing for Workers Present Speed Limits

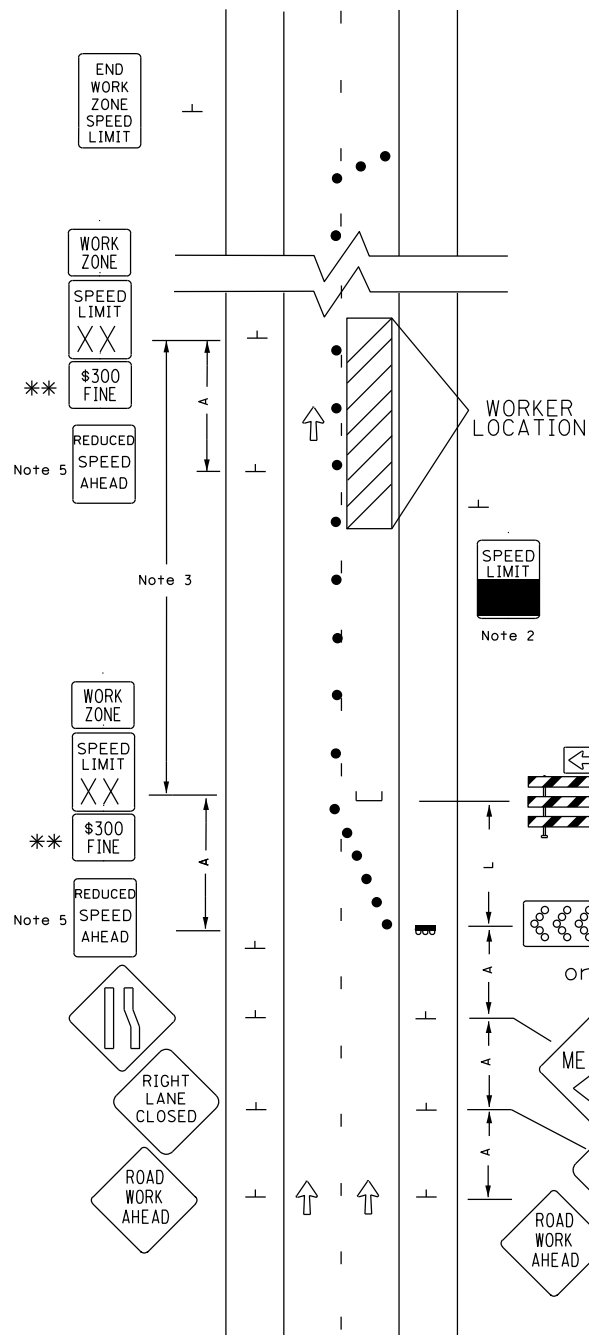
Workers Present Speed Limit (mph)	Assembly Spacing (mile)
<40	1/2
≥40	1

Minimum Sign Sizes

Sign	Posted Speed Limit Prior to Work Starting	
	≤40 mph	>40 mph
END WORK ZONE SPEED LIMIT (R2-12)	24" x 36"	36" x 54"
WORK ZONE (G20-5aP)	24" x 18"	36" x 24"
SPEED LIMIT (R2-1)	24" x 30"	36" x 48"
\$300 FINE (R2-6bP)	24" x 18"	36" x 24"
REDUCED SPEED AHEAD (W3-5)	36" x 36"	48" x 48"

\*\* -Optional  
• -Retroreflective channelizing device

WORKERS PRESENT SPEED LIMIT



NOTES:

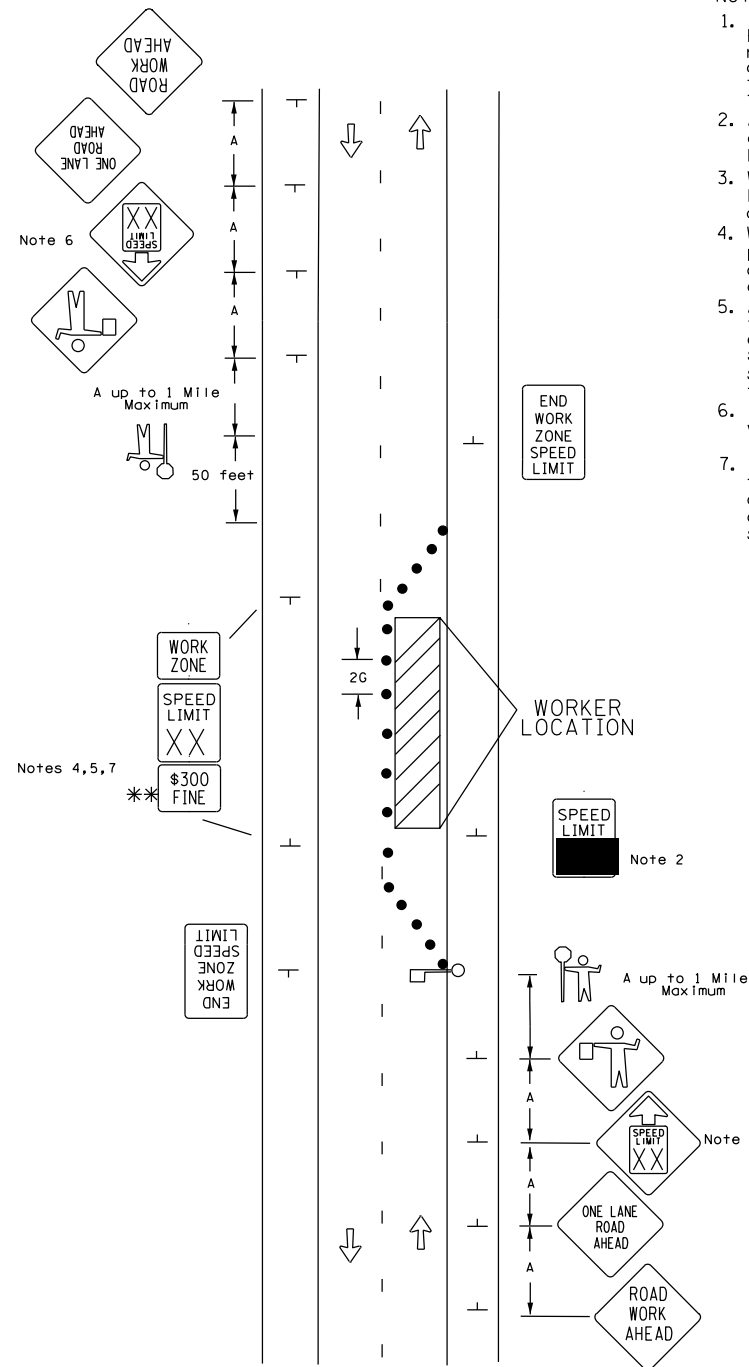
1. Use the appropriate layout for temporary traffic control.
2. All in-place speed limit signs shall be removed or covered.
3. Electronic workers present speed limit assemblies shall be placed through the length of the activity area no greater than 1 mile apart or 1/2 mile for WPSL of less than 40 mph.
4. Each Electronic workers present speed limit assembly shall display the WPSL when workers are present directly adjacent to traveled lanes in the segment beyond the assembly. When workers are not present, the in-place speed limit shall be displayed.
5. An Electronic reduced speed ahead sign (may be electronic or flip board) should be used when the workers present speed limit is more than 10 mph below the in-place speed limit.
6. Electronic workers present speed limit assemblies may be placed in the buffer or work space as long as the assemblies are not blocked by vehicles or devices.

Sign	Posted Speed Limit Prior to Work Starting	
	≤40 mph	>40 mph
END WORK ZONE SPEED LIMIT (R2-12)	24" x 36"	36" x 54"
WORK ZONE (G20-5aP)	24" x 18"	36" x 24"
SPEED LIMIT (R2-1)	24" x 30"	36" x 48"
\$300 FINE (R2-6bP)	24" x 18"	36" x 24"
REDUCED SPEED AHEAD (Electronic Display or Flip Board)	24" x 30"	36" x 48"

\*\* -Optional  
 • -Retroreflective channelizing device

ELECTRONIC WORKERS PRESENT SPEED LIMIT

Layout 2a



NOTES:

1. This layout shows an application of Workers Present Speed Limits on a two-lane two-way road with flaggers as an example. Use the appropriate layout for temporary traffic control for other applications on two-lane two-way roads.
2. All in-place speed limit signs shall be removed or covered when the workers present speed limit is implemented.
3. Workers present speed limit assemblies shall be removed when workers are not present directly adjacent to traveled lanes.
4. Workers present speed limit assemblies may be placed in the buffer or work space as long as the assemblies are not blocked by vehicles or devices.
5. As workers proceed through the work area, the assembly shall be no greater than 1 mile in advance of the work crew. For workers present speed limits of less than 40 mph, the assembly should be no greater than 1/2 mile in advance of the work crew.
6. The reduced speed ahead sign should be used when the workers present speed limit is more than 10 mph below the in-place speed limit.
7. When workers are present adjacent to traveled lanes throughout the work area, confirming workers present speed limit assemblies may be placed according to the spacing table below:

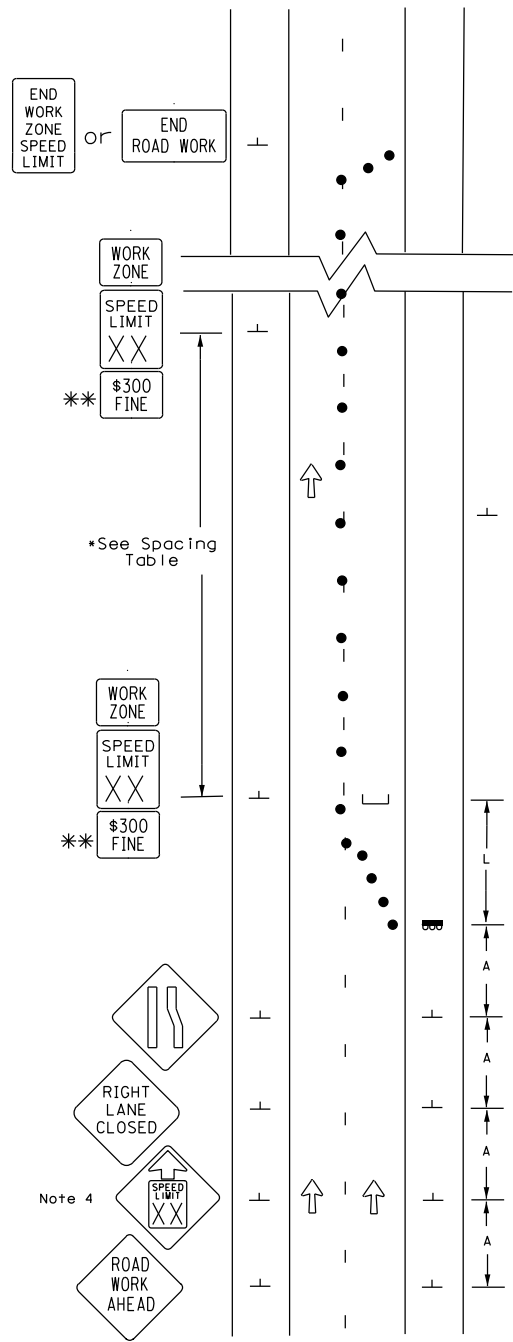
Typical Spacing for Workers Present Speed Limits	
Workers Present Speed Limit (mph)	Assembly Spacing (mile)
<40	1/2
≥40	1

Sign	Posted Speed Limit Prior to Work Starting	
	≤40 mph	>40 mph
END WORK ZONE SPEED LIMIT (R2-12)	24" x 36"	36" x 54"
WORK ZONE (G20-5aP)	24" x 18"	36" x 24"
SPEED LIMIT (R2-1)	24" x 30"	36" x 48"
\$300 FINE (R2-6bP)	24" x 18"	36" x 24"
REDUCED SPEED AHEAD (W3-5)	36" x 36"	48" x 48"

\*\* -Optional  
 • -Retroreflective channelizing device

WORKERS PRESENT SPEED LIMIT TWO-LANE TWO-WAY ROAD WITH TWO FLAGGERS

Layout 2b



**NOTES:**

1. A Commissioners Authorization is required.
2. Use the appropriate layout for temporary traffic control.
3. All in-place Speed Limit signs shall be removed or covered.
4. The Reduced Speed Ahead sign should be used when the 24/7 Construction Speed Limit is more than 10 mph below the in-place speed limit.

Sign	Posted Speed Limit Prior to Work Starting	
	≤40 mph	>40 mph
END WORK ZONE SPEED LIMIT (R2-12)	24" x 36"	36" x 54"
WORK ZONE (G20-5dP)	24" x 18"	36" x 24"
SPEED LIMIT (R2-1)	24" x 30"	36" x 48"
\$300 FINE (R2-6dP)	24" x 18"	36" x 24"
REDUCED SPEED AHEAD (W3-5)	36" x 36"	48" x 48"

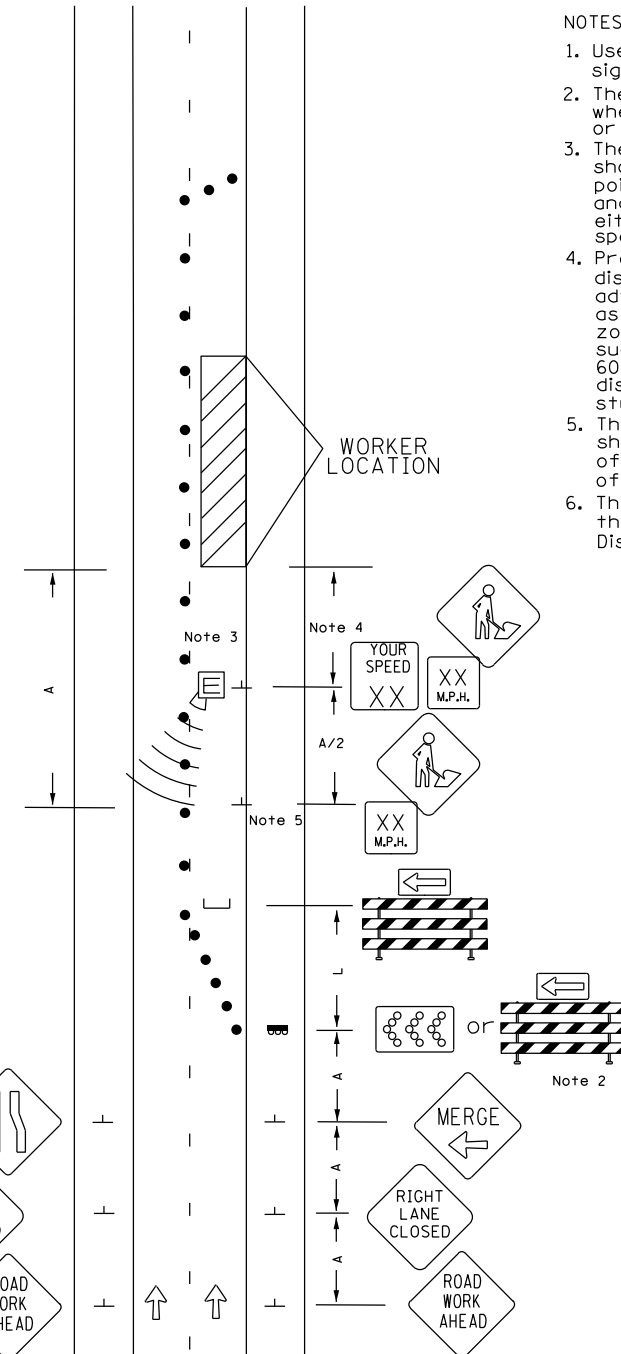
**Typical Spacing for 24/7 Construction Speed Limits Signs**

24/7 Construction Speed Limit mph	Sign Spacing mile
≤25	1/4
30-35	1/2
40-45	3/4
≥50	1

- \*\* -Optional
- -Retroreflective channelizing device

**24/7 CONSTRUCTION SPEED LIMIT**

Layout 3



**NOTES:**

1. Use the appropriate layout for advance signing and spacing.
2. The flashing arrow board shall be used when the posted speed limit is 45 mph or greater.
3. The work crew (or poor road condition) should be visible to the driver from the point of viewing the Advisory Speed Plaque and DSD sign display. It may be located on either side of the open traffic lane as space allows for the equipment.
4. Preliminary studies show "A" is the optimum distance for speed reduction, therefore, it's advised to maintain that distance as much as practical. As workers move within the work zone, the DSD location should be re-positioned such that it remains within 300 feet (min) and 600 feet (max) of the worker location. The distances may be adjusted following further studies of DSD sign usage in Work Zones.
5. The Warning Sign with Speed Advisory Plaque should be placed a minimum distance "A" ahead of the workers and approximately "A/2" ahead of the DSD device location.
6. The distances "A" and "L" are found in the Field Manual (MN MUTCD Part 6K) Distance Charts.

**MINIMUM SPECIFICATIONS on DSD SIGN EQUIPMENT**

Display size of the DSD sign is dependent on the size of the speed plaque used.

Plaque size	DSD display MIN.
18" x 18"	10" character
24" x 24"	10" character
30" x 30"	14" character
36" x 36"	14" character

The static sign (YOUR SPEED) should be black letters on a fluorescent orange background when used with a work zone advisory speed plaque. The font should be a minimum of 4" high when used with a 10" display character, and 6" when used with a 14" or greater character display sign.

- -Retroreflective channelizing device

**DYNAMIC SPEED DISPLAY SIGN**

Layout 4