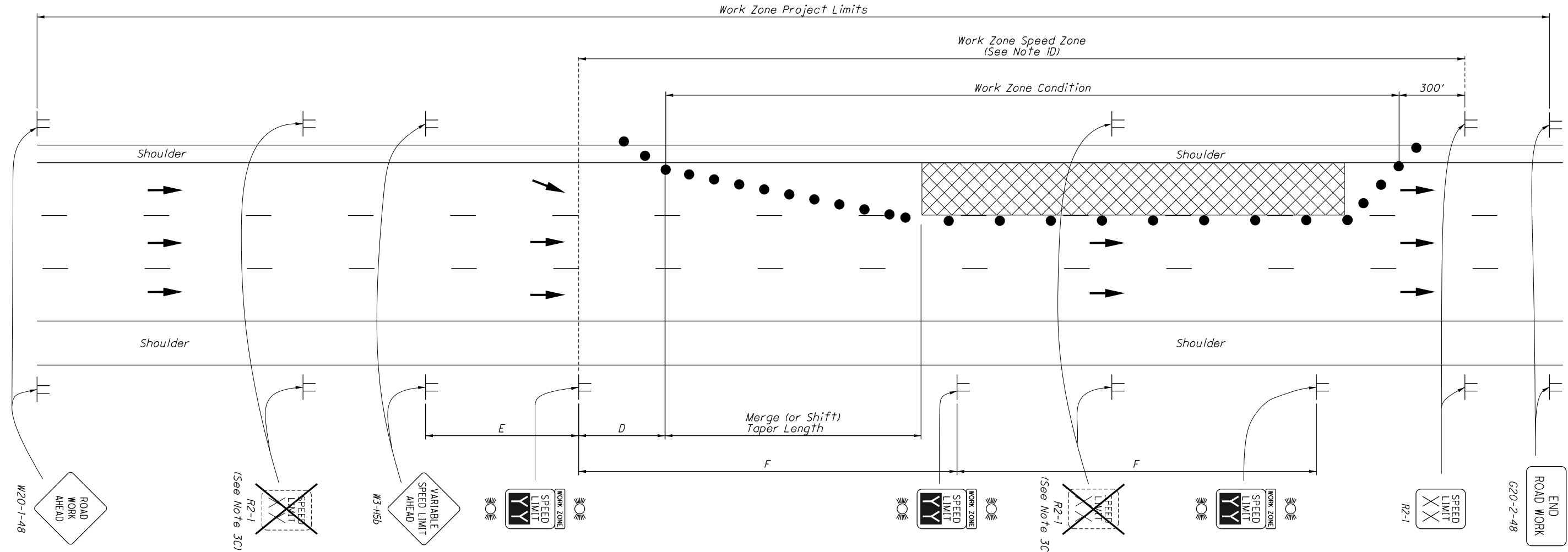


WZSZ USING DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLIES



LEGEND

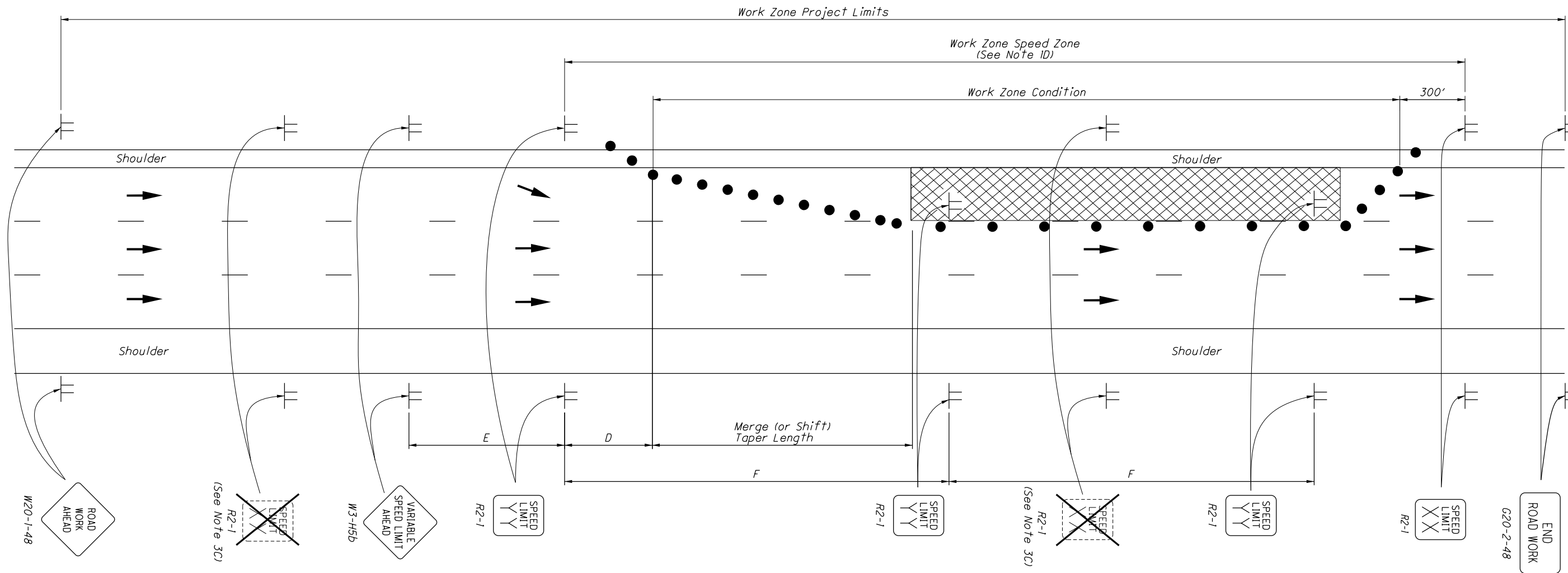
WORK AREA		ORIGINAL POSTED SPEED LIMIT (MPH) ----- XX
DRUMS		APPROVED WORK ZONE SPEED LIMIT -----YY
DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLIES		DIRECTION OF TRAVEL

TABLE 1 (SIGN SPACING)

ROAD TYPE	DISTANCE (FT)		
	D	E	F
MAJOR CONVENTIONAL	250	500	5280
FREEWAY & EXPRESSWAY	500	1250	5280

(Plan View Dimensions Not to Scale)

WZSZ USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS



LEGEND

WORK AREA		ORIGINAL POSTED SPEED LIMIT (MPH) ----- XX
DRUMS		APPROVED WORK ZONE SPEED LIMIT -----YY
TEMPORARY FLATSHEET SPEED LIMIT SIGNS		DIRECTION OF TRAVEL
	R2-1	

TABLE 1 (SIGN SPACING)

ROAD TYPE	DISTANCE (FT)		
	D	E	F
MAJOR CONVENTIONAL	250	500	2640
FREEWAY & EXPRESSWAY	500	1250	5280

(Plan View Dimensions Not to Scale)

THIS DRAWING REPLACES MT-104.10 DATED 01-16-2015.

SCD NUMBER

MT-104.10

STANDARD ROADWAY CONSTRUCTION DRAWING

WORK ZONE SPEED ZONES (WZSZs) ON HIGH-SPEED (≥55 MPH) MULTI-LANE HIGHWAYS

OFFICE OF ROADWAY ENGINEERING

STDS ENGINEER
Soisson

STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR
David L. Holstein

REVISION DATE
10-16-2015

NOTES:

INTENDED USE

- IA. This Standard Construction Drawing (SCD) illustrates the signing and layout required when implementing approved Work Zone Speed Zones (WZSZ) as specified in the plans and documented by a Work Zone Speed Limit Revision number.
- IB. This SCD is intended for use as a supplement to other appropriate drawings showing applicable work zone conditions. It is not intended to be used as a stand-alone drawing. Shoulder closures, lane closures, lane shifts and median crossovers shall be placed as specified in the plans.
- IC. A WZSZ is not in effect and enforceable until all of the existing speed limit signs within 1 mile in advance of and inside the WZSZ are removed or covered, and the WZSZ speed limit signs are in place with the appropriate legends displayed. Legends reflecting a speed limit in accordance with the plan note shall only be displayed when the work zone condition in place reduces the existing functionality of the travel lanes or shoulders. At all other times (when the work zone condition no longer reduces the existing functionality of the travel lanes or shoulder) the original posted speed limit shall be displayed, even if only temporarily.
- ID. Speed limit reduction(s) shall be limited to only the portion of the project and the work zone condition (during the applicable factors) that warranted the speed limit reduction.

DESIGN SPEED

- 2. The design speed for the layout of the temporary traffic control devices (TTCs; e.g., drums, cones, portable barrier, etc.) shall remain at the original (pre-construction) posted speed limit on initial approaches to the work zone. Within the work limits, due to the variable nature of WZSZs, the TTCs shall be set up in a manner such that they always meet the minimum requirements for device spacing, taper rates, clear zones, buffer spaces, etc. regardless of the speed limit displayed on the DSL Sign Assembly or temporary flatsheet Speed Limit sign. This will require that multiple warranted speed limits affecting a work zone at any given time be taken into consideration when initially setting up a work zone.

GENERAL SIGNING

- 3A. Median signing shall not apply to undivided highways.
- 3B. DSL Sign Assemblies, warning signs and temporary flatsheet Speed Limit signs (R2-1) should be spaced to avoid conflict with existing signs. Minimum spacing to existing signs shall be 200' for speeds of 45 mph or less and a minimum of 400' for speeds 50 mph or greater.
- 3C. All existing Speed Limit signs located within a WZSZ, within 1 mile in advance of a WZSZ or on entrance ramps entering within a WZSZ shall be covered or removed when the WZSZ related speed limit signs (temporary flatsheet or DSL Sign Assemblies) are in place and displaying the appropriate speed limit. These signs shall be restored during suspension or termination of the reduced speed limit.
- 3D. WZSZ related Speed Limit signs (temporary flatsheet or DSL Sign Assemblies) and warning signs shall be placed throughout the WZSZ as per Table I. The first WZSZ related Speed Limit sign should be placed within view of the warranting work zone condition. Distances D and E are minimums. Maximum distances should not be greater than 1.5 times the value shown in Table I.
- 3E. WZSZ related Speed Limit signs (temporary flatsheet or DSL Assemblies) shall be placed after each open entrance ramp or intersection within the WZSZ but beyond the ramp merge taper if applicable. A warning sign (W3-H5b) shall be provided on each open entrance ramp within the WZSZ, spaced per Table I (Distance E).
- 3F. Temporary flatsheet Speed Limit signs (R2-1) indicating the resumption of the original legal speed limit shall be posted 300' downstream of the end of the warranting work zone condition.
- 3G. Where adjacent projects exist, any WZSZs shall be coordinated. If the distance between the limits of the WZSZs on the separate adjacent projects is less than 1 mile, then the upstream work zone shall omit the temporary flatsheet Speed Limit sign indicating the resumption of the original posted speed limit at the end of the WZSZ.
- 3H. When overlaying a Speed Limit (R2-1) sign, overlay the entire sign within the sign border without damaging the sign or reflective face.

SIGNING FOR WZSZs USING DSL SIGN ASSEMBLIES

- 4A. DSL Sign Assemblies shall be in accordance with Supplemental Specification 908.
- 4B. Operation of the DSL Sign Assemblies shall be in accordance with Supplemental Specification 808.
- 4C. For divided highways, place DSL Sign Assemblies on the side of the directional highway opposite the work area. If space prohibits the ability to place DSL Sign Assemblies on the side opposite the work area, then they may be placed on the same side as the work area. Ensure the placement of DSL Sign Assemblies do not block visibility of other signs, such as arrow boards and ensure that the visibility of the DSL Sign Assembly is not blocked from drivers view by work activity or work vehicles. All DSL Sign Assemblies within a WZSZ using DSL Sign Assemblies shall be placed on the same side of the highway and shall not alternate from side to side.

SIGNING FOR WZSZs USING TEMPORARY FLATSHEET SIGNS

- 5A. The Contractor shall furnish, install, maintain, track, monitor, cover during suspension of work, and subsequently remove WZSZ temporary flatsheet Speed Limit (R2-1) signs, and related supplemental signage, and supports in accordance with this standard drawing and as specified in the plans.
- 5B. The WZSZ temporary flatsheet Speed Limit signs shall be changed to display the appropriate warranted speed limit no earlier than one hour before workers arrive and no later than one hour after workers depart from a warranted work zone condition, or less as directed by the Engineer. Temporary sign covering and uncovering due to temporary removal of warranting condition(s) and/or related factors shall be guided by the one-hour limitations stated above.
- 5C. Work Zone Speed Limit signs (temporary flatsheet Speed Limit signs) shall be mounted on two Item 630, Ground Mounted Supports, No. 3 posts, unless mounted on a temporary sign support per SCD MT-105.10.
- 5D. Work Zone Speed Limit and related sign sizes, placement, supports, etc. shall be per the OMUTCD, with two exceptions: 1) expressway size Speed Limit signs may be used on freeways and expressways, if necessary; 2) the height of signs mounted on portable supports should be the height required for ground-mounted signs, but shall not be more than 1' lower than the height required by the OMUTCD, or as directed by the Engineer. Portable supports should not be used for a duration of more than 3 days.
- 5E. The Contractor shall maintain detailed and accurate tracking information regarding the use of each temporary flatsheet Speed Limit sign at the time of occurrence. The up-to-date WZSZ Tracking Report shall be furnished to the Engineer beginning 7 calendar days after initial installation of the first temporary flatsheet Speed Limit sign and weekly (every 7 calendar days) thereafter until all speed limit changes have been submitted (through the time of final removal of the temporary flatsheet Speed Limit signs). The tracking information is to be provided on Traffic Engineering Manual (TEM) Form 1296-18.
- 5F. Work Zone Speed Limit signs and supports will be measured as the number of sign installations, including the signs and necessary supports. If a sign and support combination is removed and re-erected at another location within the project due to changes in the Speed Zone as detailed in the plans or as directed by the Engineer, it shall be considered another unit.
- 5G. The expense of covering or removal and restoration of existing Speed Limit (or Minimum Speed Limit signs) shall be included in the pay item for the Work Zone Speed Limit signs. All installations, relocations and removals of supplemental signs (W3-H5b's and R2-1's indicating the resumption of the legal speed limit at the end of the warranting work zone condition), including signs and necessary supports, shall be included in the pay item for the Work Zone Speed Limit signs.
- 5H. Payment for accepted quantities, complete in place, will be made at the contract unit price. Payment shall be full compensation for all materials, labor, incidentals and equipment for furnishing, erecting, maintaining, tracking, monitoring, covering during suspension of work, and removing the signs and supports.

STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR
 David L. Holstein
 10-16-2015
 REVISION DATE
 STATE ENGINEER
 Soisson
 OFFICE OF ROADWAY ENGINEERING
 STANDARD ROADWAY CONSTRUCTION DRAWING
 WORK ZONE SPEED ZONES (WZSZs) ON HIGH-SPEED (75+ MPH) MULTI-LANE HIGHWAYS
 THIS DRAWING REPLACES MT-104.10 DATED 01-16-2015.
 SCD NUMBER
 MT-104.10
 3 / 3