

December 20, 2017

SPECIAL PROVISION

**PROJECT # F-I80-1(61)24
PIN # 15284**

SECTION 01554M

TRAFFIC CONTROL

Add Article 1.1, Paragraph D:

- D. Portable Variable Speed Limit (PVSL) System and Equipment.

Add the following to Article 1.4:

- D. Work Space – The full limit of where construction activities can occur.
- E. AWS – Active Work Space – The area within the work space where personnel are presently working. Length of AWS to be limited to 1 mile.
- F. Portable Variable Speed Limit System – A Contractor-furnished system deployed to dynamically reduce regulatory speed limits.
- G. PVSL Equipment – portable variable speed limit signs, and portable traffic detection.

Delete Article 1.7, Paragraph A and replace with the following:

- A. Use devices and systems that meet NCHRP-350 Report crash test requirements as defined in the four categories by the Federal Highway Administration.
 - 1. Category 1 (cones, barrels and delineators), Category 2 (barricades and sign stands) and Category 3 (Barriers, crash cushions and truck mounted attenuators) – Must meet NCHRP-350.
 - 2. Category 4 – Arrow Board, portable variable message signs, and PVSL Equipment do not have to meet NCHRP-350 Report test requirements.

Add the following to Article 1.8, Paragraph A:

- 8. Incorporate PVSL System and PVSL Equipment when regulatory variable speed reductions have been approved by the Engineer in agreement with an approved Traffic Engineering Order (TEO).

Add the following to Article 1.9, Paragraph B:

11. Document the PVSL System and Equipment Phasing.
12. Document the approved Traffic Engineering Order (TEO) parameters.

Add the following to Article 1.10, Paragraph C:

13. Adjust the PVSL Equipment as necessary to maintain proper alignment, spacing, location and performance of the PVSL System.

Add the following to Article 2.3, Paragraph A:

4. Comply with PVSL Work Zone Signing Detail (DT-20) when using PVSL System and PVSL Equipment.

Add Articles 2.6 and 2.7:

2.6 PORTABLE VARIABLE SPEED LIMIT (PVSL) EQUIPMENT

- A. PVSL Sign consisting of the following components:
 1. VSL sign, a traffic detection device, wireless communications equipment, and a GPS device.
- B. Portable Traffic Detection consisting of the following components:
 1. Traffic detection device, wireless communications equipment, and a GPS device.

2.7 REQUIRED CAPABILITIES OF PVSL EQUIPMENT

- A. Traffic detection device capable of determining vehicle speeds and volumes for approaching vehicles within 300 to 500 feet in advance of the detector.
- B. Wireless communications equipment capable of supporting the PVSL System functionality.
- C. GPS device capable of locating and communicating PVSL Equipment location via wireless communications to PVSL System.

Delete Article 3.3 and replace with the following:

3.3 TRAFFIC CONTROL SIGNING AND DEVICES

- A. Use posted speed limit prior to construction to compute sign spacing, taper lengths, buffer zones, and construction clear zone.

1. Use plastic drums or directional barricades for lane closure taper devices for speeds 50 mph and greater.
- B. Use Work Zone Posted speed limit during construction to compute the tangent spacing for channelizing devices.
- C. Remove all traffic control devices from the site of work at the end of each workday.
 1. Obtain written permission from property owner prior to storing traffic control devices on private property.
 2. Cover post mounted signs completely with an opaque and durable covering when the signs are not applicable.

Add the following to Article 3.6:

- B. Obtain approval for use of PVSL System and Equipment to implement regulatory variable speed reductions from the Engineer in agreement with an approved TEO.
 1. Refer to <http://www.udot.utah.gov/go/standardsreferences> for policy information.
 2. PVSL System will post speed and operate within the following parameters:
 - a. Post variable speed limits based on the rolling 5-minute average speed at the traffic detection device located within the AWS rounded down to the nearest 5 mph and subtracted by 5 mph.
 - b. Minimum time between change in variable speed limit is every 15 minutes.
 - c. All speed limits must remain within the TEO high and TEO low speed limits as provided for by an approved TEO.
 3. Restore posted speed limit to TEO high speed limit, at times work activities and workers are not adjacent to traffic within the AWS.
 4. Restore variable speed limit to last applicable speed limit:
 - a. When no data is received from the portable traffic detection device located in the AWS, or is not relevant to the existing traffic conditions, or if communications to the PVSL sign is lost.
 - b. When repositioning the traffic detection device within the AWS.
 - c. When volume of traffic is less than 5 vehicles per minute through the AWS.
 5. Use PVSL Equipment for speed reduction only when construction activities impact traffic and when the following exists:
 - a. The AWS is in place for a period longer than 30 minutes.
 - b. The AWS does not exceed 1 mile in length.
 6. Refer to TC Series Standard Drawings and PVSL Work Zone Signing Detail (DT-20) for signing requirements associated with usage of PVSL equipment.

7. Verify PVSL sign and traffic detection device is oriented to face oncoming traffic.
8. Move and operate the PVSL equipment as the AWS moves within the project limits such that the dynamic operation of change in variable speed experiences no more than 1 hour of system interruption.
9. Locate PVSL Equipment as shown in PVSL Work Zone Signing Detail (DT-20) and in accordance with approved Traffic Control Plan.
10. Archive all PVSL System events (loss of communications alarms, PVSL Equipment low power alarms, manual override of speed limit posted on a PVSL sign, and speed limit change on a PVSL sign) with a unique device name for each PVSL Equipment and the following data related to the event:
 - a. The GPS coordinates identifying the location of the equipment, or last known location if it is a communications failure event.
 - b. A date and time-stamp to when the event was generated, using the time zone for where the equipment is located.
 - c. The new speed limit value being posted on the PVSL sign, if the event is reporting a change to the posted speed limit.

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SECTION 01557S

MAINTENANCE OF TRAFFIC (MOT)

Add Section 01557:

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. MOT Maintainer
- B. Maintenance of Traffic (MOT) plans, Materials, and labor necessary for implementation.
- C. Variable message signs and construction signs

1.2 RELATED SECTIONS

- A. Section 00555: Prosecution and Progress
- B. Section 01554: Traffic Control
- C. Section 02891: Traffic Signs

1.3 REFERENCES

- A. Manual on Uniform Traffic Control Devices, Latest Edition (MUTCD).

1.4 DEFINITIONS

- A. Maintenance of Traffic (MOT): The work necessary to advise the public of changes to normal traffic flow, and to indicate planned detours and alternate routes to closed roads. Use solely as advisory information to the public.

1.5 SUBMITTALS

- A. Daily inspection reports on a form acceptable to the Engineer.