Title: HIGHWAY DESIGN MANUAL REVISION NO. 89:
CHAPTER 16 – MAINTENANCE AND PROTECTION OF TRAFFIC IN HIGHWAY WORK ZONES (LIMITED REVISION)
CHAPTER 18 – PEDESTRIAN FACILITY DESIGN (LIMITED REVISION)

Approved:

/s/ Richard D. Wilder  4/26/17
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ADMINISTRATIVE INFORMATION:
- This Engineering Bulletin (EB) is effective upon signature.
- Superseded Issuances: None
- Disposition of Issued Materials: Chapters 16 and 18 of the Highway Design Manual (HDM) have been modified to incorporate the guidance contained in this EB.

PURPOSE: The purpose of this EB is to announce limited revisions of HDM Chapter 16 and HDM Chapter 18.

TECHNICAL INFORMATION:

Chapter 16 – Maintenance and Protection of Traffic in Highway Work Zones:
- This EB is being issued concurrently with EI 17-003 “Revisions to Standard Specification Section 619 – Work Zone Traffic Control” and EI 17-004 “Revisions to Standard Specifications - §729-16 – Portable Variable Message Signs (PVMS) and §729-22 - Truck Mounted Variable Message Signs” (TVMS).
- Subsection 16.2.5.1, “Portable Variable Message Signs (PVMS): General” has been revised to include definitions and illustrations of the three subgroups of Variable Message Signs: Character Matrix, Line Matrix, and Full Matrix.
- Subsection 16.2.5.3, “Portable Variable Message Signs (PVMS): Selecting the Correct PVMS Pay Item” has been updated to include clarification and guidance for selecting the appropriate VMS Display. This subsection also reiterates that designers/others should consult with the appropriate experts to determine which VMS display fits their project.

Chapter 18 – Pedestrian Facility Design:
- The “Critical Elements for the Design, Layout and Acceptance of Pedestrian Facilities” sheet has been revised. A copy of the revision is attached, and is posted on the Highway Design Manual Chapter 18 web page. Specific changes include:

Existing Ramps to Remain on 1R Projects
- There is now a cross slope requirement for curb ramps on 1R projects. The strictest interpretation of the 1991 standards sets the maximum cross slope for any part of an accessible route, including a curb ramp, at 2%. This is more rigorous and less practicable.
than the current (PROWAG) guidelines for curb ramps, which allow the curb ramp cross slope to match the highway grade at crossings without yield or stop control. FHWA has agreed that cross slopes on existing curb ramps can be evaluated by the current PROWAG standards.

- There is now a requirement for detectable warnings on curb ramps built or altered during certain periods between 1991 and 2012.
  The requirement for detectable warnings on curb ramps was suspended and reinstated several times since the ADA guidelines were issued in 1991. To date, Department guidance has indicated that existing ramps subject to the 1991 standards do not need detectable warnings. However, the “Supplement to the 2013 DOJ/DOT Joint Technical Assistance” ¹ clarified that detectable warnings must be included on curb ramps that were built or altered during periods when the detectable warning requirement was in effect. The date ranges are now shown in the “Notes” under the 1R Projects section.

“New and Replacement Facilities”

- The min. sidewalk widths for curb ramps (144” perpendicular curb ramps, 48 “min for parallel curb ramps, 72” for combination type) has been removed.
  These dimensions are included in a PROWAG advisory, but they're frequently a source of confusion. The guidelines don't indicate where the dimensions should be measured, and it’s a redundant dimension, since the individual curb ramp elements that require that space are all covered elsewhere in the sheet.

- Building code references have been updated to the 2015 NYS Building Code.

- The min. grade for a curb ramp has been removed.
  A ramp cannot be rejected for failing to meet the minimum grade, so it is not considered a critical value. In PROWAG, the curb ramp min. grade (5%) overlaps with the blended transition max. grade (5%). This has caused some confusion, but it’s only a matter of what the facility is called, rather than a matter of compliance.

IMPLEMENTATION:

Chapter 16 – Maintenance and Protection of Traffic in Highway Work Zones:

- Projects in process, PS&Es not submitted – designers shall refer to the guidance in HDM Chapter 16 and consult with the appropriate experts to select the correct size(s), type(s), display(s), and pay unit(s) of PVMS for their projects.
- Projects with PS&Es submitted, not let – designers shall refer to the guidance in HDM Chapter 16 and consult with the appropriate experts to verify that the correct size(s), type(s), display(s), and pay unit(s) of PVMS have been selected for their projects. Designers should contact their Design Quality Assurance Bureau’s PS&E Section Contact to coordinate corrective action for any projects that include incorrect PVMS pay item(s).
- Ongoing construction projects and projects submitted for letting prior to the effective date – Engineers-in-Charge and/or the Regional Construction Group, in consultation with the appropriate experts, shall verify that the correct size(s), type(s), display(s), and pay unit(s) of PVMS have been selected for the projects they will be administering. Any changes shall be addressed by Order-On-Contract or in accordance with the applicable Construction policies and procedures, as appropriate.

¹ U.S. Department of Justice Civil Rights Division and Federal Highway Administration, “Supplement to the 2013 DOJ/DOT Joint Technical Assistance on the Title II of the ADA Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing”, December 1, 2015.
Chapter 18 – Pedestrian Facility Design: This is a clarification of existing standards. Changes are effective immediately, and apply to projects that have already been designed, let, or are under construction. Facilities that do not meet the “acceptance” limits (and can't be justified as nonstandard) should be corrected or rebuilt.

TRANSMITTED MATERIALS:
- The revisions have been incorporated into the online version of HDM Chapter 16 at https://www.dot.ny.gov/divisions/engineering/design/dqab/hdm/hdm-ch16
- The “Critical Elements for the Design, Layout and Acceptance of Pedestrian Facilities” sheet has been revised. A copy of the revision is attached, and is posted on the Highway Design Manual Chapter 18 web page.
- The sections modified by this revision can be found at the beginning of HDM Chapter 16 and HDM Chapter 18.

CONTACTS:
Direct questions regarding the HDM Chapter 16 revisions to Sandra Urrutia of the Office of Traffic Safety & Mobility at 518-457-4822 or via e-mail at sandra.urrutia@dot.ny.gov.

Direct questions regarding the HDM Chapter 18 revisions to Kara Phillips of the Office of Design at 518-485-8829 or via email at kara.phillips@dot.ny.gov.