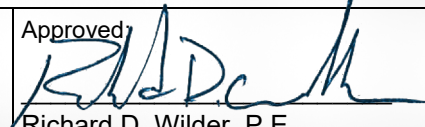
	Department of Transportation	ENGINEERING BULLETIN	EB 26-015
Title: HIGHWAY DESIGN MANUAL REVISION NO. 104 – CHAPTER 2, 4, 5 (INCLUDES APP 5A & 5B), 6, 7, 8, 10, 11, 16, 18, 21 AND 26 (LIMITED REVISIONS)			
		Approved:  Richard D. Wilder, P.E. Deputy Chief Engineer (Design)	4/24/2026 <hr/> Date

Expires one year after issue unless replaced sooner

ADMINISTRATIVE INFORMATION:

- Effective Date: See Implementation dates below.
- Superseded Issuances: EI 07-021, EI 13-005, EI 13-018, ED 15-004, EI 20-007, EI 22-024, EI 23-029, EI 24-010 EI 25-007, EI 25-011, EI 25-027
- Disposition of Issued Materials: Revisions issued with this EB have been incorporated into the Highway Design Manual (HDM)
<https://www.dot.ny.gov/divisions/engineering/design/dqab/hdm>).

PURPOSE: To announce the availability of revisions to HDM Chapters 2, 4, 5 (includes App 5A & 5B), 6, 7, 8, 10, 11, 16, 18, 21 and 26.

TECHNICAL INFORMATION:

Chapter 2 changes include:

- Updated to refer to HDM Chapter 4 for design criteria on Collectors and Local roadways with 2,000 AADT or less
- Added examples to Rural and Rural Town context classes; Corrected Exhibit 2-1 references to the design criteria sections for Rural Local and Urban Local Roadways; and added footnote 5
- Revised “flat” to “level” for consistency with terrain terminology throughout the HDM
- Revised Exhibit 2-1b (and affected design criteria tables) to note 6% superelevation should be used for Rural Town, Urban and Urban Core Arterials, Collectors, and Local Streets with design speeds over 45 mph
- Added section for Critical Design Element – Interstate Level of Service
- Added Critical Design Element K. Interstate Level of Service
- Revised criteria discussions and exhibits for Rural Collectors to refer to HDM Chapter 4 for Minor Collectors with 2,000 AADT or less
- Revised criteria discussions for Rural Town, Suburban, Urban, and Urban Core Collectors to refer to HDM Chapter 4 for Minor Collectors with 2,000 AADT or less
- Revised criteria discussions and exhibits for Local Rural Roads to refer to HDM Chapter 4 for Minor Collectors with 2,000 AADT or less
- Revised criteria discussions and exhibits for Local Rural Town, Suburban, Urban, and Urban Core Streets to refer to HDM Chapter 4 for Minor Collectors with 2,000 AADT or less
- Updated to match Nonstandard Feature Justification form dated 12/15/2025
- Updated Critical Design Elements Table
- Updated references

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Chapter 4 changes include: Full revision

Chapter 5 changes include:

- Update to the title of the current accessibility guidelines where provided
- Added information about using Big Data for modeling/calibration
- Adds additional requirements for microsimulation procedure
- Added new requirements for no more than 3 year old traffic data in section 5.2.4 Updating Traffic Data and Capacity Analysis
- Updated crash analysis procedures for Design's responsibility related to the CLEAR analysis
- Clarifies minimum area to be retained for sight distance, access control, clear zone, and existing future maintenance needs
- Added Exhibit 5-26a Freeway Crashes and Level of Service (LOS)
- Update to the accessible on-street parallel parking requirements based on PROWAG 2023. Revisions include minimum dimensions for parking spaces, requirements for an unobstructed area curbside, and detail on the location for curb ramps or blended transitions that serve the accessible parking
- Revised to meet current accessibility guidelines and to update requirements to walkways that modify the State ROW
- Revised sight distances values to be consistent with changes made to HDM 2
- Updates to Appendix 5A and 5B for consistency with AASHTO Green Book

Chapter 6 changes include:

- Rescind HDM Chapter 6 – Interchanges, with the exception of Section 6.04.09 – Control of Access and related figures

Chapter 7 changes include:

- Reference to ramp terminal requirements to minimize wrong way moves
- Reference to CLEAR
- Clarification that using a lower maximum superelevation rate is non-standard and using a higher rate is nonconforming
- Updated horizontal curve info for the -2%, 0% and 2% normal crown cross slopes and updated the minimum radius to the 2018 AASHTO SU-30 vehicle
- Removed horizontal clearance from the list of critical design elements and noted that either the current, or standards of the day stopping sight distance can be used
- Reference to ramp terminal requirements to minimize wrong way moves
- Fixed typo in heading
- The title and year of PROWAG by changing instances of "2011 Proposed Accessibility Guidelines for Pedestrian Facilities in Public Rights-of-Way (PROWAG)" to "2023 Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG)," and by changing "2011 PROWAG" to "2023 PROWAG"

Chapter 8 changes include:

- Modified language defining crosswalks, modified definition of Pedestrian Access Route (PAR), and removed option for non-compliant inlet locations
- Modified the definitions for Disturbance and Area of Disturbance to include limitations for staging and spoils areas located within 0.25 miles of the project
- Updated Exhibit 1 for examples of routine maintenance to reflect changes in the 2024 Stormwater Design Manual
- Updates requirements in HDM 8B for SPDES General Permit, including special note required

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Chapter 10 changes include:

- Updated references to current crash testing standards from NCHRP 350 to MASH 2016
- Clarified language on purpose
- Removed guidance contained in other appropriate sections
- Clarified language on relationship between Clear Zone and right of way
- Increased the Recommended Basic Recovery Width for facilities with design speeds of 70 mph or greater
- Updated guidance for evaluation of Horizontal Curve Adjustments for non-standard curves
- Clarified language on roadside barrier purpose
- Updated guidance for Evaluation of Water Features
- Revised shielding option to suggest use of expendable attenuators when shielding point features set well back in the clear zone.
- For posted speeds of 45 mph or less, preferred distance (number of feet) from start of terminal to shielded object reduced to number of MPH of posted speed. (45 feet for 45 mph)
- Deflection chart updated for 3-Cable, Mid-Tension Cable, and TCB
- Separated discussion of generic and proprietary cable systems and updated to include Mid-Tension Cable Guide Railing
- Updated discussion with testing status
- Updated guidance on concrete barrier at pier locations
- Updated use and availability of timber-steel barrier systems
- Updated guidance for allowable deflection for site constrained median barriers
- Included testing status language
- Described new MASH-compliant design of box beam median barrier
- Included testing status language
- Changed Section title from Innovative Median Barrier to Specialty Median Barriers and removed unused and rarely used types
- Expanded coverage of Moveable Concrete Barriers
- Use of generic flared-back corrugated beam terminals suspended pending successful testing.
- Described new terminal designs for Mid-Tension Cable Guide Rail
- Updated testing status
- Added coverage of MaxTension corrugated beam median terminal and MATT median terminal
- Updated guidance on use of box beam end pieces and reference to Pedestrian Breaks
- Added figure for Opposite Direction Clear Zone Limits
- Added guidance on options to use when box beam BEAT terminal encounters rock with its 6-foot-deep posts
- Updated guidance on Median Box Beam End Sections
- Updated testing status
- Removed mention of Easi-Cell Clusters as they are no longer sold
- Contractor to select attenuator from Approved List options and provide PE-stamped design for connection to shielded feature
- Added guidance on when to use expendable versus reusable attenuators and what information designers must supply about site. Removed information on outmoded systems.
- Removed mention of Hydro Cell Clusters
- Updated section on Pedestrian Breaks in Box Beam Guide Rail
- Added height for mid-tension cable guide rail and HPBO
- In Basic Safety Packages, added replacement of guide rail that has begun to rust
- Removed Construction Zone Guidance now contained in Chapter 16
- Removed Cattle Pass Guidance

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- Updated guidance on Cable Guide Railing
- Removed reference to pier protection barrier with Jersey-shaped concrete barrier.
- Updated to include MASH 2016 and the AASHTO-FHWA Joint Agreement on Implementation of MASH 2016
- Updated references to A Policy on Geometric Design of Highways and Streets to the most recent edition (7th edition, 2018)
- Retitled and renumbered tables and figures as consecutive “exhibits’ and updated references in text

Chapter 11 changes to §11.3.1.4 Pedestrian Signals include:

- Added guidance to show conditions for which pedestrian signal heads shall be provided
- Updated meanings of pedestrian indications
- Updated the requirements for the type of feedback a pedestrian push button gives the user
- Updated the guidance for midblock crossing design

Chapter 16 changes include:

- Changes to Section 16.3.1.8 to discuss requirement for engineering study (I.E. PPD Decision Matrix) to be completed on all projects
- Changes to Section 16.3.4 updated definitions and description of TMIA to be consistent with guidance from Traffic & Safety
- Changes to Section 16.4.4.2 to clarify the scope of pedestrian provisions provided during construction
- Changes to Section 16.4.4.5.D to discuss requirement for pavement patching items and guidance on estimating them
- Changes to section 16.4.6.5 to discuss Automated Work Zone Speed Enforcement (AWZSE) and the requirement for additional regulatory speed limit signs in all freeway work zones.
- Changes to section 16.5.7.2 update language to be consistent with Positive Protection guidance from FHWA
- Fixed broken web links in Section 16.2.5.1 and fixed typos in Section 16.4.1.1 and 16.5.6.A.
- Updated NCHRP 350 to MASH in section 16.2.11.1 and 16.3.3
- Updated standard sheet references in sections 16.3.3, 16.4.3.2, 16.4.7.1, and 16.4.7.2.
- Updated language from escape path to escape route in section 16.4.4.1 and 16.4.7.2 to be consistent with other NYSDOT guidance
- Corrected hyphenation throughout the chapter for the terms roll-ahead, multi-lane, two-way, and two-lane to be consistent with the MUTCD

Chapter 18 changes include:

- Where the title of the current accessibility guidelines is provided, the title is updated to “Accessibility Guidelines for Pedestrian Facilities in the Public Rights-of-Way” also known as Pedestrian Rights-of-Way Accessibility Guidelines (PROWAG)
- PROWAG reference date has been revised to 2023
- Updated units of measurement to US Customary and metric in parenthesis
- References to ADA, ADAAG, and PROWAG, have been updated throughout the document
- §18.1 Introduction, §18.2 Chapter Objectives and §18.3 Policy statements updated
- The following sections have been updated for consistency with the PROWAG final rule issued by the US Access Board in 2023:
 - §18.4 Definitions
 - §18.5.5 Pedestrian Facility Documentation
 - §18.6.1 Pedestrian Facility Design under the ADA
 - §18.7.1 Pedestrian Street Crossing Dynamics

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- §18.7.2.4 Roundabouts
- §18.7.2.8 Pedestrian/Rail Crossings
- §18.7.4 Detectable Warnings
- §18.8.6 Elevators
- §18.10 Bus Stops and Transit Stations
- §18.11 Pedestrian Facilities at Parking Areas
- Updated reference document names and edition dates
- Images and references to outdated documents or guidance have been removed or updated throughout the document
- Corrections: minor spelling errors, drafting errors, conversion errors, CAD standard updates, improved wording or punctuation for clarity, and other minor discrepancies have been corrected when noted

Chapter 21 changes include:

- Add guidance on alternative location for placement of consultant logo on plan sheet borders.
- Added "Contract Type" as additional required information for D# request emails
- Added statement that proprietary specifications may be subject to OSC approval
- Clarified when the standard pay item for Mobilization is to be included in project estimates
- Moved existing CPM scheduling cost guidance into a new table, Table 21-8 Recommended CPM Scheduling Cost
- Updated Builders' Risks Policy amount to be for no less than 100% of the construction cost for new/reconstructed structures (previously was for 20%)
- Removed some outdated references to need for separate proposal notes related to "Marine Protection & Indemnity Insurance Coverage
- Add clarification that the required quantity work-up details also applies to lump sum pay items.
- Added clarification that Engineering Shares are referred to as Categories in AASHTOWare Project Preconstruction
- Added guidance on how and when to distribute overhead type pay items across multiple engineering shares/categories
- Added statement that when quantity changes are made after PS&E submission that new quantity workup calculations need to be re-submitted and/or issued by amendment as an update to the CONR 9 files
- Added statement that any exceptions to the standard project bid opening schedule deadlines (e.g., requests for expedited PS&E review) must be approved by DQAB and/or the DCED
- In Table 21-9c, changed "Project Management Bureau" to "Program Management Bureau" and "Contract Management Bureau" to "Office of Contract Management"
- Updated guidance on establishment of DBE, MBE, WBE & SDVOB goals for submission in the PS&E transmittal memo
- Updated references to AASHTOWare "Expedite" files to "Project Bid" files

Chapter 26 changes include:

- References made to NCHRP 672 were updated to NCHRP 1043 where applicable
- Roundabouts are now the preferred alternative at interchanges with closely spaced on/off ramps
- Item 5 was added to address alternatives to handle right turning tractor trailers
- Exhibit 26-8 Autoturn Figure of Trucks Completing Full Loop vs. Truck Apron, was inserted
- Exhibit 26-9 Sign Face for Right Turing Tractor Trailers was inserted
- Old exhibits 26-8 onwards were renumbered
- Exhibit 26-10 Typical Multi-Lane Roundabout Marking Layout – was updated to show gore

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- striping continuing through the circulatory roadway
- Exhibit 26-11 Typical Multi-Lane Roundabout Marking Layout with Spiraling Lane – was added
- Exhibit 26-9 Multi-Lane Roundabout Signing Layout – was updated so that ‘one way’ signs replace chevron signs on the inside of the circulatory roadway
- Exhibit 26-13 Fastest Path Table – was updated to the most recent version
- Pavement Selection section was added
- Pedestrian accommodations were updated to meet new PROWAG standards
- Bicyclists section updated to include updated bike accommodation preferences from NCHRP 1043

IMPLEMENTATION: Except where already implemented, HDM Chapter 2, 4, 5, 6, 7, 8, 10, 11, 13, 16, 18, 21 and 26 revisions are to be implemented on projects with lettings on or after December 31, 2026.

TRANSMITTED MATERIALS: These revisions have been incorporated into the online version of Chapters 2, 4, 5, 6, 7, 8, 10, 11, 16, 18, 21 and 26 at:
<https://www.dot.ny.gov/divisions/engineering/design/dqab/hdm>.

BACKGROUND:

HDM Chapter 16: Section 16.4.4.2 generated questions from both Design and Construction as to what conditions may require provisions such as temporary shuttle services to be provided during construction. The proposed revisions clarify those conditions. In accordance with 23 CFR Chapter I, Subchapter G, Part 630 Subpart K (CFR), agencies that receive federal funding for highway projects are required to develop policy to outline when Positive Protection Devices (PPD's) are warranted for each work zone. PPD's provide a physical barrier between workers and moving traffic, or roadside hazards and moving traffic, throughout the course of a project. The office of Traffic Safety & Mobility has released a TSMI intended as an interim document, and the proposed revisions will include these requirements in the Highway Design Manual for long term reference. The office of Traffic Safety & Mobility requested guidance added to cover the requirement for additional regulatory speed limit signs in freeway work zones. The office of Construction requested guidance added to cover pavement patching items and estimating guidance. Standard sheet references and typos were fixed and language was also updated to be consistent with other reference manuals such as the MUTCD.

HDM Chapter 18: The ADA sets forth a two-step process for the adoption of federally enforceable accessibility standards. First, the ADA directs the U.S. Architectural and Transportation Barriers Compliance Board (US Access Board) to adopt minimum guidelines for the accessibility of buildings and facilities. Second, the United States Department of Transportation (US DOT) and US Department of Justice (US DOJ) are directed to adopt accessibility standards into their respective ADA regulations that are consistent with the US Access Board's minimum accessibility guidelines, at which point, they become enforceable standards.

On August 8, 2023, the US Access Board issued minimum guidelines for accessibility of facilities in the public right-of-way (ROW). The guidelines, referred to as the Public Right-of-Way Accessibility Guidelines or PROWAG, apply to the construction or alteration of pedestrian facilities and are provided to ensure that public pedestrian facilities comply with the ADA, among other related regulations. The PROWAG was adopted by the US DOT and made effective on January 17, 2025 for transit projects (see EI 25-011) and is currently awaiting adoption for use on highway projects.

While not yet enforceable, other than on transit stop projects, the recent issuance of the PROWAG included changes and clarifications to standards under previous versions. The NYSDOT's design and technical standards for pedestrian facilities are based on the guidance in the PROWAG. The

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NYS DOT's PROWAG Working Group has made recommendations for revisions to the Department's design criteria and standards based on the current PROWAG. This clearance review is a product of that group's recommendations for revisions to associated chapters of the HDM.

Revisions to accessibility standards as issued by this EB, are consistent with the 2023 PROWAG. The following 2023 PROWAG standards are not implemented as part of this issuance:

R202.1 Scope

- The requirement for alterations to existing facilities to comply with 2023 PROWAG is not feasible for all project scopes (e.g. 1R projects).

R303.2 Signs for Alternate Pedestrian Access Routes

- Field testing for potential products is in progress. There is currently no approved product list.

R307.7 Audible and vibrotactile indication for pedestrian activated warning devices

- Field testing for potential products is in progress. There is currently no approved product list.

R206.3, R306.3, R307.2 Pedestrian Activated Warning Devices

- The requirement for alterations to existing signals is not feasible for all project scopes.

R307.8, R307.8.4 Locator Tone & Traffic Control Signal in Flashing Mode

- This requirement is not technically feasible to accomplish with the flashing mode.

R408.6 Visual Contrast

- There is currently no approved product list to support this requirement.

HDM Chapter 21: The revisions in this issuance are primarily to further clarify the existing implementation details for the development of construction contract documents and to update references to current means and methods (e.g., CADD applications). Based on input from the Legal Affairs Division the minimum required policy amount for Builder's Risk coverage was increased to cover the full construction costs associated with the structure (up from 20%).

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