



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219 2000

Gregory A. Whirley
Commissioner

July 16, 2012

MEMORANDUM

To: All Virginia Department of Transportation Preliminary Engineering Design Staff

Effective July 16, 2012, The Virginia Department of Transportation (VDOT) adopted, in whole, the 2011 AASHTO publication "*A Policy on Geometric Design of Highways and Streets*" 6th Edition, also known as the "Green Book". Revisions have been made to the *Road Design Manual* (RDM) and the *Road & Bridge Standards* to reflect the 2011 AASHTO Green Book.

The contents of the RDM have been revised to reflect changes from the 2001 and 2004 editions to the 2011 edition of the AASHTO Green Book. This includes all relevant policy language as well as Geometric Standards.

Revisions related to superelevation rates are included in the *Road & Bridge Standards* and are designated as TC-5.11. The TC-5.11 standards will be required for all projects with an advertisement date of August 13, 2013, and later. Any project in which the designer cannot meet this date shall obtain approval from the Deputy Chief Engineer or his designee.

In all cases, designers are encouraged to exceed the minimum values noted throughout the 2011 AASHTO Green Book. When minimum values are used, the Engineer should have exhausted all means to exceed the minimum values. All situations, in which minimum values are considered, should be thoroughly evaluated to insure the safety of the traveling public.

If you have any questions or comments regarding the adoption of the 2011 AASHTO Green Book, please contact the State Geometric Engineer, Joseph Koscinski Jr., P.E., at (804) 225-3934.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Mohammad Mirshahi'.

Mohammad Mirshahi, P.E.
Deputy Chief Engineer



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219 2000

Stephen Brich
Commissioner

December 17, 2018

MEMORANDUM

To: All Virginia Department of Transportation Preliminary Engineering Design Staff

Re: A Policy on Design Standards—Interstate System, May 2016

The FHWA is revising § 625.4(a)(2) to replace the reference to the January 2005 edition of A Policy on Design Standards—Interstate System with the May 2016 edition. This Policy is a comprehensive manual to assist State DOT's and local agencies in administration, planning, and educational efforts pertaining to design formulation for projects on the Dwight D. Eisenhower National System of Interstate and Defense Highways (Interstate).

The updated guide clarifies ambiguities in the prior edition and provides additional flexibility regarding the design traffic volumes to be accommodated. It increases the median width in rural areas to reduce cross-median crashes and adds recommendations about extended access control and multimodal considerations at interchanges.

The incorporation by reference of this and other publications listed in the rule is approved by the Director of the Federal Register as of December 3, 2018.

Therefore effective December 3, 2018, The Virginia Department of Transportation (VDOT) adopted, in whole, the 2016 edition of the AASHTO A Policy on Design Standards—Interstate System.

The new interstate standards will be required for all projects that have not yet achieved PE authorization as of December 3, 2018.

Revisions will be made to the Road Design Manual (RDM) in January 2019 to reflect the recent updates. If you have any questions or comments regarding this memo, please contact the State Geometric Engineer, Joseph Koscinski Jr., P.E., at (804) 225-3934.

Sincerely,

A handwritten signature in black ink, appearing to read "Susan H. Keen".

Susan H. Keen, P.E.

State Location and Design Engineer



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219 2000

Gregory A. Whirley
Commissioner

September 11, 2012

MEMORANDUM

To: District Location & Design Engineers
District Project Development Engineers
District Construction Engineers
District Project Management Office

The Virginia Department of Transportation (VDOT) adopted the 2011 AASHTO publication "*A Policy on Geometric Design of Highways and Streets*" 6th Edition, also known as the "Green Book" on July 16, 2012. The 2011 AASHTO Green Book revisions to superelevation and curve widening have been added in the Transition Curves portion of the Road and Bridge Standards and are designated as TC-5.11. These standards are based on design vehicle/speed and utilize a SU-40 vehicle for velocities of 20 mph to 35mph and a WB-62 vehicle for velocities of 40 mph to 80 mph, as the baseline design vehicles for widening.

When working on a project with a different design vehicle and/or speed than the baseline used in the Transition Curve Standards, the designer should calculate the required widening and adjust the superelevation transition lengths using the equations and factors within chapter 3 of the 2011 AASHTO Green Book. The *Road & Bridge Standards* TC-5.11 Standard contains example calculations for transition lengths and widening on pages 803.19 through 803.22. An electronic design aid for these calculations is forthcoming.

If there are reasons for a project to deviate from the TC-5.11 Standards, it should be submitted to the District Location & Design Engineer for approval. He/she should grant a design waiver on a project by project basis with accompanying documentation and mitigation strategy. Generally increasing the lane width to 12' would alleviate the need for widening in most cases. A common mitigation strategy used to accommodate widening for larger design vehicles where increasing the lane width is not possible is to pave a portion of the graded shoulder with full depth pavement through curves to accommodate off-tracking. Careful consideration shall be given in the design of a roadway to insure the safety of the traveling public.

The TC-5.11 standard is required on all projects with an advertisement date of August 13, 2013 and later. It is recognized that implementation of the TC-5.11 Standards may impact project estimates and schedules. Use of the TC-5.01 transition curve standard beyond the August 13,

2013 project advertisement date requires approval on a project by project basis from the appropriate Assistant State Location & Design Engineer.

If you have any questions or comments regarding the use of the TC-5.11 Standards, please contact the State Geometric Engineer, Joseph Koscinski Jr., P.E., at (804) 225-3934.

Sincerely,

A handwritten signature in black ink, appearing to read "Mohammad Mirshahi". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Mohammad Mirshahi, P.E.
Deputy Chief Engineer