




SUBJECT 2004 AASHTO "A Policy on Geometric Design of Highways and Streets" (Green Book) Adoption	FINAL NUMBER RD07-01(B)	EFFECTIVE DATE 02/12/2007	VALIDATION DATE 11/09/2009	RESCINDED
	WEB LINK(S) http://www.oregon.gov/ODOT/HWY/TECHSERV/			
TOPIC/PROGRAM Highway Design Manual	APPROVED SIGNATURE  Ed Fischer, P.E. State Roadway Engineer			

PURPOSE

AASHTO has issued the Fifth Edition of *A Policy on Geometric Design of Highways and Streets* (2004 Green Book). Whether to use the 2001 Green Book or the 2004 Green Book for projects on Oregon State Highways needs to be determined and communicated to ODOT and consultant designers.

GUIDANCE

To provide flexibility in design, the 2001 or 2004 AASHTO Green Book may be used for local agency projects not on state highways and as supplemental information to the Highway Design Manual for ODOT projects and local agency projects on state highways.

DEFINITIONS

AASHTO – American Association of State Highway and Transportation Officials

Green Book – Common name give to the AASHTO publication "A Policy on Geometric Design of Highways and Streets"

BACKGROUND/REFERENCE

The major change in the 2004 Green Book is the revision of the superelevation and superelevation runoff section. The other significant change involves terminology for the middle ordinate of a horizontal curve, "M". The "M" has been changed to "HSO" (horizontal sightline offset) to avoid confusion between the survey term "M" and the horizontal sightline offset. In addition to these changes, technical corrections have been made to the 2001 Green Book and incorporated into the 2004 Green Book. Later printings of the 2001 Green Book incorporated many of the technical corrections, but not all of them. Most of Roadway's 2001 Green Books are of the first printing and contain the most errors.

FHWA has issued an action item concerning AASHTO design standards for projects on the National Highway System. The action item discusses the changes in the 2004 Green Book concerning superelevation and other minor changes. The action item memorandum goes on to note that the 2004 Green Book is in substantial conformance with the criteria in the adopted 2001 Green Book, therefore allowing States to use either the 2001 or 2004 Green Book for design standards for projects on the National Highway System.

ODOT has developed its own design standards, outside of AASHTO, for superelevation rates and superelevation runoff for highways on the State Highway System. The AASHTO Green Book can be used as a supplement to the Highway Design Manual (HDM) for general background on superelevation rates and runoff. FHWA has approved the design standards contained in the Highway Design Manual for use on National Highway System routes, noting that the design standards in the HDM meet or exceed standards found in 2001 Green Book. Since FHWA has allowed States to use either the 2001 or 2004 Green Book there is no need for ODOT to formally adopt the 2004 Green Book. Formally adopting the 2004 Green Book would create referencing problems in the HDM as the 2003 HDM (English and metric versions) refers numerous times to the 2001 Green Book.

ODOT also has a Local Government Section that works with local agency projects. Design standards for the local agency projects are dependent upon roadway jurisdiction and are to use either ODOT HDM standards for local projects on State Highways or AASHTO Green Book standards for projects on local agency jurisdictional roads. Because local agency projects will have the option of using either the 2001 or 2004 AASHTO, ODOT staff should be familiar with either AASHTO Green Book.

ACTION REQUIRED

Local agency projects not on state highways may use either the 2001 or 2004 AASHTO Green Book. The 2004 AASHTO Green Book may also be used as supplemental information to the Highway Design Manual on ODOT projects and local agency projects on state highways.

Since FHWA has allowed the use of either the 2001 or 2004 AASHTO Green Book, formal ODOT adoption is not needed at this time. Formal adoption of the most current AASHTO Green Book can occur as part of the next Highway Design Manual update.

Attached is the FHWA Action memorandum noting the usage of either the 2001 or 2004 AASHTO Green Book.

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Attachment: FHWA Action Memorandum