## **VDOT DRAINAGE MANUAL SEPTEMBER 2009 REVISIONS**

All chapters have been revised except for 3, 4 and 5.

All revisions have been shaded on the pages of text for more clarity and there will be a revision date (9/09) shown in the lower left corner of the page.

All Errata have been incorporated into the Manual.

The following HDA's have been incorporated into the Manual:

•	<u>HDA 05-01</u>	Consideration of Flood Plain Storage in the Design of Drainage Facilities
•	HDA 05-02.2	Change in Procedure for Determining Mean & Low Tide Elevations (Revised 3/24/08)
•	<u>HDA 05-03</u>	DOT's Adoption & Implementation of NOAA ATLAS 14 Rainfall Precipitation Frequency Data
		*DOWNLOAD FILE -Microsoft EXCEL spreadsheet file containing "B, D, & E" factors referenced in Hydraulic Design Advisory (HDA) 05-03
•	<u>HDA 05-04.3</u>	Application of NRCS' "TR- 55" ,"TR-20", EFH -2 Hydrologic Computations Using NOAA ATLAS 14 Rainfall Data (Revised 9/08)
		* <b>DOWNLOAD FILE</b> - Microsoft EXCEL spreadsheet file containing NRCS' implementation of NOAA ATLAS 14 24-hr total point rainfall data for Virginia (and appropriate county zone maps) as presented in Hydraulic

Design Advisory (HDA)05-04.2

- <u>HDA 05-05</u> Dan Anderson Peak Discharge Determinations - Procedural Revision
- <u>HDA 06-02</u> Scour Considerations for Threesided Drainage Structures
- <u>HDA 06-03.1</u> Culvert Outlet Protect Road and Bridge Standard EC-1 (Revised 9/07)
- <u>HDA 06-04</u> Recommendations for Mannings "n" Values for VDOT Standard Riprap Sizes (Revised 11/06)
- <u>HDA 06-05</u> Erosion and Sediment Control Plan Details (Revised11/06)
- <u>HDA 07-02</u> Countersinking Considerations for Single and Multiple Barrel Culverts.
- <u>HDA 08-02</u> Guidelines for the Design and Acceptance of Roadway Causeways
- <u>HDA 08-03</u> Inlet Design Allowable Spread Criteria
- <u>HDA 09-02</u> Storm Sewer Pipe 06/08/09