

IMPERIAL ROAD DESIGN MANUAL
REVISIONS JANUARY 2007

CHAPTER 1B

- Page 1B-3 – Revised Principal Abbreviations, added “IPM”.
- Page 1B-4 - Revised Principal Abbreviations, deleted “PPMS”, “PPMS/E” and “PPMS/T”.
- Page 1B-19 – Revised Plan Abbreviations.

CHAPTER 1C

- Page 1C-8 – Revised Systems Operations Regions Map.
- Page 1C-9 thru 1C-18 – Added “Systems Operations Regions Town- City Mapping”.

CHAPTER 1D

- Page 1D-1 – Replaced “PPMS” schedule with “project” schedule.

CHAPTER 2A

- Page 2A-1 thru 2A-5 – Deleted reference to Form LD-219 and Replaced “PPMS” with “Project Pool” or “IPM”. Also, Revised language in various locations.
- Page 2A-12 – Added “by the Project Manager” under PREPARATION OF REPORT.
- Page 2A-15 – Replaced “coordinator” with “District Location and Design Engineer” and “Project Manager”. Added reference to IIM-LD-127.

CHAPTER 2B

- Page 2B-1 – Replaced “U-9” with “PD-3” and “Local Assistance Division” with “Urban Program Manager/ Project Manager”.
- Page 2B-2 – Replaced “Local Assistance Division” with “District Administrator” and deleted “Upon receipt of this memorandum the District Coordinator will issue design instructions and contact the District Location and Design Engineer to determine scheduling” under COMPLETE SURVEYS.
- Page 2B-5 – Revised language regarding REFINING HORIZONTAL AND VERTICAL ALIGNMENTS.

- Page 2B-6 – Revised language regarding COORDINATION WITH OTHER DIVISIONS AND AGENCIES.
- Page 2B-7 & 2B-8 – Revised language in various locations.
- Page 2B-11 – Revised language regarding PREPARATION OF INSPECTION REPORT.
- Page 2B-12 – Replaced “will” with “may” and deleted “at approximately the 50% stage of development” in 4th paragraph.
- Page 2B-13 – Replaced “Location and Design Engineer” with “Chief Engineer”.

CHAPTER 2C

- Page 2C-2 – Replaced “Program/Project Management System” with “Integrated Project Management” (IPM).
- Page 2C-4 – Deleted from HYDRAULICS COORDINATION the following language: “The Engineering Development and Project Management staff will coordinate with the District Office staffs periodically to discuss general operational procedures and technical issues and assist in the resolution of specific technical problems. The Central Office staff will review the engineering design and documentation of randomly selected projects completed by the District staffs to ensure conformity to standard polices and procedures and to ensure statewide continuity”.
- Page 2C-5 – Revised language regarding PROJECT MANAGEMENT.
- Page 2C-12 – Revised language regarding PREDETERMINED DESIGN and replaced “Traffic Engineer” with “Transportation and Mobility Planning Division”

CHAPTER 2D

- Page 2D-2 – Replaced “Local Assistance Division” with “Project Manager or the Urban Program Manager”.
- Page 2D-4 – Deleted “District Coordination Unit” from the 1st paragraph under DATA REQUIRED FROM DESIGNER.
- Page 2D-9 – Replaced “Designer” with “Manager”.
- Page 2D- 10 – Replaced “from the Administrative Support Section thru Form LD-219” with “through the “Project Pool” in IPM”.

- Page 2D-12 – Replaced existing SAMPLE PLAN SHEET with new sheet format.
- Page 2D-13 – Replaced existing SAMPLE DRAINAGE DESCRIPTION SHEET with new sheet format.
- Page 2D-17 – Replaced existing SAMPLE PROFILE SHEET with new sheet format.
- Page 2D-19 – Added “The names and phone numbers, including area code, and District, if applicable, of the following persons are to be shown in the upper left corner: Project Manager; (VDOT), Surveyed By: (L&D Survey Office Manager or Consultant Survey Project Manager), Design Supervised By: (Design Engineer in Responsible Charge) and Designed By; (Designer) as well as other revisions.
- Page 2D-26 – Deleted reference to Figures 2D-2 and 2D-3.
- Page 2D-27 – Added the word “State” between “Assistant Location”. Replaced “PPMS” with “UPC”.
- Page 2D-30 – Replaced “PCES (Project Cost Estimating System)” with “IPM (Integrated Project Management)” and replaced “L&D Project Manager” with “Project Manager”.
- Page 2D-34 – Replaced “Coordinator” with “Project Manager”.

CHAPTER 2E

- Page 2E-7 – Revised reference from Figure 2D-2 to 2D-1.
- Page 2E-8 – Deleted reference to Figure 2D-1 for drainage descriptions.
- Page 2E-23 – Replaced “Engineering Services” with “Standards/Special Design Section” in two locations.
- Page 2E-27 – Revised to add reference to “See Appendix A, Section A-5 – BICYCLE FACILITY GUIDELINES.
- Page 2E-31 - Added “using a 1.5 to 1 slope” under DETERMINING APPROXIMATE LENGTH OF BRIDGE.
- Page 2E-51 – Replaced “PPMS” with “UPC”.
- Page 2E-58 – Replaced “PPMS” with “UPC”.

- Page 2E-59 – Replaced existing SAMPLE INDEX SHEET with new sheet format.
- Page 2E-60 – Revised language regarding SAMPLE RIGHT OF WAY DATA SHEET.
- Page 2E-63 – Replaced existing SAMPLE RIGHT OF WAY DATA SHEET with new sheet format.
- Page 2E-64 – Replaced existing SAMPLE TYPICAL SECTION SHEET with new sheet format.
- Page 2E-65 – Replaced existing SAMPLE TYPICAL SECTION SHEET with new sheet format.
- Page 2E-67 – Deleted reference to “(D)” dimension on the typical section in the 5th paragraph.
- Page 2E-71 – Added note regarding the ESTIMATING QUANTITIES-PREPARATION OF ESTIMATE to include the following: “Approximate construction quantities are computed at this stage for use in preparing project cost estimates” and “Other standard items are to be reviewed and shown, if applicable, in accordance with the Road and Bridge Standards, Instructional and Informational Memoranda, and the Road and Bridge Specifications. In the event that an unusual or unique situation arises, a request is to be made to the Standards/Special Design Section for preliminary design and cost”. Added reference to Section 2G-2 SUMMARY SHEET. Replaced “PPMS” with “PCES” at numerous locations.
- Page 2E-72 – Added “Project cost estimates at Field Inspections Stage should be based on quantities and run through Trns.port, then uploaded to PCES”.
- Page 2E-74 – Replaced “PPMS” with “IPM” in item 2 under PLAN ASSEMBLY.
- Page 2E-78 – Revised to include reference to IIM-LD-241 “Work Zone Safety/Mobility” for additional information.
- Page 2E-83 – Replaced “Transportation Engineer” with “Project Manager”.

CHAPTER 2F

- Page 2F-3 – Replaced “Location and Design Division” with “Project Manager/Project Coordinator”, “PPMS” with “Project Pool” and other various revisions.
- Page 2F-5 – Replaced “Program Project Management System (PPMS)” with “Integrated Project Manager (IPM)”.

- Page 2F-7 – Replaced “PCES” with “TRNS.PORT” and Deleted Form LD-113 (Data Sheet).
- Page 2F-11 – Revised language in various locations.
- Page 2F-12 – Added “formal” under PROCESSING OF PLAN REVISION.
- Page 2F-13 – Deleted “property lines” from INFORMAL REVISIONS-MINOR CHANGES.

CHAPTER 2G

- Page 2G-1 – Replaced “on the report for the Program/Project Management System” with “in Integrated Project Manager (IPM)”.
- Page 2G-3 – Replaced “PPMS” with “UPC”.
- Page 2G-11 – Replaced “Detours” with “Diversion”.
- Page 2G-12 – Replaced “Detours” with “Diversion”.
- Page 2G-13 – Added LD-436, replaced “Program Project Management System (PPMS)” with “Integrated Project Manager (IPM)” and “Activity Report from IPM”.
- Page 2G-14 - Replaced “PPMS” with “IPM” and “CES” with “PCES”.
- Page 2G-16 – Replaced “Transportation Engineer Senior” with “Design Section Manager”.
- Page 2G-17 – Replaced “Pre-Advertisement Meeting” with “Pre-Advertisement Conference” and Added link to L&D website for plan submission process.
- Page 2G-18 – Replaced “PPMS” with “IPM”, Deleted Form LD-114 (Completed Plan Form).
- Page 2G-23 – Revised language in item 1 under PROCEDURES FOR FINAL SUBMISSION OF PLAN ASSEMBLY.
- Page 2G-26 – Replaced “PPMS” with “UPC”.
- Page 2G-27 – Revised language under ROUTE FILES AND CORRESPONDENCE.

- Page 2G-30 – Revised language under SCOPE.
- Page 2G-32 – Revised SAMPLE OF DRAINAGE SUMMARY SHEET.
- Page 2G-33 – Revised SAMPLE OF PAVEMENT AND INCIDENTAL SUMMARY SHEET.

APPENDIX “A”

- Page 4 – Added reference source to TABLE A-1-1.
- Page A-6 – Revised general note on TC-5.01R from Rural Minor Collectors to Rural Minor Arterials.
- Page A-9 & A-20 – Added note (14) to clarify recommended design speeds for the use of St’d. CG-7.
- Page A-15 thru A-25 – Moved Metric “GS” standards from Volume 2 to Volume 1 Imperial Appendix “A”.
- Page A-46 – Revised language for “guardrail over culverts in fills” from fills are less than 3’-7” to less than 4’-0”.
- Page 59 – Added reference source to MINIMUM BRIDGE WIDTHS ON RRR PROJECTS TABLE.
- Page 100 thru 103 – Added reference source to TABLE A-5-8, thru A-5-12.
- Page A-114 -119 - Revised language for “No Plan” Projects.
- Page A-120 – Deleted reference to RDM Volume 2, Metric.
- Page A-121 – Replaced “Resident Engineer” with “District Construction Engineer”
- Page A-123 thru A-142 – Added Sample of “NO PLAN” Project.

APPENDIX “B”

- Page B-23 – Added reference to VDOT’s Integrating Bicycle and Pedestrian Policy.
- Page B-26 – Added reference to Appendix A, Section A-5 – BICYCLE FACILITY GUIDELINES.

APPENDIX “C”

- Page C-6 - Deleted reference to “Volume 1” Road Design Manual.
- Page C-30 – Replaced “For additional information on sight distance and its application, the user should refer to AASHTO's A Policy on Geometric Design of Highways and Streets” with “For the minimum lengths of vertical curves for the recommended stopping sight distance for each design speed, and corresponding “K” values, see AASHTO “Green Book”.
- Page C-31 – Deleted FIGURE C-1-6 DESIGN CONTROLS FOR CREST VERTICAL CURVES, FOR STOPPING SIGHT DISTANCE AND OPEN ROAD CONDITIONS and FIGURE C-1-7 DESIGN CONTROLS FOR SAG VERTICAL CURVES, OPEN ROAD CONDITIONS. This page was intentionally left blank.
- Page C-35 – Replaced “Mobility Management” with Traffic Engineering” in item 5.
- Page C-36 – Deleted “Minimum Plan” from item 5.
- Page C-38 – Added reference Source to PARKING SPACES.
- Page C-40 – Added reference Source to FIGURE C-1-10.1 DESIGNS FOR ACCESSIBLE PARKING SPACES.
- Page C-43 – Added reference Source to FIGURE C-1-13 DESIGN FOR ANGLE PARKING OF TRUCKS.
- Page C-44 – Added reference Source to FIGURE C-1-14 DESIGN FOR PARKING SPACES.
- Page C-77 – Replaced “Location and Design Division to assign a project number” with “Project Manger to request a UPC number in IPM” in item 2 and Replaced “District Design Transportation Engineering Program Supervisor” with “District Location and Design Engineer”.
- Page C-107 thru C-110 – Moved Spiral Curve information from Volume 2 to Volume 1 Imperial, Appendix “C”.