

Designer Information for Road Design Details

Design Manual
Chapter 1
General Information
 Originally Issued: 06-30-09
 Revised: 10-31-23

This section provides guidance for applying specific Road Design Details to a project. This information is not a part of the construction contract and is not readily available to contractors. If any of this information needs to be conveyed to contractors, designers should include it in the plan or request a revision to the Road Design Detail.

Tabulations

<u>100-1D</u>	<u>100-26</u>	<u>104-3</u>	<u>107-28</u>	<u>108-25</u>	<u>112-6</u>
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<u>100-19</u>	<u>102-5A</u>	<u>104-14</u>	<u>108-22</u>	<u>110-14</u>	
<u>100-22</u>	<u>102-10</u>	<u>105-4</u>	<u>108-23A</u>	<u>111-1</u>	
<u>100-25</u>	<u>103-10</u>	<u>106-5</u>	<u>108-23B</u>	<u>112-5</u>	

Standard Notes

[All 200s](#)

Typical Components

[2RP](#)

[4DP Raised Crowned](#)

[Detour](#)

[4DP Raised Out](#)

Details

<u>500-05</u>	<u>533-03</u>	<u>560-06</u>	<u>6147</u>	<u>7158</u>
<u>500-10</u>	<u>533-04</u>	<u>570-01</u>	<u>7148</u>	<u>8101</u>
<u>510-04</u>	<u>533-05</u>	<u>570-08</u>	<u>7149</u>	<u>8208</u>
<u>533-01</u>	<u>560-04</u>	<u>4317</u>	<u>7156</u>	<u>8210</u>
<u>533-02</u>	<u>560-05</u>	<u>4318</u>	<u>7157</u>	<u>8212</u>

Chronology of Changes to Design Manual Section:

001E-007 Designer Information for Road Design Details

10/31/2023	Revised 100-1D: Corrected tab name. 108-22: For median noses, changed 4 inch to 6 inch. Added in Interstates under Standard Road Roadway Conditions. 108-33: New. Information related to TBR length. 8210: New. Information related to TBR length. 8212: New. Information related to TBR length.
3/30/2023	102-10: Added information for how Partial Depth PCC Joint and Crack Repair Finish patches are bid. 108-18B: Minor edit. Changed BA to BA100s. 570-05: Void. Now EC-603. 570-07: Void. Now EC-604.
5/27/2022	Revised 100-1D: New. Added guidance for when to use this tab. 7149: Revised to include a reference to Local Systems I.M. 7.110.
11/17/2021	108-8C: New. Added information for filling in the tab. 108-23A: New. Noted that special events are placed in this tab. 7156, 7157, and 7158: Revised to include purpose of paved shoulders. 2H_TWLTL_ and 2P_TWLTL_: Designer information no longer needed since Department has moved away from 14 foot lanes.
4/23/2020	Revised 112-9: Added information to inform designers to enter the thickness for the Paved Shoulder at Guardrail and to enter the type of Subbase. 7156: Added information to inform designers BA-205 and BA-225 use 8 inch blockouts. Added information to inform designers to revise notes if not bidding alternates. 7157: New. 7158: New.
11/14/2019	Revised 110-12A: Voided. No longer using this tab. 500-19: Voided. Now DR-504.
4/29/2019	NEW 104_14: New. 111-01: Revised guidance to current procedure.
11/20/2018	Revised 110-12L: Clarified reason for two signature lines. 533-01: Further clarified use of this detail. 533-02: Further clarified use of this detail. 533-03: New. Explains when to use this detail. 533-04: New. Explains when to use this detail. 533-05: New. Explains when to use this detail.
5/17/2018	Revised 102-10: Removed sentence stating this tab is used with the Developmental Specifications for Partial Depth PCC Finish Patches. That DS has been incorporated into the Standard Specifications. 110-12: New. Designer info for PPP in projects with R sheets. 110-12A: Added in note to use this tab only in projects without R sheets. 110-12L: New. Designer info for PPP in projects for which the DOT is not the Contracting Authority. 533-01: New. 533-02: New. 570-2: Void. Now in EC-302 570-03: Void. Now in EC-601. 570-04: Void. Now in EC-201. 570-06: Void. Now in EC-602. 570-09: Void. Now in EC-201.

11/16/2017 Revised
100-13: New. Explains assumptions used for volume calculations.
100-15: New. Explains assumptions used for volume calculations.
100-22: Changed to reference designer information for EC-104 in Section 1E-6 regarding TRMs.
100-27: New. Adds information explaining use of this tab.
102-10: New. Adds information regarding use of this tab.
104-03: Added information regarding the camber column.
104-04: Added information regarding the Excavation column. Added information regarding Compacting Backfill Adjacent to Bridges, Culverts or Structures.
110-12A: Added information in from Section 21A-502.

5/9/2017 Revised
100-35: Deleted - information in Tabulation 100-35 moved to Tabulation 100-34.
104-03: Added guidance that depth of floodable backfill varies as a result of crown at the top and the pitch of the pipe.
104-4: Provided information for compaction adjacent to culverts. Provided information regarding calculating floodable backfill and porous backfill quantities.
104-5B: Included referenced to DR-121 for connected pipe joints. Connected pipe joints are used for all connections, not just the last 3 sections as was previously stated. Included explanation for why SW-211 is included in the plans even though DR-121 has a detail for pipe wrapping. Removed guidance to include notes that connected pipe joints and pipe wrapping are incidental - this is covered in the specifications.
104-9: Added guidance that a trench depth of 24 inches below subgrade surface is assumed.
104-12: New. Added guidance that a trench depth of 24 inches below subgrade surface is assumed. Provided information pertaining to trench backfill.
108-27: New. Added guidance for determining offset.
500-10: New. Provided information regarding when to use Detail 500-10. Detail 500-10 is the old DR-304, which has been replaced by DR-306.
570-4: Added guidance for situations when drainage patterns cannot be clearly identified (especially no-ditch situations).
570-8: Provided guidance related to this detail.

11/16/2016 Revised
Added information for 103-10.
Revised 104-3 to add information for filling the Length New Const. and Dimensions columns.
Revised 108-22 to add in a revision date. Current published version doesn't have a revision date.
Revised 112-6 to clarify paved shoulder panels are included on Tab 112-9 and to add a note Special Backfill is used only with BR-241.
Revised 113-10; the Sidewalk Depth column has changed to an unhidden column title " PCC Sidewalk.
Revised 570-5 to reference Section 10C-4.
Added 570-6 and 570-7.
Added information to 570-9 regarding bidding silt fence.
Rewrote 7156 to explain what pavement thicknesses to use and when.

8/17/2016 Revised
100-14: Added information regarding entering Average % Slope values between 0 and 1.
100-18: Added information regarding entering Average % Slope values between 0 and 1.
100-32: Added information regarding entering Average % Slope values between 0 and 1.
100-33: Added information regarding entering Average % Slope values between 0 and 1.
104-5C: New. Advice to contact Soils Design Engineer when filling in Tab 104-5C.
104-9: New. Advice to contact Soils Design Engineer when filling in Tab 104-9.
107-28: Replaced link to 5B-1 with link to 5B-3.
108-22: Added bookmarks to Table 1. Clarified Waerborne/Solvent Paint is used as temporary longitudinal markings and Wet Retroreflective Removable Tape is used as temporary diagonal markings.
108-23B: Added link to Lane Closure Lanning Tool (LCPTOOL).
110-12A: Changed SCS Curve number to Runoff Coefficient number in second paragraph. Added text from Section 10D-1 explaining the need for two signatures.
113-2: Added information regarding Type III barricades.
113-10: Added information regarding sidewalk depth.
560-6: New. Provide background information for this detail.
570-4: New. Provide information for when to use this detail.
570-5: New. Provide information for when to use this detail.

1/7/2016 Revised
Updated Motor Vehicle links in 108-25. Revised designer info for 100-14 and 100-18 to add links to 10C-2. Added designer info for 100-32, 100-33, 100-34, 100-35, 104-6, 570-1, 570-2, and 570-3.

7/2/2015 Revised
Created section for 100-28. Updated 102-05A to include column descriptions and instruction to contact district materials for tabulation values. Revised 104-4 to correct references to outdated standards. Updated 108-25 to include a link to the Google Earth file, changed guidance from leaving columns blank to marking as N/A, and updated Sample Project 1 accordingly. Created section for 111-01. Created section for 112-5. Updated 112-06 to include Bridges and Structures review for BR Series Standards. Created section for 500-5. Created section for 6147.

1/22/2015	Revised Created sections for 100-22, 102-5A, 107-28, 108-23B, 510-04, 560-05, 4317, 4318, 8101, 4DP_Raised_Crowned_, and 4DP_Raised_Out_. Voided sections for 500-50, 1302, and 4403. Revised references to renumbered standards (RFs renumbered to DRs and RKs renumbered to BRs) in 104-03, 104-04, and 104-05B.
5/15/2014	Revised Added information for 108-25, 500-19, 560-04 and 4403. Removed information for 7301 and 7302, which is now in PR-201. Updated information for 100-10 to remove language repeated in Section 10A-1. Updated information in 104-5B to remove guidance to provide number of connected pipe joints. Changed title in 108-08A. Changed title in 108-18 and added additional guidance for use.
1/15/2014	Revised Created new sections for 100-14, 100-17, 100-18, 100-25, 104-03, 104-05B, 108-08A, 108-08B, 108-20, 112-06, 113-02, 2H_TWLTL_, 2P_TWLTL_, 1302, 7148, 7149, and 8208. Added grooves cut for pavement markings to 108-22. Added extended comments for Pipe Culverts and Box Culverts to 104-04. Added a comment regarding when Asphalt Binder is bid or when it is incidental to 106-05. Added comment regarding HMA and Binder columns and how they are used to 112-09. Added information regarding Maintenance of Floating Silt Curtains to 100-10.
5/8/2013	Revised Created sections for 2RP, 105-04, 106-05, 110-12A, 112-07, 112-09, and 7156. Added Median Nose calculations in 108-22. Updated column instructions in 110-14 and 113-10. Minor technical edits to 102-05 and 104-04.
9/13/2012	Revised 100-10 Floating Silt Curtains - eliminate the text and reference Section 10C-1.
2/10/2012	Revised Created new sections for 100-19 and 110-14. Added detailed instruction on proper tabulation procedures concerning 108-22 Pavement Marking Line Types Tabulation per request by Office of Construction. Added a new entry for 7301 and 7302 explaining when to use these details. Added a new entry for 108-18 and 108-18B explaining when expansion joints are required. Updated 108-30 to provide a link to 8C-5 and remove information covered in that section. Added additional suggestions for Remarks column on 113-10.
11/30/2011	Revised Updated Designer Information regarding the new Reinforcement column added to tab 102-5. Clarified bid item for new pavement on 108-22. Created a page link to a new 113-10 section.
10/31/2011	Revised Updated information for 108-22 to indicate when to use Table 1 line types.
6/30/2011	Revised Added 100-10, 102-5, 108-22, 108-30, 110-13, 112-10, and 500-50 to the section. Removed 101-10A, 101-10B, 101-10C, 101-16, 101-17, and 500-20 from the section.