PAVEMENT DESIGN REVISION CHECKLIST

Engineers & Surveyors Institute
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Plan Name: _____ Plan Number: _____
District: _____ Review Date: _____
Submitting Firm: _____ Contact Name: _____ Phone Number: _____
DPE Number: _____ DPE Name: _____
ESI Peer Reviewer Name: _____ Peer Reviewer's Firm: _____

* If any checklist item is not provided, a detailed explanation must be included in the application.

LINE	CODE SECTION	REQUIREMENT	SHEET	OK	NO*	N/A	FFX
1	LDS/VDOT Policy	The proposed street is either a VDOT maintained street with less than 1000 VPD[1] or a private street[2]					
2	LDS/VDOT Policy	Plan does not include widening of VDOT streets					
3	LDS Policy	CBR test results provided					
4	ESI Pavement Design Tech Bulletin[3] item 2	DPE name, signature, DPE number and required statement provided					
5	ESI Pavement Design Tech Bulletin item 3 18VAC10-20-760.B.1	Geotechnical engineer's seal and signature provided					
6	ESI Pavement Design Tech Bulletin item 3 18VAC10-20-760.B.1 LDS policy	Submitting engineer's seal and signature provided on all plan sheets and on VDOT Worksheet A verifiable digital signature is provided on the first page of the plan revision.					
7	RDM[4] Appendix B(1) Sec 4.A.1 PDG[5] Appendix IV	Completed Flexible Pavement Design Worksheet for New Subdivision Streets (VDOT Worksheet) is provided. Design engineer phone number is filled in.					
8	PFM 7-0401.2	The VDOT design method may not to be used when any subgrade CBR value is less than 4					
9	VDOT Worksheet[5]	Subdivision and street name shown with limits of pavement design included in revision					
10	LDS Policy	Plan or report indicates location of test holes					
11	PFM 7-0401.2B PDG Page 4 Section 2.a.3	CBR tests are provided at each change in engineering characteristics of subgrade soils (based on soil laboratory testing) and at a maximum spacing of 500 feet where subgrade soils remain constant.					
12	PFM 7-0401.2B	Minimum of two CBR tests are provided for cul-de-sac or dead-end streets of less than 500 ft in length					
13	PDG Page 4 Section 2.a.3	Samples provided at intersections with existing state streets					
14	VDOT Worksheet Step 1	Traffic volume (AADT) for each street or segment shown					
15	VDOT Worksheet Step 2 PDG Page 11 Section B	CBR values of samples taken and tested shown (CBR_T)					
16		Resiliency Factor (RF) values shown. The maximum RF value permitted is 1.5 if there is Mica present in the test samples or soil.					
17		Design CBR (CBR_D) shown (average of CBR_T values x 2/3)					
18		Lowest resiliency factor (RF) used in equation					
19		Soil support value (SSV) shown					
20	VDOT Worksheet Step 3	Step 3 has either box (A) or (B) checked					
21	VDOT Worksheet Step 3 PDG Page 11 Section C	Required thickness index (D_R) shown if box (B) was checked					
22	VDOT Worksheet Step 3	Material notation complete under "Description of Proposed Pavement Section"					
23	VDOT Worksheet Step 3	Thickness index of proposed pavement (D_P) is greater than index required (D_R)					

24	VDOT Worksheet Step 3 PDG Appendix III	Minimum/maximum lift thickness per Appendix III (Paving Materials & Allowable Values)					
25	PDG Table 1 (Page 6)	Mica content clearly identified (None, Low, High) for RF value					
26	PDG Figure 2, footnote #2 (Page 8)	Combined thickness of the base and subbase aggregate layers do not to exceed 12 inches (for calculation purposes only) [greater than 12" is permitted to replace unsuitable materials but is not used in the calculation]					
27	PDG Page 13 Section B.1.a	Thickness of asphalt concrete surface does not exceed 2 inches unless staged surfacing is required. (Maximum of 2½ inches of surface is allowable for staged surfacing)					
28	PDG Page 13 Section B.2	Thickness of base aggregate material does not exceed 8", any additional is considered subbase					
29	PDG Page 4 Section 2	Atterberg tests required if more than 35% of subgrade soil pass the # 200 sieve according to AASHTO Classification System					
30	LDS/VDOT Policy based on PDG page 4	For fine grained subgrade soils (more than 35% passing the 200 sieve), a geotechnical soil stability statement by the Geotechnical Engineer is provided. The statement shall include whether subgrade stabilization or undercut is required.					
31	PDG Page 14 Section A.5	When soil support value (SSV) is less than 2, cement stabilized aggregate is proposed over a minimum 4 inches of untreated aggregate					
32	PDG	Typical section revision matches revised design computations					
33	PFM 2-0207.3C	All revisions circled in red					

Notes

1. Existing and new VDOT maintained streets with traffic more than 1,000 vehicles per day are not eligible for expedited review process. Submit pavement design to VDOT for their review.
2. Private streets with no work proposed within VDOT right of way will be reviewed by SDID and or ESI even if the VPD will be over 1000 vehicles per day.
3. ESI Pavement Design Tech Bulletin: Fairfax County Procedure for DPE Submitted CBR Revisions
4. RDM: VDOT Road Design Manual
5. PDG: VDOT Pavement Design Guide for Subdivision and Secondary Roads in Virginia (revised 2018)
6. VDOT Worksheet: Appendix IV of PDG: Flexible Pavement Design Worksheet for New Subdivision Streets