

MEMORANDUM

TO: Developers and Engineers

FROM: Danny Templar, County Administrator

SUBJECT: Kershaw County Minimum Paving Standards

DATE: February 21, 2024

Over the last two years, the Kershaw County development review team has fielded questions and inquiries from developers regarding minimum pavement design standards for subdivisions within the County. This memorandum is to provide an explanation of the pavement design standard for roadways in Kershaw County.

The ZLDR sets forth Road Design Thickness Requirements in Table 5-10 with reference to soil conditions:

TYPE LAYER	RL Thickness in Inches		RC & LC/I Thickness in Inches	
	STANDARD	UNSTABLE SOIL	STANDARD	UNSTABLE SOIL
Hot Plant Mix				
Surface	2.0	3.0	2.0	3.0
Macadam Base	6.0	6.0	8.0	9.0
Prepared Subgrade	12.0	12.0	12.0	12.0
Full Depth Paving				
AC Surface Course	1.0	1.25	1.25	1.5
AC Binder Course	1.5	2.0	2.0	1.5
AC Base Course	2.5	3.0	3.0	4.0
Prepared Subgrade	12.0	12.0	12.0	12.0

ZLDR Chapter 5 Section 3.8-3 (General Design Criteria) also states that “All Kershaw County roadways shall be designed and constructed equal to or better than the standards required by South Carolina Department of Transportation (SCDOT) specifications. A twenty (20) year roadway life is the design requirement for Kershaw County”. In 2022, Kershaw County began a re-write process for the Unified Code of Zoning and Land Development Regulations (ZLDR). Pavement design for roadways that will be owned and maintained by Kershaw County is a topic to be updated in the new ZLDR. The ZLDR update for road design standards is needed, in part, due to observed wear on existing roadways accepted by the County utilizing the pavement design standards in Table 5-10 as well as the maintenance costs required of Kershaw County for upkeep of these roads.

On July 6, 2022, Kershaw County solicited feedback and input from SCDOT’s Office of Materials and Research on a minimum pavement thickness design for subdivision roads pursuant to current standards in Chapter 5 Section 3.8-3. The recommended pavement design provided by SCDOT is as follows:

1. Hot Mix Asphalt Surface C – 175#/SY (1.50 inches)
2. Hot Mix Asphalt Intermediate Course Type C – 200 #/SY (2.00 inches)
3. Base Course Type B (300-450 #/SY depending on truck traffic) or GABC (6 - 8 inches)

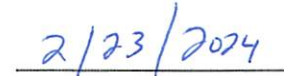
SCDOT's recommendation of the above design standard was based on the rural, local classified roadways with an ADT under 1,000 vehicles per day (VPD). SCDOT also incorporated historical soils data from its previous design activities in Kershaw County to determine a minimum pavement section.

Following the input of SCDOT, the Kershaw County development review team adopted the minimum pavement design provided by SCDOT in July 2022. This minimum asphalt thickness is to be provided on new subdivisions that had not previously been designed and reviewed by County staff as of July 2022. County will continue to review subdivision design submittals for compliance with this minimum pavement thickness.

Acknowledged:



Danny Templar, County Administrator



Date