

SUDAS Revision Submittal Form

Status Date: As of 11/14/2025 **Topic:** Asphalt mixture design criteria
Manual: Design & Specs **Manual Location:** Design Sect 5D-1; Spec Sect 7020

Requested Revision:

From Design Section 5D-1 (Asphalt Pavement Mixture Selection):

Table 5D-1.03: Mixture Design Criteria
 (derived from Iowa DOT Materials I.M. 510)

Mix	Layer Designation	Gyratory Density		Film Thickness	Aggregate ²			
		N _{des}	Design % G _{mm} (target)		Quality Type	Crush (min)	FAA (min)	Sand Equivalent (min)
LT	0.3 M S	50	96.0	8.0—15.0	A ¹	60 ¹	—	40
	0.3 M I		97.0		A ¹	45		
	0.3 M B							
ST	1M S	50	96.0	8.0—15.0	A	75 ¹	40	40
	1M I		97.0		A ¹	60 ¹		
	1M B							
HT	10M S	75	96.0	8.0—15.0	A	75	43	45
	10M I		96.5		A ¹	60		
	10M B							

~~For mix design levels exceeding 10M ESALs, see Iowa DOT Materials I.M. 510.~~

¹—Requirements differing from Iowa DOT Materials I.M. 510; for base mixes, aggregate quality improved from B to A and percent crushed aggregate increased by 15%.

²—Flat & Elongated 10% maximum at a 5:1 ratio

See SUDAS Specifications Section 7020, Table 7020.01 for mixture design criteria.

From Specifications Section 7020 (Asphalt Pavements):

1.02 DESCRIPTION OF WORK

- A. Includes the requirements for the construction of asphalt surface, intermediate, and base courses placed upon a prepared subgrade, subbase, base, or pavement and asphalt base widening.
- B. Comply with [Iowa DOT Section 2303](#) for construction of asphalt pavement and base widening, except as modified herein.
 - 1. Provide Quality Management - Asphalt (QM-A) for bid items with asphalt quantities exceeding 1,000 tons. Provide quality control for bid items with asphalt quantities of 1,000 tons or less according to Section 7020, 3.06.
 - 2. Refer to Table 7020.01 for gyratory mixture design criteria. ~~Note—this table was copied from the SUDAS Design Manual, Section 5D-1.~~

1.04 SUBSTITUTIONS

Comply with Division 1 - General Provisions and Covenants, as well as the following:

Table 7020.01: Mixture Design Criteria
(derived from [Iowa DOT Materials I.M. 510](#))

Mix	Layer Designation	Gyratory Density		Film Thickness	Aggregate ²			Sand Equivalent (min)
		N _{des}	Design % G _{mm} (target)		Quality Type	Crush (min)	FAA (min)	
LT	0.3 M S	50	96.0	8.0 - 15.0	A ¹	60 ¹	---	40
	0.3 M I		97.0		A ¹	45		
	0.3 M B							
ST	1M S	50	96.0	8.0 - 15.0	A	75 ¹	40	40
	1M I		97.0		A ¹	60 ¹		
	1M B				---			
HT	10M S	75	96.0	8.0 - 15.0	A	75	43	45
	10M I		96.5		A ¹	60		
	10M B							

For mix design levels exceeding 10M ESALs, see [Iowa DOT Materials I.M. 510](#).

¹ Requirements differing from [Iowa DOT Materials I.M. 510](#); for base mixes, aggregate quality improved from B to A and percent crushed aggregate increased by 15%.

² Flat & Elongated 10% maximum at a 5:1 ratio

Reason for Revision: Since the Design Manual is not part of the contract documents, it is probably not appropriate to reference it in the Specs. Also, remove from the duplicate table from the Design Manual so changes won't be missed.

Comments: None.

Region: Central East West

Comments: None.

Action: Deferred Not Approved Approved

Region: Central East West

Comments: None.

Action: Deferred Not Approved Approved

Region: Central East West

Comments: None.

Action: Deferred Not Approved Approved

Final Regional Action Summary: All 3 regions approved.

Board of Directors Action: Approved.