



South Carolina
Department of Transportation

January 3, 2001

INSTRUCTIONAL BULLETIN NO. 2001-1

SUBJECT: Guidelines for Hot Mix Asphalt Selection

EFFECTIVE DATE: January 2, 2001

SUPERSEDES: Plan Preparation Guide, Table on page 2-11

RE: None

Attached is the revised table, "Guidelines for Hot Mix Asphalt Selections", dated January 2, 2001, to be used for the selection of hot asphalt mixes for all future projects beginning with the March highway letting.

Approved: _____

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cc:

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GUIDELINES FOR HOT MIX ASPHALT SELECTION

TYPE COURSE	TYPE FACILITY						
	INTERSTATE	HEAVY DUTY PRIMARY (INCLUDES ALL NHS ROUTES)	INTERSECTIONS & PROBLEM AREAS	PRIMARY & HIGH VOLUME SECONDARY	LOW VOLUME SECONDARY ROUTES 1500 VPD OR LESS		
SURFACE	SUPERPAVE 1/2" MAX. (12.5 mm) MIN. RATE 175#/SY (95 kg/m ²)	TYPE-1C MIN. RATE 150#/SY (80 kg/m ²)	TYPE-1B MIN. RATE 200#/SY (109 kg/m ²)	TYPE-1 MIN. RATE 150#/SY (80 kg/m ²)	TYPE-3 MIN. RATE 150#/SY (80 kg/m ²)	TYPE-4 MIN. RATE 125#/SY (68 kg/m ²)	TYPE-5 MIN. RATE 125#/SY (68 kg/m ²)
	FINE & COURSE: CRUSHED AGGR. REQUIRED	FINE & COURSE: CRUSHED AGGR. REQUIRED	FINE & COURSE: CRUSHED AGGR. REQUIRED	FINE & COURSE: CRUSHED AGGR. REQUIRED	UNCRUSHED GRAVEL AND LOCAL SAND PERMITTED	UNCRUSHED GRAVEL AND LOCAL SAND PERMITTED	UNCRUSHED GRAVEL AND LOCAL SAND PERMITTED
LIQUID ASPHALT BINDER	5.1%	5.3%	5.0%	6.2%	6.0%	6.3%	6.3%
INTERMEDIATE	SUPERPAVE 3/4" MAX. (19 mm)	BINDER TYPE-1		BINDER TYPE-2			
	FINE & COURSE: CRUSHED AGGR. REQUIRED	FINE AND COURSE: CRUSHED AGGREGATE REQUIRED		UNCRUSHED GRAVEL AND LOCAL SAND PERMITTED			
LIQUID ASPHALT BINDER	4.3%	5.0%		5.1%			
ASPHALT AGGREGATE BASE	ASPHALT AGGREGATE BASE CR. TYPE-1			ASPHALT AGGREGATE BASE CR. TYPE-2			
	FINE AND COURSE: CRUSHED AGGREGATE REQUIRED			UNCRUSHED GRAVEL AND LOCAL SAND PERMITTED			
LIQUID ASPHALT BINDER	4.2%			4.3%			
LEVELING AND BUILD-UP	SURFACE SUPERPAVE OR TYPE-1 OR TYPE-1C BINDER TYPE-1 ASPH. AGGR. BASE COURSE TYPE-1 REQUIRED			SURFACE TYPE-1, TYPE-3, TYPE-4 OR TYPE-5 BINDER TYPE-2 ASPH. AGGR. BASE COURSE TYPE-2 PERMITTED			
ANTI-STRIP	ADD HYDRATED LIME REQUIRED			ADD HYDRATED LIME REQUIRED - EXCEPT AS NOTED BELOW			

NOTES:

1. NO RECYCLED ASPHALT PAVEMENT (RAP) ALLOWED IN SUPERPAVE, TYPE-1B OR TYPE-1C MIX.
2. SUPERPAVE 1/2" MAX. (12.5mm) REQUIRES A PG76-22 POLYMER MODIFIED BINDER.
3. LIQUID ASPHALT BINDER IS THE PERCENTAGE USED FOR QUANTITY CALCULATIONS FOR LIQUID ASPHALT BINDER IN PAVING MIXTURES.
4. LOCAL SAND WOULD BE PERMITTED IN SAND ASPHALT BASE COURSE.
5. HYDRATED LIME REQUIRED IN ALL MIXES EXCEPT SURFACE COURSE TYPE-4 AND TYPE-5.
SURFACE COURSE TYPE-4 AND TYPE-5 WOULD ALLOW A LIQUID ANTI-STRIP ADDITIVE, EXCEPT WHERE USED FOR LEVELING ON PRIMARY & HIGH VOLUME SECONDARY. HYDRATED LIME IS REQUIRED IN SURFACE COURSE TYPE-4 AND TYPE-5 BEING USED AS A LEVELING COURSE ON PRIMARY AND HIGH VOLUME SECONDARY ROUTES.
6. CRUSHED AGGREGATE IS DEFINED AS AN AGGREGATE HAVING TWO OR MORE FRESHLY MECHANICALLY INDUCED FRACTURED FACES ON AT LEAST 70% BASED ON COUNT, OF THE MATERIAL RETAINED ON THE NO. 4 SIEVE.