

TABLE 301.02-1 – JOB-MIX FORMULA DESIGN CRITERIA	
Hveem Method Mix Criteria (AASHTO T 246 and AASHTO T 247)	
Stability, minimum	37
Air Voids (percent) ¹	4 - 6
Marshall Method Mix Criteria (AASHTO T 245)	
Compaction (number of blows each end of specimen)	75
Stability, minimum (pounds)	1,800
Flow (x 0.01 inch)	8 - 16
Air Voids (percent) ¹	4 - 6
Voids In Mineral Aggregate (VMA), minimum (percent) ²	Table 401.02-3
Notes: 1. Air Voids: AASHTO T 166 or AASHTO T 275; AASHTO T 209, AASHTO T 269. 2. VMA: See Asphalt Institute Manual MS-2, Chapter 4.	

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(C) Submittals. Establish and submit job-mix formula for HMAB mixture as follows:

- (1) Design percent of aggregate passing each required sieve size.
- (2) Design asphalt content added to aggregate, based on total weight of mix.
- (3) Design proportion of processed RAP.
- (4) Design temperature of mixture at point of discharge at paver.
- (5) Source of aggregate.
- (6) Grade of asphalt cement.
- (7) Test data used to develop job-mix formula.

63 With the exception of item (4) in this subsection, if design
64 requirements are modified after the Engineer accepts job-mix formula, submit
65 new job-mix formula before using HMAB produced from modified mix design.
66

67 Submit certificate of compliance for asphalt cement, accompanied by
68 substantiating test data.
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70 **(D) Range of Tolerances for HMAB.** Provide HMAB within allowable
71 tolerances of accepted job-mix formula as specified in Table
72 401.02-4 - Range of Tolerances for HMA.
73

74 **301.03 Construction.** Construct HMAB course in accordance with Subsection
75 401.03 - Construction and this subsection.
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77 **(A) Material Transfer Vehicle (MTV).** When placing HMAB, use of a
78 MTV will not be required.
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80 **(B) Compaction.** Where compacted thickness is greater than 6 inches,
81 spread and compact mixture in two or more lifts approximately equal in
82 thickness. Maximum compacted thickness of one lift shall be 6 inches.
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84 Compact mixture immediately upon completion of spreading operations
85 to density of not less than 92 percent of maximum theoretical specific gravity
86 in accordance with AASHTO T 209, modified by deletion of Supplemental
87 Procedure for Mixtures Containing Porous Aggregate.
88

89 **(C) HMAB Surface and Thickness Tolerances.** Place HMAB to a
90 thickness that when thoroughly compacted conforms to shape and dimension
91 indicated in the contract documents. Limit surface deviations to not more
92 than 1/2 inch above or below theoretical grade.
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94 The combined thickness of HMAB and asphalt concrete pavement
95 shall be within 1/2 inch of combined thickness indicated in the contract
96 documents.
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98 **301.04 Measurement.** HMAB will be paid on a lump sum basis in accordance
99 with and under Section 312 - Hot Mix Glassphalt Base Course. Measurement for
100 payment will not apply.
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102 **301.05 Payment.** The Engineer will pay for the accepted HMAB as Hot Mix
103 Glassphalt Base Course in accordance with and under Section 312 - Hot Mix
104 Glassphalt Base Course. Payment will be full compensation for the work prescribed
105 in this section and the contract documents.
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301.05

107 The Engineer may, in lieu of requiring removal and replacement, use a sliding
108 scale pay factor to accept HMAB compacted below 92 percent. The Engineer will
109 pay for material in that production day at a reduced price arrived at by multiplying
110 proportionate unit price by the factor as shown in Table 312.05-1 - Sliding Scale Pay
111 Factor.

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END OF SECTION 301