

## WORKSHEET FOR A MARSHALL MIX DESIGN AASHTO T 245

Project:	Date:
Contractor:	Class & Grading of mixture:
Asphalt supplier:	Grade of asphalt:
Sources for:   Aggregates:	Mineral filler:
Testing laboratory name:	Phone:
Testing performed by:	
Testing reported by:	

English      Metric

### SUMMARY OF THE PROPOSED JOB-MIX-FORMULA

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Percent asphalt by mass of total mix<sup>1</sup>, (<math>P_b</math>)</li> <li>2. Air voids (<math>V_a</math>)</li> <li>3. Voids in mineral aggregate (VMA)</li> <li>4. Maximum specific gravity (<math>G_{mm}</math>)</li> <li>5. Recommended plant mixing temperature,<br/>(Attach Temperature Viscosity Curve)</li> <li>6. Effective specific gravity of aggregate (<math>G_{se}</math>)</li> <li>7. Marshall stability,</li> <li>8. Marshall flow,</li> </ol> | <ol style="list-style-type: none"> <li>9. Specific gravity of binder (<math>G_b</math>)</li> <li>10. Specific gravity of mineral filler</li> <li>11. Dust-to-Binder ratio (DP)</li> <li>12. Moisture susceptibility test results: <sup>2</sup> <ol style="list-style-type: none"> <li>a. Dry strength,</li> <li>b. Wet strength,</li> <li>c. Index of retained strength, %</li> </ol> </li> </ol> |
|--|---|

**Gradation Designation:**

GRADATION TARGET VALUES AND ALLOWABLE DEVIATIONS				SPECIFIC GRAVITY AND ABSORPTION		
Sieve Sizes	Job Mix Formula Target Value <sup>3</sup>	Target Value Specification Range %	Allowable Deviation <sup>4</sup> %	Fine Aggregate (AASHTO T 84)	Coarse Aggregate (AASHTO T 85)	Combined Aggregate
				Bulk SG ( $G_{sb}$ )		
				Bulk SSD SG		
				Apparent SG ( $G_{sa}$ )		
				Absorption	%	%

<sup>1</sup> Establish asphalt cement content (percent by mass of mix) to the nearest 0.01 percent.  
<sup>2</sup> See contract for moisture susceptibility test method: AASTHO T 165/T 167 or AASTHO T 283.  
<sup>3</sup> Establish target values to the nearest 0.1 percent as a part of the job mix formula.  
<sup>4</sup> Allowable deviations plus or minus from established target values.

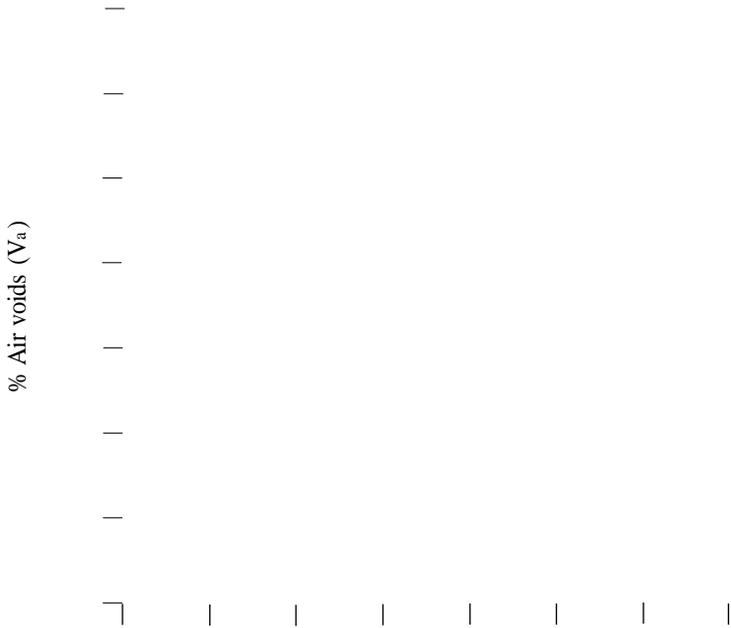




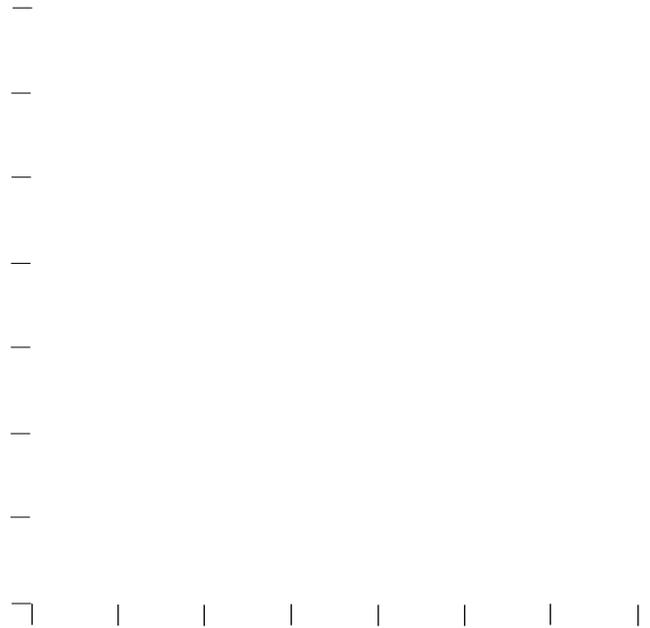
# WORKSHEET FOR A HVEEM MIX DESIGN (Continued)

## Design Curves for Proposed Job Mix Formula (JMF)

### AIR VOIDS ( $V_a$ )



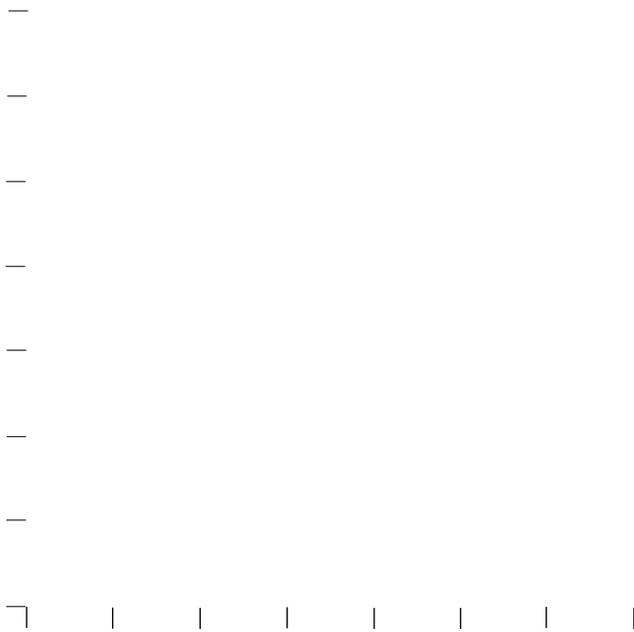
### MARSHALL FLOW



% Asphalt binder ( $P_b$ )

% Asphalt binder ( $P_b$ )

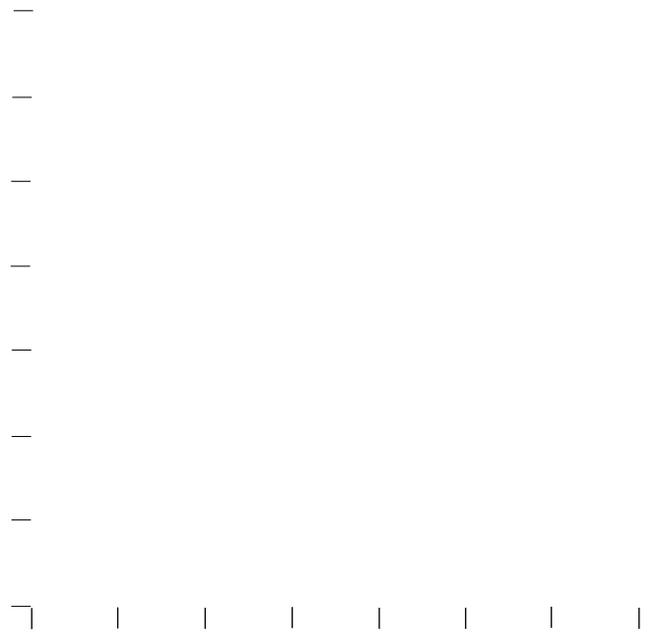
### MARSHALL STABILITY



% Asphalt binder ( $P_b$ )

### VMA

Voids in mineral aggregate



% Asphalt binder ( $P_b$ )