

**Training Year 2010**

**Subject:** Superpave Asphalt Plant Advanced Technician Training Course  
4 Days Hands on Training from Stockpiles to a Complete Superpave Mix Design. This four day course is designed to also introduce the new Superpave specification changes, quality control trouble shooting and Level 2 certification.

Thomas Bennert, Supervisor of the Rutgers Asphalt Pavement Laboratory, will be presenting the above course in February of 2010 for HMA suppliers, testing laboratories, contractors, pavement consultants and other interested individuals. This course will prepare you to satisfy the educational requirements for New Jersey Society Asphalt Technologist (NJSAT) Level 2 Certification Program.

**WHERE:** Rutgers University Asphalt Pavement Laboratory  
New Brunswick, NJ

**WHEN:** Thursday: February 11 Classroom Workshop  
Friday: February 12 Hands on Laboratory Workshop  
Thursday: February 18 Preparation and Review the Design  
Friday : February 19 Demonstration special testing equipment,  
Quality Control, Problem Solving and Exam

**TIME:** 8:00 am to 3:00 pm

**FEE:** \$1,300.00 For the training course. Fee includes: continental breakfast, lunch and course note book, NJSAT LEVEL 2 certification fee and examination.  
Note: A portion of the fee will be forwarded to the NJSAT to pay for certification and first year NJSAT annual dues.

**PREREQUISITE:** Must be certified as NJSAT Level 1.

Please register as soon as possible by completing the information below. For inquiries call Thomas Bennert at 732-445-5376 or email at [bennert@eden.rutgers.edu](mailto:bennert@eden.rutgers.edu)

Name \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Street Address \_\_\_\_\_

City, State & Zip \_\_\_\_\_

Affiliation \_\_\_\_\_

Email Address \_\_\_\_\_

Checks should be made payable to: Thomas Bennert

Check and registration information should be mailed to: Thomas Bennert  
1245 Steeplechase Ct  
Toms River, NJ 08755

# **SUPERPAVE VOLUMETRIC MIX DESIGN COURSE**

## **COURSE SCHEDULE**

**DAY 1 FEBRUARY 11, 2010**

**REGISTRATION – CONTINENTAL BREAKFAST**

**SECTION 1 BACKGROUND (PAGE 3 - 8)**

- a) History and Development**
- b) Binder Specifications**
- c) Mix analysis**
- d) Overview of Volumetric mix design**

**SECTION 2 BINDER SELECTION (PAGE 9 - 17)**

- a) Air verses Pavement Temperature**
- b) Reliability**
- c) Mixing and Compaction Temperatures**

**SECTION 3 AGGREGATE SELECTION (Page 18 - 26)**

- a) Course Aggregate Angularity**
- b) Coarse Aggregate Elongated Particles**

**BREAK**

**AGGREGATE SELECTION (CONTINUED)**

- a) Un-compacted Voids in Fine Aggregate**
- b) Resistance to Abrasion (LA)**
- c) Soundness**
- d) Sand Equivalent**
- e) Clay Lumps and Friable Particles**
- f) Specifications**
- g) Blending Aggregates to meet specifications**
- h) Bulk Specific Gravity**

**SECTION 4 DESIGN AGGREGATE STRUCTURE TRIALS (Page 27 - 33)**

- a) Standard Sieve Sizes**
- b) Recommended Gradations**
- c) 0.45 Power Chart**

**SECTION 5 ESTIMATE OF TRIAL BLEND BINDER CONTENT (PAGE 34 - 36)**

- a) Various Formulas**

**DAY 1 CONTINUED**

**12:00 – 1:00 LUNCH**

**SECTION 6 GYRATORY COMPACTOR (PAGE 37 - 45)**

- a) Describe Various Types of Compactors**
- b) Criteria**
- c) Curves**
- d) Calculations**

**SECTION 7 SELECTION OF A DESIGN AGGREGATE STRUCTURE (PAGE 46 - 52)**

- a) Minimum of 3 Trial Analysis**
- b) Estimate of Trial Blend Properties**
- c) Criteria for Analysis**

**BREAK**

**SECTION 8 SELECTION OF DESIGN ASPHALT BINDER CONTENT (PAGE 53 - 56)**

- a) Trial Blends**
- b) Graphs**
- c) Summary of Properties**

**SECTION 9 MOISTURE SENSITIVITY (PAGE 57)**

- a) AASHTO - T 283**

**DAY 2 FEBRUARY 12, 2010**

**ALL LABORATORY WORK (SCHEDULE WILL BE PROVIDED FIRST DAY OF CLASS)**

**DAY 3 FEBRUARY 18, 2010**

**COMPLETE THE WORK SHEET FROM DAY 2 AND DEVELOP THE SUPERPAVE MIX DESIGN. COMPLETE REVIEW OF THE DESIGN AND REQUIRED SPECIFICATIONS**

**DAY 4 FEBRUARY 19, 2010**

**DEMONSTRATIONS OF RUTGERS SPECIAL TESTING EQUIPMENT, INDIRECT TENSILE TESTING, SUPERPAVE SHEAR TESTER, RUT TESTER AND THE CORE LOK MACHINE AND OTHER NEW EQUIPMENT**

**QUALITY CONTROL, PROBLEM SOLVING AND EXAM**