

FLEXIBLE PAVEMENTS OF OHIO
2015 COMPREHENSIVE ASPHALT MIX DESIGN SCHOOL

February 9-13, 2015 — Columbus, Ohio
ODOT Office of Materials Management, 1600 W. Broad St.

Classroom Instructors: Mitch Forst (MF), Larry Shively (LS), Cliff Ursich (CU), Dave Powers (DP).

Lab Instructors: Steve McAvoy, Tim Selby, Mark Mantle, Mickey Cronin (MC) Fred Chambers (FC)

Monday AM (Classroom)

7:45 — 8:15 REGISTRATION

8:15 — 8:45 Welcome; Introductions; Scope of Course (CU, DP, & MF)

8:45 — 10:00 ODOT Specifications for HMA; Asphalt Materials, Specifications, & Temperature-Viscosity Relationships (MF)

10:00 — 10:15 BREAK

10:15 — 11:00 Aggregate Properties/Specifications (MF); Specific Gravity Intro (MF)

11:00 — 12:00 Specific Gravity Tests (MF), Specific Gravity Calculations/Relations/Nomenclature (MF)

PM

12:00 — 1:00 LUNCH

1:00 — 2:30 Rounding Rule, Aggregate Blending & Batching (MF), Power 45, F-T value

2:30 — 4:00 LABORATORY — Aggregate Section: **Demonstration** of coarse & fine aggregate specific gravity test. (MC)

Asphalt Concrete Section: **Each student** batches the aggregate for a Marshall specimen.

Tuesday AM (Classroom)

8:00 — 8:15 Review of Monday's work (MF)

8:15 — 10:00 Marshall Mix Design Method Objectives & Procedures (MF)

10:00 — 10:15 BREAK

10:15 — 10:45 Bulk Specific Gravity Test Procedure - Gsb (MF)

10:45 — 11:15 Method for Determining Maximum Specific Gravity of Mix - Gmm [Rice Test] (MF)

11:15 — 12:00 Blend AC content, Introduction to Volumetrics and Calculations MS-2 Chap. 4 (MF)

PM

12:00 — 1:00 LUNCH

1:00 — 4:30 LABORATORY — Asphalt Concrete Section: **Demonstration of** Maximum Specific Gravity of Mix (Rice) Test and Gyrotory Compaction. **Each student** mixes & compacts a Marshall specimen and compacts a Gyro specimen. **Each student** performs the bulk specific gravity test on his/her compacted specimen and records all data for that specimen.

Wednesday AM (Classroom)

8:00 — 8:15 Review of Tuesday Lab Work (MF)

8:15 — 10:00 Volumetric Analysis (continued): specific gravities; air voids; VMA; etc. (MF)

10:00 — 10:15 BREAK

10:15 — 10:45 Test procedures for Marshall Stability & Flow (MF)

10:45 — 12:00 LABORATORY — Asphalt Concrete Section: **Each student** performs Marshall Stability & Flow tests on his/her specimen and records data.

PM

12:00 — 1:00 LUNCH

1:00 — 1:15 Introduction to ODOT PG binder testing lab (FC).

1:15 — 2:00 Mix Design Calculations & Selection of Optimum Asphalt Content (MF)

2:00 — 3:00 Students consolidate and submit test data by group, interpret data (MF)

3:00 — 4:30 Students perform Marshall Mix Design calculations, Plot graphs, & select opt. asphalt, review design & specification compliance (MF)

Thursday AM (Classroom)

8:00 — 8:30 Review of mix design calculations & selection of optimum asphalt content (MF)

9:30 — 11:15 Complete ODOT mix design submittal with new set of data. (MF)

11:15 — 12:00 Superpave Mixture Design (LS)

PM (Classroom)

12:00 — 12:30 LUNCH — Pizza in classroom

12:30 — 12:45 Warm Mix Asphalt — WMA (LS)

12:45 — 1:15 TSR procedures and requirements (LS)

1:15 — 1:30 Shingle use in Ohio (LS)

1:30 — 1:45 RAP Procedures/ODOT requirements (MF)

1:45 — 2:00 Absorption Recovery Method (MF)

2:00 — 2:15 BREAK

2:15 — 2:45 Course Summary

2:45 Review for Examination (ODOT Asphalt Materials Section)

Friday (Classroom)

8:00 AM — 4:30 PM LEVEL 3 EXAMINATION

FLEXIBLE PAVEMENTS OF OHIO COMPREHENSIVE ASPHALT MIX DESIGN SCHOOL 2015 REFERENCE MANUAL

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Changes to 400 (18Jan2015) (11 pages)	
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SS 823 (7/18/2014) – Light Traffic Asphalt Mixture Composition Requirements	
S 1004 (7-15-2011) - Method of Test for Sieve Analysis of Fine and Coarse Aggregates	
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S 1032 (10-17-2013) - Asphalt Material Certification Requirements	
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- T27-14 – Sieve Analysis of Fine and Coarse Aggregates
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- T316-13 – Viscosity Determination of Asphalt Binder Using Rotational Viscometer
- M226-80 (2012) – Viscosity-Graded Asphalt Cement
- M320-10 – Performance-Graded Asphalt Binder
- M323-13 – Superpave Volumetric Mix Design
- R35-14 – Superpave Volumetric Design for Hot-Mix Asphalt (HMA)

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