DESIGN AND CONSTRUCTION ENGINEERS

PLANT MIX PAVEMENT PRINCIPLES

Course Description. This course provides Design and Construction Engineers with a thorough understanding of the Hot Mix Asphalt (HMA) mix design document produced by the Contractor in accordance with Idaho Standards for Public Works Construction (ISPWC) and Idaho Transportation Department, Section 405 of the current Standard Specifications for Highway Construction and American Association of State Highway and Transportation Officials (AASHTO), Superpave Volumetric Design for Hot Mix Asphalt. The course focuses on the Mix Design Report submitted by the Contractor that includes the JMF summary, test worksheets, graphs, blending and batching sheets. We end the course with a discussion on production and field-testing during installation of the asphalt. (aka Workmanship)

THURSDAY

8:00 AM-5:00 PM

- Develop a complete and comprehensive asphalt specification for use in Idaho that will meet your traffic, climate, and client needs
- Analyze a contractor Superpave Asphalt Mix design and job mix formula (JMF) and determine if it meets ISPWC / ITD specification for the type mixture specified
- Understand the relationship between the asphalt content, aggregate gradation, laboratory tests generated in the mix design and how they affect the JMF
- Understand the relationship between the various specific gravity values generated in the mix design and calculated volumetric properties and how they affect the JMF
- Perform all calculations to check air voids(Va), voids in the mineral aggregate (VMA), and voids filled with asphalt (VFA)
- Understand binder blending charts

FRIDAY

8:00AM - NOON

- Make a recommendation of the acceptability of the Contractor's mix design
- Make decisions based on test strip test results and production paving control chart data
- Utilize knowledge gained by better understanding what makes asphalt perform long term and be able to develop your own checklists for ensuring contractor production compliance
- Move forward quickly with detailed and practical guidelines for specifying, contracting, verifying mix design, and completing field verification of high-quality, durable pavements with longer service life and lower life-cycle costs.

Written Examination on Workmanship and Field Verification