Hot Mix Asphalt Basics

COURSE DESCRIPTION:

An introduction to the basics of Hot Mix Asphalt (HMA) paving for the non-expert. Introduces basic materials, design methods, terms construction practices, and specifications. If you work with pavement, (State, County, contractor, developer, public official, construction manager, etc.) this course provides the information needed to build or expand your core competence. All attendees will receive a free copy of the **HAPI Asphalt Pavement Guide (preview it at www.hawaiiasphalt.com)**, a CD-ROM that serves as the foundation for this seminar.

This is the first of a four-part seminar series concerning hot mix asphalt. Other seminars will provide detailed coverage of HMA pavement design, HMA pavement construction and HMA pavement maintenance and rehabilitation.

TOPICS:

1. Pavement types
    a. Flexible vs. rigid pavement
    b. Types of flexible pavement (HMA, SMA, open-graded, chip seals)
2. Materials
    a. Aggregate (properties, sources, specifications, current Hawaii issues)
    b. Asphalt (binder types, PG binder system, sources, current Hawaii issues)
3. Mix design
    a. Mix design fundamentals (properties considered, inaccuracies)
    b. Methods (Marshall, Hveem, Superpave and what is done in Hawaii)
4. Typical Hawaii mixes and PG 64-16 and why they are typical
5. Construction
    a. Plant operations and transport
    b. Laydown
    c. Compaction
    d. QA, QC and specifications
6. Pavement condition
    a. Condition evaluation methods
    b. Examples of good and bad pavement condition and why
7. Local HMA pavement research efforts at the University of Hawaii

LEARNING OBJECTIVES:

Upon completion of the seminar, the attendee will be able to:

- Describe differences between flexible and rigid pavements
- Describe the types of flexible pavements and their uses to include dense-graded, stone matrix asphalt, open-graded, bituminous surface treatment
- Describe the use of aggregate and asphalt in HMA
- Describe the type of asphalt and types of HMA mixes typically used in Hawaii
- Describe the sequence of events involved in HMA pavement construction
- Determine basic pavement condition levels
- Describe local research efforts

INSTRUCTORS:

This seminar will involve several speakers from the State, County and private industry.

Steve Muench, the coordinating instructor, is a doctoral candidate in the University of Washington's department of Civil and Environmental Engineering. Interests include pavement design, construction and maintenance; construction materials; quality control and quality assurance; and transportation design as well as education and teaching. Steve is the developer of the HAPI Asphalt Pavement Guide. He is a licensed professional engineer in Washington State and received an MSCE from the University of Washington in 1998, and a BSCE from the University of Washington in 1990. Steve is a graduate of Kailua Elementary, Kailua Intermediate and Kalaheo High School (class of 1986). His parents still live in Kailua and he still calls Hawai'i "home".

Registration Procedure
Please contact Gail Ikeda at 956-8367 or 956-8851 (FAX) by Wednesday, March 24, 2004.

Cancellations
Please contact us if you must cancel your registration or if someone will be substituting for you.

Parking
Parking for the East West Center is $4/day. If you would like to receive a parking pass, please contact us by March 24, 2004. Make checks payable to **Research Corporation of the University of Hawaii (RCUH)** and mail to:

Hawaii LTAP
University of Hawaii
Dept of Civil and Environmental Engineering
2540 Dole St, Holmes 383
Honolulu, HI 96822
Attn: Gail Ikeda

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April 2, 2004

East-West Center
Jefferson Hall, Keoni Auditorium
8:30 a.m. – 5:00 p.m.

March 29, 2004 – Wailuki, Maui
March 31, 2004 – Hilo, Hawaii

Workshop sponsored by the

Hawaii Asphalt Paving Industry
and
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University of Hawaii's Department of Civil and Environmental Engineering and the Federal Highway Administration

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