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Workshop sponsored by the:

***Hawai'i Asphalt Paving Industry  
and the  
Hawai'i Local Technical Assistance  
Program***  
*in cooperation with the  
Hawai'i State Department of Transportation,  
University of Hawai'i's Department of Civil &  
Environmental Engineering  
and the Federal Highway Administration*

# Asphalt Pavements and Sustainability

## A sustainability approach to the design, construction and preservation of asphalt pavements in Hawai'i

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**Registration Procedure**

1. Please contact Gail Ikeda at 808-956-8367, 808-956-8851 (FAX) or [giked@hawaii.edu](mailto:giked@hawaii.edu) by **Monday, June 9, 2008**.
2. Attendance is limited.

**Cancellations**

Please contact us if you must cancel your registration or if someone will be substituting for you. Refunds for parking passes will be made if they are returned prior to the workshop date.

**Parking**

East-West Center parking passes are available at \$4/day. If you would like a parking pass please contact us by June 9, 2008.

**Payment Method**

Payment can be made via Check – payable to the Research Corporation of the University of Hawaii (RCUH), Purchase Order, Credit Card (Visa & MasterCard) or Purchasing Card. Please mail payments to:

Hawai'i LTAP  
University of Hawai'i at Mānoa  
Dept. of Civil & Environmental Engineering  
2540 Dole Street, Holmes Hall 383  
Honolulu, HI 96822

East-West Center, Jefferson Hall,  
Keoni Auditorium  
1777 East West Road  
Honolulu, Hawai'i

**June 18, 2008**  
**8:30 a.m. – 4:00 p.m.**



*Registration begins at 8:00 a.m.*  
*Boxed lunch will be provided courtesy of*  
*HAPI*

**Hawai'i Local Technical Assistance Program**  
University of Hawai'i at Mānoa  
Department of Civil & Environmental Engineering  
2540 Dole Street, Holmes Hall #383  
Honolulu, Hawai'i 96822



## Course Description:

A look at hot mix asphalt pavements from the perspective of sustainability. While the term "sustainable" has become a buzz-word of sorts, the underlying principals of sustainability are our fundamental charge as engineers and public stewards. They are also consistent. This seminar will provide the background and knowledge necessary to frame a rational sustainability approach to asphalt pavements in our State.

This seminar will cover (1) an introduction to sustainability and how it relates to pavements, (2) long-lasting HMA pavement design and preservation, (3) life-cycle cost analysis, (4) life cycle assessment metrics for pavements, (5) measuring sustainability in pavements, and (6) a featured panel discussion on the biggest challenges facing Hawai'i pavements today.

## Topics:

1. Introduction and the case for sustainability – what is it, why now, and who cares?
2. The four sustainability fundamentals (engineering, economy, environment and social impacts)
  - a. Engineering pavements to last – long-lasting HMA pavements
  - b. The economics of HMA pavements – life-cycle cost analysis
  - c. Pavements and the environment – how they fit together and why we care
  - d. Social impacts – what impacts can a pavement have?
3. Sustainability metrics for pavements – do we need to measure sustainability and if so, how?
4. Industry expert moderated panel discussion – the big challenges for Hawai'i in HMA pavements today

## Who Should Attend:

This seminar is intended for government agency personnel, private consultants, contractors and others interested in our roads. You need not be a pavement expert to attend; any involvement with pavements or just plain interest in them is adequate background to understand and get value out of this seminar. All attendees receive course notes.

## Learning Objectives:

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

- Define "sustainability" and list its fundamental components
- Describe a "long-lasting HMA pavement" and its key components
- Describe the importance of pavement life-cycle costing
- Calculate the life-cycle cost of a typical pavement
- Discuss environmental metrics that can be used in pavement design/construction
- Describe contributions of pavements to environmental stewardship
- Discuss what is meant by "social impacts" in terms of sustainability and pavement
- Discuss means by which sustainability can be measured
- Discuss the major pavement challenges facing the industry today

## Speaker:

**Steve Muench** is an Assistant Professor in the University of Washington's Department of Civil and Environmental Engineering. Steve is the developer of the HAPI *Asphalt Pavement Guide*. He is a licensed professional engineer in Washington State and has a PhD from the University of Washington. 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". Steve teaches classes and does research on pavements, roads, construction, sustainability and learning.

