

# HAWAIIAN CONNECTIONS

THE HAWAII LOCAL TECHNICAL ASSISTANCE PROGRAM

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WINTER 2006

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Please pass this on to other interested parties in your office.

## MAKA ROAD IMPROVEMENTS NEAR COMPLETION

**K**ALĀHEO – Designing and building infrastructure improvements in existing communities always presents a challenge, especially in century-old communities like Kalāheo.

About two years ago, the Department of Public Works Engineering Division was tasked with working with a consultant to design improvements for Maka Road, the roadway leading to Kalāheo Elementary School. Construction on the project began last year and within a few weeks, the final phase of the project will be completed.

"I commend our engineering division, Akinaka and Associates and Aina Site

Construction for the work they've done on Maka Road," said **Mayor Bryan J. Baptiste**. "This was clearly a very challenging project, and everyone involved stepped up to the plate. Now the area is much safer for our children walking to and from Kalāheo School, families dropping off and picking up their children, as well as for residents who live on Maka Road."

For DPW project manager **Wallace Kudo**, the Maka Road project was very

complex.

"We were faced with many interesting challenges and had to work through each of them to get the job done," said Kudo.

Design-wise, the consultant had to come up with a plan that took into consideration confining property limits and existing utilities and driveways, and at the same time, attempt to improve historically poor drainage conditions along a steep hill with an elementary school at the bottom of it.

Compounding the situation, construction challenges surfaced when the work began.



*Design improvements for Maka Road.*

"In older communities like Kalāheo, records on existing underground utilities are often not available," said DPW project engineer **Lynel Rabago**. "Such was the case with Maka Road, so we encountered problems with utilities that had to be resolved in the field."

Another construction challenge was accommodating the high traffic on

*(Continued on Page 5)*

## WHAT'S NEW?

### Traffic Control Devices on Federal-Aid and Other Streets and Highways; Standards- Final Rule

**T**he FHWA is revising its regulation that prescribes procedures for obtaining basic uniformity of traffic control devices on Federal-aid and other streets and highways. This final rule makes some nomenclature changes, removes outdated references, and provides clarification on the meaning of roads "open to public travel" and "substantial conformance." The effective date is January 16, 2007.

For the purposes of the applicability of the Manual for Uniform Traffic Control Devices (MUTCD), the phrase "open to public travel" now includes toll roads and roads within shopping centers, parking lots, airports, sports arenas, and other similar business and recreation facilities that are privately owned but where the public is allowed to travel without access restrictions."

According to the notice, "FHWA does not believe it is necessary for State and/or local highway agencies to have specific authority or enforcement responsibility for traffic control devices on private roads. This change to 23 CFR part 655 does not require State or local agencies to police the private properties open to public travel to ensure compliance with the MUTCD. However, this change does make it clear that private roads open to public travel are

subject to the same traffic control standards as public streets and highways. Therefore, owners or parties responsible for such private roads are encouraged to bring the traffic control devices into compliance with the MUTCD and other applicable State Manuals."

With respect to "substantial conformance" the final rule states: "Where State or other Federal agency MUTCDs or supplements are required, they shall be in substantial conformance with the National MUTCD. Substantial conformance means that the State MUTCD or supplement shall conform as a minimum to the standard statements included in the National MUTCD. The FHWA Division Administrators and Associate Administrator for the Federal Lands Highway Program may grant exceptions in cases where a State MUTCD or supplement cannot conform to standard statements in the National MUTCD because of the requirements of a specific State law that was in effect prior to the effective date of this final rule..."

Additional details are available at the following link:  
<http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/E6-21228.pdf>

### National Safe Routes to School Task Force to the Secretary of Transportation- Notice of meeting of advisory committee.

**T**his document announces the first meeting of the National Safe Routes to School Task Force to the Secretary of Transportation. This is the first meeting of the task force. The purpose of the Task Force is to advise the Secretary of Transportation, through the Federal Highway Administration (FHWA) Office of Safety, on strategies to advance Safe Routes to School (SRTS) Programs nationwide and to encourage children, including those with disabilities, to walk and bicycle to school pursuant to Section 1404(h) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (Pub. L. 109-59). This meeting is open to the public and will have time allocated for public testimony. The public is welcome to present written or oral comments to the Task Force.

The first meeting of the Task Force is scheduled for January 11, 2007, from 8:30 a.m. to 5 p.m., e.t. and will be held at the Holiday Inn Capitol, 550 C Street, SW., Washington, DC 20024.

Additional details are available at the following link:  
<http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/E6-21226.pdf>

## NEWS FROM OUR PARTNERS...

### Cement and Concrete Products Industry of Hawaii



By Wayne Kawano, CCPI of Hawaii President

**H**appy Holidays!

The Cement and Concrete Products Industry (CCPI) of Hawaii extends its best wishes to the LTAP staff and our other industry partners for a safe, holiday season. It has been a valuable partnership with LTAP to provide educational opportunities for our agency (State and County) personnel as well as for people from the private sector. From this program, we are able to provide the latest technological developments and design guidelines for our transportation industry.

One of CCPI's main technical resources is from the American Concrete Institute – International. CCPI is the ACI Local Sponsoring Group in Hawaii, approved to administer various concrete certification programs, i.e. ACI Concrete Field Technician Grade I, which has been administered through LTAP for our State/County testing and inspection personnel.

ACI is a technical and educational society dedicated to improving the design and construction of concrete structures. Their committee meetings and conventions provide a forum for networking and exposure to the latest technology developments and practices for concrete.

ACI is where the concrete building codes are conceived, developed, and published through the efforts of over 300 committees. The committee members and convention attendees are comprised of engineers, contractors, architects, manufacturers, educators, and material representatives from all over the world in the field of concrete technology. ACI 325 committee has several guidelines related to concrete pavements.

Check with ACI website [www.concrete.org](http://www.concrete.org) to search for technical resources as well as information on upcoming events. CCPI welcomes any requests for technical information and suggestions for future LTAP workshops or seminars.

At a recent ACI Convention, the opening session lecturer, **Loring Wyllie Jr.**, spoke on a topic he entitled "Are We Crippled by Tunnel Vision?" It seems appropriate during the holiday season, as we end another year and enter a new year, to take the time to make a personal

assessment on our accomplishments and start setting goals and objectives for the upcoming year. Here are some interesting thoughts from his lecture.

Are we stuck with tunnel vision? We may feel a lack of knowledge (information), a lack of experience, or most evident, a lack of motivation (from frustration) when confronted with a particular task.

An interesting study revealed the approximate knowledge retention percentages based on various learning activities (based on my recollection, of course) were as follows:

- 10% by Reading
- 20% by Hearing (or listening)
- 30% by Looking at Pictures
- 50% by Watching a Demonstration
- 90% by Doing the Real Thing (i.e. hands-on)

Well, the study merely verified what we probably already know, its common sense, so, let's not get too stuck behind the desk or computer. Let's take the initiative to visit the project sites, to attend pertinent workshops (especially with demonstrations), to network among peers, and to do the real thing!

Best Wishes for a Happy New Year!



*Kwik Slab (Precast Concrete) Installation at Leoku Street Bus Pad.  
Photo by Bob Hayes, Grace Pacific Corp.*

## NEWS FROM OUR PARTNERS... (Continued from Page 3)

### Hawaii Procurement Institute

By Jessica M. Horiuchi, Esq., Interim Executive Director



**D**uring the 2005 session, the Legislature passed Act 50, which established a preference for small businesses in certain circumstances and specifically required that the Board adopt rules “to promote the growth and development of small business . . .” Recently, on October 28, 2006, the State Procurement Policy Board approved a petition from the Hawaii Procurement Institute (“HPI”) to implement rules for a new Small Business Preference Program. The interim rules will go into effect before the end of the year.

The essential elements of these initial rules include:

- The creation of Small Business Utilization Council, whose members will include the Directors of the state Department of Business, Economic Development & Tourism, Department of Accounting and General Services, Department of Transportation and other

procurement officials.

- The creation of annual small business utilization goals, including: (1) size standards, (2) criteria to identify business as qualified to participate in the program, (3) identification of emerging industries, geographic areas within the State, and under-utilized workforce resources where government purchases using small business preferences will promote the purposes of this subchapter and (4) promotion of set-asides for small businesses .
- Preparation of an annual small business utilization report addressing the operation of the program;
- The use of standard clauses

Once the Small Business Utilization Council identifies goals, target industries and geographical regions, HPI will provide an update.

## WHAT'S NEW? (Continued from Page 2)

### Oahu Storm Water Management Program Public Review and Open House



**T**he State of Hawaii Department of Transportation Highways Division (HDOT Highways) has developed a plan for its Oahu Storm Water Management Program (SWMP). The Oahu SWMP plan outlines the HDOT Highways program to address storm water pollution associated with operating the HDOT Highways-related network and facilities on Oahu.

514), Mapunapuna (727 Kakoi Street), and Kapolei (601 Kamokila Boulevard, Room 611). The Oahu SWMP Plan can also be downloaded from “[http://www.StormWaterHawaii.com/program\\_plan/](http://www.StormWaterHawaii.com/program_plan/)”. The deadline for comments is February 6, 2007.

An open house is scheduled for:  
Thursday, January 18, 2007 at 6:30 p.m.  
Washington Middle School Cafeteria  
Honolulu, Hawaii

For more information, please contact **Larissa Sato** at (808) 566-2246.

Copies of the Oahu SWMP Plan are available for public review at the HDOT Highways offices in downtown Honolulu (869 Punchbowl Street, Room

## Better Mousetrap?

Have you or one of your co-workers built a better mousetrap recently? A modified gadget? An improved way to do a job?

Please let us know about it. The best entries will be featured in a future issue of Hawaiian Connections.



Your name and phone number:

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Inventor's name and phone:

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Invention:

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*Please fax this form to (808) 956-8851.*

## MAKA ROAD IMPROVEMENTS NEAR COMPLETION

(Continued from Page 1)

the road serving Kalāheo School, the third largest elementary school on the island, as well as taking care of the needs of residents whose driveways run along the new sidewalk.

Mother Nature was also a force to be reckoned with in February and March when the unusually heavy rains resulted in significant delays in the Maka Road project. And to top things off, there was a statewide asphalt shortage in May.

Despite being faced with numerous challenges, those involved with the Maka Road project forged ahead and substantial improvements have been made to this busy roadway including:

- Construction of a 5-foot wide sidewalk that now runs from the top of the road at the Papālina Road intersection all the way to Kalāheo School for a total of 1,000 feet (Previously only a small portion of Maka Road had a sidewalk).
- Addition of a 10-ft wide lane from the intersection of

Polaris Road to the school, which serves to mitigate traffic congestion before and after school.

- Resurfacing of a portion of the road fronting Kalāheo School. Before the work was done, the area had potholes and an uneven grade.
- Insertion of a 4-ft wide grass swale along the roadway from the Polaris Road intersection to the nearby county baseyard. This was done to alleviate a major drainage problem with the area around the school gym being flooded following heavy rains.

All that remains to be done on the Maka Road project is striping of the roadway and grassing along the sidewalk.

**Eric Burkman**, principal of Kalāheo Elementary School, is pleased with the results of the Maka Road improvements.

"I am very happy with the changes. The area is now much safer for our children," said Burkman.

# STATEWIDE PAVEMENT P

*By Brennon T. Morioka, Ph.D., P.E., HDOT Deputy Director*

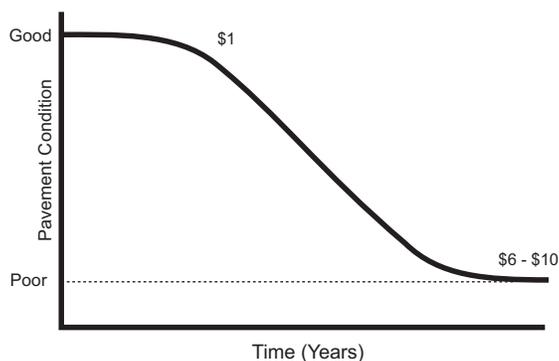
In 2005, the Highways Division of the State Department of Transportation (HDOT) recognized a need to revise its approach to managing its pavement network and the level of commitment to putting resources to a true pavement management program. The traditional system of “worst first”, where pavements in the worst condition received priority status was not providing the traveling public with a good return on their pavement infrastructure investment. Constrained budgets and the high cost of rehabilitating “worst first” limited the amount of roadway construction that could be funded.

In response to concerns about the conditions of its roadways, HDOT has made Pavement Preservation a priority. The Highways Division formed the Pavement Preservation Task Force consisting of personnel from various HDOT branches and districts, as well as our partners at FHWA and from industry.

Pavement Preservation is a strategy including all activities to provide and maintain serviceable roadways. It is a planned system of treating pavements to maximize their useful life. Activities under the Pavement Preservation umbrella include routine maintenance, preventive maintenance, pavement rehabilitation, pavement management systems (PMS), and planning/cost-effective decision-making.

The most obvious benefit of pavement preservation is the extension of the life of the pavement. Other benefits of a Pavement Preservation Program:

- Lower costs over time – studies show every additional dollar spent on preventive maintenance treatments saves 6 to 10 dollars in future rehabilitation costs.



- Better condition pavements – scheduled monitoring and pavement treatments keep pavements in better overall condition than random or insufficient maintenance.
- Better utilization of resources – regularly scheduling treatments allows better use of available resources and planning for those that you may need (contractors, equipment, etc)

All pavements require some form of maintenance due to the effects of traffic and the environment on the pavement surface. HDOT’s revised approach places a heavy emphasis on preventive maintenance. Preventive maintenance takes the maintenance process one step further by carefully choosing and timing treatments to extend the life of a pavement.

AASHTO defines preventive maintenance as: *“the planned strategy of cost-effective treatments to an existing roadway system and its appurtenances that preserves the system, retards future deterioration, and maintains or improves the function condition of the system (without substantially increasing structural capacity).”*

Pavement preventive maintenance (PPM) narrows that focus to the application of one or more treatments, generally to the surface of a structurally sound roadway. Agencies with successful pavement preventive maintenance programs have a record of applying the

### ***RIGHT Treatment On the RIGHT Pavement At the RIGHT Time***

Successful pavement preventive maintenance programs also exhibit several key factors:

**Management Support** – Effective PPM programs require top management support and commitment. With the many demands on agency resources, programs supported at the highest level have the best chance of succeeding.

**Adequate Dedicated Funding** – Because applying

# RESERVATION PROGRAM

PPM treatments at the proper time is essential, funding for PPM work must be dedicated and predictable. Establishment of dedicated funds helps to ensure a stable flow of funding that will enable the agency to apply the necessary treatments in a timely manner. PPM programs that are susceptible to funding variability tend to worsen the condition of the pavement network and shift the agency back towards “worst first” approach.

**Data Collection** – Accurate measurements are critical for the decision making process that determines what needs to be done and when it needs to be done. Often, collecting the necessary information such as past performance history and current conditions of the existing pavement poses a challenge to most agencies.

Fortunately, HDOT can rely on its Pavement Management System (PMS) to provide the information needed to support the PPM program. The PMS is a systematic information collection and analysis process. Surface distresses are manually observed and recorded in a standardized format. Different combinations of distress type and severity are reduced to pavement condition indices for a common comparison basis. The Materials Testing and Research Branch compile pavement information, along with traffic information.

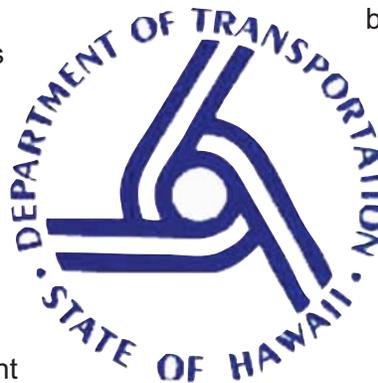
A major update to the PMS was initiated in 2005 with a five-year research project focusing on implementing new data collection and graphical interface analysis methods to streamline and improve data sharing and analysis.

**Improved Project Selection** – Selecting the appropriate PPM treatment should maintain the condition of the “good” road in order to delay the day that it becomes a “bad” road. In order to select the “right treatment at the right time”, agencies need to develop a treatment selection process based on performance and cost. HDOT is in the unique situation where very few treatment options are currently available in the state. Geographic isolation and the cost of transporting

materials and equipment are challenges in introducing a variety of treatment techniques to Hawaii.

**Publicity** – Pavement Preventive Maintenance is not a well-known concept. Motorists are accustomed to seeing roads deteriorate to a certain level before repairs are made. The public may see it as an inconvenience and an unnecessary expense to “fix” a road that isn’t “broken” and question the rationale of a program that devotes resources to well performing pavements. With proper information and education, this perception can be changed into support for PPM.

**Performance Measures** – It is sound fiscal practice to be able to measure the benefits and savings gained from an effective PPM program, as well as being in line with the Lingle Administration’s performance based budgeting direction.



Since its formation, the Pavement Task force, under the leadership of **JoAnne Nakamura**, has been working to ensure these key elements are being addressed as it proceeds on the development and implementation of its program. Initially, the task force focused on improving the selection and delivery of PPM projects. In FY 2005, HDOT awarded \$1.3 million in PPM projects.

PPM projects awarded in FY 2006 increased to \$8 million.

This year, the task force began focusing on introducing the use of various PPM treatments available on the mainland but not currently in Hawaii. **Mr. Jim Sorenson** of FHWA’s Construction and System Preservation office has been instrumental in assisting HDOT with its Pavement Preservation program. Under FHWA’s sponsorship, HDOT engineers participated in a Scan Tour of four mainland state highway agencies in September 2006. Together with representatives from FHWA and HAPI, the group visited Washington, California, Nevada, and Texas. The scan tour was structured to provide exposure to some of the best examples of key elements of successful Pavement Preservation programs. Tour participants held discussions with key decision makers from highway agencies and pavement industries in each state. They

# STATEWIDE PAVEMENT PRESERVATION PROGRAM

(Continued from Pages 6 & 7)

were presented with a wealth of information about agency organization, pavement management, PPM treatments and PPM treatment selection. In California and Texas, the group also visited pavement projects and PPM treatment test sites.

In October 2006, HDOT held a Pavement Preservation Summit "Roadmap to Pavement Preservation" which was attended by representatives from HDOT, FHWA, and the paving industry. At this milestone event, FHWA, HDOT, the Hawaii Asphalt Paving Industry (HAPI) and the Cement and Concrete Products Industry of Hawaii (CCPI) signed a partnering agreement recognizing the importance of pavement preservation and establishing

a commitment to implement a successful program in Hawaii. A letter of appreciation from **Governor Lingle** and **Lt. Governor Aiona** was presented to the Pavement Preservation Task Force in recognition of its efforts in advancing pavement preservation in Hawaii. The task force will continue its work to promote pavement preservation through education, innovation, and implementation.

For more information on HDOT's Pavement Preservation Program, you can contact **JoAnne Nakamura** at HDOT's Materials Testing & Research Laboratory at 832-3405 ext 229.



*Scan tour group at our first stop, Washington State.*

*Front row (left to right): **Raymond Nii, David Peshkin, Pat Phung, Linda Pierce, Cathy Nicholas, JoAnne Nakamura.** Back row (left to right): **Joe Gregory, Julius Fronda, Mike Medeiros, John Dupuis, Pratt Kinimaka, Tom Baker.***

## FREE PUBLICATIONS

1. **NCHRP-Report-395 (1997)** - Capacity and Operational Effects of Midblock Left-Turn Lanes
2. **NCHRP-Report-396 (1997)** - Instrumentation for Measuring Scour at Bridge Piers and Abutments
3. **NCHRP-Report-397A (1997)** - Sonar Scour Monitor: Installation, Operation, and Fabrication Manual
4. **NCHRP-Report-397B (1997)** - Magnetic Sliding Collar Scour Monitor: Installation, Operation, and Fabrication Manual
5. **NCHRP-Report-398 Volume 1 (1997)** - Quantifying Congestion. Volume 1: Final Report
6. **NCHRP-Report-400 (1997)** - Determination of Stopping Sight Distances
7. **NCHRP-Report-401 (1997)** - Guidance Manual for Managing Transportation Planning Data
8. **NCHRP-Report-402 (1997)** - Fatigue Design of Modular Bridge Expansion Joints
9. **NCHRP-Report-408 (1998)** - Corrosion of Steel Piling in Nonmarine Applications
10. **NCHRP-Report-422 (1998)** - Fatigue-Resistant Design of Cantilevered Signal, Sign and Light Supports
11. **NCHRP-Report-422 (1999)** - Maintenance QA Program Implementation Manual
12. **NCHRP-Report-423A (1999)** - Land Use Impacts of Transportation: A Guidebook
13. **FHWA-SA-96-071** - Mechanically Stabilized Earth Walls and Reinforced Soil Slopes, Design and Constuction Guidelines
14. **Hawaii LTAP Workshop (1996)** - ANSI D16.1-1996 Manual on Classification of Motor Vehicle Traffic Accidents: Sixth Edition
15. **Hawaii LTAP Workshop (2004)** - Erosion and Sediment Control For Highway Constuction
16. **Hawaii LTAP Workshop (2001)** - ADA: Designing Public Rights-of-Way
17. **Hawaii LTAP Workshop (2002)** - Media Training Program Participant Guide
18. **Hawaii LTAP Workshop (1996)** - Work Zone Safety For Local Roads and Streets: Notes for Participants
19. **FHWA-HI-94-031** - Safety Inspection of In-Service Bridges Participant Workbook: Volume 1
20. **FHWA-HI-94-032** - Safety Inspection of In-Service Bridges Participant Workbook: Volume 2
21. **FHWA-HI-94-033** - Safety Inspection of In-Service Bridges Participant Workbook: Volume 3

**We are cleaning and reorganizing the Transportation Library!  
Please take the time to review this list. Any remaining copies will  
be discarded by MARCH 2007.**

### Hawaii LTAP Transportation Library

The Hawaii Local Technical Assistance Program Library is located in Holmes Hall 143A at the University of Hawaii. The library houses over 10,000 transportation-related technical reference materials. Informational and workshop videos may also be found in the library. Reference materials and videos are available to the public and may be borrowed or copied.

Database of all materials may be found on the web at:

#### Videos -

<http://hltap.eng.hawaii.edu/video.html>

#### Publications -

[www.eng.hawaii.edu/~tlib](http://www.eng.hawaii.edu/~tlib)

#### Website:

<http://hltap.eng.hawaii.edu/>

For more information, please contact us at 956-8719.



## Director's Note

by C.S. Papacostas



If you examine the back page of this newsletter, you will discover the addition of **Jan Murakami**, Personnel Management Specialist, on the roster of our Executive Board and **Thomas Jackson**, Personnel Officer, among the members of our Advisory Board. This is because, for administrative purposes, we have been moved from the HDOT Testing Lab to the Personnel Office. We look forward to working with Tom and Jan and, I am sure, their knowledge of the needs of the Department's personnel will come in handy when we formulate our training workshops and technical assistance activities. **Steve Ege** of the Lab continues to provide valuable service through his membership on our Boards.

In early December, we held the annual meeting of our Advisory Board and we appreciate the fact that these notable individuals took the time to provide guidance to the overall program for the New Year. I always enjoy the variety of topics that come up at these meetings where I take advantage of the special opportunity to find out about major developments at the County, State and Federal levels. This year, the discussions were especially intense with the group remaining in the conference room for almost two hours after officially adjourning the meeting.

Developments in pavement structures and management systems was one of the topics of major interest, particularly now that Board member **Ricardo Adrian Archilla** has set up a well equipped asphalt research laboratory at the University of Hawai'i.

Please note the individual that represents your agency on the HLTAP Boards and make sure to let him or her know of any way in which the program can assist your professional needs.

Happy New Year!

## Program Manager's Note

by Juli Kobayashi



Mele Kalikimaka & Hauoli Makahiki Hou!

We have had another wonderful year serving the needs of our customers. We held 21 workshops with a total of 1,849 participants. This resulted in over 29,500 hours of training! Thank you to all instructors and participants for helping to make this a truly successful year!

Some of the highlights of the year included our Annual Superintendent/Overseers Conference, the Making Work Zones Work Better Workshop, numerous workshops focusing on the environment to name a few. With the assistance of FHWA and input from our Advisory Board we developed and implemented our program vision, mission and focus areas. We are always open to suggestions for workshops from you and a request form can be easily downloaded from our website at <http://hltap.eng.hawaii.edu/forms/requestForm.pdf>

In 2007 we are looking forward to assisting HDOT with their Strategic Highway Safety Program and in conducting our first Construction Career Days later in the year.

Have a safe and joyous Holiday Season with wonderful blessings in the New Year!

### Note from the editor:

In our previous issue's article "Making Work Zones Work Better" we inadvertently omitted a reference to **Karl Kunishige** (HDOT - Traffic Branch). Karl, along with **Steven Yoshida**, were instrumental in deciding the contents of our Guidelines for Temporary Traffic Control handbook.

\*Hawaiian Connections features scenic pictures from various locations in Hawaii.

In this issue, we are featuring the Island of Kauai. On the cover is the famous **Wailua Falls** located on the east side of Kauai. This 80 foot tiered waterfall was featured in the opening scene of the television show, *Fantasy Island*. On the back is **Spouting Horn**, located in Po'ipu, South Kauai. Water rushes under a lava shelf and bursts through a small opening at the surface resulting in frequent spurts of sea water 50 feet in the air.

## HAWAII LTAP ACTIVITIES

*Compiled by Gail Ikeda, Hawaii LTAP*

In the month of October, we along with the Hawaii Asphalt Paving Industry (HAPI) were pleased to welcome back **Steve Muench** for his rescheduled workshop, "Hot Mix Asphalt Pavement Rehabilitation". The purpose of the seminar was not to tell everyone how pavement rehabilitation must be done, but to look at the array of tools (both testing and design methods) available to assist in making informed rehabilitation decisions. Participants had an in-depth look at HMA pavement rehabilitation which included identification of pavement distress, non-destructive testing methods, repair strategies and overlay design. Attendees were also fortunate to view a falling weight deflectometer (FWD) for deflection measurements courtesy of **Loy Kuo** of the Hawaii Department of Transportation (HDOT) Materials Testing & Research Branch. To perform a test, the vehicle is stopped and the loading plate (weight) is positioned over the desired location and lowered to the pavement surface. The sensors are then lowered to the pavement surface, the weight is dropped, and the surrounding pavement vertical deflection is recorded. The FWD is typically used to measure the



*HDOT's Falling Weight Deflectometer (FWD)*

stiffness of base, subbase, and subgrade materials and of HMA when the pavement is relatively thin. Participants were also able to see a portable FWD courtesy of **A. Ricardo Archilla**, Assistant Professor at the University of Hawaii's Department of Civil & Environmental Engineering. We hope for more successful workshops with our partner HAPI next year.

We ended the year with a very popular and well-attended half-day seminar entitled, "Storm Water Compliance Strategies and Erosion and Sediment Control at Construction Sites in Hawaii". This workshop sponsored by the City & County of Honolulu Department of Environmental Services Storm Water Quality Branch, involved representatives from the City & County of Honolulu Department of Planning & Permitting, HDOT, Hawaii Department of Health (DOH), General Contractors Association of Hawaii (GCA), Building Industry Association of Hawaii (BIA), Land Use Research Foundation (LURF) and the American Council of Engineering Companies (ACEC). This workshop was intended to provide an open exchange of ideas and concerns between the public agencies that are in charge with overseeing the Erosion and Sediment Control Program and major developers, contractors and consulting engineers who are regulated by the program. After presentations by each agency, a panel of all the speakers discussed major issues raised and addressed questions from the audience. We look forward to a follow-up workshop in the future.

For more information on any of these workshops please contact us at (808) 956-9006.

## What did YOU think?

*Editor's Note: In this feature, we quote our associates and stakeholders about our activities.*

"I would like to express my deep appreciation to you and your staff for organizing and sponsoring a variety of workshops and conferences that have helped to effectively address the transportation infrastructure needs of our island. Our Highway Maintenance Division Chief has just returned from attending the 7th Annual Public Works Superintendents/Overseers Conference on Kauai. He has informed me that since its inception, which you sponsored, this conference has been the best peer exchange gathering he has been part of. Thank you for bringing to-

gether the key people that get work done for us in operating and maintaining our roads, as well as supporting emergency operations that protect the citizens of the Big Island..."



*Mayor Harry Kim*

Submitted by: **Hon. Harry Kim**, County of Hawaii Mayor



# HAWAII LOCAL TECHNICAL ASSISTANCE PROGRAM

## Executive Board

**Steven Ege**  
Engineer  
Hawaii Department of Transportation  
Materials Testing & Research Branch

**Wayne Kaneshiro**  
Safety Engineer  
FHWA Hawaii Division

**Jan Murakami**  
Personnel Management Specialist  
Hawaii Department of Transportation  
Highways Division, Personnel Staff

**C.S. Papacostas**  
Director, Hawaii LTAP  
Department of Civil and Environmental  
Engineering  
University of Hawaii at Manoa

## Hawaii LTAP Staff

**Director:**  
C. S. Papacostas

**Program Manager:**  
Juli Kobayashi

**Program Assistant:**  
Gail Ikeda

**IT Specialist:**  
Thong Lien

**Training Associate:**  
Les Imada

**Student Assistants:**  
Keoni Wasano  
Kevin Kuba  
Kristine Miyasato

## Advisory Board

**A. Ricardo Archilla**  
Assistant Professor  
Department of Civil and Environmental  
Engineering  
University of Hawaii at Manoa

**Steven Ege**  
Engineer  
Hawaii Department of Transportation  
Materials Testing & Research Branch

**Thomas Jackson**  
Personnel Officer  
Hawaii Department of Transportation  
Highways Division, Personnel Staff

**Wayne Kaneshiro**  
Safety Engineer  
FHWA Hawaii Division

**Galen Kuba**  
Engineering Division Chief  
County of Hawaii  
Department of Public Works

**Wallace Kudo**  
Chief, Engineering Division  
County of Kauai  
Department of Public Works

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The Hawaii Local Technical Assistance (LTAP) is a cooperative program of the University of Hawaii Department of Civil and Environmental Engineering, the Hawaii Department of Transportation, Highway Division, State of Hawaii and the U.S.. Department of Transportation Federal Highway Administration, Hawaii. The LTAP program provides technical assistance and training programs to local transportation related agencies and companies in order to assist these organizations in providing cost-effective improvements for the nation's highways, roads and bridges. Our office is located at:

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