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16. ABSTRACT

The Supplemental Local Technical Assistance Program (LTAP) project developed and maintained an extensive and robust mailing list, containing nearly 30,000 records, encompassing California's transportation community of professionals. LTAP produced 35 newsletters, seven "Tech Topics" and three "Pavement Technology Updates." These were distributed to over 19,000 people in print and over 11,000 people electronically. The multi-media training library contained 875 items. The Tech Transfer web site was being viewed by over 25,000 individuals monthly, providing access to services, training, resources and information on Caltrans sponsored research. Library staff responded to 369 requests for reference services. Library staff added 2,464 publications – all produced or sponsored by Caltrans – to the TRIS database. Tech Transfer distributed 67 final research reports produced by Caltrans to the 16 depository libraries in California and the 4 major transportation libraries in the United States. Under this contract, 7 new Road Shows were developed and all existing Road Shows were revised to stay current. Since 2000, the LTAP project delivered 266 Road Shows and trained 7,885 people. LTAP organized and delivered the annual California Pavement Preservation conference in 2006, 2007, 2008 and 2009, and hosted the First International Conference on Pavement Preservation in 2010. Attendance averaged over 300 and in total, 1,674 people attended Pavement Preservation Conferences. Organized and delivered six ad hoc workshops since this task was added in 2007. Tech Transfer Completed 20 Preliminary Investigations. Between February 2008 and September 2009, an eLearning solution to introduce learners to Life Cycle Cost Analysis (LCCA), the LCCA Procedures Manual, and the RealCost software tool was developed.

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FINAL REPORT

LOCAL TECHNICAL ASSISTANCE PROGRAM
Supplemental Program

PROJECT NUMBER
LTAP 6073 (005)

PERIOD OF PERFORMANCE
OCTOBER 25, 2000 – JUNE 30, 2010

PRESENTED TO
DIVISION OF RESEARCH AND INNOVATION
CALIFORNIA DEPARTMENT OF TRANSPORTATION

SUBMITTED BY
TECHNOLOGY TRANSFER PROGRAM
INSTITUTE OF TRANSPORTATION STUDIES
UNIVERSITY OF CALIFORNIA, BERKELEY

August 30, 2010

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ABSTRACT

This report summarizes the activities of the California Local Technical Assistance Program from October 25, 2000 through June 30, 2010.

EXECUTIVE SUMMARY

The California Local Technical Assistance Program (LTAP) Center is administered by the University of California, Berkeley's Institute of Transportation Studies, Technology Transfer Program with funds from the Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans) through the Division of Local Assistance and the Division of Research and Innovation.

Under federal LTAP guidelines, the California LTAP, as funded by the Division of Local Assistance, serves California's local public transportation agencies with training, technical assistance and information resources. Through these core services, the LTAP center provides access to training and information that may not have otherwise been accessible to local agencies, such as workforce development services; resources to enhance safety and security; solutions to operational, capacity, congestion, environmental and other issues; technical publications; and training videos and resource materials. Supplemental funding provided by the Division of Research and Innovation, during the term of this contract, extended these services to all Caltrans employees statewide, and expanded the service offerings to include additional outreach, publications, information dissemination, and training, that would not otherwise be available through LTAP.

Over the years this contract was in place, the Basic and Supplemental LTAP programs worked together. As such, all LTAP activities were reported on a quarterly basis in a single, combined report. It would be impossible to extract just the Supplemental activities from the entire Basic and Supplemental LTAP combined program. Therefore, this final report also covers all the activities from both the Basic and Supplemental programs, during the period October 25, 2000 through June 30, 2010.

BACKGROUND

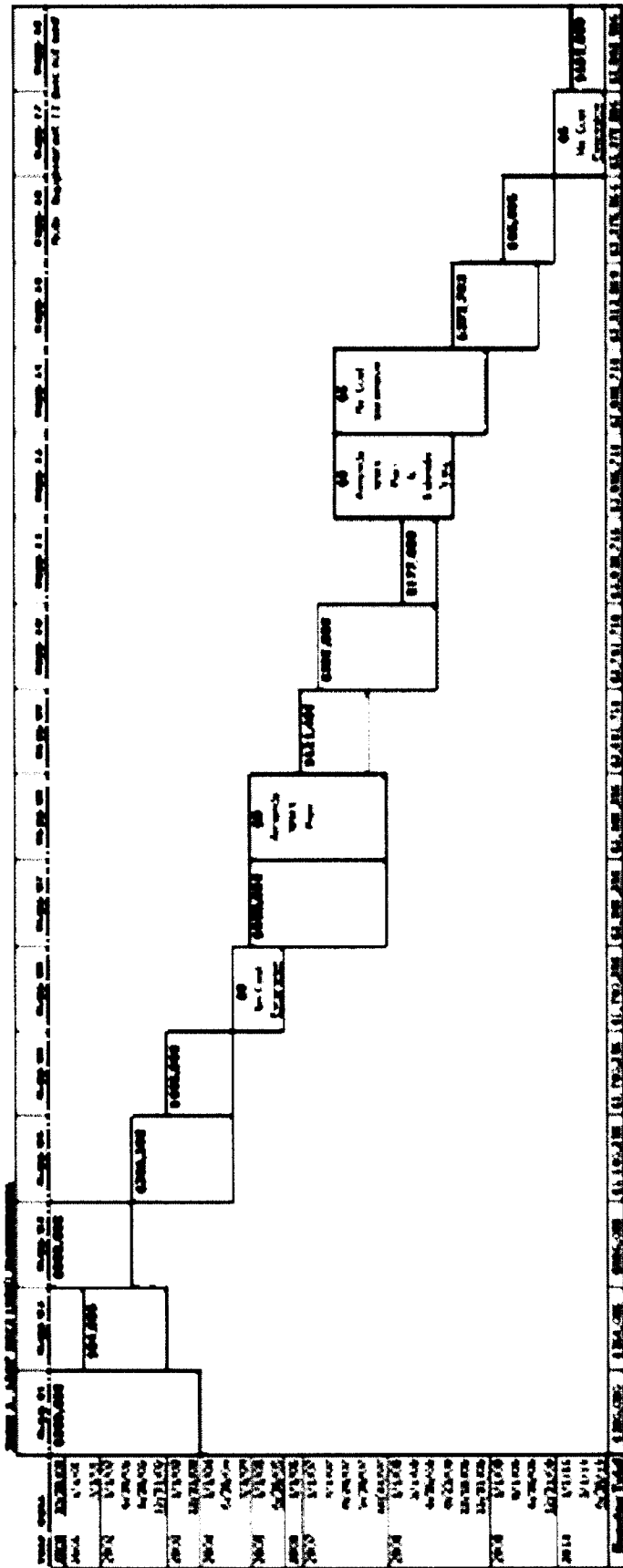
The Local Technical Assistance Program (LTAP) has been in existence since 1982. It was established by the Federal Highway Administration (FHWA) and was initially known as the Rural Technical Assistance Program (RTAP). With every subsequent reauthorization of the federal transportation bill, Congress made changes to the Program in nomenclature, funding level, and service population.

The University of California Berkeley was one of the four founding universities for the RTAP project. Today, there are 58 Local and Tribal Technical Assistance Centers in the Program: there is an LTAP center in each of the 50 states and Puerto Rico, as well as seven regional centers serving tribal governments, known as the Tribal Technical Assistance Program (TTAP) Centers.

California's LTAP center was initially set up to be part of the University Extension, as it was then conceived primarily as a training program. In 1995, the Institute of Transportation Studies, in conjunction with advisors statewide, restructured LTAP's institutional relationship in order to improve its administration as a sponsored project (as opposed to a self-supporting, fee-based program like Extension) and to link it more closely with research outputs sponsored by the University and Caltrans. Linda Howe-Steiger joined the University as the first Director of this reconceived Technology Transfer Center. Laura Melendy became Director when Dr. Howe-Steiger retired in June 2007.

Under SAFETEA-LU, each of the fifty state centers received \$140,000 from FHWA, which was matched locally, in our case by Local Assistance. Thus California has the same amount to run its state program as Montana or Rhode Island. ISTEA had expanded the LTAP service area to all jurisdictions under 1,000,000 population, provided for a so-called "urban supplement," which varied from year to year but which was allocated to centers based on population and so took off some of the difficulty for states as large as California. TEA-21 retained the expanded service area, but took away the urban supplement, leaving California with a very significant shortfall. FHWA indicated that states could use SPR funds to make up the difference. In California, the Office of Research and New Technology, and later the Division of Research and Innovation, stepped up and provided SPR funds to supplement and maintain the level of effort in LTAP, starting in Fiscal Year 2000 – with this project. In return, LTAP was asked to expand its service area to include Caltrans district staff and focus attention on disseminating Caltrans-sponsored research.

The additional SPR funding to enhance and expand LTAP was provided in a series of "Supplements" under Master Agreement HQ/OLP-LTAP, Project Number LTAP 6073 (005). The first Supplement provided \$300,000 for the period October 25, 2000 through December 31, 2003. Subsequent supplements added funding, amended the work plan, and extended the termination date. In all, this project encompassed 18 Supplements, for a total funding of \$3,563,504 over the period from October 25, 2000 through June 30, 2010. See table 1 on the following page for a history of program Supplements.



DELIVERABLES

As originally conceived, the tasks in this agreement aligned perfectly with the tasks in the Basic LTAP program. Supplement 01, beginning on October 25, 2000, defined the Supplemental tasks as:

- Task A. Compile and maintain the mailing list
- Task B. Publish quarterly newsletters
- Task C. Distribute technology transfer materials
- Task D. Provide information services and technical assistance
- Task E. Provide training
- Task F. Evaluate Effectiveness of the program
- Task G. Special projects

Over time, these tasks evolved in name and scope, and by Supplement 18, ending on June 30, 2010, the broad categories of Supplemental tasks, each with multiple subtasks, had become:

- Task 1. Production and Dissemination of Publications
- Task 2. Distribution of Research Reports and Technology Transfer Materials
- Task 3. Delivery of Conferences, Workshops and Other Training Programs
- Task 4. Provision of Information Services and Technical Assistance
- Task 5. Participation in National Research & Technology Transfer Forums
- Task 6. Reporting

During the years in between, several other tasks were added in, completed, and removed from subsequent agreements.

As the task number and names changes were numerous through the succession of 18 Program Supplements, for the purpose of this organizing this report, deliverables will be reported based on the consolidated outline of all activities conducted under this agreement, which follows in Table 2.

Table 2. Consolidated Outline Of All Task Performed Under Agreement LTAP 6073(005)

1. Compile and maintain a mailing list
2. Produce and distribute newsletters and technical articles
3. Distribute technology transfer materials
 - 3.1. Purchase, produce, distribute materials for LTAP clients
 - 3.2. Maintain and expand the multi-media training resources database
4. Provide information services and technical assistance
 - 4.1. Provide an informational website
 - 4.2. Provide free reference and library services
 - 4.3. Provide peer-to-peer technical assistance
 - 4.4. Ensure public access to Caltrans DRI sponsored research
 - 4.5. Distribute Caltrans research to depository and non-depository libraries
 - 4.6. Outreach to client groups in California to promote LTAP services
5. Provide training, workshops and conferences
 - 5.1. Develop, revise and deliver Road Shows
 - 5.2. Organize and deliver the annual California Pavement Preservation Conference
 - 5.3. Organize and deliver ad hoc workshops in cooperation with DRI
 - 5.4. Develop “preliminary investigation” training for Caltrans research managers
6. Special projects
 - 6.1. Develop eLearning training on Life Cycle Cost Analysis and the “Real Cost” tool
 - 6.2. Enhance and operate California Learn-net
 - 6.3. Provide NHI-based “Professional Capacity Building” Training
 - 6.4. Training in Intelligent Transportation Systems
 - 6.5. Administration of the T2 pooled fund
7. Participate in national research and technology transfer forums
 - 7.1. Participate in and support national LTAP activities
 - 7.2. Build and support relationships with the Transportation Research Board
8. Evaluate and report on the program
 - 8.1. Identify client interests and needs
 - 8.2. Prepare and submit quarterly reports to Caltrans
 - 8.3. Prepare and submit an annual PAR and CAR to FHWA

1. COMPILE AND MAINTAIN A MAILING LIST

- *The LTAP project developed and maintained an extensive and robust mailing list, containing nearly 30,000 records, encompassing California's transportation community of professionals.*

Extensive and accurate client contact information that can be sorted, such as by location, by interest, by job title, etc., for targeted, customized-on-the-fly print and electronic mailing lists for dissemination of information and announcements is key to an effective technology transfer program. Therefore, this task required establishing and maintaining a database for client contact information; performing routine data maintenance to ensure accuracy of the dataset; and pro-actively improving and expanding the dataset for efficient targeted mailing.

In December of 2000, the mailing list contained approximately 17,000 contacts. By June of 2010, the mailing list included nearly 30,000 contacts, with over 19,000 opting for print communications and 11,000 opting for electronic communications. Contacts in the list include public works directors and staff, planning agency directors and staff, elected officials and engineering, operations, and maintenance professionals in each of California's 476 cities, 58 counties, and 12 Caltrans districts as well as the directors of all LTAP/TTAP centers nationwide, employees of the Federal Highway Administration, representatives of professional organizations, and interested academics and instructors.

Activities throughout the contract period included searching for and consolidating duplicate records, updating or eliminating invalid addresses based on returned mail or direct requests from the public, adding contacts upon request or as collected from training course registration rosters and conference contact lists, and merging purchased mailing lists, such as those purchased periodically from the California League of Cities and the County Engineers Association of California, into the mailing list.

2. PRODUCE AND DISTRIBUTE NEWSLETTERS AND TECHNICAL ARTICLES

- *We produced 35 newsletters, seven “Tech Topics” and three “Pavement Technology Updates.” These were distributed to our mailing list, with issues currently reaching over 19,000 people in print and over 11,000 people electronically.*

Written communication, in both print and electronic formats, remains a mainstay of the outreach and technology transfer process. Tech Transfer publications are produced jointly by subject matter experts who identify timely, relevant topics and provide quality content and technical oversight, and communications professionals, who understand the audience and how to use the media effectively.

The Tech Transfer newsletter features timely articles, practical information, regulatory updates, and reports on best practices relevant for today's local agency transportation professional, as well as announcements on training, technical assistance and resources available through the Technology Transfer Program. Newsletter articles frequently focused on Federal Highway Administration (FHWA) and Caltrans innovations and research findings. Every issue contained a useful list of resources available for free to local agencies from our Library, and updates on training, technical assistance and other resource availability through the Technology Transfer Program and our partners. The Tech Transfer newsletter was typically 16 pages in length (we did produce one “double” issue). It mailed three to four times annually.

Periodically, the newsletter contained a technical article inserted into the magazine. These articles were 4 to 12 pages in length and written to a more technical audience than regular newsletter articles, which are shorter in length and written to a more general audience. “Technical Topics” is a periodic newsletter supplement aimed at providing a link between innovative developments in technology and practical engineering applications. “Pavement Technology Updates” are a joint venture with the Partnered Pavement Research Center at UC Berkeley and Davis. The intent of the Pavement Technology Update is to quickly disseminate results of Caltrans sponsored research to the pavement community.

3. DISTRIBUTE TECHNOLOGY TRANSFER MATERIALS

In cooperation with the Institute of Transportation Studies Library, the Technology Transfer Program provided employees of local, regional and state agencies with free access to timely, current information on best practices and innovations.

3.1 Purchase and/or produce and distribute materials for LTAP clients

- *The California LTAP distributed nearly 50,000 materials during the project period.*

The California LTAP distributed information and technology transfer materials in person at events we hosted or exhibited at, by mail from the ITS Library on request, or by mail through the Going...Going...Gone (G3) service. Bulk products along with a wide variety of duplicate materials and materials distributed through the national LTAP clearinghouse were distributed using our on-line shopping cart process called Going...Going...Gone (G3). The G3 interface and fulfillment system was developed under this project. ITS Library staff maintained the physical and database inventory and responded to G3 requests by packing and mailing the requested materials. In total, we distributed nearly 50,000 items during the project period. By far, the most popular item we distributed was the “Inspectors Job Guide and Highway Maintenance Tables,” which we printed in batches of 1,000 to 2,500 copies at a time, multiple times under this project. Another popular item produced and distributed under this contract was the “Snow and Ice Control Handbook.”

3.2 Maintain and expand the multi-media training resources database

- *By the end of this project, the multi-media training library contained 875 items: 656 VHS videotapes, 34 DVDs, 119 CD-ROMs, 66 links to online streaming media.*

Our comprehensive collection of training videos, DVDs, CD-ROMs and streaming media were made available for free loan to public agencies throughout the project period. Purchases supported by this project kept the ITS Library’s collection of training videos and CDs up to date and relevant to transportation professionals. ITS Library and Tech Transfer staff worked cooperatively on selection training materials to add to the collection, and to determine which items were no longer relevant and to be removed from circulation. All physical materials available for loan or distribution were and continue to be housed at and circulated by the Institute of Transportation Studies Library located on the campus of the University of California, Berkeley. Digital content was and continues to be posted on the Technology Transfer Program website in a downloadable format, hosted as streaming media, or linked to via the Tech Transfer site, as appropriate.

4. PROVIDE INFORMATION SERVICES AND TECHNICAL ASSISTANCE

4.1 Provide an informational website

- *By the end of this project, the Tech Transfer web site (www.techtransfer.berkeley.edu) was being viewed by over 25,000 individuals monthly, providing access to services, training, resources and information on DRI sponsored research and innovations supported by this project.*

All services and training offered and resources and publications generated under this contract were posted and maintained on this website. Technical activities to support the website throughout the contract period included routine maintenance of web links, navigational tools, and software updates, as well as web development work to enhance design and navigation.

4.2 Provide free reference and library services

- *Library staff responded to 369 requests for reference services*

4.3 Provide peer-to-peer technical assistance

Cities, counties and regional planning agencies in California vary widely in their needs for information services, technical assistance, and customized training. To meet these diverse needs, Tech Transfer retained several experts who provided information, assistance, and customized training to local agencies, and library professionals who provided reference services. All of these individuals provided email and telephone based assistance to agencies statewide and most also provided on-site training and training facilitation within their areas of expertise. Experts wrote articles and technical supplements for the newsletter and website, responded to questions via the “ask-an-expert” email service, reviewed technology transfer materials within their areas of expertise, assisted with development of new training programs, and conducted one-on-one or group training upon request.

4.4. Ensure public access to Caltrans DRI sponsored research

- *Library staff added 2,464 publications – all produced or sponsored by Caltrans – to the TRIS database.*

To ensure global public access to Caltrans sponsored research, ITS Library staff, funded by this project, pro-actively searched for, identified, obtained, and cataloged items in the Transportation Research Information Services (TRIS) database. TRIS, created and maintained by the Transportation Research Board, is the premier international bibliographic reference service for transportation publications. The ITS Library is one of only a limited number of entities deemed to have sufficient professional capacity by TRB to enter materials directly into this database. ITS library staff entered Caltrans-sponsored research publications that would not

otherwise find their way into TRIS by creating bibliographic entries and abstracts for these materials.

4.5 Distribute Caltrans research to depository and non-depository libraries

- *Tech Transfer distributed 67 final research reports produced by Caltrans to the 16 depository libraries in California and the 4 major transportation libraries in the United States.*

Beginning in December 2008, we began distributing copies of Caltrans research reports to depository and non-depository libraries as required by state and federal law. DRI provided each of the reports in pdf format. We then produced and disseminated the reports.

4.6 Outreach to client groups in California to promote LTAP services

Tech Transfer staff and field agents attended numerous events throughout the contract period. We regularly participated in meetings of professional and trade organizations to speak to their membership, distribute information to attendees, facilitate information exchange and make training presentations. In addition we maintained and staffed a tabletop exhibit space to distribute free materials and information at meetings and conferences. Some of the partner organizations whose events we attended at local, state and national levels, include the: American Association of State Highway and Transportation Officials (AASHTO), American Planning Association (APA), American Public Works Association (APWA), County Engineers Association of California (CEAC), Institute of Transportation Engineers (ITE), Maintenance Superintendents Association (MSA), National Association of County Engineers (NACE), National LTAP Association (NLTAPA), and the Transportation Research Board (TRB).

5. PROVIDE TRAINING, WORKSHOPS AND CONFERENCES

5.1 Develop, revise and deliver Road shows

- *Under this contract, 7 new Road Shows were developed and all existing Road Shows were revised to stay current. Since 2000, the LTAP project delivered 266 Road Shows and trained 7,885 people.*

LTAP funds subsidized development and delivery of a series of low-cost half-day training workshops known as “Road Shows.” Road Shows were made available on request to local agencies statewide. These short classroom hands-on workshops were delivered by subject matter experts and could be combined or customized to meet specific needs of the host agency, which provided the training room facilities and marketed the training to internal staff or others. All but two Road Shows were four-hours in length and cost the requesting agency \$600. The exceptions were two six-hour Road Shows, “Basic Thickness and Overlay Design for Asphalt Pavements,” for \$900, and “Traffic Control for Special Events,” for \$1,800. LTAP made the following Road Shows available to local agencies on request:

Pavement Design and Maintenance

- Asphalt Materials and Their Uses
- Asphalt Mix Production and Placement
- Asphalt Pavement Maintenance
- Basic Thickness and Overlay Design for Asphalt Pavements
- Caltrans (HVEEM) Method of Mix Design
- Chip Seals and Other Asphalt Pavement Surface Treatments
- Compaction of Pavement Soils and Bases
- Concrete Materials
- Introduction to Pavement Life-Cycle Costing
- New Techniques in Asphalt Pavement Design
- Performance Graded (PG) Asphalts
- Roadway Drainage Techniques
- Stabilization of Pavement Soils and Bases

Traffic Engineering and Operations

- Signing and Delineation for Field Personnel

Safety and Work Zones

- Flagging at Work Zones
- Traffic Control for Special Events

Planning, Funding, and Environment

- Air Quality Conformity: Quick Basics
- Tips about TIPS and Regional Plans

Project Development and Management

Communication Skills and Delegation Tools for Maintenance Supervisors

Legal Issues: Health and Safety Considerations for Maintenance

Your Role as Maintenance Supervisor: Job Organization & Problem Solving

5.2 Organize and deliver the annual California Pavement Preservation Conference

- *LTAP organized and delivered the annual California Pavement Preservation conference in 2006, 2007, 2008 and 2009, and hosted the First International Conference on Pavement Preservation in 2010. Attendance averaged over 300 and in total, 1,674 people attended our Pavement Preservation Conferences.*

A well-executed, systematic pavement preservation program, utilizing timely, appropriate and successive preservation treatments, will have the cumulative effect of postponing costly rehabilitation, preventing the need for reconstruction, and improving overall pavement condition system-wide. The California Pavement Preservation Conference demonstrates the benefits of such a program, stresses the importance of using a Pavement Management System for inventory, capture of work history, deterioration modeling, needs assessment, and budgetary planning, and introduces the full-spectrum of pavement preservation strategies for both flexible and rigid pavements.

Our annual conference was geared toward city and county public works directors, road supervisors, pavement designers and engineers, and roadway maintenance chiefs. Our international conference was an effective way to disseminate latest research results, incubate new ideas and encourage collaboration between researchers, and among government, industry and academia.

5.3 Organize and deliver ad hoc workshops in cooperation with DRI

- *We organized and delivered six ad hoc workshops since this task was added in 2007*

We organized and/or delivered the following ad hoc workshops in cooperation with DRI:

Information Resources: Why Google Isn't Enough (September 2007)

Multimodal Integrated Corridor Management Workshop (December 2007)

NHI-134073 Leap Not Creep: Accelerating Innovation Implementation (December 2008)

Transportation Finance in California: How did we get here and where are we headed?
(January 2010)

Moving Toward a Stable Transportation Finance System: Obstacles and Opportunities
(March 2010)

Setting a Clear Path Forward for a Federal, State and Regional Transportation Agenda
(May 2010)

5.4 Develop “preliminary investigation” training for Caltrans research managers

- *Under this project, we developed a Caltrans-approved template for conducting Preliminary Investigations and completed 20 Preliminary Investigations.*

Introduced in Supplement #12, Tech Transfer began development of specialized training for Caltrans research managers premised on the knowledge that prior to making investment decisions on research projects on a particular topic, Caltrans research managers should conduct Preliminary Investigations to review existing research and practices on that topic. These investigations will be used to ensure appropriate research investment and to shape the research project. The 20 Preliminary Investigations completed under this contact are:

Aerial Pavement Surveys from Combined Low-Level LIDAR and Digital Photogrammetry
Assessing Park & Ride Impacts
Best Practices for Rural and Tribal Smart Growth
Crash Reduction Factor (CRF) Update
Designing Highway Facilities to Encourage Walking, Biking and Transit
Digital Archive Backup and Operational Recovery System for the Caltrans Aerial Photography Library
Disaster Recovery Planning
Equal Severity Curve (ESC) Update
Green Infrastructure
Greenhouse Gases
HMA Taper Specifications
Improved Chain Control Operations
Improved LRFD & LRFTR Specifications for Permit & Fatigue Truck Loads
Improving Driver Decisions by Exploring, Implementing and Supporting Technologies and Research and Development
Intellectual Property: National and International Perspectives
Literature Review for Aerial Pavement Surveys
Pedestrian Safety Improvement Programs
Quick Clearance of Major Traffic Incidents
Real-Time Data to Improve En Route Decision Making and Reduce Transportation Demand
Trees and Highway Safety

Work on this task will continue under 65A0357. Future activity will include an additional 20 Preliminary Investigations and training for Caltrans staff on how to conduct preliminary investigations. Two training sessions are currently scheduled for delivery in Sacramento in September 2010.

6. SPECIAL PROJECTS

6.1 Develop eLearning training on Life Cycle Cost Analysis and the “Real Cost” tool

- *Between February 2008 and September 2009, we developed an eLearning solution to introduce learners to Life Cycle Cost Analysis (LCCA), the LCCA Procedures Manual, and the RealCost software tool.*

The online training developed under this project is currently hosted and offered by Caltrans. We developed the online training modules to introduce LCCA, to explain use of the LCCA procedures manual, and to teach people how to use the RealCost software to conduct LCCA. Training modules use audio, video, and interactive components.

6.2 Enhance and operate California Learn-Net

- *Between 2000 and 2007, we improved upon and operated California Learn-Net.*

When this project began in 2000, development of the California Learn-Net was already underway as a demonstration project, initiated with seed money from FHWA’s Joint Program Office. This project supported continued development, launch and maintenance of the interactive website which provided resources, self-paced on-line learning, and peer-to-peer networking to support planning and deployment of regional Intelligent Transportation Systems was launched. Content covered ten main topic areas: basic concepts and terms, applications and functions, project estimation, benefits, the planning process, pitfalls, institutional challenges, unique features and pitfalls, and regional integration. After numerous technical challenges to keep it up-and-running, an ever-changing technology and policy climate affecting ITS implementation, and shifts in priorities and funding for this project, Learn-Net was not maintained and removed from the website.

6.3 Provide NHI-based “Professional Capacity Building” training

- *We provided five NHI-based Professional Capacity Building training sessions to a total of 86 students.*

In partnership with the Caltrans Office of New Technology, LTAP scheduled and contracted for free delivery of five National Highway Institute classes in 2002. These classes were on “Professional Capacity Building” topics identified through a Caltrans survey to be of interest to staff in Caltrans districts and local agencies. The following classes were held:

- NHI 13713 Using the National ITS Architecture (delivered twice to 30 students total)
- NHI 13720 ITS Procurement (delivered once to 29 students)
- NHI 13719 ITS Software Acquisition (delivered twice to 27 students total)

6.4 Provide training on Intelligent Transportation Systems

- *We developed three new courses on ITS topics specifically for California audiences*

Prior to 2004, the following three courses were developed:

- TE-21 Applying Systems Engineering Principles to ITS Projects
- TE-22 Understanding and Navigating Your ITS Architecture
- TE-23 Using and Maintaining Your Regional Architecture

In 2004, activities under this task, including delivery of all future TE-21, TE-22, and TE-23 classes, were moved to LTAP 6073(009).

6.5 Administer the Technology Transfer Pooled Fund

Under this contract, Tech Transfer provided administrative and technical support to the Caltrans- and FHWA-sponsored T2 Pooled Fund project.

7. PARTICIPATE IN NATIONAL RESEARCH AND TECHNOLOGY TRANSFER FORUMS

Activity at the national level maximizes the visibility and impact of results of Caltrans sponsored research, showcases California's successes in technology transfer, and brings lessons learned on technology transfer practices from around the country back to California.

7.1 Participate in and support National LTAP activities

Over the years, the current and former directors and other senior staff of the Technology Transfer Program have continuously participated in National LTAP activities. As of the end of this contract, the current director was serving as a member of NLTAPA's executive committee in the roles of Treasurer, Professional Development Work Group Chair, and Region 9 representative. Over the years, the California LTAP also hosted a variety of national, regional and ad hoc meeting for NLTAPA.

7.2 Build and support relationships with the Transportation Research Board

Over the years, the current and former directors and other senior staff of the Technology Transfer Program have served in various capacities to support the activities of the Transportation Research Board. As of the end of this contract, the current director was serving as a member of TRB's Technology Transfer Committee (ABG30), a member of TRB's Education and Training Committee (ABG20) and on the oversight panel for NCHRP 20-5/Topic 41-06 "Bringing Highway Research to Market Quickly."

8. EVALUATE AND REPORT ON THE PROGRAM

8.1 Identify client interests and needs

- *Comprehensive needs assessment surveys were conducted in 2001, 2003, 2005, 2007 and 2009.*

Formal needs assessment surveys to determine the training, service and resource needs of the public agencies we serve, were conducted every other year. Generally, surveys were distributed in the late Fall, the data analyzed in the Winter, and results applied to planning in the Spring for the upcoming academic year. Surveys were conducted in 2001, 2003, 2005, 2007, and 2008/09. Surveys were distributed to past and presently enrolled training participants, public works directors of California cities and counties, county engineers, city managers, Caltrans employees statewide, senior managers and transportation professionals of regional transportation planning agencies. In addition, Tech Transfer solicited targeted input from key staff and stakeholders on a continuous basis. Stakeholders included Caltrans, Federal Highway Administration and local agency representatives, as well as senior staff, faculty, and the circuit-riding field staff.

8.2 Prepare and submit quarterly reports to Caltrans

- *Quarterly reports were submitted within 30 days following the end of each quarter, for the duration of this project.*

Quarterly progress reports were submitted to the Caltrans contract manager in the Division of Local Assistance, with a copy to the project manager in the Division of Research and Innovation, within 30 days following the close of each quarter: by April 30 for January through March; by July 30 for April through June; by October 30 for July through September, and by January 30 for October through December.

8.3 Prepare and submit an annual PAR and CAR to FHWA

- *Program Assessment Reports (PAR) and Center Assessment Reports (CAR) were submitted to FHWA annually.*

The LTAP program was formally monitored and evaluated in an in-depth annual review process conducted every January, covering the prior calendar year, via submission to FHWA of the Program Assessment Report and the Center Assessment Report.