

Pavement Preservation Resources

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Topics to be Covered

- California Pavement Preservation (CP2) Center
- Annual Pavement Preservation conference
- Caltrans Industry Joint Training efforts
- Benefits of pavement preservation
- Summary



CP2 Center Update

- Caltrans established the California Pavement Preservation Center on July 1, 2006
- Purpose is to accommodate the needs for pavement preservation services to governmental agencies and industry



<http://www.cp2info.org/center>



CENTER OBJECTIVES

- Serve as a technical resource for pavement preservation activities within the state of California.
- Educate others about the benefits of pavement preservation in partnership with the Caltrans and industry. This would involve educational programs at the university as well as distant learning opportunities.
- Enhance pavement preservation knowledge through research and training.
- Advise and assist others to establish a pavement preservation program.



CENTER'S GOALS/SERVICES

- Become a credible 3rd party for Caltrans, local agencies and industry
- Experts in evaluation of new products and innovation in pavement preservation
- Partners in conducting pavement preservation research and implementing practical findings
- Promoting useable pavement preservation tool



PARTNERSHIPS/RESOURCES

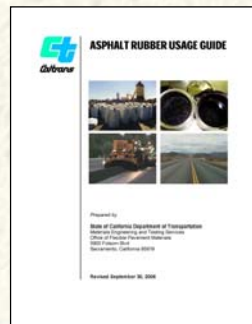


- Caltrans
- Pavement Preservation Task Group (PPTG)
- Western Pavement Preservation Partnership (WPPP)
- Federal Highway Administration (FHWA)
- National Center for Pavement Preservation (NCP)
- American Association of State Highway Transportation Officials (AASHTO)
- Foundation for Pavement Preservation (FP2)



OTHER PARTNERS & POTENTIAL PARTNERS

- CIWMB
- Industry and Local agencies (MSA, APWA, MTC, CCSA)
- California State legislature
- US House transportation and infrastructure committee



MEASURES OF SUCCESS

- Quality of educational & outreach programs
- Technical assistance provided
- Implementation of research and new technologies
- Successful Internship program
- Improvements in the pavement preservation process



INITIAL WORK PLAN – A PARTNERING PROCESS

- Strategic planning meeting held August 29-30, 2006
- Identified the major issues/challenges facing the pavement preservation industry in California
- Developed a practical vision for the center for the first 3 years
- Prioritized issues based on need and value added
- Charted a roadmap for the Center



TASK 1: DETERMINE AND DEMONSTRATE BENEFITS OF PAVEMENT PRESERVATION

- Actions
 - Track performance of existing strategies
 - Determine/document benefits
 - Conduct LCCA
- Deliverables
 - White paper for decision makers
 - Report to document benefits of pavement preservation



TASK 2: PROVIDE TRAINING AND EDUCATION

- Actions
 - Develop presentations for decision makers
 - Develop training sessions on the importance of pavement preservation
 - Develop training sessions on the MTAG
 - Assist Caltrans in planning & conducting an annual conference on pavement preservation
- Deliverables
 - Training sessions and workshops on the above
 - Annual conference (www.cp2info.org/conference)



TASK 3: IMPROVE PAVEMENT PRESERVATION PERFORMANCE

- Actions
 - Update the MTAG for Flexible and Rigid pavements
 - Improved consistency through improved QC/QA
 - Define industry standards for various treatments
 - Update specifications to improve product quality
- Deliverables
 - Updated guides and associated training
 - Improved inspections procedures (guides and checklists)
 - Updated trigger values for selecting treatments
 - Develop performance curves for treatments
 - Updated specifications for treatments



TASK 4: ENCOURAGE INNOVATION AND TECHNOLOGY TRANSFER

▪ Actions

- Streamline the process for implementing innovation and new products
- Work with industry to evaluate new technologies and processes
- Develop/evaluate new performance related tests
- Encourage T2 through dissemination of information



▪ Deliverables

- Improved process for innovation
- Reports/memos/ research notes on new technologies, materials, processes and tests
- Technology transfer through various media.



TASK 5: PROVIDE TECHNICAL ASSISTANCE

▪ Actions

- Assist with failure investigations and if necessary provide expert testimony to support Caltrans
- Conduct pavement reviews on new products and others
- Provide technical consultation on pavement preservation



▪ Deliverables

- Reports on failures and pavement reviews
- Help desk on pavement preservation



TASK 6: PROMOTE EFFECTIVE PAVEMENT PRESERVATION

▪ Actions

- Develop information booth on pavement preservation
- Development of fact sheets and brochures
- Participation at agency and industry meetings



▪ Deliverables

- Participation at major agency and industry meetings
- Marketing materials (newsletter, fact sheets, brochures, advisory guides)
- Development and delivery of presentations
- Maintaining the website



ANNUAL PAVEMENT PRESERVATION CONFERENCE

- Conference Initiated in 2006
- Held every year, alternating between northern and southern California
 - 2006- Diamond Bar
 - 2007- Union City
 - 2008- Newport Beach

www.cp2info.org/conference



Planning for Conferences

- PPTG effort
- Members include representatives from
 - Caltrans
 - Industry
 - FHWA
 - Local agencies
 - Academia



Topics Covered

- Importance of pavement preservation
- Integrating pavement preservation into PMS
- Strategy selection
- Maintenance techniques
- Case histories
- Lessons learned
- And more



Measures of Success

- Conference attendance exceeded 300 in the first 2 years
- Attendees included representatives of all participating groups
- Presentations are posted on the conference website and used
- Evaluations have been very good
- Plans are underway for the 2008 conference



Caltrans Industry Joint Training

- Training modules are being developed for both the flexible and rigid MTAGs
- Modules are being developed jointly by Industry, MACTEC and the Center
- Training will begin in winter 2008



Topics Covered

- Introduction to pavement preservation
- Materials for pavement preservation
- Distress appropriate for preservation
- Strategy selection
- Important surface characteristics
- Discussion of individual treatments



Treatments Covered for Flexible Pavements

- Crack sealing
- Patching
- Fog seals
- Slurry and micro seals
- Chip seals
- Thin hot mix overlays
- Thin BWC
- Surface recycling
- Interlayers



Treatments Covered for Rigid Pavements

- Crack sealing
- Diamond grinding
- Partial depth spall repair
- Slab replacement
- Dowel bar retrofit



Benefits of Pavement Preservation

- Purpose-identify the benefits of pavement preservation
- Focus initially on economic, but identify others. Is it a 6:1 benefit or something else
- Joint effort between the Center, UC Davis, and MACTEC



Efforts Included

- Collection of pavement performance data for state and local agencies using PMS data
- Identify the life extension if possible for the various treatments
- Focus on flexible pavements initially
- Conduct LCCA



Preliminary Findings

- For local agencies, the LCCA savings when using pavement preservation is exceeds 20%
- For Caltrans, the LCCA savings when using pavement preservation is in the range of 20-50 %
- Additional work is needed using other sources of good PMS data



Future Work

- This effort is to be completed by the end of 2007
- Reports document the savings for local agencies and Caltrans are being developed
- A white paper summarizing the findings will be prepared



SUMMARY

- Caltrans established CP² Center on July 1 2006
- Partnered process used to develop work plan
- Center task orders started in January 2007
- Work is underway on all tasks



THANK YOU

The Beginning

Keeping good roads good

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