

# National Conference on Pavement Management

Innovations Needed for More  
Effective Applications in the  
Future

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# Topics

- Future Trends Affecting Pavements
- Trends in Technology on PM
- Effects on Pavement Management (PM)
- Future requirements of PM System
- Resources Needed
- Economic Impact of needed Resources
- Unified PM approach in US
- Needed Research



# Future Trends Affecting Pavements

- Higher traffic volumes
- Increased trucks
- More agencies and entities using PM for decision making
- Loss of institutional knowledge with retirements from agencies
- More full-service consultants

## Future Trends - continued

- Public/Private Partnerships (PPP)
- Increased private money financing roads
- Tolling
- Private entities want greater say when financing

# Trends in Technology on PM

- Data storage is cheap
- Processing speeds are affordable
- Web based programs and wireless connections makes PM data and output readily available almost everywhere
- Today's software is more robust and allows for greater presentation flexibility

# Effects on Pavement Management (PM)

- More automated data collection
- Condition data could be more expensive
- Private entities will want the latest technology in assessing pavements
- Time to correlate agency specific data to current technology
- More PPP can cause differing sets of data for PM

## Effects on PM - continued

- PPP contracts will use objective measures and data
- Update PM systems to use objective measures
- PM systems must flexible in using these differing sets of data
- Communication and procedures within agencies will be paramount in gathering and using differing types of data



# Future Requirements of PM System

- PM systems will have to be able to store and use the differing data sets from PPP
- PM will have to be able to analyze from the top down for network and the bottom for the PPP
- PM will be part of an agency enterprise system and must function as a separate system

## Future Requirements - continued

- Agency decisions will increasingly rely on systems results
- Management, commissioners, politicians, private entities and the public will use PM data
- A more thorough review and checking of data will be required
- Agency equipment will need to be calibrated prior to data collection

# Resources Needed

- Still need reliable truck weight data
- Correlate agency specified data to today's standards
- PPP will have specific contractual procedures that include accuracy requirements for equipment and data
- PPP will need an agency contact person and oversight during the contract

# Economic Impact of needed Resources

- By using PPP there should be less agency personnel needed
- Overall costs of PPP contract to an agency better be less than the internal alternative (including innovations)
- Operating WIM stations will impact an agency's budget
- Reviewing and sampling data will cost more

WIM SY SB



# Unified PM approach in US

- Additional sources of data for ME design, calibration and validation
- Vast amount of agency data that could be nationally
- Data and model sharing among agencies
- PM users group
- Set data standards and allow agency flexibility as to what data is used

# Needed Research

- Data capture from agencies
- ME data added to agencies databases
- Need a simple way to quantify traffic damage (updated ESAL - McESAL)
- Research plan for PM that ties all the parts of the pavement into it without the tail wagging the dog

# Questions

