



**LOCAL
ROAD RESEARCH
BOARD
MAKING A DIFFERENCE**



LRRB Funding

- Legislatively funded (1959)
- Up to 1/2% of State Aid allocation devoted to local road research
- Research is:
 - Managed by the LRRB
 - Conducted by DOT, U of M, MnSCU, Consultants, etc.
 - Administered by Mn/DOT Research Services



LRRB Funding Supports:

- Research to improve local road:
 1. Design
 2. Construction
 3. Maintenance
 4. Environmental Compatibility
- Programs for implementing and monitoring research results (RIC)



LRRB Structure

LRRB Members

Deb Bloom, City of Roseville (Chair)
Mitch Anderson, Stearns County
Bruce Hasbargen, Lk of Woods Cty
Sue Miller, Freeborn County
Rick West, Otter Tail County
Steve Koehler, City of New Ulm
Linda Taylor, Mn/DOT Research Services
Keith Shannon, Mn/DOT Materials and
Road Research
Julie Skallman, Mn/DOT State Aid
Laurie McGinnis, U of M - CTS

RIC Members

Rich Sanders, Polk County (Chair)
Tom Colbert, City of Eagan
Gary Danielson, Kandiyohi County
Mel Odens, City of Willmar
Rick West, Otter Tail County
Tom Behm, Mn/DOT State Aid, D8
Maureen Jensen, Mn/DOT Materials and
Road Research
Cory Johnson, Mn/DOT Research Services
Rick Kjonaas, Mn/DOT State Aid
Clark Moe, Mn/DOT Research Services
Jim Grothaus, U of M - CTS



LRRB

Process





Highlight of LRRB Projects

INV 830: Evaluating Roadway Subsurface Drainage Practices *(Report # 2009-08)*

- Evaluation of various pavement subsurface drainage systems configurations
 - Edge drain system
 - Two centerline configurations (2- and 4-foot depths)
- Tested on a newly constructed eight-mile section of Nobles County CSAH 35 near Worthington
- Data collected March 2006 to November 2008
- Statistical analyses conducted to determine drained volumes and drain efficacy



Highlight of LRRB Projects

INV 862: Development of Real Time Arterial Performance Monitoring System using Traffic Data Available from Existing Signal Systems *(Report# 2009-01)*

- SMART-SIGNAL - high resolution traffic signal data collection and arterial performance measurement
- Collects and archives event-based traffic signal data simultaneously at multiple intersections
- Generates time-dependent performance measures for queue length and arterial travel time
- Deployed at 11-intersections along France Avenue in south Minneapolis



Highlight of LRRB Projects

INV 876: Preventative Maintenance for Recreational Trails *(Report# 2009-25)*

- Most efforts related to trails focus on construction, little information exists about trail preservation or preventative maintenance to extend the useable trail life
- The goals of this research project was to study :
 - existing treatments
 - how effective they are
 - promote new methods
 - promote regular scheduled maintenance
- Test sections were evaluated for ease of construction, success of sealing the surface and trail users opinions



New Fiscal Year 2011 LRRB Projects

- Developing Salt-Tolerant Seed Mixtures for Use as Roadside Turf in Minnesota
- Stormwater Treatment Performance and Maintenance Needs of Roadside Swales
- Removal of Dissolved Pollutants From Runoff Associated with Linear Projects
- Evaluation of Flashing LED Stop Signs vs static signs
- 46th Street Pilot Lighting Project (Hennepin/Minneapolis)
- Portland Cement Delivery System



LRRB Research Topics

1. Sign reduction/ removal
2. Simplified materials control schedule for local roads and risk based inspection.
3. Deterioration of AC pavements under chip seals
4. Winter chemical usage and environmental concerns
5. Alternative winter de-icing treatments
6. Decision tree for unpaving roads
7. Proper specifications and construction of tack coats