



# No Boundaries Roadway Maintenance Pooled Fund

Presentation to AASHTO Maintenance Committee  
July 25, 2018

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Heath Paterson, Mississippi DOT  
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## Spotlight Innovation

# Sign Refurbishing

- 2017-18 sign shop budget is ~\$2.1 million.
- Sign shop manufactured ~73,680 signs last fiscal year.
- Refurbished ~160,000 square feet of signs last fiscal year.
- Refurbishing process estimated to save **\$1.40 per square foot**.
- Total savings in excess of **\$224,000** or **10.7%** of annual operating budget for the sign shop.

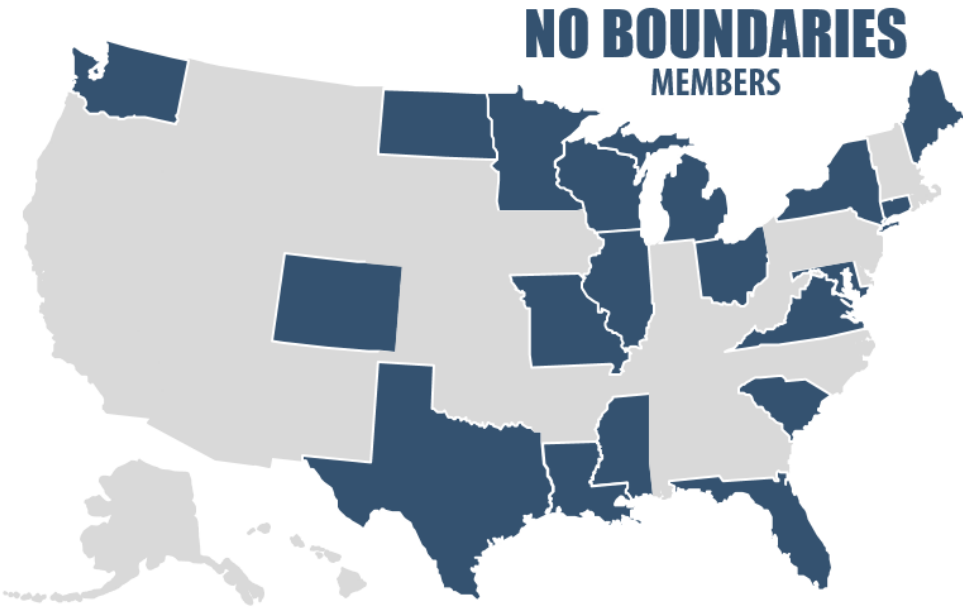


## What is No Boundaries

- Pooled fund project [#TPF-5\(330\)](#)
  - A community of practice for roadway maintenance professionals
  - Focuses on identifying innovative technologies and practices used by highway agencies
  - Promote their use by other states through marketing materials, training classes, webinars and other technology transfer efforts
- Complements MaC peer discussions and relationships
- Focus on spring/summer/fall maintenance needs; excludes winter-specific maintenance

# Current Members

## 19 State DOTs



## Benefit

- Networking and collaboration with other agencies
  - Happens at a national level
  - Two-way street



# Meetings for Peer Information Sharing

- Latest meeting in Seattle in April 2018 – 30 members and guests
- Presentations by state DOTs and guest agencies:
  - Pollinators
  - Maintenance asset management
  - Innovations
  - Program updates
- Round table discussions
  - Silica dust exposure
  - Roadway surface treatments

## Maintenance technical tours

- SR 520 floating pontoon bridge
- Alaskan Way (SR 99) tunnel construction



*Spotlight Innovation*

# Truck-mounted Flagger



- Automated Flagger Assistance Device
  - Three color variable message boards
  - Automated stop/slow paddle
  - Flashing red/yellow signal
- Benefits
  - **SAFETY** - Eliminates the need for a flagger on the ground
  - **Time Savings** - In setting up and moving between work zones
  - **Cost Savings** - Increases productivity in poor weather






## Benefits

- Focus on innovation
- Clearinghouse for process and products
  - What works
  - What doesn't work
  - What needs more investigation

# All captured in an Innovations Database

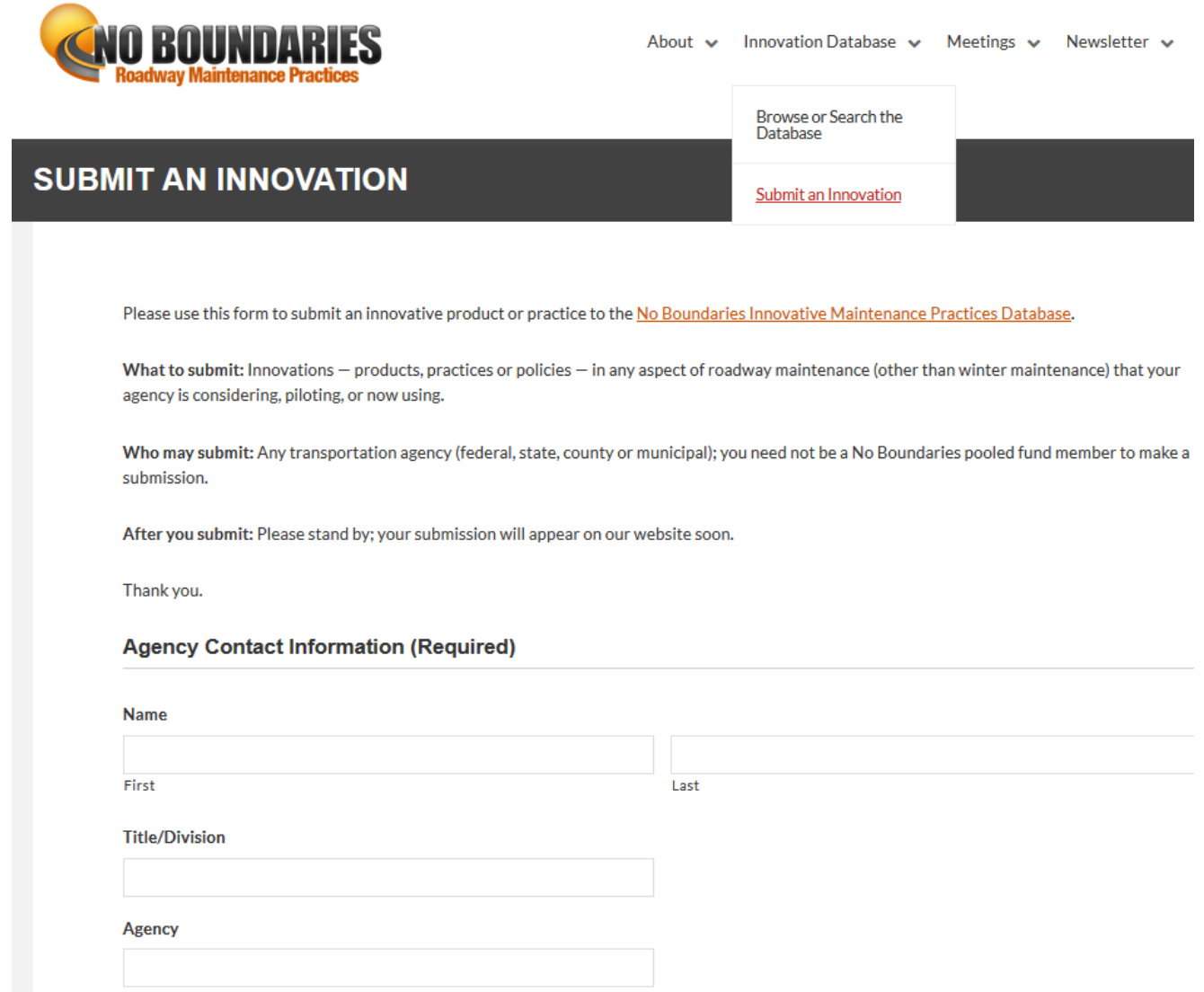
- On the No Boundaries website
- Innovations in all areas of non-winter maintenance
- Goal is to establish this as a national clearinghouse

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Submission Date	March 27, 2018
Name	Mike Shea
Agency	Missouri Department of Transportation
Email	<a href="mailto:mike.shea@modot.mo.gov">mike.shea@modot.mo.gov</a>
Phone	<a href="tel:(573)751-5422">(573) 751-5422</a>
Name of product/practice	Automated Flagger Assistance Devices
Type of product/practice	» Equipment
Maintenance activity	» Traffic Markings and Signage » Other
Describe the product or practice and how your agency is using it (including for how long).	» Safety
What need prompted the development/use of the product or practice?	Some strategies for improving flagger safety include slowing down approaching vehicles or removing flaggers from the immediate vicinity of traffic. The Automated Flagger Assistance Device (AFAD) is a system that can potentially accomplish both of the aforementioned strategies.
What impact or value has your agency experienced using the practice or product?	Flagger safety is an important issue in work zones due to the proximity of the flagger to traffic. Field results found that AFADs are more effective than human flaggers, and drivers prefer AFADs over human flaggers.
Provide links to information online about your innovation.	» <a href="https://library.modot.mo.gov/RDT/reports/TR201717/kmr17-010.pdf">https://library.modot.mo.gov/RDT/reports/TR201717/kmr17-010.pdf</a>
Attachments	
Submitter Information	(If different from agency contact information above)

# Innovations Database

- Open to submissions from all public agencies



**NO BOUNDARIES**  
Roadway Maintenance Practices

About ▾ Innovation Database ▾ Meetings ▾ Newsletter ▾

Browse or Search the Database

[Submit an Innovation](#)

**SUBMIT AN INNOVATION**

Please use this form to submit an innovative product or practice to the [No Boundaries Innovative Maintenance Practices Database](#).

**What to submit:** Innovations – products, practices or policies – in any aspect of roadway maintenance (other than winter maintenance) that your agency is considering, piloting, or now using.

**Who may submit:** Any transportation agency (federal, state, county or municipal); you need not be a No Boundaries pooled fund member to make a submission.

**After you submit:** Please stand by; your submission will appear on our website soon.

Thank you.

**Agency Contact Information (Required)**

Name

First Last

Title/Division

Agency

## Benefits

- Practitioner oriented
  - Not theoretical, but hands-on and applicable today
- Share new and better...
  - Equipment
  - Materials
  - Procedures

## 2019 TRB Annual Meeting Sessions

- Lectern Session on Innovation Programs
  - How states identify, implement, reward innovations from the field
- Poster Session on noteworthy innovation
- Sponsored by TRB Committee AHD15 (Operations and Maintenance Workforce Development)



## Spotlight Innovation

# Pollinator Habitats

- Monarch Butterfly could become federally listed
  - Direct impact on maintenance
- State efforts
  - Planting programs
  - Education and outreach
  - Ohio is one of several states
- National efforts
  - Candidate Conservation Agreement with Assurances
  - Some No Boundaries States are members



## Additional Benefits

- Consistent maintenance activities among agencies
- Alignment on policies, procedures, and specifications
  - Performance-based maintenance
  - Transportation asset management
  - Shared research (statements and outcomes)
- Cost effective
  - Minimize duplication of effort

## Fall 2018 meeting is planned

- Austin, Texas - October 16-18
- Planned discussion topics:
  - UAVs for maintenance
  - Horizontal alignment warning signs (2019 federal deadline)
  - Training/apprenticeship programs
  - Asset management updates
  - Member innovations
- Planned site visits
  - TxDOT Fleet Shop - Maintenance vehicle fabrication (herbicide, sign trucks)
  - TxDOT's Pavement Management Information System



## How to Become a Member

- Transportation Pooled Fund - TPF-5 (330)
- State Planning & Research (SPR) Funds
- Annual \$10,000 Contribution
  - Travel to TAC meetings
  - Communication and training materials
  - Quarterly conference calls and information sharing
- Please contact program manager [brian.hirt@ctcandassociates.com](mailto:brian.hirt@ctcandassociates.com) for more details