

# Research Need Statement 656

## I. Need Statement Champions and Information

### I.A. Need Statement Champion Information

- I.A.1. First and Last Name of Research Champion: Jeanne Aamodt
- I.A.2. Research Champion's Office: Communication & Public Engagement
- I.A.3. Research Champion's Phone Number: 651-366-3178
- I.A.4. Research Champion's Email: [jeanne.aamodt@state.mn.us](mailto:jeanne.aamodt@state.mn.us)

### I.B. Research Co-Champion

- I.A.1. First and Last Name of Research Co-Champion: Lisa Austin
- I.A.2. Research Co-Champion's Office: Center for Community Connections
- I.A.3. Research Co-Champion's Phone Number: 651-234-7863
- I.A.4. Research Co-Champion's Email: [lisa.austin@state.mn.us](mailto:lisa.austin@state.mn.us)

### I.C. Research Needs Title (115 Characters): **Arts for Construction Mitigation**

### I.D. Project Sponsor: MnDOT Research Program

## II. Research Need Background and Description

### II.A. Research Need Background

#### II.A.1. Describe the problem or opportunity.

Major construction projects can have a lasting negative impact on communities. During the construction process noise, construction debris, detours, and other impacts can have a negative effect on quality of life and the economy in communities, especially in rural main street environments. Can placemaking, temporary art, community or cultural events support quality of life and offset the negative impacts during construction?

How can arts and culture mitigate the impact of construction in communities, in particular smaller communities? Rural communities often heavily depend on seasonal tourism dollars that flow to small business main streets – construction may disrupt rural communities disproportionately. Can arts and cultural activities draw crowds from within and around the community despite the disruptions of roadway construction? Will increasing the number of visitors as well as enhancing resident participation help offset economic hardship and social disruption of main street construction? In addition, how are temporary art and cultural enhancements funded in transportation projects? Funding sources could include public, private, community and non-profit sources. What are the barriers?

Deliverables include local, national, and international case studies and best practices that look at successful projects mitigating negative construction impacts. In addition to public engagement, marketing communications, and funding strategies, considerations include benefit-cost analysis and perspectives of both business and community members. Recommend next steps for a future implementation project based on/informed by the research findings.

II.A.2. If applicable, describe how this project will build on previous research.

The Arts for Construction Mitigation builds upon previous, more traditional MnDOT research projects on mitigation construction impacts on small businesses. This research focused on best practices around pre and post construction communications, highway construction techniques and incentives, and business accommodation.

II.A.3. If applicable, include the title/s or previous research.

[TRS: Mitigating Construction Impacts on Local Businesses](#)

[Mitigation of Transportation Construction Impacts](#)

II.A.4. What is the **objective** of the proposed research?

The objective of this proposed research is to test the theory that arts and culture can help overcome the disruption of highway construction and mitigate the impact on businesses, residents, and visitors by using artistic interventions to create a more accessible and inviting environment. There is some case evidence available around arts as a mitigation tool during construction of light rail transit lines, but very little pertaining to highway construction in main street settings. MnDOT's previous research on mitigation of business impacts does not include direct perspectives of those impacted. A second objective is to reveal tested and potential partnerships and funding strategies to support placemaking, temporary art, community or cultural events to offset the negative impacts during construction.

### III. Strategic Priorities, Benefits, and Expected Outcomes

**Section III. is for MnDOT sponsored and co-sponsored projects only; all LRRB projects proceed to section IV.**

#### III.A. MnDOT Strategic Priorities

*Instructions:* Briefly describe how the project aligns with the following MnDOT Research Strategic Priorities. Complete all that apply.

##### III.A.1. Innovation & Future Needs:

Innovation & Future Needs is addressed in that the proposed Arts for Construction Mitigation research adds a new and innovative component to the existing research, guidance, and tools currently available to MnDOT project managers.

##### III.A.2. Advancing Equity:

The proposed research aligns to the priority of Advancing Equity by revealing strategies, tools and tactics to tap local arts and cultural groups help achieve more equitable outcomes for communities impacted by transportation construction.

##### III.A.3. Asset Management:

##### III.A.4. Safety:

##### III.A.5 Climate Change & Environment:

#### III.B. Expected Outcomes

*Instructions:* Check all expected direct outcomes of this research.

- New or improved technical standard, plan, or specification
- New or improved manual, handbook, guidelines, or training
- New or improved policy, rules, or regulations
- New or improved business practices, procedure, or process
- New or improved tool or equipment
- New or improved decision support tool, simulation, or model/algorithm (software)
- Evaluation of a new commercial product
- New or improved technical standard, plan, or specification
- Other. Please specify below:

### III.C. Expected Benefits

*Instructions:* Select all expected benefits that may be realized if the findings and recommendations from this research is adopted or implemented

III.C.1. Construction Savings Choose an item.

III.C.2. Decrease Engineering/Administrative Costs Choose an item.

III.C.3. Environmental Aspects Other environmental impact. Please describe below.

Potential impacts are also relevant in the area of Environmental Justice to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.

Mitigation of construction impacts further fair treatment in that no group of people should bear a disproportionate share of the negative environmental consequences resulting from transportation construction.

III.C.4. MnDOT Policy Changed or inform a policy

The proposed research has implication for MnDOT Public Engagement Policy and Guidance as well as MnDOT's Business Impact Mitigation and Construction Guide.

III.C.5. Lifecycle Choose an item.

III.C.6. Operations and Maintenance Savings Choose an item.

III.C.7. Reduce Risk Choose an item.

III.C.8. Reduce Road User Cost Choose an item.

III.C.9. Safety Choose an item.

III.C.10. Technology Choose an item.

III.C.11. Other, please describe below:

## IV. Technical Advisory Panel

*Instructions:* Please list the name and affiliation of individuals to consider for the Technical Advisory Panel.

TAP members to include Jessica Oh, Lisa Austin and Renee Raduenz, among others (foresee PCMG/CMG membership and district Public Engagement represented).

Your assigned Project Advisor is available to answer questions and provide guidance (assigned by the Office of Research & Innovation).

Your Project Advisor is: Brent Rusco (651)366-3767 [brent.rusco@state.mn.us](mailto:brent.rusco@state.mn.us)