INDOT/JTRP FY-2021 Strategic Research Plan

# Research Needs Statement (RNS)

## RNS Title:

## Peer/ Focus Group:

## INDOT Primary Contacts:

## Background & Problem Statement:

Proposed Scope of Work: (include items such as: research approach, deliverables, timeframes, project cost, etc.) Complete Estimated Cost Table below.

Implementation Potential: (describe items such as: project deliverables, how the deliverables will be implemented, person(s) responsible for implementation, timeframes for implementation, resources/funding available, resources/funding needed, any policy or specification changes needed to implement, etc. Please consider especially opportunities for concurrent or accelerated implementation)

***Estimated Study Time:***

***Estimated Cost (Total):***

***INDOT Strategic Priorities Impacted*** (select the primary priority area implementation of this project will impact):

* **Safety**
* **Mobility**
* **Asset Sustainability**
* **Customer Service**
* **Organization & Workforce**
* **Economic Competiveness**
* **Innovation & Technology**

Implementation Benefits

***Describe the expected benefits of the research results in the following table and rank\* order the benefits in order of importance (with 1 being the most important).***

|  |  |  |  |
| --- | --- | --- | --- |
| **Rank** | **BENEFITS** | | **DESCRIPTION OF BENEFIT** |
|  | **Cost Savings (avoidance and revenue enhancement)** | | |
|  | *(such as: construction costs, material costs, early project completion, in-house labor and equipment costs, improve design to avoid over design, permit fees, direct revenues, etc.)* |  |
|  | **Safety** | | |
|  | *(such as: crash mitigation, reducing truck and vehicles conflicts, reducing INDOT’s tort exposure, etc.)* |  |
|  | **Mobility/Reduced Congestion** | | |
|  | *(such as: travel time reliability, customer satisfaction in travel times, congestion relieve, ride quality, maintaining speed limit in construction zones, etc.)* |  |
|  | **Quality** | | |
|  | *(such as: improved processes/procedures, asset preservation, improved design, updated specifications, extends the life of infrastructure, etc.)* |  |
|  | **Time Savings** | | |
|  | *(such as: improve construction scheduling, early project completion, quicker maintenance or rehabilitation, etc.)* |  |
|  | **Other (other tangible and intangible benefits)** | | |
|  | *(such as: employee development/training, economic development, proof of concept, etc.)* |  |

***\* If there is no benefit in a particular category rank that category as 0.***

***Estimated Cost Table***

***Proposed Project Period:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Estimated Level of Effort**  **(JTRP Office will coordinate with Pre-award for $ estimates based on Person-Month effort)** | | | | |
|  | Y1 | Y2 | Y3 | Total |
| Person-Months of Faculty Effort: One line for each faculty identified. (AY+SU) |  |  |  |  |
| Person-Months of Staff Time: One line for each staff member identified. |  |  |  |  |
| Person-Months of Grad Student (We will budget at PhD Level) |  |  |  |  |
| Hours of Undergraduate time (We will budget at $10/hr unless specified differently) |  |  |  |  |
| **Other Estimated Direct Costs** | | | | |
| Travel |  |  |  |  |
| Supplies |  |  |  |  |
| Capital |  |  |  |  |
| Other (Specify) |  |  |  |  |

**Total Estimated Costs:**