State Highway 71 Truck Freight Diversion Feasibility Study
## Project Team

### CDOT

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Eric Salemi</td>
<td>Project Manager</td>
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<tr>
<td>Rich Christy</td>
<td>Resident Engineer</td>
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<tr>
<td>Heather Paddock</td>
<td>Program Engineer</td>
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<tr>
<td>Travis Miller</td>
<td>Resident Engineer</td>
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<tr>
<td>Jeff Vickers</td>
<td>Resident Engineer</td>
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### WSP

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Myron Hora</td>
<td>Project Manager</td>
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<td>Randy Grauberger</td>
<td>Deputy Project Manager/Freight Specialist</td>
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<tr>
<td>Mary Lupa</td>
<td>Travel Demand Modeling</td>
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<tr>
<td>Nick Amrhein</td>
<td>Economic Analysis</td>
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<tr>
<td>Andy Garton</td>
<td>Cost Estimates</td>
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<tr>
<td>Lisa Nguyen</td>
<td>Traffic Analysis</td>
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<tr>
<td>Shane Roberts</td>
<td>GIS Mapping</td>
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<tr>
<td>Jamie Grim</td>
<td>Existing Conditions and Report</td>
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Purpose and Objectives

- Analyze freight movement and the impact of SH 71 improvements on truck traffic
- Identify the types and cost of improvements to SH 71 that will draw additional truck traffic
- Determine the potential economic benefit to the trucking industry and local economies
- Develop funding options and implementation scenarios
State Highway 71

- High priority designation as part of the Heartland Expressway Corridor
- Part of the Ports to Plains Alliance (P2P)
- Surrounding states have made significant improvements to their segments
- **SH 71 is the only segment of the P2P corridor in Colorado that remains unimproved**
Project Limits

- SH 71 from Milepost 102 to Milepost 232
- Limon, CO to the Colorado/Nebraska state line
- Regional connections for freight traffic
  - Northern Texas to Nebraska/Wyoming
Goals of the Analysis

- Identify the types and cost of improvements to SH 71 that will draw additional truck traffic,
- Determine the potential economic benefit to the trucking industry and local economies, and
- Develop funding options and implementation scenarios.
# Project Schedule

<table>
<thead>
<tr>
<th>TASK</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jul</td>
<td>Aug</td>
</tr>
<tr>
<td>Project Mgmt</td>
<td>X</td>
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<tr>
<td>Existing Conditions</td>
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<tr>
<td>Modeling &amp; Improvements Evaluation</td>
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<tr>
<td>Implementation Plan</td>
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<tr>
<td>Final Report</td>
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X = Stakeholder Meeting
General Project Scope

- **Existing Conditions**
  - Document current truck freight movement
  - Document existing roadway conditions

- **Identify Improvements**
  - Develop potential improvements
  - Model and analyze proposed improvements
  - Develop cost estimates

- **Final report with implementation plan**
  - Provide economic impact analysis
  - Prioritize improvements
## Stakeholder Involvement

<table>
<thead>
<tr>
<th>Group</th>
<th>Meeting Requirements</th>
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<tbody>
<tr>
<td>Technical Advisory Group (TAG)</td>
<td>4 meetings</td>
</tr>
<tr>
<td>Corridor General Stakeholders</td>
<td>2 corridor-wide meetings</td>
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<tr>
<td>ETPR &amp; UFR TPR</td>
<td>4 meetings (2 each)</td>
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Existing Conditions

- Environmental resources
- Vehicle counts along P2P corridor in Colorado
- Truck AADT
- Travel speeds
- Horizontal and vertical challenges
- Crash data / Level of Safety Service (LOSS)
- Bridges and other major structures
- Truck amenities
  - Truck stops, restaurants, parking, WiFi service, rest areas
- Railroads
- Weigh Stations
Proposed Improvements
Analysis and Evaluation

- Model up to six scenarios of improvement packages, with a mixture of improvements to help differentiate their impact
- Use the model to predict potential freight increases based on proposed improvements
- Determine potential crash reductions on SH 71 and I-25 if improvements are implemented
Travel Demand Modeling

- Establish models to capture future growth of vehicles along the corridor
- Long term analysis through 2040
- Additional analysis will coincide with CDOT’s capital improvement plan
- Prepare current Truck Freight Movement Plan
WSP National Truck Model Zones

- Covers the Lower 48 states + Alaska
- Provides base 2014 and 2040 truck demand
- Can be fitted to a smaller sub-county zone system.
- Covers 43 commodities
- Based on Fright Analysis Framework (FAF), version 4.2
Colorado Statewide Model (under development)

- Covers all of Colorado
- 6440 TAZs
- Integrates all the MPO TAZ level data in Colorado + rural areas
- Being developed by CDOT
Three Key MPO TAZ System Extents

- North Front Range MPO – (red) – 1032 TAZ
- DRCOG – (green) – 2815 TAZ Compass Model
- Pikes Peak Area Council of Governments – (blue) 786 TAZ
Develop Implementation plan

- Develop cost estimates for top 10 rated improvement packages
- Develop rating criteria for potential improvements
- Prepare funding options and scenarios
Opportunities for Improvements

- Passing Lanes
- Climbing Lanes
- Safety Improvements

Roadway Improvements
- Shoulders
- Geometry
- Sight Distance

Where are areas of concern?
Next Steps

- Establish TAC
- Host Additional Stakeholder Meetings
- Complete Existing Conditions
- Finish Initial Modeling
  - Traffic Counts
  - Validation
- Begin Improvement Identification
  - Analysis
  - Alternatives Packages
Thank you

Questions?

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