Corridor Investment Management Strategy

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Minnesota Department of Transportation
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Minnesota GO
A Collaborative Vision for Transportation

Minnesota’s multimodal transportation system maximizes the health of people, the environment and our economy.
Policy Objective: Critical Connections

Strategy #1: Apply multimodal solutions that ensure a high return-on-investment, given constrained resources, and that complement the unique social, natural and economic features of Minnesota.
CIMS Solicitation

- MnDOT’s 2014-2015 biennial budget included use of $30 million for pilot solicitation

- Highway projects that advance the Minnesota GO objectives of Quality of Life, Economic Competitiveness and Environmental Health

- Solutions that ensure a high return-on-investment
Interagency Advisory Group

• Helped develop the evaluation criteria and reviewed projects

• Membership included: Tourism, Commerce, Education, Employment & Econ Dev, Health, Natural Resources, Public Safety, MnDOT, and Pollution Control
## Scoring Criteria

<table>
<thead>
<tr>
<th>Points</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>Benefit/Cost Ratio</td>
</tr>
<tr>
<td></td>
<td>• Includes social, economic and environmental factors</td>
</tr>
<tr>
<td></td>
<td>• Cost includes life cycle costs</td>
</tr>
<tr>
<td>30</td>
<td>Other Factors:</td>
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<tr>
<td></td>
<td>• Local Economic Impacts (7.5 points)</td>
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<tr>
<td></td>
<td>• System Considerations (6.3 points)</td>
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<td></td>
<td>• Multimodal Impacts (6 points)</td>
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<tr>
<td></td>
<td>• Community Health and Access (5.6 points)</td>
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<tr>
<td></td>
<td>• Context Sensitivity (4.6 points)</td>
</tr>
<tr>
<td>10</td>
<td>Consideration for projects with &gt;10% non-MnDOT $</td>
</tr>
</tbody>
</table>
Community Health

• Improves access to preventative and clinical health care facilities or recreational facilities

• Avoids/minimizes negative impacts to or positively improves access for low-income or disadvantaged populations
PRISM – B/C Analysis

**Economic**
- Travel Time
- Reliability
- Vehicle Operating Costs
- Pavement Maintenance
- Ag Land

**Social**
- Safety ★
- Health (physical activity) ★
- Noise ★

**Environmental**
- Emissions ★
- Wetlands
- Runoff

**Costs**
- Construction
- Operations and Maintenance
- Rehabilitation and Reconstruction
- Remaining Value after 20 years

**B/C Ratio & NPV**
- 20 year analysis
- 2.5% discount rate

★ Indicates public health measure
45 Applications
28 Greater MN
17 Metro*
$100 M + requested

* 4 Metro projects also applied to TED
Funded

8 Greater MN (55%)
2 Metro (45%)

Leverages ~$65 M*

* ~ $12 M is other MnDOT funding
Successful Project Types

• Generally 3 types of projects did well:
  – Addresses a significant safety issue
  – Low-cost operational improvement
  – Multifaceted urban complete/main streets projects
Project Example
US 61 Main Street in Red Wing

- Improved pedestrian facilities
  - curb extensions, crossings, ADA
- New/extended raised medians
- Closure of 12 driveway access points
- Narrower travel lanes
- Streetscaping
- Utility replacement and pavement reconstruction

CIMS Award: $2.45 M
Total Project: $5.4 M
Fiscal Year: 2015
US 61 Main Street in Red Wing

General Information:
- City of Redwing Population - 16,472
- TH 61 Speed Limit = 30mph
- TH 61 Pavement and City Utilities Beneath in Poor Condition
- TH 61 Acts as a Barrier to the High Demand of North-South Pedestrian Movements Along the Corridor
- TH 61 is the Great River Road Scenic Byway
- 368 Crashes in 10 Years (Old Main St to Broad St)
- YMCA is a Major Community Resource generating Pedestrian, Automobile and Bus Traffic
US 61 Main Street in Red Wing – PRISM Analysis

<table>
<thead>
<tr>
<th>Benefits (2011$)</th>
<th>Value</th>
<th>Distribution</th>
<th>Summary by Year</th>
<th>Totals by Category</th>
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<tbody>
<tr>
<td>Environmental</td>
<td>1,898,145</td>
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<tr>
<td>Social</td>
<td>5,582,959</td>
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<tr>
<td>Economic</td>
<td>3,020,988</td>
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<tr>
<td>Total Benefits</td>
<td>10,502,092</td>
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<table>
<thead>
<tr>
<th>Costs (2011$)</th>
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<tbody>
<tr>
<td>Capital</td>
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<td>O&amp;M</td>
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<tr>
<td>Rehabilitation Costs</td>
<td>-26,307</td>
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<td>Residual Value</td>
<td>-2,495,024</td>
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<tr>
<td>Total Costs</td>
<td>2,361,743</td>
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</table>

NPV (2011$): 8,140,349

B/C (ratio): 4.45
Reflections

• An expanded or enhanced Benefit-Cost Analysis helps translate broad goals into comparable and common metrics
  • In particular – elevates environmental impacts
  • Answers a different set of questions than INVEST or other LEED-like systems

• Data and forecasting not always reliable/available
  • Example: Bike/ped forecasting methodologies aren’t well developed and data is largely absent
Current/Future Activities

• Ongoing partnership with Dept of Health
  – Multiple efforts (SRTS, TAP, research, etc.)
  – Jointly developing first statewide pedestrian plan
  – Pilot HIA

• Developing standard guidance for including emissions and physical activity in BCA
  – Discussing other factors
Questions?

www.mndot.gov/cims

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