

I-24 Multimodal Corridor Study

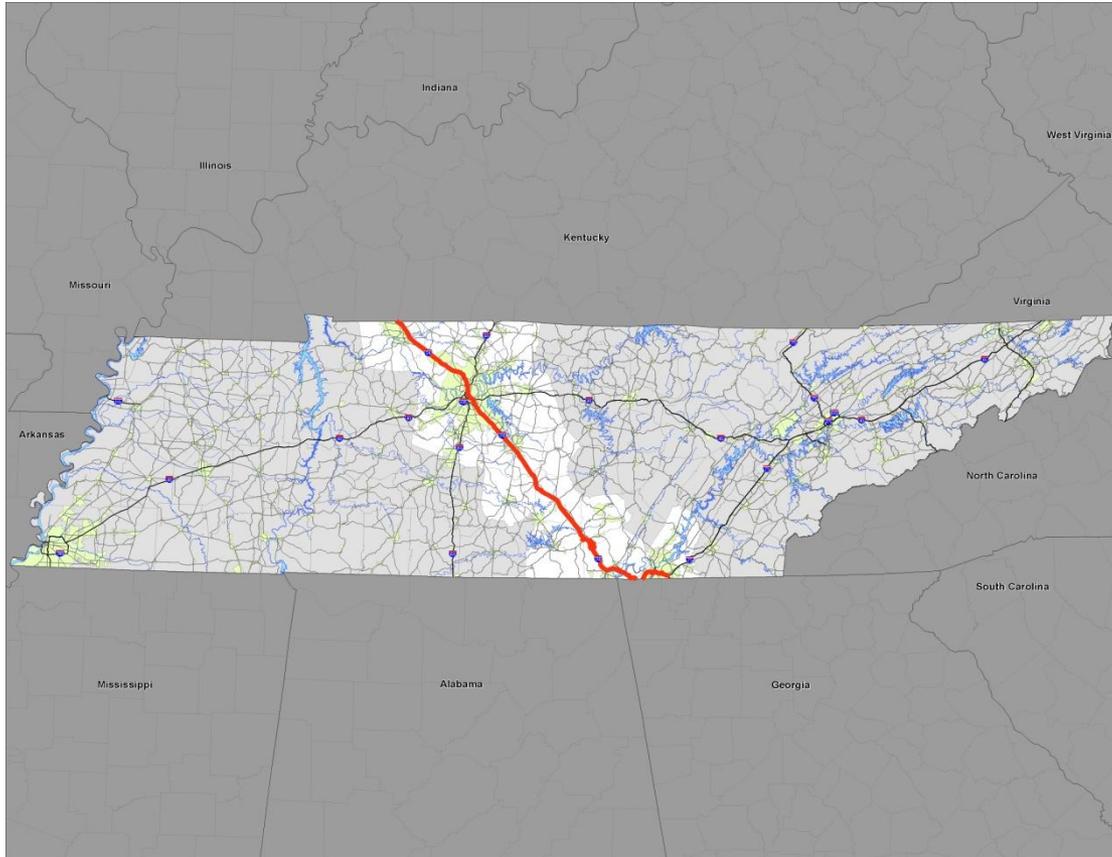
Nashville Area Public Meeting
Crossings Event Center
October 22, 2013



Presentation Outline

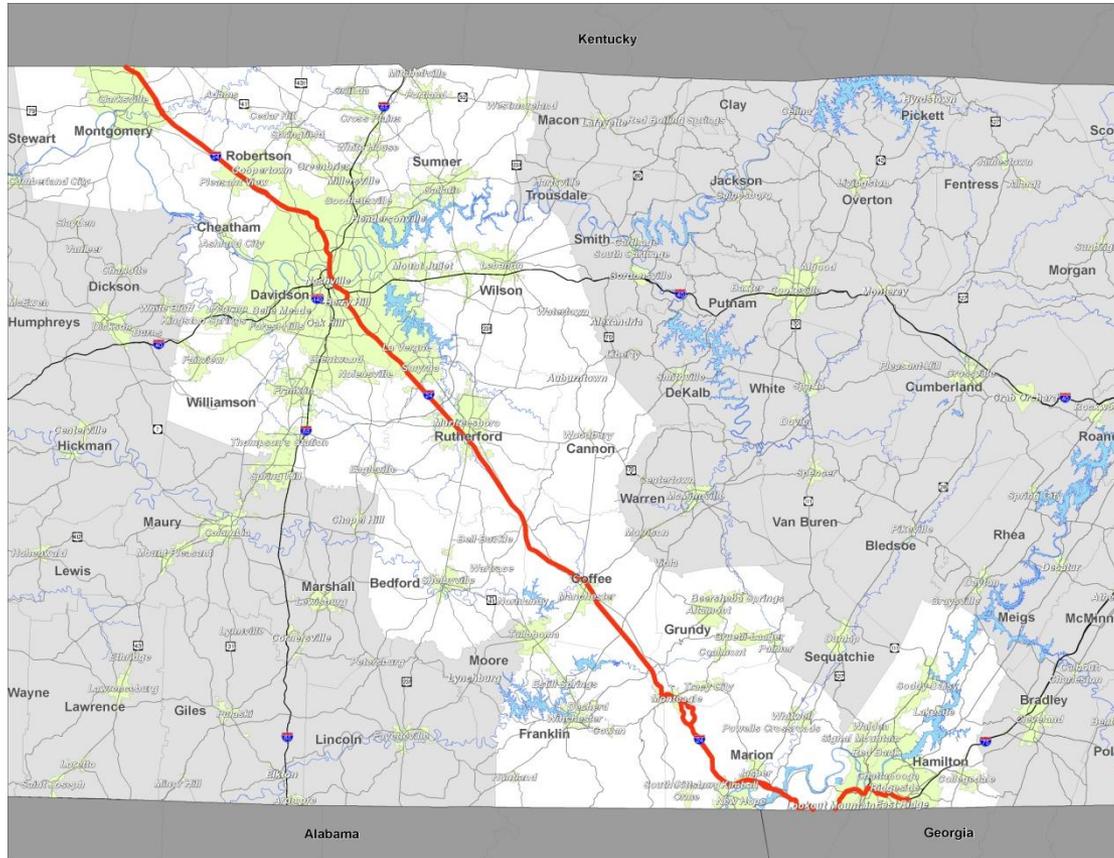
- Corridor Overview
- Schedule
- Survey Results
- Types of Proposed Projects
- Questions





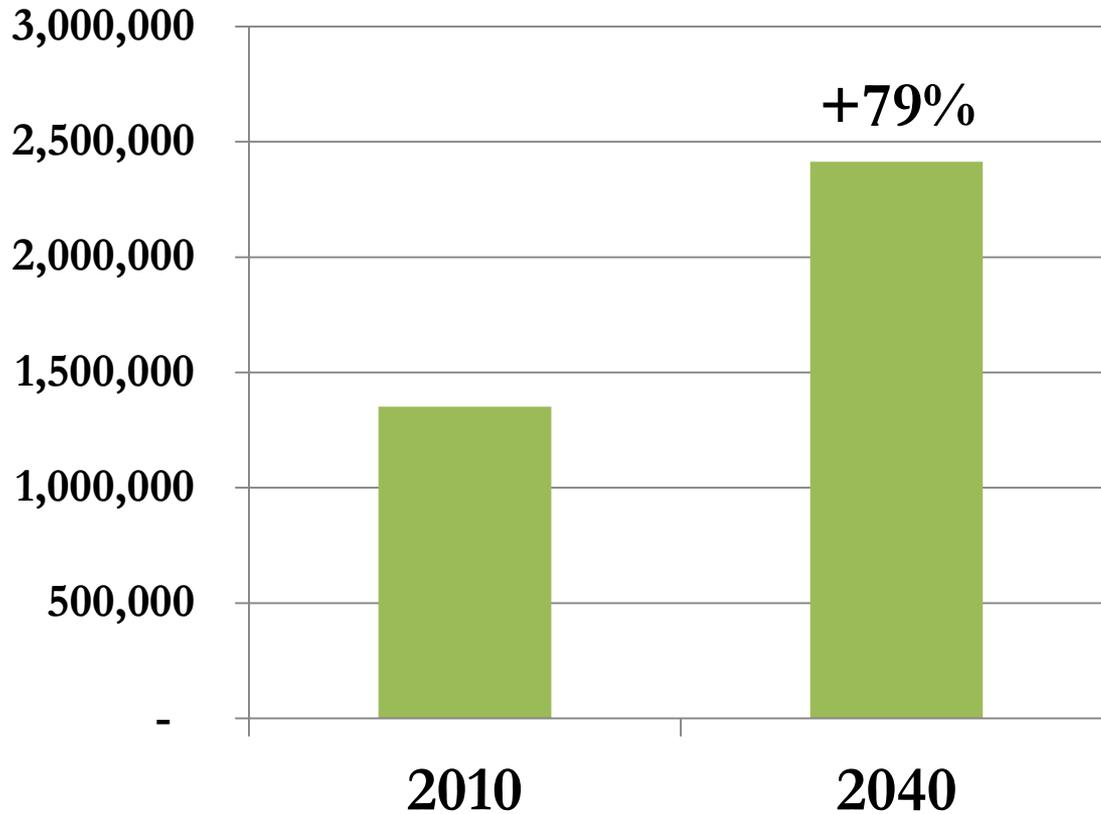
I-24 and Tennessee





I-24 Corridor



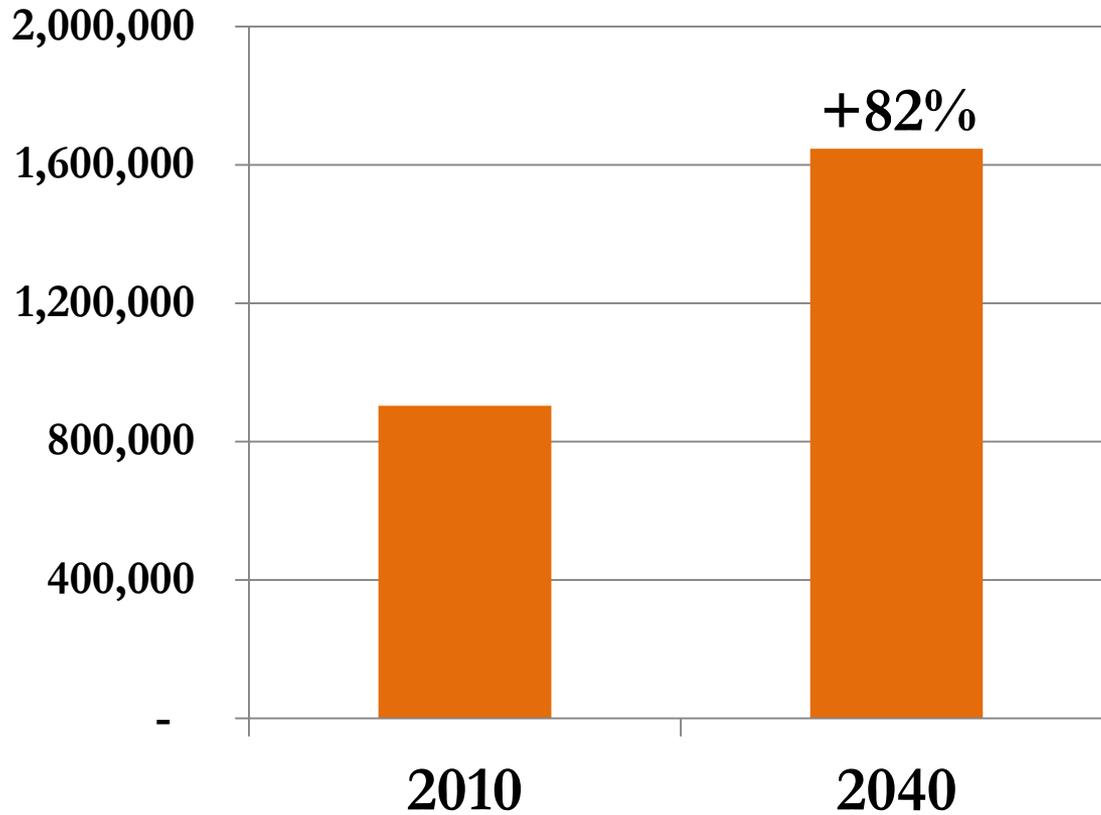


Population Growth in Nashville

Davidson, Rutherford, Sumner, Williamson and Wilson Counties

Source: Nashville MPO, June 19, 2013





Employment Growth in Nashville

Davidson, Rutherford, Sumner, Williamson and Wilson Counties

Source: Nashville MPO, June 19, 2013



Why Have a Plan for the Future?

- ❑ Develop solutions now to prevent future problems
- ❑ Need to start the planning process in order to get to construction
- ❑ Determine how to best spend future money (i.e., prioritize projects)



Schedule

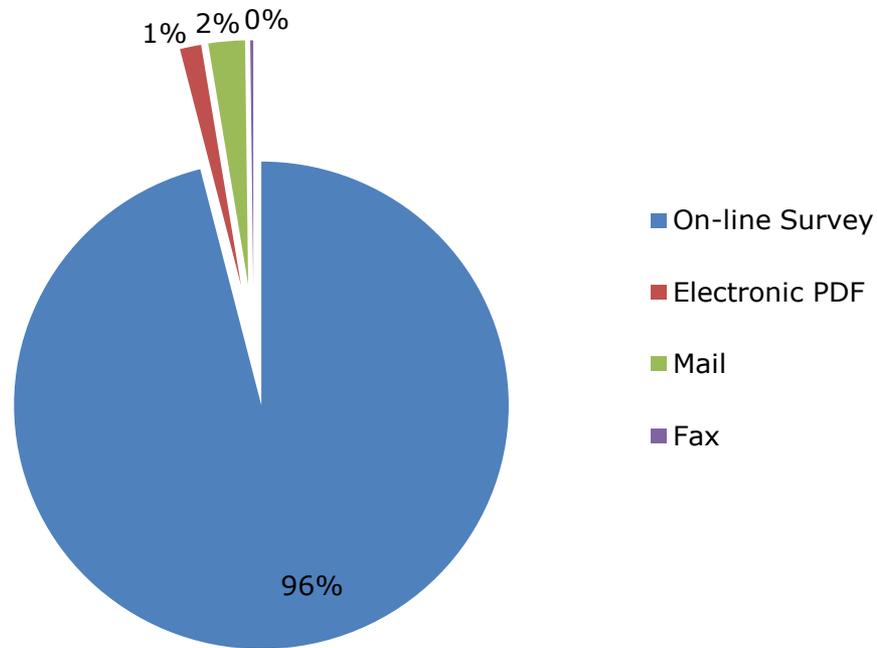
- ❑ Completed Identification of Potential Projects in September
- ❑ Currently Evaluating Feasible Projects
- ❑ Will Develop Prioritized List by January '14



Survey

- ❑ Started January 24, 2013
- ❑ Ended June 20, 2013
- ❑ Total of 503 Responses

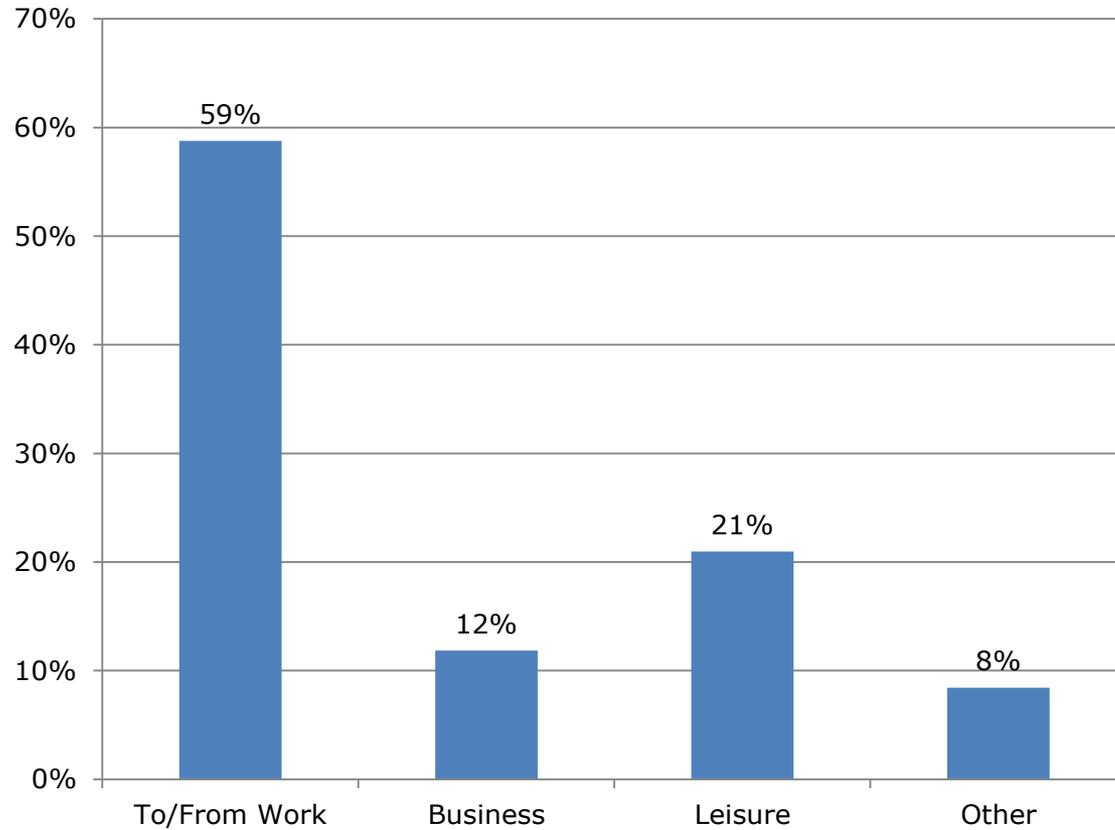




I-24 Survey Final Results

How were the surveys submitted?

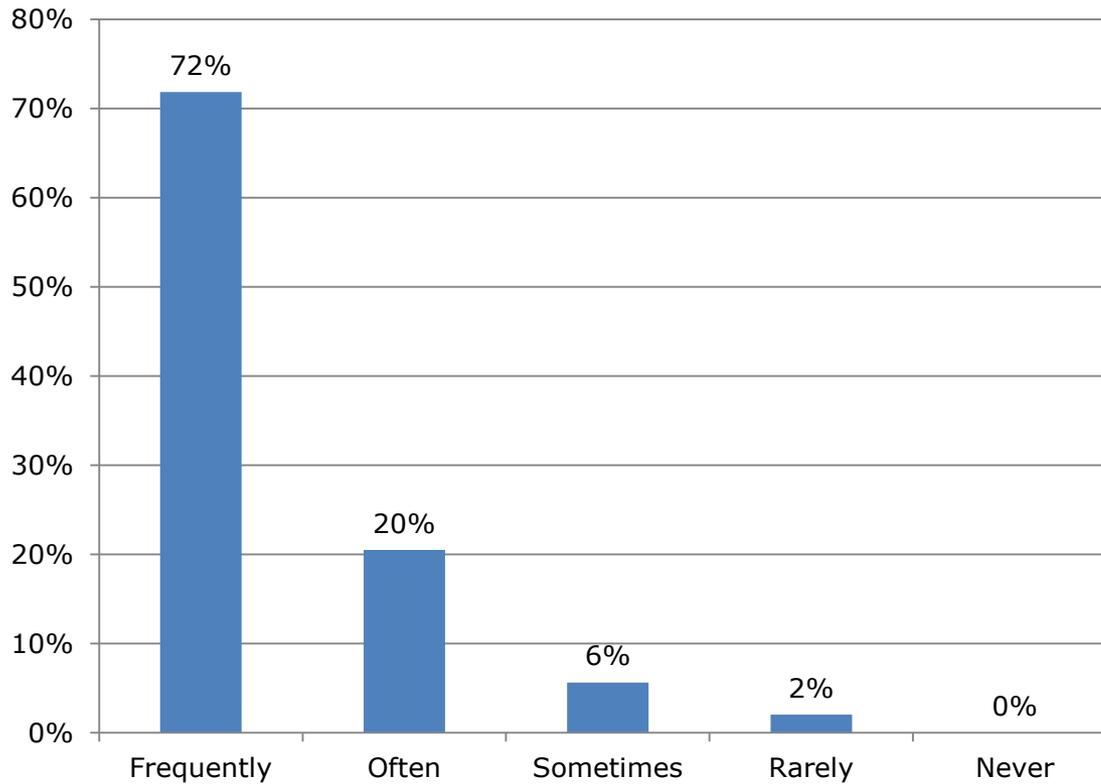




I-24 Survey Final Results

What is your main purpose for traveling along I-24?

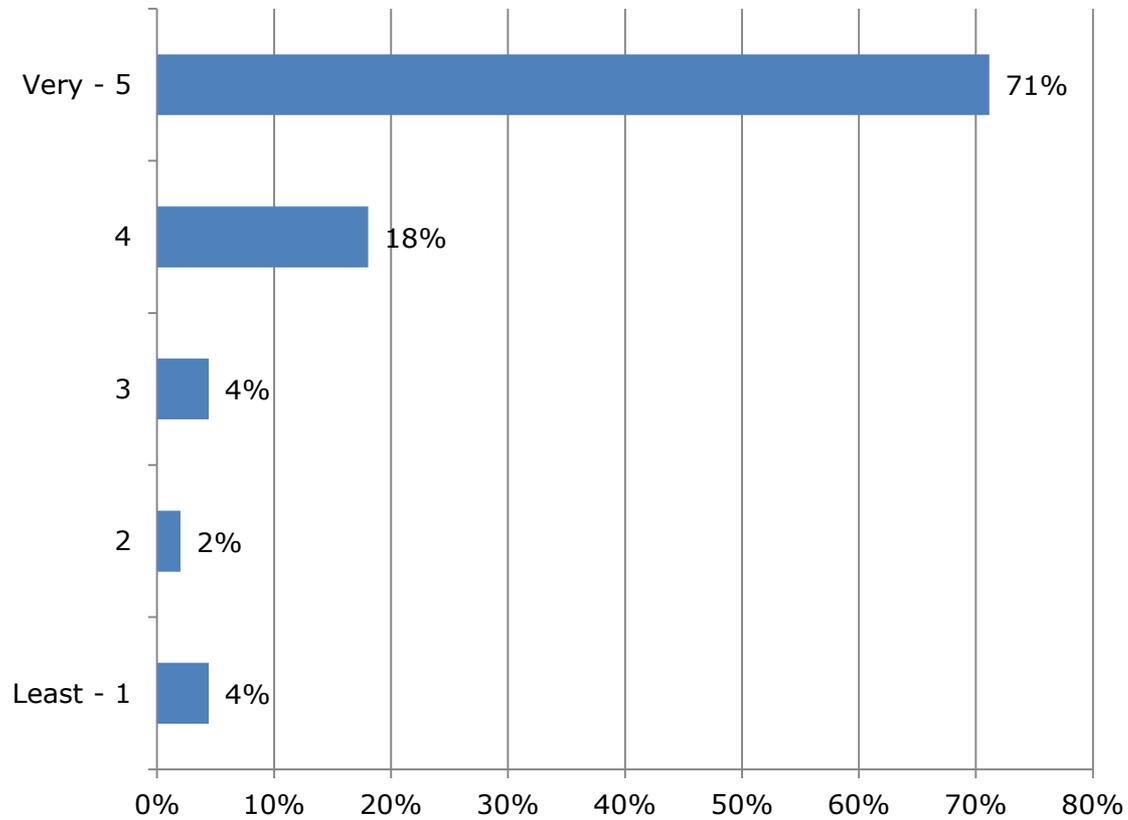




I-24 Survey Final Results

How often do you travel along I-24?

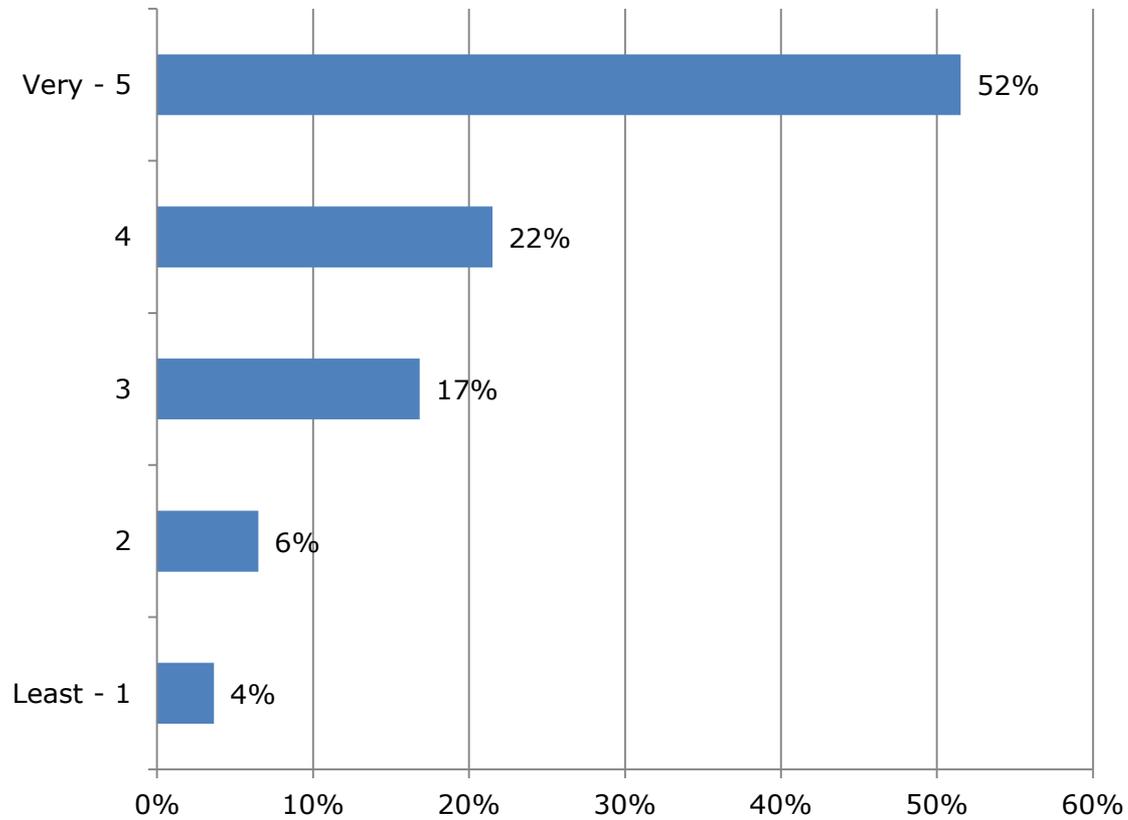




I-24 Survey Final Results

What is the importance of congestion on I-24 to you?

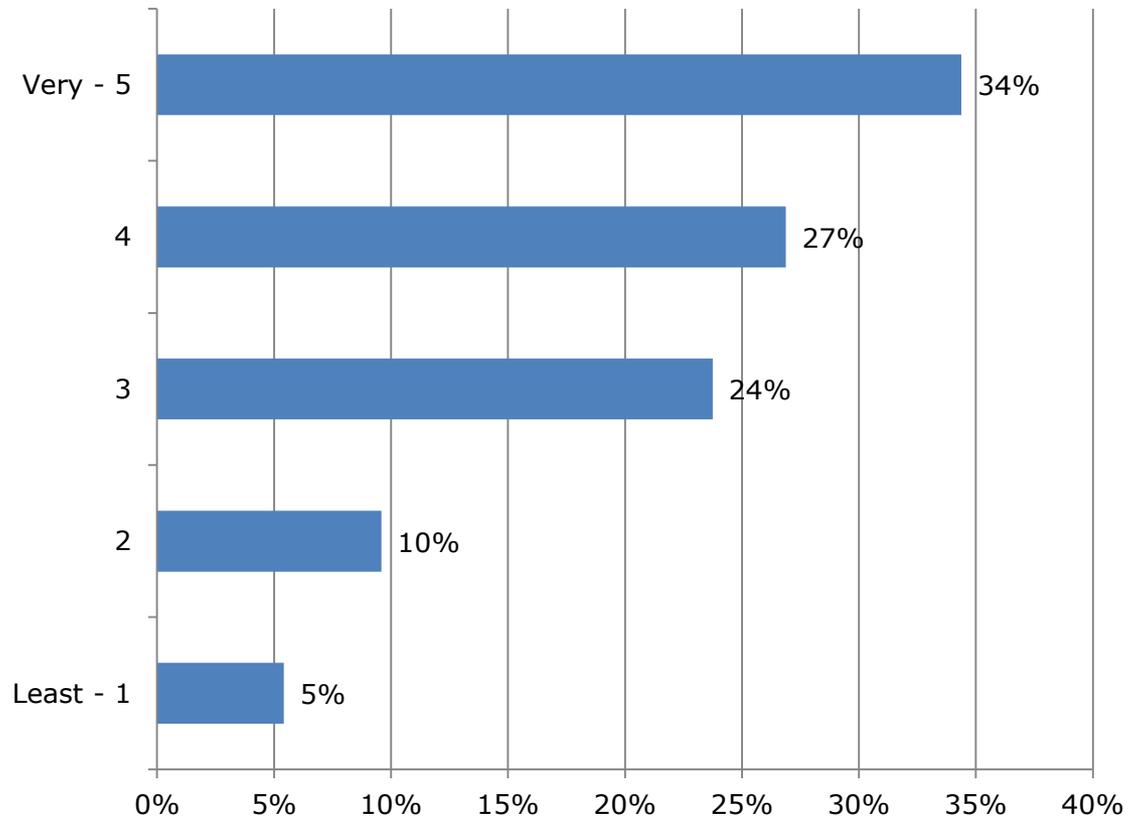




I-24 Survey Final Results

What is the importance of safer travel on I-24 to you?

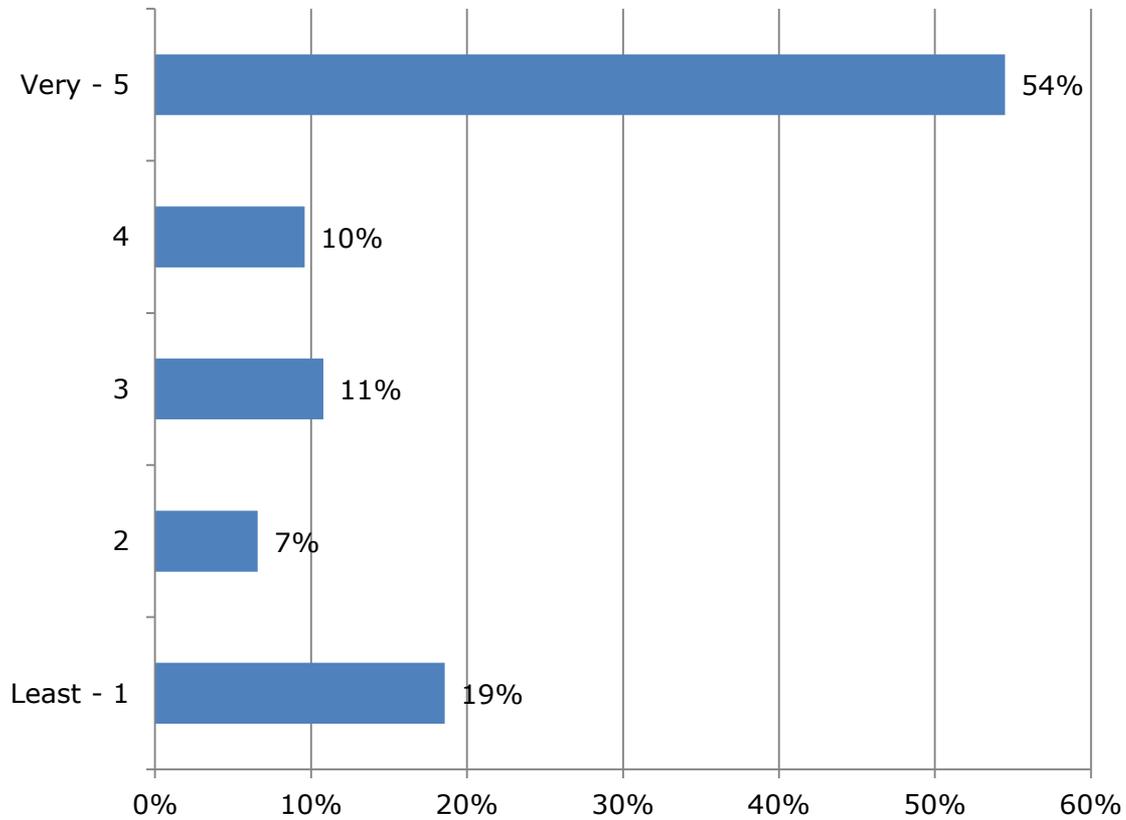




I-24 Survey Final Results

What is the importance of better/more efficient interchanges on I-24 to you?

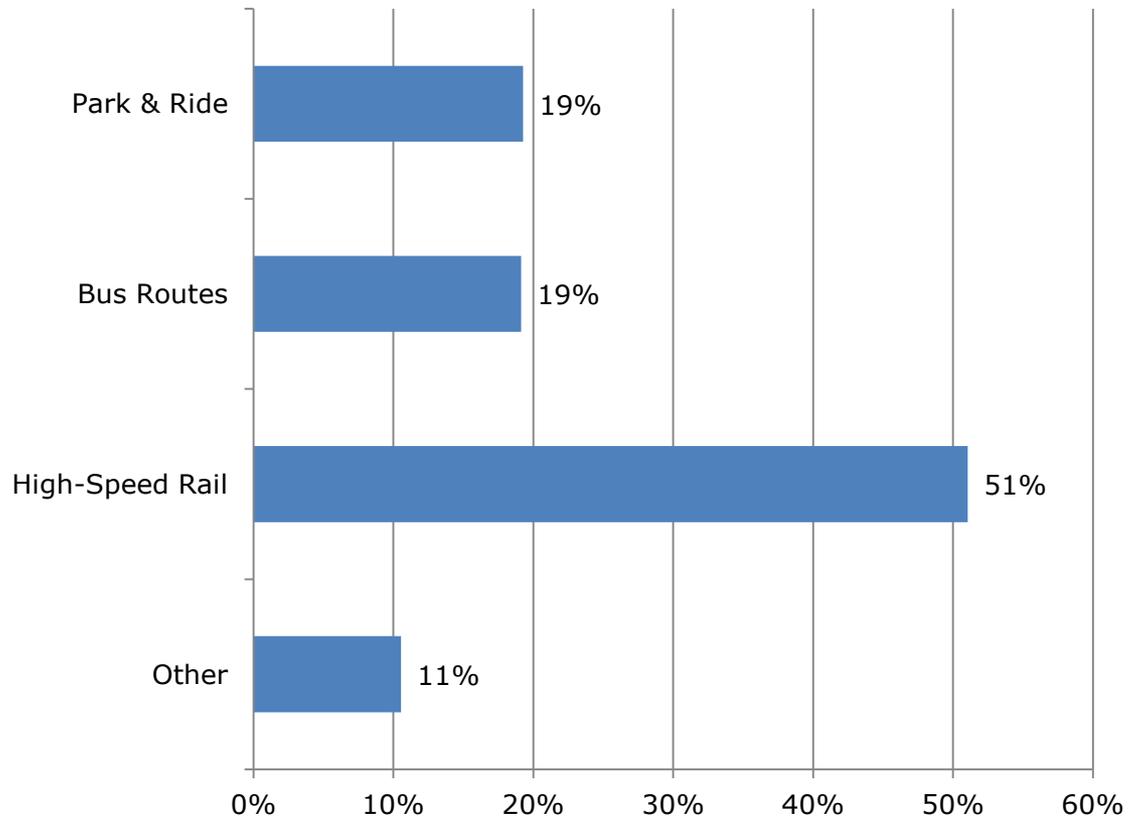




I-24 Survey Final Results

What is the importance of other issues on I-24 to you?





I-24 Survey Final Results

What other transportation options would you consider along I-24?



List of All Proposed Projects & Strategies

- Total List Available at <http://www.tdot.state.tn.us/i24/>
- 572 proposals by citizens
- 169 specific projects & strategies proposed by citizens
- 31 types of projects & strategies
- List includes additional improvements by TDOT, MPOs, consultant and other agencies



Proposed Projects & Strategies

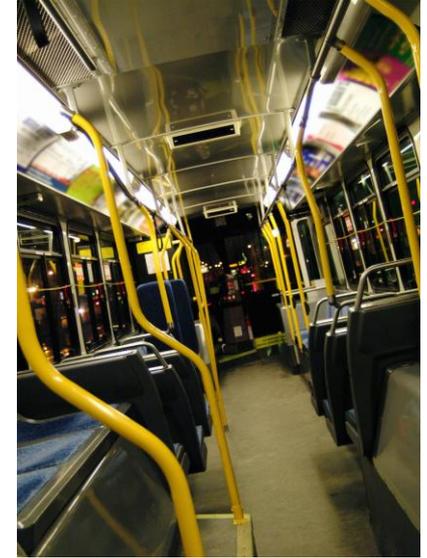
- Roadway Capacity (add lanes on I-24)
 - 129 proposals by citizens
 - 21 specific projects and/or strategies

- Examples
 - Add lanes on I-24 from Clarksville to Nashville
 - Add lanes on I-24 from Smyrna to downtown Nashville



Proposed Projects & Strategies

- Transit – Express Bus & Rail
 - 82 proposals by citizens
 - 6 specific projects and/or strategies
- Examples
 - Bus Rapid Transit / Express Bus on I-24 with circular stop at Bell Road and Hickory Hollow Pkwy
 - Express Bus / Rail Options between Murfreesboro and Nashville



Proposed Projects & Strategies

- Operational - Ramps
 - 52 proposals by citizens
 - 22 specific projects and/or strategies

- Examples
 - Extend entrance and exit ramps on Exit 59 / Bell Road
 - West merge with I-65, add lane (Exit 44)



Proposed Projects & Strategies

- Corridor Capacity
(improve roads parallel to I-24)
 - 47 proposals by citizens
 - 16 specific projects and/or strategies
- Examples
 - Remove overlap of I-65, from Exit 44B to Exit 46B, to avoid crisscrossing traffic
 - Widen Murfreesboro Pike to handle traffic diversion from Murfreesboro into Nashville



Proposed Projects & Strategies

- Operational - Enforcement
 - 38 proposals by citizens
 - 5 specific projects and/or strategies
- Examples
 - HOV lane enforcement in Nashville
 - Improve enforcement of traffic violations



Proposed Projects & Strategies

- Policy – HOV Lanes
 - 32 proposals by citizens
 - 6 specific projects and/or strategies
- Examples
 - Open HOV lane to single occupancy vehicles from Downtown Nashville to Murfreesboro
 - Extend the HOV hours in the Nashville Area



Proposed Projects & Strategies

- Operational – Signing & Marking
 - 29 proposals by citizens
 - 15 specific projects and/or strategies

- Examples
 - New signage to divert through traffic via SR 840 or Briley Pkwy
 - Install lane reflectors throughout the I-24 corridor



Proposed Projects & Strategies

- New Access - Interchanges & Rest Areas
 - 25 proposals by citizens
 - 10 specific projects and/or strategies
- Examples
 - Add new interchange in Smyrna between Exit 66 and Exit 70
 - Add new rest area between Nashville and Monteagle



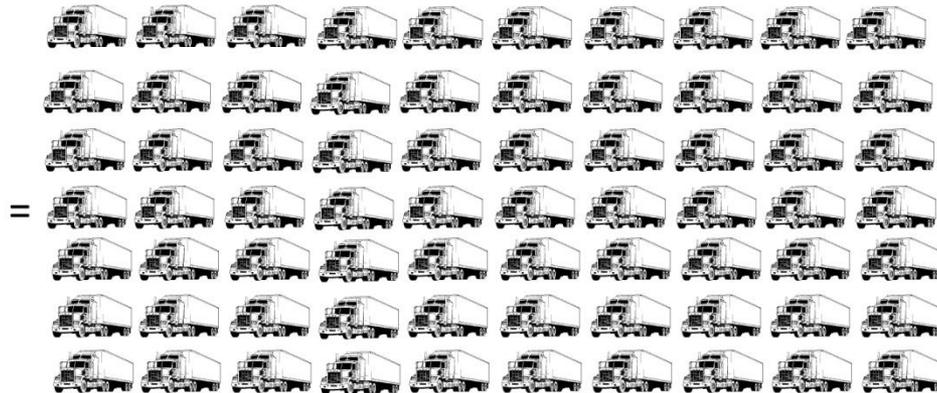
Proposed Projects & Strategies

- Operational – Truck Restrictions
 - 20 proposals by citizens
 - 7 specific projects and/or strategies
- Examples
 - Restrict large trucks to right two lanes
 - Increased truck restrictions for left lane

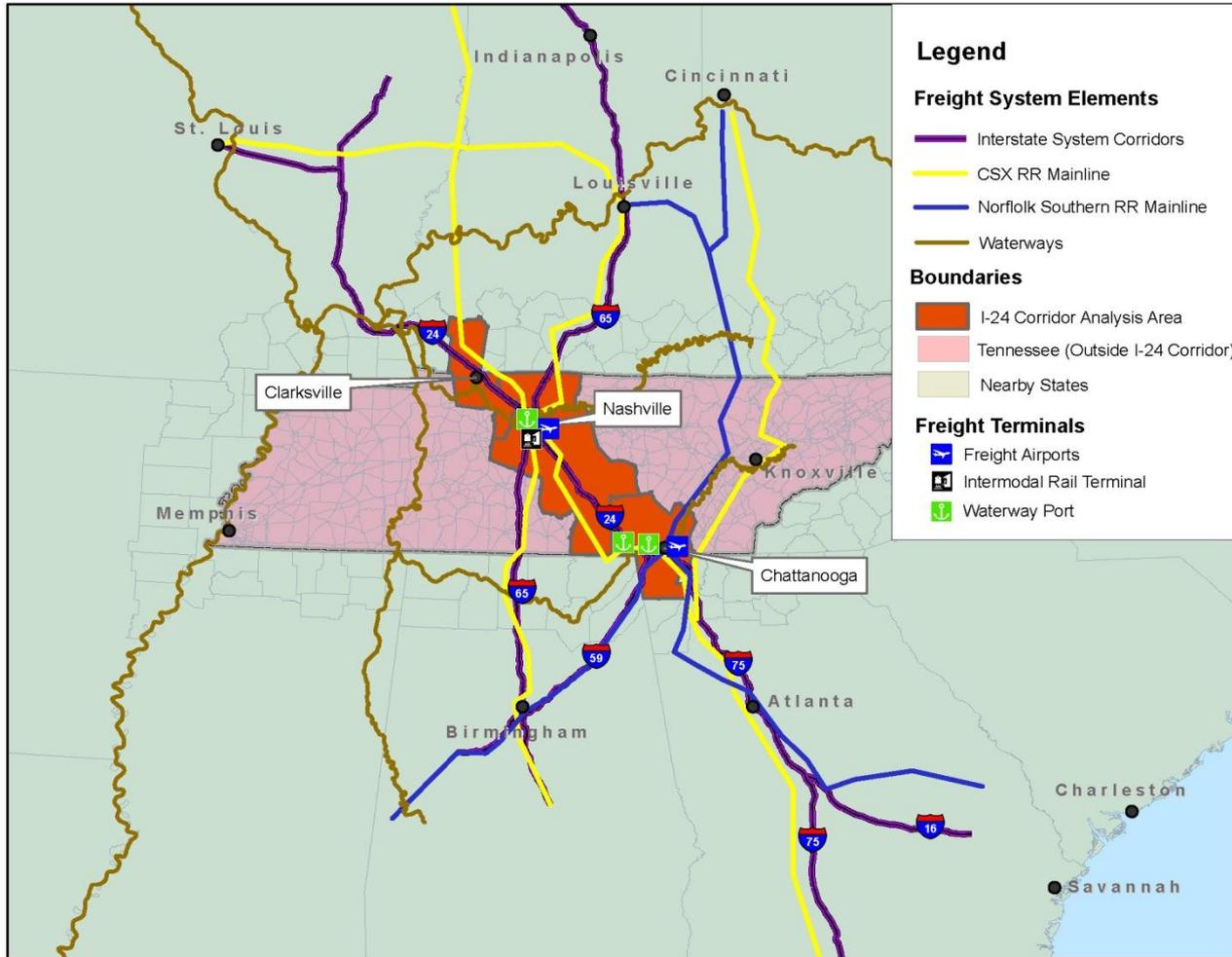


Truck Equivalencies

MODAL COMPARISON OF TRUCK EQUIVALENCIES



Freight System



Proposed Projects & Strategies

- Operational – Intelligent Transportation Systems (ITS)
 - 19 proposals by citizens
 - 7 specific projects and/or strategies
- Examples
 - Control merging traffic from ramps by using ramp metering
 - Use Variable Speed Limit (VSL) signs to mitigate congestion through Nashville

**PLEASE
WATCH YOUR SPEED
DON'T TEXT AND DRIVE**



Proposed Projects & Strategies

□ Operational – Interchange Modifications

- 14 proposals by citizens
- 10 specific projects and/or strategies

□ Examples

- Redesign Exit 53 interchange (I-24 at I-440)
- Redesign and rebuild interchanges at Exits 47, 47A and 49 for efficiency



Proposed Projects & Strategies

- Operational –
Emergency Response
 - 12 proposals by citizens
 - 5 specific projects and/or strategies

- Examples
 - Expand median to accommodate safety vehicles in Nashville
 - Add emergency lanes in SE Nashville area



Proposed Projects & Strategies

□ Transit – Commuter Rail

- 11 proposals by citizens
- 4 specific projects and/or strategies



□ Examples

- Clarksville - Murfreesboro commuter rail
- Commuter rail in Nashville expanding existing CSX tracks



Proposed Projects & Strategies

- Operational – Speed Limits
 - 7 proposals by citizens
 - 3 specific projects and/or strategies

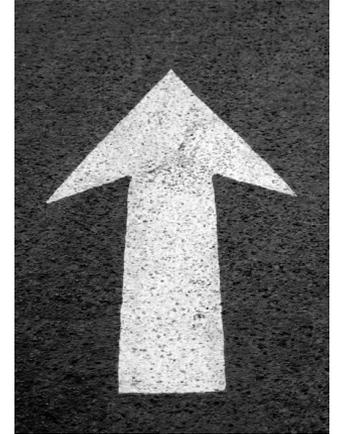
- Examples
 - Reduce speed limit from Smyrna into Nashville
 - Increase speed limit in Nashville



Proposed Projects & Strategies

- Operational – Narrow Lanes
 - 6 proposals by citizens
 - 2 specific projects and/or strategies

- Examples
 - Widen narrow lanes between Haywood Lane (Exit 57) and Hickory Hollow Pkwy (Exit 60)
 - Widen narrow lanes in major cities like Nashville & Chattanooga



Proposed Projects & Strategies

- Policy – Beautification
 - 6 proposals by citizens
 - 3 specific projects and/or strategies
- Examples
 - Consolidate billboards and add landscaping at interchanges
 - Exit 59 Bell Road interchange



Proposed Projects & Strategies

- Operational – Signals
 - 5 proposals by citizens
 - 2 specific projects and/or strategies
- Examples
 - Improve traffic signal patterns at Bell Road (Exit 59) to mitigate traffic issues coming onto I-24
 - Install traffic lights on westbound at Rossvie Road (Exit 8)



Proposed Projects & Strategies

- Operational – Truck Lanes
 - 6 proposals by citizens
 - 5 specific projects and/or strategies
- Examples
 - Add a commercial vehicle/truck lane through metro areas
 - Exit 169 - Exit 178
Dedicate EB truck climbing lane in Chattanooga



Proposed Projects & Strategies

- Rock Fall/Slide Mitigation
 - 5 proposals by citizens
 - 1 specific project and/or strategy
- Examples
 - Mitigate rock slide issues on Monteagle mountain (Exit 135 - Exit 143)



Roadway Construction Costs

- Add one lane in both directions
 - Rural & Flat - \$7 million per mile
 - Urban & Mountainous - \$27 million per mile

- Bridge - Add one lane in both directions for a typical 300' bridge
 - \$1 million - \$1.5 million



Other Roadway Construction Costs

- New Interchange - Rural
 - \$8 million - \$36 million
- New Interchange - Urban
 - \$18 million - \$86 million

- Traffic Signal
 - \$90,000 - \$120,000 per installation



Transit Capital Costs

- Express Bus
 - \$100,000 - \$300,000 per mile
- Bus Rapid Transit - Exclusive
 - \$3 - \$10 million per mile
- Commuter Rail
 - \$5 - \$15 million per mile
- Light Rail Transit
 - \$40 - \$70 million per mile



Questions

