Ozarks Transportation Organization

November 16, 2011

Technical Planning Committee Meeting

Greene County Archives Building

1126 N. Boonville, Springfield, MO

1:30-3:00 PM

PLEASE NOTE MEETING LOCATION

Technical Planning Committee Meeting Agenda
November 16, 2011 1:30 p.m.
Greene County Archives Building
1126 N. Boonville, Springfield, MO

Call to Order ..... 1:30 PM

I. Administration

A. Introductions

B. Approval of the Technical Planning Committee Meeting Agenda
(1 minute/Brock)

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO APPROVE THE AGENDA

C. Approval of the September 21, 2011 Meeting Minutes ..... Tab 1
(1 minute/Brock)

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED TO APPROVE THE MEETING MINUTES

D. Public Comment Period for All Agenda Items
(5 minutes/Brock)
Individuals requesting to speak are asked to state their name and organization (if any) they represent before making comments. Individuals and organizations have up to five minutes to address the Technical Planning Committee.

E. Executive Director's Report
(3 minutes/Edwards)
Sara Edwards will provide a review of Ozarks Transportation Organization (OTO) staff activities since the September 21, 2011 Technical Planning Committee meeting.

II. New Business

A. OTO Long Range Transportation Plan (LRTP) Final Draft ..... Tab 2
(10 minutes/Longpine)
The Draft Long Range Transportation Plan has been made available for member review online. Staff will highlight any modifications since the last draft was provided as well as review the public comment received during the public meetings last month.

TECHNICAL COMMITTEE ACTION REQUESTED TO MAKE A RECOMMENDATION TO THE BOARD OF DIRECTORS FOR ADOPTION OF THE LONG RANGE TRANSPORTATION PLAN

B. Annual Listing of Obligated Projects ..... Tab 3
(5 minutes/Owens)
Staff will present the annual listing of obligated projects in the OTO area as required under CFR §450.332.

TECHNICAL COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF THE ANNUAL LISTING OF OBLIGATED PROJECTS TO THE BOARD OF DIRECTORS.

C. Amendment Number One to the FY 2012-2015 Transportation Improvement Program ..... Tab 4
(2 minutes/Edwards)
There are three additions proposed to the FY 2012-2015 Transportation Improvement Program. Please see attached materials for more information.

TECHNICAL COMMITTEE ACTION REQUESTED TO RECOMMEND APPROVAL OF TIP AMENDMENT NUMBER ONE TO THE BOARD OF DIRECTORS.

D. OTO Technical Committee Chair Rotation ..... Tab 5
(5 minutes/Edwards)

TECHNICAL COMMITTEE ACTION REQUESTED TO ELECT THE CHAIRMAN AND CHAIRMAN-ELECT POSITIONS OF THE 2012 TECHNICAL PLANNING COMMITTEE.

E. OTO Technical Committee 2012 Meeting Schedule ..... Tab 6
(2 minutes/Edwards)

NO ACTION REQUIRED – INFORMATIONAL ONLY

III. Other Business

A. Technical Planning Committee Member Announcements
(5 minutes/Technical Planning Committee Members)
Members are encouraged to announce transportation events being scheduled that may be of interest to OTO Technical Planning Committee members.

B. Transportation Issues For Technical Planning Committee Member Review
(5 minutes/Technical Planning Committee Members)
Members are encouraged to raise transportation issues or concerns they have for future agenda items or later in-depth discussion by the OTO Technical Planning Committee.

C. Articles For Technical Planning Committee Information ..... Tab 7

IV. Adjournment

Targeted for 2:30 P.M. The next Technical Planning Committee meeting is scheduled for Wednesday, January 18, 2012 at 1:30 P.M. at the OTO Offices, 205 Park Central East, Suite 205.

Attachments and Enclosure:

Pc: Lou Lapaglia, OTO Chair, Christian County Presiding Commissioner
Phil Broyles, City of Springfield Mayor's Designee
David Rauch, Senator McCaskill's Office
Dan Wadlington, Senator Blunt's Office
Matt Baker, Congressman Long's Office
Area News Media

Si usted necesita la ayuda de un traductor del idioma español, por favor comuníquese con la Debbie Parks al teléfono (417) 865-3042, cuando menos 48 horas antes de la junta.

Persons who require special accommodations under the Americans with Disabilities Act or persons who require interpreter services (free of charge) should contact Debbie Parks at (417) 865-3042 at least 24 hours ahead of the meeting.

If you need relay services please call the following numbers: 711 - Nationwide relay service; 1-800-735-2966 - Missouri TTY service; 1-800-735-0135 - Missouri voice carry-over service.

OTO fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. For more information or to obtain a Title VI Complaint Form, see www.ozarkstransportation.org or call (417) 865-3042.

TAB 1

MEETING MINUTES

Attached for Technical Committee member review are the minutes from the September 20, 2011 Technical Committee Meeting. Please review these minutes prior to the meeting and note any corrections that need to be made. The Chair will ask during the meeting if any Technical Committee member has any amendments to the attached minutes.

TECHNICAL COMMITTEE ACTION REQUESTED: To make any necessary corrections to the minutes and then approve the minutes for public review.

OZARKS TRANSPORTATION ORGANIZATION
TECHNICAL PLANNING COMMITTEE SPECIAL MEETING MINUTES
September 21, 2011

The Technical Planning Committee of the Ozarks Transportation Organization met at its scheduled time of 1:30 p.m. in the Greene County Archives Building.

The following members were present:

Mr. David Brock, City of Republic (Chair)
Mr. Don Clark, Missouri State University
Mr. King Coltrin, City of Strafford
Ms. Carol Cruise, City Utilities
Ms. Hollie Elliott, Springfield Chamber (a)
Mr. Jonathan Gano, City of Springfield
Mr. Nick Heatherly, City of Willard
Mr. Rick Hess, City of Battlefield
Mr. David Hutchison, City of Springfield (a)
Ms. Jenni Jones, MoDOT
Mr. Joel Keller, Greene County (a)
Mr. Larry Martin, City of Ozark
Mr. Brad McMahon, FHWA
Mr. Frank Miller, MoDOT
Mr. Duffy Mooney, Greene County Highway Dept.
Mr. Bill Robinett, MoDOT
Mr. Ralph Rognstad, City of Springfield
Mr. Andrew Seiler, MoDOT
Mr. Dan Smith, Greene County Highway Dept.
Mr. Dan Watts, SMCOG
Mr. Todd Wiesehan, Christian County (Chair-Elect)

(a) Denotes alternate given voting privileges as a substitute when voting member not present

The following members were not present:

Mr. Mokhtee Ahmad, FTA Representative
Mr. Rick Artman, Greene County Highway Dept.
Mr. David Bishop, R-12 School District
Mr. Randall Brown, City of Willard (a)
Mr. Travis Cossey, City of Nixa
Mr. Rick Emling, R-12 School District (a)
Ms. Diane Gallion, City Utilities (a)
Mr. Martin Gugel, City of Springfield
Mr. Jason Haynes, City of Springfield (a)
Mr. Roger Howard, BNSF
Mr. Kevin Lambeth, City of Battlefield (a)
Mr. Ryan Mooney, Springfield Chamber
Mr. Kent Morris, Greene County Planning Dept.
Mr. Mark Roy, Springfield-Branson Airport (a)
Mr. Mark Schenkelberg, FAA Representative
Mr. Shawn Schroeder, Springfield-Branson Airport
Mr. Garrett Tyson, City of Republic (a)
Mr. Terry Whaley, Ozark Greenways

Others present were: Mr. Carl Carlson, Olsson Associates; Ms. Debbie Parks, Ms. Sara Edwards, Ms. Natasha Longpine, Mr. Michael Sparlin, Mr. Curtis Owens and Mr. Chris Stueve, Ozarks Transportation Organization; Mr. David Rauch, Senator Claire McCaskill's Office; Ms. Stacy Burks, Senator Roy Blunt's Office; Mr. Matthew Baker, Congressman Billy Long's Office.

I. Administration

A. Introductions

Mr. Brock called the meeting to order at 1:32 p.m. and asked for introductions of those attending the meeting.

B. Approval of the Technical Planning Committee Meeting Agenda

Mr. Smith made the motion to approve the agenda. Mr. Martin seconded and the agenda was carried unanimously.

C. Approval of the July 20, 2011 & August 17, 2011 Special Meeting Minutes

Ms. Jones stated that a correction should be made to the July 20, 2011 Minutes. Under page 4, New Business, it was incorrectly stated that the TIP was a three-year document when it should state the TIP is a four-year document.

Mr. Martin made the motion to approve the July 20, 2011 minutes as amended and the August 17, 2011 minutes. Mr. Duffy Mooney seconded and the minutes were approved unanimously.

D. Public Comment Period for All Agenda Items

None

E. Executive Director's Report

Ms. Edwards stated that there were tentative public meetings scheduled for the Regional Transit Study, starting October 11. A handout was included in the packet with the schedule. The noon meeting would specifically be for the top regional employers to talk about perceived needs for transit, their willingness to participate in getting the employees to and from work. There will also be four public meetings as part of the study. The first public meeting is at the Library Station from 5 p.m. to 7 p.m. on October 11. Another will be in the OTO Lobby to target the transit users from the downtown facility and receive their input. A public meeting will be held at the OTC Richwood Valley Campus in Christian County. The last meeting will be held at noon at the Library Center on South Campbell. An October 13th breakfast meeting will be held to bring together mayors, city council members and the local Chambers of Commerce to talk about the Transit Study and what they want out of it.

The study has begun with an on-board survey that is currently underway. The survey is from roughly 6 a.m. to 6 p.m. on all the transit routes. There are 38 surveyors. Tokens have been offered in exchange for completing the on-board surveys. There has been good participation.

SAFETEA-LU was extended through March. It will continue the 2011 funding levels for 2011 ½ the year. If the Jobs Bill is passed there might be some more money for transportation.

The OTO has a signed lease for the Office Relocation and the move will be October 17 through 19. The Highway Commission will be in town on October 5th in the CU Board Room. This meeting is used as a chance to say thank you for funding and to show-off the projects for the region.

The ozone standard did not change. The feeling was that it would not be a good time to look at that economically. It will be revisited in 2013 because of the five year review requirement. Missouri State is having a Triennial review in one week. Congressman Long is coming to the Springfield Chamber on September 30th to talk about transportation. Staff will be out of the office for the Association of Metropolitan Planning Organization annual conference October 26 through 28, but will be available through email during that time. The Transportation Improvement Program has not been approved as of yet. It has an October 1st start date. It is in the Governor's office awaiting signature.

II. New Business

A. Columbia Bicycle Tour Overview

Ms. Longpine presented an overview of the recent Columbia Bicycle Tour. A couple of individuals from Ozarks Greenways and STAR Team traveled to Columbia to see what was done with the $22 million that Columbia received. A PowerPoint presentation is attached to minutes.

B. OTO Long Range Transportation Plan (LRTP) Update

Ms. Longpine presented an overview of the Draft Long Range Transportation Plan. The handout of the presentation is attached to the minutes. The aviation section was not complete due to the comments not received from the Airport. Ms. Longpine reviewed the upcoming public meeting schedule.

C. Transit Coordination Plan Information

Mr. Owens stated that the Local Transit Coordination Board met recently and began looking at the Transit Coordination Plan which is due for a five-year update. Initially, the LCB for Transit reviewed the provider & non-provider surveys for the plan. The planning process update is scheduled to start in the first week of November. The Local Transit Coordination Plan covers three main programs: 5310, 5316, and 5317. The plan addresses any overlap or gaps in needs and services. The plan will look at the overall transportation needs for the area. An inventory of available services will be done. It will identify coordination and reduce the duplication of services provided. It will also prioritize the implementation strategies. Mr. Owens gave some examples of projects awarded this past year.

Mr. Robinett stated that there will be workshops for developing the plan. The workshops will be held in the District office during October or November.

D. OTO Property Control Manual

Ms. Parks stated that the Property Control Manual was created to address the need for a Surplus Disposal Policy and an Inventory Control Policy. The OTO tried to look at what other jurisdictions were doing in the area. The City of Springfield policy was examined. Greene County was currently in the process of rewriting their policies. In addition, the funding source requirements were researched. In this case, the funding source is primarily the Federal Transit Administration.

The FTA addresses items over $5,000. The OTO would be responsible to sell any item over $5,000 and give the fair market value back to PTA at the funding percentage. The OTO would have to obtain permission to sell any item whose useful life had not been met.

The OTO also looked at the State Statutes even though it is not a State Organization or Department. The Statutes address Inventory Procedures, which have been added to the Procedure manual. The inventory threshold has been set at $500. The inventory would include an inventory tag system and a database that will be maintained annually per the State Statutes.

The Disposal of equipment and supplies is also addressed in the policy. Currently the OTO does not have a lot of surplus items, mostly broken office equipment and

miscellaneous office supplies. The policy outlines three ways to dispose of items. If broken or obsolete, the items may be recycled or thrown away. The second way creates a link on the OTO website to offer items of a lower monetary value to the jurisdictions of the OTO for free or at a fair market value. The third way is to put the items on an online government bidding site.

Mr. Miller made the motion to recommend the OTO Property Control Manual to the Board of Directors. Mr. Smith seconded and the motion was carried unanimously.

III. Other Business

A. Technical Planning Committee Member Announcements

Ms. Cruise stated that City Utilities was hosting a public meeting about the City Utilities Transfer Facility. Mr. Martin asked if the main issue surrounding the location was noise. Ms. Cruise stated that it was probably noise related.

Mr. Gano stated that another Assistant Director was coming to the City of Springfield Public Works. This preempts the coming announcement from MoDOT that Kirk Juranas was leaving and coming to City of Springfield Public Work Department.

Mr. Miller stated that the project management team has been set up. One of the project managers will be a Joplin person who is working with the District. The Springfield people will also be working in Joplin so that everyone will understand the needs of the area. There are two Area Engineers. One will be based in Branson which will cover Berry, Christian, Stone and Taney County. That person will be doing local public agency administration. Beth Schaller will also be involved in the Construction side. Ms. Schaller will also be the TPC alternate. As far as Greene County there is not a Springfield engineer, but the assistant district engineer, Andy Miller, is over the operations side of the operations. He will fulfill that role.

Mr. Brock mentioned that the transition was going well. He suggested getting a chance to touch base with MoDOT and bring MoDOT up to speed what is going on in the various jurisdictions. Mr. Martin stated that he had met with Mr. David Cissell and Ms. Beth Schaller. Ms. Schaller was helpful in resolving on five different things that needed to get done.

B. Transportation Issues for Technical Planning Committee Member Review

None.

C. Articles For Technical Planning Committee Information

No Discussion.

IV. Adjournment

The meeting was adjourned at 2:49 p.m.

Ozark Greenways explores Columbia's Bicycle Facilities

SPRINGFIELD BIKES COLUMBIA

MISSION STATEMENTS

COLUMBIA

- Create an active transportation network in Columbia through community engagement, policy campaign action and effective planning.

SPRINGFIELD

- Enhancing and preserving the Ozarks' natural heritage.

WHO'S WHO

COLUMBIA

- PedNet (2000)
- Get About Columbia
- $22 million
- 1/3 grid system
- Hills, curves
- 12 LCIs
- 200 Paid Members
- 7000 on mailing list
- BFC Silver – 2009
- $3.5m local sidewalk funding

SPRINGFIELD

- Ozark Greenways (1991)
- Drive Less/Live More
- $73k with $18k match
- Traditional grid system
- 3 LCIs
- 1100 Paid Members
- Mailing list – Facebook (1659 Likes)
- BFC Bronze – 2010
- $250k local multi-modal funding/year

INITIATIVES

COLUMBIA

- GetAbout Columbia
- Active Transportation Consulting
- Neighborhoods on the Go
- Police Officer Training
- Adopted Complete Streets Design Standards
- 10 PedNet Staff Members

SPRINGFIELD

- Drive Less, Live More
- The Link
- Annual Bicycle Summit
- Police Officer Train the Trainer (as of July 20)
- STAR Team
- Volunteers and local committee members

SAFE ROUTES TO SCHOOL

COLUMBIA

- Strong program with dedicated staff
- PedNet
- College Student Volunteers
- Mayor's Walk
- Remote Drop-off and Pick-up
- Still rely on schools for champion

SPRINGFIELD

- Individual Schools
- YMCA Pilot at 4 schools
- Varying initiatives at outlying schools
- No lead agency

PEDNET

- Vision
  - Healthy and Active Community
- How
  - Programs that encourage behavior change
    - Walking School Bus
    - Bike, Walk, Wheel Week
    - Social Marketing Campaigns that Promote Active Travel
  - Advocacy for policies that result in improved infrastructure
    - Educating policy makers about the benefits of a walkable community, and building grass-roots support for the construction of sidewalks and trails

PEDNET PARTNERS

- Columbia/Boone County Department of Public Health and Human Services
- Columbia Public Schools and individual schools
- Boone Hospital Center
- Walt's Bicycle, Fitness and Wilderness Company
- The Blue Note
- Flat Branch Pub and Brewing
- SAFE KIDS Coalition
- City of Columbia Partners (Many City Departments)
- MoDOT
- University of Missouri Partners (Many University Depts)
- Business Partners
- Non-Profit Partners
- Other Supporting Organizations

PEDNET FUNDING

- Seek multiple grant opportunities
- $200k Active Living by Design grant from Robert Wood Johnson Foundation (2003)
- $107k RWJ Foundation (2005)
- $130k Missouri Foundation for Health (2005)
- $3k Boone Hospital
- $600k Promotion and Education (2007)
  - Subcontract from $22m GetAbout grant
- $400k RWJ Foundation (2008)

PEDNET ACTIVITIES

- Promotions for Healthy Active Living
- Bike, Walk, Wheel Week (called the Mayor's Challenge)
- Walking School Bus
- Bike Train (Bicycle version of WSB)
- Helped develop new street design standards, supported ordinance that all new streets conform
- Mark Fenton Walkable Communities Workshop
- Healthy Eating Promotion
- Passport to Fitness Youth Challenge
- Social Marketing Campaing
  - 8 ads
  - 560 minutes of radio advertising
  - 1000 large, full-color posters
- Walking School Bus Train the Trainer Events
- Bicycle Education – LCI, BikePro for kids, non-English classes
- Targeted Neighborhood Program

GETABOUT COLUMBIA

- Formed because of $22 million grant
- Housed with Columbia Public Works

getabout COLUMBIA

See where it takes you.

GETABOUT BUDGET

Item	Budget	Percent
Planning, Management, In-House Design	$1.6 m	8%
Promotion, Education, Office	$3.4m	15%
Street Marking, Parking, etc.	$2.1m	9%
Intersection Improvements	$2.6m	12%
Shared Use Paths, Sidewalks	$12.3m	56%
TOTAL	**$22,000,000**	

GETABOUT APPROACH

- Pedestrian
  - Complete sidewalk gaps
  - Improve intersections
  - Improve trails
- Bicyclists
  - Create an integrated, connected, city-wide system
    1. Trails
    2. Bike Lanes
    3. Bike Routes

GETABOUT APPROACH

- System should be self-explanatory, understandable to bicyclists and motorists
  - Cannot forgo on-street facilities
- Innovate and borrow ideas from other cities
- Implement elements of existing master plans

WHAT WE SAW

BIKE BOULEVARD

Additional side stripes makes appearance of 6-foot lane. Vehicles get nervous and slow down. Bicycle Blvd. on signs and painted on street. Some intersections have murals on street.

BIKE LANES

On busy streets. At intersections. Color treatments. Dashed lines at cross-streets.

PEDWAYS

Shared-use bikepaths/wide sidewalks. All built with reinforced concrete. Bicyclists are to treat side street crossings as pedestrians. Off-set at major crossings. Multiple treatments along same roadway.

TRAILS

Either reinforced concrete or crushed gravel. Connect parks, universities, neighborhoods, downtown.

PAINT THE TOWN

EVERYWHERE! Inexpensive. Impactful. More effective than signs.

TAKE AWAYS

- Columbia Confident City Cycling (Road 1)
  - 30% drop in car use after participation in class
- Of $22m, have spent $17m
  - 85% on infrastructure
  - 15% on programmatic/evaluation
- School Remote Drop-off/Pick-up sites
- Speed Limit Reductions to 25mph, no more than 30mph
- Complete Streets Design Standards – required for all new roadways, use for upgrades to existing roadways
- Sharrows best option for street treatment
- PAINT! PAINT. PAINT!!! (Did I mention paint?)

JOURNEY 2035

Ozarks Transportation Organization

Long Range Transportation Plan

Background

- 25 year planning horizon
- 8 SAFETEA-LU Planning Factors
  - support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
  - increase the safety of the transportation system for motorized and nonmotorized users;
  - increase the security of the transportation system for motorized and nonmotorized users;
  - increase the accessibility and mobility of people and for freight;
  - protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
  - enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
  - promote efficient system management and operation; and
  - emphasize the preservation of the existing transportation system

Background

- Livability Principles
  - Provide more transportation choices to decrease household transportation costs, reduce our dependence on oil, improve air quality and promote public health;
  - Expand location- and energy-efficient housing choices for people of all ages, incomes, races and ethnicities to increase mobility and lower the combined cost of housing and transportation;
  - Improve economic competitiveness of neighborhoods by giving people reliable access to employment centers, educational opportunities, services and other basic needs;
  - Target federal funding toward existing communities – through transit-oriented and land recycling – to revitalize communities, reduce public works costs, and safeguard rural landscapes;
  - Align federal policies and funding to remove barriers to collaboration, leverage funding and increase the effectiveness of programs to plan for future growth; and
  - Enhance the unique characteristics of all communities by investing in healthy, safe and walkable neighborhoods, whether rural, urban or suburban.

Planning Process

- Public Input
  - April 8 Kick-off
  - Public Input Meetings
  - On-line Survey
- LRTP Subcommittee Meetings
- MTP Subcommittee Meetings
- BPAC Meetings

Journey 2035

Regional Trends and Existing Conditions

- Population
  - OTO grew by 20% between 2000 and 2010
  - Many OTO jurisdictions grew over 50%
  - High percentage of college-aged and baby boomers
  - Most population density is within Springfield
  - Growth has been moving south and west in the OTO region
  - OTO is youngest in the south and west
  - OTO is oldest in southeast Springfield and eastern Greene County

Regional Trends and Existing Conditions

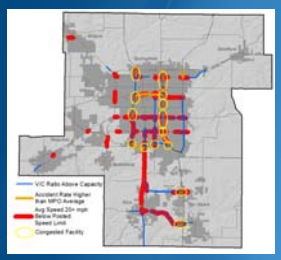
- Population
  - Most minorities and Hispanic persons live in Springfield
  - Over 10% of the population in the region is disabled
  - OTO is poorest in north and central Springfield, as well as a portion of Ozark
  - The majority of households without cars are in central Springfield

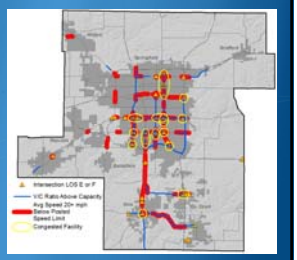
Regional Trends and Existing Conditions

- Employment
  - The majority of jobs are in south central Springfield, along Glenstone, and on the northeast side of Springfield
  - Each community has a concentration of jobs at their core
  - Most jobs are in the Health Care, Retail Trade, Accommodation and Food Services, Education, and Manufacturing sectors

Regional Trends and Existing Conditions

- Congestion





Regional Trends and Existing Conditions

- Bicycle and Pedestrian Network

Mode	Percent Share 2005-2009
Car, Truck, or Van	
Drove Alone	81.67
Carpooled	9.64
Public Transportation	0.82
Bicycle	0.48
Walked	2.83
Worked at Home	3.61

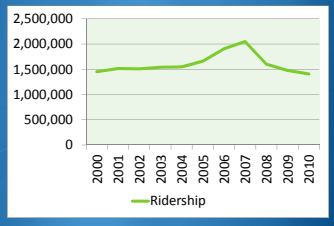
Year	Number of Pedestrian Crashes	Non-Injury	Injury	Fatal
2003	47	4	41	2
2004	52	7	42	3
2005	46	6	38	2
2006	50	4	42	4
2007	47	8	37	2
2008	53	2	50	1
2009	56	4	52	0
2010	49	8	37	4

Year	Number of Bicycle Crashes	Non-Injury	Injury	Fatal
2003	41	11	30	0
2004	41	6	34	1
2005	50	10	39	1
2006	47	10	36	1
2007	50	12	37	1
2008	71	20	51	0
2009	59	9	49	1
2010	54	13	41	0

Regional Trends and Existing Conditions

- Transit

Year	CU Ridership	Percent Change
2010	1,406,547	-4.68
2009	1,475,617	-7.73
2008	1,599,278	-21.89
2007	2,047,496	7.54
2006	1,903,926	14.74
2005	1,659,279	7.38
2004	1,545,267	0.39
2003	1,539,264	1.96
2002	1,509,686	-0.39
2001	1,515,611	4.36
2000	1,452,365	9.24



Goals

- **Economic Development**
  - Encourage economic growth and vitality for the region by providing transportation infrastructure and facilities that ensure opportunities for future economic development and promote desired growth.
- **Multi-Modal, Interconnected System**
  - The OTO should work within the region to develop, implement, and maintain a multi-modal transportation system that supports jobs, housing, education, accessibility, recreation, clean air, water conservation and sustainability.
- **Quality of Life and Livability**
  - The OTO should work to improve quality of life and livability by enhancing the effectiveness and aesthetics of the collective transportation system, improving the connectivity and accessibility of the street, pedestrian, and bicycle networks, promoting urban density and efficient development patterns, and increasing the efficiency and convenience of the existing public transit system.

Goals

- **Operations and Maintenance**
  - The OTO should support the maintenance of streets, sidewalks, trails, transit, and the airport, using the most effective strategies to maximize the efficient operation of the existing systems, keeping in mind safety, accessibility, sustainability, and collaboration.
- **Safety and Security**
  - The OTO should work within the region to ensure the safety and security of all users focusing on reductions in crash rates through engineering, education, enforcement and emergency response, as well as security improvements through incident management and partnerships with local and regional enforcement agencies and the public transit agency.
- **Transportation Advocacy and Needs Assessment**
  - The transportation network should be monitored periodically, providing feedback for the support of the most comprehensive solution for transportation demand, safety, quality of life, economic development, availability of applicable funding, and the maximizing of beneficial returns on transportation investments.

Performance Measures

Performance Measure	Target
Vehicle Miles Traveled per Capita	That VMT per Capita will grow no more than 5 percent from its peak in 2004, at a value of 19, by 2035. Growth should be captured in other modes
Modal Balance	Decrease "Drove Alone" to 75 percent for the region by 2035
Bicycle/Pedestrian Network Completion	If, on average, 4 miles of sidewalk are added each year within the OTO area, but no new roadways, by 2035, the total percent of roadways with sidewalks would be 33.5
Total Disabling Injury and Fatal Crashes per Million Vehicle Miles Traveled	That disabling injury and fatal crashes/MVMT will continue a downward trend as shown in the above graphic
On-Time Performance of Transit System	The CU service standard is 90 percent. The system will be considered to have acceptable on-time performance at this 90 percent level
Percent of Housing Units within ¼-mile of a Bus Route	That the percent of housing units within the CU Transit service area and the OTO area within ¼-mile of a bus route is on the upward trend between now and 2035
Average Commute Time	Keep the average commute time less than 25 minutes by 2035
Peak Travel Time	That less than 20 percent of the OTO area roadways will be severely delayed
Percent of Roadways in Good Condition	That 85 percent or more of the Major Roads in the OTO region are in Good condition
Bridge Condition	That the percent of bridges in fair or better condition will stay above 90 percent
Ozone Levels	That the region will be able to demonstrate transportation conformity for its plans, programs, and projects

Major Thoroughfare Plan

- Design Standards - Strategies
  - OTO should work with the Federal Highway Administration and the Missouri Department of Transportation to regularly update the Functional Classification Map to align with the recommendations of the Major Thoroughfare Plan, within the confines of the federal requirements.
  - The classifications of street types contained in Zoning Ordinances, Subdivision Regulations, and Design Standards of the various jurisdictions within the OTO Study Area should agree with those discussed here.
  - OTO jurisdictions should design roadways for all users, when appropriate. The adoption of a complete streets ordinance or guidelines can aid staff as they retrofit and construct new and existing roadways.

Major Thoroughfare Plan

- Alignment Preservation
  - Corridor Preservation Tools
- Land Use Considerations – Strategies
  - The Major Thoroughfare Plan should ensure the continuity of the arterial, collector, and local street systems, while preventing unnecessary traffic through neighborhoods.
  - When practicable, land uses should be developed that are compatible with the classification of adjoining streets.
  - OTO jurisdictions should regularly update the adopted Major Thoroughfare Plan, subdivision ordinance, zoning controls, and criteria for the installation of traffic controls to ensure land use compatibility and the preservation of the neighborhood unit.

Major Thoroughfare Plan

- Land Use Considerations
  - Land Use Intensity by Street Classification
  - Typical Off-Site Improvements
  - Typical On-Site Improvements
- Additional Strategies
  - OTO jurisdictions should, at a minimum, require a simplified traffic analysis with every rezoning request.
  - OTO jurisdictions should utilize the guidelines contained in this plan for off-site and on-site improvements related to development proposals.

Major Thoroughfare Plan

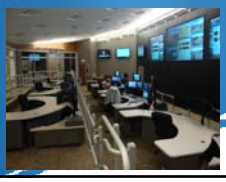
- Traffic Model Forecast

Jurisdiction	Population		% Change Population 2010-2035
	2010	2035	
Battlefield	5,590	11,167	99.77
Nixa	19,022	59,070	210.54
Ozark	17,820	40,106	125.06
Republic	14,751	40,889	177.20
Springfield	159,498	184,892	15.92
Strafford	2,385	4,910	105.87
Willard	5,288	6,911	30.69
Christian County	16,196	58,413	260.66
Greene County	68,934	87,742	27.28

Jurisdiction	Employment 2035
Battlefield	1,750
Nixa	16,383
Ozark	18,370
Republic	8,799
Springfield	251,183
Strafford	2,527
Willard	2,895
Christian County	8,291
Greene County	28,835

Major Thoroughfare Plan

- Transportation System Management
  - ITS
  - TMC
- Strategy
  - OTO should support the implementation and expansion of advanced traffic management systems within the OTO region.



Major Thoroughfare Plan

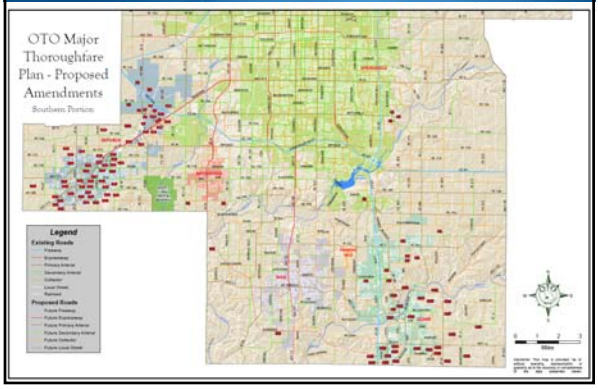
- Transportation Demand Management
  - Benefits
  - Methods
  - OzarksCommute
- Strategies
  - OTO should continue to promote travel demand strategies throughout the OTO region.
  - OTO should continue to support the OzarksCommute.com website and seek new technologies for ridesharing as they become available.

Major Thoroughfare Plan

- Safety
  - Missouri Blueprint for Safety
- Strategies
  - OTO should continue to participate in the Blueprint for Roadway Safety.
  - Projects that improve safety should receive priority for funding.

Major Thoroughfare Plan

Major Thoroughfare Plan



Public Transit

- City Utilities
  - Strategies
  - City Utilities should continue to seek a location and construct a new transfer facility in downtown Springfield as recommended by the OTO Transit Development Plan Study Group.
  - When planning for and designing facilities, CU should make accommodations for a larger 40-foot bus, recognizing that future buses may not all be that large.
- Missouri State University
- OATS, Inc.
- Regional Transit Strategies
  - OTO and its jurisdictions should continue to review the possibility and funding options for offering regional, commuter transit service.

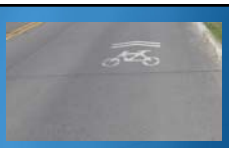
Transit

- Thresholds for Transit Service
- Supporting Transit
- Strategies
  - OTO should identify recommended transit routes and encourage future transit along those routes.
  - OTO jurisdictions should develop land use and growth management policies that encourage transit efficiency along recommended routes.

Transit

- Encouraging Transit
- Strategies
  - Both City Utilities and Missouri State University should use marketing techniques to inform the public that they offer quality service.
  - City Utilities and Missouri State University should take advantage of available technologies that improve transit service, when not cost prohibitive.

Transit



- Supporting Other Modes
- Strategies
  - When bus stops are moved or when new ones are placed, consideration should be made for pedestrian accessibility.
  - Sharrows, shown to the right, rather than bicycle lanes, should be used along transit routes, especially those with frequent stops.
  - Transit should be considered when designing and implementing new roadways, as well as when completing retrofit or maintenance projects.

Transit

- Paratransit
  - Access Express
  - OATS, Inc
  - Taxicabs
  - Human Service Transportation
- Transit Coordination Plan
- Strategy
  - The Transit Coordination Plan update should further address the need for central dispatching and a single-call service such as 511 for scheduling rides.

Inter-City Passenger Transportation

- Bus – Greyhound
- Strategy
  - Pursue options to connect fixed-route transit service to the Springfield-Branson National Airport, providing a better connection to inter-city bus service such as Greyhound.
- Train
  - Currently rail is not feasible on existing tracks to St. Louis
- Strategies
  - OTO should stay involved with discussions that would bring passenger rail to Springfield.
  - The Missouri General Assembly is encouraged to find a stable funding source for passenger rail in Missouri.

Bicycle/Pedestrian

- Additional Goals and Objectives
- Vision - Improve the safety, access, connectivity, convenience, and prevalence of bicycling and walking as a transportation choice supporting livability within the Ozarks Transportation Organization (OTO) region.
- Goal 1 - Develop a comprehensive regional bicycle and pedestrian network by identifying both on-street and off-street facilities within the OTO.
- Goal 2 - Integrate the bicycle and pedestrian network with the existing transportation system.
- Goal 3 - Enhance and promote bicycling and pedestrian safety.

Bicycle/Pedestrian

- Goal 4 - Identify and target sources to fund pedestrian and bicycle facilities and programs.
- Goal 5 - Promote bicycling and walking as a means of transportation integral to daily activities.
- Goal 6 - Support bicycling and walking for the promotion of tourism in the OTO region.

Bicycle/Pedestrian

- Project Submissions
- Strategy
  - OTO should maintain a comprehensive list of bicycle and pedestrian needs that is reviewed annually.
- Prioritization
- Strategy
  - OTO should work with member jurisdictions to expand data availability for bicycling and pedestrian activities. This includes, but is not limited to, bicycle and pedestrian crashes, current and projected use of facilities, and system condition.

Bicycle/Pedestrian

- **Top 5 Policy Priorities**
  - Sidewalks on School Walking Routes
  - Sidewalks on Streets with Commercial, especially High Volume Bus Routes
  - Emphasize Projects that Extend from Communities and Enhance the Regional System
  - Completing Bike/Ped Projects with appropriate Roadway Projects
  - Develop Implementation Plan for Bike/Ped Plan, including details such as easements
  - **Additional Policy Priorities**
- North-South Connections between Trails, including The Link in Springfield
  - Support the Goals and Objectives of the OTO Bike/Ped Element of the Long Range Transportation Plan
  - Focus on bringing Trails toward Wilson's Creek National Battlefield at a Designated Access Point
  - Reclamation of Rail Bed – including following the status of active rail
  - Streetscapes in Urban Centers
  - Trail Connections between Communities
  - Development of a Trail Loop around Springfield
  - Educational Campaign

Bicycle/Pedestrian

- **Top Project Priorities**
  - Wilson Creek/Jordan Valley Creek from South Creek to Smith Park
  - Trail of Tears – from Close Memorial Park to City of Battlefield
  - Republic Shuyler Creek and North Fork Shuyler Creek Trails
  - Strafford Route 66 Trail from Springfield to Farm Road 249 (the ball fields)
  - Ozark Finley River Trail and other Future Linear Trails as shown on the OTO Bike/Ped Map in Christian County
  - Greene County Destination Plan with the addition of a Christian County/Regional addendum
  - James River Trail – from Crighton Landing east of Springfield to Delaware landing west of Nixa
- Strategy
  - Project selection and funding priorities should support the priorities included in this plan.
  - OTO, in partnership with member jurisdictions and Ozark Greenways, should develop an implementation plan which identifies strengths, challenges, necessary easements, and cost for future trail development.

Bicycle/Pedestrian

- Design Standards
- Pedestrian
- Bicycle
  - Off-Street Bicycle Paths
  - On-Street Bicycle Lanes
  - On-Street Signed Shared Roadways
  - Bicycle Boulevards
  - Suitable Local Streets
- Strategy
  - Promote adherence to the bicycle and pedestrian design standards as set forth in this plan and encourage the continued implementation of additional best practices.

Aviation

- Springfield-Branson National Airport
  - Passenger Data
  - Midfield Terminal
  - General Aviation
  - Air Cargo
  - Surface Transportation
- Downtown Airport

Aviation

- Land Use Considerations
  - Existing Land Use and Zoning
  - Noise Impacts
  - Land Use Compatibility based on Noise Impacts
- Strategy
  - The City of Springfield and Greene County should continue the existing zoning patterns in effect around the Springfield-Branson National Airport. No rezoning of agricultural land use to noise-sensitive uses should be allowed within the noise contours unless a noise analysis is conducted and noise control features are included in the building design.

Goods Movement

- Rail
  - Railroad Reconfiguration and Grade Separation Study
  - MoDOT State Rail Plan
  - At-Grade Crossings
  - Inter-Modal Connections
  - Land Use Considerations

Goods Movement

- Rail Strategies
  - Continue to pursue funding for implementing the Rail Reconfiguration Plan.
  - Through subdivision review, OTO jurisdictions should ensure that all new developments have adequate access to the major thoroughfare system without crossing railroad tracks at grade.
  - As plans are developed for new thoroughfares, the type of necessary crossing should be considered. At-grade crossings of main line tracks should be avoided to provide for maximum safety and minimal disruption for the motoring public, including additional idling time resulting in additional pollution concerns.
  - Adequate warning devices should be provided at railroad crossings when a grade separation is not feasible.
  - OTO jurisdictions should consider grade crossing elimination projects or "quiet zone" designations in areas where noise and congestion at grade crossings have adverse community impacts. A quiet zone is a grade crossing at which trains are prohibited from sounding their horns, thereby decreasing the noise level for nearby residential communities. Quiet zones typically require additional engineering solutions which are paid for at the requesting community's expense.
  - When evaluating rezoning requests near a rail line, OTO jurisdictions should consider the suitability of the proposed use. If manufacturing or industrial uses are not feasible and the site characteristics permit, the use of tools like a Planned Development District, can provide for buffer requirements along the rail lines.
  - As tracks are no longer needed by the railroad, organizations like Ozark Greenways should be the first contact for rail preservation and trail projects.

Goods Movement

- Trucking
  - I-44 will become a key corridor, surpassing I-70 for truck traffic by 2040
  - Promoting Efficient Truck Movement
  - Land Use Considerations

Goods Movement

- Trucking Strategies
  - OTO should work to enhance the integration and connectivity of the transportation system, across and between modes, preserving freight mobility as the region continues to develop.
  - OTO jurisdictions should encourage truck-generating facilities to locate along major streets, or on collector streets connecting directly to major streets in order to encourage trucks to confine their travels to arterials and expressways.
  - Streets with existing or potential truck traffic problems should be identified. OTO jurisdictions should consider recommending truck routes and/or restricting truck use on inappropriate streets.

Goods Movement

- Trucking Strategies
  - Major activity centers requiring extensive goods and service movements should be located near major highway interchanges and along major arterial streets.
  - Local standards and regulations should provide adequate off-street loading spaces for businesses which receive or distribute goods by truck. When off-site accommodations cannot be made, there should be an adequate number of on-street loading zones.
  - OTO jurisdictions should incorporate delivery and access needs into the site design and review process.
  - OTO jurisdictions should prevent zoning that would result in truck traffic through a residential area.
  - Developers should be encouraged to design subdivisions that channel truck traffic to the arterial system without passing through residential areas.

Goods Movement

- Safety
  - Hazardous Materials
- Strategies
- OTO jurisdictions should enact regulations which direct how hazardous materials are transported, including the designation of truck routes for hazardous materials.
- Local jurisdictions, MoDOT, and Emergency Management Departments, as well as other pertinent parties, should coordinate the planning efforts necessary to respond to hazardous material incidents.

Environmental Considerations

- Natural Environment
- Endangered Species
- Cultural and Historical Resources
  - Strategy - OTO, member jurisdictions, and MoDOT should be aware of these sensitive areas when planning and constructing transportation projects.
- Environmental Justice
- Air Quality
  - Strategy - When OTO updates its travel demand model, it should ensure that the model complies with needs for a regional emissions analysis to demonstrate transportation conformity.
  - The requirement that conformity must be determined within 12-months after a new non-attainment designation means that OTO should start preparing for the possibility of becoming non-attainment before it becomes a reality.

Financial Capacity and Constraint

- Revenue
  - MoDOT
  - Local
  - Private
- Strategies
  - OTO jurisdictions, who do not already have one, should explore the creation of a transportation sales tax to provide additional opportunities for matching federal funds and cost sharing on MoDOT projects.
  - Cities, counties, and MoDOT should continue to work together on inter-governmental methods of financing transportation improvements and should continue to work with the private sector to ensure that the costs of new roadway improvements are equitably shared between all benefiting parties.

Financial Capacity and Constraint

- Funding Projections

Receipts from Motor Fuel Taxes, Vehicle Sales, and Use Taxes			
Jurisdiction	2010 Distribution	2015-2035 Total Distribution	Amount Allocated to LRTP Projects
Battlefield	$89,433	$1,788,660	$894,330
Christian County	$1,276,411	$25,528,220	$2,000,000
Greene County	$3,254,899	$65,097,980	$46,900,000
Nixa	$454,625	$9,092,500	$4,546,250
Ozark	$362,418	$7,248,360	$1,500,000
Republic	$328,632	$6,572,640	$0
Springfield	$5,683,942	$113,678,840	$0
Strafford	$69,184	$1,383,680	$691,840
Willard	$122,162	$2,443,240	$1,221,620
TOTAL	$11,641,706	$232,834,120	$57,754,040

Federal Funding Source	TOTAL (2015-2035)
Safety	$30,190,756
Flexible	$148,718,865
Major Projects	$105,811,201
STP-Urban	$109,837,318
Fed Discretionary	$12,891,659
Cost Share	$64,458,293
Small Urban	$0
TOTAL	$471,908,090

Local Sales Tax/ Property Tax	Amount Generated Annually	Amount Generated 2015-2035	Amount Allocated to LRTP Projects
City of Springfield 1/8 cent	$4,287,240	$104,714,236	$51,309,975
City of Nixa 1/2 cent	$937,500	$22,898,087	$11,449,044
City of Republic 1/2 and 1/4 cent	$1,243,500	$27,229,620	$10,891,848
Greene County Sales Tax	$3,670,952	$96,772,553	$0
Christian County Property Tax	$176,667	$4,657,234	$2,328,617
TOTAL	$10,315,859	$256,271,730	$75,979,483

Financial Capacity and Constraint

- Funding Projections

Road and Bridge Funds Distributed by Greene County			
Jurisdiction	Amount Generated Annually	Amount Generated 2015-2035	Amount Allocated to LRTP Projects
City of Republic	$95,000	$950,000	$356,617
City of Battlefield			
City of Strafford			
City of Willard			
TOTAL	$95,000	$950,000	$356,617

Total Revenue from All Sources	
State and Federal	$471,908,090
Local Sales	$75,979,483
Motor Fuel and Vehicle	$57,754,040
Greene County Road and Bridge	$356,617
TOTAL REVENUE	$605,641,614

Project Prioritization Process and Selection

- Project Submissions
- Prioritization Process
  - Based on Goals
  - Economic Development – 20%
  - Multi-Modal, Interconnected System – 10%
  - Quality of Life and Livability – 10%
  - Operations and Maintenance – 35%
  - Safety and Security – 25%
- Constrained Project List = $599,713,898
- Unconstrained List = Additional $1,107,096,392

Visualizations

[redacted]

Public Comment

- 9/22, 5pm to 7pm
  - Ozark Community Center, 1530 W. Jackson
- 9/26, 5pm to 7pm
  - Springfield Library Station, 2535 N. Kansas Expressway
- 9/27, 5pm to 7pm
  - Strafford City Hall, 126 S. Washington
- 9/29, 5pm to 7pm
  - Republic Fire Station #1, 701 US Hwy 60 East
- 10/1, 10am to 12 noon
  - Springfield Library Center, 4635 S. Campbell Avenue
- 10/3, 5pm to 7pm
  - Battlefield Community Room, 5434 S. Tower Drive
- 10/4, 5pm to 7pm
  - Willard Community Center, 220 W. Jackson
- 10/6, 5pm to 7pm
  - Nixa City Hall, 715 W. Mount Ver

Public Hearing

- OTO Board of Directors Meeting
  - October 20
- Approval by TPC
  - November 16
- Adoption by Board
  - December 15

TAB 2

TECHNICAL COMMITTEE AGENDA 11/16/11; ITEM II.A.

OTO Long Range Transportation Plan (LRTP) Final Draft

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:
The Final Draft of the LRTP is available on the OTO website with the TPC Agenda – http://www.ozarkstransportation.org/Committees/Technical/TechAgendas.html

As part of the federal transportation planning requirements, the OTO is required to develop a long range transportation plan. This plan must be updated every five years. *Journey 2035* is the five year update of the Long Range Transportation Plan. *Journey 2035* serves as a blueprint that guides the OTO Metropolitan Area's transportation development over a 24-year period. The plan is based on projections of growth and travel demand coupled with financial assumptions.

The goals of the plan center around economic development, the provision of a multi-modal interconnected system, quality of life, operations and maintenance, safety and security, transportation advocacy and needs assessment. For the first time, performance measures are included to monitor the performance of the transportation system and to identify the projects that best address the needs of the system based on expected population, housing and employment growth, while taking forecast financial assumptions into account at the same time.

There are approximately $600 million available over the life of the plan. A constrained project list has been developed which takes into account funding limitations. An unconstrained project list is also included which provides a vast array of potential improvements should additional funding sources become available.

Journey 2035 was developed through an extensive public outreach process that spanned a year and a half. A community official kickoff meeting was held on April 8, 2010. This meeting was followed by meetings in various jurisdictions. The plan began to take shape through meetings of the Long Range Transportation Plan Subcommittee. The draft plan was released for public comment in September of this year. Additional meetings in various locations were held in September and October in order for the public to comment on the draft plan. Comments received from these meetings have been incorporated into the Plan.

Additions to the prior draft shared for public comment include:

- Plan Summary
- Comments from the Public Meetings
- Additional photos in the Bicycle/Pedestrian Chapter
- Project Numbers added to the Constrained Project List

TECHNICAL COMMITTEE ACTION REQUESTED:
To make a recommendation to the Board of Directors on approving the OTO Long Range Transportation Plan, Journey 2035.

Plan Summary

As part of the federal transportation planning requirements, the OTO is required to develop a long range transportation plan. This plan must be updated every five years. *Journey 2035* is the five year update of the Long Range Transportation Plan. *Journey 2035* serves as a blueprint that guides the OTO Metropolitan Area's transportation development over a 24-year period. The plan is based on projections of growth and travel demand coupled with financial assumptions.

The OTO region has grown to 310,283 people, according to the 2010 Census, from 258,335 in 2000. The region is projected to have nearly 470,000 people by 2035. This growth has a major impact on congestion in the region. As seen in Chapter 5, the region will be unable to build its way out of the congestion caused by growth. With limited funding, the region must find alternative approaches. *Journey 2035* proposes a multi-modal solution to the OTO region's transportation system, addressing transit, bicycling, and walking, in addition to the street network.

From all sources, $605 million in funding has been projected during the life of the plan. Over $1.6 billion in projects have been identified. OTO has prioritized $600 million worth of projects that are financially feasible over the next 24 years. This means there are projects, totaling $1.1 billion, with no funding source available. The funded and unfunded project lists can be found in Chapter 13.

Figure 1 - Population Change in the OTO Region, 2000-2035

Source: U.S. Census Bureau – 2000 SF1, 2010 SF1; Ozarks Transportation Organization

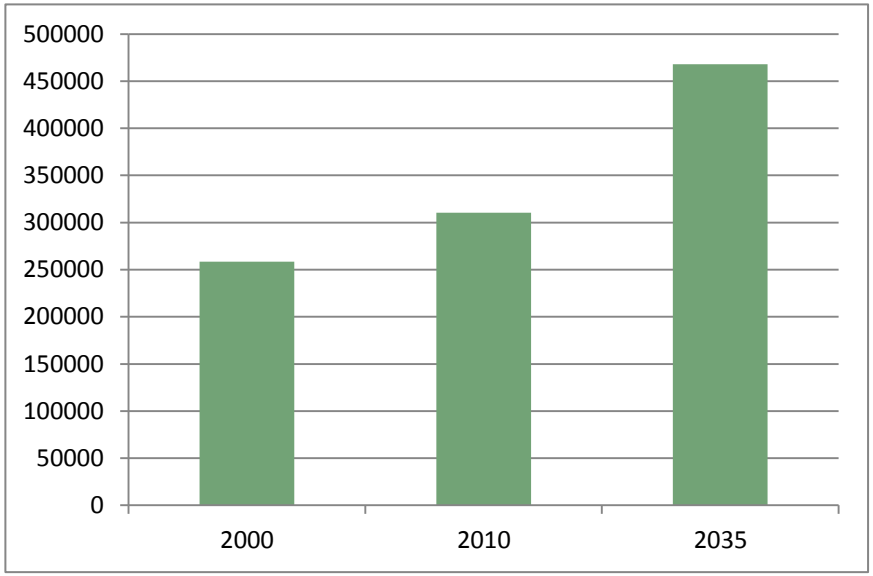


Table 1 - Financial Constraints

Total Revenue through 2035	$605,641,614
Constrained Project List	$599,713,898
Unconstrained Project List	$1,107,096,392

Public Involvement

Journey 2035 was developed through an extensive public outreach process that spanned a year and a half. A community official kickoff meeting was held on April 8, 2010. This meeting was followed by public input meetings in various jurisdictions. The plan began to take shape through meetings of the Long Range Transportation Plan Subcommittee. The draft plan was released for public comment in September of 2011 with additional meetings in various locations held in September and October in order for the public to comment on the draft plan. An additional public hearing was held in conjunction with the October 2011 Board of Directors Meeting.

Plan Goals

The goals of the plan, found in Chapter 4, center around economic development, the provision of a multi-modal interconnected system, quality of life, operations and maintenance, safety and security, transportation advocacy and needs assessment. For the first time, performance measures, also in Chapter 4, are included to monitor the performance of the transportation system and to identify the projects that best address the needs of the system based on expected population, housing and employment growth, while taking forecast financial assumptions into account at the same time.

Plan Topics

- Public Participation – Chapter 2
- Regional Trends – Chapter 3
- Goals and Performance Measures – Chapter 4
- Major Thoroughfare Plan – Chapter 5
- Public Transit – Chapter 6
- Inter-City Surface Transportation – Chapter 7
- Bicycle and Pedestrian – Chapter 8
- Aviation – Chapter 9
- Goods Movement – Chapter 10
- Environmental Considerations – Chapter 11
- Financial Capacity – Chapter 12
- Project Selection – Chapter 13

About OTO

The Ozarks Transportation Organization (OTO) is the federal designated metropolitan planning organization (MPO) that serves as a forum for cooperative transportation decision-making by state and local governments, as well as regional transportation and planning agencies. MPOs are charged with maintaining and conducting a "continuing, cooperative, and comprehensive" regional transportation planning and project programming process for the MPO's study area. The study area is defined as the area projected to become urbanized within the next 20 years.

The MPO includes local elected and appointed officials from Christian and Greene Counties, as well as the Cities of Battlefield, Nixa, Ozark, Republic, Springfield, Strafford, and Willard. It also includes technical staffs from the Missouri Department of Transportation, Federal Highway Administration, Federal Transit Administration, and the Federal Aviation Administration. Staff members from local governments and area transportation agencies serve on OTO's Technical Planning Committee which provides technical review, comments, and recommendations on draft plans, programs, studies, and issues.

Appendix D – Public Hearing Comments

Written

- I strongly recommend OTO concentrating on the improvement of Highway 14 between Nixa and Ozark. Improving Highway 14 between Nixa and Ozark will provide opportunity for economic (retail and commercial) development in Christian County.
- To me it seems Highway 14 between Ozark and Nixa makes better economical progress available than CC. Since it goes all the way across the county – good businesses on 14 could draw from Bruner – east and Billings – west.
- 20 years, ran transportation, including tour and charter. Focus on transportation to Branson. Through existing carriers, approach the Department of Economic Development, people in Springfield need jobs, venues in Branson need workers, and PSU and DOT coordination.
- We need train service and an adequate bus service. Maybe we could build another new airport instead of things we need.

Verbal

- Appreciate the bicycle and pedestrian recommendations.
- Keep trails away from farms. People litter and that harms horses.
- There should be an outer road north of I-44 between Glenstone and US 65 – continuation of Norton Road, south of the Greens apartments. This would help prevent cut-throughs.
- Nothing should happen along Farm Road 170.
- Need a bike lane on EE out to airport. There is a gap in travel for people needing to work at airport that bike.
- Farm Road 190 is a bad place for East-West arterial. Heard this both at the Battlefield end, and where Kansas Expressway extension would intersect. There should not be a stop light at new intersection of Campbell and the East-West Arterial. Trucks have difficulty with the terrain and if stopped on a hill, would dramatically impact traffic.
- Highway 14 should be addressed before CC.
- The bike racks on the buses are hard on bicycles with fenders.

TAB 3

TECHNICAL COMMITTEE AGENDA 11/16/11; ITEM II.B.

Annual Listing of Obligated Projects (ALOP)

Ozarks Transportation Organization
(Metropolitan Planning Organization)

AGENDA DESCRIPTION: Ozarks Transportation Organization is required by federal law to publish an Annual Listing of Obligated Projects:

§ 450.332 Annual listing of obligated projects. (a) In metropolitan planning areas, on an annual basis, no later than 90 calendar days following the end of the program year, the State, public transportation operator(s), and the MPO shall cooperatively develop a listing of projects (including investments in pedestrian walkways and bicycle transportation facilities) for which funds under 23 U.S.C. or 49 U.S.C. Chapter 53 were obligated in the preceding program year. (b) The listing shall be prepared in accordance with § 450.314(a) and shall include all federally funded projects authorized or revised to increase obligations in the preceding program year, and shall at a minimum include the TIP information under § 450.324(e)(1) and (4) and identify, for each project, the amount of Federal funds requested in the TIP, the Federal funding that was obligated during the preceding year, and the Federal funding remaining and available for subsequent years. (c) The listing shall be published or otherwise made available in accordance with the MPO's public participation criteria for the TIP.

Included for review and consideration is the Ozarks Transportation Organization Fiscal Year 2011 Annual Listing of Obligated Projects.

Staff is requesting each jurisdiction review the report for any inaccuracies and advise staff. Please note that this is required to be published by December 30, 2011.

TECHNICAL COMMITTEE ACTION REQUESTED: To make a recommendation to the Board of Directors regarding the Annual Listing of Obligated Projects. If recommended for approval, include the following: That staff prepare a press release pursuant to the MPO's public involvement process so that a 15-day public review period for the list can be conducted and comments received prior to the December 15th Board of Directors meeting.

FEDERAL FUNDS OBLIGATED IN OTO MPO AREA
OCTOBER 1, 2010 - SEPTEMBER 30, 2011

PROJECT NO	JOB NO	PROJECT DESCRIPTION	COUNTY	DISTRICT	PROGRAM CODE	STIP/TIP	TRANS DATE	FED FUND CHANGE	PROGRAMMED FEDERAL FUNDS
000S156	0.00	STATEWIDE, INSTALL NEW SIGNALS GATES & CIRDUIT	GREENE	8	Q260	0	3/16/11	($20,788.16)	$808,371.84
0132053	J8P0596	RT 13, GREENE and POLK CO, MO CR 490 to PINEWOOD DR N/O RTE WW TO FR 6 CONNECTOR S/O POLK CO LINE, RELOCATE NB LANES, 4.836 MI	GREENE	8	LY30	2008	1/6/11	($100,062.06)	$6,848,196.34
0132056	J8P0841	ROUTE 13, GREENE CO, AT I-44 AND KANSAS EXPRESSWAY IN SPRINGFIELD, CONSTRUCT DIVERGING DIAMOND INTERCHANGE 0.425 MI	GREENE	8	HY20	SP0806	12/28/10	$57,092.80	$2,519,409.40
0132056	J8P0841	ROUTE 13, GREENE CO, AT I-44 AND KANSAS EXPRESSWAY IN SPRINGFIELD, CONSTRUCT DIVERGING DIAMOND INTERCHANGE 0.425 MI	GREENE	8	LY20	SP0806	12/28/10	$61,390.60	$2,519,409.40
0132059	J8S2157	RTE 13, GREENE CO, BRIDGE IMPROVEMENTS OVER THE BNSF RAILWAY KANSAS AVE YARDS IN SPRINGFIELD, 0.458 MI	GREENE	8	L930	SP0911-2011	3/2/11	$507,875.29	$3,465,965.60
0132059	J8S2157	RTE 13, GREENE CO, BRIDGE IMPROVEMENTS OVER THE BNSF RAILWAY KANSAS AVE YARDS IN SPRINGFIELD, 0.458 MI	GREENE	8	LY20	SP0911-2011	3/2/11	$2,958,090.31	$3,465,965.60
0141014	J8P0588F	RT 14, CHRISTIAN CO, AT RTE 65 IN OZARK, IMPROVE CAPACITY AT RT 65 INTERCHANGE IN OZARK - 1.09 MI	CHRISTIAN	8	L05E	OK0703	5/25/11	$691,272.54	$7,163,357.87
0141014	J8P0588F	RT 14, CHRISTIAN CO, AT RTE 65 IN OZARK, IMPROVE CAPACITY AT RT 65 INTERCHANGE IN OZARK - 1.09 MI	CHRISTIAN	8	L900	OK0703	4/7/11	$577,214.55	$7,163,357.87
0141014	J8P0588F	RT 14, CHRISTIAN CO, AT RTE 65 IN OZARK, IMPROVE CAPACITY AT RT 65 INTERCHANGE IN OZARK - 1.09 MI	CHRISTIAN	8	LY30	OK0703	2/9/11	$1,123,200.00	$7,163,357.87
0141014	J8P0588F	RT 14, CHRISTIAN CO, AT RTE 65 IN OZARK, IMPROVE CAPACITY AT RT 65 INTERCHANGE IN OZARK - 1.09 MI	CHRISTIAN	8	LY30	OK0703	4/7/11	$0.17	$7,163,357.87
0141014	J8P0588F	RT 14, CHRISTIAN CO, AT RTE 65 IN OZARK, IMPROVE CAPACITY AT RT 65 INTERCHANGE IN OZARK - 1.09 MI	CHRISTIAN	SW	L05E	OK0703	7/12/2011	$480,932.64	$7,163,357.87
0442225	J8I0754	ROUTE 44, GREENE COUNTY, RESURFACE ALL LANES FROM W/O RTE 13 TO RTE H IN SPRINGFIELD, 3.3 MI	GREENE	8	LS3E	2010-SP1001	4/7/11	$171,810.00	$1,515,470.00
0442225	J8I0754	ROUTE 44, GREENE COUNTY, RESURFACE ALL LANES FROM W/O RTE 13 TO RTE H IN SPRINGFIELD, 3.3 MI	GREENE	8	LZ2E	2010-SP1001	4/7/11	$393,660.00	$1,515,470.00
0442228	J8I2172	ROUTE 44, GREENE COUNTY, BRIDGE IMPROVEMETNS ON INTERSTATE BRIDGES OVER BROADWAY, GRANT & NAT'L STS IN SPGFD, 0.2 MI	GREENE	8	LZ1E	2010-SP1014	4/7/11	$194,976.24	$974,430.00
0442228	J8I2172	ROUTE 44, GREENE COUNTY, BRIDGE IMPROVEMETNS ON INTERSTATE BRIDGES OVER BROADWAY, GRANT & NAT'L STS IN SPGFD, 0.2 MI	GREENE	8	Q010	2010-SP1014	4/7/11	$779,453.76	$974,430.00
0442234	#N/A	RTE 44, GREENE CO, PAVEMENT & PEDESTRIAN IMPROVEMENTS ON CHESTNUT EXPRESSWAY FROM KANSAS EXPRESSWAY TO GLENSTONE AVE; SPRINGFIELD	GREENE	8	L22E	SP1103-2011	3/14/11	$259,172.74	$323,874.22
0442234	#N/A	RTE 44, GREENE CO, PAVEMENT & PEDESTRIAN IMPROVEMENTS ON CHESTNUT EXPRESSWAY FROM KANSAS EXPRESSWAY TO GLENSTONE AVE; SPRINGFIELD	GREENE	8	L22E	SP1103-2011	5/24/11	$64,701.48	$323,874.22
0602061	J8P0683E	RT 60, GREENE CO--PE	GREENE	8	H170	0	3/2/11	($89,447.78)	$10,552.22
0602065	J8P0683(	RTE 60/65 GREENE CO-IMPROVE INTERCHANGE AND RAMPS AT RTE 60-65, CONSTRUCT FLYOVER RAMPS AND BRIDGES, 1.4	GREENE	8	H170	SP0626	11/8/10	$1,047,748.00	$2,887,608.00
0602065	J8P0683(	RTE 60/65 GREENE CO-IMPROVE INTERCHANGE AND RAMPS AT RTE 60-65, CONSTRUCT FLYOVER RAMPS AND BRIDGES, 1.4	GREENE	SW	L24E	SP0626	9/26/2011	$5,259,105.42	$8,146,713.42
0602066	J8P0898	RTE 60, GREENE CO - REBUILD AND WIDEN WB BRIDGE AND WIDEN AND STRENTHEN EB BRIDGE RT 60 OVER JAMES RIVER SE SPRINGFIELD	GREENE	8	L05E	SP0902	5/25/11	$2,897,140.00	$6,254,640.00
0651052	J8P0893	RTE 65, CHRISTIAN CO, PAVEMENT IMPROVEMENT FROM OZARKS TRANSPORTATION ORGANIZATION BOUNDARY TO RTE EE, 2.82 MI	CHRISTIAN	8	LZ2E	2010	2/15/11	$510,860.00	$843,380.00
0652048	J8U0548I	RT 65 INTERCHANGE AT I-44, GREENE CO--PE & GRADE, PAVE, BR & RETAINING WALLS	GREENE	8	HY10	0	10/26/10	($166,134.42)	$23,996,521.81
0652048	J8U0548I	RT 65 INTERCHANGE AT I-44, GREENE CO--PE & GRADE, PAVE, BR & RETAINING WALLS	GREENE	8	LZ2E	0	10/26/10	($424,975.77)	$23,996,521.81
0652056	J8P0591	RT 65 FM 0.2m N/O RT EE TO RT 125, GREENE CO--GRADING, DRAINAGE, BRS & ALT PVMT	GREENE	8	LY20	0	6/1/11	$12,607.05	$16,774,180.59
0652067	J8P0880	RTE 65, GREEN CO, PAVEMENT IMPROVEMENT FROM RTE 60 TO THE OZARKS TRANSPORTATION ORGANIZATION BOUNDARY, 9.539 MI	GREENE	8	L05E	2010 - GR0902	2/15/11	$1,036,060.00	$3,387,590.00
0652067	J8P0880	RTE 65, GREEN CO, PAVEMENT IMPROVEMENT FROM RTE 60 TO THE OZARKS TRANSPORTATION ORGANIZATION BOUNDARY, 9.539 MI	GREENE	8	LS3E	2010 - GR0902	1/24/11	$122,130.00	$3,387,590.00
0652069	J8S2150	RTE 65, GREENE CO, PEDESTRIAN ACCOMMODATIONS ON BUS 65/LOOP 44 (GLENSTONE AVE), 1.296 MI	GREENE	8	L220	EN0809-2011	10/29/10	$58,000.00	$164,000.00
0652069	J8S2150	RTE 65, GREENE CO, PEDESTRIAN ACCOMMODATIONS ON BUS 65/LOOP 44 (GLENSTONE AVE), 1.296 MI	GREENE	8	L230	EN0809-2011	10/29/10	$106,000.00	$164,000.00
2661009	J8S0795	AIRPORT BLVD, SPGFD/BRANSON NAT'L AIRPORT, GREENE CO--CONSTRUCT RDWY CONNECT TO SERVE MIDFIELD TERM & SPGFD/BRANSON NAT'L AIRPORT	GREENE	8	H230	0	10/19/10	$59,268.28	$4,556,444.76
2661009	J8S0795	AIRPORT BLVD, SPGFD/BRANSON NAT'L AIRPORT, GREENE CO--CONSTRUCT RDWY CONNECT TO SERVE MIDFIELD TERM & SPGFD/BRANSON NAT'L AIRPORT	GREENE	8	H230	0	1/3/11	$43,205.64	$4,556,444.76
2661009	J8S0795	AIRPORT BLVD, SPGFD/BRANSON NAT'L AIRPORT, GREENE CO--CONSTRUCT RDWY CONNECT TO SERVE MIDFIELD TERM & SPGFD/BRANSON NAT'L AIRPORT	GREENE	8	H230	0	2/15/11	($0.15)	$4,556,444.76
2661009	J8S0795	AIRPORT BLVD, SPGFD/BRANSON NAT'L AIRPORT, GREENE CO--CONSTRUCT RDWY CONNECT TO SERVE MIDFIELD TERM & SPGFD/BRANSON NAT'L AIRPORT	GREENE	8	H660	0	2/15/11	($39,094.81)	$4,556,444.76
2661011	J8S0851	RT 266 AT THE I-44 INTERCHANGE 7 BETWEEN I-44 & FARM RD 107, GREENE CO--PVMT, BR, HWY LIGHTING	GREENE	8	L200	0	1/24/11	$208,389.13	$6,389,816.40
2661011	J8S0851	RT 266 AT THE I-44 INTERCHANGE 7 BETWEEN I-44 & FARM RD 107, GREENE CO--PVMT, BR, HWY LIGHTING	GREENE	8	L20E	0	1/24/11	$222,678.07	$6,389,816.40
5900837	0.00	SPRINGFIELD--NORTH SOUTH CORRIDOR STUDY	GREENE	8	Q200	0	2/25/11	($14.67)	$184,209.33
5900839	0.00	CITY OF SPRINGFIELD; GREENE COUNTY, BOONEVILLE AVE, STREETSCAPE PHASE I NORTH	GREENE	8	L220	EN0702; 2009 TIP	2/21/11	($7,568.78)	$184,931.22
5900840	0.00	ST LOUIS ST, SPRINGFIELD--STREETSCAPE PHASE I	GREENE	8	H220	EN0706-2009	10/20/10	$4,717.10	$108,740.60
5900840	0	ST LOUIS ST, SPRINGFIELD--STREETSCAPE PHASE I	GREENE	SW	H220	EN0706-2009	7/20/2011	$890.00	$108,740.60
5900842	0	WALNUT ST, SPRINGFIELD--STREETSCAPE PHASE 2	GREENE	SW	L220	EN0709-2009 TIP	7/20/2011	$16,819.30	$117,142.46
5900844	0.00	WILSON CRK PHASE III, SPRINGFIELD--BIKE TRAIL & PED SYS IMPROVEMENTS	GREENE	8	L220	EN0711 2009	5/5/11	$264,559.15	$274,912.00
5900844	0.00	WILSON CRK PHASE III, SPRINGFIELD--BIKE TRAIL & PED SYS IMPROVEMENTS	GREENE	8	L220	EN0711 2009	6/28/11	($16,124.00)	$274,912.00
5900845	0	GREENE COUNTY, SPRINGFIELD/GREENE COUNTY BICYCLE DESTINATION PLAN - PHASE I.	GREENE	SW	L23R	EN1002-2011	7/12/2011	$40,033.84	$40,033.84
5910808	#N/A	CITY OF SPRINGFIELD, WALNUT STREET STREETSCAPE 3 - BETWEEN KIMBROUGH EAST TO J. Q HAMMONS PKWY.	GREENE	8	L22E	EN0802	6/29/11	$445,850.00	$445,850.00
5938801	#N/A	CITY OF SPRINGFIELD, SALARIES OF ENGINEERS THAT OPERATE AND MANAGE THE TRANPORTATION MANAGEMENT CENTER FOR CITY OF SPRINGFIELD.	GREENE	8	L20E	0	4/18/11	$279,307.20	$276,000.00
5938801	#N/A	CITY OF SPRINGFIELD, SALARIES OF ENGINEERS THAT OPERATE AND MANAGE THE TRANPORTATION MANAGEMENT CENTER FOR CITY OF SPRINGFIELD.	GREENE	8	L20E	0	5/9/11	($279,307.20)	$276,000.00
5938801	#N/A	CITY OF SPRINGFIELD, SALARIES OF ENGINEERS THAT OPERATE AND MANAGE THE TRANPORTATION MANAGEMENT CENTER FOR CITY OF SPRINGFIELD.	GREENE	8	L230	0	5/9/11	$276,000.00	$276,000.00
6900805	0.00	E ELM ST, REPUBLIC--SIDEWALKS PHASE 2	GREENE	8	H220	0	2/25/11	($163.61)	$59,685.39
6900806	0	CITY OF REPUBLIC--NORTH HAMPTON AVENUE SIDEWALKS	GREENE	SW	L220	EN811, 2010 TIP	8/2/2011	($2,220.46)	$63,586.76
7441003	J8S0919	RT 744, GREENE CO, WIDEN TO FIVE LANES BETWEEN RTE 65 AND LECOMPTE AVENUE, 0.557 MI	GREENE	8	LZ1E	SP0809	4/18/11	$10,854.41	$1,955,422.81
9900819	0.00	S DRY SAC GREENWAY PHASE II, GREENE CO--BUILD TRAIL; LOCATED N. SPRINGFIELD BTWN LOST HILL NATURAL RESOURCES PARK & TRUMAN SCHOOL	GREENE	8	L220	EN0607; 2009 TIP	12/16/10	($91.35)	$120,377.07

FEDERAL FUNDS OBLIGATED IN OTO MPO AREA
OCTOBER 1, 2010 - SEPTEMBER 30, 2011

PROJECT NO	JOB NO	PROJECT DESCRIPTION	COUNTY	DISTRICT	PROGRAM CODE	STIP/TIP	TRANS DATE	FED FUND CHANGE	PROGRAMMED FEDERAL FUNDS
9900820	0.00	GREENE COUNTY, FASSNIGHT CRK GREENWAY TRAIL, CAMPBELL STREET TO THE EAST AND THE SPRINGFIELD SKATE PARK WEST OF GRANT ST.	GREENE	8	L220	EN0606-2010 TIP	3/14/11	$190,664.00	$173,061.78
9900820	0.00	GREENE COUNTY, FASSNIGHT CRK GREENWAY TRAIL, CAMPBELL STREET TO THE EAST AND THE SPRINGFIELD SKATE PARK WEST OF GRANT ST.	GREENE	8	L220	EN0606-2010 TIP	6/21/11	($22,138.22)	$173,061.78
9900824	0.00	HWY 14 (THIRD ST), OZARK--STREETSCAPE FOR 3RD STREET PROJECT INCLUDING JACKSON & CHURCH STREET INTERSECTIONS	CHRISTIAN	8	L230	0	5/25/11	$72,962.40	$261,955.20
9900848	0.00	WILLARD SCHOOL DISTRICT -- SIDEWALK PROJECT	GREENE	8	L220	EN0803-2008	11/22/10	$3,866.32	$105,645.11
9900848	0.00	WILLARD SCHOOL DISTRICT -- SIDEWALK PROJECT	GREENE	8	L220	EN0803-2008	6/14/11	($7,127.43)	$105,645.11
9900849	0.00	CITY OF WILLARD -- SIDEWALK PROJECT	GREENE	8	L220	EN0804-2008	1/6/11	($6,864.98)	$73,299.24
9900850	0.00	CITY OF OZARK--SIDEWALK PROJECT PHASE 2; ALONG JACKSON FROM OZARK SCHOOL TO THE COMMUNITY CENTER	CHRISTIAN	8	L220	EN0805	10/18/10	$5,262.60	$87,848.85
9900850	0.00	CITY OF OZARK--SIDEWALK PROJECT PHASE 2; ALONG JACKSON FROM OZARK SCHOOL TO THE COMMUNITY CENTER	CHRISTIAN	8	L220	EN0805	2/25/11	($1,999.90)	$87,848.85
9900861	0.00	CITY OF NIXA--STREET WIDENING, GRADING AND STORM SEWER IMPROVEMENTS ON NORTHVIEW ROAD.	CHRISTIAN	8	L230	NX0905; 2010 TIP	10/20/10	$89,798.40	$107,184.50
9900864	#N/A	OZARK GREENWAY - PHASE 2 SAFETY & EDUCATION INITIATIVE IN THE OZARK TRANSPORTATION ORGANIZATION REGION.	GREENE	8	L220	EN0906	12/23/10	$73,000.00	$73,000.00
9900866	0	CITY OF BATTLEFIELD--700LF OF NEW SIDEWALK ALONG ELM STREET FROM CLOVERDALE LANE WEST TO TOWER DRIVE	GREENE	SW	L24E	EN1103 - 2010	8/30/2011	$16,640.00	$18,638.24
9900867	0	CITY OF BATTLEFIELD--325 LF OF NEW SIDEWALK ALONG CLOVERDALE LANE TO TIE TWO SECTIONS OF EXISTING SIDEWALKS	GREENE	SW	L24E	EN1104; 2010 TIP	8/29/2011	$8,000.00	$8,795.68
9900869	#N/A	ROUTE 14 & GREGG ROAD INTERSECTION IMPROVEMENTS, CITY OF NIXA.	CHRISTIAN	8	H230	NX0901; 2011	3/11/11	$54,780.00	$54,780.00
9900882	#N/A	CHRISTIAN COUNTY, SIDEWALK IMPROVEMENTS TO NICHOLAS (ROUTE M), BUTTERFIELD AND VERNA LANE IN THE CITY OF NIXA, MO.	CHRISTIAN	8	L22E	0	4/1/11	$11,984.74	$0.00
9900882	0	CHRISTIAN COUNTY, SIDEWALK IMPROVEMENTS TO NICHOLAS (ROUTE M), BUTTERFIELD AND VERNA LANE IN THE CITY OF NIXA, MO.	CHRISTIAN	SW	L22E	0	7/26/2011	($11,984.74)	$0.00
9900883	#N/A	CHRISTIAN COUNTY, SIDEWALK ON HWY 14 @ COMMUNITY CENTER IN THE CITY OF OZARK.	CHRISTIAN	8	L22E	0	3/17/11	$4,657.22	$4,657.22
9900884	#N/A	CITY OF REPUBLIC, SIDEWALKS ON THE NORTH SIDE OF ELM STREET FROM MAIN STREET TO SHERMAN AVENUE.	GREENE	8	L22E	0	4/27/11	$17,497.94	$17,497.94
9900890	#N/A	SIDEWALK ENHANCEMENT: CHESTNUT/WASHINGTON/BUMGARNER STREETS IN CITY OF STRAFFORD, GREENE COUNTY	GREENE	8	L220	0	2/22/11	$16,000.00	$16,000.00
B039027	0.00	GREENE COUNTY; NON STATE BRIDGE REPLACEMENT PROGRAM OVER CLEAR CREEK ON COUNTY ROAD 97.	GREENE	8	L110	2009 TIP GR0804	1/3/11	($6,839.20)	$171,945.80
ES08006	ARRA	ARRA CITY OF OZARK CURRENT & PROJECTED TRAFFIC STUDY FROM JACKSON TO CHURCH ON 3RD ST.	CHRISTIAN	SW	L230	OK0912 2009	7/13/2011	($17.39)	$19,992.21
H108504	0.00	SAFE RTS TO SCHOOL, WILLARD SCHOOL DIST--BICYCLE SAFETY TRAINING PROG	GREENE	8	HU30	0	1/20/11	($19.84)	$13,964.16
H288502	0.00	CITY OF SPRINGFIELD--SAFETY EDUCATION PROGRAM WITH BOWERMAN, COWDEN, PITTMAN AND WESTPORT ELEMENTARY	GREENE	8	LU1E	EN0819-2010 TIP	4/18/11	$24,799.00	$24,799.00
H288502	0.00	CITY OF SPRINGFIELD--SAFETY EDUCATION PROGRAM WITH BOWERMAN, COWDEN, PITTMAN AND WESTPORT ELEMENTARY	GREENE	8	LU20	EN0819-2010 TIP	4/18/11	($24,799.00)	$24,799.00
H308505	#N/A	OZARK REGIONAL YMCA--WALKING SCHOOL BUS PROGRAM AT DELAWARE, JEFFRIES, ROUNTREE, WEAVER AND WILLIAMS ELEMENTRIES IN SPRINGFIELD	GREENE	8	LU10	EN1006; 2010 TIP	12/22/10	$20,812.00	$20,812.00
NBI9761	#N/A	2011 UNDERWATER BRIDGE INSP ON NON FED AID ROUTES IN KANSAS CITY, CHRISTIAN, GREENE, LACLEDE & MCDONALD COUNTIES	CHRISTIAN	8	L110	0	6/1/11	$6,153.74	$32,839.73
NBI9761	#N/A	2011 UNDERWATER BRIDGE INSP ON NON FED AID ROUTES IN KANSAS CITY, CHRISTIAN, GREENE, LACLEDE & MCDONALD COUNTIES	CHRISTIAN	8	Q110	0	6/1/11	$26,685.99	$32,839.73
RT04003	0	FY 2004 PROJ FUNDS	CHRISTIAN	SW	H940	0	9/20/2011	($34,776.02)	$1,119,670.08
RT07003	0	FY 2007 RTP Project Grants	CHRISTIAN	SW	L940	0	9/20/2011	($34,511.23)	$1,062,081.77
S758006	J8S2282	RTE 174, GREENE CO, PAVEMENT IMPROVEMENTS FROM COUNTY RD 59 TO W/O THE BNSF RAILWAY IN REPUBLIC, 3.456 MI	GREENE	8	L20E	RP1005 2011	6/9/11	$352,186.66	$412,186.66
S944007	J8S2195	ROUTE D, GREENE COUNTY, HYDRO DEMOLITION & LOW SLUMP OVERLAY ON BRIDGES OVER BNSF RAILWAY & PEARSON CREEK EAST OF SPRGFD, 0.067 MI	GREENE	8	L24E	2010 GR0907	6/9/11	$682,511.17	$682,511.17
S947010	J8S0724	RT H, GREENE CO--ROW AND FROM NORTH OF VALLEY WATER MILL RD TO I-44, REPLACE BRIDGES, WIDEN	GREENE	8	L03E	SP0703	1/23/11	$78,046.56	$7,635,974.20
S947010	J8S0724	RT H, GREENE CO--ROW AND FROM NORTH OF VALLEY WATER MILL RD TO I-44, REPLACE BRIDGES, WIDEN	GREENE	8	LZ1E	SP0703	1/23/11	$157,051.84	$7,635,974.20
S959003	J8S2233	RTE FF, GREENE CO, PAVEMENT IMPROVEMENTS FROM S/O WEAVER RD TO END OF ROUTE, 2.976 MI	GREENE	8	L230	BA1001-2011	12/10/10	($35,578.89)	$119,920.00
S959003	J8S2233	RTE FF, GREENE CO, PAVEMENT IMPROVEMENTS FROM S/O WEAVER RD TO END OF ROUTE, 2.976 MI	GREENE	8	L25E	BA1001-2011	6/9/11	$85,498.89	$119,920.00
S965007	J8B0802E	SS PROJ; BRIDGE REHAB#1, GREENE CO, RTE 125 OVER JAMES RIVER, 0.079 MI	GREENE	8	L1CE	GR1002-2010	6/3/11	$1,091,338.46	$1,091,338.46

TAB 4

TECHNICAL COMMITTEE AGENDA 11/16/11; ITEM II.C.

Amendment Number One to the FY 2012-2015 Transportation Improvement Program

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION:

There are three items included as part of TIP Amendment Number One to the FY 2012-2015 Transportation Improvement Program.

Two items are streetscape improvements on South Campbell Avenue. The first project is for improvements from Mt. Vernon Street to Walnut Street. The second project is for improvements from Walnut Street to McDaniel Street. A third item is a streetscape improvement along Boonville Avenue from Chestnut Expressway to Tampa Street. All are funded utilizing prior year federal enhancement funding and local match dollars.

These projects appeared in prior years transportation improvement programs but were unable to be obligated by September 30, 2011. Therefore the request is to add them to the current transportation improvement program.

TECHNICAL PLANNING COMMITTEE ACTION REQUESTED:

To make a recommendation to the Board of Directors on approving Amendment Number One to the FY 2012-2015 TIP. If recommended for approval, include the following: That staff prepare a press release pursuant to the MPO's public involvement process so that a 15-day public review period for the list can be conducted and comments received prior to the December 15th Board of Directors meeting.

ENHANCEMENTS CITY OF SPRINGFIELD		Funding	2012	2013	2014	2015	TOTALS
Project Title:	**CAMPBELL AVENUE STREETSCAPE**	ENG FHWA(ENH)	$ -	$ -	$ -	$ -	$ -
		ENG MoDOT	$ -	$ -	$ -	$ -	$ -
MoDOT #		ENG Local	$ -	$ -	$ -	$ -	$ -
TIP #	**EN0817**	ENG Other	$ -	$ -	$ -	$ -	$ -
Description:	Streetscape improvements on Campbell Avenue between Mt. Vernon and Walnut Streets.	ROW FHWA(ENH)	$ -	$ -	$ -	$ -	$ -
		ROW MoDOT	$ -	$ -	$ -	$ -	$ -
		ROW Local	$ -	$ -	$ -	$ -	$ -
		ROW Other	$ -	$ -	$ -	$ -	$ -
Federal Source Agency	FHWA	CON FHWA(ENH)	$ 364,800	$ -	$ -	$ -	$ 364,800
Federal Funding Category	Enhancement	CON MoDOT	$ -	$ -	$ -	$ -	$ -
MoDOT Funding Category	N/A	CON Local	$ 91,200	$ -	$ -	$ -	$ 91,200
Work or Fund Category	Construction	CON Other	$ -	$ -	$ -	$ -	$ -
Total Project Cost	$491,000	TOTAL					
Source of Local Funds: 1/4 cent sales tax		**TOTAL**	**$ 456,000**				**$ 456,000**

ENHANCEMENTS CITY OF SPRINGFIELD		Funding	2012	2013	2014	2015	TOTALS
Project Title:	**COLLEGE STATION PHASE IV**	ENG FHWA(ENH)	$ -	$ -	$ -	$ -	$ -
		ENG MoDOT	$ -	$ -	$ -	$ -	$ -
MoDOT #		ENG Local	$ -	$ -	$ -	$ -	$ -
TIP #	**EN0818**	ENG Other	$ -	$ -	$ -	$ -	$ -
Description:	Streetscape improvements on Campbell Avenue between McDaniel and Walnut Streets and on Walnut between Market and Main Avenues.	ROW FHWA(ENH)	$ -	$ -	$ -	$ -	$ -
		ROW MoDOT	$ -	$ -	$ -	$ -	$ -
		ROW Local	$ -	$ -	$ -	$ -	$ -
		ROW Other	$ -	$ -	$ -	$ -	$ -
Federal Source Agency	FHWA	CON FHWA(ENH)	$ 268,800	$ -	$ -	$ -	$ 268,800
Federal Funding Category	Enhancement	CON MoDOT	$ -	$ -	$ -	$ -	$ -
MoDOT Funding Category	N/A	CON Local	$ 67,200	$ -	$ -	$ -	$ 67,200
Work or Fund Category	Construction	CON Other(STP-U)	$ -	$ -	$ -	$ -	$ -
Total Project Cost	$370,000	TOTAL					
Source of Local Funds: 1/4 cent sales tax		**TOTAL**	**$ 336,000**	**$ -**	**$ -**	**$ -**	**$ 336,000**

ENHANCEMENTS CITY OF SPRINGFIELD		Funding	2012	2013	2014	2015	TOTALS
Project Title:	**BOONVILLE AVENUE STREETSCAPE PHASE IV**	ENG FHWA(ENH)	$ -	$ -	$ -	$ -	$ -
		ENG MoDOT	$ -	$ -	$ -	$ -	$ -
MoDOT #		ENG Local	$ -	$ -	$ -	$ -	$ -
TIP #	**EN0808**	ENG Other	$ -	$ -	$ -	$ -	$ -
Description:	Streetscape improvements on Boonville Avenue from Chestnut Expressway to Tampa Street.	ROW FHWA(ENH)	$ -	$ -	$ -	$ -	$ -
		ROW MoDOT	$ -	$ -	$ -	$ -	$ -
		ROW Local	$ -	$ -	$ -	$ -	$ -
		ROW Other	$ -	$ -	$ -	$ -	$ -
Federal Source Agency	FHWA	CON FHWA(ENH)	$ 489,600	$ -	$ -	$ -	$ 489,600
Federal Funding Category	Enhancement	CON MoDOT	$ -	$ -	$ -	$ -	$ -
MoDOT Funding Category	N/A	CON Local	$ 122,400	$ -	$ -	$ -	$ 122,400
Work or Fund Category	Construction	CON Other	$ -	$ -	$ -	$ -	$ -
Total Project Cost	$682,000	TOTAL					
Source of Local Funds: 1/4 cent sales tax		**TOTAL**	**$ 612,000**	**$ -**	**$ -**	**$ -**	**$ 612,000**

FINANCIAL SUMMARY

- Bicycle and Pedestrian -

YEARLY SUMMARY

FY2012

PROJECT	Federal Funding Source					MoDOT	Local	Other	TOTAL
	Enhancement	SRTS	RTP	STP-U	STP				
EN0707	$ 227,916						$ 65,584		$ 293,500
EN0808	$ 489,600						$ 122,400		$ 612,000
EN0817	$ 364,800						$ 91,200		$ 456,000
EN0818	$ 268,800						$ 67,200		$ 336,000
EN1002				$ 50,000			$ 12,500		$ 62,500
EN1101						$ 3,000			$ 3,000
EN1102						$ 502,000			$ 502,000
EN1104				$ 8,000			$ 2,000		$ 10,000
EN1105				$ 1,920			$ 480		$ 2,400
EN1108	$ 147,232						$ 36,808		$ 184,040
EN1109	$ 353,395						$ 88,349		$ 441,744
EN1110	$ 256,000						$ 58,720	$ 5,280	$ 320,000
EN1111	$ 200,000						$ 47,500	$ 2,500	$ 250,000
EN1112	$ 219,840						$ 130,160		$ 350,000
EN1113	$ 216,000						$ 54,000		$ 270,000
EN1114	$ 199,967						$ 24,992	$ 25,000	$ 249,959
TOTAL	$ 2,943,550	$ -	$ -	$ 59,920	$ -	$ 505,000	$ 801,893	$ 32,780	$ 4,343,143

FY2013

PROJECT	Federal Funding Source					MoDOT	Local	Other	TOTAL
	Enhancement	SRTS	RTP	STP-U	STP				
EN1101	$ 543,444					$ 252,383	$ 222,583		
TOTAL	$ 543,444	$ -	$ -	$ -	$ -	$ 252,383	$ 222,583	$ -	$ 1,018,410

FY2014

PROJECT	Federal Funding Source					MoDOT	Local	Other	TOTAL
	Enhancement	SRTS	RTP	STP-U	STP				
None									$ -
TOTAL	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

FY2015

PROJECT	Federal Funding Source					MoDOT	Local	Other	TOTAL
	Enhancement	SRTS	RTP	STP-U	STP				
EN1102	$ 401,600					$ (401,600)			$ -
TOTAL	$ 401,600	$ -	$ -	$ -	$ -	$ (401,600)	$ -	$ -	$ -

	Federal Funding Source					MoDOT	Local	Other	TOTAL
	Enhancement	SRTS	RTP	STP-U	STP				
TOTAL PROGRAM	$ 3,486,994	$ -	-	59,920.00	$ -	$ 355,783	$ 1,024,476	$ 32,780	$ 4,959,953

FINANCIAL SUMMARY

- Bicycle and Pedestrian -

FINANCIAL CONSTRAINTS

	Funding Source								
	Enhancement	**SRTS**	**RTP**	**STP-U**	**STP**	**MoDOT**	**Local**	**Other**	**TOTAL**
PRIOR YEAR									
Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
2012									
Funds Anticipated	$ 2,943,550	$ -	$ -	$ 59,920	$ -	$ 505,000	$ 801,893	$ 32,780	4,343,143
Funds Programmed	$ (2,943,550)	$ -	$ -	$ (59,920)	$ -	$ (505,000)	$ (801,893)	$ (32,780)	$ (4,343,143)
Running Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
2013									
Funds Anticipated	$ 543,444	$ -	$ -	$ -	$ -	$ 252,383	$ 222,583	$ -	1,018,410
Funds Programmed	$ (543,444)	$ -	$ -	$ -	$ -	$ (252,383)	$ (222,583)	$ -	$ (1,018,410)
Running Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	$0
2014									
Funds Anticipated	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	0
Funds Programmed	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	0
Running Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	$0
2015									
Funds Anticipated	$ 401,600	$ -	$ -	$ -	$ -	$ (401,600)	$ -	$ -	0
Funds Programmed	$ (401,600)	$ -	$ -	$ -	$ -	$ 401,600	$ -	$ -	0
Running Balance	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	$0

TAB 5

TECHNICAL COMMITTEE AGENDA 11/16/11; ITEM II.D.

TECHNICAL COMMITTEE CHAIR ROTATION APPOINTMENT

Ozarks Transportation Organization
(Metropolitan Planning Organization)

AGENDA DESCRIPTION: In 2003, the Technical Committee voted to establish a rotation schedule for the chairmanship of the Technical Committee. This rotation, as shown below has been followed since. The Chairman-Elect serves as the chair in absence of the Chairman.

TECHNICAL COMMITTEE CHAIR ROTATION SCHEDULE

Year	**Jurisdiction**	
2008	Ozark	Steve Childers
2009	*Strafford*	*declined*
2009	Springfield	Harry Price
2010	Willard	Pat Lloyd
2011	Republic	David Brock
2012	**Christian County**	**Todd Wiesehan, Chairman**
2013	**Battlefield**	**Rick Hess, Chairman-Elect**
2014	Nixa	
2015	Greene County	

TECHNICAL COMMITTEE ACTION REQUESTED: To make a motion to elect the Chairman and Chairman-Elect positions for the 2012 Technical Planning Committee as shown above.

TAB 6

Technical Planning Committee

Meeting Schedule

Meetings are held the third Wednesday every other month from 1:30 to 3:30 P.M.

- **January 18, 2012**
- **March 21, 2012**
- **May 16, 2012**
- **July 18, 2012**
- **September 19, 2012**
- **November 21, 2012**

Meetings will be held in the Ozarks Transportation Organization's Conference Room:

205 Park Central East, Suite 212
Springfield, MO 65806

Please provide request for agenda items 2 weeks prior to meeting date.

TAB 7

AASHTO Journal
Weekly Transportation Report

November 4, 2011

Senate Passes FY 2012 Transportation Bill; Maintains Current Funding

Fiscal Year 2012 appropriations for federal transportation programs are now before a House/Senate conference committee after the Senate passed a three-bill spending package Tuesday. The House declined to accept the Senate version Thursday and both chambers appointed conferees to negotiate a final version.

Senators passed the appropriations package 69-30 after rejecting two transportation-related amendments. An attempt by Sen. Rand Paul, R-Kentucky, to reallocate 10% of the amounts appropriated for capital investments in surface transportation infrastructure from transportation enhancement activities to the highway bridge program was rejected 60-38. Senators voted 57-41 to turn down an amendment from Sen. Tom Coburn, R-Oklahoma, to eliminate funding for the Small Community Air Service Development Program.

The $182 billion appropriations bill, HR 2112, contains FY 2012 spending from three subcommittees: transportation and housing; commerce, justice, and science; and agriculture, food, and drugs.

Congress has yet to pass any of the dozen regular appropriations bill for the federal fiscal year that began Oct. 1. A continuing resolution keeping government agencies operating at last year's funding levels, minus a small reduction, is in effect until Nov. 18.

The transportation spending component approved by the Senate would maintain highway and transit funding at current levels -- a contrast to a measure approved by the House transportation appropriations subcommittee that would reduce funding 34%. The full House Appropriations Committee has not considered that bill. This is among the numerous issues the conference committee must resolve.

The Senate version includes a $41.1 billion FY 2012 obligation limitation for highway projects and $8.3 billion for transit from the Highway Trust Fund. Additional funding is provided by the General Fund. Both amounts continue FY 2011 levels. The House version (only approved at the subcommittee level) includes $27 billion for highways and $5.2 billion for transit.

Democrats won a rare victory Thursday in the House of Representatives when the chamber approved a motion from Rep. Norm Dicks, D-Washington state and ranking minority member of the House Appropriations Committee, to instruct conferees. The 265-160 vote approved instructions requiring House conferees to insist on the highest level of funding for the Federal Highway Administration's Emergency Relief Program and the Community Oriented Policing Services program.

A provision in the Senate's transportation appropriations bill would lift a cap on payments to states for emergency repair of highways. Vermont is among the states that would benefit; it is saddled with $600 million in road repair costs from Tropical Storm Irene.

The House appointed the following conferees: Reps. Rogers (KY), Young (FL), Lewis (CA), Wolf, Kingston, Latham, Aderholt, Emerson, Culberson, Carter, Bonner, LaTourette, Dicks, DeLauro, Olver,

Pastor (AZ), Price (NC), Farr, Fattah, and Schiff. The Senate's conferees are Sens. Kohl, Harkin, Feinstein, Johnson (SD), Nelson (NE), Pryor, Brown (OH), Inouye, Murray, Mikulski, Blunt, Cochran, McConnell, Collins, Moran, Hoeven, Hutchison, and Shelby.

Questions regarding this article may be directed to editor@aashtojournal.org.

AASHTO Journal
Weekly Transportation Report

November 7, 2011

Senate EPW Committee Releases Full Text of 2-Year Reauthorization Bill

Leadership of the Senate Environment and Public Works Committee released Friday night the full text of a 600-page surface transportation reauthorization bill that will be marked up Wednesday morning.

The two-year legislation -- dubbed "MAP-21" for "Moving Ahead for Progress in the 21st Century" -- maintains funding at current levels; reforms the nation's transportation programs to make them more efficient; and provides robust assistance for transportation projects under the Transportation Infrastructure Finance and Innovation Act program to leverage state, local, and private-sector funding, according to a committee summary.

"We are happy to see the process has begun to put in place a long-term surface transportation authorization," said John Horsley, executive director of the American Association of State Highway and Transportation Officials. "We look forward to seeing the markup this week in committee. Meanwhile, we are reviewing the draft legislation and we look forward to working with the committee to craft the kind of robust, flexible legislation that will help states build and maintain a transportation system that meets our nation's needs in the 21st century."

MAP-21 was introduced by Senate EPW Committee Chairwoman Barbara Boxer, D-California; Sen. James Inhofe, R-Oklahoma and the committee's ranking minority member; Sen. Max Baucus, D-Montana and chairman of the Transportation and Infrastructure Subcommittee; and Sen. David Vitter, R-Louisiana and ranking minority member of the subcommittee. The bill will be marked up in the EPW Committee at 10 a.m. EST Wednesday, Nov. 9.

A four-page summary of the bill is available at 1.usa.gov/SEPWC4. The full text of the 600-page measure is available at 1.usa.gov/SEPWC600.

Questions regarding this article may be directed to editor@aashtojournal.org.

SUMMARY OF MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY (MAP-21)

Bill Highlights

- Moving Ahead for Progress in the 21st Century (MAP-21) reauthorizes the Federal-aid highway program at the Congressional Budget Office's baseline level—equal to current funding levels plus inflation—for two fiscal years.
- MAP-21 consolidates the number of Federal programs by two-thirds, from about 90 programs down to less than 30, to focus resources on key national goals and reduce duplicative programs.
- Eliminates earmarks.
- Expedites project delivery while protecting the environment.
- Creates a new title called "America Fast Forward," which strengthens the Transportation Infrastructure Finance and Innovation Program (TIFIA) program to leverage federal dollars further than they have been stretched before.
- Consolidates certain programs into a focused freight program to improve the movement of goods.

Authorizations and Programs

MAP-21 continues to provide the majority of Federal-aid highway funds to the states through core programs. However, the core highway programs have been reduced from seven to five, as follows:

- **National Highway Performance Program [New core program] –** This section consolidates existing programs (the Interstate Maintenance, National Highway System, and Highway Bridge programs) to create a single new program, which will provide increased flexibility, while guiding state and local investments to maintain and improve the conditions and performance of the National Highway System (NHS). This program will eliminate the barriers between existing programs that limit states' flexibility to address the most vital needs for highways and bridges and holds states accountable for improving outcomes and using tax dollars efficiently.

- **Transportation Mobility Program [New core program] –** This program replaces the current Surface Transportation Program, but retains the same structure, goals and flexibility to allow states and metropolitan areas to invest in the projects that fit their unique needs and priorities. It also gives a broad eligibility of surface transportation projects that can be constructed. Activities that previously received dedicated funding in SAFETEA-LU, but are being consolidated under MAP-21, will be retained as eligible activities under the Transportation Mobility Program.

- **National Freight Network Program [New core program] –** Our nation's economic health depends on a transportation system that provides for reliable and timely goods movements.

Unfortunately, the condition and capacity of the highway system has failed to keep up with the growth in freight movement and is hampering the ability of businesses to efficiently transport goods due to congestion.

MAP-21 addresses the need to improve goods movement by consolidating existing programs into a new focused freight program that provides funds to the states by formula for projects to improve regional and national freight movements on highways, including freight intermodal connectors.

- **Congestion Mitigation and Air Quality Improvement Program [Existing core program]** The Congestion Mitigation and Air Quality Improvement (CMAQ) Program provides funds to states for transportation projects designed to reduce traffic congestion and improve air quality.

  MAP-21 improves the existing CMAQ program by including particulate matter as one of the pollutants addressed, and by requiring a performance plan in large metropolitan areas to ensure that CMAQ funds are being used to improve air quality and congestion in those regions.

  Reforms the Transportation Enhancements program with more flexibility granted to the states on the use of the funds within the program.

- **Highway Safety Improvement Program [Existing core program]** – MAP-21 builds on the successful Highway Safety Improvement Program (HSIP). MAP-21 substantially increases the amount of funding for this program because of the strong results it has achieved in reducing fatalities. Under HSIP, states must develop and implement a safety plan that identifies highway safety programs and a strategy to address them.

- **Transportation Infrastructure Finance and Innovation Program (TIFIA) –** The TIFIA program provides direct loans, loan guarantees, and lines of credit to surface transportation projects at favorable terms. TIFIA will leverage private and other non-federal investment in transportation improvements.

  Included in the "America Fast Forward" title of MAP-21 will be provisions that build upon the success of the TIFIA program. MAP-21 modifies the TIFIA program by increasing funding for the program to $1 billion per year, by increasing the maximum share of project costs from 33 percent to 49 percent, by allowing TIFIA to be used to support a related set of projects, and by setting aside funding for projects in rural areas at more favorable terms.

- **Projects of National and Regional Significance Program –**This bill authorizes a program to fund major projects of national and regional significance which meet rigorous criteria and eligibility requirements. This program authorizes for appropriation $1 billion in Fiscal Year 2013.

- **Federal Lands and Tribal Transportation Highways Programs** – MAP-21 consolidates the existing program structure by creating a new Federal lands and tribal transportation program. The bill maintains funding for maintenance and construction of roads and bridges that are vital to the federal lands of this country.

- **Territorial and Puerto Rico Highways Program** –This program provides funds to the U.S. territories and Puerto Rico to construct and maintain highway, bridge, and tunnel projects.

- **Administrative Expenses** – Funds the general administrative operations of the Federal Highway Administration.

- **Emergency Relief** – Provides funds to states to repair highways and bridges damaged by natural disasters.

- **Highway Bridge and Tunnel Inventory and Inspection Standards** – Improves the existing highway bridge inspection program and authorizes a national tunnel inspection program to ensure the safety of our nation's bridges and tunnels.

Performance Management

- Performance Measures and Targets in MAP-21
  - The bill establishes an outcome-driven approach that tracks performance and will hold states and metropolitan planning organizations accountable for improving the conditions and performance of their transportation assets.

- State and Metropolitan Transportation Planning
  - MAP-21 improves statewide and metropolitan planning processes to incorporate a more comprehensive performance-based approach to decision making. Utilizing performance targets will assist states and metropolitan areas in targeting limited resources on projects that will improve the condition and performance of their transportation assets.

Acceleration of Project Delivery

MAP-21 includes program reforms designed to reduce project delivery time and costs while protecting the environment. Examples of improvements include: expanding the use of innovative contracting methods; creating dispute resolution procedures; allowing for early right-of-way acquisitions; reducing bureaucratic hurdles for projects with no significant environmental impact; encouraging early coordination between relevant agencies to avoid delays later in the review process; and accelerating project delivery decisions within specified deadlines.

Research and Education

- **Transportation Research Programs –** MAP-21 funds research and development, technology deployment, training and education, intelligent transportation system (ITS), and university transportation center activities to further innovation in transportation research. The primary research areas include: improving highway safety and infrastructure integrity; strengthening transportation planning and environmental decision-making; reducing congestion, improving highway operations; and enhancing freight productivity.

AMPO
Association of Metropolitan Planning Organizations

Position on Federal Surface Transportation Authorization

The authorization of the nation's surface transportation programs provides a prime opportunity to address emerging needs of the 21st century to ensure that the United States economy remains strong and competitive in a changing world. Some of the conditions occurring in the U.S., and across the world, include:

- **Aging Transportation System and Growing Backlog of Preservation Needs** – The Interstate System recently turned 50, and the need to rehabilitate its bridges and pavements are growing. All across the country, local and state roadways, bridges, ferries and transit systems are suffering from use and age. The nation's investment in its infrastructure will have to grow to ensure the system remains safe and usable.
- **Metropolitan Areas are Leaders of U.S. Economy** – Metropolitan areas account for 85% of U.S. population, and over 85% of employment, income and production of goods and services. (Source: U.S. CONFERENCE OF MAYORS: Metro Economies: U.S. Cities and Metropolitan Areas Dominate Economic Growth, Jan. 2007.) Clearly, growth in the U.S. economy is linked to the ability of these metropolitan areas to grow, develop, and deliver effective transportation programs at the regional level.
- **The Global Economy and The Emergence of China and India as Major Competitive Forces** – How will the U.S. economy and its metropolitan regions compete in the global economy with aging transportation infrastructure, poor freight connections and growing congestion?
- **National Security** – The transportation sector accounts for two-thirds of U.S. petroleum consumption. U.S oil production peaked in 1970. In 1973, we imported 34.8% of our oil. Today we import 60.3% of our oil needs, much of which is from countries that are unfriendly or unstable. In the near future, OPEC will control over 50% of the oil market. Global oil production has been projected to peak between 2010 and at latest, 2040. Disruptions of world oil supplies continue to put the U.S. economy at risk, and make transportation security a top priority.
- **A Growing Consensus to Reduce Energy Use** – Whether the reason is over-dependence on imported foreign oil, rising energy prices, or a concern over greenhouse gases and climate change, the public is increasingly demanding action to reduce petroleum oil use. Transportation is a major user of imported oil, and addressing these concerns will require innovation and changes. Aside from the need to protect our planet, if we fail to match global conservation efforts or remain overly reliant on foreign oil, our economy will be at a competitive disadvantage.

To meet these transportation challenges, the nation needs to unite behind a bold new vision for transportation, and a continuing, strong Federal surface transportation program that is focused on this new national vision.

A New Nationa

AMPO BELIEVES THAT THE FEDERAL SURFACE TRANSPORTATION AUTHORIZATION SHOULD CONTINUE A STRONG federal role in transportation, and that the federal role should be refocused on four key performance priorities that together ensure that the United States can compete effectively and thrive in the global economy. These four federal priorities are:

1. **Rebuilding America's transportation infrastructure;**
2. **Improving International and Interstate Commerce;**
3. **Improving mobility and accessibility with a stronger and more significant role for the nation's metropolitan regions in delivering transportation programs; and,**
4. **Achieving energy independence by 2050.**

The authorization of the nation's transportation programs provides the opportunity to focus our actions on these four areas to strengthen the U.S. position in the 21st century. Metropolitan Planning Organizations are ideally-positioned to turn these priorities into results given their structure as cooperative decision making forums that bring together transportation stakeholders, including citizens and businesses.

Following are specific policy recommendations supported by AMPO to strengthen and refocus the federal surface transportation program:

1 *Rebuild America* Smarter

U.S. transportation infrastructure is aging, marked by the 50th anniversary of the Interstate Highway System in 2006. Our nation has fallen behind many European and Asian countries in the application of intelligent transportation system (ITS) tools to improve mobility and safety. A strategic initiative is needed to rebuild the aging highway and transit infrastructure, and to commit to asset management practices that will keep infrastructure sound and safe into the future. But we must rebuild "smarter." That means both tying transportation closer to smart land use patterns, using smart construction techniques and longer lasting materials, and broadly deploying advanced technology to facilitate metropolitan travel that is safe, efficient, and seamless across modes. It also means informing transportation decision making with effective transportation planning and the data needed to support it. Critical to achieving this in the most efficient manner is the need to streamline federal requirements for project development and implementation.

Increase federal funding to ensure base system preservation

Fundamental elements of America's competitiveness are pavements without potholes, sound bridges, and buses and trains that run. AMPO recommends:

- Boost federal funding immediately to support rebuilding of America's existing highways, bridges, transit systems, and other transportation infrastructure. At a minimum, restore the purchasing power of the Highway Trust Fund.
- Establish an independent Transportation Revenue Adjustment Commission to adjust base federal revenue on an ongoing basis to meet needs.
- Take advantage of this rebuilding opportunity to (1) broadly deploy intelligent transportation system tools and strategies that improve mobility and safety on all modes; and (2) utilize research on materials and construction techniques to build smarter, quicker and longer lasting.
- Upgrade Federal interest in robust national and regional data to provide for effective transportation planning.

I Vision

2 *Improve* International and Interstate Commerce

The U.S. economy depends on the efficient movement of goods: exports, imports, and domestic movements. Every time that movement is impeded, whether delayed at a port of entry, stymied by lack of an intermodal connection, or stuck in traffic on an urban freeway, real economic impacts happen. AMPO recommends:

Create a National Program for Freight Mobility and Efficient Access to Markets

This program will:

- Improve transportation of freight via more efficient movement through ports of entry, including seaports and border crossings, without compromising security.
- Improve capacity and efficiency of both rail and highway systems on specified national intermodal freight corridors.
- Address the transportation needs of communities impacted by national freight through-movement.
- Address metropolitan congestion and bottlenecks with strategies including targeted freight improvements such as intermodal connectors, truck lanes, and truck tollways.
- Ensure that rural agricultural and resource industries have good access to domestic and international markets.
- Study the feasibility of a National Truck Network that would substantially improve freight movement productivity with truck-only highways engineered with heavy-duty materials.
- Improve the nation's rail system capacity and operations, both to move goods more efficiently and to move passengers.
- Identify additional and more effective opportunities to create partnerships between the public and private sectors in planning, funding, and implementing freight-related improvements.

3 *Improve* Metropolitan Mobility

Metropolitan regions are the economic engines of the nation that must compete with other metropolitan areas around the world for jobs, industries, and commerce. Growing congestion, poor system reliability, and loss of efficiency threaten the ability of these regions, and the nation, to compete globally. AMPO recommends that metropolitan regions play a stronger role in the nation's transportation programs, both in the authority to direct investment and accountability for the system's performance.

Create a New Metropolitan Mobility Program

This program would be highly flexible and would be aimed at improving metropolitan travel times and freight mobility, reducing carbon emissions and achieving national energy conservation goals. MPOs would have project selection authority for this program. The program would:

- Be focused on the largest metropolitan regions, and would be in addition to traditional federal aid highway and transit allocations.
- Be allocated by formula to all large metropolitan regions, but receipt subject to state and local designation as a Metropolitan Mobility Authority (MMA). Unused allocations would be reallocated to areas that meet the designation requirements.
- Be performance based, require performance standards, measurements, and reporting to reduce travel time, improve freight mobility, improve safety, reduce carbon emissions, and conserve energy.
- Be funded from new federal revenues, (preferably, the Surface Transportation Trust Fund discussed below) and add incentives for increased local funds to include eliminating toll restrictions in metropolitan areas.

Re-invent Metropolitan Institutions to More Effectively Improve Mobility

AMPO believes that it is time to re-invent the federal Metropolitan Planning Program to be more focused and responsive to the transportation challenges facing metropolitan regions and their place in the new world economy. AMPO recommends steps for improved regional outcomes by:

- Raising the minimum population threshold for new MPOs, while maintaining existing smaller MPOs (who could choose to opt out), and providing incentives for MPOs to consolidate with neighboring MPOs to meet the new threshold. This would focus the attention and resources of the program on metropolitan regions that have the most congestion and complex transportation challenges.
- Existing smaller MPOs that continue as regional transportation decision making forums would have truly streamlined federal requirements to minimize red tape, and for areas that choose to opt out, states would be required to have a planning consultation and coordination process to ensure local involvement in state transportation planning.

Association of Metropolitan Planning Organizations
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- Areas meeting the new population threshold would be more directly involved in project selection, in cooperation with the state, for federal transportation funds expended within the region. This would create a true partnership for metropolitan regions, with the ability to influence resources to solve transportation problems.
- In the 50 metropolitan areas with over 1 million population, regions could choose to designate themselves as a new federally defined "Metropolitan Mobility Authority." These authorities would:
  - Provide a federal incentive for states and regions to invest in metropolitan mobility;
  - Be eligible to administer and select projects to be advanced via funding from the Surface Transportation Trust Fund, including an incentive-based multimodal program aimed at congestion relief and energy conservation; and
  - Be required to meet new performance-based planning standards.

Designation would be by state statute, which would define the relationship with the state government including the role in project selection, performance expectations, and other state authority, such as ability to raise regional revenue. A new federal metropolitan mobility program would provide incentives for the creation of metropolitan mobility authorities with clearly defined and supported state mandates and authorities.

Performance-based planning standards should be developed cooperatively between federal, state, metropolitan/regional, and local entities with reporting by state and metropolitan/regional transportation agencies. Performance measures must be tied to specific federal interests and understandable to both policymakers and the general public. Additional funding will be required (given the resources necessary to collect the associated data) along with sufficient flexibility to develop measures that are meaningful to the area served.

4 *Achive* Energy Independence by 2050

The competitiveness of our economy, the health of the planet, and our national security depend on reducing our reliance on foreign oil, reducing overall fuel usage, and, in the process, reducing emissions and the impact of climate change. Transportation plays a key role in achieving energy independence since over 60% of every barrel of oil used in the United States today is used by the transportation sector. AMPO believes that the authorization provides an opportunity to establish long term and intermediate goals toward energy independence and reduced fuel, and to further both fuel economy standards and market mechanisms to achieve these goals. AMPO recommends:

National Goals for Energy Independence and Reducing Fuel Use and Emissions

A major focus for the federal transportation authorization should be the related goals of energy independence and reducing greenhouse gas emissions, both critical to national and global competitiveness.

Surface Transportation Trust Fund

Whatever the amount, AMPO believes that federal revenue in addition to that generated for the Highway Trust Fund could be used as follows:

- Establish the Surface Transportation Trust Fund specifically to address the reduction in petroleum use and the need for additional revenues to the transportation sector.
- The Fund is to be capitalized by a significant increase in federal revenue directed to transportation from the energy independence program.
- Revenues coming into the fund should be directed to programs for public transportation, enhanced intercity passenger rail services, energy conservation (such as supply side fuels research, manufacturing and deployment incentives), and greenhouse gas reduction aimed at reducing petroleum demand in the transportation sector by 25% by 2025.
- Revenues from the fund should be eligible to be used for enhanced roadway, bridge and transit preservation over the long-term.

Market Incentive for Energy Conservation

In addition to enhanced CAFE standards and carbon cap and trade systems, some business leaders and economists argue that a market incentive is needed to encourage fuel conservation and emission reduction as the fleet turns over.

AMPO believes that authorization provides an opportunity to create this market incentive that would both encourage conservation and provide an additional revenue source for basic infrastructure preservation as well as for new programs aimed at metropolitan congestion relief, energy conservation and emissions reduction. Ultimately, the mechanism to increase transportation revenue is up to Congress. Some have argued for an increase in the federal fuel tax of as much as $1 per gallon phased in over ten years. Others have called for market mechanisms including carbon tax, cap and trade systems, or other financing methods, such as bonding. All options should be considered in achieving the financing needed to improve and maintain our system while reducing our dependence on carbon based fuels.

Red-hot debate

Following the publication of a recent Texas Transportation Institute study about the effectiveness of red light enforcement, **Timothy Compston** speaks with the author, the proponents, opponents and satisfied end-users

Photographs courtesy of FHWA & Tunart

The extent of the threat posed to road users at signalized intersections is underlined by the fact that in the USA during 2009 there were 676 people killed and an estimated 113,000 injured because somebody didn't stop on red. The problem has got so bad in some places that many communities have turned their attention to red light cameras as an active deterrent to alter driver behavior. A particular concern is right-angle collisions which, by their very nature, are more than likely to lead to severe injury and potentially death to not only innocent road users who find themselves caught up in a collision but even red light runners themselves.

Texas study

The Texas Transportation Institute recently issued a new report entitled *Evaluation of Photographic Traffic Signal Enforcement Systems in Texas*. Funding for the study came from the Texas DOT through the state legislature. According to its author Troy D. Walden, the catalyst for the report was the need to investigate the effectiveness of red light cameras on intersection accident frequency and severity at a community and state level across Texas.

"The published study is a three-year evaluation, part of which is intended to be a multi-year effort," Walden says. "What we found when we considered all types of crashes – red light- and non-red light-related – is an overall, statewide reduction of about 11% at intersections that were being monitored. Alongside this, looking at crashes with a red light connection – i.e. somebody violating a red signal – we saw an even larger crash reduction of about 25%."

For right-angle crashes – which Walden notes are the most dangerous and most frequent to happen at intersections – it was discovered that there was a fall in crashes of about 32%. "Overall we see a considerable drop in the number of collisions happening at intersections," he continues. "Interestingly, though, when we looked at the reduction in red light crashes at one-year camera sites it was 23%, for two-year sites the reduction was 27%, and at three-year sites it was 21%." For the analysis, Walden looked at crash rates an equal amount of time prior to – and after – camera installation.

Defining intersection crashes

When questioned about the definition of an intersection crash, Walden explains: "We went back to the crash reports and looked to see if an incident actually happened within the intersection boundary. In some instances, although the state system may have recorded an event as an intersection crash, in reality it did not necessarily meet our criteria. Out of 15,000 individual records, we ended up refining the number down to around 11,000."

Turning to the issue of rear-end collisions, Walden admits, "It is true that some studies

Cameras in Peoria, Texas will be switched off after the city learned crashes at monitored intersections actually increased during the three-year pilot

The right angle

The human side of red light running is brought into sharp focus by the fact that, according to the FHWA, "95% of drivers in the USA feel that other drivers running red lights are a major safety threat and one in three people claim to know someone injured or killed in a red-light running crash". The Administration stresses that this method of enforcement should only be considered when the research shows that the right-angle type of crash can be decreased through the deployment of red light cameras.

Both the FHWA and the Texas Transportation Institute highlight what they see as the typical trends that result from installing a red light camera system, namely that right-angle crashes – the targeted type of crash – decrease while rear-end crashes increase. Putting this into context, an analysis of data at 132 intersections in a study by the FHWA (*Safety Evaluation of Red Light Cameras*, April 2005) found a 25% decline in total right-angle crashes and a 16% drop in injury resulting from right-angle crashes. At the same time, however, it was reported that there was a 15% increase in the total of rear-end crashes and a 24% increase in injury associated with rear-end crashes.

> We found strong support for cameras: two-thirds of drivers said they approved of this type of enforcement

have reported an increase and we did see this to a certain extent in our study. However, what we discovered is that such crashes only represent a small proportion of those happening at the intersection. In our research, only 2-3% of red light crashes were actually rear-end."

An insurance perspective

The Insurance Institute for Highway Safety (IIHS) published a landmark report this year considering the effects of red light enforcement on fatal crashes in large US cities. This was followed by a study of attitudes toward the camera programs in the same communities as well as Houston, Texas, where cameras had been removed as a result of a vote in November 2010.

Dr Anne T. McCartt, one of the authors of the reports, is a senior vice president for research at the IIHS and sees the recent study as being distinct from previous investigations in the USA as it has a national focus: "Most studies have been done in a specific community or several communities that have used cameras and haven't really looked at fatal crashes. The reality is that most communities don't have enough crashes in order to conduct a decent study, so we took a look at several (14 counties/large cities) that had long-standing red light camera programs and then we compared those with a large set of cities that did not have cameras.

"Essentially what we found was that the cities with red light cameras had significantly lower rates per population of fatal crashes occurring at signal light intersections and reductions in fatal crashes attributed to drivers jumping red lights."

McCartt believes the IIHS research and other studies underline the ability of cameras to reduce crashes, particularly the more serious ones: "I would single out right-angle crashes as a crash type that red light cameras can address."

When looking at attitudes toward the red light cameras in the cities, all of whom had long-term programs, McCartt and her colleagues were interested in what drivers on the ground actually thought: "We found strong support – overall, in fact, two-thirds of drivers in the cities said they approved," she reports. "We also interviewed drivers from cities that had voted their red light cameras out. Interestingly, a majority of drivers in Houston still supported the cameras. The one major difference we did find compared with the other 14 cities was a larger proportion of drivers really opposed to cameras, which didn't surprise us given the strong views of the opponents and the low voter turnout when the decision was taken to remove them."

Dallas stops on red

For its part, the city of Dallas in Texas is reporting positive results from cameras at key intersections. "We implemented our program with the express intention of increasing public safety and decreasing accidents, fatalities, and reducing red light running," explains Sylvia Littleton, PHR program manager, Dallas Stops on Red, Dallas Police Department.

Prior to red light cameras being brought in, figures for 2006 showed that more than 28% of accidents at traffic signals in the city were related to red light running. Subsequently, a contract for camera systems was awarded at the end of 2006 with 60 cameras installed across Dallas throughout 2007.

Littleton has witnessed first-hand how these safety tools at controlled intersections can bring tangible benefits: "From the cameras being installed, in January 2007 through to July 2007, comparing the three years before-and-after results for the first 60 cameras at 49 intersections, our figures show that there was on average a 61% reduction in red light-related accidents on intersection approaches with red light cameras. Intersection accidents of all types fell on average by 25%. Significantly, it was found that 86% of intersections demonstrated real reductions in red light running accidents."

Following the red light cameras being switched off in Los Angeles, the city is now studying the merits of extending the yellow signal timing

Much research has established that red light cameras deter would-be violators and reduce crashes at signalized intersections

View from Toronto

Mike Brady, manager of traffic safety for the City of Toronto, believes that there is only one reason for having red light cameras: "The sole purpose of this tool is to reduce right-angle collisions and the severity of injuries resulting from right-angle collisions," he says. "You can read several evaluation reports that talk about change in all collision types but to me that is not the objective."

Turning to quantitative data derived from Toronto's experience of red light cameras, Brady outlines some of the most recent figures: "Taking five years of 'before and after' data in Toronto for angled collisions that led to injury and fatality, this was down by over 60%," he reports. "In terms of rear-end collisions there was a minor increase until 2002, with a peak then and the figures have been coming down steadily at red light camera sites." His conclusion from the results is that although there are many studies out there that claim the cameras increase rear-end collisions, based on his experience in Toronto, he would suggest the effect is very short-lived.

"Although today there are many reports and studies written on red light cameras and system guidelines, before rolling out any cameras, my advice would be to actually go and visit a jurisdiction that you think is successful at operating these systems."

In the USA in 2009, red light running killed 676 people and injured an estimated 113,000. Two-thirds of the deaths were people other than the red light running driver – occupants of other vehicles, passengers, bicyclists, or pedestrians

According to Littleton, there was no evidence – contrary to what some critics may say – of a trend toward increased rear-end accidents associated with red light cameras. In addition, she says that misconceptions regarding privacy can be readily addressed: "The fact is we only ever take pictures of the rear license plate, not the front of the vehicle, so drivers cannot be seen or identified directly from any photos or video."

Safety first in Edmonton

Gerry Shimko, executive director of the Office of Traffic Safety in Edmonton, Canada, is a strong advocate of red light cameras as part of what he calls a speed management continuum: "This is based on the four 'Es' of traffic safety – namely education, enforcement, engineering and a very comprehensive evaluation-based process."

Shimko stresses that for his city, the initial impetus with regard to red light cameras came from the fact that Edmonton had a very high number of collisions, potentially even the most across all of Canada: "Faced with this situation, in the late 1990s, police brought in the cameras to deal with the fatalities and serious injuries that were occurring at intersections. Things have evolved since then and we have gone through several iterations in terms of the technology."

The 50 red light cameras currently in operation across Edmonton are dual technology – that is to say they cover both red light running and speed through the intersection. This type of camera was introduced in late 2009.

"What we can say, quite comfortably, is that we use a rigorous approach to select sites for the cameras, based on crash rates and crashes at intersections, and our experience continues to show that we are getting a net reduction in fatalities, injuries and property damage. We also do not seem to be having the experience reported in some studies of an increase in rear-end collisions."

Shimko addresses the question of the revenue generated: "The city has agreed that this should flow back to traffic safety initiatives," he reveals. "In Edmonton we have what is probably the only Municipal Office of Traffic Safety in the world and through the University of Alberta's Faculty of Engineering have created an Urban Traffic Safety Research Chair."

Ban the cams

Red light cameras are, of course, not without their critics and one of the most fervent is Henry Bentley, founder of BanTheCams. He points to numerous studies that he says show that rear-end collisions are on the rise where red light cameras are adopted. Looking specifically at the recent TTI report, he believes it falls down in a number of areas: "One of the things that I know is not in there is a comparison of accident rates between intersections where red light cameras are installed with signals that do not have the cameras. The reason that I raise this is over the past 10 years numerous reports have shown that accidents at red lights have been going down without the presence of any enforcement."

Another comment Bentley makes regarding the report is that the study, in his opinion, only goes to 30ft past the red light, which he believes is far too short a distance. Bentley also questions the way that the report "threw out something like 2,000 crashes that police officers considered to be at the intersection".

When pushed about whether he could ever see any case for the operation of red light cameras, Bentley can only envisage a role for accident documentation – although he feels even this is unrealistic, given the potential for authorities to, in his words, abuse the cameras.

More widely, Bentley believes a solution to intersection safety that does not require red light cameras would be to lengthen the yellow signal phase by one second: "They did that in Georgia and the camera companies went away," he concludes. "Another option might be to introduce a countdown for the red and yellow phases."

Human behavior

On the issue of improving driver behavior, the report focused on education, suggesting that changes to the Highway Code could be placed more clearly on the DVLA website when motorists renewed a driving license as well as be included in a leaflet with tax disc or license renewal letters. A free Highway Code cell phone app is another way standards could be improved.

Although noble ideas, they are somewhat simplistic and low-tech. Perhaps a study about technology's role within this field would be more worthwhile. The impact of both vehicle-based systems (particularly those that alert the driver to potentially dangerous behavior) and ITS technologies and their role in affecting how drivers behave are arguably just as critical as education in tackling the issues that lead to congestion.

Jam-packed report

The latest findings from the UK's Parliamentary Transport Committee are out. **Tori Read** explains how they show that congestion and the economy are intrinsically linked – and sadly not in a good way

Images courtesy of ESP Imaging

The UK's Parliamentary Transport Committee has launched its latest report, which among other things recommends a tougher driving test, greater use of ITS and real-time information systems, as well as better coordination between road management authorities. The report, *Out of the Jam: reducing congestion on our roads*, examined options for curbing congestion without road building or road pricing. "Congestion costs the economy billions of pounds each year," committee chair Louise Ellman said after launching the report. "Improving the way we manage road space so that the network runs more smoothly is vital to the prosperity of the nation. Pursuing this challenge should form a key plank of central government transport policy."

The committee set out a series of recommendations to government about how it could curb congestion and get more out of the existing road network, including monitoring cost and safety issues of the Managed Motorway scheme, particularly where the use of the hard shoulder could prevent emergency vehicles from reaching accidents. It also includes a requirement that all highway authorities publish traffic management performance measurements no later than the beginning of 2013. In addition, it recommends working more closely with highway authorities to identify the latest forms of intelligent traffic management systems and to renew funding for the ITS Toolkit. It also suggests development of a strategy for the delivery of real-time travel information to motorists that identifies clearly what is to be provided by local authorities, the Highways Agency or the private sector. Finally, it recommends independent evaluation of permitting schemes for highway authority and utility street works, as well as lane-rental schemes where utility companies pay to close road space for street works.

The UK government has recently given the go-ahead to 20 major transport schemes with £1.2 billion of funding for local transport improvements

> "Improving the way we manage road space so that the network runs more smoothly is vital to the prosperity of the nation

Spiraling cost of congestion

The committee's previous inquiry, *Transport and the Economy*, cited evidence that showed that the rising cost of congestion would cost the UK economy an extra £22 billion by 2025. One option for reducing road congestion – road pricing – has been ruled out already. Extensive investment on new roads is also unlikely given the current economic climate. Due to these factors, the inquiry looked at other ways in which road congestion could be reduced.

Without the option of road pricing, what are the best methods of reducing congestion on UK roads?

The report cites a number of strategies that ought to be tackled. These include maximizing capacity, minimizing disruption, and better links between agencies and authorities with responsibility for various sections of the road network. The sharing of best practice was also advised, as was providing more reliable information for travelers, and improved driver behavior based on better understanding of and adherence to the Highway Code.

Indeed, driver behavior was a particularly prominent part of the report. It states: "The overwhelming view from the evidence we received was that aspects of poor road user behavior led to increased congestion. Firstly, by directly causing incidents and secondly by inappropriate road use – which is not necessarily unsafe – but which adversely affects the flow."

Commenting on the publication of the report, roads minister Mike Penning said: "We are committed to tackling congestion and improving transport across the country. That is why, despite the economic climate, we have given the green light to more than 20 major transport schemes and made available a further £1.2 billion for local transport improvements. We are also focusing on making better use of the road network ... improving accident clear-up times, providing better information for motorists and tackling disruption. We will consider the report carefully and respond in full in due course."

Disappearing act?

Statistical VMT evidence from some of the world's most congested countries clearly points to declining car use. **Bern Grush** analyzes whether this is a short-term blip or a sign of things to come

Illustration courtesy of Magictorch

The term 'peak car' has appeared increasingly in the 2011 media, purporting to describe a permanent cap and gradual decline in the use of the automobile in the developed world. This differs critically from a transient vehicle-miles traveled (VMT) dip or stagnation due to economic downturn and from a plateau due to saturation or demographic trends. There is clear evidence of a VMT dip in the USA, the UK and Australia between 2004-2008 – and possibly earlier in some interpretations of the data. This trend has likely shown up in other countries as well. There are several interpretations of such data that prematurely point to a long-term VMT plateau.

Peak car is different and more ominous, and the arguments for this interpretation are tentative. The data horizon is too short to predict the end of a major technology and there are some underlying anthropological factors that demand that 'automobility' stay with us for at least the current century. The expression, 'automobility' is used in this instance in place of 'the car', as in all likelihood the car, as we know it, will not last beyond 2035 or 2040. It will not, however, be replaced to the extent some may wish by bus, bike or train. Rather, intelligent, self-driving technology that we have not yet invented will retain a major role in surface transportation, and this is likely to increase VMT.

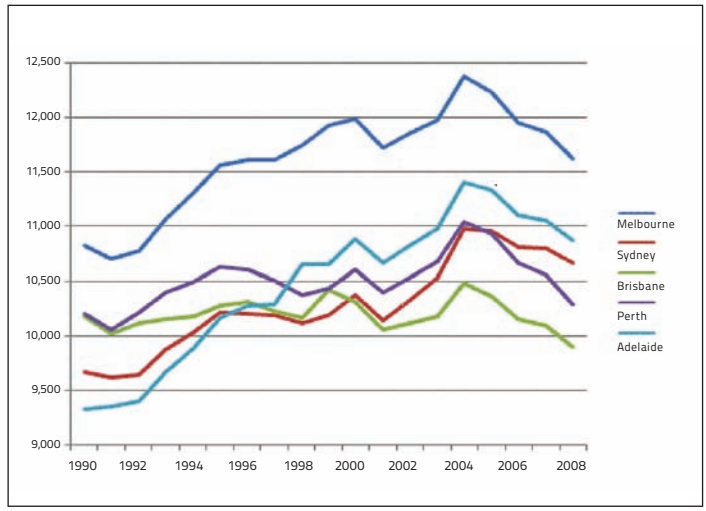
My prediction is based first on the divergent pace of innovation for automobility systems as compared with transit systems, and secondly the unworkability and undesirability of governments creating the policies needed for a complete transition. It is also based on a bias toward autonomous, powered vehicles in human settlement design and organization, and lastly nearly instinctive and universal anthropological factors relating to travel budgets (time and money).

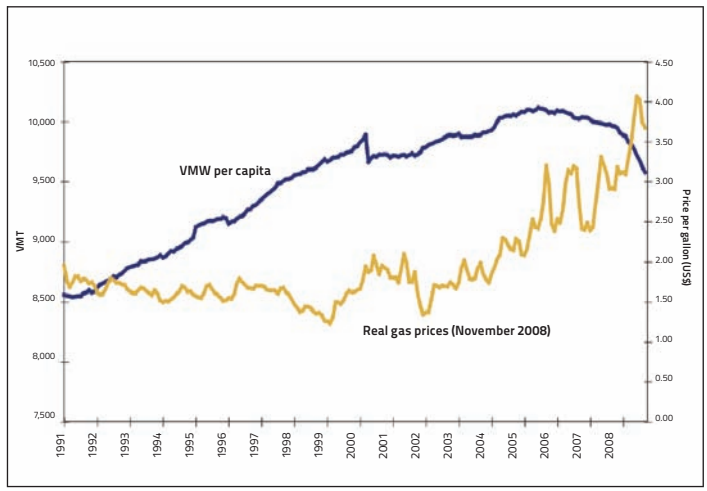
How we interpret faltering VMT data in countries where this occurs informs our response to problems such as transportation funding, demand management, and global warming. To convince ourselves that VMT is in permanent decline is to risk justifying continued abdication of our responsibilities for solving our surface transportation problems and simply let road and highway funding and demand management 'sort themselves out'. We also risk gloating prematurely over the effects that global-warming messaging may be having. We should be cautious.

Let's look at the data through the lens of each of these three interpretations…

Fuel demand is relatively inelastic if prices creep slowly

(Figure 1, top) **Estimated car passenger km per capita (FY 1990-2008). From an online document, *A Sustainable Population Strategy for Australia: Submission by the Bus Industry Confederation*** (Figure 2, bottom) **From *The Road... Less Traveled: Analysis of Vehicles Miles Traveled Trends in the USA*, Puentes and Tomer, Brookings, December 2008**





Source: Traffic Volume Trends and Energy Information Administration

VMT dip?

The evidence that something significant occurred cannot be set aside. The decline shown in Australia from 2004 to 2008 (Figure 1) has been interpreted as a permanent trend rather than transient in a 2011 paper by Newman and Kenworthy called, *Peak Car Use: Understanding the Demise of Automobile Dependence*.

The US numbers are similar to the Australian numbers, showing a slowdown then a decline in per-capita VMT from 2004 to 2008 (Figure 2). This Brookings study, possibly the first in-depth examination of the decline in US VMT, concluded: "…reduced driving will only intensify … governments' need to seriously reconsider … reliance on the gas tax to fund surface transportation. Environmentally, stalled or reduced driving should offer a positive development in the creation of a more environmentally sustainable transportation network. Developmentally, reduced driving demand will instinctively lead to more demand for development less reliant on the automobile and could signal a continued reinvigoration of this nation's cities and inner suburbs."

However, a little over two years after the Brookings study was released, an FHWA press release from March 2011, *The Nation's Highway Traffic Reaches Highest Level Since 2007*, contradicted this conclusion, "… underscoring the "need for continued investment in roads, bridges and tunnels. … Americans drove three trillion miles in 2010, the most vehicle miles traveled since 2007 and the third-

highest ever recorded…".[1]

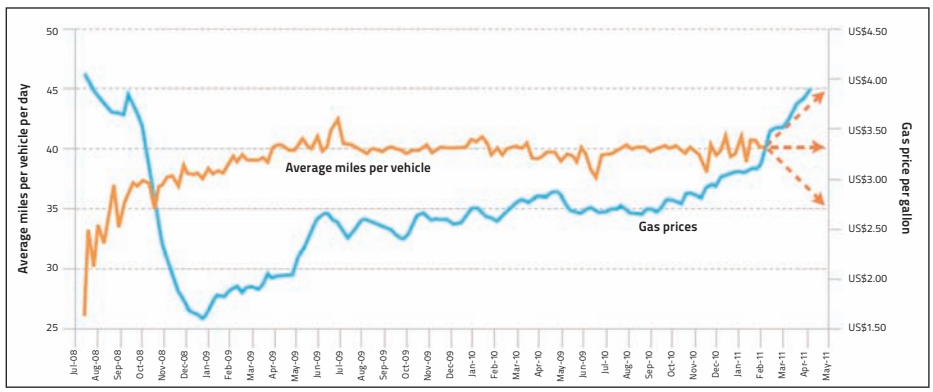
A graph compiled by Progressive Insurance (Figure 3) plotting VMT/vehicle-day in monthly averages since mid-2008 shows a resurgence in VMT and could be seen as evidence that the 2004-08 VMT decline was transient. I do not know if Australia experienced the same VMT recovery as the USA.

Note that Figure 1 and Figure 2 show miles per capita, making it difficult to align numbers in these two datasets with those in Figure 3 (but we are only considering trends). There appears to have been a strong recovery to 40 VMT/VD (from 26) during the nine months commencing with July 2008. Quite a jump, as gas prices tumbled to US$1.75 from over US$4.00. Thereafter VMT remained steady while gas prices have slowly crept up. This view of the data says fuel demand is relatively inelastic if prices creep slowly. Unfortunately, the VMT data was not available for Figure 3 after the March 2011 fuel price spurt.

VMT plateau?

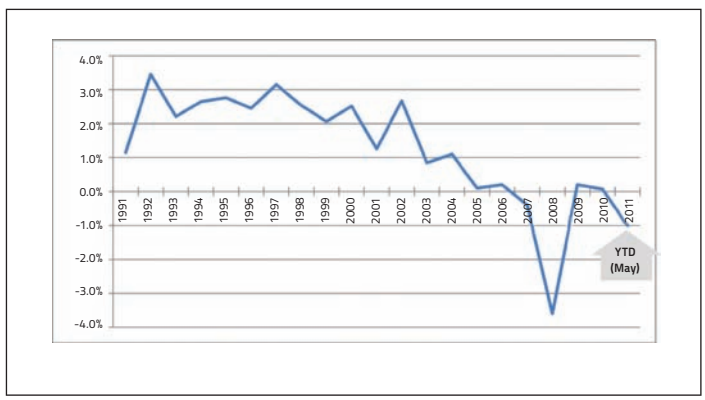
Clearly there has been a sustained dip that is easily pinned on economic variability and political events since the dot-com crash and, more recently, on fuel prices. As these are the most significant correlates in the data, might they be hiding a longer, permanent trend, in spite of the VMT uptick announced in the 2011 FHWA press release and that Figure 3 seems to contradict the analysis of peak car based on 2004-08 data used by Puentes-Tomer at Brookings (Figure 1) and Newman-Kenworthy at CUSP (Figure 2)?

Considering this, I used the FHWA source data to compile a plot of percentage differences in US VMT year-over-year (Figure 4). There is a slowdown in the annual VMT increases that appears to start at the dot-com crash, nudged down again after 9/11, rallied a bit at the front-end of the Iraq War, continued to slow until it finally went negative in 2007 over 2006, and lost a further 3.5% in 2008 over 2007 through the



Source: USDOT, Federal Highway Administration: Progressive

(Figure 3, above) **Miles per vehicle day from 2008 to early 2011**
(Figure 4, right) **Shows percentage difference in US VMT year-over-year (everything above 0% is growth and below that is decline)**



The daily commute influences everything from where we live to how we travel

subprime crisis. So the studies showing a 2004-2008 decline are not overstating those four years. However, there was a sharp recovery in 2009 over 2008 that was sustained in 2010. This was followed by a new decline in the first five months of 2011 – (possibly) negative again for the third time in four years – as gas prices climbed.

For whatever combination of reasons, VMT is declining and it is not a minor dip. Will this turn into a plateau in a few years as these factors settle out, or will it continue to decline until the "demise of automobile dependence" as Newman and Kenworthy suggest?

Many of the reasons offered by the studies depend on underlying trends to defend at least a long-term plateau – if not a new, permanent decline – but none is enough to sustain a permanent decline.

Fuel cost increases are no longer seen as occasional political blips, but as a permanent bumpy ride as oil-extraction continues to be more costly. While no-one thinks pump prices will drop and stabilize, I assert that peak oil will eventually lead to more cars and more VMT, since a rise in value for energy for automobility would drive sustainable power innovation, as well as smarter, smaller, safer and swifter cars – i.e. the qualitative advantages of cars will continue to grow whereas transit, biking, and walking are unlikely to show similar advances. This would lead to a further increase in congestion and put yet more pressure on demand management policies. Upticks in fuel prices may create dips, and help sustain a lengthy plateau, but they predict an eventual resurgence in VMT.

The growth of urbanism implies aggregation to higher densities, fewer VMT and increased transit use. This appears in some data sets to be gradually taking hold and would likely be a very long-term trend. But how deep can it go? Urban land prices will climb, which would admit only trendsetters to return to the city. Suburbs will become the new slums. Phil Hayward, an independent researcher in New Zealand, commented, "It will be impossible for more than a small minority of people to relocate into dense urban locations before the rising land prices at those locations 'price out' those not already there." I predict growth in urbanism will help sustain a long, shallow plateau, but will not have a permanent effect.

The aging of cities implies that as the population of a city gets older, it drives less. This is from the Australian study – a country with a pronounced baby-boom population. This would contribute to a 15-20-year dip or plateau as this cohort passes through. It might exaggerate that dip, but not indicate a sustainable peak.

The growth of public transport does not necessarily imply a reduction in VMT. Historically, VMT growth outstrips growth in Transit Miles Traveled, but this may be changing. In an article in the *New York Times Magazine* (January 2011) the Center for Clean Air Policy's Steve Winkleman pointed to a 38% growth in US transit ridership since 1995 – versus a 14% growth in population and 21% growth in highway VMT. He also noted that by 2008 teleworking would contribute (only) about 1% of the drop in VMT. This would also contribute to a plateau, but would have to be sustainable to maintain that plateau. The kind of public systems we have now (large vehicles, fixed routes) has too many limitations and entrenched inefficiencies to cause the demise of automobile dependency.

Fundamental demographic shifts are also in play. Winkleman's research also points to other causes for VMT saturation, such as the growth of knowledge- and service-oriented sectors, full penetration of women in the workforce, increasing percentage of households without children, and growth in minorities and immigrants that typically generate fewer VMT.

VMT peak?

All of these factors would contribute to a long plateau and would exaggerate short-term dips as they all put more people on the modal decision boundary between automobile and non-automobile in times of rising fuel costs, new-car purchases, and moving domiciles. But the question now is whether a long plateau will end in a slow return to former levels, or would the decline signal an absolute peak?

Automobility will indeed peak at some point in humanity's future. Whether that has already happened in some countries needs to wait for more data. Certainly it has not happened worldwide. As and when this peak unrolls across the economic development gradient of the countries in the developed world it will be followed by a plateau of automobility – but never its demise. What will that plateau look like? How long will it last? And will a new post-oil peak arise in 20 or 30 years? I predict the plateau will be modest at best – in the range of 80-100% of current volumes, that it will last 10 to 20 years, and will be followed by a post-oil peak significantly surpassing current VMT levels, but we will have technology to mitigate its congestion effects.

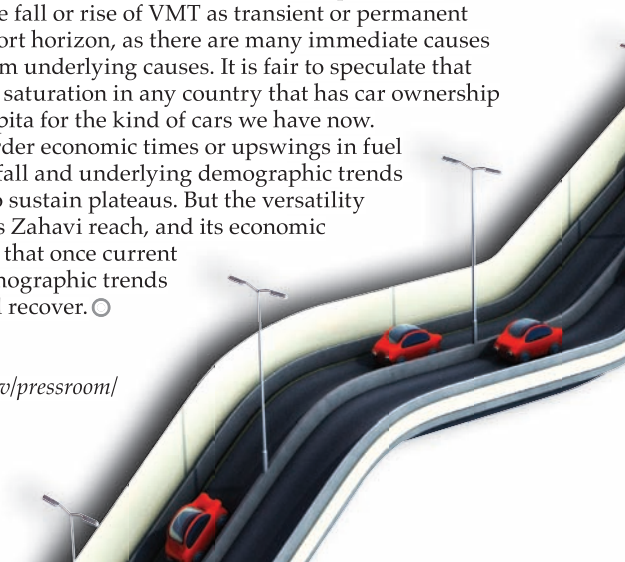
The travel behavior models discovered by J. C. Tanner in the 1960s, developed by Y. Zahavi in the 1970s and elaborated by C. Marchetti in the 1990s teach us about two travel invariants, or 'Zahavi budgets', that limit natural human time and money expenditures for mobility. Humans intuitively seek to limit daily travel time to 'about an hour'. It predicts the radius of pedestrian cities would be about 2.5km and the car expands that to 20-25km. Cities that are bigger than that either tend toward having people live and work within the radius of a one-hour round trip or have people spending more than their instinctive time budget on travel. This correlates well with our anxiety over congestion study reports of 'average commute times' of 75 or 90 minutes (or more) in some larger cities. It also influences where individuals locate, which modes they will choose, and which jobs are 'within reach'. Most importantly, it selects for the automobile where there is not transit that is within the time budget, because in most door-to-door circumstances the automobile is considerably faster than public transportation. This time budget tells us why our many attempts to reduce driving will continue to fail, and why a new peak will materialize, post-oil.

Commuters aim to keep their daily journeys to 'around an hour'

> I predict the plateau will be modest at best – in the range of 80-100% of current volumes, that it will last 20 years and will be followed by a post-oil peak

The automobile also leaves the Zahavi radius whole – the car can reach almost anywhere within a radius. Job and location reach via public transportation is more fragmentary. The area that can be accessed within the Zahavi radius functionally defines a city. As the automobile adds so significantly to that radius, this forms a significant barrier to the 'demise of automobile dependence'.

Interpreting the fall or rise of VMT as transient or permanent is difficult on a short horizon, as there are many immediate causes as well as long-term underlying causes. It is fair to speculate that VMT is close or at saturation in any country that has car ownership at 0.6 or 0.7 per capita for the kind of cars we have now. Hence, during harder economic times or upswings in fuel prices, VMT may fall and underlying demographic trends can be expected to sustain plateaus. But the versatility of automobility, its Zahavi reach, and its economic power all indicate that once current economic and demographic trends play out VMT will recover.



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[1] *www.fhwa.dot.gov/pressroom/fhwa1103.htm)*


VELOCITY
68
LOCATION
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H-NU 4949
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LOCATION

Sweet harmony

TMCs are dramatically expanding their capabilities to fine-tune the way they respond to fast-moving and potentially safety-critical incidents. **Timothy Compston** speaks with the front-line conductors who have to face the music on a daily basis

Illustration courtesy of Magictorch

Through the rollout of intelligent systems and robust management techniques, traffic management centers (TMCs) are very much at the heart of efforts to orchestrate the smooth running and safety of their extensive highway networks. Anticipating and tackling incidents is key. If proactive steps aren't taken at the earliest possible stage, situations out on the roads can very quickly escalate out of control. Even the smallest of delays can have severe follow-on cost implications for highway operators, but crucially also repercussions across the wider regional economy as commuters find their journeys disrupted while time-sensitive deliveries miss their critical deadlines.

Thankfully, the need for personnel to access the 'bigger picture' without missing a beat is being facilitated by a number of technologies, including the adoption of the latest visualization systems and videowalls as well as moves from wireless to fiber backbones to enhance data flow and – from an information-gathering perspective – the installation of IP-enabled camera networks. The take-up of video analytics for incident detection and the integration of speed and traffic flow sensors at key points is also a prerequisite for creating harmony on the roads. TMCs are additionally making extensive use of physical and virtual media to communicate geographical and audience-directed messages to maintenance personnel and the wider traveling public, whether through Dynamic Message Signs (DMS), emails, SMS, websites – and in this day and age even social networks.

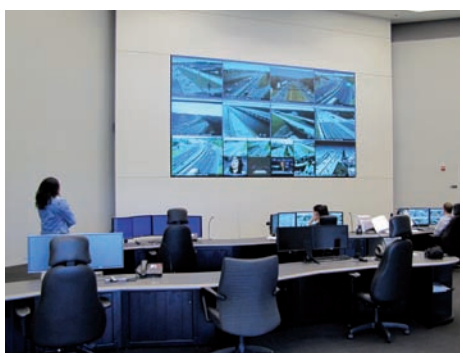
Regional focus in New Orleans

Emergency scenarios are when TMCs have to become command centers, demonstrated all-too frequently in the USA over the past few years. But such events do initiate change for the better. The traffic management infrastructure across New Orleans, for instance, has certainly been transformed in recent years as a result of the city's experience with Hurricane Katrina. Steve Strength, the district traffic engineer from the Louisiana DOT and Development, is enthusiastic about the resources that are now in place. In particular, Strength, who is responsible for overseeing the New Orleans TMC – which is coming up to its second anniversary – believes there has been a major step-up in capability over what was previously in place. "There's no doubt things have improved dramatically since Katrina, when there were essentially a few portable cameras and message signs on trailers with wireless capability to implement the contra-flow operations for the evacuation," he says. "Traffic was then being managed from my office on a laptop, including communication with state police and other relevant agencies."

When emergency conditions arise such as hurricanes, floods, industrial explosions, or terrorist attacks, the EOC at Houston TranStar is activated

Many of the lessons learned from events such as Katrina have been addressed in the design of the new facility: "During the planning of the new center, we regarded enhanced communications with our partners and the local agencies – covering the interstate highways and major roadways – as a priority in order to share information," Strength says. "And to this end, we now have a statewide fiber-optic network, which means we are linked with centers in other parts of Louisiana." With the new strategy in place, there is now complete redundancy with Baton Rouge so both regions are able to see each other's video feeds. "We have also been working on sharing video with the police and local public works personnel," Strength adds. "With previous events we found that it was impossible to be on the phone with multiple agencies at the same time, as things simply became confusing; so from an operational perspective the more information that can be made available in other ways the better. Our website, for instance,

> We regarded enhanced communications with our partners and the local agencies – covering the interstate highways and major roadways – as a priority in order to share information
>
> **Steve Strength, district traffic engineer, Louisiana DOT, USA**



At the New Orleans RTMC, advanced cameras, viewing screens and VMS are designed to monitor and direct regional roadway operations year round and during periods of congestion and hurricane evacuation

Baltimore visualizes ROI

When traffic planners in Baltimore, Maryland, saw that their options for new roads were becoming limited they decided instead to focus on overlaying smart technology onto their existing infrastructure. Funding was secured through the Mayor's Office and the Baltimore and Maryland DOTs to rebuild Baltimore's TMC. The city's planners were also charged with minimizing capital and operating expenses.

As a consequence, Baltimore selected an open, IP-based, traffic management solution. The solution is now operational and consists of an IP-based network of existing and new ITS devices such as cameras, sensors, newer LED traffic signal systems, electronic signs, and wireless devices. This network allows two-way data transmission and remote control and troubleshooting of traffic devices and has significantly improved information flow and overall situational awareness across multiple city, state, and police departments.

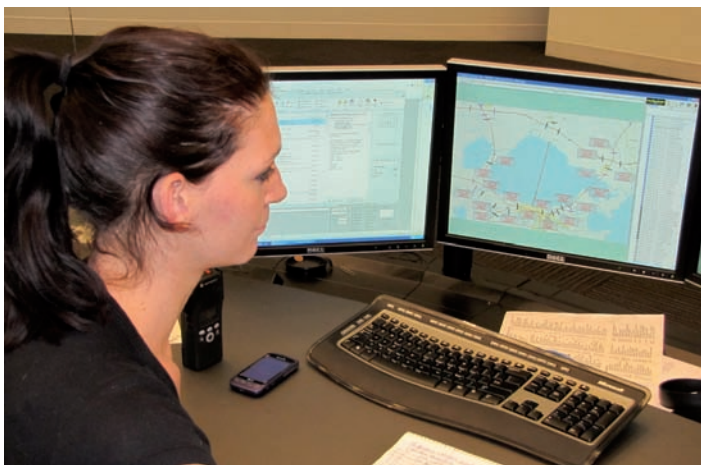
The centerpiece of the new TMC is a network-based visualization and collaboration solution that features a large video display wall in the main conference room, which can – if required – also serve as Baltimore's Emergency Operations Centre (EOC) to handle severe events such as hurricanes. It leverages technology from Siemens integrated with advanced visualization and collaboration software from Activu. Information from thousands of video and data sources can be controlled, prioritized, and selected in real time for viewing on the videowall. Information can also be accessed and viewed on secure, authorized, network-connected devices.

"With tight budgets and the proliferation of broadband wired and wireless networks, we believe that IP-based open systems such as the one in Baltimore are able to deliver a high return on investment and increasingly replace legacy systems in TMCs worldwide," says Paul Noble, CEO of Activu, which supplied the visualization solution.

offers traffic data and information that means even agencies that don't have a direct connection to us can view camera footage and other data."

The New Orleans TMC has been designed with flexibility in mind and has space for up to 12 workstations, raised floors and a computer room should agencies want to sit in for major incidents. Strength also sees the benefit of having a boardroom upstairs with a large glass window overlooking the operation: "People can go up there to see what is going on without impacting negatively on the work of the control room operators.

"Ironically, with all the changes we haven't had to conduct an evacuation since we opened," the TMC manager says. "The closest we've come was the very recent tropical storm Lee, which was the first major weather event for us. In the case of Lee, we were able to process reports of roadway flooding including outside the levee system that we don't normally monitor, put them on the website and 511 system and deliver email updates to selected officials and public highway representatives."



(Left) **New Orleans RTMC operator Dixie French keeps a watchful eye on events out on the road**

Of course, things don't just get hectic when storms roll into town. With planning well advanced for the National Football League's Superbowl 2013, Strength believes the TMC's capabilities will ensure a much smoother process than when the Superbowl last came to the city in 2002: "As the first major sporting event post 9/11, one of the challenging things was that the authorities didn't want any trucks in and around the Superdome," Strength recalls. "Being right in the downtown area meant that this impacted on our entire Interstate system so we were scrambling around to put up static signs and other measures before the event. Now with intelligent traffic management systems in place, such as video monitoring and variable message signs – which can be controlled directly from the TMC – it will be far easier to communicate restrictions and to obtain a bigger-picture view of what is actually going on."

Houston's intelligent approach

As with New Orleans, the operation of Houston's TranStar TMC in Texas has

Houston TranStar, a national leader in freeway incident management, uses state-of-the-art technologies to reduce congestion on major roadways

benefited from years of experience handling major incidents. According to David Fink, manager, transportation management systems, a case in point is the way that TranStar has been able to build on the experience of Hurricane Rita in 2005 so that when Hurricane Ike came around three years later its operations ran much more smoothly. "It was like night and day in our ability to deal with the two hurricanes," Fink recalls. "For the first event it became apparent early on that all of our ITS were concentrated in the urban area while unfortunately many of the hurricane-related problems were actually outside of this ITS coverage. As a consequence, we dramatically extended our monitoring footprint into the rural roadways and now have around 900 cameras compared to around 400 previously.

"The result of this investment was that during Ike we were able to keep a watch on traffic from the TMC to a greater extent across the critical evacuation routes," Fink explains. Unlike Rita, though, alongside this **Houston TranStar had incident** management contracts in place to remove stalled vehicles during the evacuation. "If we saw a bottleneck developing, somebody could be sent out quickly to deal with it before the situation escalated. On I-45, for instance, one of our hurricane evacuation

routes, we are currently trialing Bluetooth technology to determine vehicle travel times on the roadway and to pick-up on closures. An early implementation of this for us was when we had major icing across Texas so we could monitor road conditions based on the data collected for speed and the number of vehicles out there."

The operators at Houston TranStar also found themselves handling the consequences earlier this year following the huge Tri-County fire – the largest in Fink's living memory: "It was about 60 miles from the center," he says. "Our main tasks during this time were to deal with road closures and to direct people around the area. It was challenging but being more localized it was not on the same scale as a hurricane-type evacuation."

NTTA focuses on detection software

Dallas-based North Texas Tollway Authority (NTTA) – which continues to win awards for its operations – reports that it is now using night-vision cameras and incident detection software to provide an early warning of potential problems to operators at its command center. Clayton Howe, assistant executive director of operations at the authority, sees the application of this technology as an important advance: "When you have a couple of thousand cameras and three or four people to monitor them, then it makes sense to implement this type of approach," he says. "The technology we use was originally applied at airports to detect what should and shouldn't be there. In the case of traffic, it establishes trends relating to how vehicles should be moving at a certain time of day. If there is a difference between what should be expected, the software will identify the cause and bring it to the attention of our operators."

Despite the rush to deploy ever-more sophisticated technology Howe still sees a place for the good old-fashioned eye on the ground: "During rush-hour traffic, you just can't beat people being there," he insists. "Within two or three seconds, we'll receive calls from motorists surrounding an incident, which is something technology still can't match. We also had a recent example where a mechanically stabilized wall failed and moved 5ft. The initial buckling was actually picked up by one of our Roadway Customer Services team, who was passing the area and was then able to alert the command center to initiate a roadside closure.

"Once you know that there is an incident, the advantage with cameras of course is that they allow the command center to look at the situation remotely, send the right resources, and monitor progress," Howe adds. "In the past, without these cameras in place, if there was an incident out on the road such as a tanker fire everybody would be dispatched. Now there is at least the potential to identify who really needs to be at the location rather than needlessly tying up resources and impacting on response times for other events."

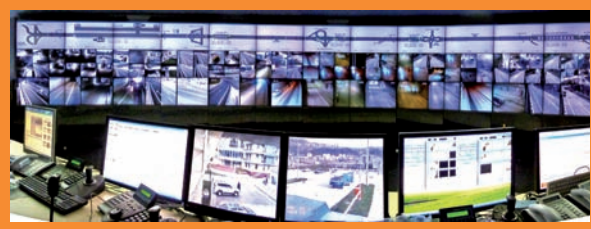
(Top left) **When a problem occurs on an NTTA road, motorists can count on its 24/7 incident management teams within the command center**

> When you have a couple of thousand cameras and three or four people to monitor them, then it makes sense to implement this type of approach
>
> **Clayton Howe, assistant executive director, North Texas Tollway Authority, USA**

Roadwork realities in Edmonton

One of the most problematic scenarios that TMC managers and operators have to deal with are major public works, with the associated disruption to normal traffic patterns causing more than a few gray hairs. Just ask Gord Cebryk, director of signals, street lighting and infrastructure rehabilitation in Edmonton, Canada, who will gladly tell you what he and his local TMC team faced when dealing with the large-scale CA$161 million Quesnell Bridge Rehabilitation Project, which sought to widen the bridge

Wonder wall for Winter Olympics



When it comes to hosting a major event such as the Winter Olympics, invariably transportation management comes under the spotlight. The forthcoming 2014 event in Russia's Sochi is no exception, with a key development being the construction of a massive 4.2km tunnel – the third largest in the country – to deliver a critical connection from Sochi to the mountainous region of Krasnaya Polyana in the Western Caucasus, scheduled to host outdoor competitions such as downhill skiing. The Baranovsky tunnel, which took 10 years to complete, was officially opened by Prime Minister Vladimir Putin in December 2009.

From a TMC point of view, it was seen as imperative at an early stage by the Russian authorities to set up an ultra-modern facility to ensure traffic safety in the tunnel. The purpose-built center takes feeds from more than 300 CCTV cameras deployed both for tunnel monitoring and to keep a watchful eye on the surrounding environment. Given the extent of the camera network it was decided that the optimum solution would be to display the outputs on a massive screen, alongside various computer signals, via split high-end graphic controllers. The impressive video display wall solution from eyevis includes 36 of the company's 46in LCD screens installed in an ultra-thin 12x3 arrangement. The resulting display layout has been optimized to mirror the layout of the Baranovsky tunnel and the relative positions of the associated camera feeds, and will ensure that center operators have an optimum view of any tunnel-related incident during the 2014 Winter Olympic Games.

over the North Saskatchewan River. "With up to 120,000 vehicles transiting it each day, the Quesnell Bridge is a key part of Whitemud Drive, one of the busiest commuter corridors in Edmonton," Cebryk explains. "We were involved with the posting of specific road disruption information via strategically located dynamic message signs at an early stage," he reveals. "This allowed us to provide tailored messages for motorists with details on the roadworks and significantly, the lanes that were being closed in each direction. For peak periods, we were also able to deliver constantly updated travel-time information to provide commuters with an indication of the potential impact on their journeys."

According to Cebryk, it was imperative in this situation that the Edmonton TMC was able to liaise effectively with other agencies involved in the Quesnell Bridge project. "Our TMC operators regularly dealt with messaging requests to highlight construction disruptions on this vital corridor from Edmonton's Traffic Control Group. A pivotal element in the successful handling of the travel disruption was the constant coordination regarding the content of these messages and where they were to be displayed. In addition, TMC operators closely monitored congestion in the area to manage any unplanned events, such as collisions and stalled vehicles, notifying the Edmonton Police Service and verifying the situation on the ground through our network of CCTV cameras."

Cebryk feels that the experience gained in Edmonton from this project underscores the importance of providing directed information to the traveling public: "We reaffirmed the benefits of a proactive messaging approach in alleviating the frustration of motorists over the inevitable disruption to this key arterial route while the construction work was under way," he says. "Ultimately, this helped them to make informed decisions as they were at least able to know why traffic flows were abnormal and to alter their travel plans accordingly."

(Above and right) **Efficient TMC operations in Edmonton enable improved incident response and traffic management along monitored corridors, creating more efficient traffic flows**

Switch to better TMC efficiency

The clutter inherent with a computer terminal at TMC workstations – the mouse, keyboard and monitor – limits space, and generates noise, heat, dust, and health and technical issues, all when operators must maintain utmost levels of concentration. However, the KVM (Keyboard, Video and Mouse signals) extending and switching technology from Guntermann & Drunck streamlines the system, allowing users to access a pool of computers – even different platforms – through one keyboard, video (display), and mouse. The solution is not only beneficial ergonomically, but also facilitates the work of the controller as computers can now be operated with one set of input devices. The free working space also allows for more staff within the same space, while economically it reduces materials costs and IT total cost of ownership and saves primary energy (for components, etc.) and secondary energy (such as for cooling).

KVM products switch and extend multiple signals – DVI dual-link, single-link DVI and analog video, bidirectional audio, and transparent USB – establishing a one-to-one instead of a data connection to the computers without latency.

KVM switches can access between two and eight computers, cascaded up to several hundred. Each computer can be accessed over keyboard hot-key, on-screen display, push-button or external device.

What will the command center of the future look like? **Vinodh Swaminathan** has a pretty firm idea. And with a recent deployment in Rio, maybe we're halfway there

Interviewed by Nick Bradley

> What we at IBM did was provide the city with a platform that actually allowed for the easy integration of all these various siloed agencies

The eyes of the sporting world will be on Rio de Janeiro a fair bit over the course of the next five years, with the FIFA World Cup staging soccer matches in 2014, and the city playing host to the Olympic Games in 2016. Vinodh Swaminathan's eyes won't be on the goals or the 100m final, though, when these auspicious events roll into Brazil's capital – they'll be on the city's new Operations Center in Cidade Nova.

The global director of ITS for IBM is in Rio to observe how the Big Blue's Intelligent Operations Center (IOC) platform is performing. IOC is part of the 'Smarter Cities' portfolio – which comes under IBM's 'Smarter Planet' umbrella – so Swaminathan wants to see how it will fare on its first true litmus test. Upwards of 1.5 million people are expected to converge on the world's largest rock festival to watch the likes of Guns n' Roses, Metallica, and the Red Hot Chilli Peppers. Although Swaminathan doesn't have a back-stage pass for Rock in Rio, held in September, he does have access all areas in Mayor Eduardo Paes' multi-million dollar command center.

Incident command

Similar to many other operations centers, the aim of the Cidade Nova facility is to integrate and interconnect information from multiple government departments and public agencies to enhance city safety and responsiveness to anything that might go pear-shaped in the city. In Rio's case, this includes flash floods and landslides, which have brought particular tragedies to Brazil's capital in recent years, killing thousands of people. "Mayor Paes has driven this project forward," Swaminathan reveals. "What became clear to him upon taking office in 2008 was that there was not the coordinated capability that you need in times of crisis, so he invited not just IBM but other technology companies to demonstrate solutions that would showcase Rio in the right light with all of these major events on the horizon.

"What we at IBM did was provide the city with a platform that actually allowed for the easy integration of all these various siloed agencies – police, fire, transportation, traffic management, media, etc."

Such interagency coordination within the same building is nothing out of the ordinary nowadays, certainly in traffic management – but through IBM Research a number of unique and totally innovative analytics tools have been added – and will continue to be added into the future. "We are currently in the process of implementing, calibrating and fine-tuning PMAR – a high-resolution weather forecasting and hydrological modeling system," Swaminathan explains. "Other meteorological technologies indicate storm patterns up to 24-48 hours ahead of time, and it's pretty generic. Our system has a much narrower window, so up to six hours ahead of time we're able to precisely predict down to a square mile the location a storm will hit and the impact of that weather phenomenon, which is going to vastly change the city's ability to get prepared for the type of massive rainstorms seen in recent years. They're heading into their rainy season so it'll be intriguing to see how the IOC and intelligent analytics help out."

As a software suite IOC can be tailored to individual domains, although IBM's intelligent transportation product was one of the first out of the blocks, according to Swaminathan. "It's an integral part of our vision for the TMC of the future," he says. "We have the ability to literally pipe in data from multiple TMCs and create integrated visualization capability on the intelligent transportation product. On top of that, you now have the capability to add seemingly

> The cloud could dramatically change the way TMCs are designed, operated, as well as the budget you allow for them

unrelated but essential data to augment some of the richness of the information."

What Swaminathan means by this is that because the IOC platform is designed for cross-agency collaboration, it can pull, for example, video data from a police department, security services or even within the DOT itself. "They have a ton of cameras out there looking at real-time traffic feeds, but the general analytical value of that video feed is when an operator looks at it on the videowall. It's not just about knowing and reacting; it's all about providing a much richer insight to operators so they can anticipate and avoid.

"Video, of course, is only one example. With IOC, we can also 'mine' social media feeds by looking at traffic-related information on Twitter, Facebook, etc. We're seeing an increasing use of social media to source up-to-date traffic information. Then of course you have companies out there specializing in cell phone data, and we're working with a few of them right now to pilot some interesting solutions."

Predictive analytics

A third level of functionality of the IOC is predictive analytics. "With this we're truly changing the function of a TMC from a monitoring center where operators find out what's going on and then react to one where they can anticipate and avoid situations," Swaminathan continues. "So the traffic prediction tool has the capability to look at all this data on a cross-TMC/cross-agency scenario, all of the traffic-related data, and essentially predict the likelihood of the traffic situation in 15-, 30-, 45- and 60-minute intervals, with greater than 95% accuracy in the shorter timeframes."

Other applications are also benefiting from this IBM analytics expertise, as Swaminathan details further. "In California, we're working with Caltrans and the University of California Berkley to build a citizen- and commuter-centric application called Smart Traveler Program. It's where people like you and I opt in to a monitoring program where the software essentially learns your common driving patterns using your GPS-enabled cell phone. Say, on a Wednesday, you're going to the office in the morning, returning back, you have a soccer game in the afternoon. With that knowledge and the traffic prediction capability, the program now pushes data to you based on what the situation is likely to be for that particular pattern. It's an excellent modification to 511, which frankly not a lot of people use. States spend a lot of money on 511, but I've never called it – I get most of my information from radio stations."

Another application is core to TMC operations – incident response. "One of the biggest challenges for operators after they know of an incident is getting their emergency teams to the scene," Swaminathan says. "With our predictive capability, we are not able to forecast an accident, but we are able to predict the likelihood of an incident happening, based on information such as traffic volume, speeds, flows, real-time data and historic information, too. The ability to pinpoint down to that level makes a significant difference to response times for TMCs."

So, now onto the 'cloud', or in IBM's case, the SmartCloud. "It's about time to value for clients and helping cities rapidly adopt new capabilities and controlling cost," he says. "TMCs can benefit from the cloud by simply connecting and taking advantage of standard deployments without having to worry about customization, and once they have the experience with the tools, they're soon able to fine-tune the capabilities."

A more exciting use of the cloud is that it offers true on-demand capability. "Let's use predictive analytics as an example," he says. "Clients can tap into higher service levels around predictive analytics in times of special needs, whether it's a rock festival or a natural disaster. The standardized deployments will be available on a cloud, which TMC managers can tap into and then shut off when not required. Potentially, you could have a situation where a TMC operates differently using certain technologies on a cloud during the rush-hour in the morning and the afternoon, but settle into 'ho-hum' kind of attitude in the afternoon when there isn't so much of a demand for the same capability."

In Swaminathan's opinion, with the cloud there's no real need for a data center at the TMC. "They're full of operators who you wouldn't expect to have the necessary data management and analtyics expertise, so you could shrink the footprint of the TMC down to just a videowall. It could dramatically change the way they're designed, operated, and the budgets allowed for them."

The whole TMC of the future product that Swaminathan has been detailing was developed in cooperation with AECOM, who he says "bring a vast amount of expertise in designing and managing TMCs".

"We worked with them in the UK for TfL, and we're looking to work with them in emerging markets that are keen to embrace new technologies as they roll out their infrastrucuture. These guys are looking for expertise around aspects such as where you locate a TMC. How should it be built? Where should the videowalls be and what should the operator consoles look like? AECOM has built many of these TMCs around the world and in combination with an information base provider such as IBM, I think our combined skills and capabilites will really resonate in the marketplace."

Political will, political won't…

One of the things that IBM's Vinodh Swaminathan has noticed in the transport sphere is a great deal of demand for short-term fixes to some of the major problems clients have. "Whether it involves new types of taxation or changes in policy, transportation is a topic that is very, very sensitive from a political standpoint, and not just the whole tolling debate!" he says. "It involves moving people, goods, and it has a direct impact on the economy. A 10% reduction in congestion, for instance directly leads to a 3% improvement in local employment and a 2% improvement in local GDP. WIth this type of impact, you've got a lot of opinions and emotions around transportation.

"There are some challenges around implementing some of the solutions we have, but I always tell clients, technology is not the inhibitor. We have solutions today that not only us but many other industry stalwarts can implement that requires a little bit of political leadership from a policy-making and implementation perspective. We have no control over that, but the technology is there."

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Which States Have the Worst Drivers?

It's the eternal question: which state has the worst drivers? **While you may think *your* state has the worst drivers in the nation, especially when that guy pulls an illegal left turn in front of you, we decided to put it to the test. With bad driving comes high car insurance rates so be careful!**

We compiled data from three sources: the National Highway Transportation Safety Administration (driving fatalities), the American Motorists Association (which states hand out the most tickets), and MADD (drunk drivers).

Then we translated all of this information into rankings: the higher the ranking, the worse the states were. For example, the state with the most tickets, Florida, got a 50 on the scale. Then we added up the numbers to give each state a score; the higher the score, the worse the drivers. If you find yourself in one of these states, expect your state car insurance to be higher than other states! One can save on car insurance by taking the time to use our ZIP code search! We will help you find cheap car insurance for whatever state you live in!

The numbers surprised us. Here are the top 10, in descending order:

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The Ten States With the Worst Drivers

#10) South Carolina

South Carolinians are not careless drivers: according to our data, they're the third most careful drivers in the Union. But somehow, that doesn't apply to stop signs or turn signals: they also pulled a miserable 45 for obeying the signs on the road. We're pretty sure that's why they pulled an abysmal 48 on the fatality rankings, locking them squarely in number 10. At number 10, **South Carolina car insurance** won't be as high as some of the other states!

#9) Alabama

Alabama residents are pretty careful too: they got a 7 in our rankings. But not careful enough: they got a 41 in disobeying traffic laws and a whopping 46 for tickets and awful 42 for fatalities. So if you're going to a Crimson Tide game, drive carefully. There might be some **crazy traffic laws** in Alabama, but that doesn't mean one can disobey them

#8) Montana

Good news: Montana had the highest ranking in tickets! Bad news: they had the lowest ranking in fatalities, the second lowest in drunk driving, and pulled a nasty 40 on carelessness. Maybe they should start ticketing more. Montana drivers should start being safer or else their tickets will rise their **Montana car insurance**!

#7) Kentucky

We'll leave it to Kentucky to tell us which is worse: driving drunk or driving carelessly. They've got enough experience dealing with both to make an informed decision: they ranked 42 and 48, respectively. That means they're the seventh worst state for fatalities...and, not coincidentally, seventh on the list. Maybe if drivers within Kentucky stopped breaking **DUI laws**, the statistics would be lower!

#6) Arizona

Arizona is out of the bottom twenty in only one place; carelessness, where it pulls a 29. No wonder it's sixth on the list. Wonder how much **Arizona car insurance** is for being sixth on the "Worst Drivers" list? **Compare car insurance** and find out!

#5) Oklahoma

Oklahoma actually has one thing to be proud of: next to Florida, it has the best ranking out of the bottom ten for drunk driving. It sits at 25. The same isn't true of fatalities or paying attention to signals, which is why it rounds out the bottom five. Drivers who have **Oklahoma car insurance** could help their state out by driving safely!

#4) Florida

Florida has at least one thing to be proud of: it's in the top ten for drunken driving, at number 7. Unfortunately, it sits at the very bottom for tickets, and one away from the bottom slot for carelessness. All that puts it squarely in the bottom three, and makes **Florida car insurance** in the running for the highest state insurance!

#3) Texas

Texas is in the bottom twenty for every measure we had on this test, but it only gets in the bottom ten for one area: tickets. Unfortunately, its scores are so mediocre otherwise that it gets dragged down to number four. Which means **Texas car insurance** can be higher than most states!

#2) Missouri

Missouri drivers get lots of tickets: Missouri scored a 45 on our rankings. Unfortunately, that doesn't seem to teach Missouri drivers any lessons. Missouri is in the top ten for carelessness and drunken driving, and despite a decent score, 19, for obeying traffic laws, Missouri still wins the tarnished silver as the second worst state to drive in. Hopefully **Missouri car insurance** isn't as high as their "Worst Drivers" ranking!

#1) Louisiana

Residents of the Bayou may object, but the numbers don't lie: it's in the bottom ten in all categories except one, failure to obey. It's number eighteen there, but it's so bad elsewhere that it beats Missouri by twelve points. With all of these "Worst Driver" factors, we hope Louisiana drivers are saving some money on their **Louisiana car insurance**.

Here are some surprising trends you can pull from the data:

The Further South You Get, the Worse It Is

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- Celebrity Car Accidents - The 10 Craziest Celebrity Car Accidents

The states with the best safety records tend to be up north. Massachusetts, for example, had the single lowest fatality rate of any state in the Union, according to the most recent car insurance statistics. Right behind the Bay State was Minnesota, which, despite ranking number four in the data for failure to obey traffic signals, was almost as safe.

Meanwhile, the further down the list you get, the more members of Dixie and the Old West start cropping up. The Southwest didn't do much better; in all, the southern half of the country holds nine of the ten worst states.

This isn't to say that if it's cold and snowy you're in the clear: Alaska and Montana were both in the bottom twenty-five.

Once You Leave the Cities, It Gets Really Dangerous, Really Fast

Almost all of the states in the bottom ten are largely rural, agrarian states. But it's worth noting that the data also reflects how much people drive. For example, a small state with a major urban center, like Massachusetts, will have lots of residents, but many of them won't be getting behind the wheel, which helps skew the numbers in their favor. Compare this to states that don't have a lot of public transportation. They're going to have higher traffic fatalities practically by default.

There are exceptions: Texas, due to it being vast, is in the bottom 25, despite having Houston, Austin, and Dallas/Fort Worth as major commercial and urban areas.

Ticketing Isn't Much of a Deterrent

If you look at the rankings for the states that hand out the most tickets per capita, you'll find something people may not like to hear: traffic tickets don't have much of a deterring effect.

To be fair, part of that is our system. Florida, which hands out the most tickets, got a 50 added to its score, while Montana, which hands out the least, got a 1. On the other hand, they both wound up in the bottom fifteen of the list.

The Best Way to Be the Worst State? Be a Careless Driver

Not shockingly, three of the ten worst states for drunk driving wound up in our top ten list. And, for failure to obey traffic signals, three states also bought a ticket onto the worst ten.

Careless driving? That made up five out of ten top-ranked states. Several states were ranked low in more than one category, but careless driving seems to be the real bullet: nine of the bottom twenty in carelessness made the bottom ten overall, compared to seven for failure to follow signals and eight for drunk driving.

All of this really drives home an important point: even if you follow traffic signals and drink responsibly, just get distracted by your cell phone and you're as much of a menace as someone who staggers out of the bar and tries to drive home. That is why many state are making cell phone driving laws!

Complete Rankings

State	Fatalities Per Million Miles	Ticketing Rank	Drunk	Failure to Obey	Careless	Total Score	Worst Driver Rank
Louisiana	49	41	41	18	47	196	1
Missouri	34	45	44	19	42	184	2
Texas	35	47	31	38	32	183	3
Florida	37	50	7	40	49	183	4
Oklahoma	40	34	25	42	39	180	5
Arizona	39	40	37	33	29	178	6
Kentucky	44	16	42	17	48	167	7
Alabama	42	46	29	41	7	165	8
Montana	50	1	49	25	40	165	9
Nevada	41	48	4	44	22	159	10
South Carolina	48	33	30	45	3	159	11
North Carolina	33	43	21	30	31	158	12
North Dakota	26	3	33	50	45	157	13
Delaware	29	25	36	39	27	156	14
Tennessee	36	31	45	21	23	156	15
Kansas	25	28	32	26	41	152	16
Arkansas	46	19	17	20	50	152	17
Idaho	38	8	34	24	44	148	18
Georgia	31	49	11	43	9	143	19
Alaska	24	5	48	23	34	134	20
Iowa	27	36	2	49	18	132	21
South Dakota	28	4	46	46	8	132	22
Mississippi	45	39	10	3	35	132	23
New Mexico	32	10	9	28	46	125	24
Colorado	21	26	35	12	30	124	25
Pennsylvania	30	21	20	32	19	122	26
Hawaii	12	14	47	9	38	120	27
Wisconsin	14	18	43	15	28	118	28

New York	5	44	16	34	17	116	29
Vermont	11	17	40	22	26	116	30
Indiana	22	32	14	36	10	114	31
Michigan	8	27	27	37	14	113	32
West Virginia	47	7	39	4	16	113	33
Maryland	18	37	19	5	33	112	34
Minnesota	2	24	13	47	25	111	35
California	13	38	22	31	6	110	36
Wyoming	43	2	50	14	1	110	37
Washington	6	35	23	8	37	109	38
New Jersey	4	42	8	11	43	108	39
Utah	17	12	15	35	24	103	40
Ohio	20	29	3	29	20	101	41
Nebraska	19	9	1	48	21	98	42
Illinois	9	30	18	27	13	97	43
Maine	16	6	26	7	36	91	44
Oregon	23	11	38	6	11	89	45
New Hampshire	15	15	24	2	12	68	46
Virginia	10	23	6	16	5	60	47
Massachusetts	1	22	5	13	15	56	48
Connecticut	7	20	12	10	4	53	49
Rhode Island	3	13	28	1	2	47	50

No matter where your state falls on our list, it's best to be fully covered with quality auto insurance. To get the lowest car insurance rates in your state, just type in your ZIP code into the box below, and we'll give you the best car insurance quotes we can find, for free!

OH&S
OCCUPATIONAL HEALTH & SAFETY

DOT Agency Maps Nation's Structurally Deficient Bridges

They are marked on a map for each state's congressional district(s), supporting Transportation Secretary Ray LaHood's call for Congress to provide repair funding.

Nov 07, 2011

The Bureau of Transportation Statistics has posted a map of structurally deficient bridges throughout the country. The data from BTS, which is part of DOT's Research and Innovative Technology Administration, consists of a separate map for each congressional district in the states. U.S. Transportation Secretary Ray LaHood urged Congress to provide repair funds on Nov. 3.

The following day, the Associated General Contractors of America said its latest analysis of federal employment data shows the construction industry's unemployment rate is 13.7 percent after 20,000 jobs were lost between September and October because of a slowdown in public-sector investments. The unemployment rate was even worse, at 17.3 percent, one year earlier, according to AGC. However, the association also reported some encouraging news: A group of Republican leaders signed a letter supporting a new six-year transportation funding bill.

"I've said numerous times on this blog that there's no such thing as a Democratic or Republican bridge, and that remains true," LaHood wrote. "But unfortunately, there is such a thing as bridges in need of repair, and those are the bridges that President Obama would like to see rehabilitated through the transportation provisions of the American Jobs Act. Through these proposed investments, we can get people back to work and make our transportation network safer. . . .

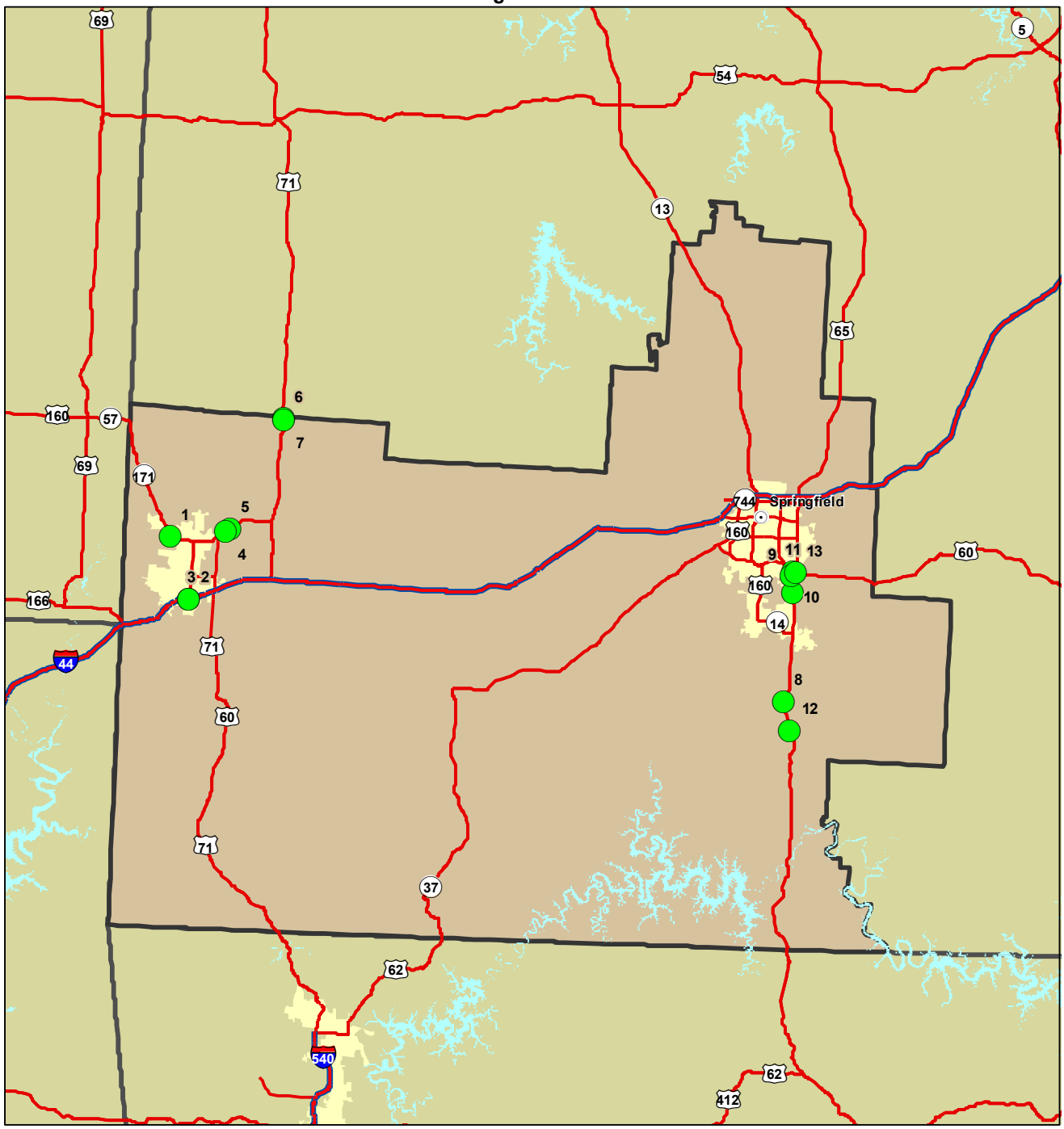
"But it's not just bridges for cars and trucks that are in need of long-delayed repairs. As Federal Transit Administrator Peter Rogoff said this morning, 'Southeastern Pennsylvania, home to some of the oldest transit infrastructure in the nation, is in need of a 21st Century overhaul.' I agree with Administrator Rogoff. The Bridgeport-Norristown Viaduct was built a century ago, in 1911. In 2011, it carries thousands of Southeastern Pennsylvania Transportation Authority passengers monthly on the Norristown High Speed Line. The viaduct extends from the Norristown Transportation Center, and it carries riders over two other rail lines, the Schuylkill River, and the town of Bridgeport before ending at Bridgeport Station.

"But the 100-year-old structure is showing its age with cracks to the steel and concrete elements, corrosion losses, and failing timber ties. It's safe, but we need to make sure it stays that way. The transportation funding in the American Jobs Act will provide SEPTA and transit agencies across the country with the resources they need to complete critical repairs and upgrades. It will also provide a great opportunity for hundreds of thousands of American workers to get back on the job, whether that job is rebuilding roadways or repairing transit tracks."

U.S. Department of Transportation
Research and Innovative Technology Administration
Bureau of Transportation Statistics
Geospatial Information Services

Structually Deficient Bridges on the National Highway System

Missouri - Congressional District 07

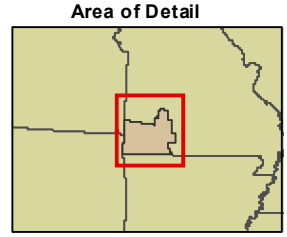


Deficient Bridges
City
Interstate Highway
Other NHS Highway
Body of Water
Urbanized Areas
Congressional District

Consult your state DOT for the most up-to-date status of bridges.

N
W
E
S

Area of Detail



Note: The bridges displayed on this map represent the results of a combined BTS/FHWA effort to geocode bridges from the FHWA's National Bridge Inventory (NBI). All data is from the 2010 NBI. Of the 131 structurally deficient NHS bridges in Missouri, 0 could not be geolocated because of insufficient data. Structurally deficient bridges are not necessarily unsafe; all public road bridges receive regular safety inspections. The bridges listed were categorized as structurally deficient at the time the maps were developed.

Wednesday November 9, 2011

Bloomberg

Mexican Trucks Stay Home After 17-Year Push to Open U.S. Border

November 08, 2011, 11:07 AM EST

By Jeff Plungis

Nov. 8 (Bloomberg) -- It took 17 years and $2.4 billion in trade tariffs to get the U.S. Transportation Department to let a Mexican long-haul truck cross the border last month. It's unlikely that many more will line up, the head of Mexico's biggest trucking organization said.

The governments of Mexico and the U.S. say the 18-month pilot program resolves the issue of how to implement the 1994 North America Free Trade Agreement while keeping unsafe and polluting trucks off the road. Yet enough business barriers remain that trucking companies will probably stick to the solutions they've developed in the interim, executives in both countries say.

Most Mexican trucking companies won't make long-term investments in technology to meet tougher U.S. pollution controls because they're not sure their licenses to enter the U.S. will last longer than the program, said Jose Refugio Munoz, chief executive officer of trucking group Camara Nacional del Autotransporte de Carga, or Canacar. A similar pilot project ran from 2007 to 2009 before it was canceled.

"We've had it up to here with experiments," Munoz, whose Mexico City-based group's members operate 400,000 trucks, said in a telephone interview. "It's very uncertain, and that's why there are very few companies interested in participating."

Mexico is the second-largest market for U.S. exports. Seventy percent of the $400 billion in annual trade between the countries travels by truck, Mexico's embassy in Washington said.

One Truck

Twenty-seven companies and 101 trucks hauled cargo into the U.S. under the previous trial. When Congress cut off funding in 2009, Canacar sued to enforce NAFTA, leading Mexico to slap the U.S. with retaliatory tariffs. Mexico lifted the last of the $2.4 billion in duties when U.S. regulators approved Transportes Olympic de Mexico de RL de CV of Apodaca, Mexico, to cross the border last month.

Transportes Olympic has 54 trucks and 61 drivers, according to Guillermo Perez, a spokesman. Only one truck has permission to travel in the U.S., and Transportes Olympic will try to get more approved "little by little," he said. The company would invest more if the border were opened permanently, he said.

"A lot of new prospects have been calling us," he said. The company plans to ship to Texas, Kansas, Illinois, Tennessee, Georgia, North Carolina and South Carolina, Perez said.

Only one other company, Tijuana, Mexico-based Grupo Behr de Baja California SA de CV, has applied to follow Transportes Olympic, according to the Federal Motor Carrier Safety Administration. The agency is evaluating the application after Advocates for Highway and Auto Safety, a Washington-based watchdog group, and the Owner-Operator Independent Drivers Association, based in Grain Valley, Missouri, identified problems with the company's safety record.

Six other companies are preparing to apply, according to Mexico's transport ministry. The largest owns 15 trucks, and most have 1 or 2, according to FMCSA records.

Efficient Trade

Efficient trade has been developing despite the closed border, Swift Transportation Co. Vice President David Berry said in an interview. Before NAFTA, trucks were typically unloaded at border warehouses, loaded onto a second truck to cross the border, then loaded onto a third truck to reach the destination.

Today, a single trailer is used, even if three different drivers handle parts of the route, Berry said. Border delays are down to a few hours from multiple days in years past.

U.S. companies including Swift, Con-way Inc. and Werner Enterprises Inc. deliver to Mexico using Mexican drivers, while many Mexican companies use U.S. partners. That will probably continue, said Richard Stocking, president and chief operating officer of Swift, the only U.S. carrier with a fully owned Mexican subsidiary.

'Swinging One Way'

"The door is only swinging one way," Stocking said, "I don't see how this will be a significant change."

The International Brotherhood of Teamsters is among groups opposing the border opening, saying Americans will lose jobs to lower-paid workers from

Mexico.

“This pilot program will be a fiasco, just like the last one was,” Teamsters General President James Hoffa said in October. Mexican operators may not be able to meet U.S. safety standards and drug violence in Mexico may keep U.S. drivers north of the border, he said.

The Mexican companies participating in the previous pilot project had a better safety record than their U.S. counterparts. In 7,000 safety inspections, 0.5 percent of Mexican drivers were taken off the road, compared with 13 percent for U.S. drivers at companies that have been operating for 18 months or less, according to a panel created by Congress to review the 2007 pilot program.

Canacar is still pressing a lawsuit to open the borders permanently, Munoz said.

“We’re going to keep pushing forward with the lawsuit against the U.S. government for not living up to the terms of the free-trade agreement,” Munoz said.

Different Rules, Fuels

Different work rules, cost structures, language, and equipment that won’t run on the fuel available in the other country are among the non-political barriers preventing the seamless trade envisioned by NAFTA, said Derek Leathers, president and chief operating officer of Werner Enterprises.

It’s more efficient to have Mexican drivers working in Mexico, where they know the territories and traffic laws, and U.S. drivers on U.S. routes, Leathers said.

The U.S. legal system will scare some Mexican companies off, said Herb Schmidt, president of Con-way Truckload in Joplin, Missouri. For example, liability in Mexico might be limited to $1,500 per trailer, even if the cargo is worth $1 million, he said. In the U.S., “a million’s worth a million,” Schmidt said.

Con-way intends to deliver goods to Mexico via its current Mexican partners until that method is no longer cost efficient, he said.

Cabotage Laws

Issues complicating Mexican trucking companies’ ability to do business in the U.S. include the country’s cabotage laws, which prevent a foreign-owned company from moving freight from two points within U.S. borders and permit only trips to a specific point and back to Mexico.

A U.S.-Mexico route will only work if there’s a perfect balance of loads going each way across the border, and that’s difficult to do, said Jim Filter, general manager for Schneider National Inc.’s operations in Mexico. Schneider National is based in Green Bay, Wisconsin.

Additionally, border delays count against the 11-hour limit placed on daily driving time in the U.S., Filter said.

Schneider doesn’t own trucks in Mexico because it’s more profitable to subcontract with a small number of Mexican carriers, he said. Using expensive U.S. equipment in Mexico puts a company at a cost disadvantage, he said.

Driving Force

The current pilot program “doesn’t make transportation more efficient or cost-effective between the U.S. and Mexico,” Filter said. “That has to be the driving force.”

The program’s creation may mean policy makers in Washington and Mexico City can turn their attention to more practical issues that may enable freight to move faster, like consolidating separate inspections by the Food and Drug Administration, the Drug Enforcement Agency and the Customs and Border Protection, Leathers of Werner Enterprises said.

“We think it’s a positive to take away an issue between the two countries,” Leathers said. “As long as the politicians are arguing over whether the border is open or closed, we’re not talking about things that matter more.”

--With assistance from Crayton Harrison in Mexico City. Editors: Andrea Snyder, Joe Winski

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