Ozarks Transportation Organization

March 21, 2007

Technical Committee Meeting

Plaster Student Union, Room 317

Missouri State University

1:30-3:30 PM

Ozarks Transportation Organization

Technical Committee Meeting Agenda, March 21, 2007
Missouri State University Plaster Student Union Room 317 (Third Floor)

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

I. Administration

A. Approval of Technical Committee Meeting Agenda
(2 minutes/Smith)
TECHNICAL COMMITTEE ACTION REQUESTED

B. Approval of January 17, 2007 Meeting Minutes ..... Tab 1
(2 minutes/Smith)
TECHNICAL COMMITTEE ACTION REQUESTED

C. Approval of February 14, 2007 Special Meeting Minutes ..... Tab 1
(2 minutes/Smith)
TECHNICAL COMMITTEE ACTION REQUESTED

D. Public Comment Period
(3 minutes/Smith)
Individuals requesting to speak are requested to state their name and organization (if any) that they represent before making comments. Individuals and organizations have up to three minutes to address the Technical Committee.

E. Executive Director's Report
(3 minutes/Rudge)
Dan Rudge will provide a review of the Metropolitan Planning Organization (MPO) staff activities since the January Technical Committee meeting.

II. Old Business

A. Consideration of the North-South Corridor Study
(25 minutes/Olsson Associates and Rudge)
The subcommittee charged with overseeing the consultant preparation of the North-South Corridor Study has unanimously approved the draft final report. At a Special Technical Committee Meeting held on February 14, 2007 a recommendation on the North-South Corridor Study was tabled. The Board of Directors discussed the North-South Corridor Study at their February 15, 2007 meeting and also voted to table the discussion so that Olsson Associates could address six key points that the Technical Committee felt needed further clarification. Staff from Olsson Associates has addressed these six points and will provide an overview of the North-South Corridor Study modifications and answer any questions or respond to concerns about the study's

recommendations and findings. A copy of the latest draft was distributed to the Technical Committee via an advanced mailing. For those who are not voting members of the Technical Committee, the draft report is available on-line at **www.ozarkstransportation.org**.

TECHNICAL COMMITTEE ACTION REQUESTED TO MAKE A RECOMMENDATION TO THE BOARD OF DIRECTORS ON ADOPTION OF THE NORTH-SOUTH CORRIDOR STUDY.

III. New Business

A. Route 14 and US 65 Interchange Amendment Request..... Tab 2
(10 minutes/Edwards and Miller)
The Missouri Department of Transportation is requesting an amendment to the TIP to use the Federal Earmark for the Route 14 project on the interchange at US 65 and Route 14. In FY2007, Federal and State funds would be used for the interchange design and right-of-way acquisition. In FY2008, Federal and State funds would be used to make improvements to the US65 and Route 14 interchange. (Materials Attached.)

TECHNICAL COMMITTEE ACTION REQUESTED TO MAKE A RECOMMENDATION TO THE BOARD OF DIRECTORS ON AMENDING THE TIP TO PROGRAM FY07 AND FY08 MAJOR PROJECTS AND EMERGING NEEDS FUNDS FOR IMPROVEMENTS TO THE ROUTE 14 AND US 65 INTERCHANGE. 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 TIP AMENDMENT CAN BE CONDUCTED AND COMMENTS RECEIVED PRIOR TO THE APRIL BOARD OF DIRECTORS MEETING.

B. MoDOT Safe and Sound Program TIP Amendment Request..... Tab 3
(5 minutes/Miller)
MoDOT has developed a new bridge repair program called Safe and Sound. As part of their agreement with contractors, multiple bridges within the OTO would be repaired and the contractors would receive their payout over a 25-year period. This TIP amendment request removes the Rte. 125 Bridge over the James River project from the TIP (it will be completed under the Safe and Sound program) and adds a project titled Safe and Sound Program showing the annual payout to contractors for FY2008. (Materials Attached.)

TECHNICAL COMMITTEE ACTION REQUESTED TO MAKE A RECOMMENDATION TO THE BOARD OF DIRECTORS ON AMENDING THE TIP TO REMOVE THE RTE. 125 BRIDGE PROJECT AND ADD THE SAFE AND SOUND PROGRAM IN FY08. 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 TIP AMENDMENT

CAN BE CONDUCTED AND COMMENTS RECEIVED PRIOR TO THE APRIL BOARD OF DIRECTORS MEETING.

C. **State Highway CC in Nixa TIP Amendment Request ..... Tab 4**
(5 minutes/Bingle)
This TIP amendment was approved in 2006. This request is to increase the total project cost from $30,000 to $47, 387. Funds used for this project would be a portion of Nixa's Urban STP allocation with City of Nixa matching funds. This is Phase One of a multi-phase project that will eventually connect Highway CC to future North-South corridor(s).

TECHNICAL COMMITTEE ACTION REQUESTED TO MAKE A RECOMMENDATION TO THE BOARD OF DIRECTORS ON AMENDING THE TIP TO PROGRAM A PORTION OF NIXA'S STP-URBAN FUNDS IN FY07 FOR A STUDY TO EXTEND ROUTE CC WEST TO US 160. 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 TIP AMENDMENT CAN BE CONDUCTED AND COMMENTS RECEIVED PRIOR TO THE APRIL BOARD OF DIRECTORS MEETING.

D. **Consideration of the Unified Planning Work Program for FY08 ..... Tab 5**
(10 minutes/Rudge)
Each year, the Ozarks Transportation Organization (OTO) MPO develops a Unified Planning Work Program (UWP) that identifies staff activities for the coming fiscal year. In this year's UWP, there are new studies or programs identified for staff to complete in addition to its normal duties. These include a regional freight movement study and a strategic plan for moving transit service from City Utilities to a stand-alone regional transit authority. Work will also continue on our regional Congestion Management System, the regional rideshare program, and the Transportation and Land Use Study. (Materials Attached.)

TECHNICAL COMMITTEE ACTION REQUESTED TO RECOMMEND THE UNIFIED PLANNING WORK PROGRAM TO THE BOARD OF DIRECTORS FOR ADOPTION.

IV. Other Business

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

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

C. Information Items ..... Tab 6
(Articles attached.)

V. Adjournment

Targeted for 3:00 P.M. Next Technical Committee meeting scheduled for Wednesday, May 16, 2007 at 1:30 PM at the Missouri State University Plaster Student Union.

DR/dr
Attachments and Enclosure

Pc: David Coonrod, MPO Chair, Greene County Presiding Commissioner
Ms. Donna McQuay, Vice-Chair of MPO, Mayor, City of Nixa
Tom Carlson, Immediate Past Chair, Mayor, City of Springfield
Stacy Burks, Senator Bond's Office
Steve McIntosh, Congressmen Blunt's Office
Mike McKenna, Olsson Associates
Area News Media

MEETING MINUTES

Attached for Technical Committee member review are the minutes from the January Technical Committee meeting and the special Technical Committee meeting in February. Please review these minutes prior to our 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 MEETING MINUTES
January 24, 2007

The Technical Planning Committee of the Ozarks Transportation Organization met at its rescheduled date and time of 2:00-4:00 p.m., at the Springfield Chamber of Commerce, Hawthorne Room

The following members were present:

Mr. Brian Bingle, City of Nixa
Mr. David Hutchison, City of Springfield (a)
Mr. Terry Whaley. Ozark Greenways
Mr. Wally Schrock, City of Republic
Ms. Ann Razer, City of Springfield (a)
Ms. Carol Cruise, City Utilities
Mr. Steve Childers, City of Ozark
Mr. Harry Price, City of Springfield (a)
Mr. Jim Dow, Springfield R-12 Schools
Mr. Ryan Mooney, Chamber of Commerce
Mr. Joel Keller, Greene Co. Planning Department
Ms. Jenni Jones, MoDOT
Mr. Frank Miller, MoDOT
Mr. Duffy Mooney, Greene Co. Highway Department
Mr. Bill Robinett, MoDOT
Ms. Dan Watts, SMCOG
Mr. Andy Mueller, MoDOT
Mr. Kevin Lambeth, City of Battlefield
Mr. Gary Cyr, Airport
Mr. Bob Atchley, Christian Co. Planning & Zoning

The following members were not present:

Mr. John Vicat, City of Strafford
Mr. Kent Morris, Greene County
Mr. Dan Smith, Greene Co. Highway Dept.
Mr. Mokhtee Ahmad, FTA
Mr. Mike Tettamble, Jr., Trucking Rep.
Mr. Earl Newman, City of Springfield
Mr. Kenneth McClure, MSU
Mr. Marc Thornsberry, City of Springfield
Mr. Brad McMahon, FHWA
Mr. Ralph Rognstad, City of Springfield
Mr. Mark Schenkelberg, FAA
Mr. Fred Gress, City of Willard
Mr. Roger Howard, Burlington Northern Railroad

Others present were: David Bishop, Springfield Public Schools, King Coltrin, Great River Engineering; Mike McKenna and Stacy Gordon, Olsson Associates; Dan Rudge, Sara Edwards and Natasha Longpine, Ozarks Transportation Organization.

Mr. Duffy Mooney called the January 24, 2007 Technical Planning Committee Meeting to order at 2:00 p.m.

I. Administration

A. Approval of Technical Committee Meeting Agenda

Mr. Mooney asked if there were any additions or revisions to the agenda. There were none. Mr. Dow motioned to approve the agenda. Mr. Schrock seconded, and the motion was carried unanimously.

B. Approval of November 15, 2006 Meeting Minutes

Mr. Cyr motioned to approve the September meeting minutes as presented. Mr. Dow seconded and the motion was carried unanimously.

C. **Public Comment Period**

No one from the public spoke. Mr. Dow introduced Mr. Bishop as the new Deputy Director of Facilities for Springfield Public Schools. Mr. Bishop will serve as Mr. Dow's alternate. Jenni Jones will be replacing Eric Bernskoetter on the Technical Committee for MoDOT Central Office.

D. **Executive Director's Report**

Mr. Rudge provided a progress report on current projects including the North-South Corridor Study, City Utilities Transit Development Plan, Coordinated Human Service Transit Plan, Ozark Transportation Plan, Regional Rideshare Program, US 60 East Corridor Study, Functional Class and Urban Area Boundary Mapping, Transportation and Land Use Study and the Visualization Techniques for MPO Public Participation as well as reviewing upcoming projects.

II. New Business

A. **Nixa TIP Amendment Request for State Highway 14**

Ms. Edwards said the City of Nixa is requesting the addition of the signalization of State Highway 14 and Truman Boulevard and the removal of the intersection improvements of State Highway 14 and Majestic Oak/Tiffany Boulevard.

It was requested that since this will use unencumbered funds and the funds being used have already been apportioned to Nixa, the request be approved.

Mr. Childers made a motion to recommend the Route 14 TIP amendment to the Board of Directors for approval and staff will prepare a press release pursuant to the MPO's Public Involvement Process so that a 15 day public review period for TIP amendments can be conducted and comments received prior to the February Board of Directors meeting. Mr. Dow seconded and the motion was carried unanimously.

B. **MoDOT 85 in 5 Resurfacing Plan Tip Amendment Request**

Mr. Miller stated that MoDOT is requesting this TIP amendment as part of the State's 85 in 5 resurfacing plan, which will bring 85% of Missouri's roadways into good or better condition within five years. The two projects for the OTO area are the resurfacing of the US 60/Route 413 corridor from the City of Republic to Scenic Avenue in Springfield and the resurfacing of Route 744 from US 65 to Route OO.

Mr. Schrock made a motion to recommend the MoDOT TIP amendments to the Board of Directors for approval and staff will prepare a press release pursuant to the MPO's Public Involvement Process so that a 15 day public review period for TIP amendments can be conducted and comments received prior to the February Board of Directors meeting. Ms. Cruise seconded and the motion was carried unanimously.

B. **Consideration of the Enhancement Funding Handbook**

Ms. Edwards stated that it is once again time to take applications for Enhancement Funding. The process is proposed to be the same as the past two years. This year there is approximately $1.5 million dollars available for projects. Applications are due June 1. There are two changes

proposed to this year's handbook. The first reflects the adjusted funding levels reflecting carried over funds from last year and the reduced amount of funding available. The second is the composition of the Selection Committee. The committee will be comprised of both members of the Technical Committee and the Bicycle and Pedestrian Advisory Committee. The priority remains to fund bicycle and pedestrian projects. Staff recommends a recommendation of approval to the Board of Directors.

Mr. Hutchison made a motion that the Technical Committee recommends the approval and adoption of the Enhancement Funding Handbook to the Board of Directors. Mr. Dow seconded the motion. The motion was carried unanimously.

B. North-South Corridor Study

Mike McKenna, Olsson Associates, provided an overview of the status of the North-South Corridor Study. He handed out the final draft of the study.

The North South Corridor Subcommittee will meet the last week of January to make recommendation to the Technical Committee. Mr. Rudge requested that a special meeting of the Technical Committee be held in February to make recommendation to the Board of Directors for the February meeting. It was decided the special meeting would be February 14th at 1:30 p.m.

Mr. Price made a motion that a special Technical Committee meeting be held on February 14th at 1:30 p.m. Mr. Dow seconded the motion. The motion carried unanimously.

IV. Other Business

A. Technical Committee Member Announcements

Mr. Cyr announced that bids are underway on the Airport Construction, which should begin in June. This includes the taxiway and ramps. The total project cost is $90 million.

Mr. Bingle asked that the State Route CC study be placed on a future agenda for presentation to the Technical Committee.

B. Transportation Issues for Technical Committee Member Review

Members are encouraged to raise transportation issues or concerns that they have for future agenda items or later in-depth discussion by the MPO Technical Committee.

C. Information Items

Mr. Rudge referred the Technical Committee to the information and news media articles available behind Tab Four of their agenda package.

IV. Adjournment

Mr. Dow made a motion to adjourn the meeting. Mr. Price seconded the motion. The meeting was adjourned at 2:55 p.m.

The next scheduled meeting of the Technical Committee has been scheduled for Wednesday, March 21, 2007, from 1:30 – 3:30 p.m., at the Plaster Student Union, Missouri State University.

OZARKS TRANSPORTATION ORGANIZATION
SPECIAL TECHNICAL PLANNING COMMITTEE MEETING MINUTES
February 14, 2007

The Special Technical Planning Committee of the Ozarks Transportation Organization met at 1:30 on February 14, 2007 at the Springfield-Greene County Library Center Auditorium located at 4653 S. Campbell Avenue, Springfield, MO.

The following members were present:

Mr. Dan Smith, Greene Co. Highway Department (Chair)
Mr. Earl Newman, City of Springfield
Mr. Kenneth McClure, Missouri State University
Mr. Shawn Schroeder, Springfield-Branson National Airport
Mr. Fred Gress, City of Willard
Mr. Ralph Rognstad, City of Springfield
Ms. Carol Cruise, City Utilities
Mr. Steve Childers, City of Ozark
Mr. Jim Dow, Springfield R-12 Schools
Mr. Ryan Mooney, Chamber of Commerce
Mr. Joel Keller, Greene Co. Planning Department
Mr. Andy Mueller, MoDOT
Mr. Daniel Nguyen, Federal Transit Administration
Mr. Marc Thornsberry, City of Springfield Public Works
Mr. Dan Watts, Southwest Missouri Council of Governments
Mr. Wally Schrock, City of Republic

The following members were not present:

Mr. John Vicat, City of Strafford
Mr. Gary Cyr, Airport
Mr. Brad McMahon, FHWA
Mr. Kevin Lambeth, City of Battlefield
Mr. Mokhtee Ahmad, FTA
Mr. Mark Schenkelberg, FAA
Mr. Mike Tettamble, Jr., Trucking Rep.
Mr. Frank Miller, MoDOT
Mr. Bob Atchley, Christian Co. Planning & Zoning
Mr. Roger Howard, Burlington Northern Railroad
Mr. Duffy Mooney, Greene County Highway Department
Mr. Brian Bingle, City of Nixa
Ms. Jenni Jones, MoDOT
Mr. Bill Robinett, MoDOT
Mr. Terry Whaley, Ozarks Greenways

Others present were: King Coltrin, Great River Engineering; Mike McKenna, Kevin Lowe Stacy Gordon and Clyde Prem, Olsson Associates; C. Jay Wynn, CJW Transportation Consultants, Dan Rudge, Sara Edwards, and Natasha Longpine, Ozarks Transportation Organization, Mr. Harry Price, City of Springfield, Judy Stainback, City of Battlefield, Steve McIntosh, Congressman Blunt's Office.

Mr. Smith called the November 15, 2006 Technical Planning Committee Meeting to order at 1:40 p.m.

I. Administration

A. Approval of Technical Committee Meeting Agenda

Mr. Smith asked if there were any additions or revisions to the agenda. There were none. Mr. Thornsberry motioned to approve the agenda. Mr. Gress seconded, and the motion was carried unanimously.

B. Public Comment Period

No one from the public spoke.

C. Executive Director's Report

Mr. Rudge asked for appointment of a subcommittee to work on the Unified Planning Work Program this year. The following members were selected: Carol Cruise, a staff person from Springfield Public Works, Joel Keller, a staff person from Springfield Planning, Wally Schrock and Kenneth McClure.

II. Old Business

A. Consideration of the North-South Corridor Study

Mike McKenna, Olsson Associates, began with going over changes that were made to the draft that was handed out at the last Technical Committee meeting. The North South Corridor subcommittee met on January 30th, to go over the final draft one last time. A few minor changes were made which are outlined on the attached handout.

Mr. Thornsberry requested that the adopted language regarding the agreement that portions of the East-West arterial be constructed prior to Kansas Expressway being extended be placed in the study.

Mr. Rognstad raised an issue with the statement that the access on Kansas Expressway would not allow driveways and wanted that to be clarified.

It was decided that the Kansas Extension should be classified as a primary arterial instead of a secondary arterial.

Mr. Rognstad also raised the issue that the language in the report should reflect the Highway 13 connector addressed as part of the I-44/13 study not following the study.

Mr. Thornsberry raised a concern that the committee should not be asked to vote on changes that they just received at the meeting and did not have time to review.

Mr. Clyde Prem, Olsson Associates made a presentation summarizing the study.

Mr. Dow raised a question of how travel times would be affected if the preferred alternatives were built. Mr. Prem agreed to add that information to the report.

Mr. Newman wondered why the preferred alternative was the combination of two routes instead of the routes being broken into two projects. Mr. Prem explained that originally that was the

thought but after looking at the ramifications that an expressway would have on existing community facilities, it became clear that the combination was the best alternative.

Mr. Thornsberry asked what the shelf life of an Environmental Impact Statement (EIS) is. Mr. Prem said the shelf life is seven years if no progress is made. However the EIS remains valid as long as some movement is made. Mr. Mueller agreed. Mr. Smith stated that the EIS is needed in order to ensure that right of way is preserved.

Mr. Thornsberry stated that the report needs to have more focus on the Highway 13 connector due to importance of the Airport connection with Kansas City. He also would like to see some clean up done with regard to the five priority projects and the five priority corridors. That portion is confusing. We have more needs than money and need to be careful not to get to many projects going when we do not have the funds available for all of them. He also has concerns that the Kansas Expressway extension is a local responsibility not a state or federal one. We also have one opportunity with West Bypass and should explore making it a freeway rather than an expressway because it will be needed. All of the freeways are congested now and we are being too short sighted to make it an expressway.

Discussion ensued regarding the possibility of using the earmarked funds for an EIS on the Highway 13 connector. Mr. Rudge responded that he would have to take a look at the specific language in the earmark to see if that was possible.

There was some discussion about the recommendations for system management and new construction be placed side by side instead in ascending order.

Mr. Newman asked that Page 6 of the handout be wordsmithed because it goes back and forth between two lanes and four lanes when referring to Kansas.

Mr. Dow asked what the ramifications of delaying the study a few more weeks were. Specifically he wanted to know if any money would be lost. Mr. Rudge responded that there were no financial ramifications, just time.

Mr. Thornsberry made a motion to table the study until the next scheduled Technical Committee meeting and that the study is distributed two weeks in advance of the meeting. Mr. Mooney seconded the motion.

III. Other Business

A. Technical Committee Member Announcements

Mr. Fred Gress announced that the City of Willard would be doing a large annexation south. They are taking over The Meadows sewer and water system. Which is good for the City of Willard's water and sewer capacities.

B. Transportation Issues for Technical Committee Member Review

Members are encouraged to raise transportation issues or concerns that they have for future agenda items or later in-depth discussion by the MPO Technical Committee.

IV. Adjournment

Mr. Dow made a motion to adjourn the meeting. Mr. Rognstad seconded the motion. The meeting was adjourned at 2:35 p.m.

The next scheduled meeting of the Technical Committee has been scheduled for Wednesday, March 21st, from 1:30 – 3:30 p.m., at the Plaster Student Union, Missouri State University.

TECHNICAL COMMITTEE AGENDA 03/07; ITEM III.A

Route 14 and US 65 Interchange TIP Amendment Request

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION: With the passage of SAFETEA-LU, Senator Talent placed an earmark in the final bill for "Upgrades to MO Route 14 between US 160 and US 65 in Christian County." Using the OTO Corridor priorities adopted by the Board of Directors in 2006, MoDOT has determined the best use of the earmark funds on Route 14 are to make improvements to the Route 14 and US 65 interchange.

In FY2007, MoDOT proposes to use federal and state funds to complete design of the interchange and to acquire the necessary right-of-way. In FY2008, MoDOT would use federal and state funds to make the improvements to the Route 14 and US 65 interchange.

STAFF RECOMMENDATION: Since the request is for improvements on one of the MPO's top five priority corridors, and it is utilizing an earmark in the spirit and intent in which it was placed, staff recommends approval of the TIP amendment request.

TECHNICAL COMMITTEE ACTION REQUESTED: To either recommend the Route 14 and US 65 TIP amendment to the Board of Directors for approval or to form a special subcommittee to further study the issue. 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 TIP amendments can be conducted and comments received prior to the February Board of Directors meeting.

CITY OF OZARK

FY2007

State Highway 14 (MoDOT #8P0588E) ..... **TIP #OK0701**

Cost share with Ozarks Technical Community College turn lane and intersection improvements.
(See Christian County map for location)

Federal Source Agency: FHWA
Federal Funding Category: STP
MoDOT Funding Category: Cost Share
Work or Fund Category: Construction

FHWA: $575,192
MoDOT: $242,028
OTC: $43,920
TOTAL FY2007: $861,140

Highway 14 Improvements (Design) ..... **TIP #OK0702**

From Finley River Bridge to Oak Street

Federal Source Agency: FHWA
Federal Funding Category: STP
Work or Fund Category: Design

FHWA (STP Urban City of Ozark): $89,600
Local (City of Ozark): $22,400
Total FY 2007: $112,000

Route 65 and Route 14 (MoDOT Project 8P0588F).....TIP #OK0703

Improvements to Route 65/Route 14 Interchange

Federal Source Agency: FHWA
Federal Funding Category: Discretionary
MoDOT Funding Category: Major Projects and Emerging Needs
Work or Fund Category: Design and ROW

MoDOT: $90,000
FHWA: $360,000
Total FY 2007: $450,000
Previous/Future Funding: $5,948,000
Project Total: $6,398,000

FY2008

Route 65 and Route 14 (MoDOT Project 8P0588F).....TIP #OK0703

Improvements to Route 65/Route 14 Interchange

Federal Source Agency: FHWA
Federal Funding Category: Discretionary
MoDOT Funding Category: Major Projects and Emerging Needs
Work or Fund Category: Construction

MoDOT: $1,189,600
FHWA: $4,758,400
Total FY 2008: $5,948,000
Previous/Future Funding: $450,000
Project Total: $6,398,000

FINANCIAL SUMMARY

--Highways/ Roads--

2007

PROJECT	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
CC0701	$200,000					$200,000		$50,000	**$250,000**
CC0702		$231,200				$231,200	$57,800		**$289,000**
GR0512						$0		$1,108,000	**$1,108,000**
GR0614						$0	$23,990,000		**$23,990,000**
GR0701				$924,000		$924,000		$231,000	**$1,155,000**
GR0702				$471,200		$471,200	$117,800		**$589,000**
GR0703			$669,600			$669,600	$167,400		**$837,000**
GR0704				$218,400		$218,400		$66,600	**$285,000**
GR0705		$2,239,200				$2,239,200	$559,800		**$2,799,000**
GR0706		$365,600				$365,600	$91,400		**$457,000**
NX0601						$0	$0	$1,109,750	**$1,109,750**
NX0602						$0		$427,800	**$427,800**
NX0603	$37,911					$37,911		$9,476	**$47,387**
NX0604	$192,800					$192,800		$48,200	**$241,000**
NX0701						$0		$48,200	**$48,200**
OK0701		$575,192				$575,192	$242,028	$43,920	**$861,140**
OK0702	$89,600					$89,600		$22,400	**$112,000**
OK0703		$360,000				$360,000	$90,000		**$450,000**
RP0701						$0		$20,000	**$20,000**
RP0702						$0		$45,600	**$45,600**
RP0703						$0		$4,560	**$4,560**
SP0406	$2,226,400		$2,000,000			$4,226,400	$266,000	$556,000	**$5,048,400**
SP0415	$1,400,000	$750,000				$2,150,000		$32,000	**$2,182,000**
SP0416						$0		$150,000	**$150,000**
SP0418						$0		$2,000,000	**$2,000,000**
SP0423						$0		$75,000	**$75,000**
SP0427						$0		$1,400,000	**$1,400,000**
SP0603						$0		$450,000	**$450,000**
SP0604						$0		$425,000	**$425,000**
SP0606						$0		$750,000	**$750,000**
SP0609						$0		$1,000,000	**$1,000,000**
SP0610						$0		$3,000,000	**$3,000,000**
SP0617						$0		$450,000	**$450,000**
SP0620		$857,000				$857,000	$96,500	$96,500	**$1,050,000**
SP0626						$0	$100,000		**$100,000**
SP0706						$0		$350,000	**$350,000**
SP0707						$0		$100,000	**$100,000**
SP0708						$0		$175,000	**$175,000**
SP0710						$0		$150,000	**$150,000**
SP0712		$1,471,102				$1,471,102	$243,961	$243,961	**$1,959,024**
SP0716		$200,000				$200,000		$50,000	**$250,000**
SP0717						$0		$700,000	**$700,000**
SP0718						$0		$310,000	**$310,000**
SP0719						$0		$940,000	**$940,000**
SP0720		$800,000				$800,000		$200,000	**$1,000,000**

FINANCIAL SUMMARY

--Highways/ Roads--

2007

PROJECT	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
SP0803		$1,120,000				$1,120,000		$280,000	**$1,400,000**
MO0701		$205,600				$205,600	$514,000	$428,762	**$1,148,362**
MO0703		$824,000				$824,000	$206,000		**$1,030,000**
TOTAL	**$4,146,711**	**$9,998,894**	**$12,183,200**	**$1,613,600**	**$596,862**	**$28,539,267**	**$32,079,890**	**$19,555,761**	**$80,174,918**

FINANCIAL SUMMARY

--Highways/ Roads--

2008

PROJECT	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
CC0801	$176,000					$176,000		$44,000	**$220,000**
GR0512	$2,385,284					$2,385,284	$2,045,178	$597,072	**$5,027,534**
GR0602						$0		$2,500,000	**$2,500,000**
GR0801						$0	$174,000		**$174,000**
GR0802						$0		$1,772,000	**$1,772,000**
GR0803						$0		$780,000	**$780,000**
NX0802						$0		$1,622,250	**$1,622,250**
NX0803						$0		$148,500	**$148,500**
NX0804						$0		$486,450	**$486,450**
OZ0703		$4,758,400				$4,758,400	$1,189,600		**$5,948,000**
SP0417						$0	$0	$200,000	**$200,000**
SP0421						$0		$2,250,000	**$2,250,000**
SP0504				$300,000		$300,000		$60,000	**$360,000**
SP0508						$0		$100,000	**$100,000**
SP0620					$739,656	$739,656		$1,115,794	**$1,855,450**
SP0626						$0	$3,621,000		**$3,621,000**
SP0701						$0		$200,000	**$200,000**
SP0702	$1,400,000		$1,750,000			$3,150,000		$350,000	**$3,500,000**
SP0703	$2,700,000		$3,000,000			$5,700,000		$300,000	**$6,000,000**
SP0712		$1,104,686				$1,104,686	$220,907	$220,907	**$1,546,500**
SP0801						$0		$400,000	**$400,000**
MO0801		$412,800				$412,800	$103,200	$441,624	**$957,624**
MO0802						$0	$168,000		**$168,000**
MO0803		$1,632,000				$1,632,000	$408,000		**$2,040,000**
MO0804		$946,400				$946,400	$236,600		**$1,183,000**
MO0805				$11,200		$11,200	$2,800		**$14,000**
TOTAL	**$6,661,284**	**$8,854,286**	**$4,750,000**	**$311,200**	**$739,656**	**$21,316,426**	**$8,169,285**	**$13,588,597**	**$43,088,308**

FINANCIAL SUMMARY

--Highways/ Roads--

FINANCIAL CONSTRAINTS

	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
2007 Anticipated	$14,893,603	$9,998,894	$12,183,200	$1,613,600	$596,862	$39,286,159	$32,079,890	$19,555,761	**$90,921,810**
2007 Programmed	$4,146,711	$9,998,894	$12,183,200	$1,613,600	$596,862	$28,539,267	$32,079,890	$19,555,761	**$80,174,918**
Balance	$10,746,892	$0	$0	$0	$0	$10,746,892	$0	$0	**$10,746,892**
2008 Anticipated*	$2,853,954	$8,854,286	$4,750,000	$311,200	$739,656	$17,509,096	$8,169,285	$13,588,597	**$39,266,978**
2008 Programmed	$6,661,284	$8,854,286	$4,750,000	$311,200	$739,656	$21,316,426	$8,169,285	$13,588,597	**$43,074,308**
Balance	-$3,807,330	$0	$0	$0	$0	-$3,807,330	$0	$0	**-$3,807,330**
2009 Anticipated*	$2,853,954	$8,487,549	$0	$654,051	$0	$11,995,554	$47,332,200	$5,448,673	**$64,776,427**
2009 Programmed	$0	$8,487,549	$0	$654,051	$0	$9,141,600	$47,332,200	$5,448,673	**$61,922,473**
Balance	$2,853,954	$0	$0	$0	$0	$2,853,954	$0	$0	**$2,853,954**
2010 Anticipated*	$2,853,954	$2,199,200	$0	$0	$0	$5,053,154	$549,800	$9,439,769	**$15,042,723**
2010 Programmed	$0	$2,199,200	$0	$0	$0	$2,199,200	$549,800	$9,439,769	**$12,188,769**
Balance	$2,853,954	$0	$0	$0	$0	$2,853,954	$0	$0	**$2,853,954**

TOTAL BALANCE REMAINING 2007-2010 **$12,647,469**

TECHNICAL COMMITTEE AGENDA 03/07; ITEM III.B

MoDOT's Safe and Sound Bridge Repair Program TIP Amendment

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION: In an effort to address deteriorating bridges throughout the State of Missouri, MoDOT developed the Safe and Sound Program. The program is an innovative financing technique in which contractors will make repairs to designated bridges and be paid back for their work over a 25-year period.

MoDOT is requesting a TIP amendment to include the first year pay out of $276,000 in the Safe and Sound program for the OTO area. As part of this request MoDOT would remove the TIP Project # GR0507 - Route 125 Bridge over the James River as improvements to this bridge will be made under the Safe and Sound program.

STAFF RECOMMENDATION: Since the request is using MoDOT controlled Taking Care of the System funds and is being used on the bridge improvement projects already identified in previous MoDOT studies, staff is recommending approval.

TECHNICAL COMMITTEE ACTION REQUESTED: To either recommend the Safe and Sound Program TIP amendments to the Board of Directors for approval or to form a special subcommittee to further study the issue. 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 TIP amendments can be conducted and comments received prior to the April Board of Directors meeting.

On-Call Guard Cable Repair in Ozarks Transportation Organization Area (MoDOT #8I0869)TIP#MO0802
Various Routes

Federal Source Agency: N/A
Federal Funding Category: N/A
MoDOT Funding Category: Taking Care of the System – District 8
Work or Fund Category: Miscellaneous

MoDOT: $168,000
TOTAL FY2008: $168,000

Pavement Improvements on Major Roadways Throughout the Ozarks Transportation Organization Area – SFY2008 (MoDOT #8P0878) ..... **TIP #MO0803**

Federal Source Agency: FHWA
Federal Funding Category: STP
MoDOT Funding Category: Taking Care of the System
Work or Fund Category: Construction

FHWA (STP): $1,632,000
MoDOT: $408,000
Previous Funding: $10,000
TOTAL FY2008: $2,040,000

Pavement Improvements on Minor Roadways Throughout the Ozarks Transportation Organization Area (MoDOT #8S0889) ..... **TIP #MO0804**

Federal Source Agency: FHWA
Federal Funding Category: STP
MoDOT Funding Category: Taking Care of the System
Work or Fund Category: Construction

FHWA (STP): $946,400
MoDOT: $236,600
TOTAL FY2008: $1,183,000

Ozarks Transportation Organization Share of Safe and Sound Program (MoDOT#5B00800X)
.....TIP #MO0805
Bridge improvement program on various bridges *Previous/future funding includes annual payout of $276,000 for 25 years* FY2008 amount is the incentive payout to contractors.

Federal Source Agency: FHWA
Federal Funding Category: Bridge
MoDOT Funding Category: Taking Care of the System
Work or Fund Category: Design

MoDOT: $2,800
FHWA: $11,200
Total FY2008: $14,000
Previous/Future Funding: $6,900,000
Project Total: $6,914,000

GREENE COUNTY (Unincorporated Area)

FY2007

~~**State Highway 125 (MoDOT Project # 8S0563)**..... **TIP #GR0507**~~
~~Reconstruct Bridge over James River .5 miles north of Rte AD. Project involves bridge X710.~~

~~Federal Source Agency: FHWA~~
~~Federal Funding Category: Bridge~~
~~MoDOT Funding Category: Taking Care of System~~
~~Work or Fund Category: Construction~~

~~Previous Funding: $100,000~~
~~MoDOT: $14,200~~
~~FHWA: $56,800~~
~~**TOTAL FY2007: $71,000**~~
~~MoDOT: $462,800~~
~~FHWA(STP): $1,851,200~~
~~**TOTAL FY2008: $2,314,000**~~
~~Previous/Future Funding: $294,000~~
~~**Project Total: $2,608,000**~~

Weaver and Campbell (MoDOT #8S0758)..... **TIP #GR0512**
Improvements to the intersection of Farm Road 168 (Weaver) and US 160 (Campbell).

Federal Source Agency: FHWA
Federal Funding Category: STP
MoDOT Funding Category: Cost share
Work or Fund Category: Design/ROW/Construction

MoDOT: $0
FHWA (STP Urban Greene County): $0
Local (Greene County): $629,000
FHWA (STP Urban Springfield): $0
Local (Springfield): $479,000
TOTAL FY2007: $1,108,000
Previous/Future Funding: $ 5,027,534
TOTAL FY2008: $5,027,534
Project Total: $6,135,534

US 65 (MoDOT Project # 8P0570) ..... **TIP # GR0614**
Grading, Paving, Bridges and lane additions to upgrade to expressway from south of Rte 125 to Valley Water Mill Road in Springfield. Funds shown are for both the area inside and outside of the MPO.

MoDOT Funding Category: Major Projects and Emerging Needs (non-metropolitan)
Work or Fund Category: Construction

Previous Funding: $959,000
MoDOT (Amendment 3): $23,990,000
TOTAL FY2007: $23,990,000
Project Total: $24,949,000

GREENE COUNTY (Unincorporated Area)

FY2008

~~**State Highway 125 (MoDOT Project #8S0563)** ..... **TIP # GR0507**~~
~~Reconstruct Bridge over James River .5 miles north of Rte AD.~~

~~Federal Source Agency: FHWA~~
~~Federal Funding Category: Bridge~~
~~MoDOT Funding Category: Taking Care of System~~
~~Work or Fund Category: Construction~~

~~MoDOT: $462,800~~
~~FHWA: $1,851,200~~
~~**TOTAL FY2008: $2,314,000**~~
~~Previous/Future Funding: $294,000~~
~~**Project Total: $2,608,000**~~

Weaver and Campbell (MoDOT #8S0758).....s/b 2008..... **TIP #GR0512**
Improvements to the intersection of Farm Road 168 (Weaver) and US 160 (Campbell).

Federal Source Agency: FHWA
Federal Funding Category: STP
MoDOT Funding Category: Safety
Work or Fund Category: Design/ROW/Construction

MoDOT: $2,045,178
FHWA (STP Urban Greene County): $1,132,142
Local (Greene County): $284,036
FHWA (STP Urban Springfield): $1,253,142
Local (Springfield): $313,036
TOTAL FY2008 : $5,027,534
Previous/Future Funding: $ 1,108,000
Project Total: $6,135,534

Veterans Memorial Boulevard ..... **TIP #GR0602**
Construction of a three lane highway from US 160 (Campbell) to FR 141.

Local (Greene County): $2,500,000
TOTAL FY2008: $2,500,000

On-Call Guard Cable Repair in Ozarks Transportation Organization Area (MoDOT #8I0867) .....
..... **TIP #GR0801**
Interstate Highway 44

Federal Source Agency: N/A
Federal Funding Category: N/A
MoDOT Funding Category: Taking Care of System – District 8
Work or Fund Category: Miscellaneous

MoDOT: $174,000
TOTAL FY2008: $174,000

Farm Road 151 (Grant Avenue) ..... **TIP #GR0802**
Widen to three lanes from Springfield city limit to Farm Road 96. Reprogrammed from FY2007.

Work or Fund Category: Construction

Local (Greene County): $1,772,000
TOTAL FY2008: $1,772,000

FINANCIAL SUMMARY

--Highways/ Roads--

2007

PROJECT	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
CC0701	$200,000					$200,000		$50,000	**$250,000**
CC0702		$231,200				$231,200	$57,800		**$289,000**
GR0512						$0		$1,108,000	**$1,108,000**
GR0614						$0	$23,990,000		**$23,990,000**
GR0701				$924,000		$924,000		$231,000	**$1,155,000**
GR0702				$471,200		$471,200	$117,800		**$589,000**
GR0703			$669,600			$669,600	$167,400		**$837,000**
GR0704				$218,400		$218,400		$66,600	**$285,000**
GR0705		$2,239,200				$2,239,200	$559,800		**$2,799,000**
GR0706		$365,600				$365,600	$91,400		**$457,000**
NX0601						$0	$0	$1,109,750	**$1,109,750**
NX0602						$0		$427,800	**$427,800**
NX0603	$37,911					$37,911		$9,476	**$47,387**
NX0604	$192,800					$192,800		$48,200	**$241,000**
NX0701						$0		$48,200	**$48,200**
OK0701		$575,192				$575,192	$242,028	$43,920	**$861,140**
OK0702	$89,600					$89,600		$22,400	**$112,000**
OK0703		$360,000				$360,000	$90,000		**$450,000**
RP0701						$0		$20,000	**$20,000**
RP0702						$0		$45,600	**$45,600**
RP0703						$0		$4,560	**$4,560**
SP0406	$2,226,400		$2,000,000			$4,226,400	$266,000	$556,000	**$5,048,400**
SP0415	$1,400,000	$750,000				$2,150,000		$32,000	**$2,182,000**
SP0416						$0		$150,000	**$150,000**
SP0418						$0		$2,000,000	**$2,000,000**
SP0423						$0		$75,000	**$75,000**
SP0427						$0		$1,400,000	**$1,400,000**
SP0603						$0		$450,000	**$450,000**
SP0604						$0		$425,000	**$425,000**
SP0606						$0		$750,000	**$750,000**
SP0609						$0		$1,000,000	**$1,000,000**
SP0610						$0		$3,000,000	**$3,000,000**
SP0617						$0		$450,000	**$450,000**
SP0620		$857,000				$857,000	$96,500	$96,500	**$1,050,000**
SP0626						$0	$100,000		**$100,000**
SP0706						$0		$350,000	**$350,000**
SP0707						$0		$100,000	**$100,000**
SP0708						$0		$175,000	**$175,000**
SP0710						$0		$150,000	**$150,000**
SP0712		$1,471,102				$1,471,102	$243,961	$243,961	**$1,959,024**
SP0716		$200,000				$200,000		$50,000	**$250,000**
SP0717						$0		$700,000	**$700,000**
SP0718						$0		$310,000	**$310,000**
SP0719						$0		$940,000	**$940,000**
SP0720		$800,000				$800,000		$200,000	**$1,000,000**

FINANCIAL SUMMARY

--Highways/ Roads--

2007

PROJECT	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
SP0803		$1,120,000				$1,120,000		$280,000	**$1,400,000**
MO0701		$205,600				$205,600	$514,000	$428,762	**$1,148,362**
MO0703		$824,000				$824,000	$206,000		**$1,030,000**
TOTAL	**$4,146,711**	**$9,998,894**	**$12,183,200**	**$1,613,600**	**$596,862**	**$28,539,267**	**$32,079,890**	**$19,555,761**	**$80,174,918**

FINANCIAL SUMMARY

--Highways/ Roads--

2008

PROJECT	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
CC0801	$176,000					$176,000		$44,000	**$220,000**
GR0512	$2,385,284					$2,385,284	$2,045,178	$597,072	**$5,027,534**
GR0602						$0		$2,500,000	**$2,500,000**
GR0801						$0	$174,000		**$174,000**
GR0802						$0		$1,772,000	**$1,772,000**
GR0803						$0		$780,000	**$780,000**
NX0802						$0		$1,622,250	**$1,622,250**
NX0803						$0		$148,500	**$148,500**
NX0804						$0		$486,450	**$486,450**
OZ0703		$4,758,400				$4,758,400	$1,189,600		**$5,948,000**
SP0417						$0	$0	$200,000	**$200,000**
SP0421						$0		$2,250,000	**$2,250,000**
SP0504				$300,000		$300,000		$60,000	**$360,000**
SP0508						$0		$100,000	**$100,000**
SP0620					$739,656	$739,656		$1,115,794	**$1,855,450**
SP0626						$0	$3,621,000		**$3,621,000**
SP0701						$0		$200,000	**$200,000**
SP0702	$1,400,000		$1,750,000			$3,150,000		$350,000	**$3,500,000**
SP0703	$2,700,000		$3,000,000			$5,700,000		$300,000	**$6,000,000**
SP0712		$1,104,686				$1,104,686	$220,907	$220,907	**$1,546,500**
SP0801						$0		$400,000	**$400,000**
MO0801		$412,800				$412,800	$103,200	$441,624	**$957,624**
MO0802						$0	$168,000		**$168,000**
MO0803		$1,632,000				$1,632,000	$408,000		**$2,040,000**
MO0804		$946,400				$946,400	$236,600		**$1,183,000**
MO0805				$11,200		$11,200	$2,800		**$14,000**
TOTAL	**$6,661,284**	**$8,854,286**	**$4,750,000**	**$311,200**	**$739,656**	**$21,316,426**	**$8,169,285**	**$13,588,597**	**$43,088,308**

FINANCIAL SUMMARY

--Highways/ Roads--

FINANCIAL CONSTRAINTS

	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
2007 Anticipated	$14,893,603	$9,998,894	$12,183,200	$1,613,600	$596,862	$39,286,159	$32,079,890	$19,555,761	**$90,921,810**
2007 Programmed	$4,146,711	$9,998,894	$12,183,200	$1,613,600	$596,862	$28,539,267	$32,079,890	$19,555,761	**$80,174,918**
Balance	$10,746,892	$0	$0	$0	$0	$10,746,892	$0	$0	**$10,746,892**
2008 Anticipated*	$2,853,954	$8,854,286	$4,750,000	$311,200	$739,656	$17,509,096	$8,169,285	$13,588,597	**$39,266,978**
2008 Programmed	$6,661,284	$8,854,286	$4,750,000	$311,200	$739,656	$21,316,426	$8,169,285	$13,588,597	**$43,074,308**
Balance	-$3,807,330	$0	$0	$0	$0	-$3,807,330	$0	$0	**-$3,807,330**
2009 Anticipated*	$2,853,954	$8,487,549	$0	$654,051	$0	$11,995,554	$47,332,200	$5,448,673	**$64,776,427**
2009 Programmed	$0	$8,487,549	$0	$654,051	$0	$9,141,600	$47,332,200	$5,448,673	**$61,922,473**
Balance	$2,853,954	$0	$0	$0	$0	$2,853,954	$0	$0	**$2,853,954**
2010 Anticipated*	$2,853,954	$2,199,200	$0	$0	$0	$5,053,154	$549,800	$9,439,769	**$15,042,723**
2010 Programmed	$0	$2,199,200	$0	$0	$0	$2,199,200	$549,800	$9,439,769	**$12,188,769**
Balance	$2,853,954	$0	$0	$0	$0	$2,853,954	$0	$0	**$2,853,954**

TOTAL BALANCE REMAINING 2007-2010 **$12,647,469**

TECHNICAL COMMITTEE AGENDA 03/07; ITEM III.C

City of Nixa Route CC TIP Amendment

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION: Each year in April, MPO Staff requests each of the local jurisdictions to submit projects for inclusion into the TIP. In some cases, particularly in regards to initial planning studies, cost estimates can vary widely from actual contract amounts. The City of Nixa submitted a planning study and preliminary engineering project to extend State Route CC from Main Street to Nicholas Road as one of its FY06 TIP projects. Project cost was estimated at $100,000.

After project bidding, the actual cost was $30,000. As a result, the TIP was amended in September of 2005 to reflect the revised estimate. During the conduct of the study, additional environmental and public involvement issues were raised. This increased the cost to $47, 387 and also delayed study completion. Under federal regulations, any TIP project in which known project costs are different then the amount listed in the TIP, and the amount of federal and/or state share is changed, then the TIP must be amended. The City of Nixa has opted to use additional funds from their Urban STP fund allocation on this project and as such, the TIP must be amended to show the use of federal funds and must meet the constrained cost requirement for federal dollars. The City of Nixa is therefore requesting that the TIP be amended to reflect the change in cost.

STAFF RECOMMENDATION: The City of Nixa has ample funds available from their Urban STP budget to cover this expense and the project is in keeping with the Long-Range Plan and Major Thoroughfare Plan. Staff therefore recommends approval of this request.

TECHNICAL COMMITTEE ACTION REQUESTED: To either recommend the City of Nixa Route CCTIP amendment to the Board of Directors for approval or to form a special subcommittee to further study the issue. 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 TIP amendments can be conducted and comments received prior to the April Board of Directors meeting.

CITY OF NIXA

FY2007

North Main and Tracker Road ..... **TIP #NX0601**
Improve to three lanes from Aldersgate to Tracker including intersection improvements at Tracker with signalization.

Construction Cost – Local (City of Nixa): $965,000
Inspection Fee – Local (City of Nixa): $48,250
Design Fee – Local (City of Nixa): $96,500
Project Total: $1,109,750

Nicholas Road at State Highway 14 ..... **TIP #NX0602**
Widen Nicholas north of SH 14 to three lanes and reconfigure signals.

Construction Cost – Local (City of Nixa): $372,000
Inspection Fee – Local (City of Nixa): $18,600
Design Fee – Local (City of Nixa): $37,200
Project Total: $427,800

State Highway CC ..... **(MoDOT Project # 850736)** .....**TIP # NX0603**
Study and PE for realignment of SH CC from the current intersection at Main Street, west to Highway 160 as a Primary Arterial. This is proposed as Phase I toward connecting SH CC from Main straight west to Nicholas Road and future Kansas Expressway extension.

FHWA (STP-Urban City of Nixa): $37,911
Local (City of Nixa): $9,476
TOTAL FY 2006: $47,387

State Highway 14 (Mt. Vernon) at Truman ..... **TIP #NX0604**
Signalization

STP-Urban (City of Nixa): $192,800
Local (City of Nixa): $48,200
Project Total: $241,000

North Street ..... **TIP #NX0701**
Full improvements from Century Elementary to Cheyenne. Design and ROW only.

Right of Way - Local (City of Nixa): $100,000
Design Fee – Local (City of Nixa): $154,500
Project Total: $254,500

FY2008

North Street ..... **TIP #NX0802**
Full improvements from Century Elementary to Cheyenne.

Construction cost – Local (City of Nixa): $1,545,000
Inspection fee – Local (City of Nixa): $77,250
Project Total: $1,622,250

FINANCIAL SUMMARY

--Highways/ Roads--

2007

PROJECT	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
CC0701	$200,000					$200,000		$50,000	**$250,000**
CC0702		$231,200				$231,200	$57,800		**$289,000**
GR0512						$0		$1,108,000	**$1,108,000**
GR0614						$0	$23,990,000		**$23,990,000**
GR0701				$924,000		$924,000		$231,000	**$1,155,000**
GR0702				$471,200		$471,200	$117,800		**$589,000**
GR0703			$669,600			$669,600	$167,400		**$837,000**
GR0704				$218,400		$218,400		$66,600	**$285,000**
GR0705		$2,239,200				$2,239,200	$559,800		**$2,799,000**
GR0706		$365,600				$365,600	$91,400		**$457,000**
NX0601						$0	$0	$1,109,750	**$1,109,750**
NX0602						$0		$427,800	**$427,800**
NX0603	$37,911					$37,911		$9,476	**$47,387**
NX0604	$192,800					$192,800		$48,200	**$241,000**
NX0701						$0		$48,200	**$48,200**
OK0701		$575,192				$575,192	$242,028	$43,920	**$861,140**
OK0702	$89,600					$89,600		$22,400	**$112,000**
OK0703		$360,000				$360,000	$90,000		**$450,000**
RP0701						$0		$20,000	**$20,000**
RP0702						$0		$45,600	**$45,600**
RP0703						$0		$4,560	**$4,560**
SP0406	$2,226,400		$2,000,000			$4,226,400	$266,000	$556,000	**$5,048,400**
SP0415	$1,400,000	$750,000				$2,150,000		$32,000	**$2,182,000**
SP0416						$0		$150,000	**$150,000**
SP0418						$0		$2,000,000	**$2,000,000**
SP0423						$0		$75,000	**$75,000**
SP0427						$0		$1,400,000	**$1,400,000**
SP0603						$0		$450,000	**$450,000**
SP0604						$0		$425,000	**$425,000**
SP0606						$0		$750,000	**$750,000**
SP0609						$0		$1,000,000	**$1,000,000**
SP0610						$0		$3,000,000	**$3,000,000**
SP0617						$0		$450,000	**$450,000**
SP0620		$857,000				$857,000	$96,500	$96,500	**$1,050,000**
SP0626						$0	$100,000		**$100,000**
SP0706						$0		$350,000	**$350,000**
SP0707						$0		$100,000	**$100,000**
SP0708						$0		$175,000	**$175,000**
SP0710						$0		$150,000	**$150,000**
SP0712		$1,471,102				$1,471,102	$243,961	$243,961	**$1,959,024**
SP0716		$200,000				$200,000		$50,000	**$250,000**
SP0717						$0		$700,000	**$700,000**
SP0718						$0		$310,000	**$310,000**
SP0719						$0		$940,000	**$940,000**
SP0720		$800,000				$800,000		$200,000	**$1,000,000**

FINANCIAL SUMMARY

--Highways/ Roads--

2007

PROJECT	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
SP0803		$1,120,000				$1,120,000		$280,000	**$1,400,000**
MO0701		$205,600				$205,600	$514,000	$428,762	**$1,148,362**
MO0703		$824,000				$824,000	$206,000		**$1,030,000**
TOTAL	**$4,146,711**	**$9,998,894**	**$12,183,200**	**$1,613,600**	**$596,862**	**$28,539,267**	**$32,079,890**	**$19,555,761**	**$80,174,918**

FINANCIAL SUMMARY

--Highways/ Roads--

FINANCIAL CONSTRAINTS

	FEDERAL						MoDOT	Local	Total
	STP Urban	STP	NHS	BRIDGE	ITS	TOTAL			
2007 Anticipated	$14,893,603	$9,998,894	$12,183,200	$1,613,600	$596,862	$39,286,159	$32,079,890	$19,555,761	**$90,921,810**
2007 Programmed	$4,146,711	$9,998,894	$12,183,200	$1,613,600	$596,862	$28,539,267	$32,079,890	$19,555,761	**$80,174,918**
Balance	$10,746,892	$0	$0	$0	$0	$10,746,892	$0	$0	**$10,746,892**
2008 Anticipated*	$2,853,954	$8,854,286	$4,750,000	$311,200	$739,656	$17,509,096	$8,169,285	$13,588,597	**$39,266,978**
2008 Programmed	$6,661,284	$8,854,286	$4,750,000	$311,200	$739,656	$21,316,426	$8,169,285	$13,588,597	**$43,074,308**
Balance	-$3,807,330	$0	$0	$0	$0	-$3,807,330	$0	$0	**-$3,807,330**
2009 Anticipated*	$2,853,954	$8,487,549	$0	$654,051	$0	$11,995,554	$47,332,200	$5,448,673	**$64,776,427**
2009 Programmed	$0	$8,487,549	$0	$654,051	$0	$9,141,600	$47,332,200	$5,448,673	**$61,922,473**
Balance	$2,853,954	$0	$0	$0	$0	$2,853,954	$0	$0	**$2,853,954**
2010 Anticipated*	$2,853,954	$2,199,200	$0	$0	$0	$5,053,154	$549,800	$9,439,769	**$15,042,723**
2010 Programmed	$0	$2,199,200	$0	$0	$0	$2,199,200	$549,800	$9,439,769	**$12,188,769**
Balance	$2,853,954	$0	$0	$0	$0	$2,853,954	$0	$0	**$2,853,954**

TOTAL BALANCE REMAINING 2007-2010 **$12,647,469**

TECHNICAL COMMITTEE AGENDA 03/07; ITEM III.D

Consideration of the Unified Planning Work Program for FY08

Ozarks Transportation Organization
(Springfield, MO Area MPO)

AGENDA DESCRIPTION: Each year, the MPO staff is required to develop a Unified Planning Work Program (UWP). The UWP spells out the activities, including plans and programs, the MPO will undertake during the fiscal year. Work tasks include administration, corridor planning, ridesharing, transportation planning, transit planning, and special studies.

For FY07, total expenditures are expected to be $556,576 and available funds and in-kind contributions of $556,576. This includes state and federal planning funds of $445,261, $93,500 in City of Springfield match, $10,000 in-kind office space contribution and $7,815 in-kind legal and financial services contribution (20% match requirement). Included in the UWP for next year are six tasks: administration, general planning and plan implementation, transportation improvement program (development), rideshare and commuter choice program, transit planning, and special studies. Highlights for the UWP include a regional freight movement study, a strategic plan for creating a stand-alone regional transit authority, continuation of the congestion management system process, continuation of the transportation and land use study, and continuation of the regional commuter choice program.

SUBCOMMITTEE RECOMMENDATION: The UWP Subcommittee electronically reviewed and recommended the UWP to the full Technical Committee for recommendation to the Board of Directors.

STAFF RECOMMENDATION: To recommend the UWP for approval by the MPO Board of Directors.

TECHNICAL COMMITTEE ACTION REQUESTED: To either recommend the UWP to the MPO Board of Directors, or to ask the UWP Subcommittee to revisit the document to make specific changes.

UNIFIED PLANNING WORK PROGRAM

SPRINGFIELD AREA MPO

FISCAL YEAR 2008
(July 2007 - June 2008)

Ozarks Transportation Organization
840 Boonville Avenue
Springfield, Missouri 65802

APPROVED BY
MPO BOARD OF DIRECTORS

Contents

Introduction

The Unified Planning Work Program is a description of the proposed activities of the Ozarks Transportation Organization during FiscalYear 2008 (July 2007 - June 2008). The program is prepared annually and serves as a basis for requesting federal planning funds from the U. S. Department of Transportation.

It also serves as a management tool for scheduling, budgeting, and monitoring the planning activities of the participating agencies. This document was prepared by staff from the Ozarks Transportation Organization (Springfield Area Metropolitan Planning Organization) with assistance from various agencies, including the Missouri Department of Transportation, the Federal Highway Administration, the Federal Transit Administration, City Utilities Transportation Department, Missouri State University Transportation and members of the MPO Technical Committee consisting of representatives from each of the nine MPO jurisdictions.

Task 010 - MPO General Administration and Support

Objective

Insure that agreements for transportation planning services are appropriately drafted, executed, and maintained. Prepare work program to coordinate transportation-related planning activities in the Springfield metropolitan area. Provide appropriate training for personnel involved in transportation planning. Perform administrative functions in preparing quarterly reports, project completion reports, and other administrative requirements as needed. (FTA Line Item Code 44.21.00)

Work Elements

- Financial Management.
  - Quarterly Federal Reports
  - End-of-Year Federal Reports

- Preparation of the Unified Planning Work Program (UPWP). Prepare Unified Planning Work Program for Fiscal Year 2009.

- MPO Committee Support. Conducting and staffing all Technical Committee, Bicycle and Pedestrian Advisory Committee, and Board of Director meetings, and responding to individual committee requests. Facilitate and administer any MPO subcommittees formed during the Fiscal Year, including, but not limited to:
  - Unified Planning Work Program Subcommittee
  - Transportation Improvement Program (TIP) Subcommittee
  - Congestion Management System Subcommittee
  - Long Range Transportation Plan Subcommittee
  - Enhancements Subcommittee
  - Transit Subcommittee
  - Paratransit Subcommittee

- Demographics and Future Projections.
  - Growth Trends Report expanded to entire MPO area (Semi-Annual)
  - Traffic Analysis Zone Estimates by jurisdiction for corridor planning activities

- Training. Training and development of MPO Staff and MPO members through educational programs that are related to MPO work committees. Training could include the following:
  - Transportation Research Board (TRB) Conferences
  - Census Bureau Training (New Census & Am. Comm. Survey)
  - ESRI/ArcInfo User's Conference
  - Association for Commuter Transportation Conference
  - Institute for Transportation Engineers Conferences including meetings of the Missouri Valley Section and Ozarks Chapter
  - ITE Web Seminars
  - National American Planning Association Conference

- Missouri Chapter, American Planning Association Conference
- Midwest Transportation Planning Conference
- Small to Mid-Sized Communities Planning Tools Conference
- Geographic Information Systems (GIS) Advanced Training (ESRI's ARC Product)
- Bicycle/Pedestrian Professional Training
- Provide Other MPO Member Training Sessions, as needed and appropriate

- MPO Transition Plan. The MPO Board voted in January of 2006 to keep the MPO within the City of Springfield, and directed staff to begin looking for office space outside of the Busch Municipal Building. Tasks to be completed that are specifically related to the MPO transition plan:
  - Work to determine costs associated with the City of Springfield providing fiduciary, legal, and staffing services
  - Work with ~~the~~ MoDOT and the City of Springfield to determine how the three organizations could interface in a co-located facility
  - Secure office space for July 1, 2008 that is within ¼ mile of transit line

- Administrative Review of MPO Policy and Administrative Documents.

  Assist in the re-write of bylaws, policy documents, and administrative staff support consistent with the MPO growth. Conduct an annual review of the MPO Public Involvement Policy and make any needed revisions, consistent with federal guidelines. Staff will specifically review and make recommendations to modify the following:
  - MPO Bylaws to address any administrative issues that arise
  - MPO Memorandum of Understanding/Interlocal Agreements
  - MPO Public Involvement Policy

- Mapping and Graphics Support for MPO Operations. Staff will provide GIS support for transportation analysis and for ridesharing activities. GIS support may include
  - Scatter plot maps of employee locations
  - Other mapping activities to support MPO plans and programs
  - TIP maps
  - Major Thoroughfare Plan updates
  - MPO boundary maps

- General Administration and Contract Management.
  - Coordinate Contract Negotiations
  - Website Updates

- GIS Enhancements and Support for MPO Operations.
  - Software Upgrades and Maintenance Contract
  - GIS Consulting for Application Development

End Product(s)

The key MPO general support projects that will be completed during the 2007 fiscal year include:

- Completion of the 2009 Unified Planning Work Program;
- Completed quarterly and end-of-year reports for ONEDOT grant fund accounts;
- Work as needed on MPO transition;
- Attendance of MPO Staff and MPO members at the various training programs listed earlier in this section of the UPWP;
- GIS mapping as appropriate;
- Revisions to By-Laws, Memorandum of Understanding and Interlocal Agreements; and Public Involvement Policy;
- Staff support of all MPO committees and subcommittees
- Quarterly updates of website

Funding Sources

MPO Staff			
Total CPG PL Funds	**General Fund Match**		**Total**
$96,261	$24,065		$120,326

Task 020 – General Planning and Plan Implementation

Objective

This task addresses annual amendments and modifications to the Long-Range Transportation Plan (LRTP), the Congestion Management System (CMS) as well as the implementation of related plans, and policies.

Work Elements

The following items will be undertaken as part of this task:

- Amendments to the Updated Long-Range Transportation Plan. This work element focuses on maintaining a Long-Range Plan for the Springfield MPO that meets federal requirements for a constant 20-year plan horizon and financial constraint. Tasks include:
  - Address any proposed LRTP amendments.
  - Revise Major Thoroughfare Plan.
  - Continued SAFETEA-LU Planning Provisions Assessment.
  - Complete public involvement for LRTP amendments.
  - Facilitate Board of Directors adoption.

  Estimated Cost $ 29,500

- Continuation of Phase III of Congestion Management System Program. The Congestion Management System (CMS) document is a new federal requirement that must be undertaken by the Springfield Area MPO. The CMS consists of three main parts. Phase One defined the CMS network and specific strategies to address recurring congestion. Phase Two identified where congestion is occurring or is expected to occur during the twenty-year plan horizon and recommended which strategies will be used to address congestion at those locations. Phase III will involve monitoring of the system and tracking the effectiveness of selected strategies. Tasks include.
  - Gathering data to be used in the determination of effectiveness.
  - Gathering new data to ensure that congested facilities are identified as soon as possible.
  - Analyzing Data to determine congested corridors and intersections.
  - Analyzing data to determine effectiveness of selected strategies.
  - Mapping Data to illustrate congestion.

  Estimated Cost $ 26,000. NOTE: It is assumed that MoDOT and/or City of Springfield Traffic Engineering will provide traffic counts, crash statistics, and travel time runs as needed without direct cost to the MPO.

- Bicycle and Pedestrian Plan Implementation. The Bicycle and Pedestrian Advisory Committee has undertaken the implementation and update of the OTO Area-Wide Bicycle and Pedestrian Plan. The Bicycle and Pedestrian Plan is a three-phase plan. Phase I is the Bicycle Plan, Phase II is a Pedestrian Plan near schools and Phase III is a region-wide pedestrian plan. The completed plan was adopted by the Board in December of 2005.

Specific tasks include:

- Merge with the Safe Routes To School Committee of the Ozarks to provide a stronger regional voice through the MPO on this important safety issue.
- Identify funding sources for current and needed routes.
- Work with local jurisdictions in making necessary improvements
- Oversee the selection of Enhancement Grants for OTO funding.

Estimated Cost $25,500

- Regional Freight Movement and Management Study. With numerous trucking and railroad operators, as well as an expanding airport, there is a need to better understand freight movement and flows for the OTO region. This study will examine how existing freight operations utilize existing routes and determine what improvements are necessary in the transportation system to facilitate the efficient movement of goods throughout the Springfield, MO metropolitan area. Tasks include:
  - Examination of existing freight flows.
  - Determine barriers to efficient freight movement.
  - Establish regional transportation needs to improve freight movement.
  - Develop plan to prioritize and program improvements that support the efficient movement of freight.

  Estimated Cost $65,000
- Regional Transportation and Land Use Study. Metropolitan areas that have adopted a particular style of transportation and land use system are the ones that have the nation's fastest growing economies. The common thread for these metropolitan areas is the development of a growth strategy that relies on activity centers, managed access corridors, and quadrants. Because the vast majority of office space, shopping centers, hotels, institutional facilities (hospitals, education, entertainment), are located within activity centers and linked by corridors, maximum efficiency of all public infrastructure is ensured. Such a strategy significantly reduces the long-term costs of transportation and infrastructure improvements by making use of existing facilities and reducing demand for new facilities. This in-house study, which began in FY2007 will determine how well the OTO Study Area is managing its infrastructure costs particularly transportation.
  - Examine existing land use patterns.
  - Work with local governments to determine if activity center based growth is occurring.
  - Identify where activity centers should be located to maximize existing transportation system.
  - Provide guidance for member jurisdictions on planning choices that may be required to develop healthy activity centers.
  - Identify key corridors to connect activity centers.
  - Develop integrated land use and transportation plan for the OTO Service area.

  Estimated cost is $25,000.

- Continued Coordination with the Springfield-Branson Airport on Issues Related to their Access Road Implementation. The airport's has completed all environmental assessments and is working with the local business community and affected jurisdictions in developing a new Mid-Field Terminal. Essential to the success of the new terminal is the identification and preservation of a new corridor for the Airport access road. MPO staff will review issues related

to the airport access road and continue to work with Airport staff on access road issues.
Estimated Cost $15,000

- Transportation Model. The existing traffic model has been revised to include areas added to the MPO boundaries since 2000 as well as converting the modeling platform that is compatible with existing MPO GIS systems. Included in the funding is money for the model consultant to contract out any model runs requested by local jurisdictions to determine impacts of major new developments.
  Estimated Cost $10,000

- Geographic Information Systems (GIS). Continue developing the Geographic Information System (GIS) and work on inputting data into the system that will support the Transportation Planning efforts.
  Estimated Cost $27,000

End Product(s)

- Revisions to the Long-Range Transportation Plan.
- Maintenance and monitoring of the Congestion Management System.
- Regional Bicycle and Pedestrian Plan implementation.
- Regional Freight Movement and Management Study.
- A completed Transportation and Land Use Study.
- Model runs as requested.

Funding Sources

MPO Staff			
Total CPG PL Funds	**General Fund Match**		**Total**
$172,000	$43,000		**$215,000**

Task 030 - Transportation Improvement Program

Objective

Prepare a four-year program for anticipated transportation improvements.

Work Elements

Produce a document listing the transportation improvement projects to be carried out by the City of Springfield, Greene County, City Utilities Transportation Department, Missouri State University, the Missouri Department of Transportation and other MPO member jurisdictions receiving transportation funding from FHWA, FAA and FTA for the next three years. (FTA Line Item Code 44.25.00) Ranking of the FTA Section 5307 and 5310 projects for submittal to the MPO. Use project ranking criteria for the 2009-2012 TIP and continue to refine the process.

The MPO Staff shall coordinate the following tasks in order to facilitate the preparation of the TIP:

- Prepare the 2009-2012 Transportation Improvement Program (TIP).
  - Send Out Project Requests
  - Prepare Draft Document
  - Present Draft TIP to the MPO Committees
  - Prepare Final TIP Booklet
  - Submit TIP Booklet to MoDot OT for their Submittal to the Governor's Office and Inclusion in the Statewide Improvement Program (~~SIP~~ STIP)

- Conduct the Public Involvement Process for the TIP.
  - Send Out Letters to All Interested Parties on the TIP Public Involvement List Regarding the 2009-2012 TIP Process
  - Send Letters that Explain the TIP Process out to All Potential FTA Section 5310 Applicants
  - Provide Copies of the Draft TIP for any Interested Parties
  - Provide Opportunities to Comment on 2009-2012 TIP Submittals
  - Prepare a TIP Process Press Release and Submit to the Public Information Office (PIO) for Distribution

- Work with the TIP Subcommittees.
  - Transit Subcommittee
  - TIP Subcommittee
  - Enhancements Subcommittee

- Coordinate, Advertise, and Submit all TIP Amendments.
  - Prepare Press Release and Submit to PIO for Distribution
  - Amend TIP Pages for Consideration by MPO Committees
  - Prepare Memo and Approved TIP Amended Pages to Submit to MoDot OT

End Product

- Transportation Improvement Program FY 2009-2012
- TIP amendments, as necessary.

Funding Sources

MPO Staff			
Total CPG PL Funds	**General Fund Match**		**Total**
$36,000	$9,000		**$45,000**

Task 040 - Rideshare and Commuter Choice Program

Objective

The recently completed Congestion Management System recommends that a revised rideshare program that focuses on employer-based strategies and employer targeting through such national initiatives as Commuter Choice and Parking Cash-out be deployed in the OTO Study Area. Since there currently is not an agency that is prepared to launch such an effort, the MPO will undertake the initial program start-up with the hope of spinning off the program to a more appropriate agency.

Work Elements

- Maintain capability to match riders and drivers in response to requests for shared rides.
  - Prepare Lists of Driver and Rider Matches for Trips.
  - Coordination of Telephone Interest Calls Regarding Rideshare Opportunities in the Community.
  - Information Dissemination about the Rideshare Program.
  - Providing Contact Information to Parties that are able to Coordinate Rides.
  - Promote Rideshare Program.

- Continued deployment of rideshare/commuter choice program.
  - Work with Springfield Area Chamber of Commerce to select and meet with target employers.
  - Provide on-site technical assistance to employers who agree to participate.
  - Conduct on-site transportation fairs at targeted employers.
  - Serve as transportation ambassadors to employees.
  - Provide personalized transportation services to residents requesting assistance.

- Maintain Records and Prepare Reports on Quarterly Rideshare Status.
- Prepare Annual Project Report Update on the Rideshare Program.
- Publicizing the Rideshare Program.

End Products

- Continued coordination of rideshare requests.
- An up-to-date list of riders and drivers that were successfully matched.
- Commuter Choice program for major employers.
- Purchase of marketing materials for use in association with Commuter Choice program.
- Work with targeted major employers to develop Commuter Choice programs.
- Completion of quarterly and annual rideshare program reports.

Funding Sources

MPO Staff			
Total CPG PL Funds	**General Fund Match**		**Total**
$48,000	$12,000		**$60,000**

Task 050 - Transit Planning

Objective

Prepare plans to provide efficient and cost-effective transit service for transit users.

Work Elements

A. Operational Planning.

- MPO Staff shall support operational planning functions including, surveys and analysis of headway and schedules, and development of proposed changes in transit services.
- Training and development.
- City Utilities Transit participation in MPO meetings and submittal of TIP program.
- City Utilities Transit grant submittal and tracking.
- City Utilities and MPO development of information for triennial reviews.
- City Utilities Transit collection and analysis of data required for the National Transit Data Base Report. Occasionally MPO Staff provide information toward this report, such as the data from the National Transit Database bus survey.
- City Utilities Transit and MPO will conduct marketing and customer service programs.
- City Utilities Transit studies about management, operations, capital requirements and economic feasibility, when needed.
- City Utilities Transit participation in Ozarks Transportation Organization committees and related public hearings.
- City Utilities Transit, often with MPO Staff assistance, forecast future transit costs.
- City Utilities Transit and MPO Staff collection and reporting of data required for the National Transit Database survey, conducted every three years.
- City Utilities Transit collection of data required to implement the requirements of the Americans with Disabilities Act and non-discriminatory practices. (FTA Line Item Code 44.24.00)
- MPO Staff and agencies work together on the MPO transit subcommittee.
- Community involvement to include work on committees, presentations, etc.
- MPO Staff coordination with City Utilities and MSU transit operations staff on any other task not specified herein.

B. ADA Accessibility.

- MPO Staff to work with City Utilities Transit staff on transportation improvements at bus stops (i.e. bus turnouts).
- City Utilities Transit contract management.
- MPO Staff and City Utilities Transit to work together on efforts to provide curb cuts and sidewalk accessibility at bus stops and shelters around Springfield, on an annual basis. (FTA Line Item Code 44.24.00)

C. Service Planning.

- MPO staff lead in developing a strategic plan to create a stand-alone transit authority with taxing authority in preparation for an August 2008 voter referendum.

- Use of a marketing/public relations consultant to educate and encourage voters to support a regional transit authority.
- City Utilities Transit and some MPO Staff assistance in the evaluation of existing routes, route segments, and services by performance criteria.
- Work with outside paratransit agencies to develop alternatives to increase service coordination within the urbanized area to meet the "United We Ride Executive Order".
- MPO Staff collection of data from paratransit operations as required.
- MPO Staffing of the Paratransit Subcommittee that focuses on improving service in the community.
- City Utilities Transit development of route and schedule alternatives to make services more efficient and cost-effective. (FTA Line Item Code 44.23.01)
- MPO Staff and City Utilities Transit participation in special transit studies.

D. Financial Planning.

- City Utilities Transit analysis of transit system performance by adopted policies to achieve effective utilization of available resources.
- City Utilities Transit preparation of long and short-range financial and capital plans.
- MPO Staff to cooperate with Missouri State University and City Utilities in the development and implementation of their Transportation Improvement Program projects.

- City Utilities Transit and MSU will study and produce planning justification for transit projects by Short-Range Transit Plan and standard planning practice.
- City Utilities Transit will identify possible cost-saving techniques and opportunities to meet future operating deficit and capital costs.
- City Utilities Transit, with potential assistance from MPO Staff, will identify potential revenue from non-federal sources to meet future operating deficit and capital costs. (FTA Line Item Code 44.26.84)

E. Competitive Contract Planning.

- City Utilities Transit will study opportunities for transit cost reduction through the use of third-party and private sector providers.
- Missouri State University will continue to monitor costs of their third-party private sector transit contractor.
- City Utilities Transit and MPO Staff will study potential coordination of private sector transportation with the existing and potential public sector providers to minimize unserved populace.
- MPO Staff to prepare and maintain a list of private-for-profit operators for use by City Utilities (CU) and other transit providers in the development of transit plans.
- MPO Staff to cooperate with MSU, CU, and their consultants in the evaluation of existing services.

G. Safety/Drug Control Planning.

- The City, City Utilities and Missouri State University have adopted policies of drug-free awareness programs to inform their employees on the dangers of drug abuse. (FTA Line

Item Code 44.26.82) Funding is intended to assist in the development of a drug and alcohol awareness program in an effort to provide a drug and alcohol-free working environment for the employees at City Utilities, and MSU transit. In particular, special studies addressing critical transportation and related drug and alcohol issues may need to be completed.

End Products

- Transit agency coordination (City Utilities and Missouri State University).
- Project rankings and allocations in the 2008-2011 TIP related to transit, and various new ADA accessible bus shelters and stops.
- Development of a coordinated public transit-human service agency transportation plan.
- On-Board bus surveys.
- Special Studies

Funding Sources

MPO Staff

Total CPG PL Funds	General Fund Match		Total
$65,000	$16,250		**$81,250**
City Utilities Staff			
FTA 5307 Funds	**CU match**		**Total**
$74,400	$18,600		**$93,000**
TOTAL			**$174,250**

Task 060 - Special Studies and Related Projects

Objective

Conduct special transportation studies (issues not discussed in the Transportation Plan), as requested by the MPO Board of Directors, subject to funding availability. Priority for these studies shall be given to those projects that address recommendations and implementation strategies from the Long-Range Transportation Plan.

Work Elements

Respond to requests from the MPO Board of Directors, or other official bodies by preparing special studies on problems that arise, with priority going to addressing issues raised in the Transportation Plan. The following are work elements that will be undertaken as part of this task:

- Continued Coordination with entities that are implementing Intelligent Transportation Systems.
- Studies of Parking, Land Use, and Traffic Circulation.
- Other Special Studies in accordance with the Adopted Transportation Plan .

End Product(s)

- Preparation of special requests, such as:
  - Memos;
  - public information requests;
  - parking & land use circulation studies; and,
  - Other projects as needed, subject to MPO Staff availability and expertise.

Funding Sources

MPO Staff			
Total CPG PL Funds	**General Fund Match**		**Total**
$28,000	$7,000		**$35,000**

UPWP TOTAL EXPENDITURES					
Task	Total CPG PL Funds	Springfield General Fund Match	5307 Funds	Other Local	TOTAL
010	$96,261	$24,065			$120,326
020	$172,000	$43,000			$215,000
030	$36,000	$9,000			$45,000
040	$48,000	$12,000			$60,000
050	$65,000	$16,250	$74,400	$18,600	$174,250
060	$28,000	$7,000			$35,000
TOTAL	**$445,261**	**$111,315**			**$649,576**

APPENDIX A

FY 2008 FHWA PL & FTA SECTION 5303 SCOPE OF SERVICES
SCOPE PERIOD: JULY 1, 2007- June 30, 2008

SECTION 1 BUDGET SUMMARY

Estimated Expenditures:

Cost Category	*Cost **
Salaries & Fringe	$376,529
Transit Consultant	$35,000
Rideshare Materials	$26,990
Publications	$800
Office Supplies	$6,000
Mapping	$1,500
Training	$12,500
Travel	$12,000
Dues	$6,500
Postage	$4,200
Telephone	$6,000
Advertising	$3,600
Printshop	$14,400
Food	$4,080
Computer Upgrades	$3,275
Software	$5,600
Aerial Photography	$10,000
GIS Maintenance	$9,787
City Provided Professional Services	$7,815
City Provided Office Space	$10,000
Total	$556,576

Estimated Revenues:

Agency	*Amount*	*%*
Consolidated FHWA/FTA PL Funds**	$445,261	80.00%
City of Springfield Match Funds	$93,500	16.80%
City of Springfield In-Kind Professional Services	$7,815	1.40%
City of Springfield Office Space Contribution	$10,000	1.80%
Total	$556,576	100.00%

Notes * Cost includes federal and required 20% matching funds.

** Consolidated Planning Funds Include the following less a 1% recission:

FHWA Planning Funds	$365,816
FTA Section 5303 Funds	$83,942

INFORMATION ITEMS

Attached for Technical Committee member review are various information items regarding transportation in our region, state, and nation. These information items are typically drawn from newspapers, special reports, and mailings received by MPO staff. They are provided for the sole purpose of keeping MPO Technical Committee members apprised of transportation issues currently under review by MPO staff and/or other transportation organizations. The focus is on information that may have a direct impact on the Ozarks Transportation Organization study area.

THE URBAN TRANSPORTATION MONITOR

VOL 21, NO 2 FEBRUARY 2, 2007

Palm Bay, FL, Deploys Unmanned Air Vehicles

Handy for Transportation Surveillance Applications

Police in Palm Bay, FL, soon may have a helpful new tool at their disposal. The Cyber Bug, originally designed for military intelligence gathering, soon may become an effective and cost-efficient way to extend police surveillance and traffic management capabilities beyond traditional boundaries.

The unmanned air vehicles (UAVs) known as Cyber Bugs are manufactured by Cyber Defense Systems, Inc. of St. Petersburg, FL. Although initially intended for military applications, the company recently began promoting UAVs for other purposes. During a testing session last summer, an operator dispatched a UAV to the scene of a major traffic incident nearby. When it realized that the Cyber Bug could react more quickly and at a much lower cost than a traffic helicopter, the company began marketing the equipment to police departments and news agencies.

UAVs offer a big picture, bird's-eye view of situations that might otherwise be difficult to evaluate or access. In addition to providing intelligence information on criminal activity and tracking missing persons or criminals, UAVs could be employed to help determine the best response to a variety of traffic situations.

Currently, stationary cameras, ground sensors, and traffic helicopters are among the most frequently used tools for traffic monitoring. However, a relatively small percentage of highway miles are under camera surveillance. UAVs can provide the following:

- An image of an incident and information on traffic flow resulting from an incident to help with traffic management and the planning of alternative routes to avoid the incident location.

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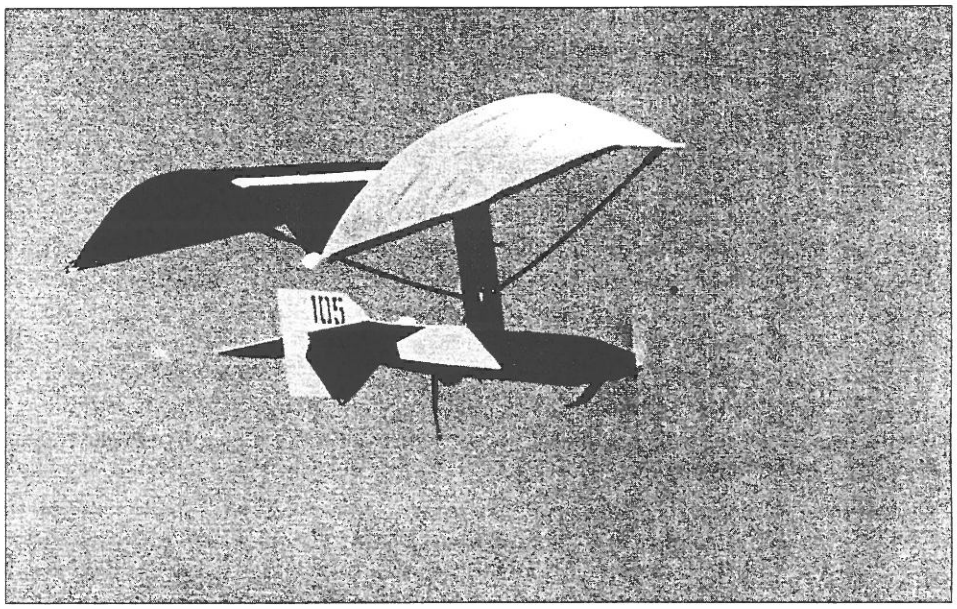


A Cyber Bug in flight. (Photo: Courtesy of NATO)

Inside

Santa Cruz Weighs Benefits of a Personal Rapid Transit System

Offers Benefits Compared to Alternatives, but Reliability is Questionable

In December 2006, Santa Cruz, CA, located about 70 miles south of San Francisco, released a report based on a preliminary feasibility study conducted to determine if a Personal Rapid Transit (PRT) system would be suitable for the city.

Because Santa Cruz is a relatively small university town (pop. 60,000) that contains activity centers such as the University of California at Santa Cruz campus, the beach front and downtown areas, proponents identified it as a good candidate for a PRT system. The city sits on a hill with a 500-foot elevation change, and this, together with the physical barriers of the ocean and the university campus, limit options for public transportation systems in the area.

Currently about 38,000 trips per day are made in Santa Cruz. That number is

Please turn to Page 6

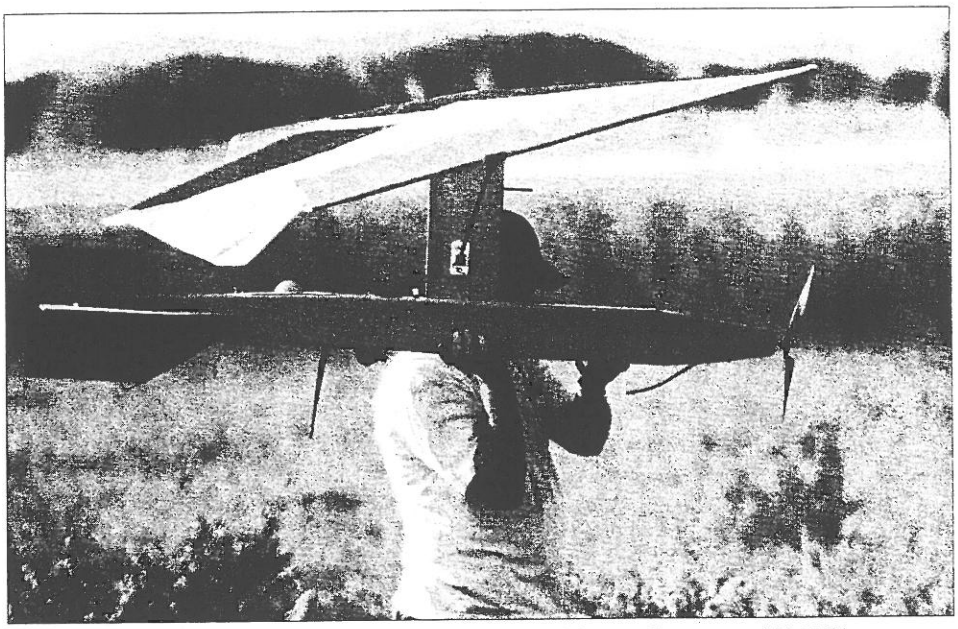
Continued from Page 1

Unmanned Air Vehicles Deployed in Palm Bay, FL

- Vehicle path tracking through an interchange or through a network of roads.
- Traffic information, including traffic flow, queuing, speed, and volumes.
- Information to help with asset management by providing images of signs, markings, and other roadside equipment.

Palm Bay is a sprawling city of 110,000 people encompassing a 100-square-mile area. According to police chief Bill Berger, it is an ideal location to employ UAV technology because of its large geographic size and predominantly rural make-up. The department plans to begin using a Cyber Bug later this year. Eventually, Chief Berger hopes to have three or four UAVs so the technology can be made available throughout the Palm Bay police district. He estimates the training time needed to learn to use the UAV, including care and maintenance of the equipment, to be approximately four days.

Constructed mostly of carbon fiber and fiberglass, a Cyber Bug measures approximately 2.5 feet long, weighs less than 10 pounds, and costs about $30,000. The wings are translucent and, when in flight, the Cyber Bug resembles a kite. Utilizing electrical power rather than gasoline, Cyber Bugs are also fuel efficient and environmentally friendly.



The Cyber Bug is about to be launched. (Photo: Courtesy of NATO)

UAVs have an automatic pilot feature and the controls are similar to those used in computer video games. UAVs provide statistical data, such as longitude and latitude, and stream video images, all of which are transmitted by wireless radio frequency to a portable ground station.

The equipment is durable, lightweight, and mobile enough to store in the trunk of a car and launch by hand. Cyber Bugs travel at an altitude of approximately 500 feet, with a cruising speed of 26 miles per hour. They can remain in the air for over an hour at a time, traveling three to five miles from the point of debarkation. The Cyber Bug has rudders rather than wheels, so it can land on any surface. It is also equipped with night vision capability.

For additional information, visit www.cduav.com or contact Jim Alman, Cyber Defense Systems, Inc., tel. (727) 577-0878, e-mail: jim@cduav.com, or Bill Berger, Chief of Police, Palm Bay Police Department, tel. (321) 952-3456, e-mail: bergew@pbfl.org.

TRB Holds 86th Annual Meeting in Washington, DC

Several Awards Presented

More than 10,000 policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions attended the Transportation Research Board (TRB) 86th Annual Meeting, in Washington, DC, January 21-25, 2007. The meeting included more than 2,800 presentations in 500 sessions, 75 workshops, and 400 TRB committee meetings covering all aspects of transportation. Here are some of the awards announced during the meeting.

Anne P. Canby received the 2006 W. N. Carey, Jr., Distinguished Service Award, which recognizes individuals who have given outstanding leadership and service to transportation research and to the TRB. Canby is president of the Surface Transportation Policy Partnership (STPP), a national advocacy coalition for transportation reform based in Washington, DC.

The TRB's Fred Burggraf Award, which recognizes excellence in transportation research by researchers 35 years of age or under, was presented to Hao Tang of Federal Express Corporation and Elise Miller-Hooks of the University of Maryland; Jason Weiss and Gaurav Sant, both of Purdue University, and Pietro Lura of the Technical University of Denmark; and Paolo Perco of Trieste University, Italy.

Genevieve Giuliano received the 2007 Thomas B. Deen Distinguished Lectureship, which recognizes the career contributions and achievements of an individual in one of the areas covered by the Board's Technical Activities Division. Giuliano is Professor and Senior Associate Dean of Research and Technology in the School of Policy, Planning, and Development at the University of Southern California (USC), and Director of the joint USC–California State University Long Beach METRANS Transportation Center.

Transportation Tort Liability: Case in Review

City in Kansas Found Negligent for Failing To Take Measures to Improve Safety at an Intersection

In a recent case the Missouri Court of Appeals, rejected the argument of a city in Kansas (City A) that it was immune from suit under common law because the placement of traffic signals is a legislative determination of the City Council. The case arose out of City A's appeal of a judgment issued by a jury in a wrongful death case brought by the parents of a student at the University of Missouri at City A, who died when she was struck by a vehicle in February, 2003. The plaintiff parents alleged the City had failed to locate and install proper warnings and traffic control devices at the intersection; that it was in a dangerous condition; and that the death of their daughter occurred as a direct result of this dangerous condition of City-controlled property.

The City responded by claiming governmental immunity as they contend the cause of plaintiff's action was not within exceptions to the immunity provided to public entities by statute. The City also denied that any failure of theirs was a direct cause of death, claiming that the death was attributable to the action of a third party (the driver of the car which struck the young woman). The trial court found in favor of the plaintiffs, granting them damages totaling $328,011 once statutory limits of liability had been applied.

In January 2007 the Circuit Court affirmed all the trial court rulings, after reviewing de novo both the issue of whether the City was protected by governmental immunity, and whether plaintiffs had failed as a matter of law to show that the condition of the road directly resulted in the death of their daughter.

On the question of whether the relevant intersection was a "dangerous condition of property" the appeal court found that plaintiffs had provided an extremely thorough case in that they showed

- the intersection is and was under the control of the Defendant City who was and is responsible for providing adequate signing, lighting and patrolling and was obliged to remove any known or reasonably foreseeable dangers;
- the Defendant City, through acts or omissions of its employees operating in the scope and course of their employment, was careless, reckless, negligent and at fault by not locating proper warning signs at the time of the accident;
- at the time of the accident the intersection was in a dangerous condition;
- the decedent's death was a direct result of this dangerous condition;
- the dangerous condition at the intersection created a reasonably foreseeable risk of harm of the kind of injury sustained by the decedent;
- the Defendant City knew - from their own records of the number and severity of accidents at the intersection and through repeated requests in writing over an eight-year period for a traffic control signal at the intersection - that the intersection was in a dangerous condition, but that it negligently failed to properly maintain a pedestrian crosswalk;
- the Defendant City had sufficient time prior to the accident to have taken measures to protect against the dangerous condition;
- the fatal accident was a direct and proximate result of the carelessness, negligence, recklessness and fault of the Defendant City.

The Appeals Court found the City was incorrect in arguing that *any* negligence of third parties was *necessarily* the kind of "third-party intervention" that allows a City to retain its immunity. The Court described the City has appearing to believe that any time the negligence of a third party contributed to an injury, the City was not liable, regardless of the probability and predictability of the third party's negligence or regardless of its own negligence. It pointed out the Supreme Court had clarified the meaning of the phrase "third-party intervention" in the statute by addressing the meaning of the phrase "directly resulted from" which it deemed to be synonymous with "proximate cause".

In summing up the Appeals Court found the City had ignored a large body of case law; and stated that the law clearly is that governmental immunity for negligence is waived for a public entity that creates a dangerous condition. Further, a public entity may be held liable for the negligent design or construction of a roadway, including the negligent design and placement of traffic control devices. Last, that the negligence of a third party does not necessarily preclude the liability of the public entity.

Regarding the City's argument that the placement of traffic signals is a discretionary matter which made it immune from suit under the common law, the Appeals Court pointed out the City had adopted the Manual on Uniform Control Devices ("MUTCD" or "Manual") to guide its traffic engineering decisions. It acknowledged that the Manual does not entirely dispense with engineering judgment, but said that City traffic engineers in jurisdictions which have adopted it are required by the City to comply with the Manual when it has specific requirements.

With regard to the actual state of the intersection, the Appeals Court found that at the time of the collision there were two universities, one elementary school and one church located at or near the intersection, resulting in heavy pedestrian traffic, particularly of students, at that point. A traffic engineer for the City testified that an independent traffic study completed in 1999, proposed the installation of a pedestrian push-button signal at the intersection; however this was not done. The evidence showed that the city had received a number of written similar requests, dating from as far back as 1995, all requesting a traffic signal at the intersection. In 2001 an accident resulting in serious injury, remarkably similar to the one in which plaintiff's daughter was killed, had occurred at the same spot. In fact, the city's collision data showed at least 15 accidents had occurred from 1999 to 2003 at the point.

USA TODAY

Powered by

Video billboards spur concerns about driving safety

By Patrik Jonsson, The Christian Science Monitor

ATLANTA — In essence, it's a 50-foot plasma TV on a 75-foot pole, set above the madding traffic pouring out of downtown Atlanta.

A slice of Times Square off Peachtree Street, the sign, which can be seen half a mile away, uses hockey players to hawk airline tickets, with images rotating every eight seconds. It's one of more than 500 digital billboards hovering over US highways.

The problem is that it didn't just catch the eye of drivers. As billboard companies scurried to erect more around the city, the Atlanta City Council in January enacted a temporary ban on the signs. It's one in a string of communities from Concord, N.H., to Eden Prairie, Minn., that has raised questions about the safety of TVs in the sky.

Now, the Federal Highway Administration is putting $150,000 toward a study to try to settle the issue as the century-old debate over billboard ethics moves from one of highway beauty to one of highway safety.

"Clearly, today's technologically savvy drivers ... might drive by such things, unfazed, thinking 'It's a big TV on a stick. Who cares?' " says Doug Hecox, a spokesman for the Federal Highway Administration (FHWA). "But whether the risks are the same across all age groups is unknown."

For now, the FHWA provides only cursory guidelines on electronic billboards, leaving states and municipalities to decide whether or not they should be permitted, Mr. Hecox says.

For guidance, most planners look to a 1996 FHWA ruling that permitted "tri-view" signs – mechanical signs where triangular panels turn over to display new images every few seconds. No state allows moving images on highway billboards. However, regulations are generally more lax for "on-premises" signs, like those located on the grounds of car dealers and sporting arenas, that can show video clips and animation – even if they are located next to interstates.

Digital billboards cost about $500,000 to put up. Billboard companies like them because they can charge premium rates for an effective medium that can show many ads on the same pole, media analysts say. In fact, outdoor advertising sales grew about 12% last year, second only to Internet ad sales, they say.

"There is growth there, not just for electronic billboards, but also for plain old paper billboards in the right locations," says Neal Weinstock, president of Weinstock Media Analysis in New York.

Billboards' appeal

In communities, digital billboards have advantages compared with static ones, says Heidi Kershaw, communications

manager for the Outdoor Advertising Association of America (OAAA) in Washington.

• In the Twin Cities, a test of an Amber Alert system on digital billboards last week netted the arrest of an estranged father who had kidnapped his daughter.

• Albuquerque is employing digital ads to flash a series of public service messages that include urging water conservation.

• In Cleveland, the new technology served as a peace offering between the city and advertisers. The industry has promised to use a fewer number of digital billboards in return for taking down numerous smaller signs that officials said were eyesores.

But critics say the very reason the signs appeal to advertisers is the reason they pose a danger on the roadways: The billboards are designed to distract. A study on driver behavior released by the National Highway Traffic Safety Administration last April showed that distractions in which a driver spent more than two seconds looking elsewhere than the road contributed to 22% of overall accidents.

"People need to know these enormous TV sets are going to pop up along highways.... It's going to be a significant safety issue for the country," says Kevin Fry, president of Scenic America, a group in Washington that lobbies to keep highways clear of clutter.

For its part, the OAAA cites a 2004 study by the Virginia Tech Transportation Institute, indicating that driver behavior doesn't change measurably in the presence of attention-getting billboards.

Many experts, too, doubt whether the new billboards will stand out.

"These electronic billboards create no more of a traffic safety hazard than a vinyl-wrap board with a stationary image," says Alan Weinstein, a land-use expert at Cleveland-Marshall College of Law in Cleveland.

Local battles over signs

So far, the battle over such billboards is playing out at the local level. Dozens of municipalities – including the Twin Cities, Concord, N.H., and Atlanta – have imposed moratoriums to study them further. Billboard companies have filed several lawsuits in the hope of weakening or nullifying local ordinances by citing the First Amendment right to free speech.

"If a city wants to decide that they want to be like Times Square, that's one thing, but [outdoor advertisers] are by no means trying to limit the location of their signs to those communities," says John Baker, a land-use attorney in Minneapolis.

More digital billboards likely to come

The study on the safety of electronic billboards – which may not be completed until 2009 – will help states and municipalities deal with the kinds of new technologies not foreseen by Congress in the Federal Highway Beautification Act of 1965, the FHWA says.

Today, some 450,000 vinyl-clad billboards are located over US roadways, and some analysts have predicted that perhaps 70,000 of those could be retrofitted to digital in the next five to 10 years.

washingtonpost.com

Steep Prices Projected for HOT Lanes

Non-Carpool Drivers Could Pay Up to $1.60 a Mile on I-95/395

By Eric M. Weiss
Washington Post Staff Writer
Saturday, March 3, 2007; A01

Drivers in express toll lanes planned for Interstates 95 and 395 would pay as much as a dollar a mile in some spots along the 36-mile route during peak times, the highest rate for a commute in the country, officials from the companies building the new-style highway said as they filed a detailed proposal yesterday.

But regional transportation planners estimate that the cost for a rush-hour ride on the optional lanes probably will be far steeper: as much as $1.60 a mile in crowded segments. They estimate that a 21-mile, rush-hour trip from the Pentagon to Prince William Parkway would cost as much as $22.28. A round-trip during peak hours could cost $41.46.

Buses and carpools of three or more people would continue to ride free, as would drivers in the highways' regular lanes.

The project, being built by Fluor Virginia Inc. and Transurban (USA) Development Inc., is one of several that could turn the Washington area into one of the most heavily tolled regions in the country. The companies have also agreed to build high-occupancy or toll (HOT) lanes on a stretch of the Capital Beltway between Springfield and Georgetown Pike, and Virginia officials are looking to add them elsewhere.

Maryland has begun construction on express toll lanes north of Baltimore and is pursuing plans to build them on its portion of the Beltway and Interstate 270. The planned intercounty connector between Montgomery and Prince George's counties will be a toll road.

What makes HOT lanes so alluring to transportation planners is that, for a price, they virtually guarantee a congestion-free ride because tolls would be adjusted every few minutes to manage the number of users. Planners also see HOT lanes as a way to boost transit service by providing open roads for buses. Local officials have encouraged companies to build them because there is little public money available.

The $882 million project on I-95/395 would convert the two existing carpool lanes. The companies would add a third lane and provide new ramps and bridges and increased transit service, including a dedicated bus ramp to the Pentagon. The project would also extend the lanes nine miles south of their current terminus in Dumfries. Eventually, the companies plan to extend them south to Spotsylvania County.

Virginia Transportation Secretary Pierce R. Homer said HOT lanes are needed on I-95/395. "If we do nothing, the HOV lanes, slugs, carpools and bus service in the I-95 corridor will cease to function," Homer said. "The HOV lanes today are congested two days a week and in short order, three, four or five days a week."

Jennifer Aument, a spokeswoman for the project, added that "drivers will always have a choice. They can choose to use the HOT lanes or choose to use the regular lanes for free."

Nonetheless, many public officials and commuters in the I-95 corridor oppose the lanes, in part because of what they see as excessive prices.

"HOT lanes are a sham," said Corey A. Stewart (R), chairman of the Prince William Board of County Supervisors, which voted two weeks ago to oppose the project. "You have a very congested area combined with an affluent workforce. People will pay literally anything to get out of the main lanes into the special lanes. The result is that only the very affluent will be in those lanes, and there will be a lot of them."

Aside from the new roads, fees are expected to rise on the region's two existing toll roads: the Dulles Greenway and Dulles Toll Road. The private owners of the 14-mile Greenway, from Dulles International Airport to Leesburg, have asked Virginia regulators for permission to raise rush-hour tolls from $3.20 to $4.80 by 2012.

Management of the Dulles Toll Road was recently transferred from the state of Virginia to the Metropolitan Washington Airports Authority, which plans to raise tolls regularly to pay for an extension of Metro's Orange Line to Tysons Corner and Dulles Airport.

Financial projections indicate that under the authority's agreement with the Virginia Department of Transportation, the average toll would triple by 2030, the authority said. There is no cap on future tolls, though, and the authority can raise them on its own.

Those tolls are small change compared with what drivers could pay on HOT lanes planned for the Beltway and I-395 and I-95.

"HOT lanes are different things," said Robert W. Poole Jr., director of transportation studies for the Reason Foundation and an early proponent of HOT lanes. "The main, important purpose of toll pricing is to manage the traffic flow so they can deliver what they are promising to customers: a congestion-free ride."

Poole added that the toll rates on the I-95/395 project "would definitely be the highest anyone has ever seen."

The highway with the highest toll rate per mile is currently California's SR-91, which has a peak rate of $9.25 for a 10-mile ride.

Yesterday, VDOT filed the Fluor-Transurban proposal with the Metropolitan Washington Council of Governments' Transportation Planning Board. The plan calls for construction to begin next year and for the lanes to open for service in 2010. It includes $390 million in additional transit services and envisions six new park-and-ride facilities with a total of 3,000 spaces.

The proposal would have to be approved by the COG planning board, made up of state and local officials from Virginia, Maryland and the District.

Ronald F. Kirby, director of transportation planning for COG and the author of the analysis of projected toll rates, said tolls for the I-95 and I-395 HOT lanes would have to be set high because of all the bottlenecks on I-95. He added that high tolls aren't all bad because they will encourage people to carpool.

But if Washington area drivers want to be sure of getting somewhere on time, Kirby said, they had

"better figure on paying better than 30 bucks."

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TRANSPORT POLICY

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The political calculus of congestion pricing

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Abstract

The political feasibility of using prices to mitigate congestion depends on who receives the toll revenue. We argue that congestion pricing on freeways will have the greatest chance of political success if the revenue is distributed to cities, and particularly to cities through which the freeways pass. In contrast to a number of previous proposals, we argue that cities are stronger claimants for the revenue than either individual drivers or regional authorities. We draw on theory from behavioral economics and political science to explain our proposal, and illustrate it with data from several metropolitan areas. In Los Angeles, where potential congestion toll revenues are estimated to be almost $5 billion a year, distributing toll revenues to cities with freeways could be politically effective and highly progressive.

Keywords: Congestion tolls; Political feasibility

1. The political calculus of congestion pricing

> *It has been a commonplace event for transportation economists to put the conventional* [congestion theory] *diagram on the board, note the self-evident optimality of pricing solutions, and then sit down waiting for the world to adopt this obviously correct solution. Well, we have been waiting for seventy years now, and it's worth asking what are the facets of the problem we have been missing. Why is the world reluctant to do the obvious?*
>
> Charles Lave (1995)

Most transportation planners and economists agree that congestion pricing is the best way, and perhaps the only way, to reduce traffic congestion. Most politicians, however, see congestion pricing as a complicated new charge for something that has always been free. Congestion pricing therefore requires explanation, and as the political saying goes, "when you are explaining you are losing." Proponents sometimes respond by arguing that once congestion pricing is implemented the public will understand its benefits, and its political problems will disappear. Implementation, however, will not solve the political problem, because implementation *is* the political problem. The political difficulty with congestion pricing is persuading people to do it in the first place, not in convincing them of its value after the fact.

Congestion pricing has broadly distributed costs (most people end up paying tolls) and broadly distributed benefits (drivers suffer less congestion and the tolls can pay for added public services). What pricing lacks is a constituency who will derive *concentrated* benefits that exceed their costs. The high political cost of supporting road pricing falls entirely on those who spend their time, money, and political capital trying to implement tolling. Unless new tolls offer someone benefits that exceed these political costs, few people will take action.

Congestion pricing suffers, therefore, from an absence of strong advocates. "There is nothing more difficult to take in hand, or more uncertain in its success," Machiavelli wrote in *The Prince*, "than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old order of things, and lukewarm defenders in those who may do well under the new."

Machiavelli wrote those words in 1532. Wachs (1994) made the same point, albeit in less florid prose, when he summarized the political dilemma that faced congestion pricing: "In addition to professors of transportation

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0967-070X/$ - see front matter © 2006 Elsevier Ltd. All rights reserved.
doi:10.1016/j.tranpol.2006.11.002

Please cite this article as: King, D., et al., The political calculus of congestion pricing. Transport Policy (2007), doi:10.1016/j.tranpol.2006.11.002

economics and policy, who hardly constitute a potent political force, I can think of few constituencies who would willingly and vigorously fight for the concept."

2. A constituency for congestion tolls: Cities

In this article we propose a new way to create political support for congestion pricing on urban freeways: *distribute the toll revenue to cities, and particularly to the cities through which the freeways pass*. With the revenue as a prize, cities can become the champions of congestion pricing; the benefit to public officials in these cities can be worth far more than the costs of supporting the tolls.

Policy proposals often succeed not because (or not only because) they benefit the public interest, but because they benefit *particular* interests, and these interests organize to champion the policies. Yet when transportation planners recommend tolls to reduce traffic, they tend to focus on the widespread economic benefits of congestion relief, rather than on the political benefits. But as Goodwin (1997, p. 2) says, "discussion of road pricing without explicit attention to the use of revenue streams is *inherently* unlikely to be able to command a consensus in its support. I treat this as an axiom of contemporary transport policy." Rather than spend the revenue to reduce drivers' opposition to congestion pricing, we propose distributing the revenue to increase local political leaders' support for congestion pricing. In economic jargon, we propose creating politically influential *residual claimants for the toll revenue*: a group entitled to the net revenue from the priced roads. Wilson (1980) posited a theory of "client politics" that provides the framework for this argument. Wilson contends that policies with concentrated benefits and widely dispersed costs are likely to succeed:

> When the benefits of a prospective policy are concentrated but the costs widely distributed, *client politics* is likely the result. Some small easily organized group will benefit and thus has a powerful incentive to organize and lobby; the costs of the benefit are distributed at a low per capita rate over a large number of people, and hence they have little incentive to organize in opposition (p. 369).

If toll revenues are given to cities with freeways, elected officials from these cities stand to gain considerably, and have a strong incentive to lobby for the tolls. The drivers who pay the tolls, in contrast, will each lose only moderately and any loss will be at least partially offset by reduced congestion.

Four basic conditions for the political approval of congestion pricing help explain why cities are the appropriate claimant for the revenue. We just discussed the first condition, that the potential gains to revenue claimants must be obvious. Second, the claimants must be organized and politically powerful. Third, the claimants must have some defensible claim to the revenue. And fourth, the gain must be *concentrated*. There cannot be so many claimants that no one gains enough to make political action worthwhile. Drivers who pay the tolls might have a defensible claim to the revenue in the form of a reduction in other road user fees, such as the gasoline tax, but they nevertheless are not suitable political claimants because they are many and dispersed which makes them unlikely to generate political power.

Freeways have regional benefits, so it might seem sensible to allocate the money to some regional authority—a public transportation or highway agency, for example. But here we can introduce another condition for receiving congestion toll revenue: the recipient must have a claim to the revenue that is both economic *and* political, with the political claim being more important. And while there are some good arguments for giving the toll revenue to regional agencies, they are not *political* arguments. A regional agency would be hard-pressed to produce a public service that the region's residents considered a reasonable compensation for the loss of free access to the freeways. Even spending the revenue on regional transit improvements may do little to improve the prospects for pricing. In the United States a politically weak and unorganized minority rides public transit, which dims the chance of effective political support.

Individual cities, however, could conceivably arrive at a mix of public goods and services that would create support for congestion pricing. Dividing the toll revenue among cities would allow each community to choose its preferred mix of public goods and services; the gains to individuals in their roles as residents of their cities, when combined with time-savings from the tolls, could outweigh the losses to individuals in their roles as motorists. Instead of a regional agency profiting at the expense of all drivers, citizens of each community would benefit from tolls levied on motorists from outside their borders. While that distinction is more one of perception than reality (motorists from neighboring cities would just end up subsidizing each other's public goods) the way that choices and policies are framed matters tremendously in political decision-making (Bertrand et al., 2005). Similarly, distributing the money to cities means that the toll revenue would be spent locally but collected region-wide, allowing local officials to claim credit for providing new benefits while shielding them from the resentment attached to congestion pricing's costs.

We do not rule out other claimants to the revenue, nor do we argue that political considerations are the only ones that matter. Once cities are mobilized, logrolling and vote-trading will doubtless occur en route to pricing's approval, and the cities may well have to share the toll revenue with transportation agencies to gain their support or at least quell their opposition. And depending on the specific context of each region, various extensions and adjustments can be made to the revenue distribution, based on equity or planning concerns. But political support for congestion pricing will depend on *who* gets the toll revenue, and no one will receive any revenue until congestion pricing is adopted.

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A final note before we move on: if our proposal sounds like rent seeking, it is. City governments will lobby for a regulation (congestion pricing) because it will deliver them a revenue windfall. The term "rent-seeking" is usually employed pejoratively, and for that matter so too is "client politics"—Wilson coined the term but he did not write approvingly of the practice. The individuals or groups who seek rents generally do so to shelter themselves from the discipline of the market. Competing by regulation, rather than innovation, dissipates otherwise productive resources and stifles industrial development; the company that spends its money lobbying for a protective tariff rather than improving its products is a drag, not a boon, to the larger economy (Tullock et al., 2002). In this case, however, cities that rent-seek (or "toll-seek") will be introducing—rather than curtailing—a market mechanism. Congestion pricing can be ushered into existence through efficient rent seeking.

In the remainder of this article we first situate our revenue-distribution proposal in political and economic theory, using the concepts of client politics and loss aversion. We then evaluate other proposed claimants for the toll revenue in light of these theories. Next we outline the reasons for giving the revenue to cities, and then illustrate how such a distribution program might work. In Los Angeles, distributing the money to cities with freeways would be both progressive and politically expedient. In the Twin Cities we suggest a distribution that reflects the region's existing commitment to regional redistribution. The important point is that coalitions of local governments would have the power and incentive to create political momentum for congestion pricing.

3. The politics of congestion pricing

Congestion pricing will do two things: reduce congestion and raise revenue. We thus cannot predict who will receive a net benefit from congestion pricing until we know how the toll revenue is used. In a study of the congestion pricing pilot program in Stockholm et al. (2006) estimated that the toll revenue was about three times the benefits of reducing congestion. That is, motorists pay $3 in tolls for every $1 of benefit they receive from congestion relief. To achieve equity, the distribution of the toll revenue is thus more important than the distribution of congestion-relief benefits.

Even before any distribution of the revenue, congestion pricing will create a net benefit for two groups because of improved traffic flow:

1. Drivers whose time saved is worth more than the tolls they pay.
2. People who already use transit and will not pay tolls but will travel faster.

Again before considering the use of the revenue, congestion pricing will create a net loss for three other groups:

3. Drivers whose time saved is worth less than the tolls they pay.
4. Drivers who switch to a less convenient route to avoid the tolls.
5. People on non-tolled routes whose traffic increases when drivers from group 4 switch to their roads.

Members of groups 1 and 2 are better off regardless of whether they receive any benefits from the toll revenue, while members of groups 3–5 are better off only if they receive benefits from the toll revenue that outweigh the tolls they pay.

If we focus only on how congestion pricing affects *drivers*, and if we neglect the potentially large number of people who will benefit from the toll revenue in their role as residents of the cities receiving the revenue, the losers almost certainly outnumber the winners. But if we also consider the benefits to residents from the public services (or tax reductions) financed by the toll revenue, congestion pricing can produce many more winners than losers. Although pricing may harm most drivers, no one is *only* a driver. That is, many people in groups 3–5 may gain more in their role as residents who receive the added public services than they lose in their role as drivers. The political results of congestion pricing thus depend crucially on how the toll revenue is spent.

For example, consider the possible outcomes for the members of group 3. Suppose they each pay $100 a month in tolls but save time that is worth only $60 a month. The tolls impose a net cost of $40 a month on these people in their role as *drivers.* Now suppose the toll revenue pays for added public services these drivers think are worth $50 a month in their role as *residents.* The outcome of the congestion tolls *and the added services financed by the toll revenues* is a net benefit worth $10 a month for all members of group 3, even though the tolls make them worse off in their role as drivers. When we consider the value of added public services financed by the tolls, congestion pricing can similarly make the members of groups 4 and 5 better off. And the members of groups 1 and 2 are also better off even without the added public services. In Stockholm, for example, Eliasson and Mattson (2006, p. 618) estimate that congestion pricing would create a net cost per resident of 482 Swedish kroner a year before considering the use of the revenue, but a net benefit of 222 kroner a year after considering the use of the toll revenue of 704 kroner a year.

Consider the prospects for congestion pricing in Los Angeles County, which has the worst traffic congestion in the United States (Texas Transportation Institute, 2005). Giuliano (1992) argues that in auto-dependent regions such as Los Angeles, congestion pricing will initially make many drivers worse off. The demand for driving in Los Angeles (as most other urban areas in the US) is highly inelastic, so most people confronted with congestion pricing will end up paying the tolls or driving a less convenient route instead of switching to another travel mode or time. Los Angeles, in other words, has a disproportionate number of people in Groups 3–5. If we neglect the benefits of the added public services financed by the toll revenue, congestion pricing

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makes these people worse off. A study of congestion pricing's likely impacts in the Twin Cities made a similar point: for all but two small groups—transit users and affluent drivers—the tolls would exceed the time savings (Anderson and Mohring, 1997). Survey evidence from Calfee and Winston (1998) also suggests that most drivers in the United States do not value time savings enough to receive a net benefit from the tolls they would pay.

Will congestion pricing will be politically successful only if it creates more winners than losers? The winners did outnumber the losers in London, Singapore, and Stockholm, which have three of the most prominent congestion-pricing programs. When Singapore introduced congestion pricing in 1975, it had only one car per 16 people, so only a small minority paid the tolls (Cervero, 1998, p. 171). When London introduced congestion pricing in 2003, only 12% of all commuting into the cordoned area was by private car (Transport for London, 2003). Before Stockholm began its trial of congestion pricing in 2006, only 33% of the household travel into the toll zone was by car, and 59% was by public transit (Armelius and Hultkrantz, 2006, p. 167). Because all three cities used the toll revenue to improve public transport, the toll burden fell on the motoring minority while the benefits accrued to the transit-riding majority.

Because motorists are a small minority in many developing countries where automobile traffic obstructs public transport used by a large majority, it might seem surprising that congestion pricing has not been widely adopted. A non-motoring majority should help to adopt congestion tolls, but it is clearly not sufficient. And because motorists are a large majority in the United States, it might seem even more surprising if congestion pricing were ever adopted. To explain both the absence of congestion pricing in congested cities with a minority of motorists and the prospects of congestion pricing in cities with a majority of motorists, we will discuss two important political barriers to congestion pricing: *loss aversion* and the *free rider problem*. We will then propose ways to overcome these barriers.

3.1. Loss aversion

One explanation for the unpopularity of congestion pricing is that its practical advantages are also political liabilities: tolling is both local and transparent. On a priced road, as drivers pay the tolls they alter their behavior because they face new costs. As the manager of Singapore's system told a journalist, road pricing works because drivers "feel the pain" (Baum, 2001). The transparency of congestion pricing makes it prone to *loss aversion*. Loss aversion is the reluctance to part with a benefit one already has, and the tendency to view a new benefit—even one of equal or greater value—as less desirable than one given up. If avoiding loss is more important than acquiring gain, the phenomenon of loss aversion leads individuals to pay more to keep something they have than they would pay to buy it in the first place, and to fight more to protect an existing benefit than to gain a new one of commensurate value. "The disutility associated with losing a benefit," as Kahneman et al. (1991, p. 194) explained, "is greater than the utility associated with acquiring it." Or, to quote Adam Smith, "Pain is ... in almost all cases, a more pungent sensation than the opposite and corresponding pleasure."

In the context of congestion pricing, loss aversion suggests that efforts to placate drivers by returning the toll revenue to them will not work. The loss of free access to the roads will weigh more heavily than any benefits of the toll revenue. Even if all the revenue were returned to drivers in the form of lower vehicle registration fees or lower gas taxes, most drivers would probably still view congestion pricing as a loss. What economists consider an acceptable trade is instead rejected as intolerable and unfair.

A toll is a visible and repetitive new cost, while a rebate on a registration fee is an infrequent and hidden benefit—it happens once a year and is buried in the minutiae of a large bill that most people rarely examine. The same could be said about a reduction in the gas tax. Compared to the daily task of paying for road access, a slight decrease in the gas tax would seem like no compensation at all, even if market fluctuations in the price of gas did not swamp any price reduction that results from the tax cut. Loss aversion helps explain why a majority of people are unlikely to support congestion pricing at the outset. But the loss aversion literature also suggests that initial resistance is likely to be much stronger than subsequent opposition. Individuals will pay much more in time or energy to keep a benefit than they will to regain that benefit once it is lost (Kahneman et al., 1991; Haneman, 1991). The primary political challenge for congestion pricing is thus not to maximize the number of winners, but rather to overcome initial antagonism to the idea. Once pricing becomes the status quo, its political problems will steadily diminish because it will benefit from the same political inertia that now works against it.

3.2. The free rider problem

In their research on the politics of congestion tolls, Deakin and Harvey (1996, pp. 5–15) note, "the beneficiaries of pricing often will be harder to mobilize politically than the losers; for example, those who would share the benefits of toll revenues may be a large group but individual benefits may be fairly small." Loss aversion often prevents drivers from understanding that they could gain (or at least not lose) from congestion pricing. But even when the gains are understood, they are often not large enough to convince individuals to mobilize and lobby for tolls. A free rider problem emerges: even if most drivers think they would be better off with congestion tolls, no one will be so much better off that they will take the lead to implement the program.

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In *The Logic of Collective Action*, Olson (1963) explained the paradox that widespread individual interest does not necessarily lead to group action. "It does *not* follow," Olson wrote, "[that] because all the individuals in a group would gain if they achieved their group objective, that they would act to achieve that objective, even if they were all rational and self-interested" (1963, p. 2). Olson further argued that as a group gets larger, the chances of its engaging in collective action decline, because the average rewards to individual members decline as well. Frozen by free riding, group members pursue their individual interests at the expense of their collective interests.

The inertia of large groups opens the door for what Olson calls "the exploitation of the great by the small" (1963, p. 3). Small groups are less prone to free riding, are easier to organize, and have a greater incentive to engage in political action because it yields larger rewards to the group's individual members. Thus policies can be adopted when a small but well-organized group of supporters outmaneuvers a large but poorly organized group of opponents.

3.3. Client politics

James Q. Wilson's theory of client politics extends Olson's work. The insight of client politics is that small groups can mobilize and triumph politically only when they have a strong incentive to win. Success is determined not by the absolute number of winners and losers, but by the relative ease of collective action, and the extent to which the winners win. Such is the well-documented calculus of light-rail politics. Many rail projects are politically viable in part because their benefits are concentrated among contractors, unions, and local politicians, while a large share of their cost is spread widely over all federal taxpayers (Castelazo and Garret, 2004; Richmond, 2004; Altshuler and Luberoff, 2003). The local beneficiaries from a federally subsidized rail project have an incentive to fight for it, while those who pay have little incentive to fight against it, and indeed may not even know they are paying.

Congestion pricing will never enjoy all of urban rail's political advantages, of course, because the costs of pricing are transparent while the costs of rail can be hidden. Drivers on priced roads, unlike the taxpayers who pay for rail transit, will always know how much they are paying. But drivers, like the taxpayers who pay for rail, can be difficult to organize. The same free rider problem that inhibits drivers from supporting congestion pricing can also forestall their rallying against it. The key to political success for congestion pricing does not lie in turning dispersed costs into dispersed benefits, or in other efforts to engineer widespread support. Congestion pricing will be politically viable when it has well-organized winners who see massive gains, and these massive gains are to be found in the toll revenue.

3.4. Previous revenue proposals

Goodwin (1989) and Small (1992) have both offered proposals to spend congestion toll revenue in ways designed to maximize political support. Although similar in some respects, their proposals do not share the same logic. Where Goodwin's approach is intended to create constituencies who would benefit from pricing, Small's is intended to prevent opposition from those who would lose.

Goodwin argues that congestion pricing does not suffer from a lack of proponents, but that it does suffer from a perception that the proponents are mutually exclusive of one another. Proponents want the tolls implemented *their* way, which is another way of saying that they will support pricing only if they get the revenue. It follows that pricing loses support as it moves closer to reality, because as potential candidates for the revenue are eliminated the number of interest groups willing to support it declines.

Goodwin's solution to this dilemma is his "Rule of Three," which calls for distributing toll revenues in a manner that retains the broadest possible group of supporters. He proposed that a third of the toll revenue be put toward road improvements, a third toward public transport, and a third toward the general fund of the city or state. The Rule of Three is thus intended both to create political beneficiaries and to compensate the travelers who pay the tolls.

Small objected to Goodwin's proposal on the grounds that it devotes too much money to roads and public transportation. Small proposed his own three-way distribution of the revenue: one-third to "travelers as a group"; another third to reduce general taxes that fund transportation; and the last third put toward new transport services, be they public or private. Specific steps to meet these goals might include lower vehicle license fees and gasoline taxes; reducing the sales and property taxes dedicated to transportation; and the provision of commuting allowances.

Small's plan is at odds with what we know about loss aversion; a variation of his proposed distribution was attempted in 1984, and failed. In 1984 the government of Hong Kong tried to sell a congestion-pricing program by assuring the Hong Kong Automobile Association (HKAA) that tolling would be accompanied by a commensurate reduction in vehicle license fees. But the promise of revenue neutrality convinced neither the HKAA nor the public at large. The HKAA, which is a reasonable proxy for "drivers as a group," rejected the plan, and Hong Kong did not adopt congestion pricing (Borins, 1988).

Other proposals to allocate toll revenue directly to drivers address the problem of loss aversion, but fail to address the free rider problem. To spread the benefits over the largest group of people, Kockelman and Kalmanje (2005) suggest that toll revenue be allocated as credits to all licensed drivers, and that the credits be used on priced roads. Drivers would pay out-of-pocket for tolls only if they exceeded their credit allowance, and drivers with

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unused credits could exchange them for cash. (The transaction costs of collecting and distributing the tolls, however, mean that drivers would get back less than they pay.) Anderson and Mohring (1996) also discussed this sort of distribution as part of a congestion-pricing proposal for the Twin Cities region. But even if a giveback program to all drivers were financially viable, and some of Anderson and Mohring's finding suggest it would not be, spreading the toll revenue around would do little to mobilize drivers to fight for pricing's initial implementation. A credit system or other giveback program combines pricing's dispersed costs with dispersed benefits, and dispersed benefits will not create strong advocates for pricing. Strong advocates for pricing will only be forged from the prospect of concentrated gains.

Goodwin's proposed constituencies do have a reasonable claim to the toll revenue. Public transport seems, at first glance, to be a reasonable claimant for toll revenue, particularly since the pricing programs in London and Singapore both pour the bulk of their revenue into regional transit systems. In the United States, however, where fewer than 3.5% of all trips are made by transit, public transport simply does not have enough riders to make it a politically viable claimant for toll revenue.

We are not suggesting that transit agencies have no stake in debates about congestion pricing. Congestion pricing will be a boon for public transport even if none of the money goes to transit agencies. Priced roads will cause some drivers to switch to transit, and transit, particularly in the US, needs new riders more than it needs new subsidies. Less congested roads will also help buses move faster, improving the quality of transit service and reducing its high time costs. Small (2005) has laid out a scenario where congestion pricing creates a virtuous circle for public transport even if no toll revenue is put toward service upgrades or improvements. He points out that peak-hour automobile tolls will increase transit ridership, and reduced congestion will speed up public transport that shares the roads with cars. The faster public transport will further increase ridership, and the higher speeds will reduce the cost per ride. Higher ridership and lower costs will enable transit providers to increase service frequency, and the lower costs will allow lower fares, both of which will further increase ridership. As more riders are diverted from cars, congestion is reduced and the virtuous circle continues. Small estimates that congestion pricing in a typical US city could increase bus ridership by 30% and increase bus speeds by 9%; it could also reduce bus fares by 26%. But these benefits will accrue to public transport *only* if congestion pricing is approved, and congestion pricing will *not* be approved if the toll revenue is allocated to public transport. With congestion pricing, public transport will gain not through greater subsidies but through greater ridership and efficiency.

Road improvements, like transit, also appear at first glance to be a good candidate for toll revenue. As with transit, however, congestion pricing can improve road travel even if none of the toll revenue is invested in road improvements. First, taking a few cars off the road can significantly reduce congestion. By increasing speed and flow, tolling during congested periods can thus have the same effect as adding lanes to freeways (Garrison and Ward, 2000). Second, tolls can reveal where road improvements are most justified, thereby making an often profligate investment process more efficient. At specific bottlenecks, the tolls might be extraordinarily high, and these high tolls will provide an excellent guide for highway investment decisions.

In the United States, where roads are financed primarily through gasoline taxes, congestion pricing can make gas tax expenditures more cost-effective by showing where expansions in road capacity are most productive. It may be politically wise to set part of the toll revenue aside for road expansion, however, simply to alleviate suspicion that cities will leave bottlenecks in place to extract maximum revenues from them. But there is little political advantage in dedicating a large stream of toll revenue to road improvements. Doing so is unlikely to reduce drivers' opposition, and even if it does, reducing drivers' opposition to pricing is not the same as convincing them to champion it.

4. Cities as claimants

The last of Goodwin's three claimants for congestion toll revenue is the city or state general fund. Giving the money to the state fails for the same reason that giving the money to a regional authority would fail: it is unlikely that any state program will be valued as highly as unpriced roads, at least *ex ante*. Cities, however, have the advantage of being well-defined entities with established influence and power. They already have lobbyists and officials whose explicit purpose is to promote their interests, and who can be effective advocates at the state and national level. Los Angeles, for example, is one of the largest lobbyists in California, and intergovernmental lobbying is one of the state's largest categories of lobbying activity. Cities, counties, and municipal leagues all lobby actively at higher levels of government, and studies of local officials, such as city managers, show that they function effectively as *de facto* lobbyists via their job-related contact with officials in other levels of governments (Cammisa, 1995; Agranoff and McGuire, 1998; Marlowe, 2003). In contrast to millions of dispersed drivers, cities are already organized and their comparatively small numbers will give them high individual payoffs from the toll revenue—a powerful incentive to collective action. Because local governments are limited in their ability to raise new revenue, they will have a strong interest in making road pricing a reality.

City leaders can influence officials at higher levels of government and also bring along the constituents they represent. Local leaders are attuned to the public goods and services their constituents want, and they can allocate their share of the toll revenue to provide those goods and

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services. At the local level there is a greater chance that these goods and services will be viewed as a reasonable compensation for loss of free access to the freeways. The rich and poor communities of a region would likely never agree on the proper way to spend congestion revenue. But if a rich community could dedicate its funds to more street cleaning or burying power lines, while the poor community could pay for new parks or after-school programs—and each community felt (correctly) that its programs were being funded largely by other cities' drivers—then some of the political opposition to congestion pricing could evaporate.

It follows that the toll revenue should have minimal earmarks on how to spend the money (on the grounds that each jurisdiction will know best how to spend its own money) but strict auditing requirements (to ensure that the revenue is not misappropriated). It also follows that the uses of toll revenue will vary widely, both within and across regions. Such open-endedness is essential to generating local political support. Spending the toll revenue for a regional purpose like public transit, by contrast, would most likely founder on the heterogeneous preferences of the region's residents.

This brings us to a final implication of our proposal: it can overcome the political cooperation problems in fragmented metropolitan areas. Fragmented metropolitan government creates fiscal disparities and makes regional policies difficult. Because small local governments tend to be internally homogeneous, they can reach consensus more easily about how to spend potential toll revenue. Further, a major problem with fragmented regions is that cities do not have the same resources to finance public services (Orfield, 1997). Our proposal distributes additional revenue among cities in a way that is does not threaten existing resources under local control, such as property taxes.

The cities-as-toll-recipients proposal parts company with most transportation research, where fragmentation is often decried as an obstacle to sound regional policy. The evidence seems mixed, but fragmentation, whatever its merits, seems here to stay, and transportation planners might be better served by turning it to their advantage rather than hoping it will disappear. Gómez-Ibáñez (1992) argued that fragmentation could be an obstacle to congestion pricing. Yet he assumed that congestion toll revenue from a fragmented region would be given to the central city, or to a metropolitan transit agency whose riders are disproportionately central city residents. In such instances the tolls could be interpreted as a tax on suburban commuting and a subsidy to a city government that plays little role in most commuters' lives. Gómez-Ibáñez's point is sound, but the lesson to be drawn is not that fragmentation hurts pricing's political prospects. The lesson is that we cannot distribute toll revenue in fragmented regions in the same way we would in areas with few jurisdictions. The suburbs must not only receive money but also be allowed to spend it on services important to their residents. Many suburbanites have little connection to the center cities in their regions, and we cannot pretend that they will share the preferences of central city residents, nor happily donate their toll payments to a jurisdiction that little concerns them. Instead we should allow the multiple governments in the region to spend the revenue in multiple ways.

5. A precedent: San Diego County

We have argued that congestion pricing is unlikely to be politically successful unless powerful claimants benefit from the toll revenue. Even in London, where congestion revenue is spent almost entirely on public transportation, the driving force behind congestion pricing was not Transport for London, the city's transit agency, but Ken Livingston, the city's larger-than-life Mayor.

An example similar to London can be found in Southern California, in the case of the I-15 FasTrak corridor in San Diego County. The FasTrak program converted an existing but underused high occupancy vehicle (HOV) lane into a high occupancy/toll (HOT) lane. Unlike an HOV lane, which excludes all vehicles that do not have more than one occupant, San Diego's HOT lane allows carpools to travel for free, and allows single-occupant vehicles to travel if they pay a toll. The toll varies with the level of congestion and is adjusted every six minutes.

Converting an HOV lane into a HOT lane is not as politically difficult as introducing full-fledged congestion pricing. Loss aversion is not an obstacle; indeed, by being allowed to buy their way into lanes from which they had previously been excluded, solo drivers gain rather than lose options. Yet the free-rider problem still looms large: tolling a lane that runs through multiple jurisdictions requires strong incentives to organize and cooperate, because many people oppose tolls—even tolls on an HOV lane. It is worth examining the political support for creating the HOT lane, particularly if, as Fielding and Klein (1997) argue, HOT lanes can function as stalking horses for fully priced freeways—that we can toll one lane, and then another, until the gradual expansion of HOT lanes gives us "congestion pricing, one lane at a time."

Evans et al. (2007) explain that the desire for light rail was, ironically, the political impetus for the I-15 HOT lane. The lane's major proponent was Jan Goldsmith, who in 1991 was mayor of the small city of Poway. In 1991 the San Diego Association of Governments (SANDAG), which is San Diego's regional planning agency, allocated money for light rail service to south San Diego County, but not for the northern cities in the county, citing a lack of funds. Goldsmith wanted transit funds for his city ("we had no money for transit and I was making a big deal of it," he said later) but after meeting with SANDAG representatives he became convinced the agency really did not have additional transit funding. What the agency did have, however, was access to federal funds to test a HOT lane. Goldsmith and the SANDAG planners decided to propose converting the I-15's HOV lanes into HOT

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lanes—essentially sell off excess HOV space—and then dedicate the revenue to public transportation.

Goldsmith's desire for light rail turned him into a champion of congestion pricing. He campaigned aggressively for the HOT lane, and while he devoted considerable effort to selling the idea to the public (through op-eds and public talks) it is telling that most of his politicking was directed at his fellow elected officials:

> I went to all of my colleagues in San Diego County, the mayors of all the cities affected, the County supervisors, and all of the legislators. I had one-on-one meetings and I would bring some traffic planners along to talk about this project. This was in advance of introducing the legislation. By the time we introduced the legislation, we had support from every elected official in San Diego County whose district was affected.

At the end of 1992 Goldsmith was elected to the State Assembly, where he wrote a bill to permit the HOT lane conversion and began shepherding it through the legislature. The bill had a number of powerful opponents, including Bill Lockyer, who was State Senate President ProTem; Richard Katz, the Chairman of the Assembly Transportation Committee; and the Automobile Club of Southern California. Lockyer had previously killed an effort put congestion tolls on the Bay Bridge in San Francisco. The Auto Club, with the help of Katz, attached a "poison pill" amendment to Goldsmith's bill, authorizing congestion tolls on *all* of the I-15, not just its HOV lane. Goldsmith was able to beat back both Lockyer and the Auto Club because he had already assembled the support of local politicians. The mayors and legislators in northern San Diego knew he had no intention of tolling all the lanes on the I-15. And Goldsmith neutralized Lockyer by arguing that the HOT lane was matter of local prerogative, not ideology. If all the elected officials in his district wanted to toll solo drivers in a carpool lane and put the money toward public services, why should the state government stand in their way?

Faced with this argument, Lockyer agreed not to oppose the bill. The legislature authorized the HOT lane, and the I-15 toll revenue now funds an express bus service, the Inland Breeze, that runs along the I-15 into downtown San Diego. Ridership on the Inland Breeze is low, and most of its riders had been using transit previously, meaning the bus had little direct impact on congestion. Indirectly, however, the bus probably contributed significantly to reducing congestion, because it provided the motivating force that led elected officials to fight for the variably priced toll lane. Indeed, the bus's greatest contribution to fighting traffic may have been its role in creating the HOT lane. Congestion pricing was, for Goldsmith, a means to an end, with the end being transit. But the transit was also a means to an end, with the end being congestion pricing. The HOT lane made the bus possible just as the bus made congestion pricing possible. What was important, again, was not only *how* the revenue was spent, but *who* wanted the revenue.

6. Los Angeles County

We can use Los Angeles County to illustrate how our proposal might work for congestion pricing on all freeways, not just HOT lanes. According to the Texas Transportation Institute's *2005 Urban Mobility Study*, Los Angeles has the worst traffic congestion in the United States, and it has five of the ten most congested freeway interchanges in the US. Seventy percent of the county's commuters drive alone to work, according to the 2000 Census, and only 7% use transit. The county is also highly fragmented: it has 88 city governments of varying size and fiscal capacity.

One way to implement our proposal is to charge congestion tolls on the LA freeways and distribute the resulting revenue to the cities with freeways on a per capita basis. Doing this would create a strong claimant coalition of 66 local governments plus the county. The geography of LAs freeways, however, along with the county's population distribution and the fiscal disparities that exist between its local governments, allows us to adjust our proposal. In Los Angeles we can use toll revenue to advance some equity and environmental goals, without sacrificing political support.

Los Angeles County's 882-mile freeway system passes through 66 of its 88 cities, and also through unincorporated territory (like a city, the County would receive toll revenue based on the population of the unincorporated area). The freeway cities and the unincorporated area include 97% of the county's population. It is unlikely, of course, that any toll revenue-distribution formula would be so simple. Both federal and state laws would have to be changed to allow pricing, and like much revenue-generating legislation, a road-pricing bill would doubtless emerge with its share of earmarks and a complicated allocation mechanism. For the sake of illustration, however, imagine a simple system where the entire freeway network is priced and all the revenue goes to the cities with freeways.

Estimates of congestion costs in Los Angeles County vary, but the toll revenue would be substantial by any measure. Using a transportation model calibrated for Southern California, Deakin and Harvey (1996, Tables 7-14 and 7-18) estimated the annual revenue that would result from congestion tolls in the Los Angeles region: $3.2 billion in 1991, rising to $7.3 billion in 2010. Small (1992, 371) estimated that congestion tolls in Los Angeles would have produced $3 billion, net of collection costs, in 1991. The Texas Transportation Institute (2005) estimated that the total costs of traffic congestion in Los Angeles were $8.4 billion in 1991 and $12.8 billion in 2001.

One striking result of the toll revenue distribution in Los Angeles is how progressive it would be. According to the 2000 Census, the average per capita income in LA County was $20,100 a year in the 66 cities with freeways, and

Please cite this article as: King, D., et al., The political calculus of congestion pricing. Transport Policy (2007), doi:10.1016/j.tranpol.2006.11.002

Table 1
Per capita incomes of cities in Los Angeles county ($ per person per year)

66 Cities *with* Freeways					22 Cities *without* Freeways		
City	Income/Capita	City	Income/Capita	City	Income/Capita	City	Income/Capita
Agoura Hills	$39,700	El Segundo	$34,000	Norwalk	$14,000	Avalon	$21,000
Alhambra	$17,500	Gardena	$17,300	Palmdale	$16,400	Beverly Hills	$65,500
Arcadia	$28,400	Glendale	$22,200	Paramount	$11,500	Bradbury	$57,700
Artesia	$15,800	Glendora	$26,000	Pasadena	$28,200	Cudahy	$8700
Azusa	$13,400	Hawaiian Gardens	$10,700	Pico Rivera	$13,000	Hermosa Beach	$54,200
Baldwin Park	$11,600	Hawthorne	$15,000	Pomona	$13,300	Hidden Hills	$94,100
Bell	$9900	Industry	$9900	Redondo Beach	$38,300	Huntington Park	$9300
Bell Gardens	$8400	Inglewood	$14,800	Rosemead	$12,100	La Habra Heights	$47,300
Bellflower	$16,000	Irwindale	$13,100	San Dimas	$28,300	La Puente	$11,300
Burbank	$25,700	La Canada Flintridge	$52,800	San Fernando	$11,500	Lomita	$22,100
Calabasas	$48,200	La Mirada	$22,400	San Gabriel	$16,800	Malibu	$74,300
Carson	$17,100	La Verne	$26,700	Santa Clarita	$26,800	Manhattan Beach	$61,100
Cerritos	$25,200	Lakewood	$22,100	Santa Fe Springs	$14,500	Palos Verde Estates	$69,000
Claremont	$28,800	Lancaster	$16,900	Santa Monica	$42,900	Rancho Palos Verdes	$46,300
Commerce	$11,100	Lawndale	$13,700	Signal Hill	$24,400	Rolling Hills	$111,000
Compton	$10,400	Long Beach	$19,100	South El Monte	$10,100	Rolling Hills Estates	$51,800
Covina	$20,200	Los Angeles	$20,700	South Gate	$10,600	San Marino	$59,200
Culver City	$29,000	Lynwood	$9500	South Pasadena	$32,600	Sierra Madre	$41,100
Diamond Bar	$25,500	Maywood	$8900	Torrance	$28,100	Temple City	$20,300
Downey	$18,200	Monrovia	$21,700	Vernon	$17,800	Walnut	$25,200
Duarte	$19,600	Montebello	$15,100	West Covina	$19,300	West Hollywood	$38,300
El Monte	$10,300	Monterey Park	$17,700	Westlake Village	$49,600	Whittier	$21,400
				Average	$20,100	Average	$35,100

Source: US Census 2000.
The two groups' average incomes are weighted by the cities' populations.

$35,100 a year in the 22 cities without them (see Table 1). Congestion tolls will thus shift money from richer cities without freeways (like Beverly Hills) to poorer cities with freeways (like Compton). Deakin and Harvey (1996, Tables 8-1 and 8-3) estimated that higher-income motorists will pay most of the tolls, in part because the highest-income quintile own 3.1 times more cars than the lowest-income quintile and drive 3.6 times more vehicle miles per day. Because higher-income motorists also drive more during the peak hours, the highest-income quintile will actually pay about five times more in tolls than the lowest-income quintile (Deakin and Harvey, 1996, Table 8-6). High-income drivers will pay to provide public services for low-income people.

If we stretch our definition of freeway cities a bit, the revenue distribution is even more progressive. Los Angeles County has four poor, small cities that do not have freeways within their borders (Cudahy, Huntington Park, La Puente, and Temple City) but which are bounded closely by freeways on at least one side. It is reasonable to argue that these cities bear harmful freeway externalities. If we include these four cities among our toll recipients, the per capita income would be $20,000 a year in the 70 toll recipient cities, and $47,000 a year in the remaining 18 cities.[1]

Because 9.2 million people live in the 70 toll-recipient cities and the unincorporated area, each $1 billion in congestion tolls will produce about $110 per capita in municipal revenue. If the congestion tolls yield $5 billion a year net of collection costs (the 1991 estimate adjusted for inflation to 2005), they will generate about $550 per capita for the recipient cities. The 70 toll-recipient cities' general revenues averaged $577 per capita in 2001, so the tolls will almost double these cities' general revenues, and the poorest cities will gain the most in proportion to their revenues.[2]

The 20% of the population who live in the 33 poorest cities receive 12% of the county's income but get 21% of the toll revenue. In contrast, the 20% of the population who live in the 43 richest cities receive 30% of the county's income but get only 17% of the toll revenue. The 1% of the population who live in the eight richest cities receives 4% of the county's income and no toll revenue.

Given this distribution, it is reasonable to ask whether high-income motorists, who probably represent the most

[1]Removing the four poorest cities from the "without freeways" group sharply increases the per-capita income of the 18 remaining cities because

(footnote continued)
the four poorest cities have large populations while most of the richer cities have small populations.

[2]The cities' general revenues are taken from the California State Controller's Office, *Cities Annual Report, Fiscal Year 2000–2001*. General revenues are defined as revenues that cannot be associated with any particular expenditure; examples include property taxes, sales taxes, and business license fees.

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politically influential segment of the county, would thwart any attempt to price the roads. Of course this is possible, but high-income motorists also have a high value of time. While they may disproportionately pay the tolls, they will also disproportionately benefit from reduced congestion; indeed, the research cited above suggests that high-income motorists are one of the few groups who will benefit immediately after tolling begins. Like all motorists, many affluent drivers will doubtless oppose tolls before they are put in place, but this opposition again points to the need for powerful claimants in the early stages of a political campaign. Once the tolls are operational, it seems unlikely that wealthy drivers will want or be able to derail them.

7. Minneapolis-St. Paul

We can also use Minneapolis-St. Paul to illustrate how distributing toll revenue to cities would affect the political calculus of congestion pricing. The Twin Cities region, which has 13 governments per 100,000 people, is one of the most fragmented metropolitan areas in the United States. Anderson and Mohring (1996) estimated that congestion tolls could generate about $250 million a year in the Twin Cities, or about $90 per capita per year for the 2.7 million residents.[3] Congestion tolls would yield much less revenue in the Twin Cities than in Los Angeles because of the smaller population and lower levels of congestion. And in contrast to Los Angeles, distributing the toll revenue to cities with freeways would not significantly reduce fiscal disparities in the Twin Cities. The average annual income is $26,500 per capita in the 70 cities with freeways and $27,700 in the 112 cities without freeways. The fiscal effects in Los Angeles, where every poor city could receive toll revenue and none of the richest cities would receive anything, would not be repeated in the Twin Cities. Nor would distributing the revenue to cities with freeways create a majority coalition of local governments in support of pricing: many more cities lack freeways than have them.

The Twin Cities region does have, however, an existing system of sharing tax revenue to reduce fiscal disparities, and congestion revenue could be used to augment or replace this existing redistribution mechanism. Under the region's Metropolitan Fiscal Disparities Act, 40% of each city's growth in assessed value of commercial and industrial property since 1975 is placed in a seven-county regional pool (Orfield, 1997). The assessed value of the regional tax-base pool is taxed at a uniform rate of 1%, and the revenue is distributed to cities according to their population and fiscal capacity. In 2004, the Fiscal Disparities Act transferred $74 million from 51 "contributor" cities to 131 "recipient" cities. The average per capita income was $32,300 per capita in the contributor cities and $23,900 in the recipient cities. The contributor cities paid an average of $79 per capita into the pool but the recipient cities received an average of only $41 per capita because the total population of the recipient cities (1.8 million) was almost twice that of the contributor cities (934,000).

The Fiscal Disparities Act has succeeded in reducing regional fiscal disparities (Hinze and Baker, 2005) but does so by transferring property tax revenue from cities with greater commercial and industrial property growth to cities with less. Congestion tolls, by contrast, can reduce fiscal disparities by leveling up, not down. Rather than taking from one government and giving to another, tolls take money from drivers (to reduce congestion) and give it to tax-poor cities. No city is forced to surrender its existing revenue stream.

Suppose the congestion toll revenue of $250 million a year were used to replace the $74 million a year now redistributed through the Fiscal Disparities Act. The 51 contributor cities would no longer pay $79 per capita into the tax-base pool, yet the 131 recipient cities would receive $136 per capita in congestion tolls, or $95 per capita more than they now receive from the pool. Using congestion tolls to replace tax base sharing would therefore help all cities in the region, but would help the poorer cities more than the richer ones.

What the Twin Cities example shares with the Los Angeles and I-15 examples is the logic of using municipal government as claimants. This logic is the foundation that provides the political support for congestion pricing. The actual congestion-pricing program can be built atop this foundation, incorporating equity or environmental goals that are suitable to the region in question, so long as whatever additions are made do not undermine the political foundation or cause it to collapse. It is unlikely that any two congestion-pricing programs will look alike; what they will share is the initial prospect of enough revenue, for enough cities, to generate support for variably priced roads.

8. New York and San Francisco

We can use two other cities as examples to illustrate our proposal. First consider New York City, where transportation economists have long advocated congestion tolls for the bridges and tunnels between the city's five boroughs. Elected officials in the outlying boroughs such as Brooklyn and Queens strongly oppose peak-hour tolls because most of these tolls would by paid by their constituents who drive into Manhattan. "We look on it as a tax on the other boroughs [outside Manhattan]" said Councilman David Weprin from Queens. The president of the Queens Chamber of Commerce echoed the sentiment: "Residents and businesses of Queens, Brooklyn, Staten Island and the Bronx ... would suffer the most from the plan."[4]

[3] Anderson and Mohring (1996) estimated that Twin Cities drivers would pay $940,000 a day in peak-hour tolls (1996, Table 11). We have adjusted this for inflation up to $1,000,000 a day for our hypothetical example.

[4] *New York Daily News*, "Biz panel rips congestion pricing plan," March 2, 2006.

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Suppose, however, the congestion toll revenues are returned to each borough in proportion to the share of the toll revenues paid by its residents. If 35% of the New York City residents who pay the congestion tolls live in Queens, for example, 35% of the toll revenues will return to Queens for added public spending in Queens. The E–Z Pass electronic toll system or a sample of license plates can determine the borough residence of the toll payers. Because drivers who live outside New York City will also pay congestion tolls that will be divided among the five boroughs, each borough will receive more toll revenue than its residents pay. New Jersey residents who drive into Manhattan, for example, will pay congestion tolls that all the boroughs will share.

Each borough can decide how to spend its own toll revenue. Brooklyn might spend some of its money to clean its subway stations, while Staten Island might want to repair its sidewalks. If each borough can spend its toll revenue on the added public services it values the most, returning toll revenues to the five boroughs will create the greatest political support for congestion pricing.

Another example is congestion pricing on the bridges of the San Francisco Bay Area. The Golden Gate and Bay Bridges are both tolled, but not at a rate that varies with congestion. A logical first step toward congestion pricing in the Bay Area would be to convert the existing bridge tolls into congestion tolls. The suburban communities who supply most of the bridge commuters would doubtless object because the bridge tolls would become, as Gómez-Ibáñez (1992) warned, a penalty on suburban commuting. If, however, each city in the region received all the added toll revenue paid by its own residents, the cities' elected officials might support congestion pricing. Again, FasTrak electronic toll data or a sample of the license plates of the cars paying the tolls would generate an accurate picture of the toll payments from drivers in each Bay Area city. And as in New York, because some portion of the daily traffic also originates from outside the Bay Area, the toll revenues would exceed what the Bay Area residents pay. Because the bridges are already tolled, the collection costs for the new congestion tolls would be minimal, and the system could be implemented quickly.

9. England

The most ambitious proposals for congestion pricing are being debated in the United Kingdom. Glaister and Graham (2006) estimate that a nationwide system of congestion tolls in England would have yielded about £11.5 billion in 2000, or about £23 per capita. They also point out a problem with reducing other charges on road users to make the congestion tolls revenue-neutral:

> A policy of revenue neutrality at the national level creates difficulties. Whilst it may be neutral for road users as a whole, it will not be neutral from the perspective of most individuals. Those in busy, congested circumstances (mainly urban) would be likely to pay more and those in rural areas, or who use out of peak times, would pay less. Broadly, substantial amounts of money would be shifted away from the conurbations and into the rural areas... . Whatever policy is adopted on revenue neutrality at the national level, it seems likely that road user charging will create pressure for an adjustment to the flows of cash caused by the present local government finance regime in order to mitigate the opposition from communities that would otherwise lose out. And that will take the road user charging debate into much murkier and less tractable territory (pp. 1415–1416).

To deal with this geographic problem created by returning toll revenues to motorists, consider instead returning the toll revenue to: (1) the cities in which the tolls are paid; (2) the cities in which the toll payers live; or (3) some combination of these two options. If toll proponents are very public about exactly how much revenue each city or other local authority would receive from the tolls, they might gain the support of many local political leaders throughout the nation. The tolls would redistribute little if any income from cities to rural areas. Individuals who drive at the hours of peak demand would pay more than those who do not, but they would also benefit more from the reduced congestion. Returning toll revenue to cities could move the congestion charging debate into much clearer and more tractable territory.

10. Conclusion

"Policy makers do not just happen to create inefficiencies," Winston and Shirley (1998, p. 68) wrote. "When economists estimate large welfare losses stemming from public policies as if the losses were simple oversights that officials could correct by paying closer attention to what they were doing, it is the economists, not the officials, who are not paying attention."

Economists frustrated by congestion pricing's lack of political support should keep Winston and Shirley's admonition in mind. Policymakers' great sin of omission—their failure to price the roads—is not the result of senseless intransigence, or of their inability to "get it." Congestion pricing looks good only from an economic perspective. Politically it looks risky and possibly disastrous. We cannot assume that people will vote for congestion pricing simply it is economically efficient. The solution is not to make drivers want congestion pricing. Good ideas require advocates, and successful advocates are rarely those who pay the costs. Only the prospect of significant rewards will create strong advocates. Most discussions of congestion pricing's political acceptability revolve around using the toll revenue to buy the acquiescence of drivers, but acquiescence will not generate

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strong political support, and it is in any event highly improbable.

Even if motorists think that pricing will benefit them, they are unlikely to organize and crusade for it. The absence of popular support does not, however, condemn congestion pricing to the fate of being often discussed but rarely tried. The idea that a policy cannot be approved in the absence of popular support is at odds with the way policies are actually advanced. Not every proposed policy lends itself to initial popularity, and some longstanding policies have never been popular at all. But a policy that will not be popular at the outset cannot be marketed as though it will be popular. Congestion pricing cannot be sold as a policy that harms no one, or even as a policy that helps everyone a little. It can, however, be positioned as a policy that will benefit important political actors a lot. Its success depends, to paraphrase Machiavelli, not on convincing those who benefit from the status quo, but on finding others who will "do well under the new order of things."

We argue that earmarking the toll revenue can make congestion pricing politically successful. We do not mean conventional earmarks for specific *programs* or *purposes* such as public transit or road improvements. Instead, we mean earmarking the revenue for specific *places* and *people*. We contend that the toll revenue should be earmarked for cities, preferably the cities that are penetrated by the freeways. Cities are well organized and large enough to be powerful, but small enough to engineer consensus among their constituents about how to spend the money. The toll revenue can advance both environmental and equity goals, provided these goals do not undermine the political incentives for local governments to pursue congestion pricing. In Los Angeles congestion pricing revenue could be used to compensate cities for the various environmental and public health costs the freeways bring. We believe similar, although probably not identical, strategies could be adopted in other regions.

The overriding factor in our argument, however, is not abstract fairness but political calculation. Arguments can be made, on fairness grounds, for any number of claimants to congestion pricing's revenue. But no one will get the revenue if congestion prices do not exist. Just as the first goal of any politician must be to get elected, the first goal of any toll revenue distribution must be to secure the *initial approval* of congestion pricing. For this reason the path to congestion pricing does not go through transit agencies or highway bureaucracies, and it does not involve efforts to buy off motorists. Rather it involves igniting the self-interest of cities. Only when it offers concentrated benefits to strong political forces will anyone rise to fight for congestion pricing.

Acknowledgments

We are grateful to the University of California Transportation Center for financial support for our research. We also wish to thank Stephen Crosley Alexandra Evans, Joseph Holmes, Hiro Iseki, George Kosovich, Anne McCauley, Andrew Mondschein, Eric Morris, Paul Philley, Adina Ringler, Diana Varat, and two anonymous referees for many valuable suggestions about ways to improve the paper. This paper is based on research reported in Appendix G in Shoup (2005).

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Please cite this article as: King, D., et al., The political calculus of congestion pricing. Transport Policy (2007), doi:10.1016/j.tranpol.2006.11.002

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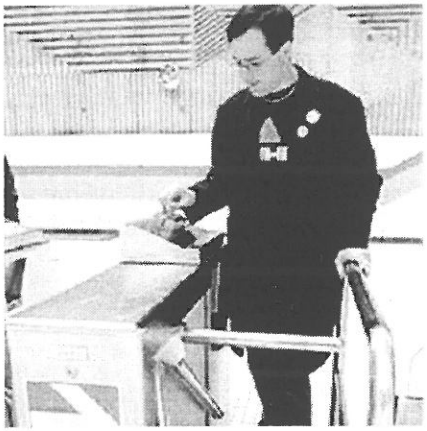
Scan 'n' ride revolution

Be-boop. It's a sound familiar to millions of public transit users around the world - the sound of a smart card being scanned. Next year, if all goes well, Montrealers will hear it, or at least something like it, whenever we use a bus, the metro or a commuter train: we're getting smart cards.

CHRISTOPHER DEWOLF
Freelance

Saturday, March 03, 2007



CREDIT: JOHN MAHONEY, THE GAZETTE

Matt McLaughlin, creator of the website metrodemontreal.com, welcomes the idea of public-transit smart cards that would make our fare system less confusing for riders.

Think of them as rechargeable gift cards that can be used for public transit. Information is stored in a microchip embedded within the card, rather than in a magnetic strip, so the cards never need to be swiped - in fact you don't even need to take them out of your purse or wallet. In cities like Hong Kong, London, Paris and Washington, smart cards allow for speedy boarding - scanners take just one-third of a second to process a transaction - and flexible forms of payment. You can put a monthly pass on the card or simply add cash value that is deducted when you use the bus or metro.

The Montreal Transit Corp. has been quietly working with other transit agencies to implement a far-reaching smart-card payment system. By the end of 2008, the MTC says, you will be able to catch a bus in Longueuil, ride the metro in Montreal, take a commuter train to Blainville and even use public transit in Quebec City - all with a single card. At the same time, the MTC fare system will be revamped, either with zones or a pay-by-distance scheme, which would mean higher fares for some commuters and lower fares for others.

Matt McLaughlin, a longtime observer of Montreal's public transit and the creator of the website metrodemontreal.com, says he hasn't heard much about the smart-card project. But he is slightly skeptical: Montreal has a history of promising transit improvements and not delivering, he says, pointing to forgotten extensions on the metro's blue line and failed tramway proposals as examples.

Normand Parisien, general director of Transport 2000, a public transit lobby group, also has not heard much about the new system. He says he is wary of the smart-card plans, worrying users might end up paying for an expensive new system that will not serve them any better than the current one. "The Tremblay administration wants to increase revenues," he said. "They want us to take public transit but then charge so much for doing so."

According to the MTC's smart-card project manager Daniel Cote, it's well on its way to becoming reality. "All of the contracts have been paid for," he said. "The total cost is $169 million."

Much of the work has already been done: Over the past two years, the MTC has replaced most of the fare boxes in its buses with new ones that have a platform for smart-card readers. New metro turnstiles with smart-card readers will be installed gradually starting in March 2008, Cote said.

In fact, he said, everybody involved will be ready to go in 2008, including the transit companies in Laval, Longueuil and Quebec City, as well as the Metropolitan Transit Agency's commuter trains. The only exceptions are the various CIT companies, which run buses in Montreal's outer suburbs like Repentigny and St. Jean sur Richelieu, they will join the smart-card network in 2009.

Smart cards were first used for public transit in 1997, when Hong Kong introduced its Octopus card. It tentacles soon spread to every corner of the territory, uniting a large but fragmented public-transit network.

For Hong Kongers, fumbling for change and dealing with tickets has become a thing of the past - there are now more than 9 million Octopus cards in circulation, 2 million more than the number of Hong Kong residents.

In 1992, when Hong Kong's Mass Transit Railway Corp. decided to make the switch to smart cards, its transit system was based on cash and magnetic fare cards, much like Montreal's bus and metro system today. The fact public transport in Hong Kong was split between five bus operators, two subway companies and dozens of privately run minibus and ferry services further complicated matters. "You had to carry a lot of change!" recalls Brent Chambers, a technical director who helped implement the Octopus system. A cross-harbour trip alone required at least six coins.

That has all changed with the Octopus card. Its main benefit, explains Chambers, is its ease of use: "The card gives the perception of a true integrated system, because you have this ability to move very easily from one system to another."

Although each public-transport operator in Hong Kong maintains a different fare system, the Octopus card automatically calculates what you need to pay and deducts it from the value stored on your card. This allows transit companies to charge different amounts for different bus, subway and ferry lines without inconveniencing passengers.

For example, the half-hour trip by tram across Hong Kong Island costs just 30 cents, while the same 13-minute trip by subway costs 83 cents. Both fares can be paid with an Octopus card.

Using the card even entitles commuters to a discount off the regular transit fare - up to 10 per cent on the MTR subway system. Frequent transit users are rewarded, too.

"A lot of operators use Octopus for loyalty schemes and bonus points," said Chambers, who now lives near London, England, and works for Octopus's consulting division. "At the moment, the MTR has a 'ride five (times) and get a free lai see' package for Chinese New Year." During the rest of the year, the MTR offers its riders bonus points they can redeem for gifts or discounts at local businesses.

In Hong Kong, transit users can add value to their Octopus cards inside subway stations, at convenience stores, by phone or by Internet. The cards can be linked to a credit card or bank account so that its balance never dips below a certain amount. Special deals such as monthly passes can also be loaded onto the card, giving users the benefit of unlimited travel for a single lump sum. (Incidentally, regular MTR cards are anonymous, so no personal information is needed to procure one - just a refundable $7.50 deposit.)

Since its inception, the Octopus card has become more than just a transit pass: it is now an icon of Hong Kong and an essential part of everyday life. Over 7 million Octopus card transactions, totalling $7.4 million, are made each day. The card can be used to pay for

taxis, parking, pay phones, groceries, clothes - even a coffee at Starbucks.

Even though Octopus is now the gold standard for worldwide smart-card systems, implementing it was not without its challenges. "You've got to make the system appear consistent between operators," Chambers said. Everything from the sound emitted by the smart-card scanner to customer service standards must be co-ordinated between transit agencies.

Here in Montreal, it has taken several years for the MTC to get all of Montreal's transit agencies to work together. "There weren't just disagreements, it was a battle!" said Cote, the man responsible for developing Montreal's smart-card system. Not only were there behind-the-scenes turf wars, there were also technical hurdles, like the problem of harmonizing U.S. fare boxes with French smart-card technology.

But Cote insists all of the hard work is done and that smart cards are on track to be introduced next spring. Transit users will be able to use the same card for all modes of public transport throughout metropolitan Montreal and Quebec City. They will be able to load different passes onto the card - a multipass valid throughout Greater Montreal, for instance, or a more limited pass to be used only on the island - or put cash value on it to pay for occasional trips. Cards will be reloaded at metro stations or depanneurs.

If convenience is the main attraction for riders, the MTC and other transit agencies hope to use smart cards to save money and increase efficiency. The new technology will reduce fraud, saving the MTC anywhere from $10 million to $20 million per year and, at that rate, the whole smart-card system will pay for itself in less than a decade, Cote said.

The smart card will also allow the MTC to adopt a more flexible, nuanced fare system. Customers could receive discounts for travelling at off-peak periods, Cote said, although the MTC has not yet made any concrete decisions as to how fares will be restructured.

The transit corporation has announced fares might be charged according to new transit zones or distance: In both cases, longer trips, like those from the West Island to downtown, would cost more than short trips, say, from St. Henri to downtown.

Potentially, smart cards could revolutionize the way transit is used in Montreal. "I think it would be a step towards a more integrated transit network," McLaughlin said. "Right now, say I want to go out to the West Island and I don't want to sit in a bus in traffic for an hour - I want to take the commuter train. If I have a bus pass, that won't be do me any good, so I'll have to buy another ticket with exact change at the train station. Of course, now they've changed all the zones and you have to watch out for that, too. It's confusing."

By contrast, with a smart card in hand, commuters will be able to travel throughout the metropolitan area without going through the cumbersome process of buying multiple tickets or calculating the cost of different fares. Considering the growing dispersal of employment away from downtown, being able to travel hassle-free throughout the Montreal region is important.

And, with smart cards, occasional transit users might be more inclined to use a bus or take the metro. Octopus consultant Chambers knows first-hand how easy it is to use public transport with a smart card. "In London, where I'm a customer now, I'm much more inclined to jump on a bus rather than look for a taxi or whatever, because it's just so easy to do."

Ultimately, smart cards will not be successful unless they are simple and easy to use. Luckily, Montreal has an advantage coming late to the game. Smart cards are already de rigueur in many U.S., Asian and European cities, so the MTC has been able to observe what works and what doesn't. Above all, Cote said, the lesson learned is "you have to take care of your customer." Chambers echoed this point: "Make things as simple as possible. Simplify fares and simplify the interaction with the (smart-card) equipment." In Hong Kong, for instance, if there is ever a problem with an Octopus card, the fare is waived.

All of this might sound great, but McLaughlin said he will only believe it when he sees it. Still, he said, "I hope that we'll be able to do it."

Transport 2000's Parisien, for his part, admits smart-card technology has the potential to be useful. "The advantages are that it facilitates (customer) transactions," he said. 'The current system is very archaic." The challenge for Montreal, he said, is to look to other cities with successful smart-card systems and learn from what they have done.

In the meantime, all we can do is wait for our smart card - and consider such trivial questions as: what will it be named?

The name of Hong Kong's Octopus card is both catchy and symbolic, bringing to mind the sea creature's eight tentacles, eight being both a lucky number in Cantonese culture and one that is used to mean "going in all directions." London calls its smart card Oyster, as in "the city is your oyster," Washington has the SmarTrip, Melbourne offers Myki to the city and Paris prefers the punchiness of Navigo.

"We have a name in mind," Cote said. "But it's a secret."

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What are smart cards?

A smart card resembles a credit card in size and shape, but inside it is completely different. First of all, it has an inside - a normal credit card is a simple piece of plastic.

The inside of a smart card usually contains an embedded microprocessor. The microprocessor is under a gold contact pad on one side of the card. Think of the microprocessor as replacing the usual magnetic stripe on a credit card or debit card.

In Europe, the health insurance and banking industries use smart cards extensively. Every German citizen has a smart card

for health insurance.

Even though smart cards have been around in their modern form for at least a decade, they are just starting to take off in the

United States and Canada.

What about card security?

Magnetic stripe technology remains in wide use. However, the data on the stripe can easily be read, written, deleted or changed with off-the-shelf equipment. Therefore, the stripe is really not the best place to store sensitive information.

The microprocessor on the smart card is there for security. The host computer and card reader actually "talk" to the microprocessor. The microprocessor enforces

to the data on the card. If the host computer read and wrote the smart card's random

access memory (RAM), it would be no

different than a diskette.

Technical specs

Smarts cards may have up to eight kilobytes of RAM, 346 kilobytes of ROM, 256 kilobytes of programmable ROM, and a 16-bit microprocessor. The smart card uses a serial interface and receives its power from external sources like a card reader.

What are they used for?

The most common smart-card applications are:

Credit cards

Electronic cash

Computer security systems

Wireless communication

Loyalty systems (like frequent flyer points)

Banking

Satellite TV

Government identification

Smart cards can be used with a smart-card reader attachment to a personal computer to authenticate a user. Web browsers also can use smart-card technology to supplement Secure Sockets Layer (SSL) for improved security of Internet transactions.

Smart-card readers can also be found in mobile phones and vending machines.

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Selling Off Public Roads Isn't A Transit Strategy

ROBERT PUENTES

March 1 2007

Back in the 1970s, the humor magazine National Lampoon wrote a commentary on corporate influence in America titled "We're Changing the Name of the Country to Exxon."

It doesn't seem like such a stretch today. From naming rights to professional sports venues, to companies offering financial support to cash-strapped public schools in exchange for marketing their brands and products, corporate influence in America today is pervasive.

Now, commercial interests and smart investors are turning their eyes toward some of our nation's most prominent roadways. We need to slow down.

Certainly states and cities across the country face massive transportation challenges. Roads and bridges are crumbling, traffic congestion has become intolerable, air quality is deteriorating, working families are having difficulty reaching many jobs, and several transit systems are either constrained or seriously overcrowded.

So politicians are looking for a quick fix.

Two specific deals at the south end of Lake Michigan have sparked this movement.

Earlier this year, Indiana Gov. Mitch Daniels leased his state's toll road for 75 years to a private consortium for $4 billion, which he then spent on other road projects around the state.

In 2004 Chicago Mayor Richard Daley reprogrammed the $1.8 billion from his 99-year lease of the Chicago Skyway back into city coffers to be spent largely in unspecified ways. New Jersey is considering the selling or leasing of the Jersey Turnpike, Garden State Parkway and the Atlantic City Expressway to private companies.

The payoff for private companies, syndicates and their advisers also is huge. They're putting up billions of dollars banking on steady, ever-increasing toll revenues from generations of captive motorists.

This scheme sounds much better than it is. These deals have set off a frenzy prompting Standard & Poor's to warn of a dotcom-like pricing bubble.

Governments lose more than they gain. All that up-front cash looks sweet, but the long-term revenue stream is lost since all the toll receipts flow directly to the private operators.

Governments also lose the option to borrow against those future revenues.

Far worse, policy-makers lose the ability to connect transportation to other emerging metropolitan trends. Transportation planning is inherently a metropolitan issue - people and goods travel in and out of cities and between suburbs - and removing a piece of the puzzle hampers the ability to deal

strategically with the system in an integrated manner.

Also, governments are taking steps to manage the demand for car trips due to concern over how traffic congestion effects climate change. These important policy objectives are in conflict with the commercial interests of private companies running toll roads. They want more traffic, not less.

Some thoughtful politicians are having second thoughts. Houston turned down $20 billion to lease the region's toll roads. Officials believe they'll be better stewards of an enormous public asset and the fast money didn't outweigh the long-term costs of doing the deal. Illinois Gov. Rod Blagojevich expressed similar concerns over the specifics of a proposal for his state's tollway system.

Selling off toll roads is not a silver bullet solving all transportation problems. It allows politicians to demonstrate action and provides a lot of cash in hand for pork projects. But it's not the right conversation we should be having about transportation in America today.

All the focus on this latest hot idea comes at the expense of a more comprehensive and inclusive discussion about transportation - a discussion that includes accountability, overall intent, and connection to broader goals of economic growth and personal mobility.

We're letting politicians and policy-makers off the hook. We should all roll up our sleeves, define, design and embrace a new, unified, competitive vision for transportation policy and not be seduced by the easy money.

What's next the "SUBWAY" subway?

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