The Illinois Tollway
2700 Ogden Avenue
Downers Grove, Illinois 60515-1703
Phone: 630/241-6800
Fax: 630/241-6100
TTY: 630/241-6898

February 1, 2011

Ms. Angela Jacobs
Value Pricing Pilot Program
Federal Highway Administration
Washington D. C.

Subject: Application to the FHWA Value Pricing Pilot Program, FY 2010-2011

Dear Ms. Jacobs:

Attached please find the Illinois Tollway's application to the Federal Highway Administration's (FHWA) Value Pricing Pilot Program as advertised in the Federal Register on October 19, 2010, Volume 75, No. 201.

This application is submitted to obtain grant funding for a study to "Integrate and Finance Transit with Managed Lanes" on the Jane Addams Memorial Tollway (I-90) in northern Illinois. **The focus of the study is to develop multimodal solutions for the integration and financing of transit service with managed lanes on the Jane Addams Memorial Tollway.** The Illinois Tollway intends to reconstruct and widen the Jane Addams Memorial Tollway in the short to medium term, necessitated by deteriorating pavement conditions and the need for congestion relief. This proposed study will be performed in conjunction with a separate investment grade study for managed lanes on the corridor to be conducted by the Illinois Tollway. This Value Pricing study will provide input into the financing, design and operational studies required to implement the managed lanes.

We have addressed comments received from FHWA on the sketch proposal submitted in December 2010 in this application. The Illinois Tollway has refocused the proposal based on FHWA's comments to eliminate overlap with prior studies and future investment grade studies. A formal response to the comments is included at the end of the application.

We would be happy to discuss this application with you. If you have any questions, please contact Rocco Zucchero, Deputy Chief of Engineering for Planning via email at rzucchero@getipass.com or at (630) 241 6800 ext. 3909.

Thank you for your attention to this application.

Sincerely,

Paul D. Kovacs, P.E.
Chief Engineer

A. Background

1. The Illinois Tollway System

The Illinois State Toll Highway Authority ("the Illinois Tollway") operates a system of user-fee funded toll highways in northern Illinois that includes the Chicago suburban area. The Illinois Tollway system consists of approximately 286 miles of limited access highways, all of which are part of the Interstate Highway System.

The Illinois Tollway network includes the Jane Addams Memorial (I-90), Tri-State (I-94/294), Ronald Reagan Memorial (I-88), and Veterans Memorial (I-355) Tollways. A new 12.5-mile southern extension to the Veterans Memorial Tollway opened to traffic in November 2007. Figure 1 shows a map of Tollway routes.

Figure 1: Illinois Tollway Routes

The Illinois Tollway extends into a service area consisting of twelve counties; six counties in the Chicago metropolitan area (Cook, DuPage, Kane, Lake, McHenry and Will) and six adjoining counties (Boone, DeKalb, Lee, Ogle, Whiteside and Winnebago). The twelve counties of the Tollway service area had a combined 2000 population of 8.6 million, mostly living within the six counties of the Chicago metropolitan area. The largest of these, Cook County, includes the mature population center of the City of Chicago and has 5.4 million inhabitants.

The Illinois Tollway is of crucial importance both locally and nationally. The 286 mile Illinois Tollway system represents approximately 40 percent of interstate and freeway mileage in northern Illinois, and carries a little over 40 percent of the interstate and freeway vehicle miles traveled in northern Illinois. The Illinois Tollway comprises approximately 12.5 percent of interstate and freeway miles statewide, while carrying over 25 percent of the vehicle miles traveled on interstate highways. [1]

2. The Illinois Tollway Congestion Relief Program

In September 2004, the Illinois Tollway adopted a $6.3 billion, 10-year Congestion Relief Program, Open Roads for a Faster Future, that included converting all mainline toll plazas to open road tolling, widening and reconstructing

[1] Illinois Highway and Street Mileage Statistics 2007, and Illinois Travel Statistics (2007), Illinois Department of Transportation.

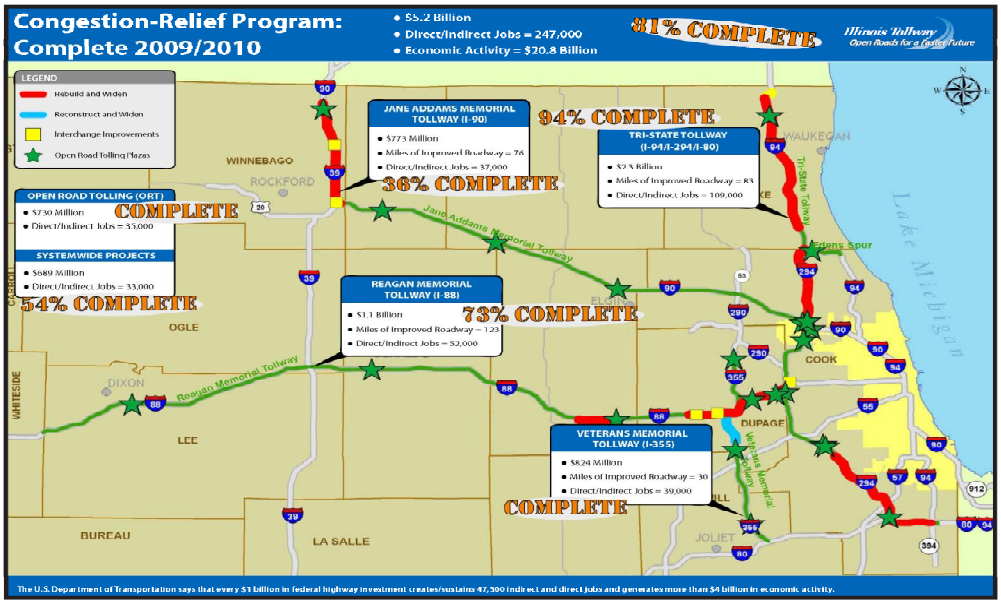
most of the Illinois Tollway roadways, and construction of a 12.5-mile extension of the Veterans Memorial Tollway (Interstate 355).

The major goals of the $6.3 billion Congestion Relief Program (CRP) are to:

- reduce travel times by converting the entire system to Open Road Tolling;
- construct the 12.5-mile south extension of the Veterans Memorial Tollway;
- fix the existing infrastructure by reconstructing and rehabilitating most of the system – 41 % of the lane mileage on the system will be reconstructed and 54 % will be rehabilitated; and,
- widen 88.3 miles of the existing routes.

The CRP is substantially complete, with the completion of Open Road Tolling, construction of the south extension of the Veterans Memorial Tollway, and widening of much of the urban sections of the Tri-State, Ronald Reagan and Veterans Memorial Tollways. Approximately 81 percent of the CRP has been completed to date, representing over $5 billion of investment in infrastructure and operational improvements. These projects have resulted in substantial reductions in traffic congestion and significant contributions to the regional economy.

Figure 2: Status of the Congestion Relief Program



The Illinois Tollway's Congestion Relief Program, while impressive in its size, scope and ambition, needs additional investment to achieve its goals. In particular, the Jane Addams Memorial Tollway (I-90) pavement is nearing the end of its useful life, and is in need of significant reconstruction and widening.

B. Prior Value/Congestion Pricing Efforts in the Chicago Region

In 2003, the Illinois Tollway was awarded a grant under the FHWA Value Pricing Pilot Program. This project, the Illinois Tollway Value Pricing Study, was focused on developing a congestion (or "Value") pricing pilot project on the Illinois Tollway system. During the course of this study, the Illinois Tollway decided that its long range objectives were best achieved through a system-wide capital improvement program and new toll rate structure (the Congestion Relief Program previously described), rather than a pilot project on a specific corridor. The scope of the study was subsequently modified with FHWA approval to provide input to the system-wide toll rate change.

The Congestion Relief Program was funded by a toll rate increase (the first since 1983) for passenger vehicles paying cash, and for commercial vehicles paying tolls via I-PASS (the Illinois Tollway's electronic toll collection

system) and cash. Passenger vehicles using I-PASS, saw no increase in their toll rates. As part of the Congestion-Relief Program, the Illinois Tollway implemented congestion pricing for commercial vehicles system-wide, providing I-PASS trucks a 25 percent discount for traveling during off-peak hours, overnight and on weekends. Subsequently, the off-peak and weekend I-PASS truck discounts were discontinued on January 1, 2009.

The Illinois Tollway received a second Value Pricing grant in 2007, the Chicago Regional Congestion Pricing Study, to evaluate the potential of congestion pricing in the Chicago metropolitan region. Completed in November 2010, the study evaluated the impacts of congestion priced managed lanes on both Illinois Tollway and non-tolled expressway routes in the Chicago region. In addition, the study included a concentrated outreach effort to educate stakeholders and policy makers on congestion pricing, as well as to obtain input from stakeholders in defining the appropriate role that pricing can play in managing regional mobility, prioritizing routes for implementation, and developing a consensus among stakeholders and policy makers.

Technical analysis of the potential of congestion pricing in the Chicago region began with a screening analysis of fourteen candidate expressway routes. Subsequently, three corridors were selected by stakeholders for detailed evaluation: (a) the Stevenson Expressway (Interstate 55); (b) the Jane Addams Memorial Tollway (Interstate 90); and, (c) the reversible lanes of the Kennedy Expressway (Interstate 90). These corridors were examined in detail to determine the potential impacts of congestion pricing on travel and toll revenues. The evaluation included added managed lanes on the Stevenson Expressway and Jane Addams Memorial Tollway, and conversion of the existing Kennedy Expressway reversible lanes to managed lanes.

C. The Jane Addams Memorial Tollway (I-90)

1. Description

The Jane Addams Memorial Tollway (I-90) is a 76.5-mile segment of the Illinois Tollway system that extends from its western terminus near the Wisconsin border to the Kennedy Expressway. This northwest corridor serves travelers from various communities, including: Rockford, Schaumburg, and Rosemont, with drivers using the route for more than three million vehicle miles of travel per day. The corridor serves heavy recreational traffic in the summer and fall seasons, and is a critical corridor for national, regional and local commercial truck traffic on the Tollway's 286-mile system. Portions of the Jane Addams Memorial Tollway carry more than 30% commercial traffic.

The eastern, urbanized, section of the Jane Addams Memorial Tollway, between the Elgin toll plaza and the Kennedy Expressway generally provides three mainline lanes in each direction except for two short segments, Roselle Road to IL 53/I-290 and approximately one mile west of Lee Street to the Kennedy Expressway. Between Roselle Road and IL 53, a fourth lane exists in each direction that serves as an auxiliary lane. Between Lee Street and the Kennedy Expressway, four and five lanes are provided, depending on the direction.

2. Physical Condition

The pavement and infrastructure in the 62-mile section of the Jane Addams Tollway, from the Cherry Valley Interchange (I-90/I-39 interchange) in the west to the eastern terminus at Kennedy Expressway, is over 50 years old. Since its original design and construction in the late 1950s, residential and commercial growth has strained some portions of I-90 beyond its capacity, increasing delays and weakening economic activity. Although the pavement has been resurfaced and repaired several times over the years, the majority of I-90 pavement and subsurface is nearing the end of its useful life, with an estimated 3 to 8 years of remaining service life.

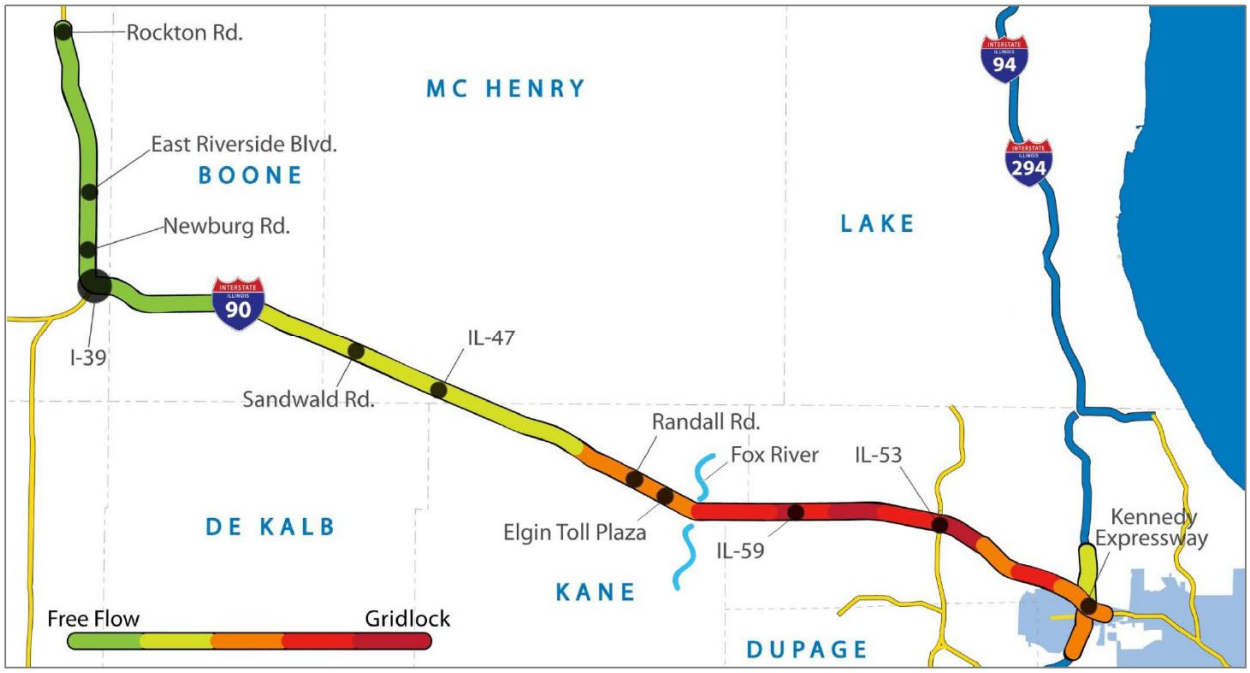
In 2008-9, the Illinois Tollway widened and reconstructed the 14.3 mile section of the Jane Addams Tollway between the I-90/I-39 interchange and the western terminus at Rockton Road from 4 to 6 lanes.

3. Traffic and Congestion

In 2009, the Jane Addams Memorial Tollway served two-way average annual daily traffic (AADT) volumes ranging from 164,000 vehicles/day on the heavily traveled eastern section, to 37,000 vehicles/day on the western section. During the morning peak, congestion occurs primarily in the eastbound direction from IL 25 to Barrington Road

and from Elmhurst Road to I-294. During the evening peak, the eastbound direction between Elmhurst Road and I-294 exhibits congestion, with moderate congestion westbound between I-294 and Barrington Road. The average daily traffic on the eastern section between IL 31 and IL 53 increased at an average annual rate of 1.3 percent per year from 2000 to 2009. During this period, peak-hour traffic volumes have increased at 2.2-2.4 percent per year on this roadway section.

Figure 3: Estimated 2010 Traffic Level of Service



D. Complementary Planning Efforts

1. The Jane Addams Memorial Tollway Master Plan

Between 2006 and 2008, the Illinois Tollway developed a Master Plan for the Jane Addams Memorial Tollway. The Congestion Relief Program has already delivered significant improvements to the corridor, including widening 16 miles from Newburg Road to Rockton Road, reconstruction of the I-90/I-39 interchange at Cherry Valley, and completion of Open Road Tolling at all five mainline toll plazas. While these improvements have provided congestion relief and reduced travel times, additional improvements are needed between I-39 and the Kennedy Expressway to address the corridor's aging pavement and meet travelers' needs now and in the future.

The Congestion Relief Program calls for resurfacing the existing pavement from the Kennedy Expressway to the Elgin toll plaza in 2011-2, and from the Elgin toll plaza to I-39 in 2015-6. However, there is no provision in the CRP to reconstruct and widen the 50-year old pavement in this portion of the Jane Addams Memorial Tollway. Future needs identified for the corridor include:

- An additional third lane in each direction between I-39 and the Elgin toll plaza, to provide a 6-lane cross section;
- An additional fourth lane in each direction between the Elgin toll plaza and the Kennedy Expressway, to provide an 8-lane cross-section; and,
- New/expanded interchanges.

Two transit options were identified in the Master Plan – the STAR Line, a commuter rail line in the median of I-90 from the Kennedy Expressway to IL 59 (to be operated by Metra, the suburban commuter rail provider); and, Express Bus Service with median stations that utilize High Occupancy Toll (HOT) lanes from the Kennedy

Expressway to IL 59 (to be operated by the PACE suburban bus service provider). The uncertain funding source of the STAR Line project, combined with the continuous growth being experienced in Kane and McHenry Counties, provides a unique opportunity for the Tollway to develop a multi-modal based solution.

The Master Plan evaluated the right-of-way (ROW) needs and capital costs of a range of options for the Jane Addams Memorial Tollway. The alternatives range from continued rehabilitation and resurfacing to a combination of managed lanes, a dedicated transit corridor, commuter stations and new interchanges:

1. Reconstruct Later
2. Reconstruct & Widen Later
3. Reconstruct & Widen Now
4. Reconstruct & Widen Later + Express Bus Service Reserve ROW with HOT Lanes
5. Reconstruct & Widen Later + STAR Line Reserve ROW
6. Reconstruct Later + STAR Line Reserve ROW
7. Reconstruct & Widen Now + Express Bus Service Reserve ROW with HOT
8. Reconstruct West of STAR Line Now, East of IL-59 later
9. Do Nothing (Continued pavement maintenance and rehabilitation)

The estimated capital costs of these options ranged from approximately $1.9 Billion for reconstruction of existing pavement (Option 1) to $4.6 Billion for reconstructing and widening later with ROW reserved for a future STAR Line (Option 5).

These estimates indicate the scale of the fiscal challenge facing the Illinois Tollway in securing this critical infrastructure asset for the region. Innovative financing and operational strategies will be needed to preserve mobility along this corridor. Managed lanes are one such strategy, providing the flexibility to accommodate transit service while generating additional revenue. In addition, the managed lanes could preserve future mobility, by reserving a portion of the available capacity whose operation could be optimized through variable pricing.

2. The Regional Transportation Authority's (RTA) Transit Options Analysis

The Regional Transportation Authority (RTA), the special purpose unit of the State of Illinois charged with regional transit planning and oversight of the Chicago Transit Authority (CTA), Metra commuter rail and PACE suburban bus, has engaged KPMG LLP to assess the financial impact of and innovative delivery alternatives for transit options considered for the Jane Addams Memorial Tollway (I-90) rehabilitation and expansion.

Preliminary findings indicate that neither option currently considered (Express Bus Service (EBS) or STAR Line) is a financially viable project. The study recommended revisiting the overall transit project scope to find cost minimizing opportunities and reducing the capital cost; for example, reducing the EBS footprint, reduction of transit station infrastructure and reduced level of feeder bus service.

3. Chicago Metropolitan Agency for Planning (CMAP) "Go To 2040" Regional Plan

The recently adopted CMAP "Go To 2040" Regional Plan includes an additional managed lane in each direction on a reconstructed I-90 as part of its Fiscally Constrained Project List (which only includes 5 major capital projects in the region for roads or transit).

E. The Proposed Value Pricing Project

1. Rationale & Goals

The Illinois Tollway intends to reconstruct and widen the Jane Addams Memorial Tollway in the short to medium term. In April 2010, the Illinois Tollway's convened a Strategic Advisory Team (with representation from business, labor, transportation planning and advocacy, and hospitality management interests) to conduct a comprehensive review and provide guidance on how the agency could provide improved service to northern Illinois. The Strategic Advisory Team (SAT) identified increased collaboration with regional transportation and planning agencies as a key priority, with the implementation of congestion pricing through high occupancy toll lanes, integration of

enhanced transit options into current and future roadway projects, incorporation of park-and-ride facilities along its routes, and enhanced local and regional coordination as the recommended strategies for implementation.

Managed lanes are anticipated to be the primary strategy selected for implementation of added roadway capacity on this corridor, due to their potential for generating additional revenue while providing the flexibility to accommodate enhanced transit service, and preserving regional mobility by optimizing the operation of the managed lanes through variable pricing. It is in this context that this application is being submitted.

A single, added, managed lane in each direction, between the Elgin mainline toll plaza (located just west of IL Route 31) and the Tri-State Tollway (I-294), a distance of approximately 22 centerline miles, is the proposed transportation demand management strategy.

Congestion pricing often faces challenges to its implementation, primarily centered on issues of equity and fairness. A recent compilation of public opinion data on tolls and road pricing [2] has shown a clear majority support for tolling and road pricing in the aggregate, in contradiction to common perceptions of public opinion. Eight themes were identified:

- The public wants to see the value;
- The public wants to react to tangible and specific examples;
- The public cares about the use of revenues – use of tolling /road pricing revenues linked to specific uses and for highway and public transit improvements leads to higher support;
- The public learns from experience;
- The public uses knowledge and available information;
- The public believes in equity but wants fairness – improved transit service was viewed as a way to address equity concerns of low-income travelers;
- The public wants simplicity;
- The public favors tolls over taxes.

The Illinois Tollway is requesting funding through the FHWA's Value Pricing Pilot Program to develop multimodal solutions for the Jane Addams Memorial Tollway corridor. This application addresses two key issues: (a) identifying ways to support transit service through revenues from congestion priced managed lanes; and, (b) addressing equity concerns of low income travelers through alternatives that provide operational benefits such as reduced travel times and improved reliability.

Funding is requested for the following activities:

- Develop policy options for transit service on the proposed added managed lanes, including pricing for high-occupant vehicles (2+ and 3+ carpools) and alternative fueled/high-mileage vehicles;
- Develop transit service operating characteristics;
- Evaluate the traffic operational impacts of transit use of the managed lanes through simulation modeling;
- Evaluate the benefits and ridership impacts of implementing express bus and bus rapid transit service using the managed lanes;
- Evaluate the right-of-way and capital investments required to implement transit service in the corridor;
- Investigate the potential for funding transit service in the corridor using incremental revenues generated by the managed lanes;
- Conduct outreach to the public, policy makers and regional stakeholders to define the managed lane service characteristics, transit options and pricing strategies for the corridor, specifically focused on the northwest corridor communities; and,
- Evaluate equity impacts of the managed lane transit options.

These activities will be performed in conjunction with a separate investment-grade study of the managed lanes to be funded and conducted by the Illinois Tollway. This Value Pricing study will provide input into the financing, design and operational studies required to implement the managed lanes on the Jane Addams Memorial Tollway.

[2] Zmud, J. and C. Arce, NuStats, LLC, Compilation of Public Opinion Data on Tolls and Road Pricing, NCHRP Synthesis 377, Transportation Research Board, Washington, D.C., 2008.

2. Unique Characteristics of this Value Pricing Proposal

This proposal involves the potential implementation of the first managed lanes on a toll facility, with complementary transit service. While managed lanes have been implemented elsewhere, this project would represent the first implementation on a toll facility. Toll agencies operating facilities in urban areas with heavy traffic demands and expensive or limited right-of-way face significant challenges in expanding their capacity. These toll agencies are now confronting the reality that they, too, cannot "build their way out of congestion". This project would provide a model for more efficient utilization of toll road infrastructure, while incorporating transit service.

The implementation of managed lanes in the Chicago region, if coupled with preferential pricing/discounts for HOV users, would represent the first implementation of HOV lanes in the region. This, in itself, would represent a significant step in educating the motoring public on the benefits of HOV lanes, and provide a concrete demonstration.

3. Scope of Work

The proposed scope of work includes the following tasks:

TASK 1: DEVELOP TRANSIT POLICY OPTIONS & OPERATING CHARACTERISTICS

Proposed transit service using the managed lanes consists of Express Bus Service and Bus Rapid Transit. The frequency/headways, periods of operation and service characteristics (line-haul/short) of the potential transit options will be defined cooperatively with PACE and RTA. This task will review current PACE bus ridership data for the Jane Addams corridor in conjunction with existing arterial bus routes, transit transfer facilities and park-and-ride lots to identify potential locations for in-line stations. Alternate, managed lane access/egress locations required to serve transit and regional activity centers if in-line stations are not feasible will be identified for inclusion in the refined managed lane options.

This task will also review existing high-occupancy vehicle (HOV) usage in the corridor available in regional travel surveys and origin-destination surveys conducted by the Illinois Tollway. The existing data will be supplemented with vehicle occupancy surveys as needed. HOV characteristics of the corridor will be used to define policy scenarios for preferential pricing that will be evaluated in subsequent tasks. These scenarios may include managed lane discounts for 2+ and 3+ carpools, compared to single-occupant vehicles. The Illinois Tollway will also investigate the usage of alternative fuel, hybrid and high-mileage vehicles in the region and specifically in the corridor through travel surveys.

TASK 2: TRAVEL PATTERN SURVEYS

Prior travel pattern surveys conducted on the Jane Addams Memorial Tollway were primarily targeted at understanding the characteristics of highway users. The survey effort proposed here would focus on the potential for shifting highway users to transit, by identifying users' trip-making characteristics that could be adequately served by transit.

TASK 3: EXPRESS BUS AND BUS RAPID TRANSIT STATED PREFERENCE SURVEYS

Stated Preference (SP) surveys will be conducted of users and non-users of the Jane Addams Memorial Tollway. The Stated Preference surveys will investigate the transit service characteristics of Express Buses and Bus Rapid Transit that could make the enhanced service attractive to current highway users. Respondents will be recruited by volunteering to participate in a follow-up survey to the travel pattern surveys, by targeted Computer Assisted Telephone Interviews of residents within a defined distance from the corridor and from transit user databases.

TASK 4: EVALUATE TRAFFIC OPERATIONAL IMPACTS OF TRANSIT USE OF MANAGED LANES

Buses using the managed lanes present unique operational challenges especially related to narrow lanes, access and egress from the managed lanes and merging with general-purpose lane traffic to use highway interchanges. These operational and design issues will be investigated through simulation modeling to establish design criteria that will subsequently influence right-of-way and capital needs.

A VISSIM simulation model will be developed for the corridor, extending from Randall Road in the west to Cumberland Avenue in the east. The model will be developed and calibrated at base year levels to reflect the detailed traffic profiles developed in the complementary investment grade study. This would include observed delay patterns in peak, shoulder and off-peak hours as well as the traffic volumes on each entry and exit ramp on the system.

Operational impacts of transit on managed lanes will be assessed using the VISSIM micro-simulation model. The transit service characteristics will be coded into the model to assess the potential travel time benefits accruing to transit as a result of using the managed lanes. Similarly, the weaving and access/egress issues of transit bus use of the managed lanes will be assessed using the micro-simulation model.

TASK 5: EVALUATE RIDERSHIP IMPACTS AND BENEFITS OF ALTERNATIVE TRANSIT SERVICE

The ridership impacts of alternative transit service in the Jane Addams Tollway corridor will be evaluated through travel demand modeling and simulation modeling. Changes in accessibility and the attractiveness of transit for each transit operating alternative will be assessed using the regional travel demand model under the managed lane scenarios. The Illinois Tollway will work cooperatively with CMAP and the RTA to evaluate the ridership impacts of alternative transit services.

TASK 6: EVALUATE RIGHT-OF-WAY AND CAPITAL INVESTMENT IMPACTS OF ALTERNATIVE TRANSIT SERVICE

The transit service characteristics and operational impacts identified previously will be used to assess the right-of-way, operating and capital investments required for implementing enhanced transit service in the corridor. These required investments will provide input into the investment grade study to result in a project design that is financially feasible and sustainable over the long term.

TASK 7: EVALUATE FUNDING FOR TRANSIT SERVICE THROUGH MANAGED LANES

This task will investigate the legal, administrative and financial issues related to the funding of transit service through incremental revenues generated by the value-priced managed lanes. Several options exist for achieving this, such as the Illinois Tollway itself being the transit service provider, with operation of the service contracted out to regional transit agencies. Alternatively, public-public agreements may be more suitable to deliver transit services in the corridor.

TASK 8: CONDUCT PUBLIC AND STAKEHOLDER OUTREACH

A substantial amount of stakeholder and policy maker outreach was conducted as part of the Chicago Regional Congestion Pricing Study. This effort will focus on outreach to the general public, and elected officials and communities along the Jane Addams Memorial Tollway. This will be done through briefings at meetings of the village and city councils of the northwest communities, and through public hearings to understand the concerns of the general public, local Chambers of Commerce and transit riders.

TASK 9: EVALUATE EQUITY IMPACTS OF MANAGED LANES

The equity impacts of the proposed managed lanes will be assessed primarily through an analysis of the user demographics of the Jane Addams Tollway, their travel characteristics and the potential impacts to various groups. A combination of focus groups, user surveys and travel pattern analysis will be used to assess the impacts to users of the Jane Addams Tollway, competing arterial road users and transit users.

TASK 10: DOCUMENTATION

This task will include the development of final study documentation. The results of the overall study will be documented in a comprehensive report.

F. Evaluation Criteria

1. Livability

Livability benefits of the managed lanes will primarily result from improved transit service and infrastructure and enhanced opportunities for ridesharing in the corridor. The managed lanes will provide a congestion-free choice to all travelers, including toll paying drivers, at all times of the day with reliable travel times. In addition, the enhanced transit service developed for the corridor will provide improved connections to arterial transit service.

The managed lanes will improve connectivity for users of multiple modes. The 2007 Chicago Regional Congestion Pricing Study estimated that the managed lanes will provide a travel time savings (compared to the general purpose lanes) of approximately 9 and 8 minutes in the Eastbound AM Peak and Westbound PM Peak, respectively. Buses, HOVs and premium-priced SOV traffic currently stuck in general purpose lane traffic will now enjoy a congestion free trip, with a minimum speed of 50 mph.

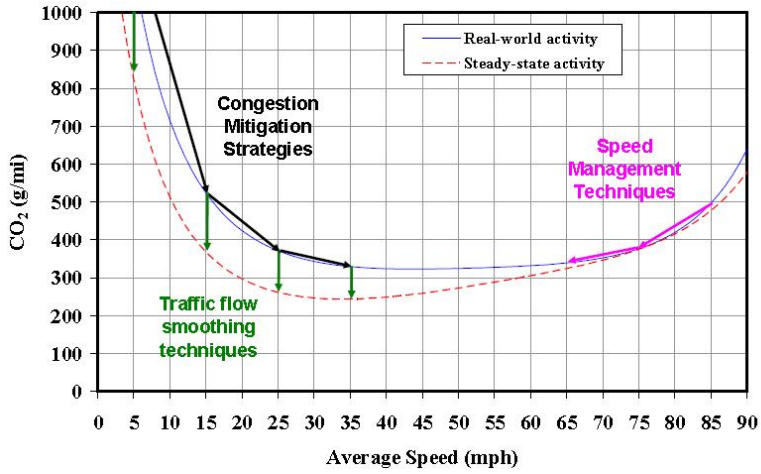
Four suburban bus routes currently utilize the Jane Addams Memorial Tollway with an average weekday ridership of over 2,000, providing an existing market for improved transit service through managed lanes. Building the managed lanes is anticipated to further increase the transit ridership in the corridor. Ridership estimates will be developed as part of this study, for each of the managed lane transit service options identified for the corridor.

2. Sustainability

This project represents a 21st century sustainable transportation solution. Rather than perpetuating the typical cycle of expanded highways resulting in increased SOV travel and an eventual return to congestion, the project expands travel choices and actively manages demand. This project offers a new vision for transportation, and has the potential to result in reduced oil dependence, greenhouse gas emissions and environmental impacts.

The impact of traffic operations strategies (congestion mitigation, traffic flow smoothing and speed management techniques) in reducing carbon dioxide emissions has been estimated at 7-12 percent. [3] Figure 4 illustrates the potential impacts on CO_2 emissions of the traffic operations strategies. Managed lanes incorporate all these strategies, by varying the price for using the lanes to achieve optimal utilization and free-flow traffic conditions. It could be reasonably expected that a well designed multi-modal transportation solution for the Jane Addams Memorial Tollway that integrates transit with managed lanes would result in similar reductions in greenhouse gas impacts.

Figure 4: Effect of Traffic Operations Strategies in Reducing CO_2 Emissions



[3] M. Barth and K. Boriboomsonsin, Real-World Carbon Dioxide Impacts of Traffic Congestion, Transportation Research Record 2058, Transportation Research Board, 2008.

In addition to the environmental benefits, this project will develop funding mechanisms to help sustain the enhanced transit service. Opportunities to support the capital, operating and maintenance costs of the enhanced transit service through managed lane toll revenues will be investigated.

3. Equity

The social and economic effects of enhanced transit using the managed lanes will be investigated as part of the project. Estimates provided by the Census Bureau's 2007 American Community Survey, summarized in Table 1 below, indicate that over 10 percent of the lower income travelers in the Chicago-Naperville-Joliet metropolitan area (with annual incomes below $35,000) carpooled on their work trips.

Table 1: Mode of Transportation By Income - Chicago-Naperville-Joliet Metro Area

Income	Drove Alone	Carpooled	Public Transport	Other
$9,999 or less	62.2%	13.4%	14.1%	10.3%
$10,000 to $14,999	63.5%	14.6%	15.2%	6.6%
$15,000 to $24,999	68.5%	12.7%	13.1%	5.7%
$25,000 to $34,999	74.4%	10.6%	11.4%	3.7%
$35,000 to $49,999	77.7%	7.7%	11.4%	3.1%
$50,000 to $64,999	78.4%	6.7%	12.3%	2.6%
$65,000 to $74,999	77.3%	6.9%	12.5%	3.3%
$75,000 or more	74.8%	5.4%	15.4%	4.4%

Source: 2007 American Community Survey, U.S. Census Bureau

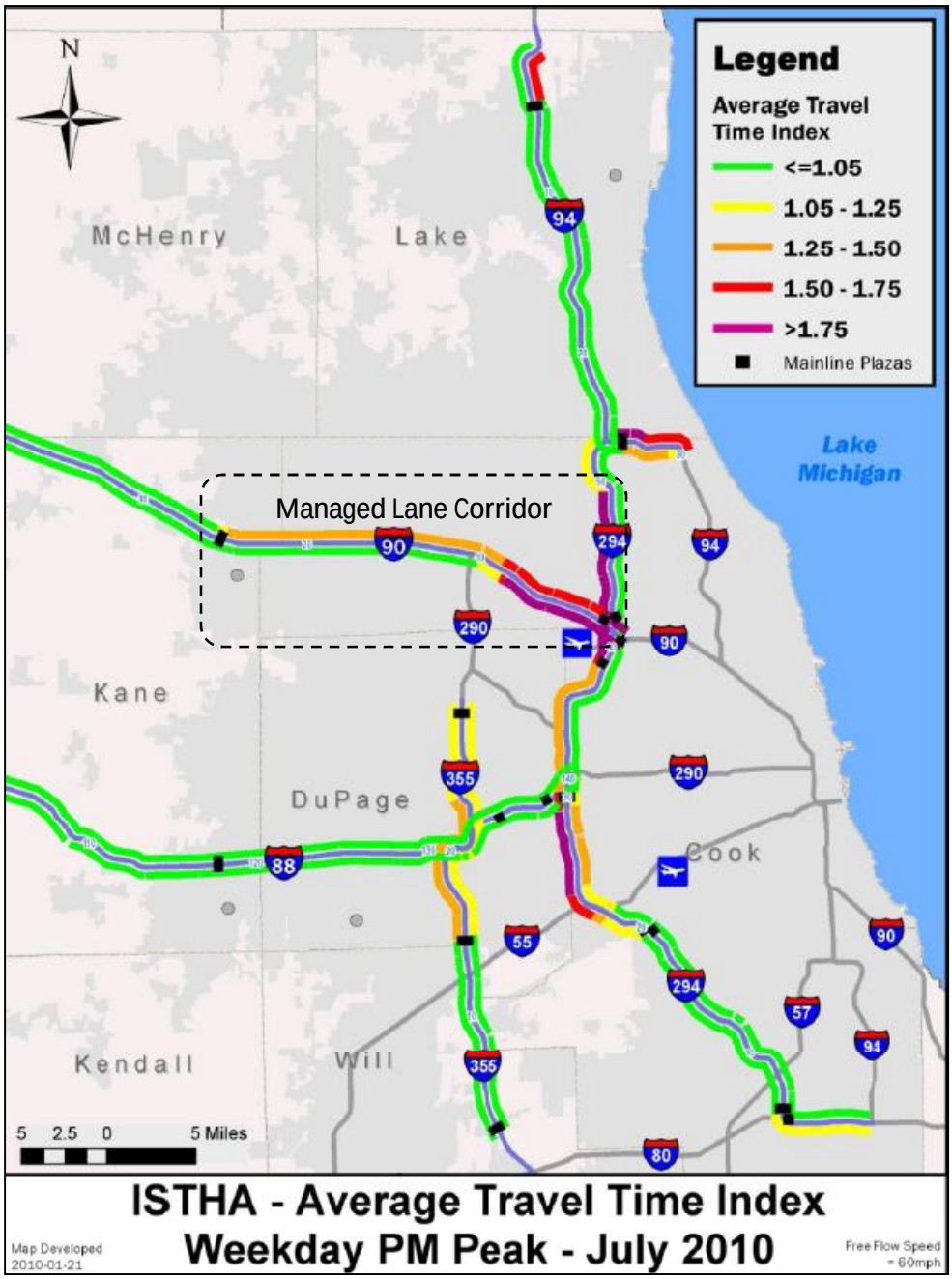
Enhanced transit service to be implemented using the managed lanes in the Jan Addams Memorial Tollway corridor is also anticipated to benefit lower income transit riders, with more reliable and faster travel times. In addition, the impact on drivers in the corridor due to premium pricing will be mitigated on the routes with lanes being added to the route.

4. Congestion Reduction

Congestion on the Jane Addams Memorial Tollway is illustrated by peak-period Travel Time Index values ranging from 1.05 to 1.59 based on July 2010 data. The Travel Time Index, the ratio of 95th percentile travel times to free-flow travel times, indicates that the corridor experiences significant congestion. Figure 5 presents the PM Peak Period travel time index spatially along urban sections of the Illinois Tollway.

Addition of managed lanes in the corridor with complementary transit service is anticipated to preserve mobility in the corridor far beyond the 10-15 years typically realized with conventional roadway widening projects. Addition of new capacity as managed lanes will preserve the mobility of at least a portion of the capacity into the future.

Figure 5: Average Travel Time Index – Weekday PM Peak, July 2010



5. Safety

The Jane Addams Memorial Tollway (I-90) has experienced 7,515 traffic crashes in the three year period from 2007 to 2009. The crash summary presented in Table 2 below indicates that traffic crashes on the Jane Addams Tollway decreased in 2009, as a result of reduced travel (reduced VMT), the widening of the far western section between I-39 and Rockford.

Table 2: 2007-9 Traffic Crash Summary – Jane Addams Memorial Tollway (I-90)

Injury Type	2007		2008		2009		2007-2009	
	Crashes	Percent	Crashes	Percent	Crashes	Percent	Crashes	Percent
Property damage only	2,236	84.8%	2,320	86.1%	1,860	85.3%	6,416	85.4%
Reported injury, not evident	152	5.8%	90	3.3%	124	5.7%	366	4.9%
Non-incapacitating injury	193	7.3%	244	9.1%	171	7.8%	608	8.1%
Incapacitating injury	46	1.7%	37	1.4%	23	1.1%	106	1.4%
Fatal	11	0.4%	5	0.2%	3	0.1%	19	0.3%
Total Crashes	2,638	100.0%	2,696	100.0%	2,181	100.0%	7,515	100.0%
Annual Vehicle Miles Traveled (millions)	2,234		2,137		2,103		6,473	
Crash Rate	1.18		1.26		1.04		1.16	
Severity Index	1.53		1.52		1.47		1.51	

Note: Lower crash rate trends for 2009 have continued into 2010.

Source: Draft 2007-2009 Illinois Tollway Traffic Crash Data Report

The proposed project involves developing multimodal transportation solutions to be implemented coincident with reconstruction and widening of the Jane Addams by one lane in each direction, to be added as managed lanes.

The safety benefits of the proposed project will accrue from both the roadway widening, as well as the transit service to be provided, since the transit service is envisioned to be a key factor in developing public support for the implementation of congestion-priced managed lanes.

The Illinois Department of Transportation provides a Crash Reduction Factor (CRF) of 25% for roadway widening by one lane. [4] Similarly, FHWA's recommends CRF's for added lanes ranging from 10 to 31 % for all crash types. FHWA's CRF for property damage only (PDO), injury and fatal crashes are 27, 23 and 39 %, respectively. [5]

Based on a conservative CRF assumption of 15 %, the anticipated safety benefits of an added managed lane in each direction of the Jane Addams Memorial Tollway include an annual reduction of 327 traffic crashes. The enhanced transit service provided through managed lanes would be expected to provide crash reductions in addition to those directly resulting from the increased capacity. These safety improvements are primarily expected to be realized on the congested, urbanized, eastern section of the corridor, between the Elgin mainline toll plaza and the Tri-State Tollway (I-294).

Conservatively applying FHWA estimates of the economic costs of preventing crashes (assuming all the crashes reduced through the addition of managed lanes are PDO crashes, @ $9,130 in 2007$), the anticipated annual economic savings of the 327 crashes eliminated are approximately $ 2.99 Million. [6] The economic savings from further crash reductions due to improved transit service, and its impacts on traffic congestion and reduced traffic are expected to add to the estimate above.

6. State of Good Repair

The pavement and infrastructure in the 62-mile section of the Jane Addams Tollway, from the Cherry Valley Interchange (I-90/I-39 interchange) in the west to the eastern terminus at Kennedy Expressway, is over 50 years old. Since its original design and construction in the late 1950s, residential and commercial growth has strained

[4] Safety Engineering Policy Memorandum, SAFETY 1-06, Highway Safety Improvement Program, Illinois Department of Transportation, Effective November 1, 2006.
[5] Desktop Reference for Crash Reduction Factors, Federal Highway Administration, Report FHWA-SA-08-011, September 2008.
[6] Crash Cost Estimates by Maximum Police-Reported Injury Severity Within Selected Crash Geometries, Federal Highway Administration, FHWA-HRT-05-051, 2005.

some portions of I-90 beyond its capacity, increasing delays and weakening economic activity. Although the pavement has been resurfaced and repaired several times over the years, the majority of I-90 pavement and subsurface is nearing the end of its useful life, with an estimated 3 to 8 years of remaining service life.

In 2008-9, the Illinois Tollway widened and reconstructed the 14.3 mile section of the Jane Addams Tollway between the I-90/I-39 interchange and the western terminus at Rockton Road from 4 to 6 lanes.

The proposed project will improve the Jane Addams Memorial Tollway to current design standards and reconstruct the pavement to result in a remaining service life of at least 40 years.

G. Potential Economic Impacts of Jane Addams Managed Lanes

In 2009, the Tollway conducted an analysis of the permanent job impacts associated with widening the Jane Addams Memorial Tollway. The study found that the total permanent job impacts of widening I-90 are more than 2,200 in 2015, growing to more than 11,000 in 2030, due to improvements in accessibility in the corridor.

CMAP's "Go to 2040" plan shows that an additional managed lane in each direction would create 3,183 permanent jobs relative to "no build" conditions, increase the total income in the region by $148M and the gross regional product by $215M.

H. Project Timeline

It is anticipated that the project would be completed within three years of initiation. A detailed schedule will be prepared with milestones and deliverables as part of the project planning phase.

I. Project Budget

Table 3 summarizes the estimated budget for the project.

Table 3: Project Budget by Year

	Year			
Task:	Year 1	Year 2	Year 3	Total ($)
1. Develop Transit Policy Options & Operating Charactertistics	$74,800			$74,800
2. Travel Pattern Surveys	$22,680	$52,920		$75,600
3. Express Bus and Bus Rapid Transit Stated Preference Surveys	$29,400	$68,600		$98,000
4. Evaluate Traffic Operations Impacts of Transit Use of Managed Lanes		$43,600		$43,600
5. Evaluate Ridership & Benefits of Alternative Transit Service		$22,525	$22,525	$45,050
6. Evaluate ROW & Capital Investment Impacts of Alternative Transit Service		$14,355	$33,495	$47,850
7. Evaluate Funding for Transit Service Through Managed Lanes			$45,050	$45,050
8. Conduct Public and Stakeholder Outreach	$16,250	$40,625	$24,375	$81,250
9. Evaluate Equity Impacts of Managed Lanes	$44,525	$22,263	$22,263	$89,050
10. Documentation				$60,800
Total				$661,050
Local Match (20%)				-$132,210
Funding Requested from FHWA Value Pricing Pilot Program =				$528,840

J. Monitoring and Evaluation Plan

A detailed monitoring and evaluation plan will be prepared for the Value Pricing Project during the project planning and design phases. The data collection methodology used during the study will provide for repeated studies every two years during implementation. Elements to be included within the data collection are:

- Traffic counts and toll transaction data along the Illinois Tollway route and at arterial interchanges along the corridor. These counts include the Jane Addams corridor, and selected parallel facilities
- Vehicle occupancy surveys
- Bus ridership data and on-board surveys of bus riders
- Managed and general purpose toll lane user surveys
- This data collection and survey efforts will support analyses of usage, impacts to other facilities and demographic groups, impacts on travel behavior, and general satisfaction with the facility.

It is anticipated that the following activities and documentation would be prepared within three years of implementation:

- Initial baseline: Traffic and transit characteristics; demographic characteristics; vehicle occupancy studies
- Post-Implementation: Traffic impacts; transit impacts; vehicle occupancy studies.

K. Consistency with Regional Planning Requirements

This project is included in and consistent with regional plans. In 2010, the Chicago Metropolitan Agency for Planning (CMAP) adopted its "Go To 2040" Comprehensive Regional Plan. The Regional Plan's fiscally constrained list, which represents high priority projects, includes two managed lanes (one in each direction) on the Jane Addams Memorial Tollway, from I-294 in the east to I-39 in the west. The project received broad regional support, with concurrence in the Kane County 2030 Long Range Transportation Plan.

The Regional Plan's transit component also stated: "To pay for these improvements, our transit agencies need to address the cost of their services, which have been rising rapidly. New revenue — specifically, a portion of the gas tax increase and congestion pricing revenue — should support transit. The region needs to investigate other innovative revenue sources, such as public-private partnerships."

L. Legal and Administrative Requirements

The Illinois State Toll Highway Authority (Illinois Tollway) was created under the Tollway Act (605 ILCS 10) in 1953 as an instrumentality and administrative agency of the State of Illinois to provide for the construction, operation, regulation and maintenance of a system of toll highways within the State of Illinois. The Illinois Tollway is exclusively user-fee supported, and receives no Federal funds for its construction or operation. As a result, the Illinois Tollway requires no additional tolling authority. In addition, the Tollway Act empowered the Illinois Tollway to: fix and revise tolls; construct, operate, regulate and maintain the Tollway System; and, contract for services and supplies. This application requests funding under the Value Pricing Pilot Program for the design and integration of transit services with the proposed managed lanes on the Jane Addams Memorial Tollway.

The Illinois Tollway will follow all applicable Federal and State legal and administrative requirements related to matching funds, selection of consultants, reporting and accounting for any funds received under the Value Pricing Pilot Program. At this time there are no known local or State requirements for implementation of the project.

The Illinois Tollway is already a Value Pricing Project Partner with FHWA, with two Value Pricing Pilot Projects completed successfully in 2004 and 2010. Illinois is one of the 13 states participating as Program Partners in the Value Pricing Pilot Program, via the Illinois Department of Transportation.

M. Regional Electronic Toll Collection Interoperability

The Illinois Tollway's electronic toll collection system, I-PASS, is installed in all toll collection lanes at mainline and ramp toll plazas throughout the system. In October 2005 the Illinois Tollway became a member of the E-ZPass Interagency Group (IAG). E-ZPass is currently in use on toll facilities in the following eleven states in addition to Illinois: Delaware, Indiana, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York,

Pennsylvania, Virginia and West Virginia. Therefore, the Illinois Tollway's electronic toll collection system is already interoperable statewide as well as regionally.

N. Response to FHWA Comments on the Sketch Proposal

The Illinois Tollway submitted a sketch proposal to the FHWA Value Pricing Pilot Program (VPPP) in December 2010. The Illinois Tollway's sketch application was to conduct an investment grade study involving managed lanes on the Jane Addams Memorial Tollway. The comments received and responses to those comments are presented below.

FHWA Comment 1: The VPPP cannot fund pre-implementation studies for more than 3 years. Many of the tasks outlined in the sketch plan were included in the previous study funded by the VPPP. Since the 2007 VPPP grant included the Jane Addams Tollway, this study is not eligible for funding as a pre-implementation study under the VPPP.

Response: The prior Value Pricing grant funded a study of the feasibility of congestion pricing in the Chicago metropolitan region. The study evaluated approximately fifteen urban expressway corridors in the Chicago region, and selected three corridors for further study. While the Jane Addams Memorial Tollway was one of the three corridors selected, it was NOT the primary focus of the 2007 Chicago Regional Congestion Pricing Study. Rather, educating stakeholders and policymakers and developing a consensus on the role of congestion pricing in addressing the region's transportation challenges were the primary goals of the study.

The Illinois Tollway has refocused the application to eliminate overlap with prior activities funded by the FHWA VPPP. This application requests VPPP funding to assess how transit may be integrated with and financed through managed lanes. The study will provide input into a separate investment grade study for the managed lanes to be conducted by the Illinois Tollway.

FHWA Comment 2: If the above issue is addressed, and a new project is selected (you can consider seeking funds for the next phase of the project), please explain how alternative modes will be integrated and how funding for these services will be ensured. For example, page 5 states that Express Bus and STAR Line are not financially feasible. How will a multimodal approach be ensured?

Response: The focus of this VPPP application is to develop alternative transit service concepts and operating characteristics, assess how to integrate the transit service with managed lanes, and investigate the potential for funding transit through revenues generated by the managed lanes. The intent of this project is to develop a financially feasible plan for integrating and financing transit service in the corridor that can serve as a model for future implementations in the region.

While the STAR Line and Express Bus Service (EBS) were determined to be financially infeasible as configured, significant opportunities exist for streamlining proposed EBS in the corridor, such as reducing the number of in-line stations (nine median and one terminus stations were assumed in the EBS) and eliminating a direct access flyover ramp from the managed lane to the Rosemont CTA Station. The capital cost savings resulting from the streamlined service will need to be balanced against their ridership and operational impacts.

Contact: Rocco Zucchero
Deputy Chief of Engineering for Planning
The Illinois Tollway
2700 Ogden Avenue
Downers Grove, IL 60515
rzucchero@getipass.com
(630) 241 6800 Ext. 3909

Regional Transportation Authority

175 W. Jackson Blvd.
Suite 1550
Chicago, IL 60604
(312) 913-3200
www.rtachicago.com

February 1, 2011

The Honorable Ray LaHood
Secretary, U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
W90-417
Route S-1
Washington, DC 20590

Re: I-90 Illinois Tollway Proposed Value Pricing Program

Dear Secretary LaHood:

The Regional Transportation Authority (RTA) supports the Illinois Tollway's proposed efforts to develop multimodal solutions for the Jane Addams Memorial Tollway (I-90) corridor in Northeastern Illinois and their corresponding application to FHWA's Value Pricing Pilot Program. This proposal would provide resources to develop congestion pricing policy and transit service options on proposed managed lanes on the Jane Addams Memorial Tollway. Additionally, the study will perform technical analysis and public outreach to determine which option best serves the needs of the local communities and region.

The RTA is enthusiastic about the opportunity to investigate the increased capacity of managed lanes and an expanded transit service utilizing these managed lanes on the Tollway. The easternmost segment of this facility has portions of gridlock on the facility during peak periods. From 2000 to 2009, peak hour traffic volumes in these sections have increased over two percent per year. Overall mobility and the economic vitality of the region are threatened by congestion – along with existing transit users on the facility.

Pace suburban bus operates four routes on the I-90 Tollway, exhibiting an existing market for improved transit service through managed lanes. In total, these routes already operate over 100 trips per day, utilizing the Tollway for between three and seventeen miles in each direction. During the AM peak, trips are offered in both eastbound and westbound directions (serving traditional and reverse commute trips) on the Tollway; however travel speeds on the Tollway in the easternmost segment utilized for these transit routes have been decreasing since 2000. The Tollway's Value Pricing Proposal will directly study mobility for existing and potential transit users in the corridor.

The RTA is also optimistic that the proposed evaluation of congestion pricing will help the region better understand the potential for new revenue to the Tollway as well as impacts on travel demand in the corridor. An earlier RTA study suggested that current transit build options for the corridor (Star Line commuter rail or express bus service) are not financially viable as proposed. The Tollway's Value Pricing Proposal with managed lanes will investigate the benefits of alternative financing frameworks, for the Tollway as well as for feasible transit alternatives. The technical components of the study include an evaluation of the changes in accessibility and the attractiveness of transit for each transit operating alternative using the regional travel demand model under the managed lane scenarios. These model results will provide regional decision-makers and stakeholders information about ridership impacts and benefits of alternate transit service.

The Tollway's Value Pricing Proposal will study innovative strategies to increase mobility, while at the same time developing new revenue streams for transportation investment and promoting regional coordination. Because of the unprecedented opportunity for multimodal cooperation with the Illinois Tollway and the benefits for regional mobility which may be achieved through this study, the RTA enthusiastically supports the Illinois Tollway's Value Pricing Proposal to FHWA's Value Pricing Pilot Program.

Sincerely,

Joseph G. Costello
Executive Director

cc: Honorable Richard J. Durbin, U.S. Senator
Honorable Mark Kirk, U.S. Senator
Rocco Zucchero, Illinois Tollway
Kristi Lafleur, Illinois Tollway
Leanne Redden, Regional Transportation Authority

Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, IL 60606

voice 312-454-0400
fax 312-454-0411
www.cmap.illinois.gov

February 1, 2011

Mr. Rocco Zucchero
Deputy Chief of Engineering for Planning
Illinois State Toll Highway Authority
2700 Ogden Avenue
Downers Grove, Illinois 60515

Re: Support for Illinois Tollway's Value Pricing Pilot Program Proposal

Dear Mr. Zucchero:

This letter offers the official support of the Chicago Metropolitan Agency for Planning (CMAP) for the Illinois Tollway's request for Value Pricing Pilot Program funds to develop multimodal managed lane solutions for the Jane Addams Memorial Tollway. GO TO 2040, the adopted comprehensive plan for the Chicago region, recommends such a managed lane project on the Jane Addams Memorial Tollway. The Tollway's proposal will substantially advance the project planning for this regionally important project and should be viewed favorably.

The Illinois Tollway's managed lane Value Pricing Pilot Program proposal will provide detailed policy options. The proposal will also facilitate the detailed technical analyses necessary to develop and implement an operational plan for managed lanes. These analyses will build on the earlier study of congestion pricing by the Illinois Tollway in conjunction with the Metropolitan Planning Council. The Illinois Tollway's request is timely, as the Jane Addams Memorial Tollway will require reconstruction within the next several years. Performing the technical study at this time may facilitate a more successful managed lane project through thoughtful design and operations planning.

CMAP appreciates the opportunity to offer its support for the Illinois Tollway's request for Value Pricing Pilot Program funds for the managed

lane project on the Jane Addams Memorial Tollway. We look forward to working with you, local communities, transit agencies, and federal partners to make this project a success.

Sincerely,

Randall S. Blankenhorn
Executive Director

TG:RSB/stk