

# APPENDIX C: FINANCIAL ASSESSMENT

Federal regulations require that the long range transportation plans (LRTPs) for metropolitan planning organizations (MPOs) include a financial assessment that identifies the sources of funding anticipated for planned investments, and also shows fiscal constraint by demonstrating the capability of jurisdictions within the MPO to finance the maintenance and operation of their existing facilities.

The following is such an assessment for the Duluth-Superior metropolitan Interstate Council's (MIC) *Directions 2035*, the long range transportation plan for the bi-state metropolitan planning area of Duluth, Minnesota and Superior, Wisconsin. With this assessment, the MIC is demonstrating that the highway and transit projects planned to occur within the metro area between the years 2010 to 2035 are in-line with the area's investment priorities and are fiscally constrained within the levels of funding that can be reasonably expected for the MIC area over the next 25 years.

Specifically included in this assessment are analyses of the following elements for both the highway and transit networks that make up Duluth Superior's federally funded surface transportation system:

- *Sources and levels of future funding.*
- *System maintenance needs (current and long-range).*
- *Type, cost and timeframe of planned improvements in relation to expected revenues.*
- *Jurisdictions ability to fund their projects while continuing to operate and maintain existing facilities.*

## **Forecasting Available Revenues**

For this assessment, staff from the Duluth Transit Authority (DTA), MnDOT District 1 and WisDOT's NW Regional Office in Superior were consulted in developing estimates of the federal and state dollars that can be expected for the MIC area. For estimates of local revenue, information was retrieved from the Minnesota Office of the State Auditor and the Wisconsin Department of Revenue regarding the amount of money that MIC area cities and counties have historically spent on highway improvements. With the exception of those projects which are already scheduled for the years 2010 through 2013, and for which funding is already programmed through the currently active Duluth and Superior TIPs, *no other special funding such as bonding, High-Priority Project (HPP) funds, or appropriations "earmarks" is being assumed as reasonably expected.*

*Fiscal Constraint:* A demonstration of sufficient funds (federal, state, local, and private) to implement proposed transportation system improvements, as well as to operate and maintain the entire system, through the comparison of revenues and costs.

*Source: Overview Of Current Practices In Revenue Forecasting And Cost Estimation For Transportation Plans - FHWA (2009)*

### *Revenue sources for state facilities:*

- Trunk Highway funds
- Trunk Highway bond funds
- Federal-Aid Highway formula funds (STP)
- Federal-Aid "High Priority Project" funds
- Federal-Aid Annual Appropriation Earmarks
- Federal Transit Administration (FTA) funds

### *Revenue sources for local facilities:*

- Property tax levy funds
- Local option sales tax funds
- Special assessment funds
- Local bond funds
- Municipal State-Aid funds (MSA)
- County State-Aid funds (CSAH)
- Federal Transit Administration (FTA) funds
- Local road Improvement Program funds
- Local Bridge bonding funds
- Federal-Aid Highway formula funds (STP)
- Federal-Aid "High Priority Project" funds
- Federal-Aid Annual Appropriation Earmarks

Table 1 below displays estimates of the average annual amount MIC area cities and counties are able to spend on highway projects. The estimates for Superior and Douglas County are numbers reported by the Wisconsin Department of Revenue. The numbers for Duluth, Hermantown and St. Louis County are from the Minnesota Office of the State Auditor and were reduced by 30% to discount a portion assumed for general road maintenance activities (e.g. crack sealing, snow removal, etc.). These amounts may also account for the purchase of equipment, land, and buildings, but for the purposes of this assessment, it is being assumed that the numbers in Table 1 represent a reasonably expected amount of money that a community can apply to future highway projects.

**TABLE 1: Average annual local capital for highway investments**

<i>Minnesota locals</i>	<i>Capital Outlay</i>
St Louis Co. - MIC portion <sup>1</sup>	\$ 5,569,837
City of Duluth	\$ 9,550,762
City of Hermantown	\$ 798,848
<b>Minnesota Total</b>	<b>\$15,919,447</b>
<i>Wisconsin locals</i>	<i>Capital Outlay</i>
Douglas Co. - MIC portion <sup>2</sup>	\$ 298,141
City of Superior	\$ 1,902,950
<b>Wisconsin Total</b>	<b>\$2,201,091</b>

Sources: Minnesota Office of the State Auditor; Wisconsin Department of Revenue, 2009.

1 - Estimated at 22.5% of county's highway expenses (based on portion of road miles w/n the MIC). 2 - Estimated at 18.5% of county's highway expenses (based on portion of road miles w/n the MIC).

The estimates of funding available for MnDOT and WisDOT managed facilities in the MIC area are based on general historical trends and represent a hypothetical annual allocation of federal formula and state funds to the MIC area. These amounts are shown in Table 2, which displays both local and state revenue forecasts for the MIC area according to the three planning timeframes identified in the Duluth-Superior Long Range Transportation Plan, *Directions 2035*. These projections have been factored to reflect an inflation rate of 1% per year, as recommended by the state DOTs.

**TABLE 2: Highway Revenue Projections for the MIC Area**

<i>DOT funds</i>	<i>Annual estimate</i>	<i>Short range (2010-2014)</i>	<i>Mid range (2015-2019)</i>	<i>Long range (2020-2035)</i>
MnDOT	\$ 6,410,000	\$ 33 M	\$ 34.8 M	\$ 112 M
WisDOT	\$4,360,000	\$ 22.3 M	\$ 23.2 M	\$ 76 M
<i>Local funds*</i>	<i>Annual estimate</i>	<i>Short range (2010-2014)</i>	<i>Mid range (2015-2019)</i>	<i>Long range (2020-2035)</i>
MN side	\$ 15,949,447	\$ 81.6 M	\$ 85.8 M	\$ 278 M
WI side	\$ 2,201,091	\$ 11 M	\$ 12 M	\$ 39 M
<b>Total Revenues</b>		<b>\$147 million</b>	<b>\$ 156 million</b>	<b>\$ 505 million</b>

\* includes federal formula funds and State-Aid revenues

Revenue forecasts for transit projects were handled differently than those for planned highway investments. The DTA asserts that, while significant increases in federal revenue sources cannot be reasonably expected, other sources of revenue such as local tax levies, fare rates, and a number of state sources (e.g. Minnesota’s MVEST dollars) will remain in step with future rates of inflation. These sources are identified together as “Other funds” in table 3 below and represent the anticipated cost of operations inflated at 3% per year.

**TABLE 3: Revenue Projections for transit in the MIC Area**

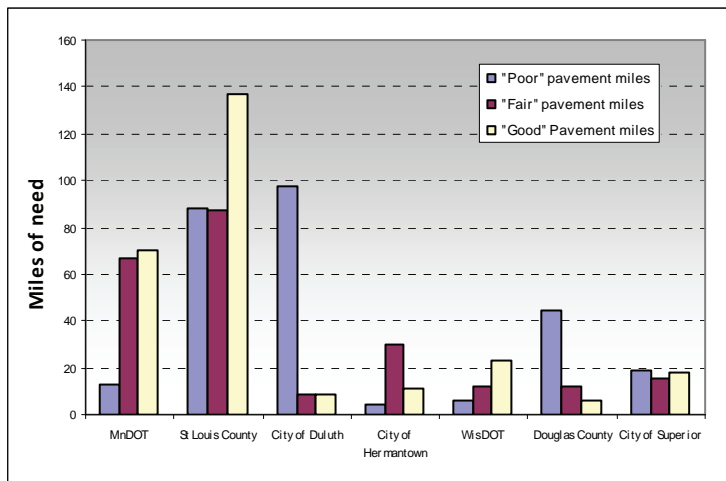
<i>Funding source</i>	<i>Short range (2010-2014)</i>	<i>Mid range (2015-2019)</i>	<i>Long range (2020-2035)</i>
FTA	\$ 15 M	\$ 15 M	\$ 57 M
FHWA (STP)	\$ 11 M	\$ 10 M	\$ 62 M
Other*	\$ 64 M	\$ 72 M	\$ 320 M
<b>Total Revenues</b>	<b>\$90 million</b>	<b>\$ 97 million</b>	<b>\$ 439 million</b>

\* includes fare revenues, local obligations, and WisDOT contributions.

### Estimating System Maintenance Needs

In an attempt to estimate the overall maintenance needs of the metropolitan area’s network of classified roadways, the MIC collected pavement quality ratings from each jurisdiction in the planning area and used this data as a proxy measure for needed maintenance. Miles were categorized according to one of the following qualitative categories: “poor”, “fair”, and “good” condition (Figure 1).

**FIGURE 1: Miles of Poor, Fair, and Good pavement in MIC area**



The MIC worked with the DOTs and local jurisdictions to devise a method of translating these miles into some estimated costs of maintaining them. But because so much uncertainty exists in terms of the actual level of repair needed for each individual mile, ranges of the *cost per mile-of-repair* were agreed upon. Since miles of interstate and state highways are generally larger facilities, a range of \$750,000 to \$1,500,000 per mile was used, while a smaller range of \$200,000 to \$700,000 per mile was applied to those miles that are managed by the cities and counties.

The costs associated with “Poor” and “Fair” miles were then summed together to represent a range of system wide need that should be addressed during the long-range planning horizon. Together these estimates would suggest that the MIC area may be facing upwards of \$432 million in roadway maintenance needs over the next 25 years (Table 4).

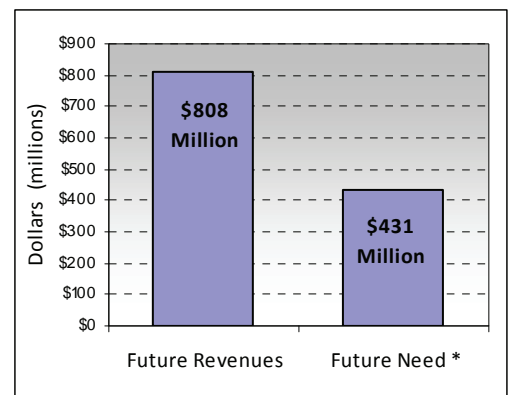
**TABLE 4: Estimated costs of repairing “Poor” and “Fair” miles**

<i>Jurisdiction</i>	<i>Miles</i>	<i>Range of potential costs</i>
MnDOT	80	\$60 million - \$120 million
WisDOT	18	\$14 million - \$27 million
Douglas Co.	56	\$11 million - \$39 million
St. Louis Co.	175	\$35 million - \$123 million
Duluth	107	\$21 million - \$75 million
Hermantown	34	\$7 million - \$24 million
Superior	35	\$7 million - \$24 million
<b>Total</b>	<b>505</b>	<b>\$155 million - \$432 million</b>

The results of this effort suggest that both state managed and locally managed facilities in the MIC area face significant maintenance needs over the coming decade, and as such, the investment priorities of local and state entities should be directed towards preservation of existing facilities.

When comparing these estimated costs of future repairs with the forecasted revenues (from Table 2 on page 2), they represent a little more than half of the total \$808 million in highway funds anticipated for the MIC area over the next 25 years. This is, of course, a simplistic exercise that likely cannot account sufficiently for the maintenance needs of large infrastructure such as the area’s two main bridges. Yet, it does suggest that, area wide, current funding levels are capable of financing the maintenance of the transportation system into the future (Figure 2).

**FIGURE 2: Comparing revenue & maintenance estimates (2010-2035)**



\* Estimate derived from current pavement quality ratings. Does not consider the reconstruction costs of major infrastructure.

## Estimating System Maintenance Needs: Transit

To ensure compliance with FTA regulations and meet its own objectives regarding passenger safety and comfort, and operational efficiency, the DTA maintains a vehicle replacement schedule of 10 regular route buses every other year, and alternates between 3 and 6 new paratransit vehicles in the intervening years. In order to continue this replacement schedule over the next 25 years, the DTA plans to purchase 130 regular route buses and 39 paratransit vehicles between 2010 and 2035, totaling more than \$82 million (table 5).

Over this same period, the DTA anticipates needing \$475 million to fund its operations and another \$59 million to fund its capital needs (table 6). Because the cost of operations accounts for more than two-thirds of the revenue needs of the DTA, it remains the funding priority for transit in the Duluth-Superior area.

**TABLE 5: Planned vehicle purchases\* (2010-2035)**

<i>Vehicle type</i>	<i>Short range (2010-2014)</i>	<i>Mid range (2015-2019)</i>	<i>Long range (2020-2035)</i>
Regular route	30 buses: \$ 10.6 M	20 buses: \$ 8.9 M	80 buses: \$ 58.9 M
Paratransit	9 buses: \$ 0.6 M	9 buses: \$ 0.8 M	21 buses: \$ 2.3 M
<i>Total</i>	<i>\$ 11.2 million</i>	<i>\$ 9.7 million</i>	<i>\$ 61.2 million</i>

\* Costs adjusted for 2.5% annual rate of inflation.

**TABLE 6: Anticipated operations and capital expenses\* (2010-2035)**

<i>Expense</i>	<i>Short range (2010-2014)</i>	<i>Mid range (2015-2019)</i>	<i>Long range (2020-2035)</i>
Operations	\$66.1 M	\$ 76.7 M	\$ 331.9 M
Capital	\$ 4.5 M	\$ 10.4 M	\$ 43.9 M
<i>Total</i>	<i>\$ 70.6 million</i>	<i>\$ 87.1 million</i>	<i>\$ 375.8 million</i>

\* Costs adjusted for 3% annual rate of inflation.

## Planned Improvement Projects: Directions 2035

Each project identified in the Duluth-Superior long range transportation plan to be programmed in future years has been determined to fall into one of the three planning horizons: short, mid or long range. Depending on which of these planning periods a project is slated for, and in which state it will occur in, its estimated cost of implementation or construction has been factored for one of the inflation rates identified in table 7 below.

**TABLE 7: Inflation factors applied to project estimates**

<i>Timeframe</i>	<i>MnDOT</i>	<i>WisDOT</i>
Short range (2010-2015)	5% per year	2.8% per year
Mid range (2015-2020)	4% per year	2.8% per year
Long range (2020-2035)	3% per year	2.8% per year

Each project identified in the 2035 transportation plan has also been categorized as belonging to one of the five following investment categories listed on the following page.

Expansion Project

Purpose of project is to add capacity, either through construction of new facilities, or the construction of additional lanes along existing alignments.

Maintenance & Preservation Project

Projects that retain or restore existing facilities without adding capacity through additional construction.

Operations & Safety Project

Projects aimed at improving the efficiency and safety of existing facilities without adding capacity through additional construction.

Multi-modal Project

Projects that expand the number of multi-modal transportation options of the system; may involve construction of new facilities, such as trails or park & ride lots.

Transit Project

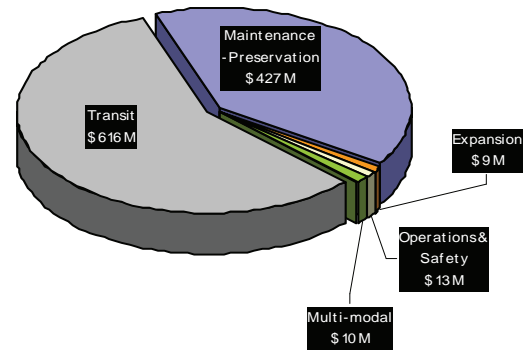
Investments made for the purpose of maintaining existing transit service; includes bus purchases, as well as capital and operating assistance.

Figure 3 shows how transit operations and roadway preservation account for the majority of project costs. This corresponds to the MIC area’s funding priorities of preserving existing transportation assets. Transit costs seem disproportionately large only because the DTA has projected more of its operational needs further out than the other jurisdictions. This is also why the majority of planned projects fall within the first ten years of the 25 year plan, as most jurisdictions within the MIC do not maintain capital improvement plans to include projects beyond the year 2020, and they are unable to identify specific projects or cost estimates beyond that point. Figure 4 shows how the majority of projects are planned within the first ten years of the LRTP, yet the estimated costs associated with larger projects beyond 2020 are significantly higher. Project details can be found in the 2010-20235 Long Range List of Transportation Improvement Projects in the Appendix B of Direction 2035.

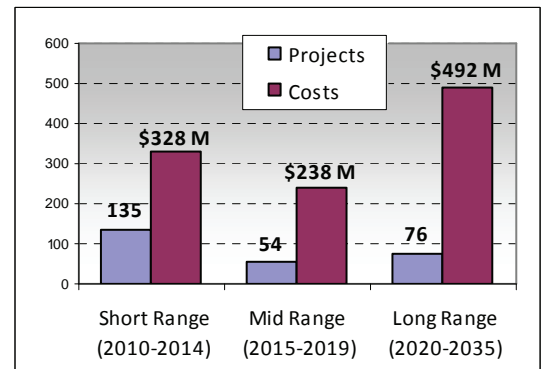
**City & County Financial Capability Finding (highway)**

As the maintenance needs are expected to be large for the MIC area over the next 25 years, while the need for expansion low, local investment will be focused on system preservation. Of the local roadway projects identified in *Directions 2035*, more than 88%, or the sum of \$208 million dollars, are devoted to system maintenance and preservation (Figure 5).

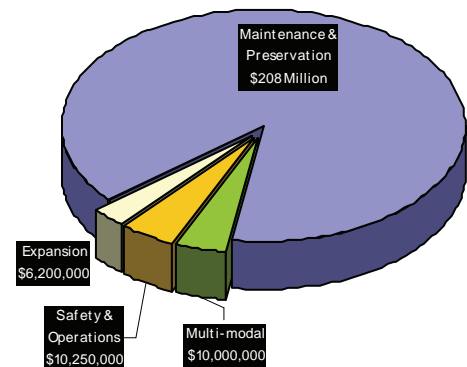
**FIGURE 3: Type of planned improvements by cost (2010 to 2035)**



**FIGURE 4: Projects & costs by planning period**

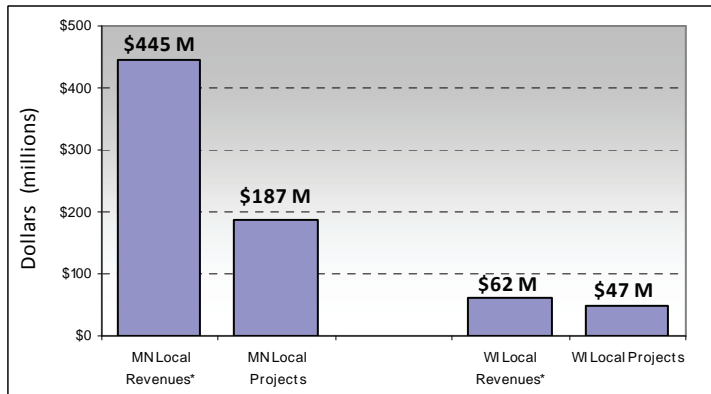


**FIGURE 5: Investment priorities of local jurisdictions (LRTP 2035)**



Using the local revenue forecasts based on the average annual highway expenditures shown in table 1 on page 2, this plan finds that the cities and counties within the MIC area will be able to meet their local match obligations for the forecasted federal funding anticipated to be available between the years 2010 and 2035, while continuing to fund the operations and maintenance of existing facilities (Figure 6).

**FIGURE 6: Comparison of local revenues and projects**

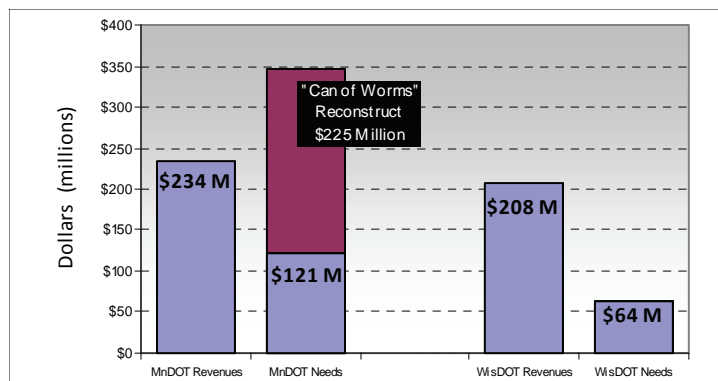


\* Includes federal formula funds and State-Aid funds

### MnDOT & WisDOT Funding Capability (highway)

The investment priorities of both MnDOT District 1 and WisDOT NW Region are focused almost exclusively on the preservation of existing facilities (Figure 7), and current levels of funding appear to be able to meet the future maintenance needs of the interstate and STH facilities within the MIC area, with one exception: the reconstruction of the “Can of Worms” interchange (I-35/I-535/US Hwy 53), which MnDOT has identified as a need beyond the year 2020. Preliminary cost estimates for this project are at \$225 million, which would result in a gap of \$135 million between system need and anticipated revenues (Figure 8).

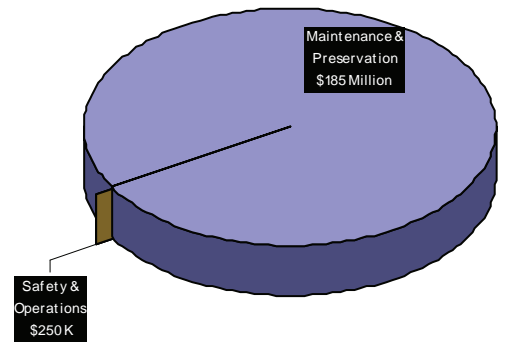
**FIGURE 8: Comparison DOT revenue and projects (2010-2035)**



### Highway investment priority - Preservation:

More than two-thirds of the MIC area’s classified road network will need reconditioning or reconstruction within the next twenty years, (as illustrated by “Poor” and “Fair” miles in figure 1), while traffic forecasts for the MIC area show only modest increases in traffic demand. As such, the primary focus of highway investment for the area’s cities, counties and DOT districts is on maintaining existing facilities

**FIGURE 7: DOT investment priorities (LRTP 2035)**



*Directions 2035* lists the “Can of Worms” interchange project as a presently unfunded need for the MIC area which will require additional funding sources beyond the typical levels of federal formula and STH dollars available to the MIC area (Table 8).

**TABLE 8: Unfunded needs identified: roadway system**

<i>Unfunded projects</i>	<i>Timeframe</i>	<i>Estimated cost</i>
I-35, I-535, US Hwy 53 interchange (“Can of Worms”) reconstruction	Beyond 2020	\$ 225 M

**DTA Funding Capability Finding**

Maintaining the MIC area’s current levels of transit service is the DTA’s investment priority (Figure 9). Using the DTA revenue assumptions shown in table 3 on page 3, the DTA will be able to continue to finance current levels of service throughout the next 25 years. *Directions 2035*, however, identifies three multimodal expansion projects that will need funding in addition to the sources and levels that the MIC area is reasonably expected to receive. These projects are, meant to create, or enhance connections to the anticipated future Northern Lights Express (NLX) high-speed rail connection to the Twin Cities. Together these projects account for an additional \$214 million dollars of funding in addition to the sources and levels that the MIC area is reasonably expected to receive (Table 9).

**TABLE 9: Unfunded Needs identified: transit system**

<i>Unfunded projects</i>	<i>Timeframe</i>	<i>Estimated cost</i>
Multimodal transit terminal	2010-2014	\$ 64 M
Duluth West-East streetcar line - Phase 1	2015-2020	\$ 50 M
Duluth West-East streetcar line - Phase 2	Beyond 2020	\$ 100 M
<i>Total</i>		<i>\$ 214 million</i>

**Summary of Findings**

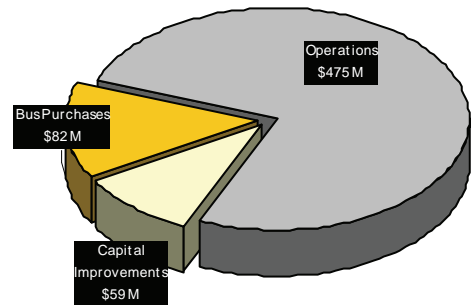
The MIC has determined that the Duluth-Superior surface transportation system is facing up to \$432 million dollars in highway preservation costs and \$539 dollars in transit maintenance costs over the next 25 years. System preservation is an investment priority for jurisdictions in the MIC area and accounts for more than 80% of the estimated projects costs identified in the Duluth-Superior long range transportation plan.

The MIC estimates that a total of \$507 million of local funds and \$442 millions of DOT funds can be reasonably expected for roadway improvements over the next 25 years, while an additional \$626 million dollars will be available to fund transit (as adjusted for inflation). These levels are deemed adequate to meet the estimated

**Transit investment Priority - Operations:**

Since merely operating the existing levels of transit service in the MIC account for more than two-thirds of the anticipated \$620 million it will cost to maintain existing levels of service, maintaining current levels of funding for transit operations is an investment priority for the MIC area.

**FIGURE 9: Investment priorities of local jurisdictions (LRTP 2035)**



capital and operational maintenance of the existing highway and transit systems, with the exception of the anticipated reconstruction of MnDOT's "Can of Worms" interchange, which is scheduled to occur after the year 2020 and is currently estimated to cost \$135 million beyond forecasted revenues.

As a fiscally constrained plan, *Directions 2035*, identifies \$879 million in projects costs as being covered by the revenues forecasted for the MIC area over the next 25 years. It identifies the "Can of Worms" interchange as an unfunded preservation need, while also listing three transit related expansion projects totaling \$214 million as presently unfunded. These projects are multimodal in nature and meant to create connections to the future presence of the NLX high-speed rail service to/from the Twin Cities.

Increases to the federal formula and STH funds cannot be reasonably expected at this time. And thus the DTA and MnDOT will need to supplement current levels of federal and local transit dollars with non-traditional funding sources in order to finance their unfunded needs. Such funding may have to come through public-private partnerships, or may require the State of Minnesota to give priority consideration to these needs or to pursue necessary financing through bonding or other mechanisms, such as increasing taxes and fees, which will require significant political buy-in.

*Potential alternatives for additional funding:*

- Federal bonding or earmarks
- Federal revolving loan accounts
- State General Fund Bonds and STH Bonds
- Increasing/indexing federal and state gas taxes
- Increasing the State Motor Vehicle Sales Tax (MVST)
- Increasing state licensing tab fees.
- Creation of mileage-based user fees