

## CHAPTER 10 Financial Plan

### Introduction

Federal regulations require a financial plan as an MPO Metropolitan Transportation Plan element. The purpose is to demonstrate that proposed investments are reasonable in the context of reasonably anticipated future revenues over the life of the plan and for future network years (2021, 2030, and 2040). Meeting this test is called “fiscal constraint.”

The 2040 Metropolitan Transportation Plan is fiscally constrained based on analysis of revenues and costs. The transportation investments proposed to meet metropolitan transportation needs over the planning period are consistent with revenue forecasts. The Financial Plan details both proposed investments and revenue forecasts over the life of the plan.

### Financial Plan Analysis

The proposed investments were developed by the Greensboro Urban Area MPO in cooperation with NCDOT, GTA, and PART. These investments include roadway, rail, transit, bicycle, and pedestrian facilities and services for the life of this plan. They included existing and committed projects reflected in the Transportation Improvement Program and the City Capital Improvement Programs, and the future plans of the MPO, NCDOT, the City of Greensboro, GTA, and PART. They also reflect needs analysis conducted under the Congestion Management Process, staff review, and public

involvement. Roadway maintenance and transit operation and maintenance costs were also forecasted. This chapter provides an overview of the forecasted cost and revenue assumptions, along with the detailed research results used to derive these values. The following sections provide more detailed assumptions regarding revenue, capital costs, maintenance costs, and future revenue needs.

### Revenue Assumptions

Revenue forecasts were developed after a review of previous state and local expenditures, current funding trends, and likely future funding levels. The revenue forecasts involved consultation with NCDOT, GTA, and PART. All dollar figures discussed in this section are presented in year-of-expenditure dollars per FHWA. They are presented in year of expenditure dollars so that they were be fully comparable through time against a constant baseline value (the current year dollar) in **Appendix D**.

Full consideration was given to federal funding issues—including the wait for reauthorization of MAP-21. Full consideration was also given to recent changes to State law and transportation funding programs under the Strategic Transportations Investment Act (STI). Full consideration was also given to NCDOT’s revenue forecasts for the FY 2016-2025 STIP.

**Figure 10-1** shows the forecasted revenues for the 2040 Metropolitan Transportation Plan. The figure represents revenues for highway, transit, and maintenance.

2040 MTP Revenue Forecast (In Thousands of Dollars)									
Period	Federal and State Revenues (TIP)		State Maintenance (Roadway)	Local Revenues					Totals
	Highway	Transit		GTA	PART	Powell Bill	Bonds-Maintenance*	Bonds-Capital	
2016-2021	334,660	59,070	346,090	144,010	27,900	61,660	11,770	89,850	1,075,010
2022-2030	931,080	138,920	994,440	291,500	66,150	136,670	63,990	386,490	3,009,240
2031-2040	1,401,130	258,520	2,095,130	536,940	124,170	235,700	147,090	437,850	5,236,530
<b>Totals</b>	<b>2,666,870</b>	<b>456,510</b>	<b>3,435,660</b>	<b>972,450</b>	<b>218,220</b>	<b>434,030</b>	<b>222,850</b>	<b>914,190</b>	<b>9,320,780</b>

**FIGURE 10-1**  
2040 MTP Revenue Forecast

## Highway Federal and State Revenues (TIP)

The federal and state revenue forecast were developed based on past, current, and expected future funding levels reflected in NCDOT's 2016-2025 Transportation Improvement Program or TIP. NCDOT's revenue forecast for the 2016-2025 TIP was also reviewed. A key assumption is the expected modest growth of federal and state revenue for roadway projects in the Greensboro area. Highway, rail, safety, bridges, resurfacing, and enhancement projects listed in the TIP were considered.

**The specific assumptions for each horizon year are as follows:**

- **2016-2021**—Revenues are based on average annual costs of projects reflected in the 2016-2025 TIP.
- **2022-2030**—The general trend expected in State and Federal funds is a 2% annual increase, with the following adjustments.
  - **Federal:** 2022 funding levels are assumed at 95% of 2015 levels to reflect a slight downward adjustment for completion of the amount of federally funded work expected.
  - **State:** 2022 funding levels are assumed to rise 55% over the average annual FY 2016-2021 MTIP levels to reflect additional major projects and a return of state highway funding to closer to historic TIP investment levels. This leads to 2022-2030 state funding levels within the ranges assumed in previous LRTPs and witnessed in past STIPs. The FY 2016-2021 STIP state funding levels are lower than seen in recent TIP documents, partly due to the large amount of state funded projects currently under construction.
- **2031-2040**—The general trend expected in State and Federal funds is a 2% annual increase, with the following adjustments.
  - **Federal:** Federal revenues are assumed to continue the 2% annual growth trend following a 2031 adjustment to 77% of 2030 levels.
  - **State:** For state revenues a drop off in 2031 to 78% of 2030 funding levels followed by a continued 2% annual growth rate is estimated to reflect completion of major TIP projects.

## Transit Federal and State Revenues (TIP)

In collaboration with GTA and PART, the Greensboro MPO developed revenue forecasts for federal and state

transit funding. The values shown in Figure 10-1 include GTA's and PART's revenue forecast. Revenue forecast for GTA are also based on the current GTA Short-Range Transit Service Plan adopted in 2012 identifying short and long term improvements.

Current and previous transit funding levels were studied to develop assumptions for the future. Federal and state funding were analyzed individually for GTA and PART. The analysis for each is discussed in detail below.

**For GTA,** revenue assumptions include the following:

- Federal sources
  - Section 5307 Urbanized Area formula program funding is assumed to grow at a conservative 1.5% per year. So are Section 5339 Bus & Bus Facilities and Section 5310 Elderly & Disabled Transportation.
  - Committed STP-DA & CMAQ funding, which is at the MPO's discretion, are reflected in this analysis. Note this is based on currently programmed TIP listings, and does not assume additional funding for transit, although additional flexible funding for transit is expected over the life of the 2040 MTP.
- State sources
  - State Maintenance and Assistance Program (SMAP) revenues are expected to grow at an average annual rate of .05% over the 2016-2040 period. This reflects the current, lower funding levels.

**For PART,** revenue assumptions include the following:

- Federal Section 5309 funding and corresponding local and state matches are assumed for a new intermodal facility in the 2021 network year, totaling \$11 million.
- Committed STP-DA & CMAQ funding, which is at the MPO's discretion, are reflected in this analysis. Note this is based on currently programmed TIP listings, and does not assume additional funding for transit, although additional flexible funding for transit is expected over the life of the 2040 MTP.
- State Maintenance and Assistance Program (SMAP) revenues are expected to grow at .05% per year between 2016 and 2040, consistent with assumptions for GTA.

## STP-DA Revenues

The Surface Transportation Program- Direct Allocation (STP-DA) is a federal highway program allocated to areas with an urbanized population greater than 200,000. The MPO has the authority to direct the STP-DA funds to various TIP projects within the urban area. The funding levels were projected to increase at an average annual rate of 2%. These revenues were analyzed separately from the state and federal revenues, but are included in the totals shown for Highway and Transit in **Figure 10-1**.

## State Roadway Maintenance Revenues

State roadway maintenance funds are set to equal expected expenditures in consideration of previous levels of revenues and expenses dedicated to this purpose and a consideration of current trends. Historical NCDOT funding on roadway maintenance in Guilford County from 2000 to 2014 grew at an average annual growth rate of 8% in real dollar terms. This MTP conservatively assumes an average annual future growth rate of 4%. This rate was applied to forecast costs through 2040. The 4% rate reflects general growth, the increase in the miles of roadways maintained by NCDOT, and the aging of the transportation system.

## Transit Local Revenues

In collaboration with GTA and PART, the Greensboro MPO developed revenue forecasts for local transit funding. The values shown in Figure 10-1 include GTA's and PART's local revenue forecast.

Current and previous transit funding levels were studied to develop assumptions for the future. Local funding was analyzed individually for GTA and PART. The analysis for each is discussed in detail below.

**For GTA**, revenue assumptions include the following:

- Local sources
  - The vehicle motor pool tax remains in place and grows at 1.5% per year.
  - Property tax millage remains at the current rate of \$0.035 per \$100 of assessed value; total revenue from this source grows at 1.5% per year.
  - Farebox revenue depends on ridership, which increased sharply over the last decade, prior to the couple of years of small reductions tied to service cuts. The MPO assumed ridership increases over the long term at a rate of 3% per year.

- Included the effects of an incremental fare that was approved by the Greensboro City Council in 2012. It is assumed that there would not be any more fare increases.
- Assumed college and university partners contribute \$923,000 in 2015, and each year thereafter at a growth rate of 1.5% per year towards the HEAT (Higher Education Area Transit) system.
- Duke Power's required payment to GTA continues as stated in its contract at \$1.5 million per year through 2027, when it ends.

The implementation of a local sales tax for transit is not assumed (Mobility Greensboro calculated that a half-penny tax would generate \$6.9 million per year). Consideration should seriously be given to this funding option if actual costs are higher than projected or if the community desires more aggressive transit service expansions than outlined here. In addition, the MPO did not assume that local transportation bonds were used to fund transit services or capital purchases in this analysis. However, it is expected that including a substantial transit funding component in future transportation bonds is recommended. It is also anticipated that a considerable amount of CMAQ funds will be needed over time for future bus purchases and possibly for start-up operational funding for new service expansions in the future.

**For PART**, revenue assumptions include the following: Local tax revenue from rental car taxes starts at \$3.5 million in 2015 with 1.4% yearly growth thereafter.

The assumptions do not include the implementation of a vehicle registration fee or a local sales tax for transit. PART already collects a vehicle registration fee in one of its member counties. The MTP does not reflect this revenue source because it is relatively small at this time. However, if all member counties imposed vehicle registration fees of \$1 to \$5, this revenue source could provide \$1.4 million to \$7 million per year. A local sales tax for transit is an additional funding option that could be pursued. Although the projections in this plan do not indicate the need for these funding options at this time, it is possible that they will be required either for additional expansion of regional bus services or for implementation of a potential regional rapid transit system.

## Powell Bill Funds & Other Local Road Maintenance Funding

Powell Bill funds drawn from state gasoline tax revenues have been distributed to participating NC Cities since

1959. For many years the City of Greensboro used these funds mainly for construction projects on City streets and locally appropriated funds for roadway maintenance. However, during the 2001-2010 period Powell Bill funds were used almost exclusively for maintenance purposes.

Powell Bill funding levels for the planning area were reviewed for the years 2000-2015. Over this period, Powell Bill funding had a -2.4% average annual growth rate in real dollar terms. Despite this trend, the MTP assumes an average annual growth rate in the Powell Bill revenues of .05%. This assumption reflects the fact that while this revenue source has dropped over recent years, current state budget negotiations are considering separating the fund from the gas tax, and creating an appropriated revenue stream intend to hold the fund basically steady in future years. Given the likelihood that this or a similar step will be taken, this plan conservatively assumes a minimal growth in the program.

Given the past reductions and minimal future growth expected in this revenue source, this plan assumes that the City of Greensboro will direct increased transportation bond funding to roadway maintenance needs. The City has in fact already begun doing so through 2008 Transportation Bond implementation. Under this program, \$500,000 was allocated in 2011, with \$1,000,000 per year each year after through 2018.

This plan assumes that the City will double this funding level starting in 2019 and continue to increase this investment in future years at a rate of 5% per year. This is a percentage point higher than the assumed state maintenance expenditure growth rate, reflecting the fact that the City starts from a lower investment level relative

to the amount of needs than the NCDOT. The reality of growing system maintenance costs, and the fact that City efforts maintenance efforts in recent years have lagged behind needs makes increased local funding for maintenance an imperative. It is clear that increased local funding is necessary, and this plan makes a conservative assumption about the rate at which that funding increases will occur over time.

**Bond Funds**

The City of Greensboro has approved bond programs for transportation investments regularly since the early decades of the last century. The current Transportation Bond program provides \$134 million between 2008 and 2020 and was approved by City voters in November 2008 to be spent on roadway system enhancements, pedestrian and bicycle facilities, and roadway and sidewalk maintenance. MPO analysis assumes future bonds will be proposed and approved to meet future demands. The local revenue forecast assumes enough funding to meet current and future project costs.

**Cost Assumptions**

Cost forecasts were developed after a review of previous state and local expenditures, current trends, and likely future needs. The costs forecasts involved consultation with NCDOT, GTA, and PART. All dollar figures discussed in this section were initially analyzed in current year dollars to provide a constant baseline value (the current year dollar). Constant dollar figures are provided all costs in **Appendix D**. Costs in this chapter have been converted and are presented in year-of-expenditure dollars as mandated by USDOT. Year of expenditure dollars are

<b>2040 MTP Costs Forecast</b> <i>(In Thousands of Dollars)</i>							
<b>Period</b>	<b>Capital</b>			<b>Operating &amp; Maintenance</b>			
	<b>Highway</b>	<b>Transit</b>	<b>Non-Motorized</b>	<b>State Roads</b>	<b>Local Roads</b>	<b>Transit</b>	<b>Totals</b>
2016-2021	267,560	28,110	55,420	346,090	73,440	143,630	914,250
2022-2030	1,251,940	77,000	64,330	994,440	200,660	366,030	2,954,400
2031-2040	1,919,070	146,350	111,970	2,095,130	382,790	711,070	5,366,380
<b>Totals</b>	<b>3,438,570</b>	<b>251,460</b>	<b>231,720</b>	<b>3,435,660</b>	<b>656,890</b>	<b>1,220,730</b>	<b>9,235,030</b>

**FIGURE 10-2**  
**2040 MTP Cost Forecasts**

additional inflation rates applied to the revenues based on NCDOT’s rate reflected in the TIP. NCDOT used a 4% rate of increase per year for projects reflected in the 2016-2025 TIP. Therefore, a 4% rate of increase was applied to all projects.

Costs were developed for capital, operation, and maintenance. Capital costs are separated into highway, transit, and non-motorized (bicycle and pedestrian) modes. The costs for each are summarized in **Figure 10-2**.

### Highway Capital Costs

The continued growth of population, employment, and vehicle miles of travel in the MPO area will increase the demand for additional roadway facilities. Roadway capital projects were developed and assigned to horizon years based on the current investment assumptions included in the 2016-2025 Transportation Improvement Program, various technical analyses conducted during plan development, a review of public input, and consultation with MPO agencies including NCDOT. Projects listed in the TIP were assigned the costs shown in the document. Costs for those projects not included in the TIP were estimated using the current cost-estimation spreadsheet provided by NCDOT or were based on recent project studies. Figures are presented in year-of-expenditure dollars. Figures are also provided in constant dollars for all revenues in **Appendix D**.

All roadway investments were assigned to a network year based on current status, expected project development timelines, and relative need. **Figures 4-7, 4-8, 4-9** list the roadway projects by the horizon year in which they are projected to complete construction along with an estimated cost in **Chapter 4. Maps 4-5, 4-6, and 4-7**, also in **Chapter 4**, display the location of projects for each horizon year.

**Figure 10-3** summarizes the non-capacity roadway categories by horizon year. The costs shown in this figure have been reflected in the total costs shown in **Figure 10-2** for roadways. The costs shown in 2021 are based on the project costs shown in the TIP. Costs were forecasted for 2030 and 2040 based on an annualized costs shown for 2021 in the TIP for the urban area. The annualized cost was summed through 2030 and 2040.

### Transit Capital Costs

For **GTA’s capital costs**, an assumption of moderate future service expansions is assumed. This scenario represents a continuation of **GTA’s** recent and past service expansions. This scenario is intended to support community needs and implement the vision established under **Mobility Greensboro Plan** over the next twenty five years. It assumes that **GTA** continues to expand its fleet through 2040 at roughly the same rate of expansion it experienced for the years 2006 through 2012, with a fixed route fleet expansion of 62% between 2016 and 2040. New services would accompany this fleet expansion. This scenario was used for the calculations of costs reflected in the plan.

Several cost assumptions are the same among the two scenarios:

- The contracted costs for the **HEAT** service are assumed to rise at 3% per year.
- Costs listed in the 2016-2025 **MTIP** and all funded projects occur as scheduled.
- Transit security is \$49,000 in 2015 and grows at the same rate as 5307 funding (1.5%).
- Replacement bus purchases are based on the service life of different types of vehicles: **GTA** paratransit vehicles after 5 years; Full-size buses are eligible for replacement after 12 years; **HEAT** vehicles after 10 years.

Non-Capacity Roadway Projects Costs (In Thousands of Dollars)				
Period	Freeway Resurfacing*	Bridge Projects	Safety Projects	Railroad Improvements
2016-2021	N/A	35,380	0	13,000
2022-2030	N/A	26,270	14,150	27,010
2031-2040	N/A	38,890	20,940	39,990
<b>Totals</b>	<b>N/A</b>	<b>100,540</b>	<b>35,090</b>	<b>80,000</b>

\*Freeway resurfacing was included in the maintenance costs forecast

**FIGURE 10-3**  
**Non-Capacity Roadway Project Costs**

Other cost assumptions include that GTA's fleet expands by 24 big buses in 2025 (2030 network year); and 16 in 2035 (2040 network year).

**PART's capital costs** are based on (1) the bus and van replacement schedule; (2) the assumed park & ride lot resurfacing schedule; (3) the assumption that the new PART Operations, Maintenance, and Administrative Facility opens in the 2021 network year (work is expected to begin in 2015 on this project); and (4) modest expansion plans of the vanpool fleet.

As noted in **Chapter 5**, PART is in a period of service reassessment, and additional work will be needed to

develop realistic plans for any expected future service expansions.

GTA and PART total costs for capital are included above in **Figure 10-2**. A cost breakdown for GTA and PART individually are included in **Figures 10-10 and 10-11**. Detailed capital costs for GTA and PART are included in **Figures 10-4 and 10-5**.

**Non-motorized Capital Costs (Pedestrian and Bicycle)**

The MTP assumes the continuation of an aggressive program by the City of Greensboro to retrofit existing high-needs roadways with sidewalks. It also assumes a continuation of the City's sidewalk petition program on residential streets at current levels. The MTP also assumes continued implementation of the City and County Trail System.

The MTP assumes sidewalks are included in all City of Greensboro roadway projects, as well as in NCDOT roadway improvement projects within the urban area.

<b>GTA Transit Capital (In Thousands of Dollars)</b>	
<b>2016-2021 (funding status noted)</b>	
2 expansion small buses (unfunded)	170
25 replacement small buses (partly funded)	2,150
27 replacement buses large (partly funded)	15,560
Transit Security	390
15 HEAT replacement buses (unfunded)	6,200
Galyon Depot Renovation (unfunded in TIP)	2,670
<b>Total:</b>	<b>27,140</b>
<b>2022-2030 (funding status noted)</b>	
49 replacement small buses (unfunded)	4,220
15 HEAT replacement buses (unfunded)	6,200
34 replacement buses (6 funded)	19,590
24 expansion buses (unfunded)	13,830
Transit Security (funded)	650
<b>Total:</b>	<b>44,490</b>
<b>2031-2040 (all unfunded)</b>	
57 replacement buses	32,840
65 replacement small buses (unfunded)	5,590
15 HEAT replacement buses (unfunded)	6,200
16 Expansion buses	9,220
16 expansion buses small	1,380
Transit Security	830
<b>Total:</b>	<b>56,060</b>
<b>Grand Total:</b>	<b>127,690</b>

**FIGURE 10-4**  
GTA Detailed Capital Costs

<b>PART Transit Capital (In Thousands of Dollars)</b>	
<b>2016-2021</b>	
23 replacement buses and shuttles	10,430
Park & Ride resurfacings	1,690
26 replacement vans	980
7 expansion vans	210
PART Operations & Maintenance Facility	13,920
<b>Total:</b>	<b>27,230</b>
<b>2022-2030</b>	
Park & Ride Lot resurfacings	1,690
16 Replacement buses and shuttles	9,620
30 replacement vans	1,140
<b>Total:</b>	<b>12,450</b>
<b>2031-2040</b>	
23 replacement buses and shuttles	10,430
Park & Ride resurfacings	1,690
23 replacement vans	870
14 expansion vans	430
<b>Total:</b>	<b>13,420</b>
<b>Grand Total:</b>	<b>53,100</b>

**FIGURE 10-5**  
PART Detailed Capital Costs

<b>Sidewalk Detailed Costs</b> (In Thousands of Dollars)						
Period	Committed STP DA	CMAQ	Bonds (Capital)	Bond (Maintenance)	Road Upgrade	Total
2016-2021	22,780	12,400	0	0	0	35,180
2022-2030	0	0	13,507	9,005	9,005	31,517
2031-2040	0	0	19,994	13,329	13,329	46,652
<b>Totals</b>	<b>22,780</b>	<b>12,400</b>	<b>33,501</b>	<b>22,334</b>	<b>22,334</b>	<b>113,349</b>

**FIGURE 10-6**  
Sidewalk Detailed Costs

<b>Trail Detailed Costs</b> (In Thousands of Dollars)					
Period	Committed STP DA	Future STP-DA	Bonds (Capital)	Bond (Maintenance)	Total
2016-2021	0	0	0	0	0
2022-2030	0	0	35,515	9,005	44,519
2031-2040	0	0	26,658	13,329	39,988
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>62,173</b>	<b>22,334</b>	<b>84,507</b>

**FIGURE 10-7**  
Trail Detailed Costs

Additionally bicycle accommodations (bike lanes or wide outside shoulders) are planned for certain roadway projects including new construction, widening, or repaving. These costs are factored into the roadway cost estimates.

Bicycle and pedestrian facility capital costs and revenues were forecasted based on the assumption that currently planned funding levels will be maintained and certain additional revenue sources will become available.

MPO analysis includes committed STP-DA funds to be used for sidewalk improvements. The analysis also reflects assumes that future bonds will succeed the current 2008 bond in funding construction and maintenance of sidewalks for the period 2015 through 2040.

The City of Greensboro and Guilford County plan to construct several miles of trail over the period of the plan including the Downtown Greenway. Periods through 2021, 2030, and 2040 assume funding for construction and maintenance of trails through the current and future bonds.

Currently committed STP-DA and CMAQ funding levels are reflected. While additional STP-DA and CMAQ resources are anticipated to be allocated to non-motorized

transportation needs in the future, the MTP has not assumed specifics in the financial analysis.

The non-motorized total costs are included above in **Figure 10-2**. A detailed cost breakdown for sidewalks, trails, and the Downtown Greenway has been included in **Figures 10-6, 10-7, and 10-8**.

**Maintenance Cost Assumptions**

Maintenance costs are divided into state roads, local roads, and transit. On-road bicycle and pedestrian facility maintenance is reflected as a part of state and local road maintenance.

<b>Downtown Greenway Costs</b> (In Thousands of Dollars)				
Period	Bonds	Private	STP DA	Total
2016-2021	9,490	4,430	6,330	20,250
2022-2030	0	6,300	0	6,300
<b>Totals</b>	<b>9,490</b>	<b>10,730</b>	<b>6,330</b>	<b>26,550</b>

**FIGURE 10-8**  
Downtown Greenway Costs

### State Road Maintenance Costs

State roadway maintenance funds were set to equal expected expenditures based on previous levels of revenues and expenses dedicated to this purpose. State road maintenance costs are based on historical NCDOT funding from 2000 to 2015 in Guilford County. The historical values were converted to 2015 dollars so the average annual rate of increase in costs could be obtained. These costs reflected an 8% annual rate of increase. However, this rate of increase reflects a historic maintenance funding adjustment dictated by legislative action to correct for previous underinvestment, so a more conservative future growth rate of 4% was assumed.

### Local Road Maintenance Costs

Local road maintenance funds were set to equal expected expenditures based on previous levels of revenues and expenses dedicated to this purpose, along with a consideration of trends and likely developments. The Powell Bill funding for the planning area was reviewed for the years 2000-2015. The amounts for each of these years were converted to 2015 dollars and a trend showing declining funding levels was determined. This MTP assumes a .5% annual growth trend between 2015 and 2040. This very slow growth trend reflects (1) an increase in City-maintained lane mileage, (2) general stagnation in state gas tax revenues, but overall (3) increases in State Highway Fund and Highway Trust fund revenue over the planning period. It also reflects recent legislative budget proposals that would shore up the Powell Bill fund to prevent further declines in funding.

As previously noted, MPO analysis also reflects additional funds coming from the proposed 2008 bond for local road maintenance and subsequent bonds thereafter.

### Transit Maintenance and Operation Costs

- For **GTA's non-capital costs**, the MPO assumed the following annual costs are fixed: administration salaries/benefits, administration maintenance & operations (M & O), Depot salaries/benefits, and Depot M & O. These costs total \$2.7 million per year.
- Other M & O costs are assumed to increase as the size of the fleet increases. For calculation purposes, this is based on the number of large buses in the fleet. (It is assumed that small-bus purchases mirror big-bus purchases).
- An examination of historical M & O costs allows us to assume that each big bus in the fleet accounts for about \$215,000 in M & O variable costs per year.
- **PART** provided information on **M & O costs** through 2015. From 2016 through 2040, we applied a 1% constant dollar growth rate (converted to year-of-expenditure dollars for presentation purposes) to project the M & O costs for PART.

### Cost and Revenue Comparisons

The following tables compare costs to revenues by mode of transportation, and further documents that the plan meets the fiscal constraint test. In several cases more revenues than costs are identified. The percentage of overage is in each case relatively small. It is assumed for the future that available revenues will be fully utilized to meet the needs.

The MPO analysis assumes forecasted revenues will cover the capital and maintenance costs for roadway, transit, pedestrian, and bicycle. The analysis for the costs and

2035 Roadway Costs and Revenues*								
<i>(In Thousands of Dollars)</i>								
Period	Capital Costs	Roadway Capital Revenues		Capital Difference	Maintenance Costs	Maintenance Revenues		Maintenance Difference
		Highway TIP	Bonds			State	Local	
2016-2021	420,130	340,350	89,850	0	419,520	346,090	73,440	-10
2022-2030	1,253,150	931,080	386,490	64,420	1,195,100	994,440	200,660	0
2031-2040	1,589,790	1,401,130	437,850	249,190	2,477,920	2,095,130	382,790	0
<b>Totals</b>	<b>3,263,070</b>	<b>2,672,560</b>	<b>914,190</b>	<b>313,610</b>	<b>4,092,540</b>	<b>3,435,660</b>	<b>656,890</b>	<b>0</b>

\* Maintenance costs included in roadway costs.

**FIGURE 10-9**  
**Roadway Costs and Revenues**

<b>GTA Transit Costs and Revenues</b> <i>(In Thousands of Dollars)</i>					
<b>Period</b>	<b>O&amp;M Costs</b>	<b>Capital Costs</b>	<b>Total Costs</b>	<b>Total Revenues</b>	<b>Difference</b>
2016-2021	121,840	27,130	148,970	203,080	54,110
2022-2030	315,880	63,310	379,190	430,430	51,240
2031-2040	620,400	118,100	738,500	795,460	56,960
<b>Totals</b>	<b>1,058,120</b>	<b>208,540</b>	<b>1,266,660</b>	<b>1,428,970</b>	<b>162,310</b>

**FIGURE 10-10**  
**GTA Transit Costs and Revenues**

<b>PART Transit Costs and Revenues</b> <i>(In Thousands of Dollars)</i>					
<b>Period</b>	<b>O&amp;M Costs</b>	<b>Capital Costs</b>	<b>Total Costs</b>	<b>Total Revenues</b>	<b>Difference</b>
2016-2021	21,800	980	22,780	46,820	24,040
2022-2030	50,150	13,690	63,840	77,220	13,380
2031-2040	90,660	28,250	118,910	143,270	24,360
<b>Totals</b>	<b>162,610</b>	<b>42,920</b>	<b>205,530</b>	<b>267,310</b>	<b>61,780</b>

**FIGURE 10-11**  
**PART Transit Costs and Revenues**

<b>Pedestrian &amp; Bicycle Costs and Revenues*</b> <i>(In Thousands of Dollars)</i>			
<b>Period</b>	<b>Costs</b>	<b>Revenues</b>	<b>Difference</b>
2016-2021	55,420	55,420	0
2022-2030	64,330	64,330	0
2031-2040	111,970	111,970	0
<b>Totals</b>	<b>231,720</b>	<b>231,720</b>	<b>0</b>

\* Maintenance costs included in roadway costs.

**FIGURE 10-12**  
**Pedestrian and Bicycle Costs and Revenues**

revenues assumes modest growth at the federal, state, and local level. While the national, state, and local economies saw a major downturn after 2008, various indicators reflect a positive turn around in the economy can be expected to continue for a time. The forecasts are reasonably based on past trends and take into account recent economic trends and expected fluctuations over the forecast period.

The MPO will continue to closely observe funding levels in anticipation of the next MTP update for the urban area.

## Future Revenue Needs

An extensive set of future transportation improvement, service, and maintenance needs have been identified for the 2040 MTP. The plan identifies a reasonably foreseeable financial plan under which these core needs can be addressed. However, for these future needs to be met, all levels of government are going to have to do their parts from the funding as well as project and program development points of view. Key actions needed include:

- A balanced investment program including maintenance, strategic roadway capacity expansion, and functional, well integrated pedestrian, bicycle and transit systems is necessary to effectively meet the needs of the community, the economy, and the quality of the life in the area.
- The Federal government must maintain a strong presence in surface transportation. To do that it must address current revenue shortfalls and identify viable long term transportation finance measures.
- State government must maintain a proactive stance in addressing the state and metropolitan transportation needs. To do that it must address

current revenue shortfalls and identify viable long term transportation finance measures.

- These strategies must recognize and support the complexity and multi-modal nature of metropolitan transportation needs, and recognize that they extend beyond the strategic highway corridors.
- In most respects, the Strategic Transportation Investments Law-- also known as An Act to Strengthen the Economy through Strategic Transportation Investments (STI for short)—was an excellent start. From the financial point of view, the most important aspect of the STI is that it decoupled the State Highway Trust Fund from the Intrastate System and Urban Loops codified by the legislature in 1989. Instead of dedicating this billion dollar revenue source to a limited set of specific projects, the STI made those dollars available for a much larger range of transportation needs. Changes are needed however to level the playing field and provide a fairer opportunity to address transit, bicycle & pedestrian investments, and Division Needs roadways. Also, it is important that as a next step, the State determine sustainable ways to increase transportation funding levels to better address the growing transportation system improvement needs in North Carolina.
- Local government must also identify sufficient investments to address local needs, leverage state and federal funds, and contribute towards meeting the area needs of the state roadway system. This includes the City of Greensboro. As previously noted, future bond referendums will be a very important revenue source. However, this plan goes further, and recommends that Guilford County and Area Towns actively maintain existing and pursue new local transportation funding initiatives to better enable them to deliver priority greenway, sidewalk, and roadway priorities. A very important consideration for these towns is that for local bicycle & pedestrian projects picked up by NCDOT through the STI, local matching funds are required. Without local funds, these areas can expect no bicycle and pedestrian project funding from the NCDOT.

Many top priority roadways are either under construction or slated for construction under the FY 2016-2025 MTIP, including completion of the Urban Loop and I-73 through Northwest Guilford County. However, many priority

improvements remain for the future including the US 29 Interchange at Reedy Fork Parkway, the US 70 widening, and a wide range of needed safety, operational, capacity, and modernization needs. Transit priority projects include the expansion of services to reduce headways and overcrowding. Passenger amenities and facilities including real time transit rider information, depot renovations, and excellent pedestrian connections will be key. For this and for reasons of safety, mobility, accessibility, community priorities, and quality of life there is also increasing need for bicycle and pedestrian facilities, as reflected in the Greensboro BiPed Plan. It will be important for the MPO area to balance funding across the various modes of transportation. Also, as air quality standards continue to be tightened, the balancing of building roadways, sidewalks, bicycle facilities, and expanding transit services will become increasingly important.