

**MEMORANDUM**

**TO:** GTC Planning Committee Members & Alternates  
**FROM:** James Stack, Interim Executive Director JS  
**DATE:** February 3, 2016  
**SUBJECT:** Approval of the *Long Range Transportation Plan 2040 Public Review Document* for public review

The Long Range Transportation Plan (LRTP) provides the strategic direction for more detailed planning and implementation of specific transportation projects, programs, and services in the Genesee-Finger Lakes Region over the next 25 years. The LRTP must be updated no less than every five years and was last updated June, 2011.

The following item is provided for your consideration:

**1. Draft *Long Range Transportation Plan 2040 Public Review Document* for Public Review**

The Draft *LRTP 2040 Public Review Document* provides an introduction to the *LRTP 2040* planning processes, includes a summary of customer engagement feedback, a financial analysis with revenues and costs, and draft recommendations based on regional needs and customer feedback. The Draft *LRTP 2040 Public Review Document* is bound separately in your package.

*LRTP 2040* must be adopted by June 17, 2016, in keeping with the Region's current attainment status with respect to the Clean Air Act.

Pending Planning Committee review and input, GTC staff will finalize the draft *LRTP 2040 Public Review Document* for public review. The public review period will extend from February 16, 2016 through March 18, 2016. After finalizing the recommendations based on public comments, GTC will present the Draft *LRTP 2040* to the Planning Committee in the spring. If approved, the Planning Committee will recommend that the GTC Board adopt *LRTP 2040* at its June 9, 2016 meeting.

***Recommended Action:***

*Approve the Long Range Transportation Plan 2040 Public Review Document for public review.*

# *Long Range Transportation Plan*

for the Genesee-Finger Lakes Region 2040 Public Review Document



Winter 2016

GENESEE TRANSPORTATION COUNCIL

---

Financial assistance for the preparation of this report was provided by the Federal Highway Administration and the Federal Transit Administration. The Genesee Transportation Council (GTC) is solely responsible for its content and the views and opinions expressed herein do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

#### **GTC's Commitment to the Public**

The Genesee Transportation Council assures that no person shall, on the grounds of race, color, national origin, disability, age, gender, or income status, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. GTC further assures every effort will be made to ensure nondiscrimination in all of its programs and activities, whether those programs and activities are federally funded or not.

#### **En Español**

El Consejo Genesee del Transporte asegura completa implementación del Título VI de la Ley de Derechos Civiles de 1964, que prohíbe la discriminación por motivo de raza, color de piel, origen nacional edad, género, discapacidad, o estado de ingresos, en la provisión de beneficios y servicios que sean resultado de programas y actividades que reciban asistencia financiera federal.

# TABLE OF CONTENTS



Introduction	2
What We Want	8
How Much Funding Will Be Available	14
What's Being Proposed	18
Where We Go from Here	42

The mission of the Genesee Transportation Council (GTC) is to maximize the contribution of the transportation system to the social and economic vitality of the Genesee-Finger Lakes Region. Simply put: GTC is not interested in transportation for transportation's sake. Every transportation policy, planning, and investment decision made by GTC is based on how quality of life and economic opportunity will be improved by that choice.

The U.S. Department of Transportation (USDOT) requires every metropolitan area with a population of over 50,000 to have a designated Metropolitan Planning Organization (MPO) to qualify for the receipt of federal highway and transit funds. GTC is the designated MPO responsible for transportation policy, planning, and investment decision making in the Genesee-Finger Lakes Region and the Rochester metropolitan area.

# INTRODUCTION

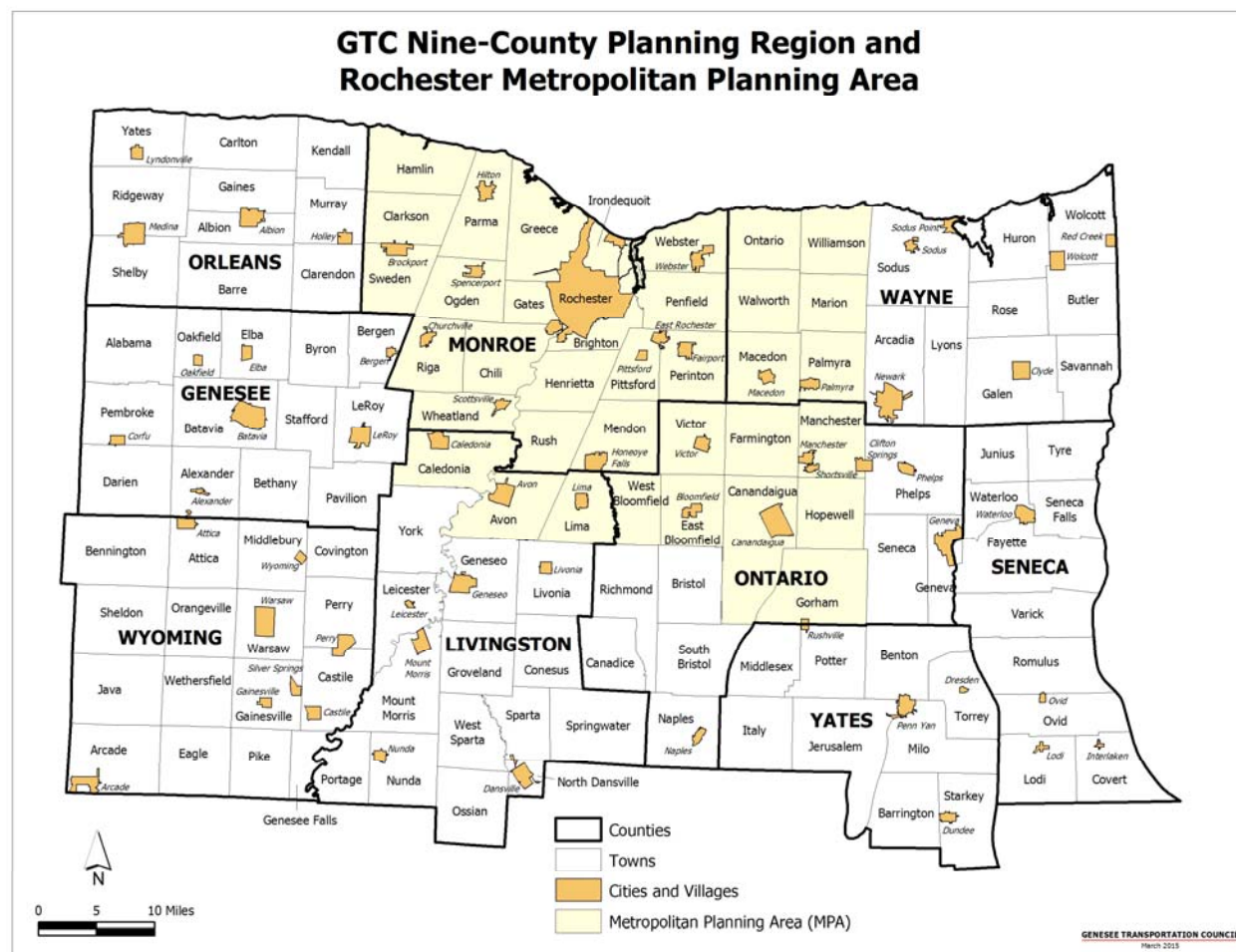


# INTRODUCTION

The objective of the *Long Range Transportation Plan for the Genesee-Finger Lakes Region 2040 (LRTP 2040)* is to provide the strategic direction for more detailed planning and implementation of specific transportation projects, programs, and services in the Genesee-Finger Lakes Region (the Region) over the next 25 years.

The Genesee-Finger Lakes Region is the planning area for which Genesee Transportation Council (GTC) is responsible in terms of

transportation planning and is comprised of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates counties. The Rochester Metropolitan Planning Area (MPA), including all of Monroe County and the adjacent developed areas of Livingston, Ontario, and Wayne counties, is the primary area of focus for GTC's metropolitan transportation planning efforts. The Region's population and workforce are larger than eight of the 50 states. A map of the nine-county region along with the MPA is presented below.



# INTRODUCTION

Genesee Transportation Council is developing the *L RTP 2040* using the following process:



The first four components included significant community input gathered from August 2014 through March 2015 via in-person outreach at 13 venues across the region, two public open houses, and two separate surveys for residents and another for freight-related businesses. This input was combined with an assessment of how the transportation system will function in the future based on projected changes in regional demographics and employment, as well as planning activities (including customer engagement) conducted as part of the numerous plans and studies completed in the region since the last L RTP was adopted in 2011.

## Long Range Transportation Plan for the Genesee-Finger Lakes Region 2040

### Fact Sheet #1

Summer/Fall 2014

A safe, efficient, reliable transportation system isn't a luxury. It's a necessity. Our highways, bridges, public transportation system, sidewalks, and trails move people to work, kids to school, older adults to medical appointments, and products to businesses.

Making the most of the limited resources we have for transportation requires thoughtful planning that is informed by both analysis of data and insights from the users of the system. Most importantly, just looking ahead to tomorrow isn't enough. An agreed upon direction for the transportation system over the long-term is required.

#### The Long Range Transportation Plan

The Genesee Transportation Council (GTC) is responsible for federally-funded transportation policy, planning, and investment decision making in the nine-county Genesee-Finger Lakes Region.

The *Long Range Transportation Plan for the Genesee-Finger Lakes Region 2040 (L RTP 2040)* will provide the strategic direction for more detailed planning and implementation of specific projects over the next 25 years. It is anticipated that the *L RTP 2040* will be adopted in June 2015.

The strategies recommended in the *L RTP 2040* will not be a wish list. The region can only expect to receive a limited amount of funding, and the *L RTP 2040* recommendations can't exceed that amount. There are many transportation needs throughout the region and the funds available will never be enough to meet all of these needs.

That's where you come in!

#### Fast Facts

- Our regional population of **1.2 million** people is larger than eight entire states
- Cars and trucks travel over **30 Million** miles every day on our region's roadways
- Residents take nearly **20 Million** trips per year using public transportation
- We have over **340** miles of multi-use trails for bicycling and walking
- Approximately **\$1 trillion** worth of freight moves on the region's highways and rails every year

#### We Need Your Input

No one understands a community better than the people who live there and the companies that do business there.

We can collect and analyze all the data that's out there (and we've done a lot of that already - be sure to check out the *Fast Facts* to the left). But in the end, we need to hear from you.

In the past, we've relied on traditional public meetings to gather input for the L RTP. We've asked you to come to us. Now we're coming to you.

Know all there is to know about transportation? Have an idea for a project? Take our survey: [www.surveymonkey.com/s/GTC-L RTP-2040](http://www.surveymonkey.com/s/GTC-L RTP-2040), show us on our WikiMap: [www.wikimaping.com/wiki/GTC-L RTP-2040.html](http://www.wikimaping.com/wiki/GTC-L RTP-2040.html), or write us at [l RTP@gtcmapo.org](mailto:l RTP@gtcmapo.org).

Is there a group, association, or organization we should talk to? **Tell us** and we'll arrange a meeting - any time, any place.

Oh yeah, we'll still be holding those public meetings so feel free to stop by and say "hi"!

Page 1 of 2

**GENESEE TRANSPORTATION COUNCIL**

50 W. Main St • Suite 8112 • Rochester, New York • 14614-1227 • 585-232-6240 • [www.gtcmapo.org](http://www.gtcmapo.org) • @GTCMPO

# INTRODUCTION

Three significant regional initiatives and their respective deliverables have played a major role in the formulation of the *L RTP 2040*. These include:

## ***Accelerating Our Transformation***

The Finger Lakes Regional Economic Development Council's strategic plan and subsequent progress reports, which identify key economic clusters and associated priority projects that serve as the blueprint for our continued economic growth.

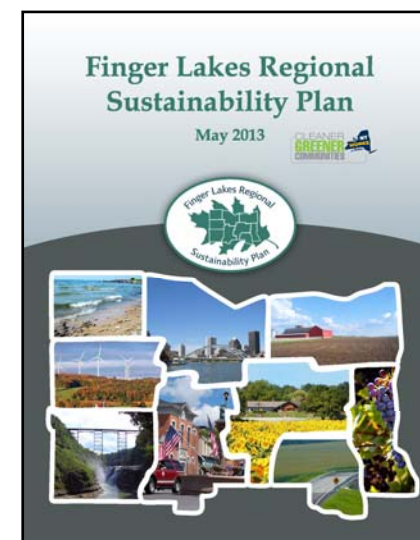
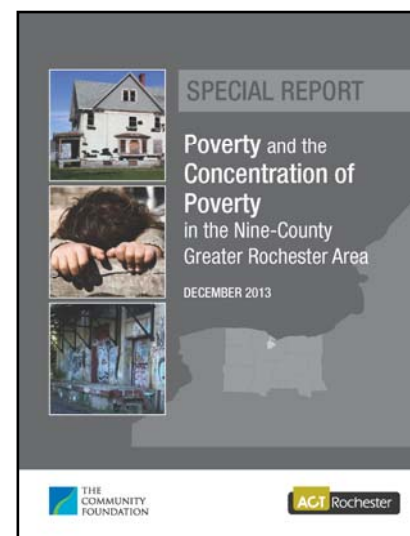
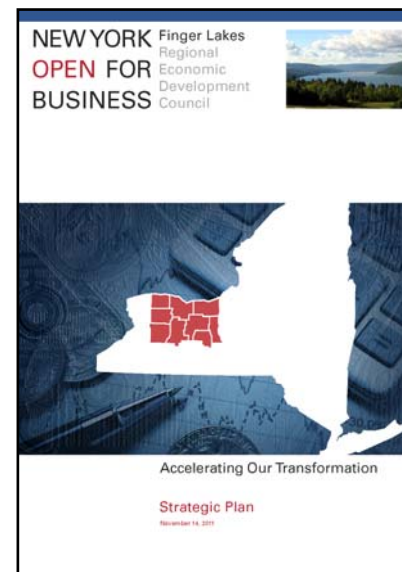
## ***Finger Lakes Regional Sustainability Plan***

The NYS Energy Research and Development Authority-funded plan, which includes actions and an implementation strategy for improving the long-term sustainability of our communities and natural resources.

## ***Poverty and the Concentration of Poverty in the Nine-County Greater Rochester Area***

The Rochester Area Community Foundation's report and follow-on benchmarking analysis, which discusses where poverty exists in the Region and its concentration in the Region's core, as well as the lasting implications of not addressing it.

In addition, GTC staff served as the subject matter expert for the Transportation & Mobility Working group of then Monroe County Executive Maggie Brooks' Monroe 200, which brought together 200 Millennials to articulate their vision for the future of Monroe County. Currently, GTC is monitoring the Region's New York State's Upstate Revitalization Initiative \$500 million award and participating in the Rochester-Monroe County Anti-Poverty Initiative that is being led by NYS Assembly Majority Leader Joseph D. Morelle, Rochester Mayor Lovely A. Warren, and Monroe County Executive Cheryl Dinolfo. By wholly incorporating these plans and initiatives into the development of the *L RTP 2040*, GTC can ensure that the limited resources available to the Region address the Economy, Environment, and Equity to the greatest extent possible.



# INTRODUCTION

---

It is important to acknowledge that the *LRTP 2040* cannot be a wish list of all transportation projects, programs, and services that the community would like to see advanced. The federal requirements that govern the development of all metropolitan transportation plans across the country (including the *LRTP 2040*) require that the strategies included be accomplished with “revenue sources that are reasonably expected to be available.” This means that the *LRTP 2040* must be “fiscally constrained.” Based on past decisions and current discussions in Washington, D.C. and Albany, the funding that can be reasonably expected to be available for transportation in the Region will likely fall far short of the amount needed.

Recognizing that *LRTP 2040* must be fiscally constrained the draft recommendations presented herein seek to utilize the limited resources we expect to receive through 2040 in the most cost-effective manner. Absent a change in priorities at the Federal and State levels, fiscal constraint dictates that we maintain the existing condition and performance of our most crucial assets as best we can, manage the decline of less critical assets and structures without compromising safety, and implement limited expansions whenever feasible. Unfortunately, this means that the transformation of our current transportation system to one that fully addresses our needs and preferences will not occur to the degree or at the pace the community deserves.

The remainder of the document expands on the items discussed above in the following sections:

- What We Want
- How Much Funding Will Be Available
- What’s Being Proposed
- Where We Go from Here

This Public Review Document for the *Long Range Transportation Plan for the Genesee-Finger Lakes Region 2040* (*LRTP 2040* Public Review Document) is being made available for public review from Tuesday, February 16, 2016 through Friday, March 18, 2016. Comments will be accepted through Friday, March 18, 2016 (comments postmarked on or before March 18, 2016 will be accepted) and may be submitted to:

Genesee Transportation Council

50 W. Main Street, Suite 8112

Rochester, NY 14614-1227

ATTN: LRTP 2040

Fax: (585) 262-3106

Email: [lrtp@gtcmpo.org](mailto:lrtp@gtcmpo.org)



WHAT WE WANT



# WHAT WE WANT

GTC is recognized for its performance-based, data-driven approach to transportation planning and capital programming. Some would infer that this means input from the public, businesses, institutions, and other stakeholders isn't as valuable as quantitative analyses and outputs from complex, technical models. Nothing could be further from the truth. No one understands a community better than the people who live there and the companies that do business in it. We can collect and analyze all the data that's out there (and we've done that) but in the end, we need to hear from the community.

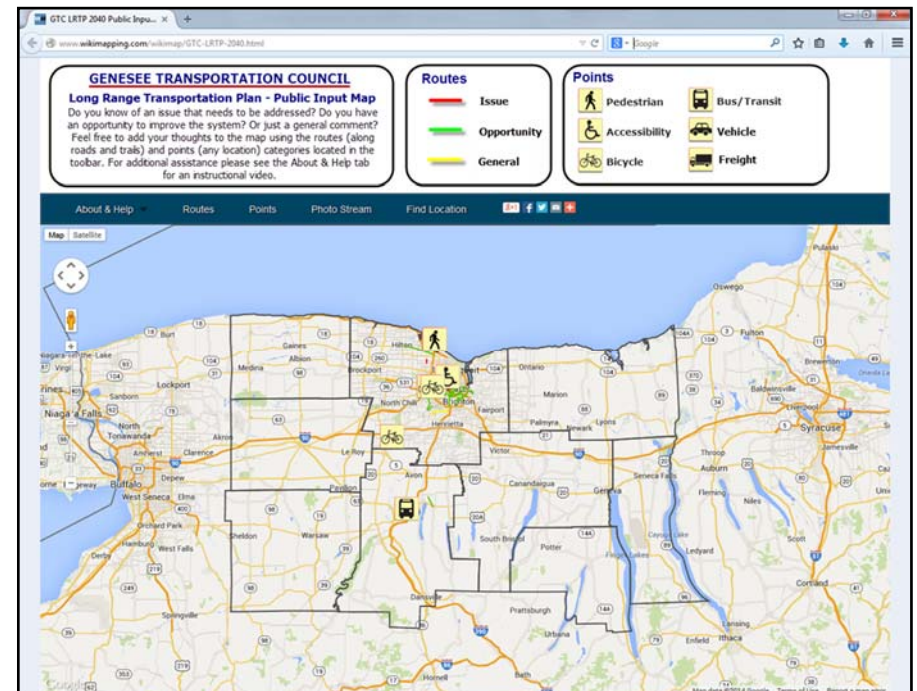
## Customer Engagement

Public involvement in the planning process is a requirement but what's required is the minimum. For *LRTP 2040*, GTC aimed to exceed public participation requirements as part of our commitment to continuous improvement. From the moment GTC began outlining the process to be used to develop the *LRTP 2040*, we committed the organization to conducting the most extensive public participation we've ever done for a LRTP. We even stopped calling it public participation because it needed to be more than that.

The community is more than just the public who we'd like to participate in our planning process. They're our *customers* whose full and meaningful *engagement* is the only way we can identify and get support for the projects, programs, and services that will maximize transportation's contribution to the social and economic vitality of the Region. Our transportation system moves people to work, children to school, seniors to medical appointments, and products to the marketplace. The customer engagement process for *LRTP 2040* sought outreach techniques that went beyond the traditional public participation activities in order to gain more extensive and meaningful public involvement in the transportation planning process.

For *LRTP 2035*, GTC relied almost exclusively on traditional, town hall-style public meetings to gather input for the LRTP. At that time GTC asked the community to come to us. For *LRTP 2040*, GTC went out directly to the community and used social media, along with more traditional forms of public involvement. The first four development

phases of the plan included significant community input gathered from August 2014 through March 2015. During this time GTC staff went directly to our customers at 13 venues across the Region (e.g., farmers markets in all the nine counties, regional malls), conducted two traditional public open houses, developed an interactive WikiMap, sought feedback through Twitter, and met directly with interested stakeholder groups. GTC also held two



Genesee Transportation Council - Long Range Transportation Plan 2040

#1: What quality of life factors are most important to you? Please use the following scale: Important, somewhat important, neutral, not very important, and not important.

Factor	Important	Somewhat important	Neutral	Not very important	Not important
Convenience for goods & services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Living close to public transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor recreational opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uninterrupted roads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clear environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Property taxes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Job opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parking lots in my neighborhood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Affordable housing options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Living in a vibrant community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Press: Submit

Powered by SurveyMonkey

# WHAT WE WANT

public meetings, organized as open houses with multiple stations for attendees to talk with us one-on-one instead of a traditional presentation. All told, 270 people took the time to tell us what worked, what didn't, and how transportation could make their lives better.

Beyond being available to receive input on specific dates and times, we developed two online surveys that garnered approximately 200 responses. Another survey specifically for businesses that rely on moving goods and materials was developed and distributed because agriculture and manufacturing are key components of the regional economy.

*Based on a review of the extensive information provided by these diverse stakeholders our decision to go from Public Participation to Customer Engagement was well worth it.*

## What did we hear?

In total GTC received over 400 comments (excluding survey responses) related to the transportation system. Overwhelmingly the majority of comments received through in-person public input opportunities focused on maintaining and increasing the current transit, bicycle, and pedestrian options available and keeping the highway and bridge system in good working condition. Aside from being thankful for the transit services already in place many members of the public requested increased frequency and routing options for transit service throughout the nine counties. Residents in the rural counties specifically requested increased opportunities on the existing transit systems for inter-county travel.

The first on-line survey, conducted during the summer/fall of 2014, focused on the Region's issues and opportunities regarding the transportation system and quality of life indicators. The second survey conducted in the winter of 2015 expanded on questions asked in the first survey. Results from the surveys are presented as follows.

When asked "What do you think the top priorities for the Region's transportation system over the next 20 years should be?" The following priorities were ranked as important by over 50 percent of the respondents:

Ensuring existing roads and bridges are in good working condition 72%

Maintain and increase public transit 64%

Enhance and expand pedestrian options 62%

Add new public transit options 58%

Reduce energy use 57%

Enhance and expand bicycling options 54%

Increase safety 54%

Among age cohorts the top priorities varied slightly. Millennials ranked "maintain and increase public transit" as their top priority while all other age cohorts ranked "Ensuring existing roads and bridges are in good working condition" as their top priority. The ranked priorities from survey respondents were consistent with the feedback received at the farmers markets, regional malls, and community meetings.



Downtown Rochester

The second survey asked participants how they would spend \$100 on the priorities listed above. The majority of respondents allocated the bulk of their money to “ensuring existing roads and bridges are in good working condition” followed by “add new public transportation options” and “maintain existing public transit options” keeping in line with priorities noted in the first survey and in-person outreach activities.

The first survey asked respondents if they strongly agree, agree, have no opinion, disagree, or strongly disagree that the Region provides enough of the following at its current size, given that the Rochester metropolitan area is the 51st largest in the country and the third largest in New York State. The following percentages reflect those that strongly agreed/agreed:

Sufficient housing options at an affordable price 58%

Quality educational opportunities for children

(K-12 schools) 49%

Reasonable and dependable travel times 77%

Sufficient job opportunities for upward mobility 24%

Enjoyable outdoor recreational and cultural  
opportunities 90%

Affordable healthcare and medical services 66%

According to respondents the top two quality of life indicators, as shown above, are the Region’s outdoor recreational and cultural opportunities followed by reasonable and dependable travel times. However, the majority of respondents disagreed that the Region has sufficient job opportunities and upward mobility. The second survey asked if the current transportation network is a limiting factor for job growth in the Region. Over half cited the transportation system, particularly the transit system, as a limiting factor for upward mobility. Respondents noted that this is especially true for folks that are completely dependent on public transit system given that job growth has taken place in and opportunities are located in the

suburbs which generally lack robust transit service. Respondents also noted that rural communities lack the frequency of service needed to get people to job opportunities.

Survey respondents believed that the Region generally has reasonable and dependable travel times. The second survey asked respondents to select their top three reasons for being unable to reach their destination in a reasonable amount of time. Over 90 percent of respondents cited weather related (e.g., snow, ice, and rain) as the top reason, followed by incidents such as crashes and road work.

### **What do you like the best about the area’s transportation system?**

*Low congestion/short travel times.*

*The [low] cost bus fare; Bike racks on the buses.*

*Compared to many other regions, it is relatively easy to get around here.*

*New bike lanes are nice. Add more!*

### **What do you dislike the most about the area’s transportation system?**

*Public transportation [is] limited in rural counties.*

*Not enough funding to properly maintain what is already there, in addition to proactively improving specific areas to address safety and congestion.*

*Automobile dependency.*

*Some roads are poorly maintained. Many bridges out.*

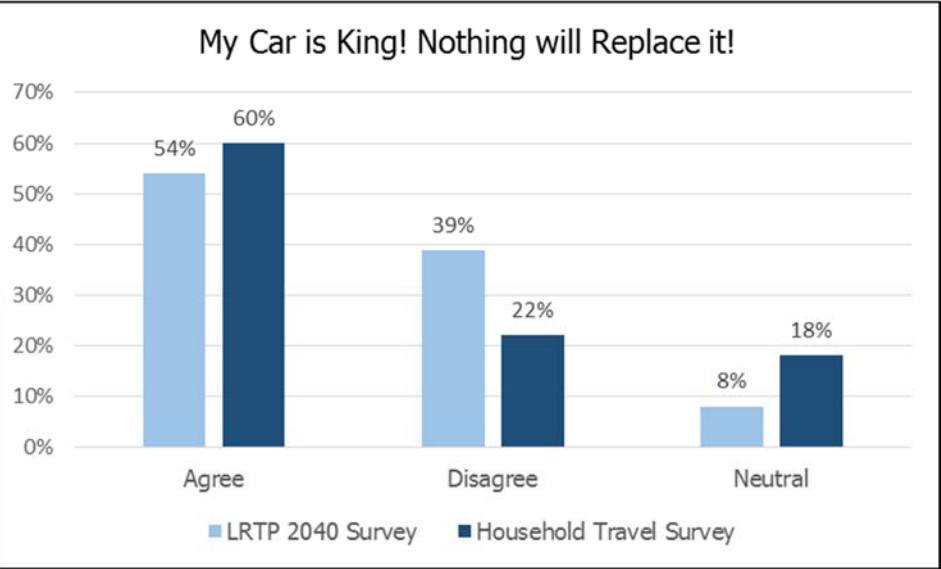
# WHAT WE WANT

Respondents were asked preferential questions including if they wanted the Region’s population to be less, stay where it is now, or grow. Approximately 56 percent of respondents noted they wanted the Region’s population to grow, 39 percent wanted it to remain the same, and approximately five percent wanted the population to decrease. The second survey asked respondents where they wanted future population growth to occur in the City of Rochester, suburbs, villages, and/or rural communities. The majority of respondents wanted growth to be concentrated in the City of Rochester, followed by villages, suburbs, and rural communities.

## What have we heard in the past?

In 2011 GTC conducted a statistically significant household travel survey (HHTS) to update and enhance the travel demand model. Both the HHTS and the first on-line *L RTP 2040* survey asked respondents to agree, disagree, or remain neutral to the following statement:

“Nothing will replace my car as my main mode of transportation.”



In each instance over half the respondents agreed that nothing will replace their car. Those who self-selected to take the *L RTP 2040* on-line survey disagreed at a higher rate than those who took the HHTS.

The HHTS asked household members what would encourage them to take transit. Keeping in mind that a large majority of households do not use transit over half of respondents stated nothing would make them rethink their transportation options. Of those that would consider shifting their travel behaviors, more frequent service was cited by 20 percent, closer service to home 19 percent, not having to transfer 17 percent, and providing real time information 16 percent. All of the top four most selected reasons help reduce the overall transit trip time either by increasing the frequency and route options, altering the location of stops, or providing information that would reduce waiting time for users.

The input gathered through the Customer Engagement process was used to shape the recommendations presented in **What’s Being Proposed?** GTC would appreciate your feedback on the proposed recommendations.



HOW MUCH FUNDING WILL BE AVAILABLE



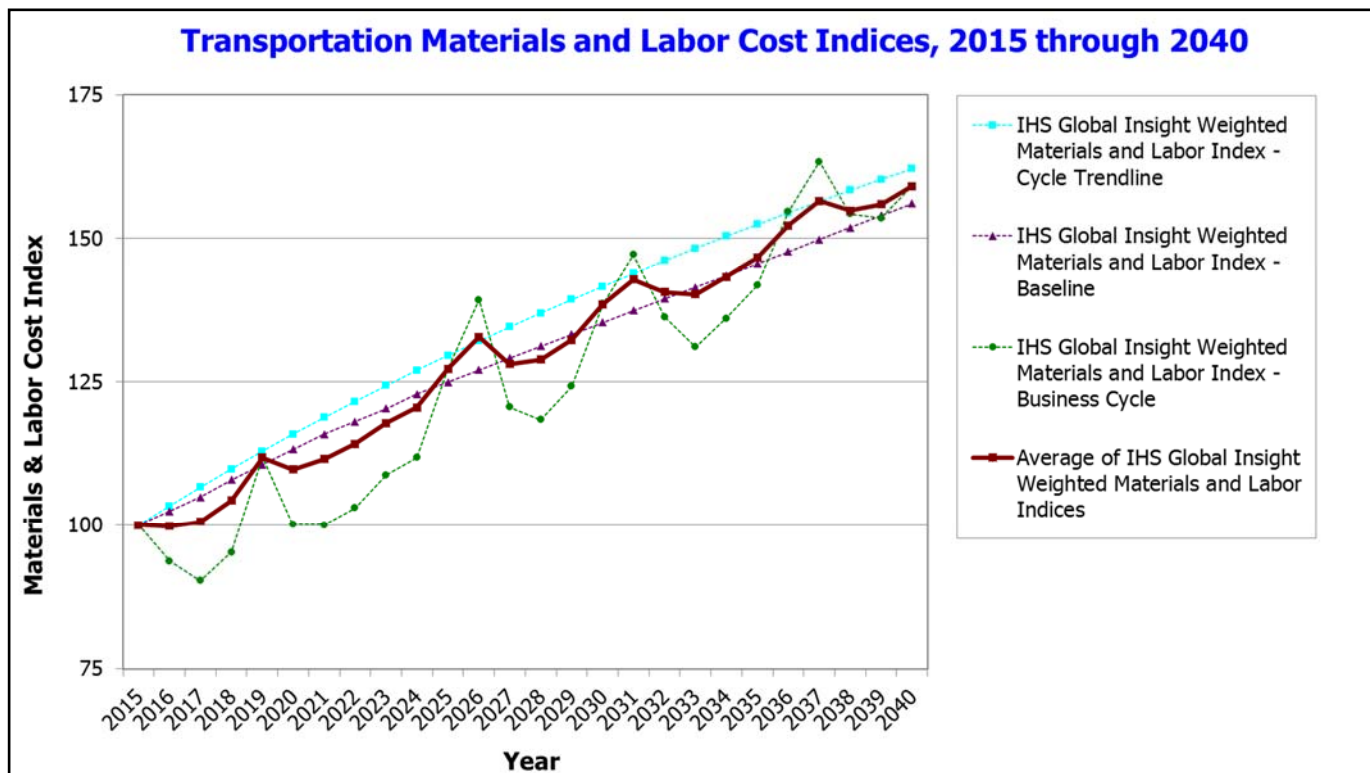
## HOW MUCH FUNDING WILL BE AVAILABLE

Federal requirements mandate that the *L RTP 2040* include a financial plan that demonstrates how the recommendations can be implemented based on system-level estimates of costs and reasonably expected revenues. Further, both costs and revenues must be expressed in year of expenditure (YOE) dollars to accurately account for the anticipated revenues available to the region and the impact of inflation on the costs of materials and labor to implement projects through 2040. These fiscal constraint requirements are critical to ensuring that the *L RTP 2040* is credible and provides realistic expectations of what can be accomplished; not simply a wish list that has little to no chance of being advanced.

The primary driver of cost increases for transportation infrastructure and services will be global demand for materials and supplies. Data used to estimate future inflation in transportation costs was obtained

from New York State Department of Transportation (NYSDOT). NYSDOT purchases highway contract cost index special tabulations from IHS Global Insight. These tabulations are one of several inputs into the escalation factors used by NYSDOT in preparing cost estimates for future projects. The IHS Global Insight tabulations include three weighted indices of future materials and labor: baseline, trendline, and business cycle.

Given the uncertainty over such a long time period and the unique advantages and disadvantages of using various historical trends and future projections, the annual increase in costs through 2040 is estimated to be the average of all three indices – 2.36 percent. The chart below presents the rate of change for the various indices (displayed as broken lines) as well as the average (displayed as the solid line) that is being used to escalate current costs to YOE dollars.



# HOW MUCH FUNDING WILL BE AVAILABLE

There is just as, if not more, uncertainty regarding the availability of future revenues for transportation projects and programs in the region through 2040.

To account for the uncertainty in the composition of federal transportation funding programs (including the potential consolidation of existing programs), reasonably expected future revenues were combined to create the following categories:

Highway and Bridge – includes the Federal Highway Administration (FHWA) National Highway Performance Program (NHPP), Surface Transportation Program (STP), and Highway Safety Improvement Program (HSIP)

General Public Transportation – includes the Federal Transit Administration (FTA) Urbanized Area (Section 5307, 5339) and Other than Urbanized Area (Section 5311) programs

Human Service Public Transportation – includes the FTA Elderly Persons and Persons with Disabilities (Section 5310)

Flexible – includes the FHWA Congestion Mitigation and Air Quality Improvement Program and the Transportation Alternatives Program

Programs that are not apportioned by legislated formula are discretionary and typically allocated by Congress. These non-recurring revenues include earmarks and are not included in the estimates of reasonably expected revenues given the uncertainty of their availability over the period covered by the *L RTP 2040*.

The projections of reasonably expected federal revenues in YOЕ dollars through 2040 are presented below.

The GTC TIP area includes the counties of Genesee, Livingston, Monroe, Ontario, Orleans, Wayne, and Wyoming. Federal funds programmed in Seneca and Yates counties are determined by NYSDOT and are not included in this analysis as it is not anticipated that GTC will be involved in these deliberations.

## Projected Reasonably Expected Federal Aid Transportation Program in the GTC TIP Area, 2015 to 2040 (in millions of YOЕ dollars)

<u>Combined Federal Aid Category</u>	2015-2020	2021-2025	2026-2030	2031-2035	2036-2040	Total
Highway & Bridge						
Public Transportation	<b><i>Completed revenue projections will be provided at the Planning Committee meeting</i></b>					
Specialized Public Transportation						
Flexible						
Total Reasonably Expected Federal Aid	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Required Non-Federal Match <sup>1</sup>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Matched Federal Aid Program</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<sup>1</sup> Assumes 20 percent non-federal match on entire program.

## HOW MUCH FUNDING WILL BE AVAILABLE

Nearly all of the federal-aid-eligible transportation system in the GTC TIP area is owned, operated, and maintained by state, regional, county, and city departments and authorities that are members of GTC. As an example, 95 percent of the 1,484 bridges in the GTC TIP area are under the jurisdiction of GTC member agencies. Each of these agencies makes substantial investments in the regional transportation system with non-federal revenues complementing the federal highway or transit funding available to the region.

New York State Thruway Authority (NYSTA) does not receive any federal funding for the approximately 75-mile portion of Interstate 90 that crosses the GTC TIP area. Because this portion of the NYS Thruway is tolled, federal legislation requires an agreement with the United States Department of Transportation for NHPP funds to be programmed for projects on it.

The most significant non-federal transportation funding sources include:

New York State Dedicated Highway and Bridge Trust Fund – This is the primary source of non-federal funding that is invested in the region's federal-aid highway and bridge network.

NYSTA Capital Program – Includes capital investments for the New York State Thruway

State Transportation Operating Assistance (STOA) – This is the primary state funding source for public transportation operations.

As presented below, approximately \$\_\_ billion in revenues are projected to be available for federal-aid-eligible projects in the GTC TIP area through 2040. Again, non-capital maintenance and operating activities on the federal-aid system have and are expected to continue to be accomplished with other state and local funding sources.

### Projected Reasonably Expected Revenues for Federal-Aid-Eligible Projects and Programs by Source in the GTC TIP Area through 2040<sup>1</sup>

(in millions of YOY dollars)

Federal Transportation Aid Program	<b><u>Completed revenue projections will be provided at the Planning Committee meeting</u></b>
State Dedicated Highway and Bridge Program	
State Transportation Operating Assistance	
NYS Thruway Capital Program	
Total Reasonably Expected Revenues	\$ -

<sup>1</sup>Does not include revenues for non-capital maintenance and operating activities on the federal-aid system.

## WHAT'S BEING PROPOSED



## WHAT'S BEING PROPOSED

The draft recommendations presented herein seek to utilize the limited resources we expect to receive through 2040 in the most cost-effective manner. Absent a change in priorities at the Federal and State levels, fiscal constraint dictates that we maintain the existing condition and performance of our most crucial assets as best we can, manage the decline of lesser facilities and structures without compromising safety, and implement limited expansions whenever feasible. Unfortunately, this means that the transformation of our current transportation system to one that fully addresses our needs and preferences will not occur to the degree or at the pace the community deserves.

***The Region's basic transportation needs through 2040 will not be able to be met with the reasonably expected revenues.***

Based on the amount of federal-aid-eligible projects for which funding has been solicited from GTC for the *2017-2020 Transportation Improvement Program (2017-2020 TIP)*, GTC's capital program, requests in the amount of \$237 million will go unfunded. This figure does not fully depict the true need for transportation projects as many project sponsors chose only to submit their most urgent requests. Less than half of the projects that were submitted will be able to receive funding through the *2017-2020 TIP*.

The capacity of the highway and bridge network is currently sufficient for the needs of people and freight and is expected to be so throughout the period covered by the *LRTP 2040*. Accordingly, the need for new highways and bridges for the sole purpose of improving mobility is not warranted. Ensuring the continued structural integrity of existing facilities is paramount. Physical expansion of highway and bridge infrastructure via altogether new through lanes is discouraged.

Management of both the existing system across all modes and the demand placed on it is considered the most cost-effective means for improving mobility and access. Expansion of the system will be limited but additional investments in the public transportation as well as the bicycle and pedestrian networks represent the best opportunities to address the needs of an aging population and improve public health through opportunities that promote active lifestyles and reduce emissions.

The actions included in the *LRTP 2040* serve as a framework for investment decisions made through future TIPs where proposed projects and programs are evaluated to determine their benefits and costs relative to other proposals.

Not all of the reasonably expected revenues are available immediately. As such, the recommendations have been prioritized based on need and when funds for their implementation are expected to be able to be accessed. The timeframe for implementation of the recommendations discussed below are as follows:

**Immediate** = Federal Fiscal Years (FFYs) 2017-2020  
(aligns with the TIP)

**Near-Term** = FFYs 2017-2021

**Medium-Term** = FFYs 2022-2028

**Long-Term** = FFYs 2029-2040

**Ongoing** = FFYs 2017-2040 (all FFYs of the *LRTP 2040*)

# WHAT'S BEING PROPOSED

## Preservation and Maintenance

Beginning in *LRTP 2035*, **Preservation and Maintenance** recommendations encompass not only the maximization of existing assets but also improvements to these assets when they are reconstructed or replaced at the end of their useful life, *LRTP 2040* carries this forward. Given the length of time between reconstruction and/or replacement of facilities, simple in-kind replacement of infrastructure and the vehicles that currently serve our transportation needs represents a lost opportunity to improve the system. In addition, these opportunities represent the ability of the transportation system to meet the challenges of sustainability and climate change adaptation through the use of new materials and design elements that were not available when the facilities were first built or last reconstructed. There are two primary initiatives that serve as the basis for the **Preservation and Maintenance** recommendations of the *LRTP 2040*: Asset Management and Improved Design. These recommendations constitute the majority of projects to which reasonably expected federal transportation funds will be allocated through 2040.

### Asset Management

At its core, Asset Management is about maximizing the service life of necessary infrastructure. Effectively applying this approach requires the selection of appropriate treatments at the proper times in the lifecycle of individual assets. A fundamental goal of asset management is to keep assets from deteriorating to a condition where they have to be reconstructed or replaced for as long as possible. Significant savings can be realized by conducting preventive and corrective maintenance on a facility at a fraction of the cost of reconstructing or replacing it. Additionally, asset management

projects and programs will inherently consider improving safety for all users.

*Recommendations have been numbered for reference purposes and are not a reflection on priority.*

### **1. Conduct preventive and corrective maintenance treatments on highways and bridges to extend the useful life of infrastructure without requiring more costly rehabilitation and reconstruction before absolutely necessary – Ongoing**

Preventive and corrective maintenance treatments can cost in the hundreds of thousand dollars per lane-mile compared to rehabilitation and reconstruction projects that typically cost upwards of \$1.5 million per lane mile. These treatments maximize previous investments, including not only the roadway but also safety and security related features such as signage, lighting, striping, and guiderails. Communities throughout the region have embraced preventive and corrective maintenance as the primary means for effectively managing their assets – the current TIP includes projects of this type in both major population centers (Monroe County) and areas where agriculture is the primary industry (Wyoming County).

### **2. Reconstruct and rehabilitate highways and bridges to accommodate all modes – Ongoing**

Not all highways and bridges are candidates for preventive and corrective maintenance treatments. When infrastructure that provides for safe and efficient use by all modes (i.e., is a complete street) reaches the end of its useful life, its replacement should ensure that this functionality is maintained. When infrastructure that does not adequately accommodate all modes reaches the end of its useful life, its replacement should ensure that suitable space for cars, trucks, bicycles, and pedestrians is added within the context of Place (i.e., Context Sensitive Solutions).

For example, communities that wish to provide complete streets should consider low-cost design modifications such as adjusting lane

## WHAT'S BEING PROPOSED

and/or shoulder widths, or adding bicycle space such as bike lanes or curb offsets, simply by changing the location of pavement markings where feasible (i.e., where current and projected traffic characteristics, surrounding land uses, and community interest are compatible with bicycle traffic).

Similar consideration should be given to bridges that have had multiple incidents involving trucks becoming stuck underneath them.

### **3. Increase the use of recycled materials and incorporate green technologies in the rehabilitation and reconstruction of highways and bridges – Ongoing**

Opportunities to increase sustainability through the use of reused and recycled materials continue to grow and become more affordable. Use of these materials and technologies reduces the amount of refuse deposited into landfills and can allow for more porous pavements which improve storm water management and have other environmental benefits.

### **4. Conduct preventive maintenance on public transportation vehicles to ensure reliability and attractiveness of services - Ongoing**

As with highways and bridges, preventive maintenance on public transportation vehicles is central to their long-term, cost-effective operation. Users of public transportation expect that services be reliable, taking them where they need to go consistent with published schedules – this is especially true of individuals dependent upon public transportation for daily commuting. Additionally, “choice users” (i.e., individuals who have a choice to either use public transportation or travel via privately-owned automobile) will not utilize public transportation if the service’s reliability is in question. It is therefore essential that the vehicles providing public transportation are properly maintained and not prone to mechanical problems that directly impact reliability and attractiveness of the service. Per the current TIP, RGRTA will invest over one-third of the FTA Urbanized Area (Section 5307) Program funds in vehicle preventive maintenance activities.

### **5. Explore adjusting the RTS Monroe fleet mix as buses are replaced to take advantage of the operational flexibility provided by the Downtown Transit Center – Ongoing**

With through-routing of vehicles no longer necessary, RTS-Monroe has the ability to deploy individual buses on routes where they are most suitable. Since buses are only used where needed, there is an opportunity to optimize the mix of buses in the fleet with capacity that meets demand. The change in fleet mix should occur as buses are replaced at the end of their useful life to maximize the economic value of existing investments.

### **6. Maintain and improve the condition and functionality of public transportation facilities throughout the region – Ongoing**

The age of public transportation facilities in the region varies. The RGRTA/RTS East Main Street Campus, originally constructed in the 1970's, recently underwent an \$18M renovation and expansion project to improve and modernize some campus facilities. These facilities and others will need not only to be preserved and maintained but also improved with respect to their security, energy efficiency, safety, and operational functionality over the next 25 years.

### **7. Preserve and maintain dedicated bicycle and pedestrian facilities, including multi-use trails and sidewalks – Ongoing**

The more than 500 miles of multi-use trails and the sidewalks in the region are vital to promoting public health via active transportation. The ability to travel safely by bicycling and walking would be severely compromised if these facilities are not maintained and kept in a state of good repair. While ownership of these facilities is often more diverse than that of highways, bridges, and public transportation services – with local governments and not-for-profit entities playing a larger role in ensuring their continued functionality – providing the necessary resources to preserve and maintain multi-use trails and sidewalks cannot be overlooked in the region’s comprehensive,

# WHAT'S BEING PROPOSED

multimodal asset management strategy.

## 8. Evaluate the need to replace bridges that carry low-traffic volumes – Ongoing

Many bridges in the region carry significantly less traffic than can be accommodated with minimum design standards. Given the limited financial resources to properly maintain all public bridges in the region, bridge owners should evaluate the need to replace a bridge if the traffic it carries can be accommodated on nearby bridges without significant impact to public safety or economic vitality. GTC has developed a Bridge Prioritization Screening Tool that can assist with this evaluation. Any impact to emergency response time should be evaluated against recognized standards.



CSX Mainline-Looking West from Cole Road — Lyons

## 9. Reconstruct and rehabilitate rail infrastructure to allow for the efficient movement of freight into, out of, and within the region – Ongoing

While privately owned, operated, and maintained, rail infrastructure is an important component of the regional transportation system. The maintenance and upgrades (via reconstruction and rehabilitation) to tracks, ties, ballast, and bridges along with signaling, switching, and crossing equipment should be continued and increased as private and public resources allow. Representative projects in the region include rehabilitation and improvements to both Class I and Shortline infrastructure to allow maximum weights at the highest operating speeds allowed.

### Portageville Bridge

The 2012 Regional Goods Movement Strategy and *L RTP 2035* fully supported reconstructing the Portageville Bridge, identified as one of the top ten statewide rail bottlenecks in the 2009 New York State Rail Plan. Built in 1875 the bridge crosses the Genesee River Gorge in Letchworth State Park and is a critical component of Norfolk Southern's (NS) Southern Tier Line. The bridge has been in need of replacement to remove weight and speed restrictions that negatively impact freight movements between the Midwest and Northeast along the NS corridor. Construction on the new, \$70 million, bridge alignment began in the summer of 2015 and is expected to be completed in the winter of 2017/2018. Realigning and replacing the Portageville Bridge is a critical step to enhance safety and bring the Southern Tier Line's capacity up to the current industry standard of 286,000 pounds.

The rail line represents an important connector for intermodal container traffic going to and from the Port of the New York and New Jersey. The new rail bridge is a vital connection along the corridor given the future increases in intermodal container traffic from the impending influx of Post-Panamax ships at the Port of the New York and New Jersey.

## Improved Design

The physical design of transportation infrastructure can appreciably improve the safety, efficiency, and reliability of the transportation system. Access management, interchange configurations, and provision of space for public transportation and non-motorized travelers (i.e., complete streets) can enhance the existing system and better serve regional transportation needs now and in the future. Specifically, physical measures that improve mobility, safety, and predictability for vehicles (including freight) and non-motorized modes, when and where appropriate, increase economic opportunities and quality of life. These improvements require coordination and cooperation with local governments who have land use planning and decision making authority.

### **10. Adapt the design of transportation infrastructure to integrate security and resiliency considerations – Ongoing**

When reconstructing, rehabilitating, or otherwise upgrading and improving transportation assets, agencies should consider the vulnerabilities of these assets to anticipated hazards and include features that improve resiliency and recovery (e.g., the ability of existing highway and bridge designs to handle rising sea levels and extreme weather events). Given the large costs of reconstruction and rehabilitation projects, federal aid will continue to be the primary source for these types of projects and it is expected that this will be reflected in future TIPs.

The *Genesee-Finger Lakes Regional Critical Transportation Infrastructure Vulnerability Assessment*, currently underway, will include recommendations for strengthening the security and resiliency of transportation system infrastructure (e.g., highways and bridges) as well as facilities (e.g., operations centers, highway garages, fuel storage) to natural and human-caused hazards.

### **11. Improve the function of interchanges on major roadways through design that reduces delay and enhances safety and mobility – Immediate/Near-Term**

Interstate highways and other expressways have the greatest impact on regional mobility. Recurring delay that results where highways intersect with one another has significant implications including increased emissions and reduced productivity. Improving the design of these interchanges through reconstruction when they reach the end of their useful life will result in benefits to mobility, air quality, and safety.

The operational performance of major interchanges along identified freight corridors and at congestion hot spots should continue to be monitored and the implementation of congestion management strategies should be advanced as necessary.

Representative projects in the region include the reconstruction of the I-490/I-390/NYS Route 390 interchange and the current western terminus of NYS Route 531.

### **12. Improve the function of intersections through improved design that increases safety, reduces delay, and improves mobility for all users – Ongoing**

The safety and efficiency of high volume intersections can sometimes be improved through the incorporation of dedicated turning movements (e.g., turn-only lanes and signalization). Other options include reconfiguring intersections using roundabouts and/or new alignments. Truck turning movements and nearby freight operations should be taken into consideration. Regardless of the type of improvement, appropriate pedestrian safety considerations must be included in any intersection planning and design. Further, improving safety at rail crossings through maintenance and/or replacement of signaling equipment and gates, as well as redesign of the geometry of crossings where necessary, should be advanced.

# WHAT'S BEING PROPOSED

---

Representative projects in the region include: safety improvements at intersection of Route 252 (Jefferson Road) at John Street/Brighton-Henrietta Town Line Road in Henrietta; the construction of roundabouts at the County Road 10 & County Road 46 and the County Road 4 & County Road 46 intersections in Ontario County.

## **13. Advance recommendations contained in completed UPWP studies as part of highway preventive/corrective maintenance, rehabilitation, and reconstruction projects – Near-Term/Medium-Term**

GTC has provided funding for and technical assistance to numerous communities to conduct plans and studies that have integrated transportation and land use planning (e.g., Circulation, Accessibility, and Parking; and Access Management). These plans include recommendations that should be advanced as part of preventive/corrective maintenance, reconstruction and rehabilitation projects.

GTC initiated the Circulation, Accessibility, and Parking (CAP) program to improve livability and economic vitality in villages, city neighborhoods, and hamlets by identifying physical and operational improvements, as well as regulatory changes, to enhance traffic circulation, accessibility, and parking for all transportation system users. Representative projects include lane reconfigurations and/or reductions in the number of lanes and addition of on-street parking and bicycle space – recent examples include East Avenue in the City of Rochester and Phillips Road in the Town of Webster.

Access Management plans seek to proactively manage access between highways and adjacent development to improve efficiency and reduce crashes, mitigating both recurring delay and non-recurring incident-related delay without requiring the physical expansion of infrastructure.

## **14. Establish a Regional Complete Streets Commitment – Immediate/Near-Term**

The transportation network in the Region will become measurably

better connected, safer, and more accessible for all users as transportation projects are designed and constructed using complete streets principles. Complete streets are those where all current and projected users of the system are able to safely and conveniently reach their destinations along and across a street or road, regardless of their chosen mode of transportation. This includes pedestrians, bicyclists, transit and school bus riders, people with disabilities, motorists, freight haulers, service personnel, and emergency responders. GTC should develop guidance that will support the adoption and implementation of complete streets policies by member agencies.

## **15. Design responsively to facility users, their needs, and the facility's current and future context - Ongoing**

Context sensitive design recognizes that street and highway projects should be responsive to adjacent land uses, local needs, traffic volumes and speeds, current and projected demand, and should consider incorporating the most up-to-date, widely-accepted design standards to determine the appropriate level and type of treatment necessary.

Given that bicyclists, pedestrians, and transit users need to travel safely between the same origins and destinations as motorists, the need for complete streets is greatest along corridors that connect residential settings with popular and important destinations, including, but not limited to medical, shopping, employment, educational and recreational destinations. Planning and design for these high demand areas should strive to accommodate the needs and characteristics of all users.

## **16. Pursue the retrofit and/or new installation of American with Disabilities Act (ADA)-compliant treatments - Immediate/Near-Term**

Improvements to pedestrian facilities, including crosswalks, sidewalks, and curb cuts, need to be prioritized so that they can be addressed not only as part of rehabilitation and reconstruction

## WHAT'S BEING PROPOSED

projects but also as stand-alone improvements. State, county, and local governments that receive federal funding are required to have ADA transition plans. These plans should fully incorporate pedestrian and other transportation considerations that limit mobility and access for persons with disabilities, including access to public transportation. Making these improvements will also increase the attractiveness of walking as a preferred mode of travel for persons of all abilities. GTC staff will provide technical assistance to communities as needed.

### **17. Continue to support development that considers and integrates transportation needs (e.g., transit-supportive, cluster development, etc.) – Immediate/Near-Term**

Local land use decisions are a major determinant of transportation system performance. When the demand created by land uses outstrips the supply provided by transportation infrastructure and services, the potential for delay, crashes, and other negative events increases. To improve understanding among local governments of the impacts their decisions have on the transportation system, GTC has developed and funded technical resources and studies to assist in more fully integrating transportation with land use planning and development. GTC will continue to support such studies and share the results with other communities.

### **18. Regularly assess and refine public transportation services based on current and projected needs, demand, and market potential – Ongoing**

RGRTA has developed a nationally-recognized route analysis system that allows for better optimization of bus routes and schedules. Routes and schedules are adjusted quarterly based on analyses of trip-level and stop-level ridership, and fare data. RGRTA is currently conducting comprehensive audits of the seven public transportation systems operated outside of Monroe County to identify improvements that maximize efficiency, minimize costs, and provide a positive customer experience. Adjustments to maximize the effectiveness of regional transit service consistent with operational service audits should be conducted. The large increase in the number of seniors and

the growing importance of universities and colleges will necessitate a regular review of how route structures are developed and adjusted.

### **19. Support efficiency, access, and safety improvements along major regional freight corridors - Near-Term/Medium-Term**

A number of plans and studies along major freight corridors have been completed throughout the Region, with location-specific recommendations along the highway, bridge, and railroad networks calling for a variety of efficiency, access, and safety improvements. Traffic calming measures, streetscape improvements, and enforcement of existing speed, weight, noise, and turning restrictions are cost-effective mitigation techniques that help enhance quality of life for residents living along or near freight corridors. Such improvements increase the viability of these corridors by promoting economic development opportunities while minimizing the negative impacts of freight on nearby residential neighborhoods.



RTS Monroe bus at the Downtown Transit Center — Rochester  
Image credit: RTS

# WHAT'S BEING PROPOSED

## Transportation System Management and Operations

**Transportation System Management and Operations (TSMO)** recommendations provide the best opportunity to maximize the effectiveness of the current transportation system at the lowest cost. There are three primary initiatives that serve as the basis for the TSMO recommendations in the *LRTP 2040*: Technology, Coordination, and Demand. These initiatives are not mutually exclusive (e.g., there are Technology elements that are critical to and included in Coordination and Demand and the same is true for Coordination and Demand as they relate to Technology and each other).

The majority of delay in the Region is non-recurring and is the result of crashes, weather, and other irregular events. TSMO programs and projects can effectively address non-recurring delay through improved incident response, more efficient deployment of resources to clear snow and ice, and timelier information to travelers. Even in cases where the delay is recurring due to peak demand and fixed capacity, TSMO programs and projects that inform travelers of less costly options or alternative routes that could be more convenient have the potential to reduce demand on the system when use is at its highest level.

TSMO programs and projects can increase safety by providing timely and accurate information to make travelers aware of hazards such as adverse weather conditions, work zones, crashes, and other incidents. By improving incident response and management, TSMO programs and projects can also shorten clearance times for crashes which reduces the likelihood of secondary crashes. This improves safety, reduces resulting delay, and decreases emissions.

### Technology

Technology provides multiple opportunities to improve safety, efficiency, and reliability for transportation users while reducing the need for expansion of physical infrastructure or introduction of new services. Utilizing continuously improving information and communication technologies via Intelligent Transportation System

(ITS) instrumentation will allow transportation agencies to better manage and operate the existing system, including parking in areas where it is limited. The usefulness of technology in TSMO will increase substantially over the period covered by the *LRTP 2040*.

At present, transportation agencies in the Region emphasize the use of ITS to determine what is occurring on the system and make corresponding adjustments remotely, to the extent possible. In the near future, it is anticipated that ITS can be used to identify not only what *is* happening on the transportation system but what *will* happen. Technology will allow transportation agencies to conduct not only diagnosis but, more importantly, prognosis to proactively address the safety, efficiency, and reliability of the system.

ITS offers the opportunity to improve preservation and maintenance of infrastructure and vehicles by monitoring and reporting on the structural integrity of roadways, bridges, and buses. As part of the Technology Initiatives Driving for Excellence (TIDE) program, RGRTA has outfitted RTS buses with sensors that are able to identify issues with the functioning of buses prior to breakdowns that would inconvenience travelers and may result in choice riders electing not to use public transportation. Using ITS to detect deterioration of transportation system infrastructure that compromises the structural integrity of a facility can allow for appropriate repairs to be undertaken before weight limits need to be enacted or closures are required.

## **20. Upgrade regional communications infrastructure to support greater integration of transportation agency operations – Ongoing**

The key to fully utilizing technology to improve Transportation System Management and Operations (TSMO) is dependent upon the transfer of information among and between personnel and devices that are deployed to monitor travel conditions and make necessary adjustments. This communication can and should be accomplished by an appropriate combination of hardwired (i.e., fiber contained in conduit) and wireless technologies. As new capabilities become

## WHAT'S BEING PROPOSED

available, existing and expanded communications devices connecting instrumentation and TSMO agency staff will be implemented.

Representative projects include the ongoing expansion and upgrades to the regional fiber optic and wireless communications network - which links traffic signals and other ITS elements to each other and to the Regional Traffic Operations Center (RTOC) and the expansion of communications and ITS elements along corridors that have been assessed for future deployments, such as the NYS Route 96 corridor in Victor, Ontario County.

### **21. Deploy ITS instrumentation in accordance with the *ITS Strategic Plan for Greater Rochester* – Near-Term/Medium-Term/Long-Term**

The *ITS Strategic Plan for Greater Rochester* identifies Group 1: Critical Operations Target Areas and Group 2: Areas of Regional Operations Significance.

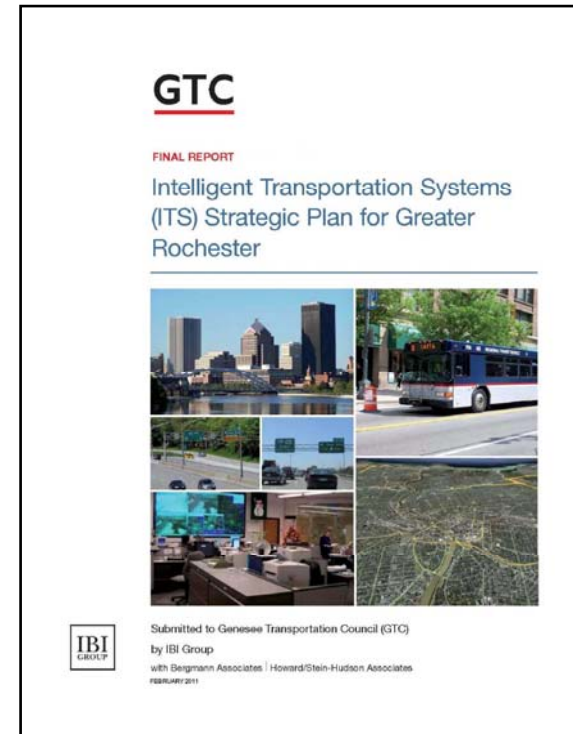
Group 1 locations include the urban core of Monroe County and the expressways and arterial roads radiating from it. These locations are identified as Critical Operations Target Areas due to traffic volume, access to commercial and employment areas, and their susceptibility to delay from non-recurring events. ITS-enabled safety and mobility improvements in these locations will benefit the greatest number of travelers and volume of freight. The emphasis of ITS deployments in these locations is on infill, upgrade, and integration to maximize system management capabilities.

Group 2 locations include those areas with limited, or without any ITS deployments. The focus of ITS deployments in Group 2 is on expanding the regional ITS network to maximize its effectiveness.

### **22. Replace ITS instrumentation with next generation technologies as identified in the *ITS Strategic Plan for Greater Rochester* – Ongoing**

Many of the ITS instruments currently deployed in the region are first or second generation equipment. As this equipment ages, it becomes

increasingly difficult to maintain. The next generation technologies that will be available when current ITS instrumentation requires replacement will provide increased management and operation capabilities.



### **23. Integrate cybersecurity considerations into ITS deployment projects - Ongoing**

Cybersecurity measures prevent unauthorized use of and access to the information technology components used to operate ITS field instrumentation. Protecting these assets from intrusion is a critical security function of regional transportation management agencies.

### **24. Monitor advances in Connected and Automated Vehicles and implement supportive ITS projects as appropriate – Medium-Term/Long-Term**

# WHAT'S BEING PROPOSED

The ongoing evolution of the connected vehicle environment has the potential to dramatically improve transportation system safety, efficiency and reliability, as well as generate substantial economic and environmental benefits. By facilitating vehicle-to-vehicle and vehicle-to-infrastructure communications, wireless technology enables travelers to obtain more and better travel information, maximize vehicle and fuel efficiency, and minimize their exposure to weather and safety hazards. Regional transportation management agencies should integrate Connected and Automated Vehicle-supportive technologies into their ITS deployments.

## **25. Further expand electronic payment options for on-street, garage, and surface lot parking in the City of Rochester, including a pilot electronic toll tag for garages – Near-Term**

Currently, electronic payment options (e.g., credit card, online, etc.) for parking in the City of Rochester are available on select city streets and some city-owned garages. These options should be expanded to all city parking facilities, and privately-owned garages and lots should be encouraged to adopt them as well. Offering electronic payment options can improve the efficiency of parking administration and make visiting Downtown Rochester easier as payment is not limited to currency, and only coins for on-street meters. The installation of multi-space on-street parking meters that accept both coins and credit cards should be expanded.

## **26. Install Automatic Vehicle Location (AVL) and weather information instrumentation on public fleets to maximize vehicle routing and serve as floating, real-time data sensors – Immediate/Near-Term**

The data provided from AVL technology installed on publicly-owned fleet vehicles such as snow plows and refuse trucks allows operating agencies to optimize routing of these vehicles as they provide needed services. Improved routing based on this data can make service delivery more efficient, reducing labor and fuel costs and allow the fleet size and mix to be optimized. Installing sensors that provide data on weather conditions can, when combined with data on

changes in the locations of vehicles equipped with AVL instrumentation, provide valuable information to the public informing them of delay and hazards. The City of Rochester has equipped its Department of Environmental Services vehicles with AVL technology.

## **27. Install relevant pedestrian ITS instrumentation at identified intersections and crossings to reduce vehicle-pedestrian conflict – Ongoing**

Installation of pedestrian countdown signals, audible/tactile devices, and similar ITS elements can improve pedestrian safety and accessibility. Pedestrian countdown signals inform pedestrians of the time allotted for crossing; this is especially important for persons with limited mobility, including seniors. Audible/tactile devices provide guidance and assistance to persons with disabilities as to when it is appropriate to cross streets. Locations for installation should be determined based on the volume of pedestrians and data on vehicle-pedestrian incidents to ensure the instrumentation is deployed where it is most needed.



Crossing the street — Downtown Rochester

### **28. Continue the implementation and expansion of Technology Initiatives Driving Excellence (TIDE) for RTS – Ongoing**

TIDE is a comprehensive Advanced Public Transportation Systems (APTS) suite that improves operational efficiency and customer service. The benefits derived from TIDE are critical to attracting choice riders and reducing delay on the highway and bridge network. As technology advances, additional capabilities will become available and incorporated as the system matures.

APTS implementation plans based on TIDE experiences and lessons learned should be developed for RTS' regional operations. Automatic Vehicle Location systems are in use on RTS Access and RTS Livingston buses. Additional APTS elements and associated instrumentation should be considered as appropriate on all RTS regional services to improve operational functionality and improve customer service.

### **29. Introduce Transit Signal Priority (TSP) on heavily traveled RTS routes to decrease travel time and improve reliability – Near-Term**

TSP allows buses to signal their arrival at an intersection and, as overall operations requirements allow, receive a green light as they approach to continue through. TSP works best in combination with the consolidation of stops and incorporation of queue jump lanes (i.e., lanes dedicated to transit vehicles at the approach to a signalized intersection allowing buses to jump to the front of queuing cars and trucks). TSP and associated roadway configuration improvements can serve as a precursor to more robust transit services, including Bus Rapid Transit. The *RTS Signal Prioritization Study* has identified the Lake Avenue (RTS Route 1) and Dewey Avenue (RTS Route 10) routes as the optimal routes to introduce TSP. The introduction of queue jump lanes should be accomplished as part of highway reconstruction projects, as appropriate, and in coordination with RTS.

### **30. Use the Systems Engineering approach to implement ITS projects. – Ongoing**

Systems Engineering considers the entire life cycle of a project, including the design, deployment, operation, maintenance, retirement, and replacement phases. This approach maximizes agency resources and ensures integration among systems and system components (e.g., hardware, software, policies, procedures, and personnel), thereby increasing the probability that ITS projects will be delivered on-time and within budget, and will meet user needs.

#### Coordination

TSMO programs and projects also include the Coordination of transportation infrastructure and services and the associated relationships among all transportation agencies, including but not limited to NYSDOT, NYSTA, counties, the City of Rochester, and other municipalities. How transportation agencies coordinate their respective activities can maximize the investment of public resources and the delivery of services that clear crashes, address weather-related consequences, and provide connections between public transportation services operated by public and not-for-profit providers. The structure of interagency collaboration between transportation, emergency management, and law enforcement entities is critical to efficient management and operation of the transportation system.

### **31. Develop interagency agreements, such as Regional Concepts of Transportation Operations (RCTOs) and Concepts of Operations, to improve collaboration and coordination – Immediate/Near-Term**

Formalized interagency agreements help stakeholders to more efficiently operate and manage their infrastructure and are critical to the successful operation of jointly managed ITS deployments. A RCTO provides a shared strategy among transportation agencies representing all modes, law enforcement, and emergency responders

## WHAT'S BEING PROPOSED

to better coordinate system operations and management. Concepts of Operations define a systems' operational requirements and facilitate interagency understanding of project goals. For example, the City of Rochester has developed a Concept of Operations for coordination of ITS operations at the Port of Rochester among City, County, and State agencies.

### **32. Continue federal funding for Regional Traffic Operations Center (RTOC) staffing, including continued 24-hour operations and cross-training of NYSDOT and Monroe County staff – Ongoing**

To take full advantage of the capabilities provided by current and future ITS instrumentation, trained personnel need to be available at all times to monitor and process the information provided. Improving interoperability is an important component that can be addressed through cross-training of NYSDOT and Monroe County operators, with the expectation that greater consistency between ITS instruments, software, and associated applications can occur in the future.



HELP Trucks — Monroe County

### **33. Continue federal funding for the NYSDOT Highway Emergency Local Patrol (HELP) Program to decrease delay and increase safety on major highways by providing emergency roadside service to disabled vehicles – Ongoing**

The HELP Program is an important initiative in minimizing non-recurring incident-related delay. The program provides assistance to motorists experiencing vehicle problems on major roadways that, without quick action, will limit capacity and cause congestion. The *NYSDOT-Region 4 Advanced Transportation Management System Local Evaluation Report* found that the HELP Program had one of the highest cost/benefit ratios of any initiative assessed.

### **34. Coordinate relevant training opportunities between transportation, law enforcement, fire and medical, and other agencies to improve incident response, management, and clearance – Ongoing**

Clearing crashes as quickly as possible while providing for the safety of emergency responders and law enforcement agents requires significant coordination. The Genesee-Finger Lakes Regional Traffic Incident Management Symposium, held in October 2015, provided technical training for regional law enforcement, first responders, transportation system management agencies, and the local towing industry. This event or a similar training opportunity should be offered in the region on a regular basis.

### **35. Support and promote informational programs to reduce distracted driving – Ongoing**

Studies have shown that distracted driving is comparable to operating a vehicle while impaired by alcohol or drugs. Traffic safety boards that include transportation agencies, law enforcement, and other organizations should develop and implement educational and enforcement programs to reduce distracted driving.

### **36. Ensure that public transportation facilities are accessible to all users – Immediate**

If reasonable access to bus stops or shelters is compromised (e.g., snow and ice have not been cleared and/or sidewalks are impassable), the viability of public transportation is also compromised. The responsibility for ensuring this access is typically borne by the owner of the right-of-way in which the sidewalk is located. There should be greater awareness of responsibility for keeping bus stops fully operational. Sidewalks that provide access to public transportation should be prioritized for sidewalk preservation and maintenance activities.

### **37. Preserve existing rights-of-way for future transportation uses that may be needed – Ongoing**

Existing linear rights-of-way – including active and abandoned rail corridors and utility corridors – that are suitable for transportation purposes should be preserved as corridors for potential future use. When portions of these corridors are used for non-transportation purposes, it is very challenging and often cost prohibitive to reestablish or create a new corridor. The 2015, *Regional Rights-of-Way Study*, identifies 16 priority corridors that are no longer used for their original intent. Through stakeholder outreach, eight of the 16 corridors were identified as a high-priority. Detailed corridor profiles including potential future uses, associated costs, and preservation strategies were developed for these eight high-priority corridors. Coordination between land owners and agencies will be required to maintain potential future access.

### **Demand**

These initiatives provide users with better and additional information to manage the Demand that is placed on the system. In some cases, technology is the primary enabler of the provision of the information (e.g., text alerts regarding incidents and next bus arrival times, etc.). In other cases, information is provided to travelers on printed materials (e.g., color coordinated wayfinding signage to assist visitors in reaching their destination, marketing fliers promoting a new transportation service, etc.).

Making full and complete information on options and conditions widely accessible allows users to choose how they travel based on their individual needs. Providing access to travel time, route, and cost information for multiple modes (specifically, non-single occupancy vehicles) in a single place permits users to comparatively assess their full range of options. Doing so via the internet is currently the most effective means for users to revise or adjust their travel choices.

### **38. Continuously identify ways to increase and improve real-time travel information – Ongoing**

Providing real-time travel information is an important component of managing travel demand and getting the most out of existing infrastructure and services. Improved information on travel options via Dynamic Messaging Signs, the proliferation of smart-phones with apps displaying real-time traffic conditions along with transit arrival and departure times, and the ability of transportation agencies to access real-time and historic travel times will lead to better decision making across all modes. Technologies surrounding travel time data are changing in ways that cannot be predicted over the coming decades. Distilling “big data” resources via massive historic travel time datasets into comprehensible snapshots of information will prove challenging for transportation agencies.

# WHAT'S BEING PROPOSED

## **39. Promote use of the Greater Rochester Regional Commuter Choice Program (Roceasyride) to provide up-to-date, consolidated information on transportation options and allow for comparative assessment - Ongoing**

GTC established Roceasyride in April 2012 as an online service (Roceasyride.org) where commuters can find other commuters with proximate origins and destinations for carpooling, identify optimal public transportation routes and schedules, and determine preferred bicycling routes. Roceasyride.org provides information and opportunities to save money and reduce emissions via the various non-single-occupancy vehicle travel options available. Use of Roceasyride should be promoted and marketed to increase its overall effectiveness by maintaining the user levels necessary to facilitate relevant matches for users.



## **40. Integrate the Greater Rochester Regional Commuter Choice Program (Roceasyride) with the 511NY Program – Near-Term/Medium-Term**

The Roceasyride program and 511NY program share common goals. The 511NY program is maintained by NYSDOT and is the state's official traffic and travel resource. The program is accessible through the internet and by phone, and provides current traffic and weather conditions. It includes a public transportation trip planner, that has carpooling and vanpooling resources. The program is enhanced regularly and should continue to provide relevant, timely information to transportation system users. Integrating these two programs will increase traveler benefits by providing a "one-stop shop" for users to obtain information and assess options for trips originating or ending within the region.

## **41. Support integrated/coordinated interchange and arterial signal timing plans – Ongoing**

Optimizing signal timing along and between major corridors improves the efficiency of traffic operations, helping to reduce delay and vehicle emissions. For example, replacing existing fixed-time signal controllers with actuated ones (i.e., light cycles change when triggered by actual needs) that can be adjusted remotely rather than require manual modification of timings will allow for quicker responses to changing traffic conditions. Traffic signal synchronization along corridors must also include input from agencies whose roadways intersect with the corridor so that the needs of adjacent and parallel facilities are considered.

## **42. Improve or install wayfinding signage in business, cultural, and other unique districts as well as in interregional travel facilities – Near-term/Mid-Term**

Providing information at key locations is an important element in providing access to specific destinations and can reduce delay and visitor angst. Districts and interregional travel facilities that would benefit from the introduction of new or improved wayfinding signage should assess needs/requirements and then determine an appropriate form of signage that is simple, effective, and aesthetically consistent with the area. Wayfinding signage for and along multi-use trails should also be considered.



Wayfinding signage — Downtown Rochester

### 43. Implement electronic parking guidance systems – Medium-Term/Long-Term

Electronic parking guidance systems help to maximize the existing supply of parking by increasing the efficiency by which motorists are able to locate an appropriate parking space, be it in a garage, surface lot, or on-street. These systems can be particularly useful during planned events such as concerts, festivals, and sports games. Options for implementing such systems include utilizing dynamic messaging signs and developing smart phone applications and in-vehicle communication technologies to provide relevant parking information.

#### Expansion

Based on the identified transportation needs of the region through 2040, **Expansion** of the bicycle, pedestrian, and public transportation networks is necessary. The level to which this can occur is limited by the reasonably expected revenues available for investment in the system over the next several decades and the need to preserve, maintain, and better manage and operate the existing system. Accordingly, investments in additional infrastructure and services must build upon the existing system by either increasing connectivity (i.e., bridging gaps) or offering increased access. The objective of these recommendations is to *expand* travel choices available to residents, visitors, and freight – not to replace current options. There are three primary initiatives that serve as the basis for the Expansion recommendations in the *L RTP 2040: Bicycle and Pedestrian, Public Transportation, and Vehicle and Energy Options*.

### 44. Improve connectivity within and between transportation modes and networks – Ongoing

Gap filling projects should serve multiple modes and infrastructure types when appropriate by connecting sidewalks to bus stops, providing park and ride locations, providing bike-on-bus opportunities, and making convenient connections from multi-use trails to the street network. These connections should ensure

accessibility to people with disabilities, and should consider the lifespan of the connected networks taking into account the needs of both current and projected users.

### 45. Study the feasibility of siting future rail sidings and cross dock facilities at regionally significant locations to attract, promote, and support rail-enabled businesses – Near-Term/ Medium-Term

Opportunities may exist for the siting of new rail sidings and cross dock facilities at strategic locations to more efficiently and cost-effectively ship bulk goods. Rail sidings offer direct access to rail-enabled businesses and cross dock facilities allowing bulk commodities to be shipped longer distances via rail reducing the dependency on long-haul trucking. Increasing opportunities to ship bulk commodities along rail facilities offers businesses cost savings, lowers vehicle emission rates, saves wear and tear on highway and bridge facilities (by placing heavier commodities on the railroads), and increases rail-enabled economic development and job opportunities.

#### Bicycle and Pedestrian

Based on current and projected development patterns and trip making characteristics in the Region, expanding the Bicycle and Pedestrian networks offer the greatest opportunity to improve public health, reduce greenhouse gas emissions, and provide additional mobility and accessibility to the majority of residents. Regional highway project proposal criteria, through the TIP, favor reconstruction and rehabilitation projects that add or improve on-street bicycle space and sidewalks. The Region has used federal transportation funds to make a significant investment in planning and implementing a comprehensive regional multi-use trails network that is dedicated to providing an efficient and safe bicycle and pedestrian network for both commuting and recreation. In addition, offering the opportunity for individuals to have access to a bicycle without owning one or having theirs immediately available can also assist in reducing energy use and emissions.

## WHAT'S BEING PROPOSED

### **46. Expand and increase the connectivity of the region's multi-use trail system per the Regional Trails Initiative – Ongoing**

The Regional Trails Initiative (RTI), which helps guide trail development in the region, was published in 2002-2004 and is currently being updated to account for the considerable progress in "filling the gaps" that has occurred in the 10-plus years since it was completed. Accordingly, investments in expanding the multi-use trails system should focus on the gaps identified in the RTI Update as this strategy is expected to best meet current and future demand, and, by addressing the areas of highest existing and anticipated use, maximize the investment of limited resources. In cases where off-road trail alignments not available, on-street facilities should be implemented if complete streets can be provided along the affected segments.



Trail signage — Town of Ontario

### **47. Increase the availability of sidewalks along federal-aid eligible highways to expand connectivity and access for pedestrians – Ongoing**

With the majority of retail, commercial, and civic uses located along major roadways that are eligible to receive federal-aid, the provision of sidewalks is critical to accessing these destinations. Beyond adding them as part of federally-funded highway reconstruction and replacement projects, sidewalks should be improved where their condition deters walking and added, where appropriate, considering the need and type of place. Particular emphasis should be given to closing gaps in network and extending existing sidewalks.

### **48. Promote safe routes to school (SRTS) programs and the availability of technical resources to implement them – Ongoing**

SRTS programs promote deliberate efforts to increase the number of children that can safely walk and bicycle to school in all places (e.g., urban, suburban, and rural). By encouraging "active transportation", they complement ongoing community- and school-based programs and activities intended to improve the overall health and wellness of children.

Many SRTS also serve as safe routes to play, doubling their purpose in promoting active lifestyles and reducing the tendency towards increased instances of childhood obesity and diabetes. In addition, SRTS programs can reduce delay during drop-off and pick-up periods. While federal funding exclusively dedicated to SRTS is no longer available, these projects remain eligible under a variety of federal, state, and local funding sources, and some can be implemented at a relatively low cost, providing mobility and health benefits as active transportation.

### **49. Ensure that all fixed route buses can accommodate bicycles - Immediate/Near-Term**

Bicycle racks on buses promote increased use of bicycling and public transportation by allowing riders to travel further distances to/from the bus stop than if they had to walk. Bicycle racks are currently installed on all RTS Monroe buses and being added to RTS regional services. In all places where fixed-route bus service is available, bicycle racks are a cost-effective means to improving intermodal connections. Bus operators should be trained in the use of these racks and encouraged to assist customers in utilizing them.

### **50. Increase the amount of bicycle parking in key places throughout the Region (specifically Urban Cores, Employment Centers, Retail, and Higher Education locations) - Near-Term/Medium-Term**

Bicycles provide a low-cost, active means of transportation and are financial assets to both commuter and recreational users. Bicycle use can be discouraged, however, if places to park or store them securely are not available. Short- and long-term bicycle parking should be highly visible, advertised, and located in well-lit areas (preferably with surveillance to deter theft and vandalism). Associated signage should be included wherever appropriate.

### **51. Assist in the implementation of a regional bike sharing program to expand access to bicycles without requiring ownership - Immediate/Near-Term**

The *Rochester Area Bike Sharing Program Study*, completed in March 2015, has determined that a bike sharing program is feasible for the Center City and surrounding areas. The study provides a strategic plan for implementing the program utilizing public, private, and not-for-profit-contributed funding, and administered by a yet-to-be-identified sponsoring organization. As bike sharing programs promote increased use of not only bicycling but also public transportation (by allowing program members to travel further distances to/from the bus stop than if they had to walk), GTC should work with local

partners to identify a suitable sponsoring/administering organization and assist in the advancement of the initiative.

### Public Transportation

To effectively serve the needs of the Region through 2040, a fundamental shift in what is considered Public Transportation will need to occur. The fixed-route and dial-a-ride services of RGRTA will need to be supplemented to a greater degree by specialized transportation services supplied by not-for-profit agencies and private providers. Ensuring access for persons with disabilities, seniors, and other transit-dependent populations to medical appointments, employment, and social events will be a major determinant of their independence, quality of life, and the overall livability of the Region.

### **52. Increase the frequency of fixed-route public transportation services as customer demand dictates – Near-Term/Medium-Term**

Fixed-route public transportation service supports and is supported by adjacent land uses that provide density in both population and employment. Determinations of when and where to increase frequency of service should consider lower-income residents' employment prospects, retail and commercial businesses' operating hours, and access to medical facilities. There is also potential to increase service via "interceptor routes" (i.e., routes that intersect and provide a minimal layover period) and reduce trip length by eliminating the need to transfer downtown.

### **53. Construct satellite transit facilities in the City of Rochester and assess their feasibility in Mature and Recent/Emerging Suburbs – Near-Term/Medium-Term**

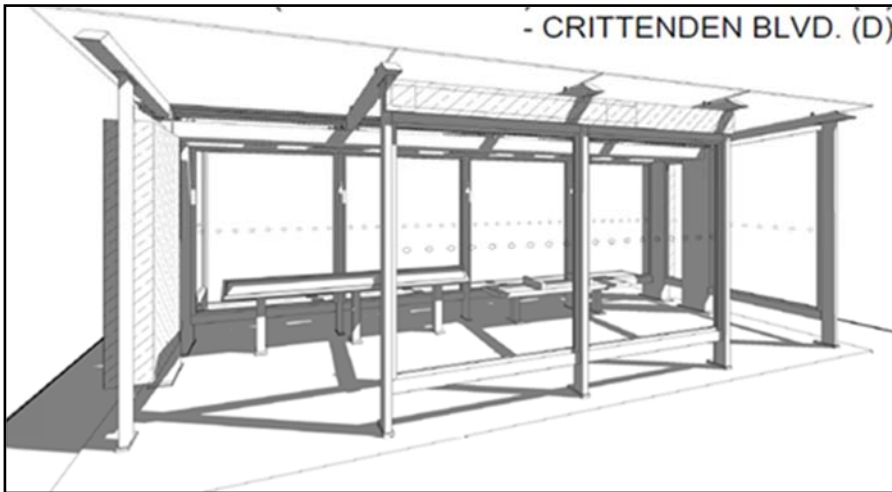
Mixed-use developments are transit-supportive and more attractive to both residential and commercial tenants when serviced by fixed-route public transportation. This interaction can lead to increases in choice riders (i.e., individuals who have a choice to either use public

## WHAT'S BEING PROPOSED

transportation or travel via privately-owned automobile). RGRTA is actively developing transit facilities as part of the University of Rochester's College Town development. In addition, a feasibility assessment of the RTS Park and Ride route structure with respect to service to suburban areas through mixed use developments that include a satellite transit facilities has been conducted and has identified suburban locations with the greatest potential for development that supports public transportation use.

### **54. Explore the feasibility of increased public transportation service across county lines to provide customers with greater access to services and jobs – Near-Term**

With RGRTA as the sole public transportation provider in the region, there are increased opportunities to coordinate transit services across county lines. Through its operating subsidiaries RGRTA should seek to reduce regulatory barriers to inter-county service and explore the potential to provide more efficient service near county boundaries.



Rendering of a station at University of Rochester's College Town.  
Image credit: RTS

### **55. Explore opportunities to provide service directly to Mount Hope Station from areas with high concentrations of customers, including express service to and from the Downtown Transit Center – Immediate/Near-Term**

The University of Rochester (UR), including its college and medical center, is the largest employer in the region. The area around the UR has many smaller employers providing services to UR visitors, employees, and students as well as area residents. Several bus routes converge on the UR campus and it is the second busiest location in the RTS Monroe service area. Mount Hope Station is a distributed station concept on the UR campus that provides a higher level of service than typical bus shelters. Opportunities may exist for increased transit service at and near Mount Hope Station.

### **56. Explore opportunities to provide bus shelters with enhanced passenger amenities that serve large trip generators – Medium-Term**

In order to attract choice riders, bus shelters serving large trip generators should offer enhanced amenities that provide additional security (call buttons), comfort (heat), and information (Advanced Traveler Information Systems). Such amenities would make taking the bus a more attractive option and improve the experience for all riders. Representative project: Such amenities are currently being implemented as part of Mount Hope Station.

### **57. Continue to support mobility management initiatives that coordinate services of public, not-for-profit, and private transportation providers for the elderly, low-income individuals, and people with disabilities – Immediate**

Mobility management involves meeting individual needs through the variety of services offered by multiple transportation providers. County- and regional-level mobility management initiatives, including information sharing, inter-county operations, and scheduling and ride matching technology improvements, offer opportunities to improve the effectiveness of existing services and meet increasing needs.

## WHAT'S BEING PROPOSED

In the near-term, efforts should focus on supporting and enhancing county-level initiatives already underway, with region-wide coordination between counties as a longer-term goal. This bottom-up approach will allow a gradual increase in transportation system coverage as participating agencies share knowledge and build the capacity to implement mobility management programs.

### **58. Implement vanpooling services as a demonstration project – Immediate/Near-Term**

A Vanpool allows groups of people (ideally consisting of groups of five to 12 people) to share a ride from a common origin to a common destination, typically for work commuting purposes. This allows people to share the cost of fuel and operating costs and realize individual commuting cost savings. Vanpools help bridge the gap to employment sites, typically in the suburbs or rural areas, that may be underserved by public transit. The *Rochester Area Vanpool Feasibility Study* determined that vanpooling is feasible in the Region and recommended that RTS implement demonstration vanpools to determine their viability.

### **59. Explore the feasibility of High-Capacity Transit (HCT) to serve the urban core and surrounding suburbs – Long-Term**

Compared to traditional fixed-route bus service HCT (e.g., bus rapid transit, streetcar, light rail) can provide a higher level of service for a greater number of passengers in a particular corridor by offering frequent service with fewer planned stops. Depending on the selected service model, HCT may also operate along a dedicated right-of-way for all or part of its route. Over the next 25 years potential alignments and development patterns that would allow for HCT service to be realized in the Region may emerge.

### Vehicle and Energy Options

To address energy, air quality, climate change, and cost concerns, the migration of energy sources for public fleets from gasoline and diesel to domestically-produced, cleaner options need to be accelerated. The expanded availability of alternative energy sources for vehicles is largely dependent on actions at the national level but options that are immediately available are fully considered as part of this initiative. The establishment of alternative fuel dispensing and electric vehicle recharging infrastructure for public fleets can spur the use of more sustainable energy sources by other public operators, as well as private automobiles, creating private sector demand to provide the service. Given the global nature of crude oil pricing and recent volatility in the market, it is important to diversify energy sources to avoid being overly dependent on any single source.



Electric Vehicle charging station outside  
Rochester City Hall

## WHAT'S BEING PROPOSED

### **60. Encourage and support the expanded use of more energy efficient, alternative fuel vehicles (e.g., electric and hybrid) and retrofitted vehicles in public and private fleets – Ongoing**

Encouraging the use of cleaner, more energy-efficient vehicles by providing information on their capabilities and limitations, and financially supporting their purchase for use in public fleets (including school buses), can significantly increase their use in both public and private sectors. GTC has and continues to partner with Genesee Regional Clean Communities, including providing funding through the TIP, to incentivize the replacement of gasoline and diesel vehicles with those that are more energy efficient and environmentally friendly, as well as retrofit existing vehicles to reduce emissions.

Representative projects include: funding to retrofit CSX Transportation switcher locomotives with more efficient engines that increased operating efficiencies and significantly reduced emissions in and around the Goodman Street Yard, improving air quality in the surrounding neighborhood and the purchase of plug-in hybrid electric vehicles for the City of Rochester.

### **61. Assess the feasibility of a regional car sharing program to expand access to automobiles without requiring ownership - Immediate/Near-Term**

Many individuals want to enjoy the benefits of a private vehicle but may not have enough of a need to warrant the costs of ownership. In addition, lower-income individuals may not be able to afford a vehicle but would benefit from access to one for trips not served by other modes. Individuals who participate in car sharing programs typically have a desire to lower overall transportation costs, drive less, and use other modes more frequently. Additionally, many public agencies do not use or need passenger vehicles on a full-time basis (excluding police and emergency responders). Car sharing may allow these agencies to reduce vehicle purchase and maintenance costs while allowing for access when needed.

### **62. Increase the number of Truck Stop Electrification (TSE) facilities to reduce idling emissions – Immediate/Near-term**

Operators of long-haul trucks often idle their vehicles when stopping overnight to provide heating or cooling in their cabs and to maintain the charge of vehicle batteries while using appliances leading to increased diesel emissions. Expanding the number of facilities that provide TSE options can improve air quality, reduce fuel use, and decrease maintenance costs. The New York State Energy Research and Development Authority (NYSERDA) may have funding opportunities in the future to study the feasibility of and/or assist with siting TSE facilities. GTC should explore partnerships with NYSERDA if an opportunity arises.



Traffic — Ontario County

## Illustrative Projects

The recommendations discussed above will be advanced with the reasonably expected revenues available through 2040. In addition, other projects have been identified that the Region would pursue implementation if and when additional funding becomes available. These projects are provided for illustrative purposes and represent actions above and beyond those that can reasonably be expected to be accomplished given limited federal resources. Financial partnerships with private and not-for-profit entities should be explored; specifically, those that would directly benefit from the projects. Each of these projects have been discussed and vetted through the regional transportation planning process and are considered worthy of implementation if sufficient additional revenues were to be made available for their advancement.

### **63. NYS Route 390/I-490 Interchange/Lyell Avenue Interchange**

The NYS Route 390/I-490 Interchange/Lyell Avenue Interchange is the Finger Lakes Regional Economic Development Council's (FLREDC) 2015 Highest Priority Transformational Project and is identified as a near-term recommendation in the 2012, *Regional Goods Movement Strategy*. The Interchange serves approximately 200,000 vehicles a day – the daily equivalent of the Brooklyn Bridge and the Manhattan Bridge combined. The interchange suffers from peak-period congestion, higher than average crash rates, and deteriorating facilities that are leading to higher operating costs. The Lyell Avenue Interchange with Route 390 serves the southern end of Eastman Business Park and the Rochester Technology Park – both freight generators and major employment centers. The FLREDC's highest economic development priority remains fully revitalizing the Eastman Business Park, and the congestion and access issues surrounding the Lyell Avenue/Route 390 Interchange is a limiting factor to redevelopment. This project would address safety concerns, current and future capacity issues, and operational constraints over four phases at an estimated total cost of \$157 million. The replacement of the Lyell Avenue bridge over I-390 and the realignment of the

northbound exit ramp is already funded.

### **64. Western New York Science and Technology Advanced Manufacturing Park (STAMP) - Infrastructure and Transportation Improvements**

The STAMP Infrastructure and Transportation Improvements is identified as a Finger Lakes Regional Economic Development Council's 2015 High Priority Transformational Project. The 2012, *Regional Goods Movement Strategy*, previously identified improving access to regional priority economic development sites, including the STAMP site and the Buffalo East Technology Park located in nearby Pembroke, as a near-term recommendation. The STAMP site is a shovel-ready 1,250-acre mega site currently under development located five miles from the NYS Thruway in Genesee County that will support nanotechnology and advanced manufacturing – potentially creating thousands of jobs. The installation of infrastructure to support the first advanced manufacturing tenant is underway. In order to accommodate increased freight traffic to the site, transportation infrastructure improvements are needed along NYS Route 77 between NYS Route 5 and NYS Route 63 in Genesee County. Additional funding through the FLREDC will be sought to continue roadway improvements as the site is further developed.

### **65. Establish a Center City Circulator Service to serve daily commuters, visitors, and tourists**

The circulator service would be designed to serve the needs of morning and evening peak period commuters, daytime workers and tourists, and evening/late-night visitors and tourists. The service would link major employment destinations, entertainment venues, and parking in Downtown Rochester, extending into the East End, High Falls, and Cascade districts. At present, it is recommended that this service initially utilize buses that could be purchased for \$1.5-\$1.75 million and be operated for \$2-\$3 million per year in current dollars. The feasibility of converting the service to modern streetcars or some other fixed-guideway system should be considered based on ridership and changes in development Downtown.

## WHAT'S BEING PROPOSED

---

### **66. Support efforts to establish high-speed passenger rail service on the Empire Corridor**

Improved passenger rail service between Buffalo and Albany (with connections to Toronto and New York City) that is faster and more reliable than current Amtrak service should be provided as it offers the opportunity to increase connections within the larger mega-region. As part of this, the Rochester Intermodal Transportation Center (i.e., Downtown Train Station) is being built and the development of a station in central Wayne County should be strongly considered. To be feasible, this service must save time for existing riders, attract new riders from other modes, and not interfere with freight operations. NYSDOT has undertaken planning for proposed higher-speed passenger rail service along the Empire Corridor. Once the associated corridor-wide Environmental Impact Statement is drafted, the region will be able to consider whether the proposed service meets future transportation needs.

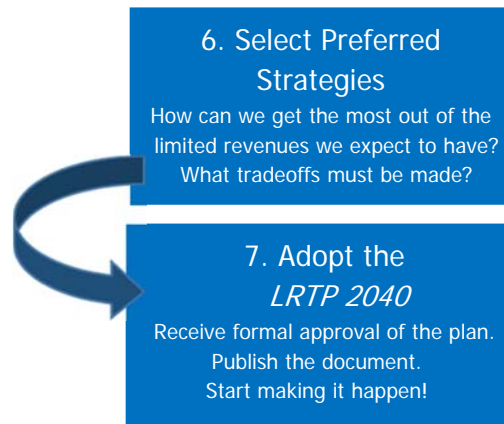


WHERE WE GO FROM HERE



## WHERE WE GO FROM HERE

**What happens next?** The publication of this document brings GTC to step 6. Select Preferred Strategies, moving towards the final step 7. Adopt the *LRTP 2040*, as shown below. The selection of the final preferred strategies or final recommendations will take place in March based on the public input and comments received during this public review process.



After finalizing the recommendations of *LRTP 2040*, the Draft *LRTP 2040* will be presented to the GTC Planning Committee in the spring. The Planning Committee is comprised of transportation and planning technical professionals who review and recommend action on activities and work products that are then considered by the GTC Board. If approved, the Planning Committee will recommend that the GTC Board adopt *LRTP 2040* at their June 9 meeting.

The *LRTP 2040* Public Review Document is available for public review from Tuesday, February 16, 2016 through Friday, March 18, 2016.

GTC is currently conducting a second round of public involvement to solicit comments on this document and the recommendations contained herein. As part of this public involvement period public meetings are scheduled on the following dates and times:

Thursday, February 25, 2016 2:30 p.m. – 4:30 p.m. 5:30 p.m. – 7:00 p.m.	<b>Community Room</b> Batavia City Hall One Batavia City Centre Batavia, NY 14020
Tuesday, March 1, 2016 2:30 p.m. – 4:30 p.m. 5:30 p.m. – 7:00 p.m.	<b>Rochester City Council Chambers</b> Rochester City Hall 30 Church Street Rochester, NY 14614
Thursday, March 3, 2016 2:30 p.m. – 4:30 p.m. 5:30 p.m. – 7:00 p.m.	<b>Ontario County Safety Training Facility*</b> 2914 County Rd. 48 Canandaigua, NY 14424

\*If you are planning on using transit please call RTS Ontario (585) 394-2250 to request their Route Deviation services.

Oral and written comments will be accepted at the public meetings. The meetings will be conducted open house style with multiple stations.

## WHERE WE GO FROM HERE

---

Comments will be accepted through Friday, March 18, 2016  
(comments postmarked on or before March 18, 2016 will be accepted)  
and may be submitted to:

Genesee Transportation Council

50 W. Main Street, Suite 8112

Rochester, NY 14614-1227

ATTN: LRTP 2040

Fax: (585) 262-3106

Email: [lrtp@gtcmpo.org](mailto:lrtp@gtcmpo.org)

If you have any questions about the *LRTP 2040* development process  
or the recommendations presented herein, please contact GTC at:  
(585) 232-6240.

