



Elmira-Chemung Transportation Council
2040 Long Range Transportation Plan
December 2019

**RESOLUTION
ELMIRA-CHEMUNG TRANSPORTATION COUNCIL
PLANNING COMMITTEE ENDORSEMENT**

NUMBER: 19-T8

DATE: October 15, 2019

SUBJECT: Approval of Draft Elmira-Chemung Transportation Plan 2040
(the ECTC Long-Range Transportation Plan)

MOVED BY: A. Avery

SECONDED BY: C. Robertson

CONSENSUS: YES 5 NO

ABSTENTIONS: 0

ABSENT: 1

WHEREAS, the United States Department of Transportation (USDOT) Metropolitan Planning Regulations require the development and adoption of a metropolitan Long-Range Transportation Plan that considers transportation investment needs over a twenty-year forecast period, and

WHEREAS, the Planning regulations require review and update of the Long-Range Transportation Plan at least every five years, and

WHEREAS, the Elmira-Chemung Transportation Council (ECTC) adopted a long-range multi-modal transportation plan entitled "Elmira-Chemung Transportation Plan 2035", in December 2014, and

WHEREAS, The Elmira-Chemung Transportation Council has prepared an update to the Long-Range Transportation Plan entitled "2040 Long Range Transportation Plan," and

WHEREAS, The Draft "2040 Long Range Transportation Plan" was released for public comment on October 4, and

WHEREAS, comments received on the Draft have been incorporated in the Final "2040 Long Range Transportation Plan," and this report has been submitted to FHWA and FTA for their approval, and

NOW, THEREFORE, BE IT RESOLVED, that the Elmira-Chemung Transportation Council Planning Committee hereby approves the Draft "2040 Long Range Transportation Plan," and be it further

RESOLVED, that the Draft "2040 Long Range Transportation Plan" be forwarded to the ECTC Policy Committee with a recommendation for approval.

**ELMIRA-CHEMUNG
TRANSPORTATION COUNCIL**

**RESOLUTION
ELMIRA-CHEMUNG TRANSPORTATION COUNCIL
POLICY COMMITTEE ENDORSEMENT**

NUMBER: 19-P8

DATE: November 21, 2019

SUBJECT: Approval of Draft Elmira-Chemung Transportation Plan 2040 (the ECTC Long-Range Transportation Plan)

MOVED BY: D. Mandell

SECONDED BY: D. Manchester

CONSENSUS: YES 4 NO

ABSTENTIONS: 0

ABSENT: 2

WHEREAS, the United States Department of Transportation (USDOT) Metropolitan Planning Regulations require the development and adoption of a metropolitan Long-Range Transportation Plan that considers transportation investment needs over a twenty-year forecast period, and

WHEREAS, the Planning regulations require review and update of the Long-Range Transportation Plan at least every five years, and

WHEREAS, the Elmira-Chemung Transportation Council (ECTC) adopted a long-range multi-modal transportation plan entitled "Elmira-Chemung Transportation Plan 2035", in December 2014, and

WHEREAS, The Elmira-Chemung Transportation Council has prepared an update to the Long-Range Transportation Plan entitled "2040 Long Range Transportation Plan," and

WHEREAS, The Draft "2040 Long Range Transportation Plan" was released for public comment on October 4, and

WHEREAS, comments received on the Final Draft have been addressed in the final version of the "Elmira-Chemung 2040 Long Range Transportation Plan", and

WHEREAS, the ECTC Policy Committee accepts the final version, and

NOW, THEREFORE, BE IT RESOLVED, that the ECTC Policy Committee approves the final version of the "Elmira-Chemung 2040 Long Range Transportation Plan."

RESOLVED, that Elmira-Chemung Transportation Plan 2040 be forwarded to the various Federal and State Agencies as required for further action and approval.

**ELMIRA-CHEMUNG
TRANSPORTATION COUNCIL**

I, the undersigned, Secretariat of the Elmira-Chemung Transportation Council (ECTC), DO HEREBY CERTIFY, that the foregoing is a copy of a resolution duly adopted by said Elmira-Chemung Transportation Council (ECTC) on November 21, 2019 that it is a correct transcript therefrom and of the whole of said original.

IN WITNESS WHEREOF, I have hereunto set my hand November 25, 2019.



Brian C. Kelly, Secretariat

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Commonly Used Acronyms

A/CV	Automated/Connected Vehicles	MaaS	Mobile as a Service
AADT	Average Annual Daily Traffic	MAP-21	Moving Ahead for Progress in the 21st Century Act
ADA	Americans with Disabilities Act	MPO	Metropolitan Planning Organization
ALIS	Accident Location Information System	NEPA	National Environmental Policy Act
BACPAC	Bicycle and Pedestrian Advisory Committees	NHS	National Highway System
BOA	Brownfield Opportunity Area	NHTS	National Household Travel Survey
CHIP	Consolidated Local Street and Highway Improvement Program	NYSAMPO	New York State Association of Metropolitan Planning Organizations
CTC	Coordinated Transportation Committee	NYSDOT	New York State Department of Transportation
DRI	Downtown Revitalization Initiative	ROW	Right-of-Way
ECTC	Elmira-Chemung Transportation Council	SEQRA	State Environmental Quality Review Act
FAST Act	Fixing America's Surface Transportation Act	STIP	State Transportation Improvement Program
FHWA	Federal Highway Administration	TAP	Transportation Alternatives Program
FTA	Federal Transit Administration	TEP	Transportation Enhancement Program
GIS	Geographic Information System	TIP	Transportation Improvement Program
HCM	Highway Capacity Manual	TNC	Transportation Network Company
ITS	Intelligent Transportation System	UPWP	Unified Planning Work Program
LOS	Level of Service	URI	Upstate Revitalization Initiative
LRTP	Long Range Transportation Plan	USDOT	United States Department of Transportation



Chapter 1: Introduction

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. In 1974, the Governor of New York designated the Elmira-Chemung Transportation Council (ECTC) as the MPO for the Elmira Urbanized area (Figure 1.1). ECTC is responsible for facilitating a regional transportation planning and programming process that is continuing, cooperative, and comprehensive for all area projects and activities eligible for funding through the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). The map in Figure 1.1 below shows the boundary of the ECTC planning area, as well as the Elmira Urbanized Area.

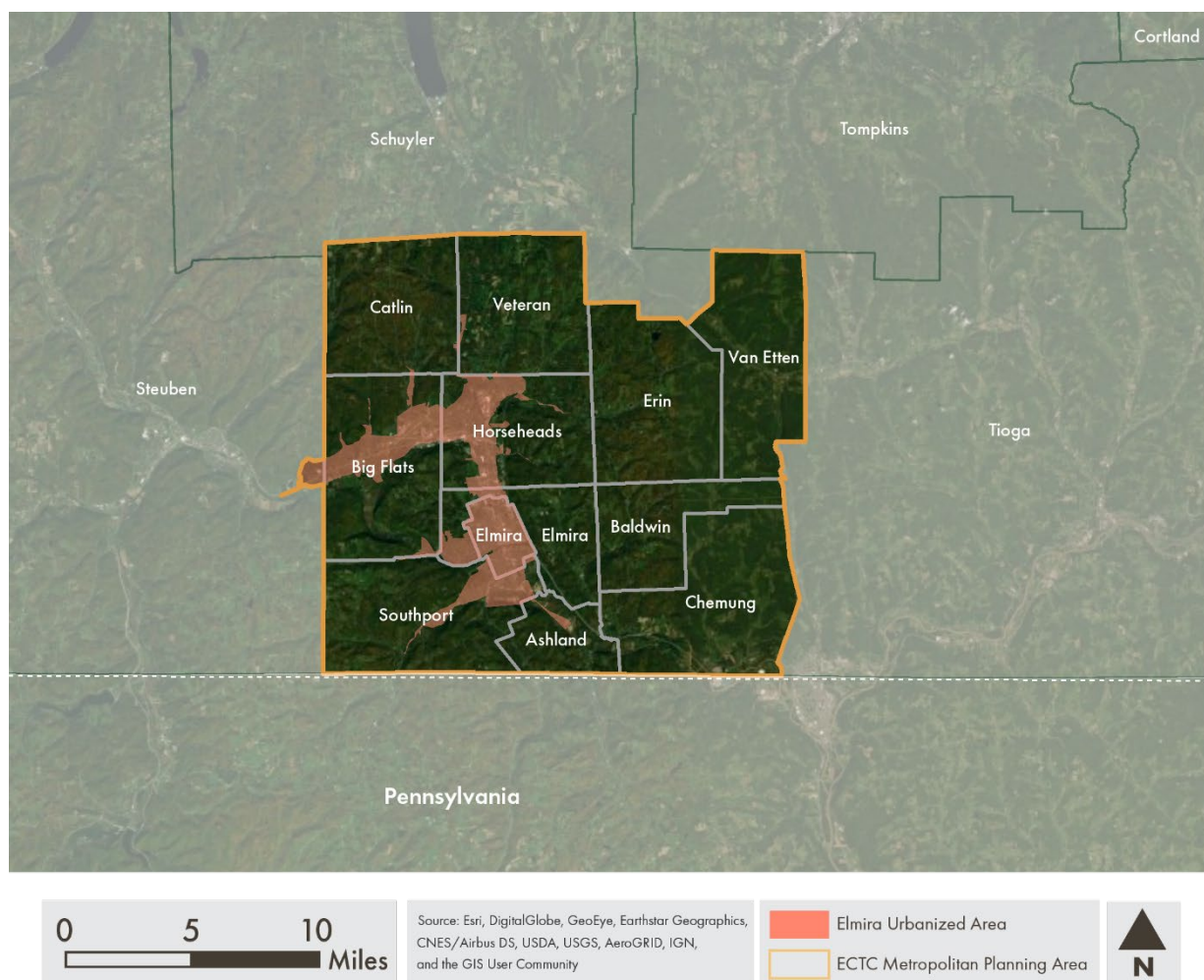


Figure 1.1 Elmira-Chemung Transportation Council Planning Area

The ECTC is responsible for developing and maintaining a Long Range Transportation Plan (LRTP), a Transportation Improvement Program (TIP), and Unified Planning Work Program (UPWP) for the area's federal aid eligible highway and public transit facilities. The LRTP establishes a program of both short and long-term goals and recommendations for a planning horizon of at least 20 years. It is designed to facilitate the development of an integrated and efficient multi-modal transportation system.



1.1 Transportation Improvement Plan (TIP)

The TIP is a five-year listing of capital and non-capital surface transportation projects, regionally significant projects, and transit maintenance and enhancement projects in the region that are selected and programmed to receive federal funding. The TIP is updated every two to three years and represents a prioritized listing of projects intended to address the recommendations outlined in the LRTP. ECTC produced its most recent TIP for October 2019- September 2024. The site specific projects on the 2019-2024 TIP are mapped below in Figure 1.2:



Figure 1.2 2019-2024 Site-Specific TIP Projects

In addition to the projects mapped above, there are several projects in the TIP under the Elmira/Urban Area Pedestrian Safety Project. These projects are focused in the City of Elmira and the Town of Horseheads, but also are being implemented in the Towns of Big Flats and Southport.

1.2 Unified Planning Work Program (UPWP)

The Unified Planning Work Program is the annual work program that identifies the transportation planning and programming activities that are to be undertaken by the ECTC during the State Fiscal Year. The UPWP coordinates annual tasks that the ECTC hopes to accomplish in support of the LRTP, using FHWA and FTA funding in addition to local and state contributions.

ECTC's UPWP covers projects from 2019-2020. The total value of the 2019-2020 UPWP is \$832,592, covering program support and administration, general development and planning, transportation asset management, mobility



and transit enhancement, and the development of the LRTP. 80% of the budget is from federal funds, including FHWA and FTA new and carryover funds.

UPWP Funding by Task

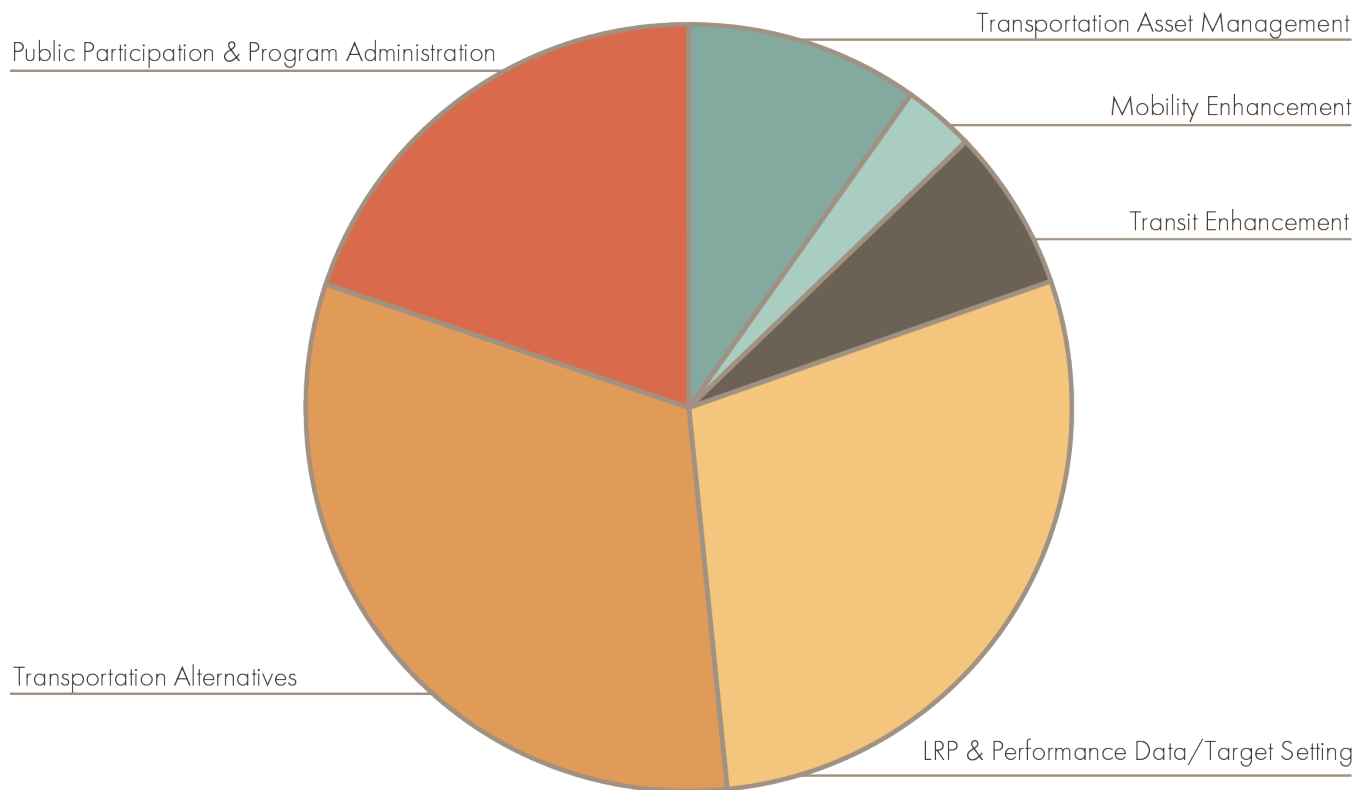


Figure 1.3 UPWP Funding by Task

1.3 ECTC Organizational Structure

The ECTC consists of three principal working groups – the Policy Committee, the Planning Committee, and the ECTC Central Staff.

Policy Committee

The Policy Committee consists of the elected and appointed officials representing local, State and Federal governments and other organizations/agencies having an interest or responsibility in comprehensive transportation planning in the Elmira Metropolitan Area. The primary responsibility of the Policy Committee is to establish policies for the overall conduct of ECTC. Members of the Policy Committee include:

- Christopher Moss, Chemung County Executive
- Daniel Mandell, Mayor of Elmira
- David Manchester, Chair, Chemung County Legislature
- Brian Kelly, Region 6 Director, NYS Department of Transportation



- Chelsea Robertson, Southern Tier Central Regional Planning and Development Board
- Donna Howell, Empire State Development Corporation

Planning Committee

The Planning Committee, which the Policy Committee establishes, includes the professional and technical representatives of both the Policy Committee members and public agencies having direct or indirect responsibility for transportation planning and/or implementation. The Planning Committee's primary responsibility is to monitor all technical activities, including the annual development of a draft UPWP and TIP for recommendation to the Policy Committee. Members also direct and consider for recommendation to the Policy Committee all major studies and planning activities. Members of the Planning Committee include:

- Nicolas Vosburg, Chemung County Department of Public Works
- Andrew Avery, P.E., City of Elmira
- Nicolette Wagoner, AICP, Chemung County Planning Department (representing County Legislature)
- Sharon Grabosky, NYS Department of Transportation
- Chelsea Robertson, Southern Tier Central Regional Planning and Development Board
- Vacant, C TRAN
- Donna Howell, Empire State Development Corporation

ECTC Central Staff

Central Staff carries out the technical work that supports the planning process. Members of the central staff include:

- Nicolette Wagoner, AICP, Director
- Michael Perry, Deputy Director
- Courtney Taylor, GIS Transportation Analyst
- Angela Wood, Transit Specialist
- Vacant, General Manager, C TRAN

1.4 FAST Act and Planning Factors

This Long Range Transportation Plan is prepared under the guidance of the Fixing America's Surface Transportation (FAST) Act and the New York State Department of Transportation (NYSDOT) "Forward Four" principles. The FAST Act authorizes \$305 billion over fiscal years 2016-2020 for highway, safety, public transportation, freight, and multimodal transportation programs. MPOs must employ a transportation performance management approach in carrying out their federally-required planning and programming activities, in conformance with the following seven national performance goals for the Federal-Aid Highway Program:



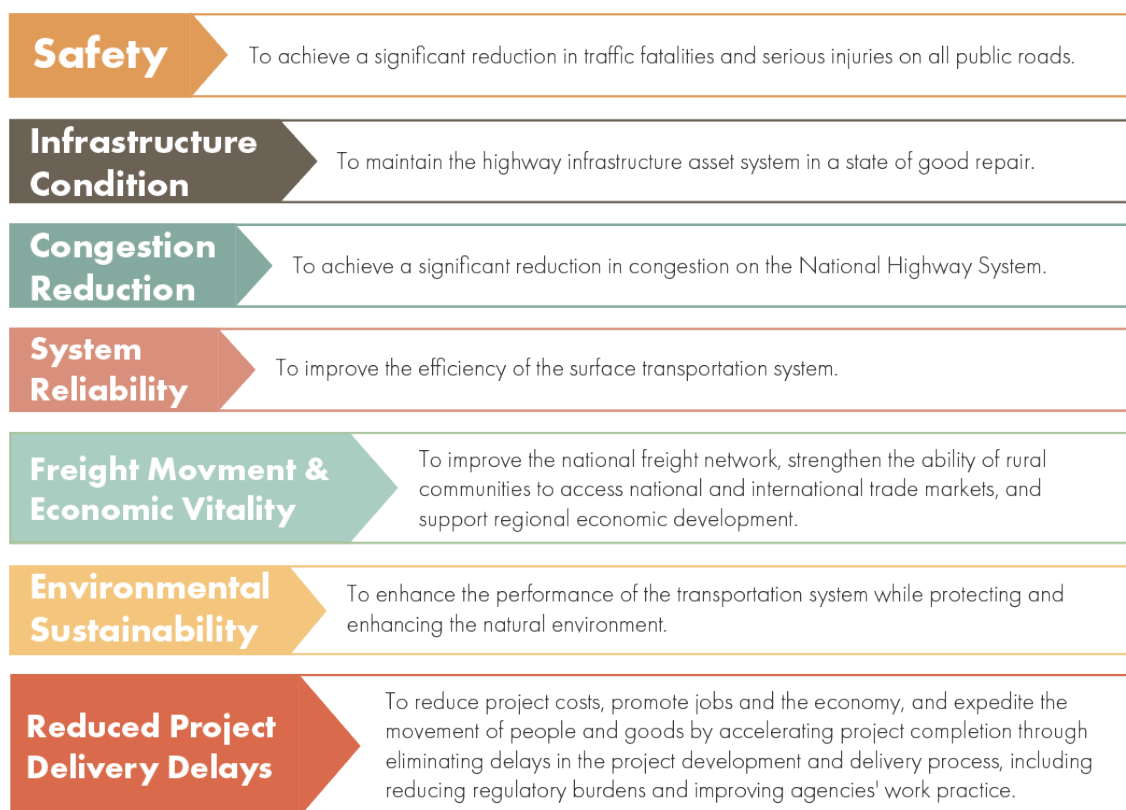


Figure 1.4 FAST ACT Performance

FHWA also has established ten planning factors as a part of the FAST Act that MPOs must take into consideration to establish a continuous, cooperative, and comprehensive planning process. These factors are listed below in Table 1.1:

FAST Act Planning Factor
Support the economic vitality of the region, especially by enabling global competitiveness, productivity, and efficiency
Increase the safety of the transportation system for motorized and non-motorized users
Increase the security of the transportation system for motorized and non-motorized users
Increase the accessibility and mobility of people and for freight
Protect and enhance the environment , promote energy conservation , and improve quality of life ; and promote consistency between transportation improvements and State and local planning growth and economic development patterns
Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
Promote efficient system management and operations
Emphasize the preservation of the existing transportation system
Improve transportation system resiliency and reliability
Reduce or mitigate stormwater impacts on the surface transportation system
Enhance travel and tourism

Table 1.1 FAST ACT Planning Factors



NYSDOT also sets forth the “Forward Four” Principles that must be incorporated into statewide MPO planning:

- Preservation of the existing transportation system
- Consider systematic transportation improvements and not just focus on individual projects
- Maximize return on investment
- Create a sustainable transportation system.

1.5 Purpose and Scope of a Long Range Transportation Plan

Long Range Transportation Plans are a region’s primary tool for laying out significant, long term improvements to their transportation system. MPO’s like the ECTC are required to develop LRTPs to identify how they will allocate federal, state, and local dollars to transportation projects across the region. The LRTP must address no less than a 20-year horizon and be updated no less than every five years. The LRTP shall lead to an integrated multi-modal surface transportation system, giving priority to those elements that serve regional, statewide, and national goals. System-level estimates of the costs of the recommendations contained in the LRTP should not exceed reasonably expected revenues.

1.6 Stakeholder and Public Involvement in the Plan

ECTC is committed to engaging with the public and key stakeholders in every transportation planning process. Effective and meaningful public participation ensures that the results of any planning process align with the community’s vision and goals for the future of the region. ECTC has adopted a Public Participation Plan which outlines a standard policy for soliciting public input and ensuring accessibility of the planning process to all of its constituents, which can be found on Chemung County’s website. The public participation activities that occurred as a part of this LRTP planning process are summarized in Appendix A.

1.7 Plan Implementation

Recommended projects and programs will be carried out in stages through the life of the plan, or 2040. Near-term investments are included in the TIP.

- NYSDOT is responsible for most of the region’s heavily traveled roads. The agency helps to fund a majority of transportation projects in the region; therefore, coordination between NYSDOT and the Policy Committee is crucial for budgeting projects in the TIP.
- Public transit services within the ECTC Planning Area are provided by C TRAN. Local matching funds must be provided for the federal dollars that the region receives to fund transit.
- Bicycle and pedestrian projects that are selected to receive federal funds may be carried out by NYSDOT, local government, or perhaps another public agency, depending on the project.



Chapter 2: Regional Trends and Existing Plans

2.1 Demographic Trends

The gains and losses in population of any defined geographic area have significant ramifications for its economy, transportation patterns, development trends, and a multitude of other aspects that define the quality of life for its residents. Furthermore, the population of a community impacts their transportation infrastructure and service need. Such infrastructure and services are needed to both catalyze population growth and development on one end and to accommodate and absorb transportation demand because of growth and development on the other end.

Data from the 2000 and 2010 decennial census, as well as the 2017 American Community Survey was used to analyze the overall demographic trends in the ECTC Planning Area. The geographies included in this analysis are Chemung County, the City of Elmira, the Town of Horseheads, and the Elmira Urbanized Area. The City of Elmira and the Town of Horseheads are the two largest municipalities in Chemung County, and therefore are highlighted as indicator communities as a part of this analysis. Data for the US Census Bureau-designated “Elmira Urbanized Area” was included as it covers a similar geographic area to that of the MPO boundaries.

Jurisdiction	2000	2010	2017	% Change (00-10)	% Change (10-17)	% Change (00-17)
New York State	18,976,457	19,229,752	19,798,228	1.3%	3.0%	4.3%
Chemung County	91,070	88,830	86,883	-2.5%	-2.2%	-4.7%
Elmira Urbanized Area	67,159	67,983	66,445	1.2%	-2.3%	-1.1%
City of Elmira	30,940	29,200	28,302	-5.6%	-3.1%	-8.7%
Town of Horseheads	19,561	19,485	19,442	-0.4%	-0.2%	-0.6%

Table 2.1 Population Trends in the ECTC Planning Area

Chemung County has experienced moderate decline in population over the past several decades. This is inconsistent with statewide trends, as New York has experienced moderate growth in that same time period, mostly likely concentrated in the downstate region. The Elmira Urbanized Area has seen less substantial population loss than the City of Elmira itself, which saw a decline of almost 9% since 2000. The second largest municipality in the region, Horseheads, is a suburban town, and has had a relatively stable population between 2000 and 2017, which again suggests that the decline in the ECTC planning area is mainly occurring in the urban areas of the County.

The decline in the regional population is not uniformly distributed, as shown in Figure 2.1. The communities that make up Chemung County have experienced a wide range of population change between 2010 and 2017. **Over half of the communities saw their population decline**, with the most extreme being the Town of Ashland losing 14% of its population in seven years. The other five communities saw their populations stay the same or grow slightly, with the highest rate of growth in the Town of Van Etten.



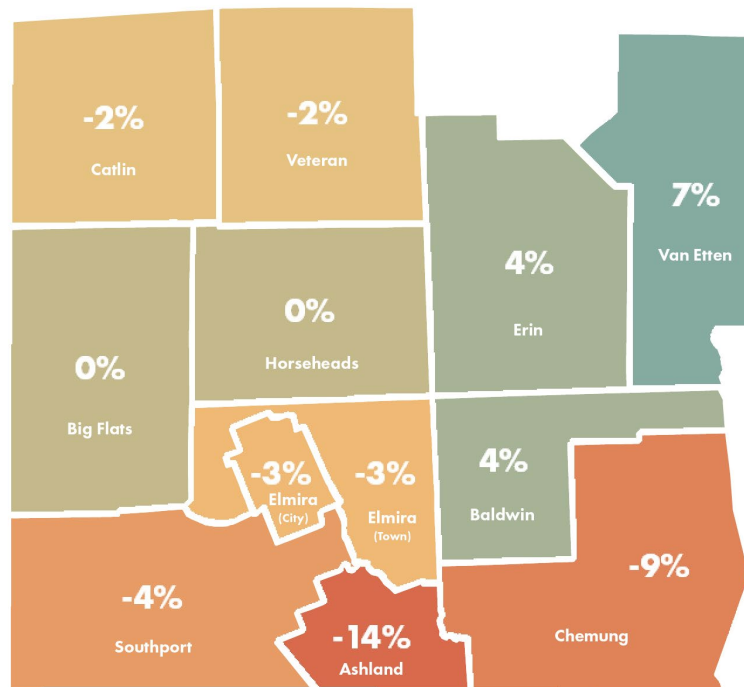


Figure 2.1 Population Shifts in Chemung County Towns & Cities (2010-2017)

2.2 Population Projections

To better understand the future demands on the transportation system in the MPO, population projections can be used to predict future population shifts. Cornell University's Program on Applied Demographics (PAD) provides population projections by county to help communities understand what potential population trends they should anticipate. PAD uses the cohort component model to project the current population into the next 35 years by age and by sex. The cohort component model uses the current population as well as fertility rates, deaths, and migration patterns in each county to determine the yearly population projection.

Figure 2.2 on the following page shows the total projected population by year, as well as the recorded population of Chemung County from 2010-2017. As you can see, the total population is projected to decline annually for the next two decades, although the decline will be relatively slow and stable. Figure 2.3 breaks down the population by age group, which reveals a more nuanced picture of what Chemung County and the MPO can anticipate in terms of population trends in the coming years. From this chart you can see that the population is predicted to get significantly older as the years go on, with the 85+ group having the largest share of the population by 2040. This aligns with the national trend of an aging population, as the baby boomers continue to aging and live longer than the previous age cohort.

This has significant ramifications for the MPO and the functionality of the transportation system moving into the future. As the population ages, older residents may drive less and rely increasingly on public transportation or emerging transportation solutions. Innovations in transportation and mobility may allow older residents to stay in their houses longer while still accessing the goods and services they need. The MPO should be cognizant of this when planning for future transportation needs.



Population Projections: Chemung County

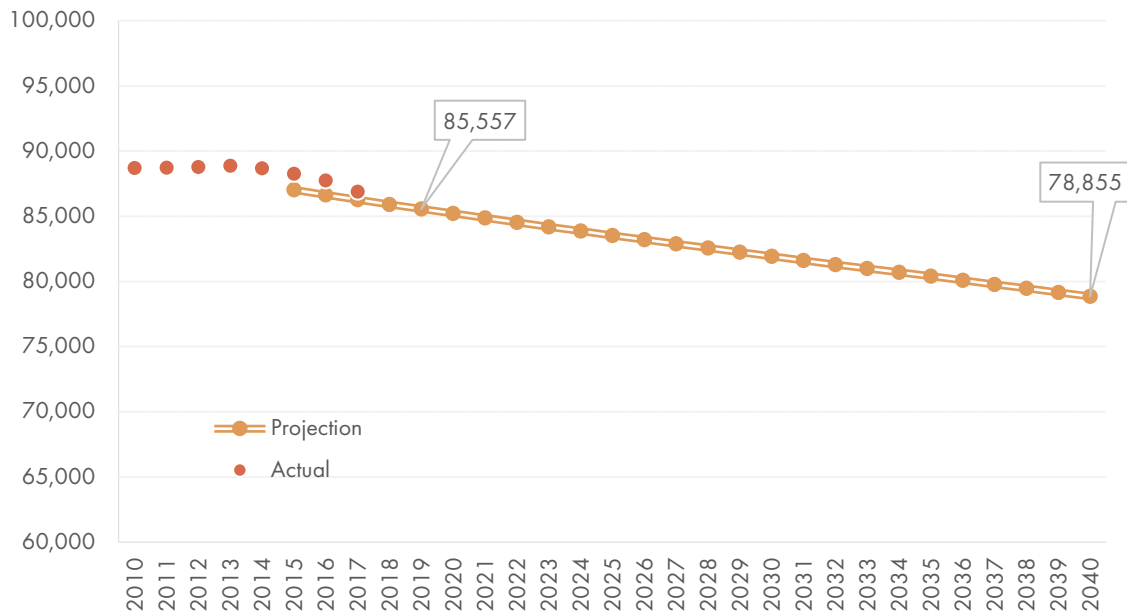


Figure 2.2 Population Projections for Chemung County

Population Projections by Age Group

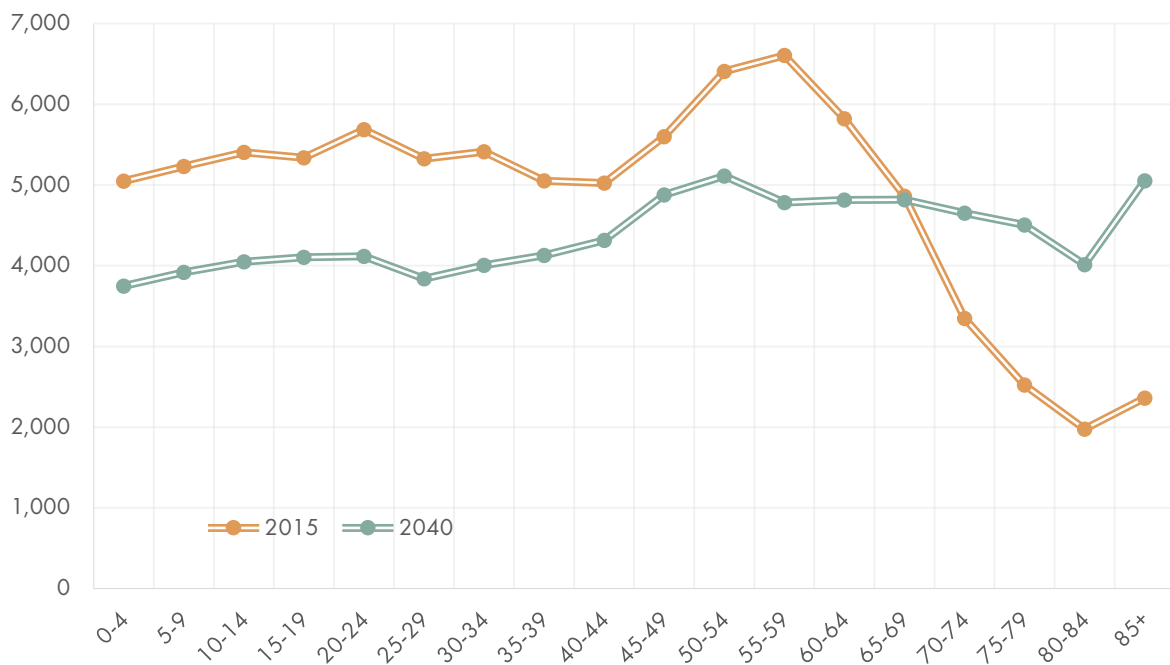


Figure 2.3 Population Projections by Age Group for Chemung County



2.3 Workforce Employment Composition

The composition of the local workforce has significant implications on transportation infrastructure and service needs. Locations and types of employment centers have a major effect on where and when a bulk of travelers are moving on any given day. An analysis of the trends in workforce composition in the ECTC planning area will present a better understanding of the type and level of transportation infrastructure and service necessary in different parts of the region.

Major Employers

The largest employer in Chemung County is Arnot Health. They have several medical facilities in the region, the largest being Arnot Ogden Medical Center and St. Joseph's Hospital. Arnot Health employees 2,300 workers in the region, which is more than triple the employees of the next largest employer, which is Hilliard Corporation. Table 2.2 shows a list of the top 10 employers by number of employees in Chemung County:

Employer	Employees
Arnot Health	2,300
CVS Distribution Center	535
Hilliard Corporation	500
CAF USA	476
DePuy Synthes	400
Hardinge Inc.	400
Wayfair	400
Elmira College	352
Kennedy Valve (McWane Inc.)	332
Cutler Hammer	325

Table 2.2 Chemung County Major Employers

Workforce Composition

Despite the stagnant and declining population trends in the ECTC planning area, overall employment trends indicate that the economy is relatively stable in the region. **Both Chemung County as a whole and the Elmira Urbanized area have a lower unemployment rate than the state as a whole.** The Town of Horseheads' unemployment rate is less than half of that of the state. However, the City of Elmira has an estimated unemployment rate of 8.6%, which is significantly higher than all of the comparison geographies presented in Table 2.3 This, combined with the comparatively high rate of population decline again indicates the comparative disadvantage that the City of Elmira has in terms of growth and productivity as compared to the rest of the ECTC planning area.

New York State	Chemung County	Elmira Urbanized Area	City of Elmira	Town of Horseheads
6.8%	5.3%	6%	8.6%	3.1%

Table 2.3 2017 Estimates of Unemployment (2017 ACS Data)



The largest employment sector in New York State, Chemung County, the Elmira Urbanized Area, as well as the City of Elmira and the Town of Horseheads is Educational services, and health care and social assistance. This industry accounts for approximately one third of employment in all of the above mentioned communities. The education and medical care sector is a rapidly growing industry nation-wide, and local trends reflect this shift.

The second largest employment sector in Chemung County, the Elmira Urbanized Area, and the Town of Horseheads is manufacturing. Similar to many areas in Upstate New York, Chemung County experienced a substantial loss in manufacturing over the past few decades, as many companies in the region chose to move their operations overseas or to other parts of the country. Given the importance of manufacturing in the overall employment opportunities in the region, this resulted in a noteworthy loss of jobs. However, almost simultaneously, the educational and health services industry has grown significantly on a national scale. The ECTC planning area has been affected by this, and this growth has helped to fill the gap of employment opportunities in the region. This is depicted in Figure 2.4, which shows the shifts in employment numbers in manufacturing and educational and health services between 2000 and 2017.

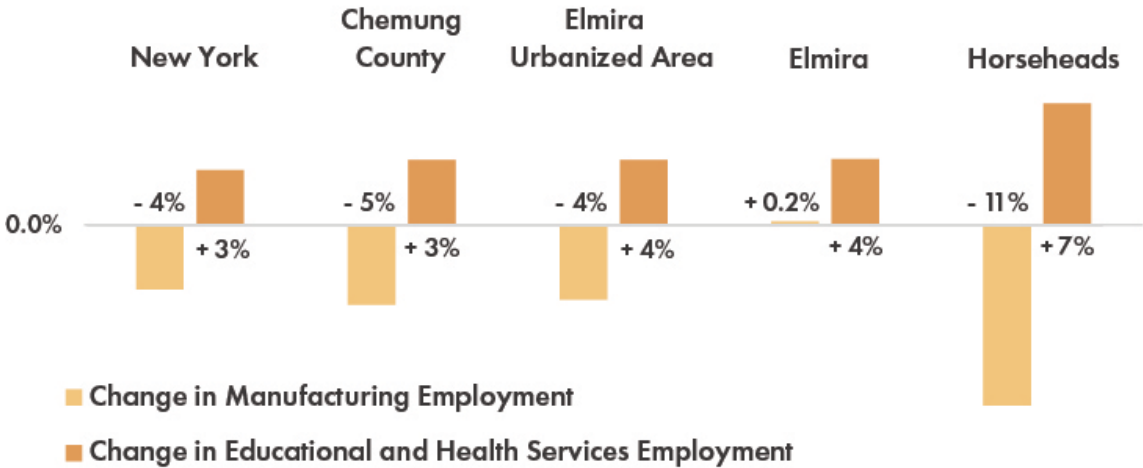


Figure 2.4 Shifts in the Manufacturing and Educational & Health Services Industries (2000-2017 – US Census & ACS Data)



2.4 Commuting

The means by which workers in the ECTC planning area get to work has significant implications for the future transportation needs of the region. Commuting trips are trips that are made on a highly regular basis, so an analysis of where people are going, and what mode they are taking can help determine some of the most pressing transportation needs in the area.

According to 2017 ACS Data, and as seen in Figure 2.5 on the right, the vast majority of workers in Chemung County drove alone to work. This is in accordance with the majority of Upstate New York communities, as there is often limited transit service, and typically worker's commute lengths are a longer distance than what is feasible to walk or bike in an efficient manner.

The second most popular form of commuting is carpooling, followed by walking, and then working from home or public transit. A very small fraction of commuters use bicycles to get to and from work.

Out of 100 Commuters in Chemung County* ...



* 1 worker took an alternative form of transportation such as a taxi or motorcycle.

Figure 2.5 Commute Patterns in Chemung County

Average Commute Length is....

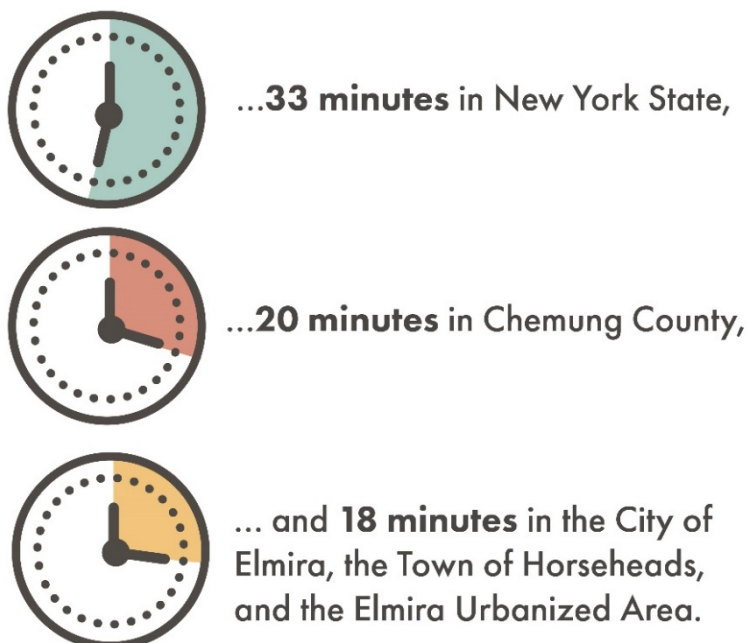


Figure 2.6 Commute Lengths in Chemung County

The average commute length for Chemung County as a whole is 20 minutes. This is slightly longer than the City of Elmira, the Town of Horseheads, and the Elmira Urbanized area. This can be partially attributed to the fact there are some remote parts of the County where it will take significantly longer to reach an employment center, whereas residents of Elmira and Horseheads are much closer to regional employment concentrations.

Compared to the State-wide average, however, Chemung County has a significantly shorter commute length. The state's average commute is heavily influenced by commuters in the New York City region, which is why the average commute time is longer than the national average of 26 minutes, and significantly longer than that of Chemung County.



2.5 Existing Relevant Planning Documents

Plan Name	Plan Year	Description	Relevant Takeaways
2015-2019 Consolidated Plan	2015	Plan for the City of Elmira that assesses affordable housing and community development needs and identifies goals and strategies to address such needs. Objectives and outcomes that came about as a part of this planning process include creation of quality affordable housing, strengthening neighborhoods, preventing homelessness, revitalizing the downtown core, and business development.	Important to integrate land use decisions into transportation planning processes, and to provide public transportation that serves areas of low income housing
ECTC Unified Planning Work Program (UPWP) 2019-2020	2019	Describes all metropolitan transportation and transportation-related planning activities anticipated within the region during the year and to serve as a basis for federal funding assistance for transportation planning to state, local and regional agencies. Planning emphasis areas include transportation asset management, mobility, transit, long range planning and performance targets, transportation alternatives, and public participation.	Task 4.0 outlines the process for completing this LRTP, and many of the objectives and goals of this plan will be referenced in this plan.
ECTC Public Participation Plan	2018	Outlines the standard policy for encouraging public input and ensuring access to major ECTC activities and products.	Section IV outlines the public review and public meeting requirements for this LRTP, as well as the anticipated public participation processes to be included as a part of this planning process including public education, public meetings, and community surveys
Elmira Comprehensive Plan	2016	The City of Elmira's Comprehensive plan outlines the existing challenges that the City faces and presents a vision for the future, guiding principles, and strategies and transformational planning ideas to achieve the City's vision. The strategies identified are as follows: be market driven, a new vision for land use & regulation, provide the infrastructure necessary for success, offer a high & equitable quality of life, and succeed with inspiring and dedicated leadership.	The plan calls for the development of complete streets, support of alternative transportation modes, and increasing overall walkability. The plan also calls out the Clemens Center Parkway as a barrier to a walkable City.



Plan Name	Plan Year	Description	Relevant Takeaways
Elmira Downtown Revitalization Initiative (DRI) Strategic Investment Plan	2017	The DRI is a \$100 million effort by New York State to improve the vitality of urban centers across the state, and the City of Elmira was chosen as one of ten communities to receive a portion of these funds. The Strategic Investment Plan establishes a vision, goals, and strategies for the DRI, and lists fourteen projects recommended for DRI funding. The goals of the DRI include fostering economic growth, development of a high quality physical environment, and strengthening the City's identity.	Four projects identified in the DRI are transportation related, including a signage and wayfinding project, a project to introduce traffic calming measures on Clemens Center Parkway, a project looking to increase the walkability and bikeability of Main Street, and a project that looks to renovate the Lake Street Bridge as a pedestrian connection across the Chemung River. The Lake Street Bridge pedestrian connection is the only project in this list that is receiving DRI funding.
Elmira Urbanized Area Freight Movement Study	2015	This study analyzes the freight patterns needs and opportunities in the county and identifies potential strategies and plans that can help better facilitate freight activity in the region.	Key findings include the following: - The county is a net importer - Trucks carry a majority of the freight - Almost half of the major employers in the Elmira area are manufacturers - Overall, the transportation system in the County general accommodates freight movement.
Elmira-Chemung Bicycle-Pedestrian Trail 2035 Plan	2015	The plan illustrates goals, opportunities, and challenges for bike and pedestrian facilities. It also prioritizes infrastructure investments to improve safety, promote connectivity, and to integrate land use and transportation planning.	Key recommendations are: - Implement a multi-year Safety Education Plan - Work with other stakeholders to improve and increase walking and biking in the County - Prioritize funding to complete pedestrian, bike, and trail projects - Complete a well-defined trail network in the County.
Chemung County Coordinated Public Transit - Human Services Transportation Plan	2018	This plan's purpose is to identify transportation services and needs, both met and unmet, in Chemung County. It promotes the maintenance of the current transit system, and priorities needs to be addressed if and when funding becomes available.	The implementation priorities of this plan are as follows: - Maintain funding for the mobility management program - Retain existing transit service - Continue replacing over aged vehicles - Continue funding for local and regional employment transportation and transportation that meets the needs of seniors and persons with disabilities.



Plan Name	Plan Year	Description	Relevant Takeaways
Chemung County Age-Friendly Community Action Plan	2015	This action plan identifies action items for enhancing the many aspects of a community to increase the accessibility of these amenities and services for an increasingly elderly population.	The transportation action plans include the following: - Advocate for Complete Streets implementations - Promote and develop programs to help older adults drive safely for as long as possible - Increase the capacity of safe and accessible transportation options for non-drivers - Increase health transportation opportunities - Build public awareness of transportation resources
Study of a North South Bicycle-Friendly Corridor	2016	This study analyzed the feasibility of three potential north-south bike corridors between the City of Elmira and a commercial area in Big Flats. There were three potential routes considered and measured for their bicycle compatibility using a Bicycle Level of Service (BLOS) analysis.	Route 3, which follows Davis Street, Oakwood Ave, and Grand Central Ave was chosen as the preferred route. The recommendations for the route include improving the railroad crossing, replacing a culver on Oakwood, widening parts of Grand Central Ave, and widening shoulders along certain segments, for a total cost of \$800,000.
I-86 Innovation Corridor–Strategic Action Plan	2015	This action plan intends to accelerate public/private investment, create job opportunities, advance regional competitiveness, and attract a young, skilled workforce.	The plan identifies multi-model transportation options as one of the key elements of a vibrant community, and recommends creating more walkable streets, increasing intermodal transportation opportunities, and enhancing the airport to allow for increased economic activity.
Southern Tier Central Comprehensive Economic Development Strategy 2016-2021	2016	This CEDS is a locally-based, regionally-driven economic development plan that identifies the strengths & opportunities in the Southern Tier region for creating a robust & sustainable economic climate.	The plan identifies the need for the region to support a resilient and strong transportation network to facilitate increased economic activity in the region.

Table 2.4 Existing Plans Summary



Chapter 3: Goals and Objectives

3.1 ECTC Mission

ECTC's mission is to maintain, operate, and enhance where necessary a multimodal transportation system within the Chemung County planning area. This system will support and sustain commerce and will showcase communities that are attractive and accessible to all by providing for safe, efficient, and reliable modes of transportation.

3.2 Goals, Objectives, and Performance Measures

Overarching Goal:

The ECTC Long range Transportation Plan's Goals and Objectives reflect local and regional priorities within the seven national performance goals for the Federal-Aid Highway Program established by the FAST Act, as well as NYSDOT "Forward Four" principles for statewide MPO planning. Goals and Objectives were also developed through extensive public and stakeholder outreach and through input from the LRTP Steering Committee.

Goals become actionable by creating objectives that explain what is intended to be accomplished. Accompanying each objective is the related performance measure. Care is taken to craft the objectives so that performance data are available without a disproportionate expenditure of resources. As displayed below, there are a number of objectives for each goal to allow for specificity. Objectives may address different aspects of the goal (e.g., pavement and bridge condition for the infrastructure goal). They may also address different periods within the LRTP's 20-year span, noting what is expected to be achieved in the first 10 years and in the second 10 years.

Each Goal Statement is presented below with its objectives; and for each objective, the performance measures are noted by which progress will be measured.

Goal #1: Ensure the safety and security of the transportation system for all users. Safety is fundamental to all transportation agencies, and to all users of the transportation system. The ECTC is committed to monitoring the system in order to make investments that improve safety and security for drivers, transit riders, pedestrians, and cyclists, along with the work force that runs and maintains the system.

- **Objective 1.1** Reduce the number of fatalities and serious injuries resulting from motor vehicle crashes.

Performance measure: Regular monitoring of the number of fatal and serious injury crashes reported through NYS crash records system (ALIS).

Accomplishments/Progress: ECTC annually downloads ALIS crash data and monitors fatal and serious injuries crashes through its GIS mapping.



- **Objective 1.2** Minimize the number of pedestrian crashes that result in death or personal injury.

Performance measure: Regular monitoring of reported pedestrian crashes reported through NYS crash records system (ALIS).

Accomplishments/Progress: ECTC annually downloads ALIS crash data and monitors pedestrian crashes through its GIS mapping.

- **Objective 1.3** Minimize the number of bicycle crashes that result in death or personal injury.

Performance measure: Regular monitoring of reported bicycle crashes reported through NYS crash records system (ALIS).

Accomplishments/Progress: ECTC annually downloads ALIS crash data and monitors bicycle crashes through its GIS mapping.

Performance measure: Provision of bike safety educational programming.

Accomplishments/Progress: ECTC staff participates in annual bike month events and presents bicycle and pedestrian safety information to local schools and other public events in the community.

- **Objective 1.4** Maintain C TRAN buses such that the NYSDOT safety inspection pass rate is 90% or higher per year, every year.

Performance measure: NYSDOT and private operator reports on NYSDOT inspections.

Accomplishments/Progress: April 2018 to December 2018 NYSDOT Safety Inspection Pass Rate is 92%. Preventive Maintenance records confirm 100% on time. Continue to update annually.

- **Objective 1.5** Monitor the number of vehicle speeding occurrences on surface streets.

Performance measure: Regular monitoring of vehicle crashes where speed was a factor.

Accomplishments/Progress: Crash data is downloaded from the NYS ALIS system and reviewed on the local road system to monitor for reduction on all crash types.



Performance measure: Placement of speed detection monitors on priority corridors.

Accomplishments/Progress: Permanently mounted driver feedback signs (DFB) are installed at the following locations:

City of Elmira:

E. Church Street near Beecher School (1)

E. Water Street near Kennedy Valve (1)

Clemens Center Parkway near 2nd and 5th Streets (4)

Chemung County:

Broadway SB, near Broadway Elementary (1)

S. Main Street NB near EHS (1)

Goal #2: Invest in the transportation system infrastructure to bring all facilities and modes into a state of good repair. There has been an extensive investment in our transportation infrastructure over many years. ECTC is committed to continuously evaluating the condition of our roads and streets, bridges, sidewalks, transit buses and facilities, traffic signals and other devices, utilizing an asset management approach and in harmony with the Forward Four principles in order to bring them to a state of good repair.

- **Objective 2.1** Reduce the lane-miles of State and local Federal Aid system pavements rated Poor.

Performance measure: Number of projects that improve pavement conditions.

Accomplishments/Progress: Using the annual pavement scoring report data and working with the County and City public works departments, ECTC has awarded projects that continue to improve the condition of pavements on the Federal Aid system roadways. Such examples are East Church Street from Madison Avenue to the Clemens Center Parkway, the West Water Street rehabilitation phasing projects, and the North Main Street Cultural Connector Project.

- **Objective 2.2** Improve publicly owned sidewalk conditions and ADA compliance as streets and roads are reconstructed.

Performance measure: Include ADA compliant sidewalks in ECTC roadway projects where practicable.

Accomplishments/Progress: ECTC hosted a FHWA ADA compliance workshop in the fall of 2016 to promote ADA compliance in the ECTC planning area as well as for neighboring communities. Many



roadway projects that are awarded through ECTC incorporate ADA and sidewalk improvements often bringing those facilities into ADA compliance.

- **Objective 2.3** Replace buses in the C TRAN fleet on a schedule that complies with Federal Transit Administration guidelines on transit vehicle life for the life of the LRTP.

Performance measure: C TRAN fleet profile updated on an annual basis and reported to the County.

Accomplishments/Progress: From 2015-2019, C TRAN took delivery of one 40' bus, one 35' bus, and six Ford E-450's. Facility improvements were made to keep a state of good repair including upgrades to the fueling station and an ADA accessible entrance at the Garage/Administrative facility. Upgrades to the Chemung County Transportation Center, including ADA-compliant improvements, will take place in 2020.

- **Objective 2.4** Upgrade NYSDOT and locally owned traffic signals to best practicable technology on a twenty year life cycle.

Performance measure: Inclusion of traffic signal improvement projects in the TIP.

Accomplishments/Progress: There has been great progress made in upgrading and improving the County and City locally owned traffic signal system through many ECTC awarded projects such as the City of Elmira Traffic Signal Phasing projects.

Goal #3: Actively operate the transportation system to maximize efficiency and reliability of travel. Advances in technology, from variable message signs to smart phones, have given transportation system owners the capability to dynamically manage and operate the transportation system to achieve greater efficiency, reliability, and safety. ECTC will take advantage of evolving technology for transportation system management & operations. In addressing reliability issues caused by weather events or unanticipated transportation facility failure, ECTC will develop plans to maintain the reliability and resiliency of key elements of the system.

- **Objective 3.1** Update the ITS Regional Architecture and Implementation Plan in the next 5 years, and implement high priority actions as called for in the Plan.

Performance measure: Update of the ITS Regional Architecture and Implementation Plan.

Accomplishments/Progress: ECTC intends to update the plan in 2020.

Performance measure: ITS inventory and operational status.

Accomplishments/Progress: ECTC will begin to address its ITS Regional Plan shortly after the update of the Long Range Transportation Plan is complete.



- **Objective 3.2** Utilize active management and operation of the regional transportation system by 2025.

Performance measure: Operational status of transportation system elements.

Accomplishments/Progress: ECTC and Region 6 NYSDOT maintain open communications for current and future transportation issues in the planning area and nearby adjacent areas to maintain an efficient transportation system.

- **Objective 3.3** Prioritize transportation investments to improve transportation infrastructure resiliency in areas where known weather or hazard events have a tendency to take place or are known to occur.

Performance measure: Inclusion of resiliency measure in roadway improvement projects.

Accomplishments/Progress: The Coleman Avenue TIP project will greatly reduce hazardous stream/drainage runoff at a multi legged intersection of State Roadway in West Elmira. ECTC intends to coordinate with NYSDOT to assess opportunities for incorporating resiliency improvements as part of an assessment management system.

- **Objective 3.4** Update the C TRAN communication, fare collection, and public information system (including real time customer information) in the period 2020-2024.

Performance measure: Number of projects implemented.

Accomplishments/Progress: A digital radio communications system was in place by fall of 2017. A new automated fare collection system was implemented in early 2019 including electronic fare boxes on buses, two vending machines, and online support of the system. Additionally, C TRAN launched a mobile app informing riders of real-time bus locations in October 2019.

Goal #4: Promote connectivity among all modes of transportation to meet the region's mobility and accessibility needs. In order to have a vibrant community, people and goods need access to their destinations. ECTC recognizes that a well-connected multimodal transportation system serves vital needs.

- **Objective 4.1** Reallocate existing ROWs for multimodal transportation opportunities.

Performance measure: Inclusion of multimodal facility projects on 2019-2024 TIP.

Accomplishments/Progress: The North South Bicycle Friendly Corridor is an inter-municipal project that will promote shared use of the existing roadway with bicycles, and will connect downtown business with other services and population centers.



- **Objective 4.2** Identify deficiencies in public transit service in terms of geographic coverage and time of day coverage, including regional transit opportunities. Implement and maintain modifications to transit operations to address highest priority needs and implement first-mile, last-mile solutions by 2025.

Performance measure: Review and report on C TRAN route and schedule structure every five years, or more frequently if needed, in relation to identified needs and funding, beginning in 2014.

Performance measure: Chemung County Transportation Coordination Plan is updated every four years.

Accomplishments/Progress: ECTC approved the Chemung County Transportation Coordination Plan Update in November 2018. Resources and unmet needs were researched through surveys with transportation providers, human services agencies, bus riders, and the general public (including seniors and people with disabilities). ECTC will also use data from the C TRAN automated fare collection system to make data-driven decisions regarding routes, shelter locations and other issues and amenities.

- **Objective 4.3** Implement and market ridesharing and other Transportation Demand Management approaches to improve and help meet the mobility needs of those without access to a vehicle. Enlist a minimum of 1,000 registered ride match requests by 2020.

Performance measure: 511NY Southern Tier Rideshare registrant data.

Accomplishments/Progress: ECTC worked with consultant ICF to complete the final report for the 511NY Southern Tier Rideshare Project for the period of January 2017 to September 2018. The report included lessons learned, marketing data, and recommendations. With five counties involved in the project, number of registrants reached 813.

- **Objective 4.4** Identify discontinuities in sidewalks, bicycle facilities, and trails and fill in gaps to develop a network. [High priority actions to be determined in Pedestrian/Bicycle/Trail Plan].

Performance measure: Include bike racks on all new C TRAN buses.

Performance measure: Increase the number of sidewalks, bicycle facilities, and trails.

Accomplishments/Progress: All new C TRAN buses include bike racks and older buses had bike racks added. The Lackawanna Trail was extended by five miles from East Water Street in the City of Elmira to Lowman Crossover in the Town of Ashland. The TEP sidewalk project in the Town of Chemung also contributed to pedestrian connectivity in the region. BACPAC will focus on trail construction (to be measured in linear feet), wayfinding and trail amenities.



Goal #5: Ensure the efficiency of freight movement throughout the region to maximize support of the economy. Freight moves primarily by truck and rail in the region. Businesses depend on efficient freight movement from local factories, warehouse/distribution centers, and parcel deliveries to small businesses. ECTC will support the efficiency and reliability of freight movement on the region's highways and railroads.

- **Objective 5.1** Identify and address congestion on the highway network that could interfere with reliability of truck travel and delivery.

Performance measure: Inclusion of projects addressing traffic congestion on the 2019-2024 TIP.

Accomplishments/Progress: The ECTC planning area typically does not experience major traffic congestion. However, the Horseheads Connector Road Project, a dedicated freight route, will reduce bottlenecks and truck traffic in residential areas in Horseheads and along State Route 14.

- **Objective 5.2** Monitor and modify the local truck route system in response to changing goods movement needs. Identify bridge restrictions (height/weight) of local networks that might impact this network.

Performance measure: Meeting freight movement needs of local businesses without unnecessary truck travel on local streets.

Accomplishments/Progress: All local truck network signage in Chemung County was recently mapped the GIS system, and efforts are being made develop the data for more useful access and a potential Truck Routes GIS Map Viewer.

- **Objective 5.3** Increase number of overnight parking for trucks at public or private facilities within Chemung County.

Performance measure: Survey of truck drivers on parking availability.

Accomplishments/Progress: ECTC will continue to work with the freight industry to better understand the parking gaps and deficiencies within Chemung County.

Goal #6: Integrate transportation and land use planning to promote economic development, sustainability, and enhanced livability. ECTC supports the close collaboration of land use and transportation planning as the means to take mutual actions that enhance the prosperity and quality of life throughout the planning area.

- **Objective 6.1** Identify transportation facilities and services that are required for specific economic development opportunities, and prioritize them for timely implementation.

Performance measure: Explicit support of economic development proposals.



Accomplishments/Progress: The Lake Street Bridge Transportation Alternatives Program (TAP) project will reflect the changing needs of transportation infrastructure to provide bicycle and pedestrian opportunities and help to enhance downtown Elmira during a period of revitalization. Another example is the development of a connector road that will provide direct truck access from State Route 13 to the HOST Terminal, an industrial park in Horseheads. The West Water Street Phase 2 project will also tie together recent redevelopment economic development initiatives through traffic calming and streetscape improvements.

- **Objective 6.2** Identify transportation improvements that will improve the quality of life for residents of Elmira and surrounding municipalities. Complete Streets treatments will be considered for federal-aid highways and bridges based on the New York State Complete Streets law.

Performance measure: 2019-2024 TIP projects which include Complete Streets improvements.

Accomplishments/Progress: The West Water Street Phase 1 project included upgraded ADA compliant amenities as well as a bicycle lane to support bicycling on NYS Bicycle Route 14. A 2016 study identified a potential north-south bicycle friendly corridor running from Davis Street in the City of Elmira north to neighboring communities. To date, the City has painted sharrows on a portion of the route to indicate to drivers that the roadway is intended for shared use. The North South Bicycle Friendly Corridor received NYSDOT TAP funding for 2020 design and future construction between Elmira and the Village of Horseheads.

- **Objective 6.3** Identify transportation actions that will support adopted land use and development goals from the Comprehensive Plan. Implement highest priority actions by 2025; remaining actions by 2040.

Performance measure: TIP and other projects that meet this objective reported.

Accomplishments/Progress: Many of the municipalities in the ECTC geography express interest in increased safety, mobility and walkability in their planning documents. ECTC has assisted several of these municipalities, including the City of Elmira, Town of Big Flats, Town of Southport and Village of Elmira Heights, with adoption of Complete Streets policies. ECTC is also working on first mile / last mile transportation solutions with municipalities, transit, private operators and foundations to better connect residents to services and employment centers.

- **Objective 6.4** Encourage land use development that has good accessibility to transit routes, including transit friendly improvements such as bus turnouts, bus shelters, and bus route signs.

Performance measure: Information on transit accessibility is provided to City of Elmira, town, and village code enforcement officers for their use.



Accomplishments/Progress: The North Main Street Cultural Connector Project includes a new bus shelter location that will provide a much needed opportunity to transit dependent riders in this busy retail business area. ECTC will utilize the C TRAN automated fare collection system to help determine future placement of shelters and other amenities.

Goal #7: Protect and enhance the natural environment, reducing energy consumption and greenhouse gas emissions. Creation of transportation infrastructure and operation of transportation facilities have impacts on the natural environment, from consumption of land to production of emissions. ECTC will promote environmentally friendly practices that will ensure that the projects, actions, and programs in the plan will work toward minimizing any potential negative impacts.

- **Objective 7.1** Based on consultation with state and federal environmental resource agencies, ensure that implementation of projects in the LRTP avoid or minimize environmental impacts.

Performance measure: NEPA and SEQRA determinations.

Accomplishments/Progress: ECTC continues to coordinate with partner agencies for NEPA and SEQRA determinations as necessary.

- **Objective 7.2** Promote travel choices, including transit, shared-ride, and non-motorized modes that will reduce energy consumption and greenhouse gas production for the life of the LRTP.

Performance measure: Projects and programs that encourage non-motorized travel.

Accomplishments/Progress: The City of Elmira has implemented a Lime Bike program, a dockless bicycle rental program that allows residents and visitors to take non-motorized trips without the costs of owning a bicycle. The County also employs a mobility manager that leads a group of transportation providers and human services agencies to work together on increasing access to transit. The mobility manager also provides education and outreach opportunities to encourage residents to increase transit use. A Riders Advisory Council also meets regularly to discuss improvements to the existing C TRAN system that will better meet riders' needs.



3.3 Federal Planning Factors Included in the Long Range Transportation Plan

As mentioned previously, the Long Range Transportation Plan is required to consider specific federal planning factors such as mobility, safety, reliability, and accessibility. These factors are listed in current federal transportation legislation, enacted by Congress in December 2015 as the Fixing America's Surface Transportation (FAST) Act. The table below demonstrates the relationship between the required planning factors and the goals and objectives of the 2040 Plan.

FAST Act Planning Factor	Corresponding Plan Goals
Support the economic vitality of the region, especially by enabling global competitiveness, productivity, and efficiency	5, 6
Increase the safety of the transportation system for motorized and non-motorized users	1, 3, 4
Increase the security of the transportation system for motorized and non-motorized users	1, 7
Increase the accessibility and mobility of people and for freight	2, 3, 4, 5
Protect and enhance the environment , promote energy conservation , and improve quality of life ; and promote consistency between transportation improvements and State and local planning growth and economic development patterns	4, 6, 7
Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight	3, 4, 5
Promote efficient system management and operations	1, 2, 3, 5
Emphasize the preservation of the existing transportation system	2, 3
Improve transportation system resiliency and reliability	2, 3, 6, 7
Reduce or mitigate stormwater impacts on the surface transportation system	6, 7
Enhance travel and tourism	3, 4, 6

Table 3.1 FAST Act Planning Factors and Associated Plan Goals



Chapter 4: Performance-Based Planning

4.1 Performance-Based Planning

As mentioned in Chapter 1, ECTC and other Metropolitan Planning Organizations are required by federal law to incorporate the use of performance measures in their planning processes, including the LRTP. The ECTC agrees with this approach, in that it makes the planning process and the specific investments that will be included in the TIP more transparent to the public and their elected officials. The MPO Policy Committee will be able to point to investment decisions and convey to transportation system users the benefits they see in terms of improved safety, mobility, and/or reliability.

Pursuant to MAP-21 (and carried through into the FAST Act), MPO's must employ a transportation performance management approach in carrying out their federally-required planning and programming activities, in conformance with the following seven national performance goals for the Federal-Aid Highway Program that were discussed in Chapter 1, and are presented again below:

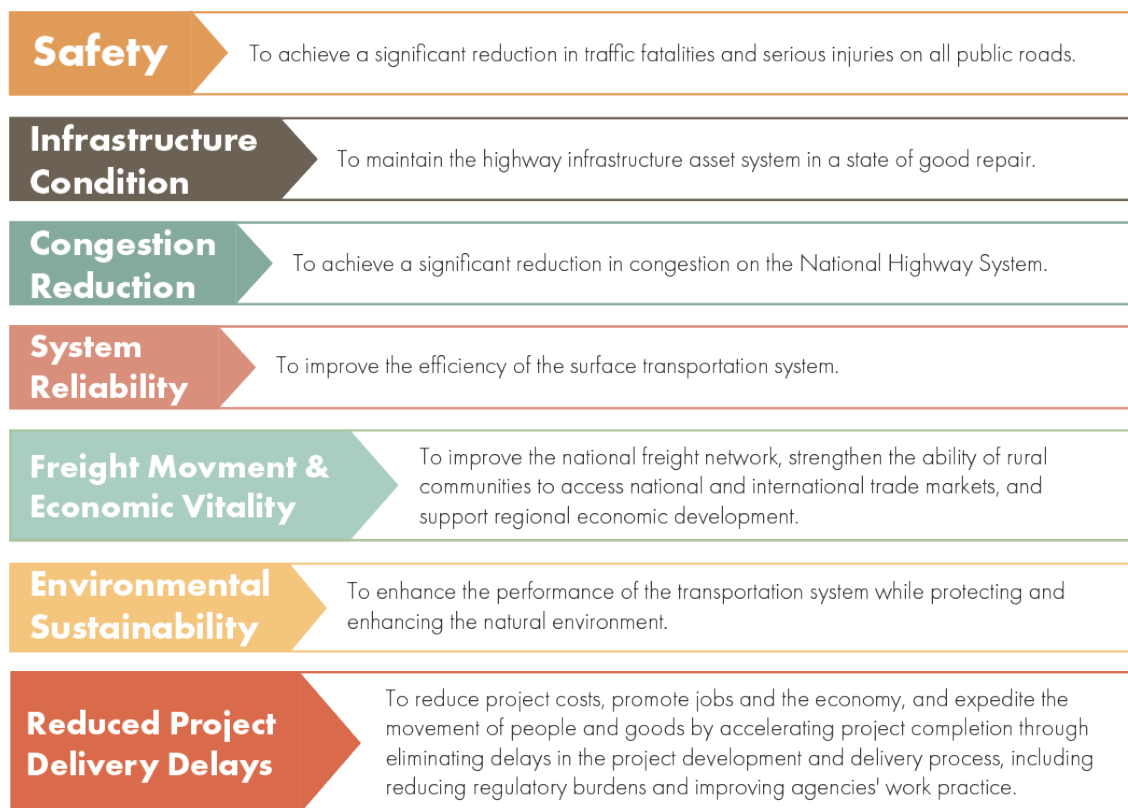


Figure 4.1 Relationships of National FAST Act Planning Factors to Plan Goals

As a small MPO, the ECTC's capabilities to collect and analyze data may be limited. However, NYSAMPO, through its Integrated Planning effort, is examining ways to share data procurement.



Performance measures are a way to evaluate how well a plan is being implemented. Various policy decisions could be evaluated according to whether they help meet the target. For example, reducing the amount of funding available for public transit would likely result in poorer performance, whereas providing incentives for new residential development to be built near existing bus routes, instead of on the edges of the city, would probably result in better performance.

As part of Congress' action to require performance measurement, it specified a particular set of issues and measures that must be tracked and reported by state DOTs and MPOs. NYSDOT and ECTC have agreed to cooperate to set targets and track performance as described in the following sections.

Safety

The federally required safety measures are to be calculated on the most recent five years of available crash data for number of fatalities, rate of fatalities, number of serious injuries, rate of serious injuries, and number of non-motorized fatalities and non-motorized serious injuries). The Policy Committee recommends that the ECTC agree to support NYSDOT's 2020 targets for the five safety performance targets, which are shown below. The focus is on improving performance over previous years (baseline data).

Measure	Last Annual and 5 Year Baseline		Step 1: Forecast Using 5 Year Moving Average Trendline		Step 2: Round and Apply 2% or 4% Cap	
	2017 Annual	2017 Baseline 2013-2017 avg.	2020 Forecast	% Change 2016-2020 vs. 2013-2017	Rounded/Capped Percent	NYSDOT Target 2020
Number of Fatalities	999	1,084	1,020	-5.9%	-4.0%	1,040
Fatality Rate	0.81	0.86	0.82	-4.3%	-4.0%	0.826
Number of Serious Injuries	11,148	11,242	10,392	-7.6%	-2.0%	11,017
Serious Injury Rate	9.01	8.89	8.42	-5.3%	-2.0%	8.709
Number of Non-Motorized Fatalities and Serious Injuries	2,554	2,736	2,557	-6.6%	-4.0%	2,627

Table 4.1 ECTC Adoption of NYSDOT Statewide Performance Targets for Safety

Anticipated Effects

The ECTC is committed to monitoring the system in order to make investments that improve safety and security for drivers, transit riders, pedestrians, and cyclists, along with the work force that runs and maintains the system." Improving safety is one of the top two highest weighted criteria in ECTC's project selection criteria. The TIP includes projects programmed with HSIP funds and other fund sources expected to materially benefit the safety of the traveling public on roadways throughout the metropolitan planning area. The ECTC TIP has been reviewed and the anticipated effect of the overall program is that it will contribute to progress made in addressing the safety performance targets established by the State.



Pavement & Bridge Condition

These measures apply to routes that are part of the National Highway System, which includes all Interstates and some non-Interstate routes. They also apply to on- and off-ramps connected to these routes.

Bridge condition measure	Baseline	2-year target	4-year target
Percentage of bridge deck area that is in Good condition	20.2%	23.0%	24.0%
Percentage of bridge deck area that is in Poor condition	11.7%	11.6%	11.7%
Pavement condition measure	Baseline	2-year target	4-year target
Percentage of Interstate system in Good condition	52.2%	46.4%	47.3%
Percentage of Interstate system in Poor condition	2.7%	3.1%	4.0%
Percentage of non-Interstate NHS route system in Good condition	20.4%	14.6%	14.7%
Percentage of non-Interstate NHS route system in Poor condition	8.3%	12.0%	14.3%

Table 4.2 ECTC Adoption of NYSDOT Statewide Performance Targets for Pavement & Bridge

“Good” and “Poor” conditions for bridges are based on the lowest of the four types of rating performed for the National Bridge Inventory (NBI) (deck, superstructure, substructure and culverts). The regulation defines three classes for bridge condition assessment – percent of deck area of bridges in good, fair, and poor conditions using the lowest of four NBI ratings on a 0-9 scale:

- Good when the lowest rating is equal or greater than 7.
- Fair if the lowest rating is 5 or 6
- Poor is the lowest rating is equal to or less than 4.

The NYSDOT Bridge Rating System is slightly different, with “good” bridge condition ratings having a score of 5.8 or greater, “fair protective” bridge condition ratings having a score between 4.9 and 5.8, “fair corrective” bridge conditions ratings having a score between 4.4 and 4.9, and “poor” bridge condition ratings having a score less than 4.4.

Pavement conditions are measured according to whether they are concrete or asphalt surfaces. For concrete surfaces, there are three types of rating: faulting, International Roughness Index (IRI), and percent of concrete slabs with transverse cracks (for jointed concrete pavement). For asphalt surfaces, the three types of rating are: rutting, IRI, and percent area



with fatigue cracking in the wheel path. In both cases, “Good” condition for pavement means the surface scores well on all three types of rating. “Poor” condition means the surface is considered poor on at least two types of rating.

These targets are lower than what NYSDOT or ECTC would choose for bridge and pavement conditions if funding were unlimited. However, the amount of funding available for road and bridge maintenance, as well as all other transportation needs, has not been keeping pace with costs. The targets shown are what the agencies believe is achievable, based on projected needs and expected funding. As can be seen, overall pavement conditions in four years are not anticipated to be as good as the current (baseline) conditions. The goal is to maintain them at least to the minimum levels that have been targeted. Conditions will be monitored and reported so that if these minimum targets are not being met, policymakers will be aware of it and can act as necessary.

Anticipated Effects

Where possible, maintaining and improving the condition of NHS pavements and bridges is a critical component of ECTC's mission, and the projects on the TIP are consistent with the need to address the condition of these infrastructure assets. NHS highway and bridge conditions are primary considerations in the selection of projects to be included in the TIP. ECTC considers these issues significantly through data development and analysis, preservation programming and incorporation of NYSDOT guidance. The TIP includes projects programmed with several fund sources that are expected to maintain the conditions and materially benefit the traveling public on NHS roadways within the metropolitan planning area.

The projects selected will contribute to maintaining existing critical infrastructure and systems, including bridges and pavement. A focus on infrastructure will result in safety benefits and lower costs for users, improved movement of commerce and traffic in all modes and a more resilient transportation system

The anticipated effect of the overall TIP program is that it will contribute to the NHS pavement and bridge condition performance targets established by the State.

System Performance (Travel Time Reliability)

In this measure, the quality of travel is not measured by how long it takes to get somewhere. Rather, it is based on whether the length of time it takes is *reliable*. If a trip that used to take 15 minutes now takes 20 minutes, people are generally able to adapt their schedules. What causes problems is unpredictability – when a trip sometimes takes 15 minutes, but other times can take 45 minutes. Unreliability creates difficulties for people trying to get to work on time, picking up children from daycare before it closes, or make a scheduled truck delivery. They are either late, or lose efficiency because they are forced to build extra minutes into their travel schedule that may or may not be needed.

The official measures of system performance are:

- Percent of Person-Miles Traveled on the Interstate that are reliable.
- Percent of Person-Miles Traveled on the non-Interstate NHS routes that are reliable.

Reliability is calculated by looking at a sample of travel times for the same section of road, and comparing the 80th percentile travel time to the average (50th percentile) travel time. A ratio of 1.5 or greater is considered unreliable, since that would mean the 80th percentile trip is one and a half times as long as the average trip. “Reliable” mileage is multiplied



by traffic volume and average vehicle occupancy in order to convert to person-miles. The final performance measure is then the percent of total person-miles traveled in a particular year that were considered reliable.

Level of travel time reliability	Baseline (2018)	2-year target	4-year target * *
Percent of person-miles traveled on Interstates that were reliable	81.3%	73.1%	73.0%
Percent of person-miles traveled on non-Interstate NHS routes that were reliable	77.0%	NA	63.4%

Table 4.3 ECTC System Performance Measures

The targets that NYSDOT and ECTC have set for travel time reliability are conservative, showing some decline in performance. This is because there is currently very limited data available for measurement. If additional years of data are collected, it will become possible to predict performance with more confidence, and the targets may be revised.

Freight Performance (Truck Travel Time Reliability)

The freight performance measure is very similar to the one for overall system performance, except that it measures the reliability of travel time for trucks only, and only on Interstate highways. Truck travel time reliability is calculated as a ratio of the 95th percentile truck travel time compared to the average (50th percentile) travel time. Instead of converting to person-miles, the performance measure is simply reported as a ratio. A ratio of 1.5 would indicate the 95th percentile trip is one and a half times as long as the average trip.

Level of truck travel time reliability	Baseline (2018)	2-year target	4-year target
Ratio of 95 th percentile truck travel time to the average (50 th percentile) truck travel time on Interstates	1.38	2.00	2.11

Table 4.4 ECTC Freight Performance Measures

Anticipated Effects

Providing for the reliable movement of people and goods is a critical component of ECTC's mission, and the projects on the TIP are consistent with the need to address the reliability of travel times for vehicles, including trucks. These are primary considerations in the selection of projects to be included in the TIP. ECTC considers these issues significantly through data development and analysis, preservation programming and incorporation of NYSDOT guidance. The TIP includes projects programmed with several fund sources that are expected to materially benefit the traveling public on roadways throughout the metropolitan planning area.

The ECTC TIP has been reviewed and the anticipated effect of the overall program is that it will contribute to progress made in addressing the performance targets established by the State.

Public Transit

The Federal Transit Administration (FTA) published the final Transit Asset Management rule that applies to all recipients and subrecipients of Federal transit funding that own, operate, or manage public transportation capital assets. The rule establishes transit asset management targets in four categories: rolling stock, equipment, transit infrastructure, and facilities. C TRAN set the following transit asset management targets, which we approved by ECTC policy committee.

Asset Category - Performance Measure	Asset Class	Useful Life Benchmark	Baseline Condition
Rolling Stock			
Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	Bus	12	25%
	Cutaway Bus	5	25%
	Mini-Bus	7	25%
Equipment			
Age - % of non-revenue vehicles within a particular asset class that have met or exceeded their ULB	Non-Revenue/Service Automobile	14	25%
	Maintenance Equipment	10-20	20%
Facilities			
Condition - % of facilities with a condition rating below 3.0 on the FTA TERM Scale	Administration	n/a	10%
	Maintenance	n/a	10%
	Passenger Facilities	n/a	10%
	Shelter	n/a	10%

Table 4.5 Public Transit Performance Measures

Anticipated Effects

The ECTC develops and manages its TIP in cooperation with C TRAN. The TIP includes specific investment priorities that support the MPO's goals, including transit asset management, using a project selection process that is anticipated to address transit state of good repair in the MPO planning area. The MPO's goal of addressing transit asset condition is linked to the investment plan of C TRAN, and the process used to prioritize the projects within the TIP is consistent with federal requirements.

The focus of ECTC's investments that address transit state of good repair include:

- Under Section 5307 and Section 5339 funding programs, C TRAN is able to perform maintenance on their current fleet and replace a portion of their fleet as funds allow.
- The goals and objectives listed in ECTC's Long Range Transportation plan, Elmira-Chemung Transportation Plan 2035 Challenges and Opportunities, guide the TIP project selection. Improving the availability and level of service of public transit and managing the C TRAN fleet to achieve a state of good repair are listed as high priorities in the Plan.
- The ECTC anticipates that the TIP, once implemented, will contribute to progress toward achieving the established transit asset management targets. Improving the state of good repair (SGR) of transit capital assets is an overarching goal of the MPO.



Chapter 5: Transportation Conditions

5.1 Roadways

Federal Aid-Eligible Roads

The Federal-Aid Highway Program is administered by FHWA and provides financial resources towards the creation and maintenance of the National Highway System, major highways, and some local roads. **Over 300 centerline miles within the MPO boundary are eligible for federal aid, which accounts for about 27% of the total centerline miles in the area.** Figure 5.1 below is a map of the roads within the MPO boundary that are eligible for federal aid, which are primarily owned by NYSDOT:

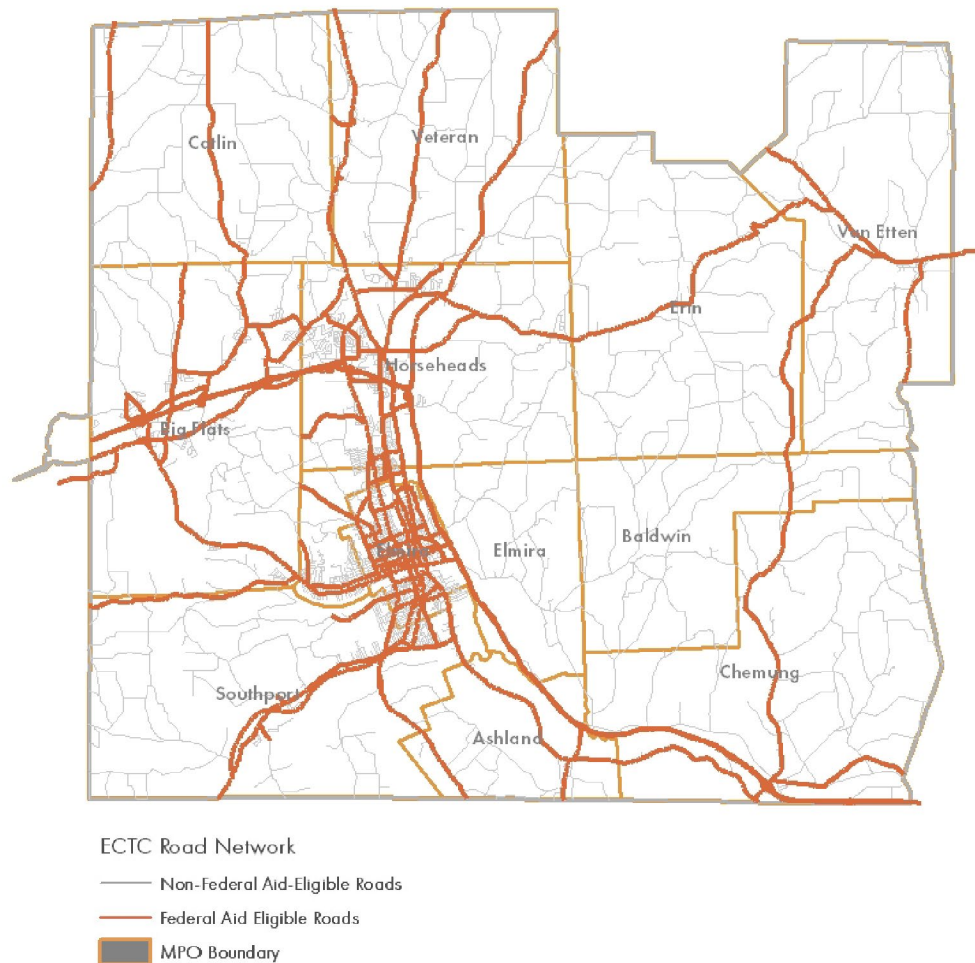


Figure 5.1 Federal Aid Eligible Roads in Chemung County



Functional Classification

Roadways types are divided into groups called functional classes. These functional classes define the intensity and role that each road in the roadway network plays in serving these travel needs. FHWA has defined seven functional classes, which are listed below:

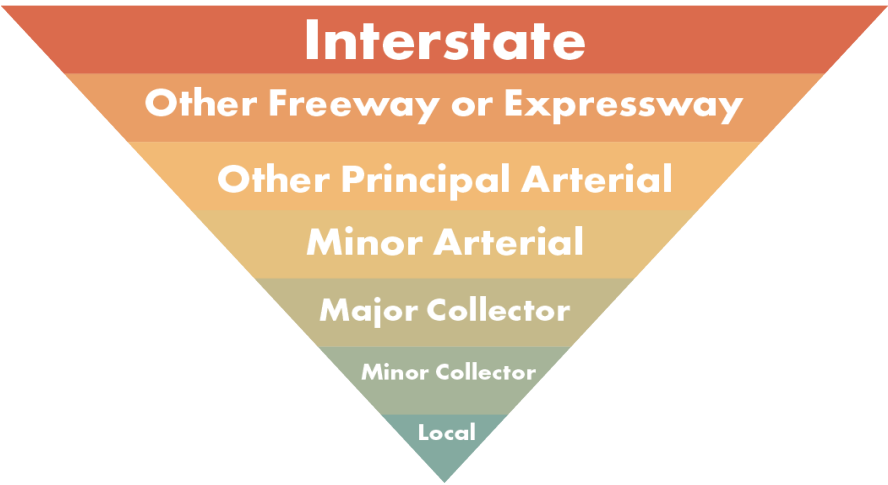


Figure 5.2 FHWA Federal Functional Classes

According to NYSDOT, “individual roads and streets do not serve travel independently but as part of a network of roads through which the traffic moves. Functional classification defines the nature of this movement by defining the part that any particular road or street should play in serving the flow of trips through a highway network and the type of access it provides to adjacent properties.” It is critical that each road is correctly classified in order to assign priority to improvement projects, as well as apply the appropriate design standards.

In addition, NYSDOT and FHWA further classify roads as urban and rural roads. This determination is made by whether the road exists within an urban area with a population of 5,000 or greater. This distinction along with functional classification provides fourteen different classifications for roads across the nation. The breakdown of Chemung County’s roads by centerline miles is as follows:

	Federal Functional Class	Urban	Rural
1	Interstate	27.6	27.5
2	Other Freeway or Expressway	-	-
3	Other Principal Arterial	42.4	12.34
4	Minor Arterial	49.4	14.2
5	Major Collector	62.6	58.7
6	Minor Collector	7.1	113.1
7	Local	276.7	454.8
	Total	465.8	680.7

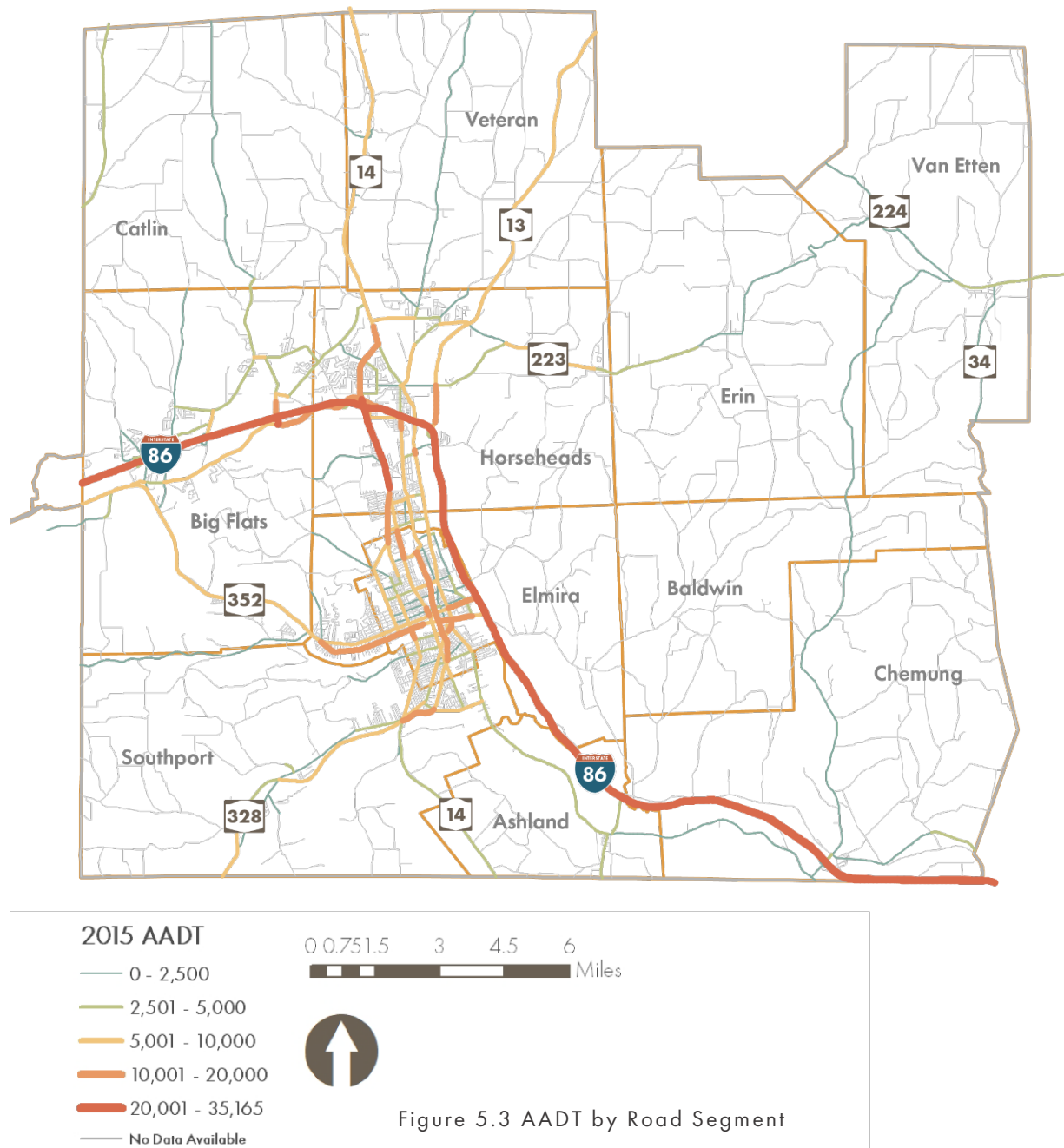
Table 5.1 Chemung County Roads by Functional Class



As seen above, the roads in Chemung County are split relatively evenly between urban and rural areas, but rural roads account for a slightly larger portion of the road network. **Almost 40% of the roads in Chemung County are local rural roads**, and local urban roads follow as the second most prevalent road classification.

Average Annual Daily Traffic

The roads in Chemung County can also be broken down by AADT, which is shown on map below:



As seen on the map above, **I-86 hosts the most significant vehicular traffic within the MPO**. I-86 was formerly a New York State Route, and was reclassified as an interstate several years ago. State Routes 13 and 14 also experience a



significant amount of traffic, as well as the major urban routes in the City of Elmira such as Main Street, Church Street, Walnut Street, Broadway Avenue, College Avenue, and Water Street.

Road Ownership

As seen in Figure 5.4 below, the City of Elmira and Chemung County own the majority of the roads within the planning area. This presents a challenge towards maintaining road conditions and performance, as the majority of federal-aid eligible roads are owned by the County or State, and municipalities have limited funds for road repair. However, CHIP funding is provided to municipalities for roadway maintenance and repair. The County owns the largest share of roads as a single entity.

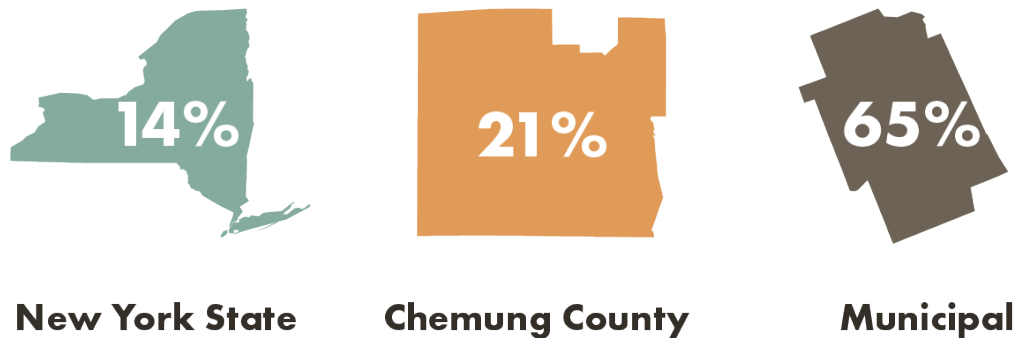


Figure 5.4 Road Ownership



Figure 5.5 Examples of Pavement Condition

5.2 Pavement Conditions

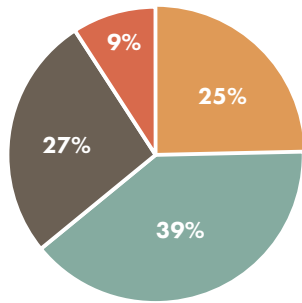
Pavement condition is another means to assess the performance of the road network in the ECTC planning area. NYSDOT scores all federal-aid eligible roads in the nation on a ten-point scale based on a visual scoring methodology, as seen in Figure 5.5 on the left. ECTC staff also deploy this scoring this methodology to rate the non-State federal aid road system. The majority of these roads are owned by the City of Elmira as well as the County.

The continual assessment of pavement condition using this methodology is critical for understanding the financial resources and effort required to maintain and improve the road network across the MPO planning area. This data also allows ECTC staff and NYSDOT official to compare historical data, which can help to reflect performance trends over time.

The results of the 2017 Pavement Scoring Report for the New York State Highway System, as well as the 2018 Pavement Condition Report for the Non-State Federal Aid Eligible Highway System in Chemung County can be found on the following page.

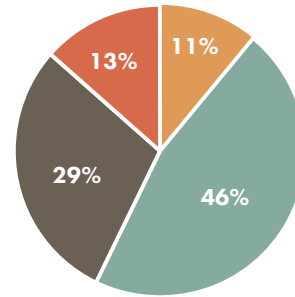


Non-State Federal Aid Eligible Road Pavement Conditions



■ Excellent 9-10 ■ Good 7-8 ■ Fair 6 ■ Poor 1-5

NYS Highway Pavement Conditions



■ Excellent 9-10 ■ Good 7-8 ■ Fair 6 ■ Poor 1-5

Figure 5.6 Overall Pavement Conditions in the MPO

As shown above, the majority of the roads that were analyzed in the MPO were scored as “Good” or higher. 10-13% of the roads scored were in poor condition, which indicates that these road segments should be repaired in the near future. **Almost one out of every three centerline miles assessed as a part of the 2017 Pavement Condition report were scored as “Fair.”** This has significant implications, as if these roads are not maintained moving into the future, a noteworthy portion of the roads in the MPO may continue to deteriorate and increase the number of centerline miles scored as “poor.”

5.3 Bridges

In addition to roadways, the bridges within the MPO are also scored based on their condition. Below is a description of the scoring process for bridges according to NYSDOT:

“In New York State, bridge inspectors assess all bridge components. They are required to evaluate, assign a condition score and associated quantities, and document the condition of structural elements on a span basis, in addition to general components common to all bridges. All bridges are analyzed for their capacity to carry vehicular loads. Bridges that cannot safely carry heavy vehicles, such as some tractor trailers, are posted with weight limits. Based upon inspection and load capacity analysis, any bridge deemed unsafe gets closed. There is an established procedure for responding to inspection findings by increasing the inspection frequency, if appropriate, or reporting conditions requiring maintenance or additional review.”

(Taken from New York State’s Bridge Inspection Program in Brief)



Figure 5.7 shows the score of each bridge in Chemung County by the year in which it was built. As shown on the chart, **the vast majority, or 86% of bridges were scored as “fair.”** Twenty-five bridges scored below 4.4, which places them the poor condition category. The bridges that scored the highest were also built within the past two decades.

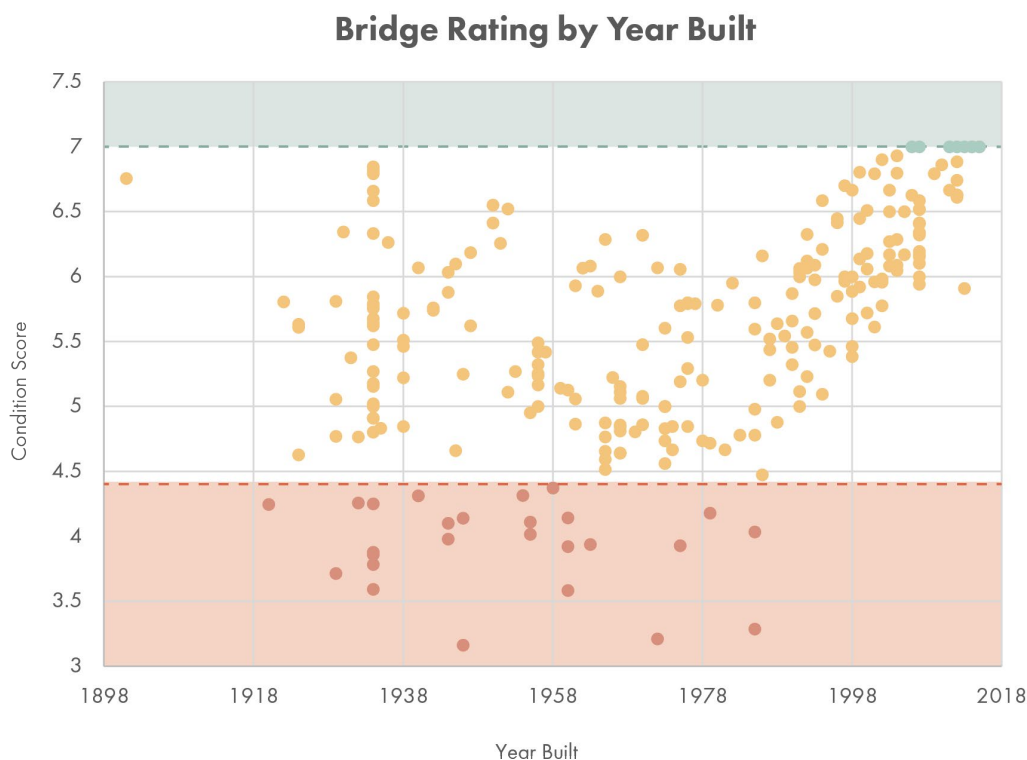


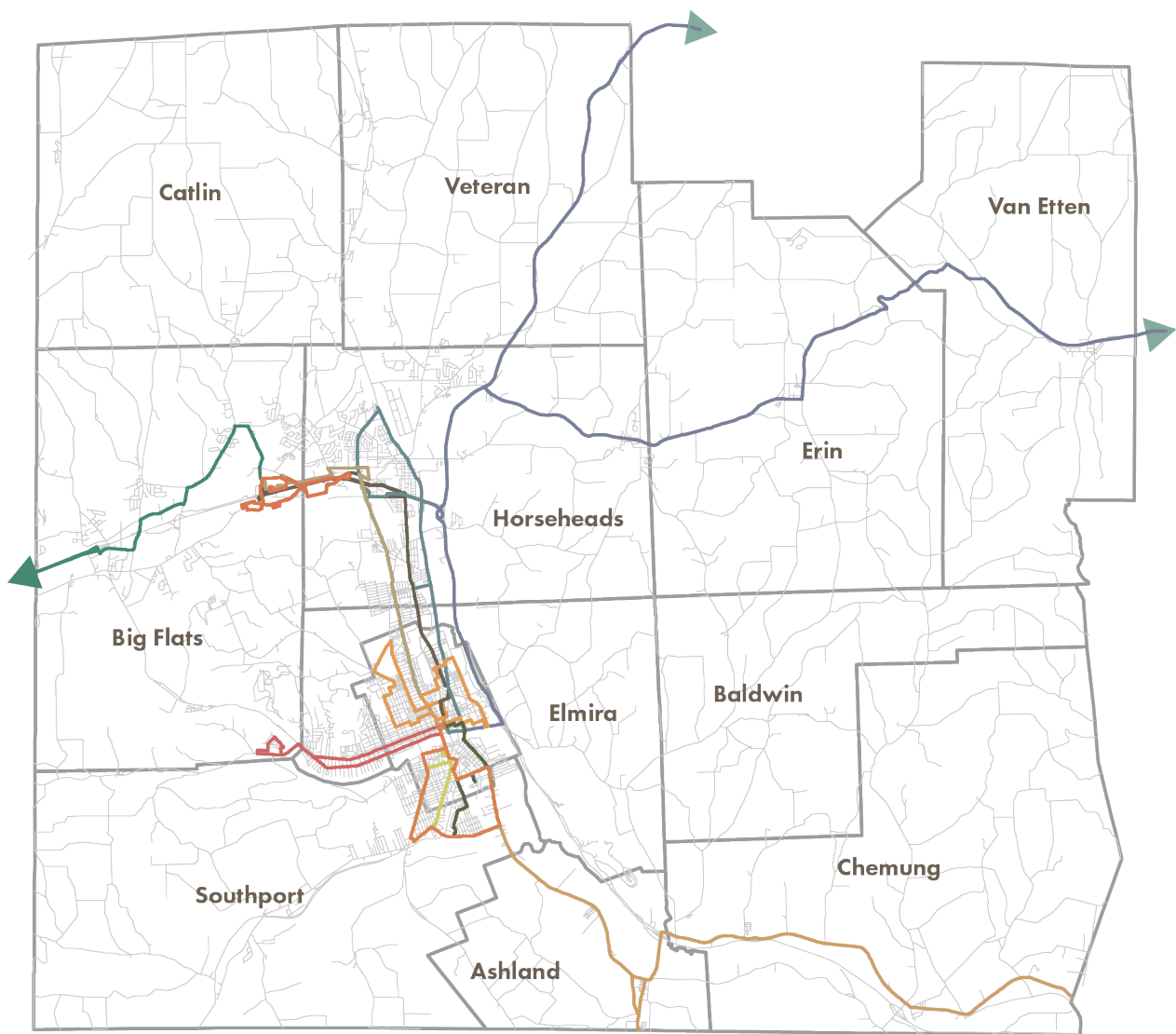
Figure 5.7 Bridge Rating by Year Built

5.4 Public Transportation

Routes

Public transportation in the ECTC area is provided as both fixed-route and demand-response bus systems which are operated by C TRAN. C TRAN currently operates nine local routes that service the City of Elmira and the towns and villages within Chemung County, as well as commuter buses that service trips from Chemung County to Ithaca, Corning, and Owego via Sayre, PA. The transit agency also provides on-request stop services, where riders can “flag down” a bus along a fixed urban route as well as a route deviation service within $\frac{3}{4}$ of a mile of a fixed urban route service when requested in advance. In addition, C TRAN operates a limited number of runs along commuter routes to Ithaca, Corning, Wellsburg, Waverly, and Sayre, PA. These routes allow commuters to access public transportation provided by other agencies in the above listed municipalities. Figure 5.8 on the following shows the service area and routes that C TRAN operates:





Bus Routes Depicted Above:

- | | | | |
|----------|------------------------|-----------|-----------------------|
| 1 | Southtown | 8 | Grand Express |
| 3 | Bulkhead | 9 | Mall Express |
| 4 | Hospital Loop | 10 | Elmira-Owego |
| 5 | Crosstown | 12 | Southside Loop |
| 6 | Lake Road | 20 | Elmira-Corning |
| 7 | Shopper Shuttle | 30 | Elmira-Ithaca |

Figure 5.8 C TRAN Fixed Bus Routes



Fares

Current fares for using C TRAN services are listed to the right. Seniors, Disabled Persons, and youth are eligible for the reduced fare rates.

There are also daily and monthly passes available for local routes as well as the commuter routes. Students enrolled at Corning Community College also can purchases bus passes for the semester.

C TRAN also offers a route deviation service program for residents living within ¾ mile of a bus route. The fare for this service is double the regular fixed route fare, and only cash is accepted for the service. Figure 5.9 lists the fares for C TRAN service by route type.

- \$6.00** : Fare for Elmira - Owego or Elmira - Ithaca
- \$3.00** : Fare for Elmira - Sayre or Elmira - Alpine Junction
- \$2.25** : Fare for Elmira - Corning
- \$1.75** : Local One-Way Fare
- \$1.15** : Reduced Fare for Elmira - Corning
- \$0.85** : Local One-Way Fare
- \$0.50** : Shopper Shuttle Fare
- \$0.25** : Reduced Shopper Shuttle Fare

Figure 5.9 Fares by Route Type

Performance

C TRAN’s 2018 fixed route ridership was over 558,000 trips. However, this number is significantly lower than the ridership six years prior in 2013 (a 18% decrease). On the contrary, both vehicle-hours and vehicle-miles increased over that six year period. This indicates that although C TRAN is increasing service, ridership has not been influenced by the availability of new and/or more frequent bus service. This is consistent with national ridership trends, as almost all major transit operators across the nation are seeing decreases or no change in bus ridership. Figure 5.10 depicts the changes in these performance metrics below:

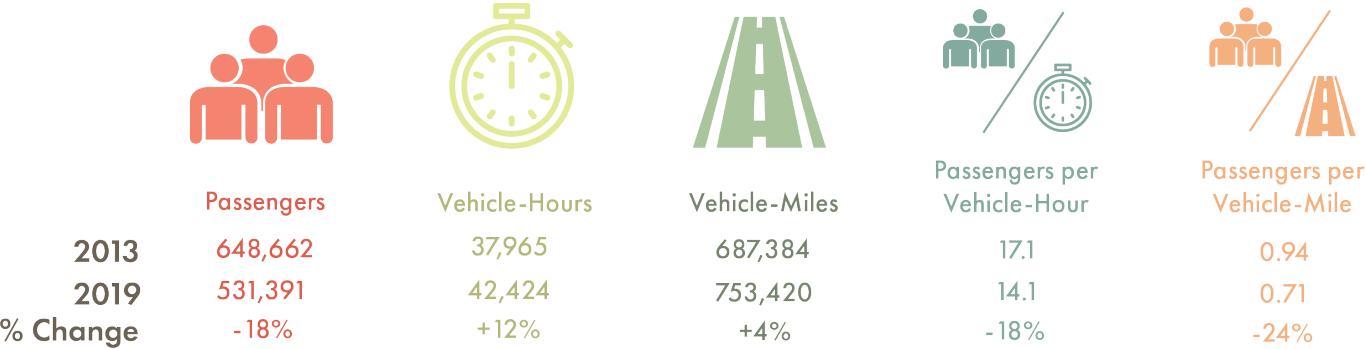


Figure 5.10 C TRAN Performance Metrics

Bus Service Hours

The majority of local routes operated by C TRAN operate on an hourly basis from the morning through the evening. However, the shopper shuttle (Route 7) runs every half-hour. Route 12, or the Southside loop, only runs three times in the morning Monday through Saturday, but runs four times throughout the day on Sunday. The commuter routes (running between Elmira and Ithaca, Corning, and Owego), all run at varying frequency, with the most frequent route being Corning, and the least frequent being Ithaca (only running once in the morning and once in the evening). Figure 5.11 shows the hours of service that each local route operates during (aside from Route 12).



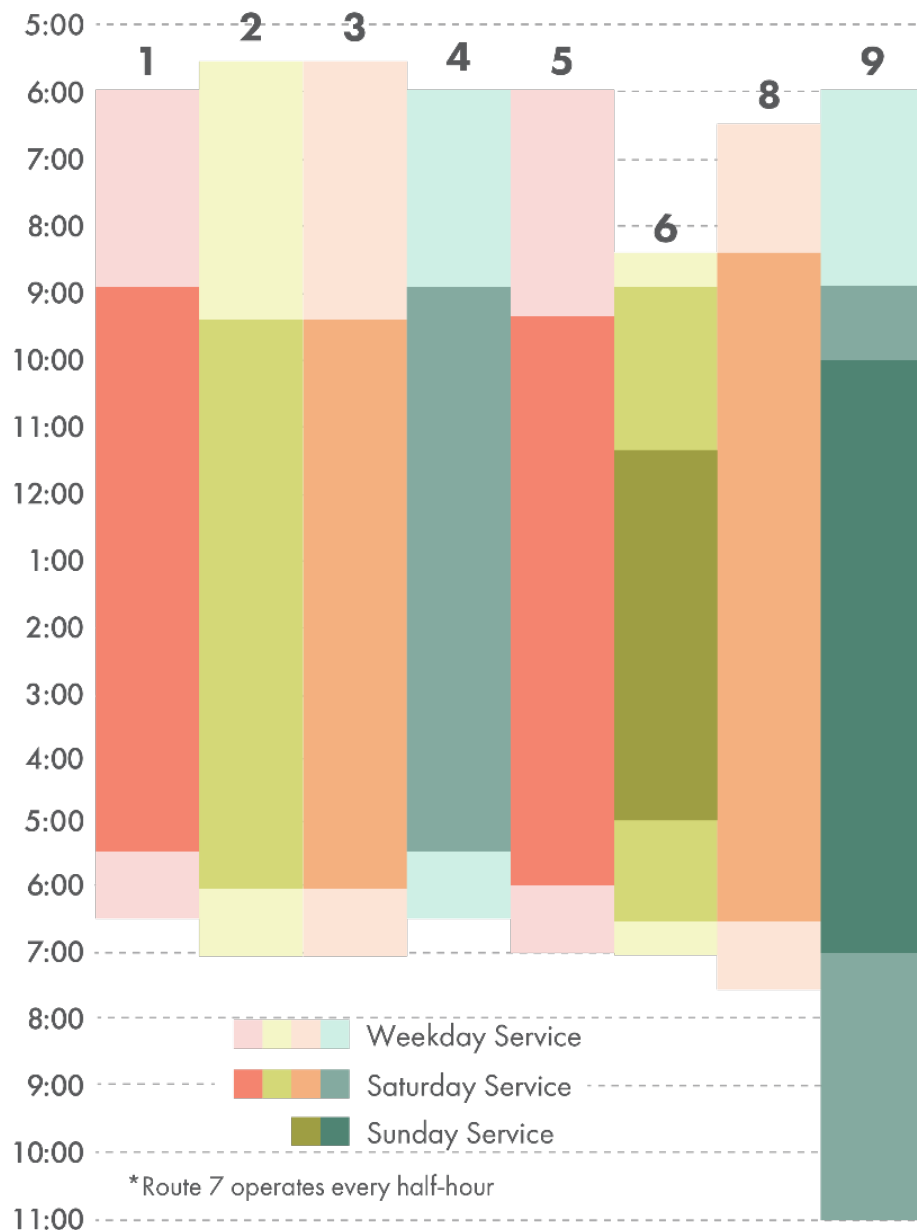


Figure 5.11 Service Hours for Local C TRAN Routes *

Chemung County Coordinated Transportation Committee

ECTC established the Chemung County Coordinated Transportation Committee (CTC) during the development of the County's first Coordinated Public Transit – Human Services Transportation Plan in 2008. This committee consists of transportation providers and human service agencies to enhance the mobility of all Chemung County residents. Members meet quarterly to discuss regional transportation needs, services and solutions. The committee is crucial for coordinating efforts between human services and transportation providers, as well as moving projects forward that help improve the transportation system across the County. In 2018 ECTC in conjunction with CTC released an updated Chemung County



Coordinated Public Transit-Human Services Transportation Plan that outlines goals for the County to improve transportation services such as increased coordination efforts among transportation providers and improved outreach efforts.

5.5 Bicycle and Pedestrian Facilities

Bicycle and Pedestrian infrastructure is a critical component of the transportation network, and they help support active transportation options and facilitate the beginning and ends of traveler's trips, in particular for transit riders. This is what is typically described as "first-mile last-mile solutions," and any healthy transportation network must take these trips ends into consideration when seeking to promote and enhance mobility. ECTC developed a Bicycle Pedestrian Trail 2035 Plan in 2015, which should be referenced in conjunction with this section for more detail on the existing conditions of Bicycle and Pedestrian facilities in the ECTC planning area. For more information, please refer to ECTC's [Bicycle Pedestrian Trail 2035 Plan](#).

Sidewalks

The City of Elmira has sidewalks on a significant amount of its street network due to its urban character and the fact that the city's road network was built out prior to the advent of the automobile. Some of the suburban communities have selected streets with sidewalks, but a majority of the rural areas and most of the suburban roads have no sidewalks. This is to be expected on rural roads with little pedestrian activity, but there should be efforts to identify gaps in the sidewalk network in selected areas of the MPO that could benefit from and facilitate pedestrian movement.

Bicycle Facilities

Two New York State bike routes run through Chemung County: State Bike Routes 14 and 17, which are shown in Figure 5.13 on the following page.

There are also numerous trails in the ECTC planning area that allow for bicycle access, including the Big Flats Rail Trail and the Lackawanna Rail Trail, among many others. These trails are discussed in further length in the following section.

There are 15 bike racks within the City of Elmira, which also helps to facilitate bicycling activity in the area, as it provides storage options for people once they arrive at a particular point of interest or transit facility. A map of the existing bike racks is provided in Figure 5.12.

Additionally, the City of Elmira has partnered with Lime Bike, a dockless bike sharing company to provide residents and visitors with the opportunity to rent short-term bikes for local trips.



Figure 5.12 Bike Racks in the City of Elmira



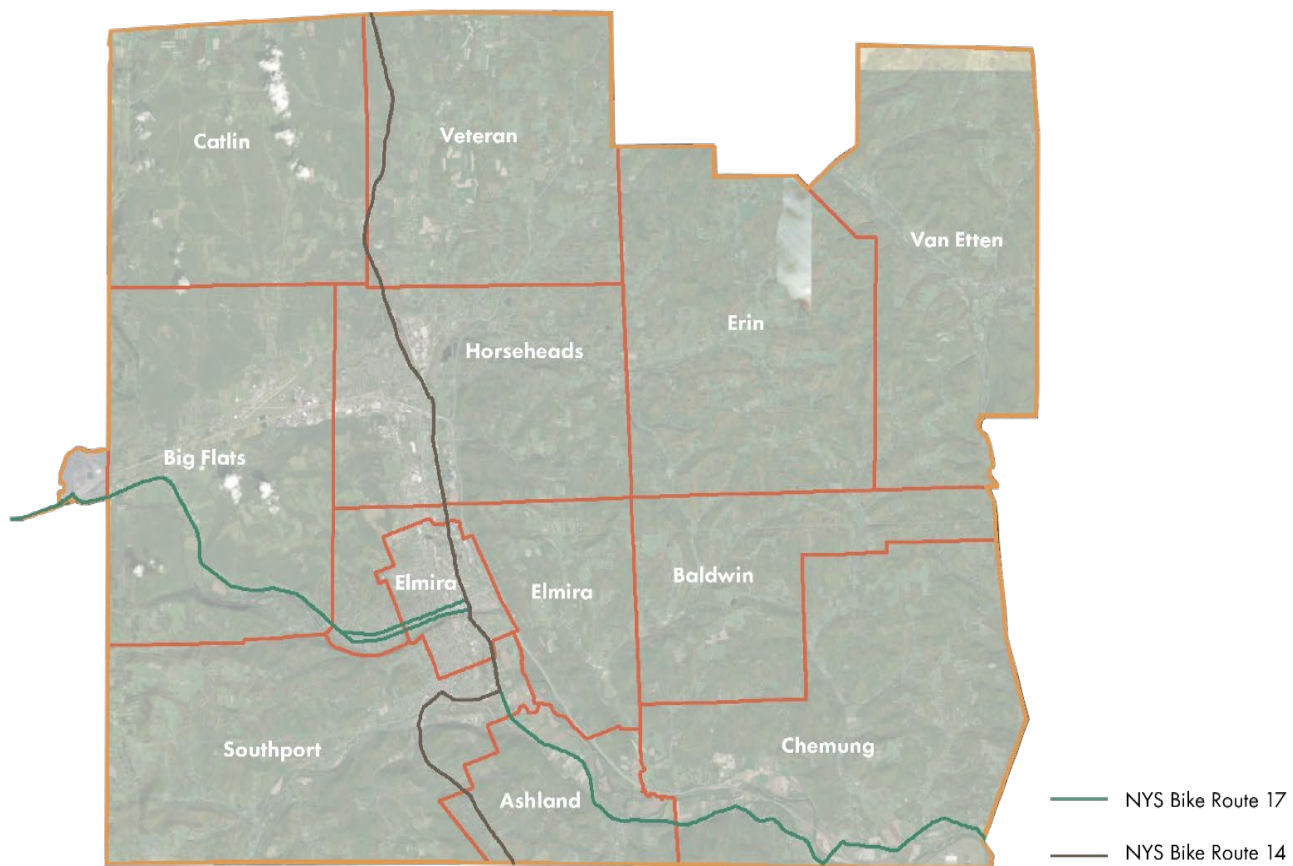


Figure 5.13 New York State Bike Routes in Chemung County

Trails

The ECTC planning area has several multi-use trails that are accessible to both pedestrians and bicyclists, as shown in Figure 5.14. The major trails within this network are the Catharine Valley Trail and the Lackawanna Rail Trail.

The Catharine Valley Trail is majority owned by New York State Office of Parks, Recreation, and Historic Preservation (State Parks). The trail currently runs from the southern end of Seneca Lake in Watkins Glen along Route 14, passes through the Village of Millport, and ends in the Town of Veteran at Smith Road. The original master plan for this trail envisioned the trail ending in Hanover Square in the Town of Horseheads, but currently the revised plan for this trail envisions the trail ending further north at Mark Twain State Park.

The Lackawanna Rail Trail currently runs from Eldridge Park to Lowman Crossover in the Town of Ashland. The trail exists along the historic right-of-way of the Lackawanna Railroad, was recently extended five miles to connect Eldridge Park to the new trailhead in Ashland. NYSDOT owns the land on which the trail lies, while Chemung County owns and operates the trail.

In addition to these major trails, there are many shorter trails as shown in Figure 5.14. There are several proposed trails in the region as well as many other trail opportunities that have been identified in the Bicycle and Pedestrian plan, as well as other planning efforts.



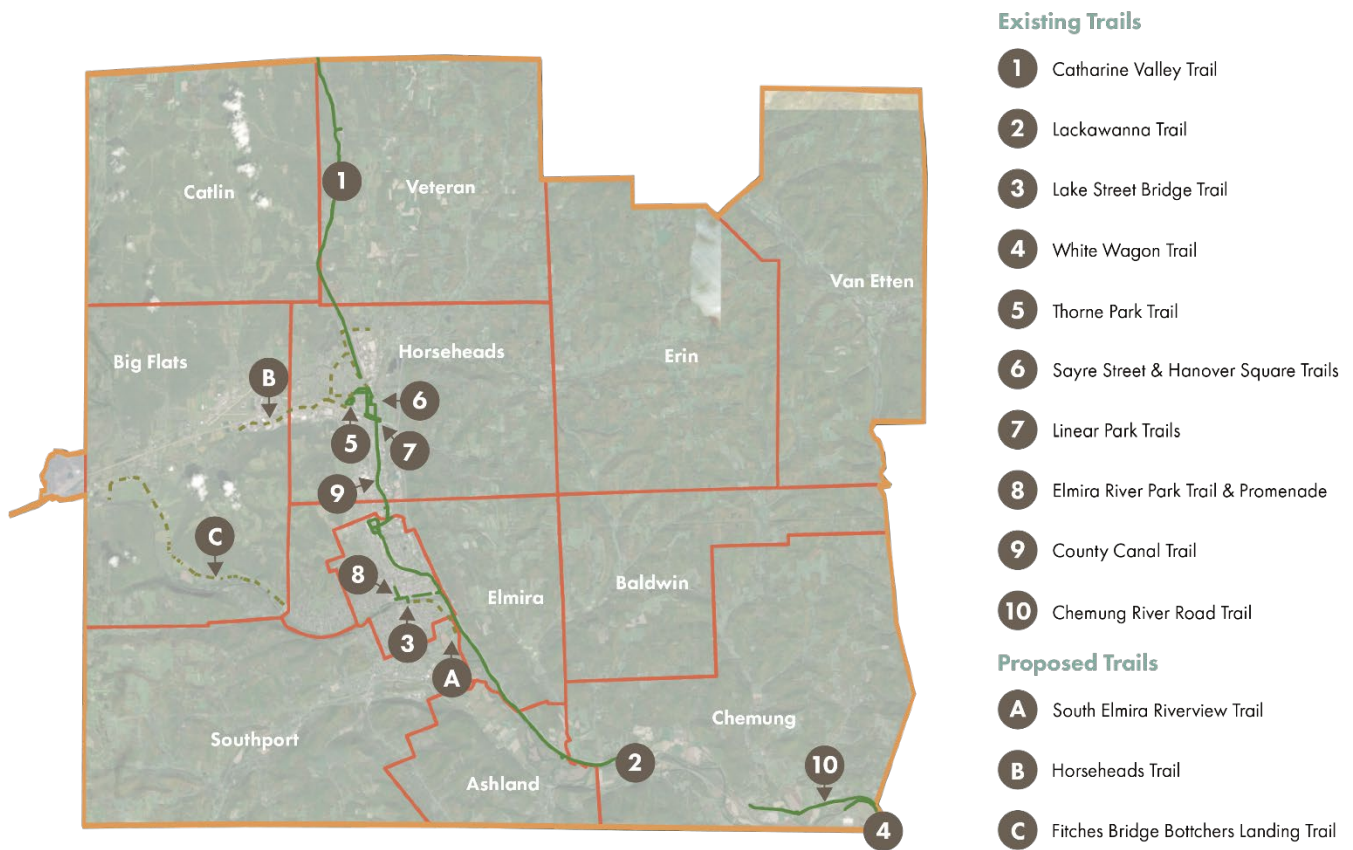


Figure 5.14 Existing and Proposed Trails in Chemung County

5.6 Freight

On-Road Freight

The majority of freight moving through the MPO is carried by trucks, with limited freight rail. I-86 serves as the most significant freight corridor within the region, and the conversion of State Route 17 to I-86 has increased the level of freight traffic on that route. **Approximately 1 in 4 vehicles on i-86 on a given day are freight vehicles.** Figure 5.15 on the following page shows truck volumes by percent of total AADT.

State Routes 13 and 14 also play a significant role in moving freight heading North and South. Given the routing of Route 14, there are a significant amount of tractor trailers entering the urban core of Elmira via Clemens Center Parkway. This presents a challenge when trying to increase pedestrian accommodations and safety along this corridor, as truck traffic poses an issue when considering traffic calming measures. Additionally, there are a significant amount of trucks driving on urban roads in the City of Elmira, which deteriorates the pavement and curbing which were not designed to withstand heavy freight traffic.

Figure 5.16 on the following page shows the identified trade corridors and truck routes within the region. As shown in the figure, truck routes are well represented across the MPO, however, the major trade corridors are primarily north-south connectors, with limited connection to the east.



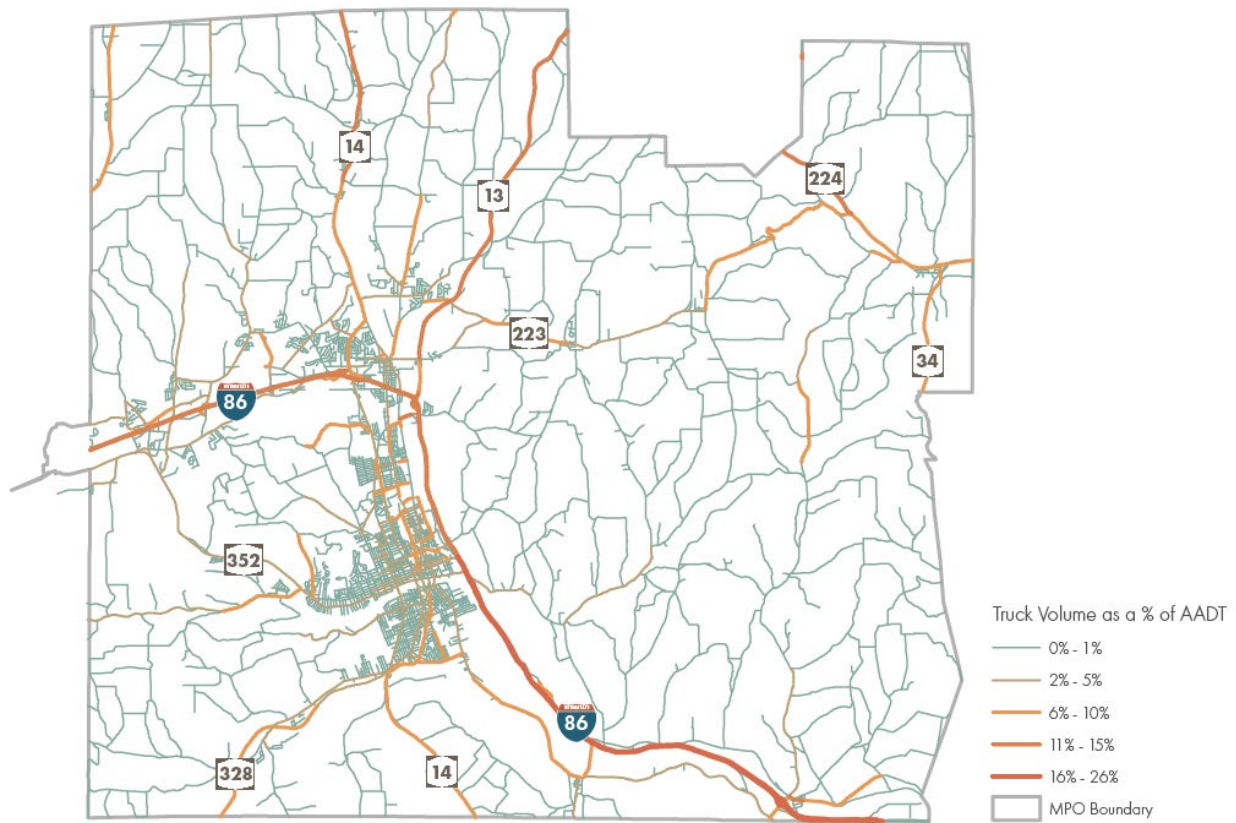


Figure 5.15 Truck Volumes in Chemung County

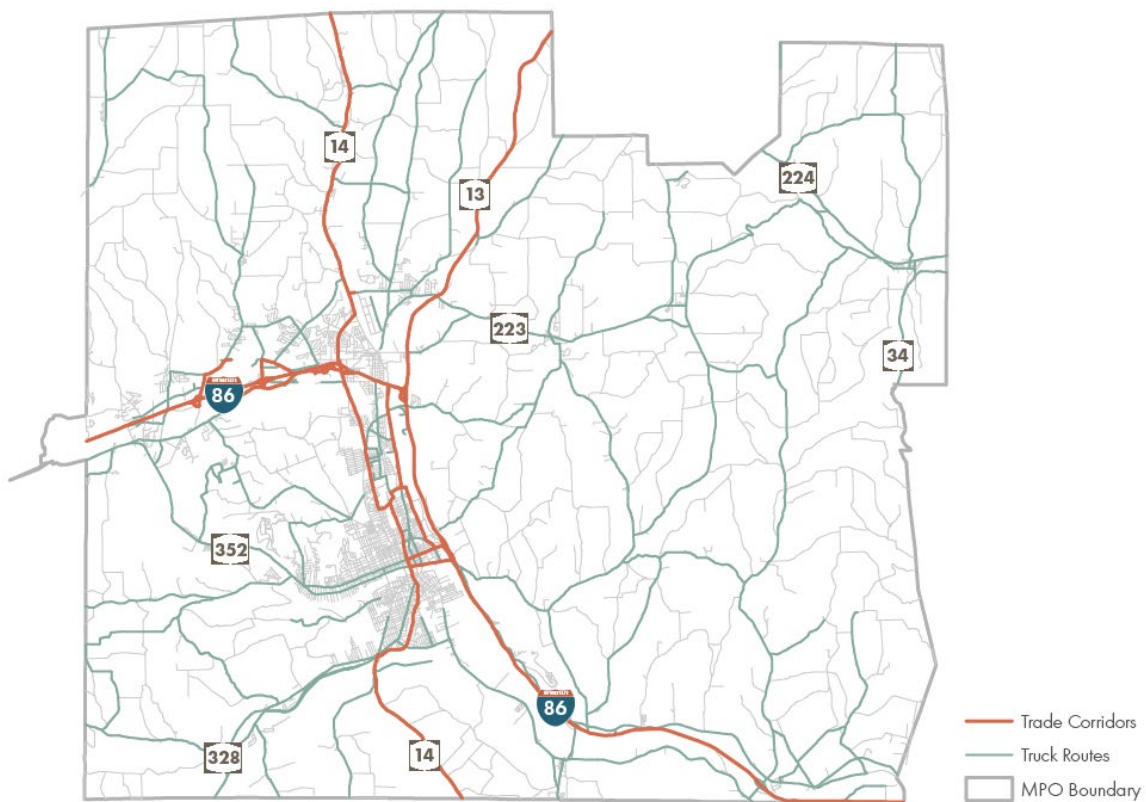
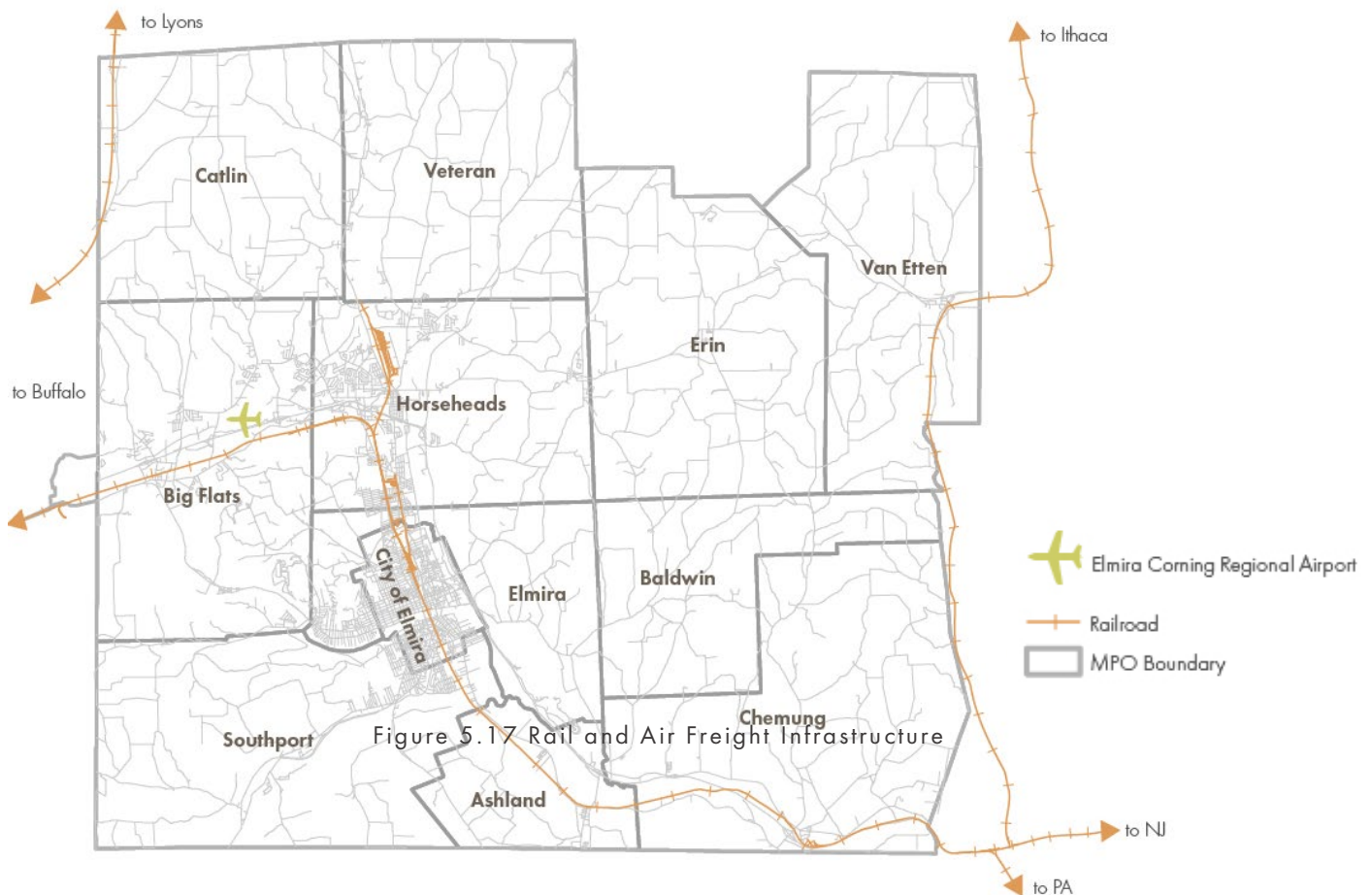


Figure 5.16 Trade Corridors and Truck Routes in Chemung County



Rail and Air Freight

The freight rail lines in Chemung County are owned and operated by Norfolk Southern (NS) Railroad, which provides service between Buffalo and the Port of New York and New Jersey. The bulk of this freight traffic is through-traffic, but a small portion is destined for and originates from within Chemung County. The Elmira Corning Regional Airport also serves some air freight, but the majority of freight being carried via air service arrives and departs from Syracuse, and then is trucked to regional destinations such as Chemung County. Figure 5.17 shows a map of the railroad, as well as the



5.7 Safety

An analysis of highway accident data in Chemung County between 2007 and 2016 was performed to better understand the safety concerns on the road network in the ECTC planning area. Over 22,000 collisions occurred during this time period, with the majority of them occurring within the City of Elmira. Figure 5.18 below shows the number of accidents that occurred by year for both Chemung County and the City of Elmira. The number of accidents in both the County and the City have generally tracked one another, and have remained relatively consistent over this time period. 2011 had the highest number of collisions for both the County and City.



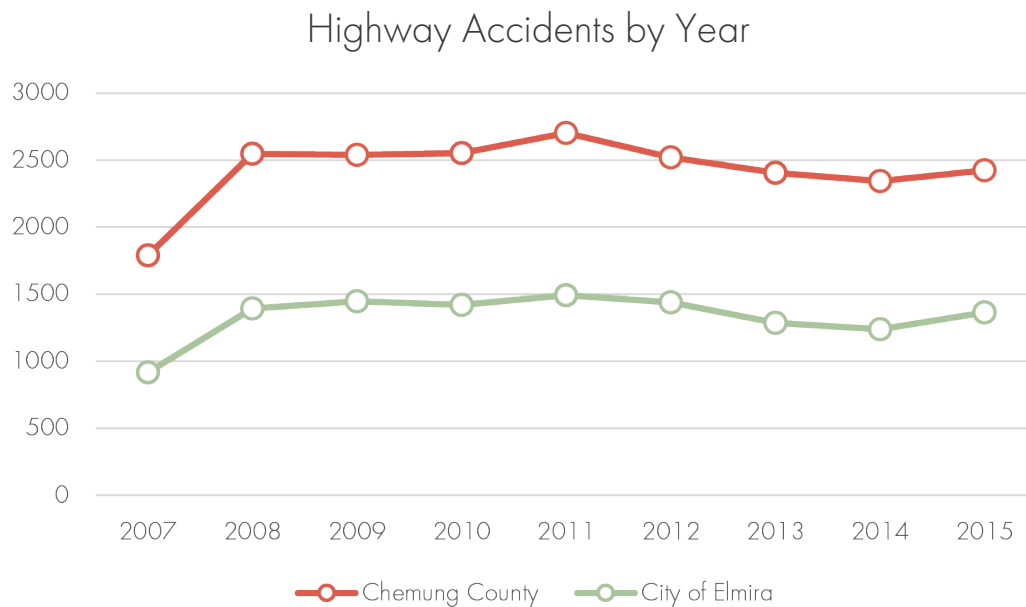


Figure 5.19 below shows the number of highway accidents broken down by municipality. As stated previously, the City of Elmira had the highest amounts of collisions, followed by the Town of Big Flats. This is to be expected, as these two communities have some of the highest population counts. Both the Village and Town of Horseheads also had a significant amount of crashes compared to the rest of the municipalities.

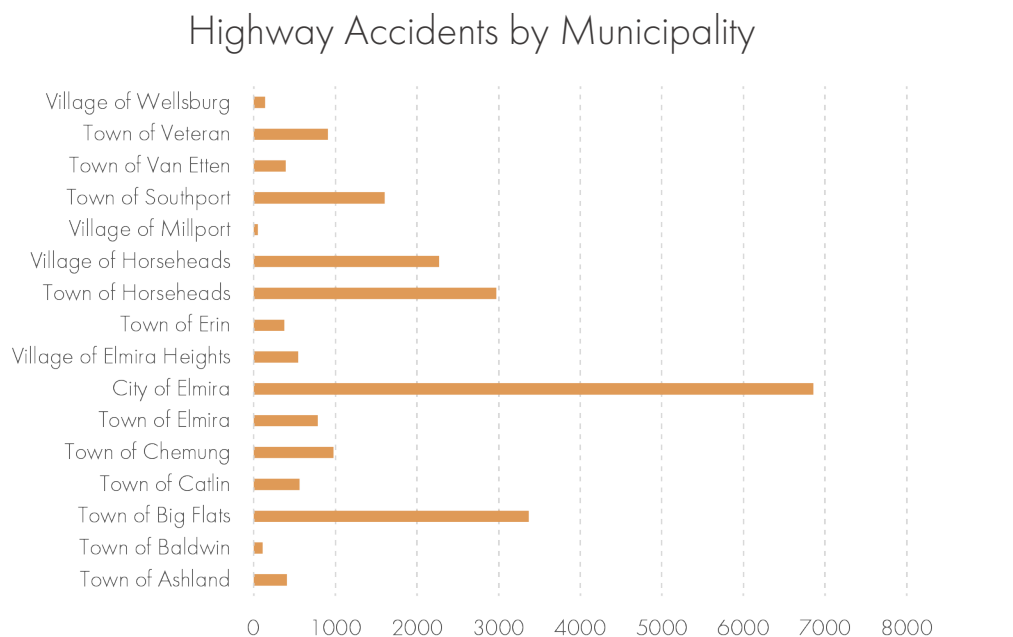


Figure 5.19 Vehicular Crashes by Municipality



Given the number of crashes that occur within the City limits of Elmira, a more in-depth analysis is helpful to understand the major areas within the City that have experienced high crash levels. A point density analysis was performed to identify where the most crashes are occurring in the City, as shown in Figure 5.20. As shown in the map, the majority of collisions occur within the central business district area, which is to be expected given the increased activity levels in this area.

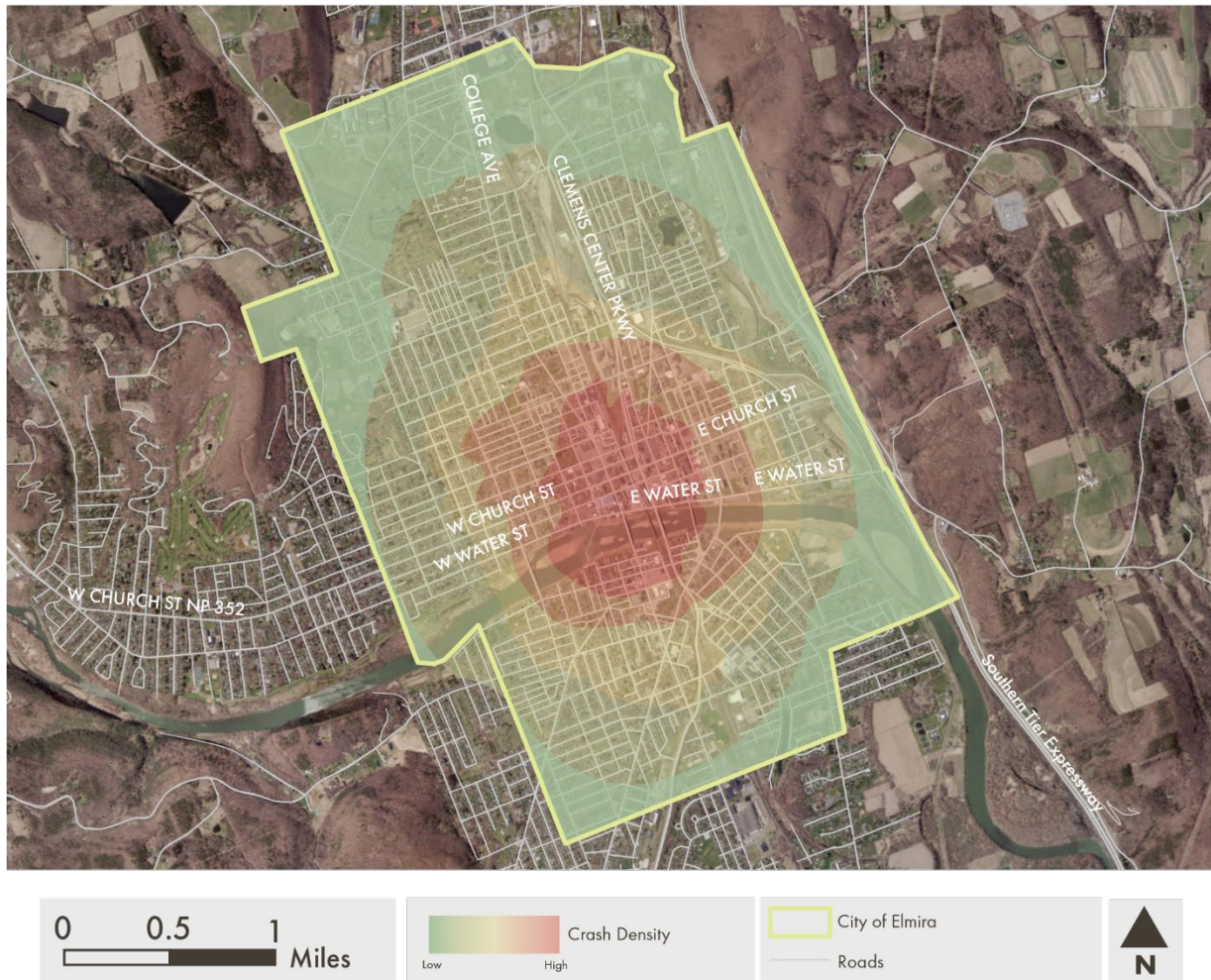


Figure 5.20 Crash Density in the City of Elmira

Sixty-four of the over 22,000 collisions that occurred between 2007 and 2016 were fatal. Figure 5.21 on the following page illustrates the locations in which these fatal crashes took place. In addition to the fatal crash locations, the major roadways in Chemung County were mapped. From this analysis, it can be seen that the majority of fatal crashes occurred on major roadways in the County, most notably on Route 13, Route 14, and I-86. Almost half of the fatal collisions that occurred during that time period were caused by unsafe speeds, failure to yield right of way, and driver inattention.



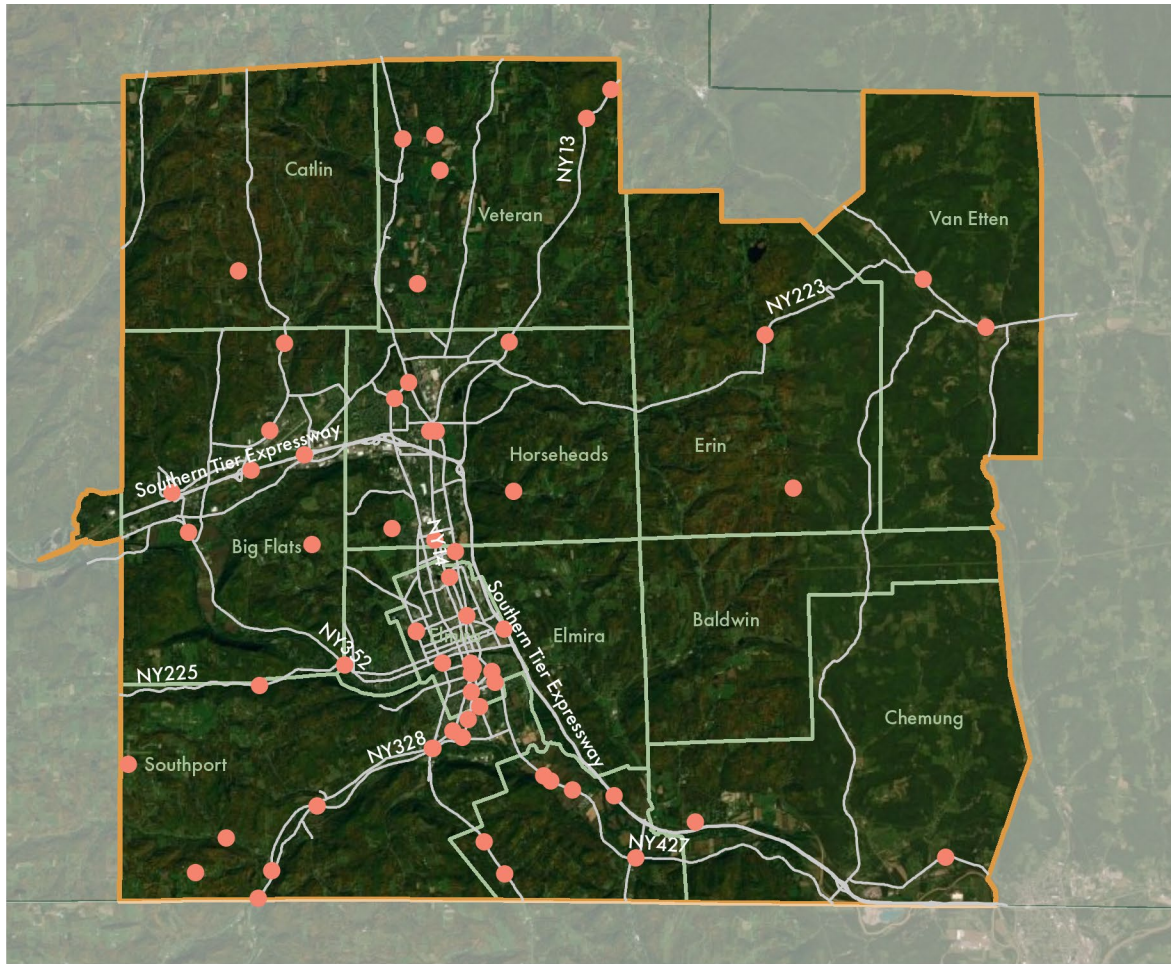


Figure 5.21 Fatal Incidents in Chemung County



5.8 Traffic Operational Assessment

An analysis of existing (2019) and future (2040) traffic operations was performed along a number of corridors in Elmira to determine if such enhancements would warrant additional capacity improvements in order to maintain acceptable traffic operations. The following corridors were analyzed:

- Church Street Corridor (Downtown between N. Main Street and Judson Street)
- Water Street Corridor (Downtown between Madison Avenue and I-86)
- Clemens Center Parkway Corridor (Downtown between 5th Street and Water Street)
- W. Water Street/ W. Church Street Corridor (Between Walnut Street and Coleman Avenue)

Turning movement counts for both the morning and afternoon peak periods were collected at a number of intersections in support of this assessment. Peak hour analysis determines the heaviest volume of traffic for a consecutive 60-minute period in order to calculate intersection delay and associated intersection Level of Service. For the purposes of conducting this assessment, a 2% growth in traffic was assumed between the base year (2019) and the future year (2040).

Intersection Level of Service (LOS) is one way to quantify the efficiency of intersections by associating intersection and approach delay with a letter grade. For example, a LOS A would be free flowing traffic with little or no delay often experienced on county routes with low traffic volume where as LOS F would be stop and go traffic most commonly seen within heavily populated cities during rush hour. Generally, a LOS of D is considered the minimal acceptable level for operating standards. The following analysis uses the Synchro Capacity Analysis software to determine the LOS of each study intersection. Table 5.2 illustrates the intersection ratings for signalized and unsignalized intersections based on the time delay per vehicle.

LOS	Description	Delay in Seconds (Signalized)	Delay in Seconds (Unsignalized)
A	Little or no delay	<= 10.0	<= 10.0
B	Minor, Short delay	> 10 to 20	> 10 to 15
C	Average delay	> 20 to 35	> 15 to 25
D	Long, but acceptable delay	> 35 to 55	> 25 to 35
E	Long, Unacceptable delay	> 55 to 80	> 35 to 50
F	Long, Unacceptable delays	> 80	> 50

Table 5.2 Level of Service (LOS) Criteria for Intersections



Clemens Center Parkway Corridor (Downtown between 5th Street and Water Street)

The Clemens Center Parkway corridor runs between 5th Street and Water Street and is mainly designed to move vehicular traffic. The roadway is fronted by larger commercial/governmental properties, apartment complexes, and smaller commercial properties or open lots. Driveway access to Clemens Center Parkway is limited. Clemens Center Parkway operates as NY 14.

The traffic volumes on Clemens Center Parkway between E. Water Street and 5th Street are in the 12,400 to 14,500 ADT range based on 2016 NYSDOT count data. The roadway volumes are highest in the northern section of the corridor between 2nd Street and 5th Street. The roadway is classified as a Principle Arterial-Other. Clemens Center Parkway has a roadway width of approximately 66 to 80 feet depending on the section and includes two directional travel lanes in each direction and left turning lanes at the signalized intersections. There is no on-street parking within the corridor. The roadway has limited driveway access points. C TRAN Bus Route 4 (Hospital) and Route 5 (Crosstown) operate varying headway service from the Elmira Transit Center along portions of Clemens Center Parkway.

Turning movement counts along the Clemens Center Parkway corridor were taken at the following intersections (provided along with description of the intersection characteristics).

- **Clemens Center Parkway and 5th Street:** The Clemens Center Parkway northbound and southbound approaches include two through lanes, a right turn lane, and a left turn lane. The 5th Street eastbound and westbound approaches include one through lane. Crosswalks, pedestrian signals, and push buttons are located at each corner of the intersection.
- **Clemens Center Parkway and Church Street:** The Clemens Center Parkway northbound and southbound approaches include two through lanes and a left turn lane. The eastbound Church Street approach includes one through lane and a left turn lane. The westbound Church Street approach includes one through lane, one right turn lane, and one left turn lane. Crosswalks, pedestrian signals, and push buttons are located at each corner of the intersection.
- **Clemens Center Parkway and Water Street:** The Clemens Center Parkway southbound approach includes two through lanes and a left turn lane. The northbound approach includes two through lanes. The eastbound Water Street approach includes one through lane, one left turn lane, and one right turn lane. The westbound approach includes one through lane and one left turn lane.

Figure 5.18 portrays the turning movement counts collected along the Clemens Center Parkway corridor in Downtown Elmira, as well as the turning movement counts on Church Street and Water Street.



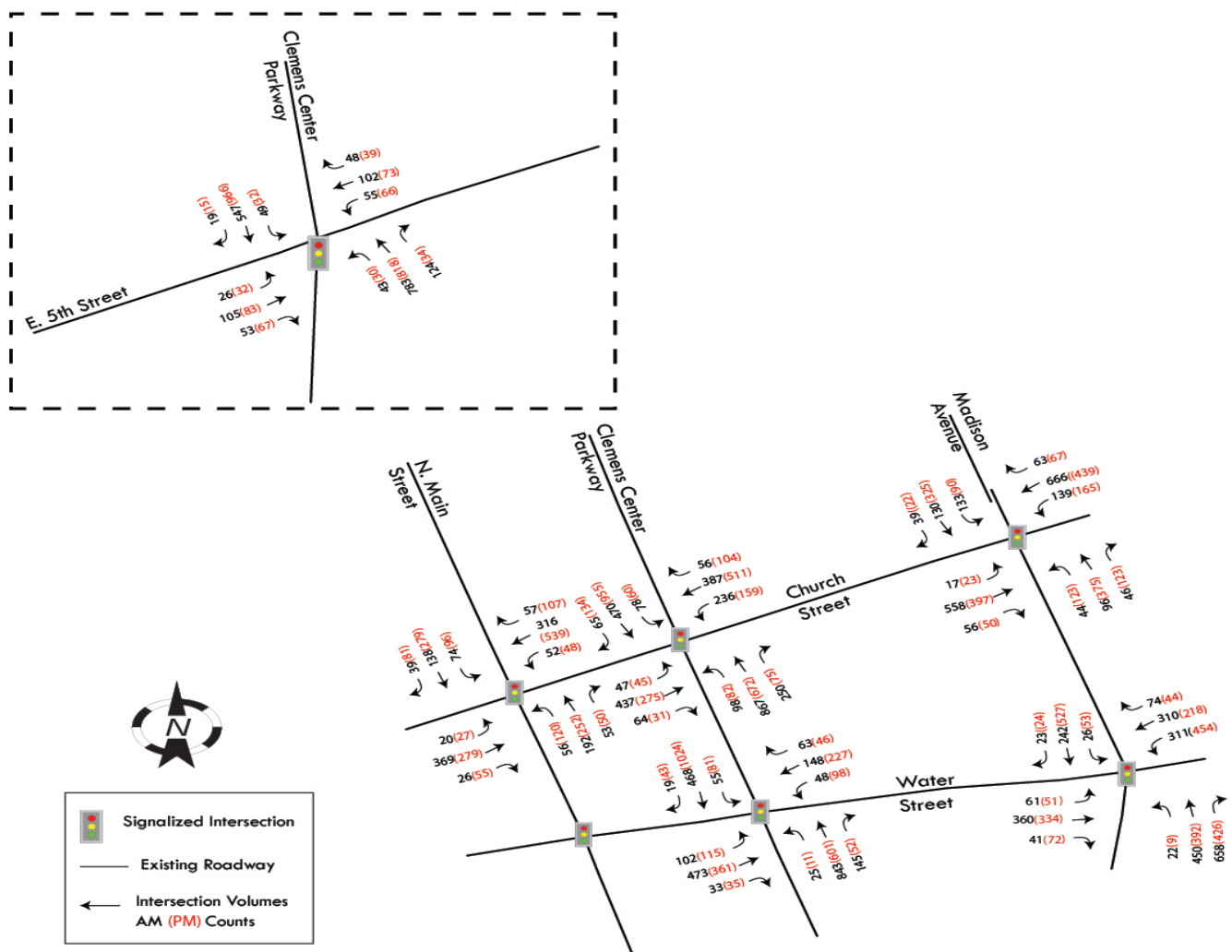


Figure 5.22 Turning Movement Counts Collected on Church St., Water St., and Clemens Center Pkwy

Church Street Corridor (Downtown between N. Main Street and Judson Street)

The E. Church Street corridor runs from N. Main Street to Judson Street near I-86. It is mainly fronted by larger commercial/governmental properties, with occasional religious facilities, apartment complexes, and smaller commercial properties or open lots. St. Joseph's Hospital is located on Church Street east of Madison Avenue. The traffic volumes on E. Church Street between N. Main Street and Judson Street are in the 8,500 to 14,100 ADT range based on a 2016 NYSDOT count data. The roadway volumes are highest to the east of downtown approaching the I-86 interchange. The roadway is classified as a Principle Arterial-Other. E. Church Street has a roadway width of approximately 50 to 60 feet depending on the section and includes two directional travel lanes in each direction east of Madison Avenue and one directional travel lane in each direction west of Madison Avenue. Parking lanes are available on each side of the roadway west of Madison Avenue where the roadway cross-section has been modified to provide parking bays and curb bump-outs at the corners. C TRAN Bus Route 4 (Hospital) and Route 5 (Crosstown) operates varying headway



service from the Chemung County Transportation Center along portions of E. Church St. Figure 5.19 portrays the signalized intersection of the corridor, as well as the Water Street corridor.

Turning movement counts along the Church Street corridor were taken at the following intersections (provided along with description of the intersection characteristics).

- **Church Street and Main Street:** The Church Street eastbound and westbound approaches include one through and one left turn lane. The northbound and southbound Main Street approaches include one through and one left hand turn lane. Crosswalks, pedestrian signals, and push buttons are located at each corner of the intersection.
- **Church Street and Madison Avenue:** The Church Street eastbound and westbound approaches include one through and one left turn lane. The section of Church Street east of Madison Avenue consists of two travel lanes in each direction. The northbound and southbound Madison Avenue approaches have one through and one left hand turn lane. Crosswalks, pedestrian signals, and push buttons are located at each corner of the intersection.
- **Church Street and Clemens Center Parkway:** The Church Street westbound approach has a through lane, with a separate left hand turn lane and a separate right hand turn lane. The Church Street eastbound approach has a through lane with a separate left hand turn lane. The northbound and southbound Clemens Center Parkway approaches include two through and one separate left hand turn lane. Crosswalks, pedestrian signals and push buttons are located at each corner of the intersection.

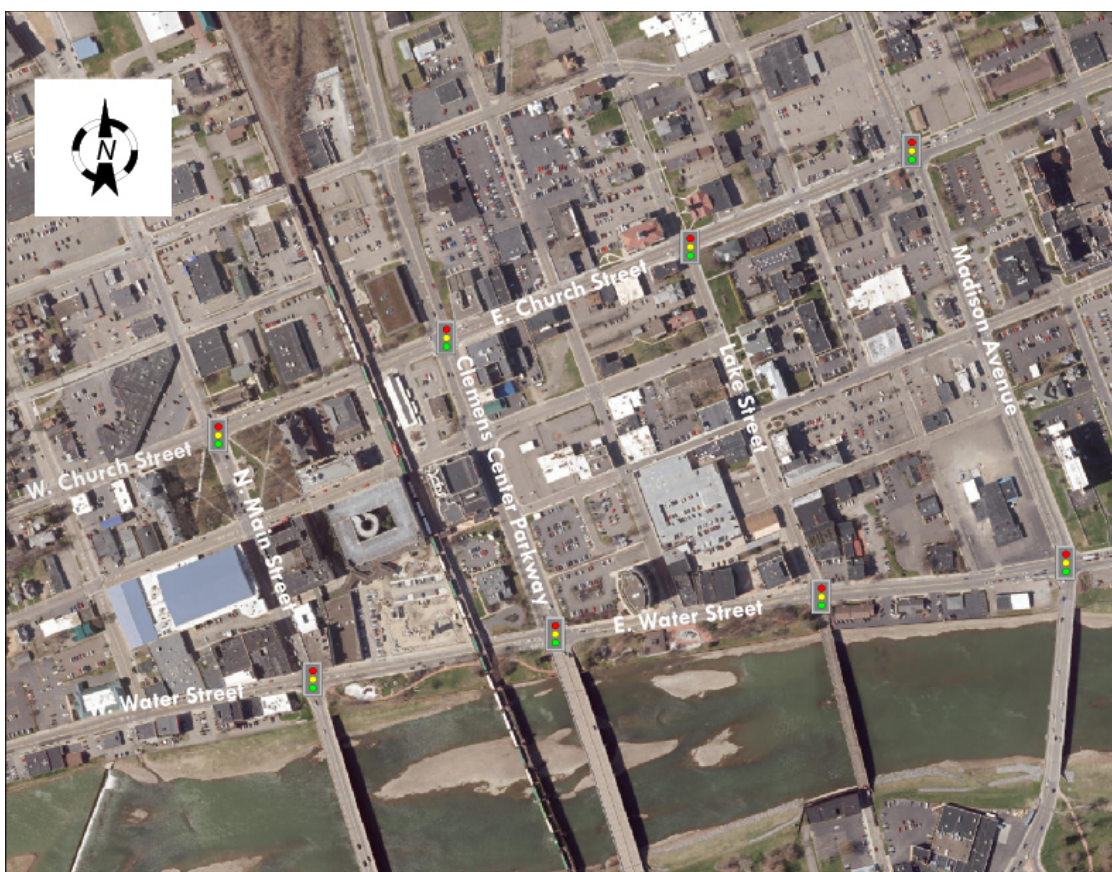


Figure 5.23 Church Street and Water Street Corridor Signalized Intersections



Water Street Corridor (Downtown between Madison Avenue and I-86)

The E. Water Street corridor runs from Madison Avenue to I-86 and is mainly fronted with medium density commercial properties, apartment/residential complexes, open lots (parking or other), green space/recreational, and light industrial. E. Water Street roadways operates as NY 352. The traffic volumes on E. Water Street between Madison Avenue and I-86 are in the 9,800 to 13,100 ADT range based on 2014 NYSDOT count data. The roadway volumes are highest to the east of downtown approaching the I-86 interchange. The roadway is classified as a Principle Arterial-Other. E. Water Street has a roadway width of approximately 50 feet that includes one travel lane in each direction and a curb-side bike lane. There is no on-street parking along E. Water Street in the study area section. C TRAN Bus Route 5 (Crosstown) and Route 30 (Elmira-Ithaca) operates service from the Elmira Transit Center along E. Water Street.

Turning movement counts along the Water Street corridor were taken at the following intersections (provided along with description of the intersection characteristics).

- **Water Street and Madison Avenue:** The Water Street eastbound and westbound approaches include one through and one left turn lane. The Madison Avenue northbound approach has a shared through/left turn lane and a separate right turn lane. The Madison Avenue southbound approach has a shared through/right turn lane and a separate left hand turn lane. Crosswalks, pedestrian signals, and push buttons are located at each corner of the intersection.
- **Water Street and Clemens Center Parkway:** The Water Street eastbound approach includes a through lane, a separate left turn lane, and a separate right turn lane. The Water Street westbound approach includes one through lane and one left hand turn lane. The Clemens Center Parkway northbound approach includes two through lanes. The Clemens Center Parkway southbound approach includes two through lanes and a separate left turn lane. There is a crosswalk with pedestrian signals and push buttons crossing Clemens Center Parkway on the north side of Water Street.

W. Water Street/ W. Church Street Corridor (Between Walnut Street and Coleman Avenue)

W. Church Street and W. Water Street operate as one-way couplets starting west of Walnut Street in the City of Elmira continuing to Coleman Avenue in West Elmira Township (see Figure 5.20). Both W. Church Street and W. Water Street are mainly fronted by single-family homes, with occasional religious facilities, apartment complexes, small commercial properties, or educational facilities (schools). The Hendy Avenue Elementary School is located between the two roadways, on the east side of Hendy Avenue. The W. Church Street and W. Water Street roadways operate as NY 352 and connect the City of Elmira west around Harris Hill to the Town of Big Flats and the retail and commercial centers located near I-86.

The traffic volumes are similar on both roadways and are in the 6,000-7,000 ADT range based on 2015 NYSDOT counts. Both roadways are classified as a Principle Arterial-Other. W. Church Street has a roadway width of approximately 40 feet, which includes two twelve-foot travel lanes (one-direction) and two 8-foot parking lanes on either side of the roadway. W. Water Street has a roadway width of approximately 34 feet, which includes two twelve-foot travel lanes (one-direction) and one 8-foot parking lanes on the south side of the roadway. Driveway access to adjacent properties are prevalent along the corridor. C TRAN Bus Route 5 (Crosstown) operates hourly service from the Elmira Transit Center.



Church Street Corridor (Downtown between N. Main Street and Judson Street)

The number of lanes (one through lane in each direction) and lane configurations are anticipated to remain similar to existing conditions on East Church Street. The roadway currently operates with acceptable Levels-of-Service. The mid-block operations along East Church Street with one through travel lane would be anticipated to continue to operate within acceptable levels based on the general capacity criteria. The results of the LOS analysis for Church Street are summarized in Table 5.4.

Mid-Block Section	AM Peak Hour ¹		PM Peak Hour ¹	
	2019	2040	2019	2040
Hoffman St. – York/Coleman Ave	A (31.6)	A (31.5)	A (30.0)	A (29.8)

¹Level of Service (Delay in Seconds) HCM 2010 Methodology

Table 5.4 Church Street Peak Hour Mid-Block Operating Conditions

Water Street Corridor (Downtown between Madison Avenue and I-86)

The number of lanes and lane configurations on the Water Street corridor are also anticipated to remain similar to existing conditions. Observed existing condition operations would be anticipated to remain similar in 2040. The results of the LOS analysis for Water Street are summarized in Table 5.5.

Mid-Block Section	AM Peak Hour ¹		PM Peak Hour ¹	
	2019	2040	2019	2040
York/Coleman Ave. – Hoffman St.	A (31.0)	A (30.9)	A (31.2)	A (31.2)

¹Level of Service (Delay in Seconds) HCM 2010 Methodology

Table 5.5 Water Street Peak Hour Mid-Block Operating Conditions



Chapter 6: Future Transportation System

The future transportation system for the ECTC region will be based on the goals and objectives outlined in Chapter 3. The system will meet the federal and state planning targets outlined by FHWA and NYSDOT, and provide the residents, businesses, and visitors of the Elmira region with an inter-connected, multi-modal transportation system that meets the future needs of the community. Further discussion of the potential impacts of future transportation recommendations is provided in Chapter 8.

Input from the LRTP Steering Committee, comprised of staff, agency partners and local officials, along with input from stakeholder groups and public engagement efforts in which dozens of local residents, business owners and other partners supplemented analysis of existing transportation conditions outlined in Chapter 5, led to the identification of future transportation opportunities and strategies that should be considered as part of the development of this Long Range Transportation Plan.

6.1 Recommended Future Transportation System

Recommended future transportation strategies are organized into four transportation framework categories:

- Future Mobility & Transit
- Regional Highway System
- Cities & Centers
- Regional Multi-Use Trail Network
- Management & Operations

Specific future transportation strategies that were identified through the process of this Long Range Transportation Plan have been placed under appropriate framework categories and explained in this chapter. Further, based on the fiscal constraints of funding availability over the life of this Long Range Transportation Plan outlined in Chapter Z: Financial Plan, future transportation strategies are spread out over the life of the Plan so that estimated expenditures on transportation projects never exceed revenues expected for a given period. Thus, the timeframe of future transportation strategies are outlined as follows:

- Near-Term – strategies planned within the next 5 years (2020-2025). This includes projects programmed in the TIP that haven't been completed yet where expenditures will occur within the life of this Long Range Transportation Plan.
- Mid-Term = strategies planned within the next 6-10 years (2025-2029).
- Long-Term – strategies planned beyond the next 10 years (2030 and beyond).



6.2 2040 Future Transportation Project List

Future Mobility & Transit

PROJECT	DESCRIPTION	TIMEFRAME
Chemung County Capital Vehicle Replacement	Replace two 30' buses and related equipment	Near-Term
511NY Southern Tier Rideshare	Continue efforts to expand the program into other needed forms of transportation using online matching programs.	Near-Term
Congestion mitigation	Monitor potentially congested locations, specifically intersection and ramp bottlenecks. Use smart city technology as an option to improve mobility where construction improvements are costly.	Mid-Term Long-Term
Mobility Management	Continue using FTA §5310 funding and develop better connections between residents, employers and services.	Near-Term Mid-Term Long-Term
New Mobility options	First/Last mile solutions, bike share, e-scooters, car share, mobility hubs, single payment options, etc. Concentrate on workforce access options.	Near-Term Mid-Term Long-Term
Continue to provide reliable transit service through CTRAN, add shelters	Utilize data from automated fare collection system to determine route changes, shelter locations	Near-Term Mid-Term Long-Term
Autonomous and connected vehicles	Develop A/CV Task Force to identify ways to prepare the region's transportation system and policy for A/CV mobility.	Long-Term
Utilize freight capacity at Elmira-Corning Regional Airport (ELM)	Study how to utilize the airport's capacity for increased cargo traffic, transportation and logistics solutions.	Mid-Term Long-Term
Chemung County Transportation Center upgrades	Upgrades to Transportation Center to act as/ accommodate a Smart City mobility hub for future transportation technology features. Smart City mobility hubs can consist of multi-modal transportation options (i.e., transit, rideshare, bikeshare, e-bike, bike parking, etc.), accommodations for customers, real-time transportation and transit info, information kiosks, WiFi connectivity, payment options for multiple transportation modes, electronic vehicle charging stations,	Mid-Term Long-Term

Table 6.1 Future Mobility and Transit Projects



Regional Highway System

PROJECT	DESCRIPTION	TIMEFRAME
NYS Route 367 over Bentley Creek Bridge Replacement	Bridge replacement to return structure to state of good repair	Near-Term
Access Horseheads	Bridge and highway construction of a connector road to provide industrial access from NYS Route 13 to Old Ithaca Road	Near-Term
NYS Route 14 over Norfolk-Southern Railroad	Bridge superstructure replacement to extend service life of bridge	Near-Term
CR 8 over Chemung River	Bridge superstructure replacement to return structure to state of good repair	Near-Term
Main Street over Chemung River	Bridge rehabilitation to address identified element-specific deficiencies	Near-Term
Main Street over Chemung River	Bridge deck replacement to extend service life	Near-Term
Pennsylvania Avenue (CR 69) over Seeley Creek	Bridge rehabilitation to extend service life	Near-Term
Pennsylvania Avenue (CR 69) over Bird Creek	Bridge replacement to return structure to state of good repair	Near-Term
NYS Route 414 Resurfacing	Maintenance paving to return pavement to state of good repair on NYS Route 414 from NYS Route 414/ Post Creek to north of Chambers Road (CR 35)	Near-Term
NYS Route 13 Resurfacing	Maintenance paving to return pavement to state of good repair on NYS Route 13 from the Chemung/ Schuyler County line to the Schuyler/ Tompkins County line	Near-Term
EV charging station infrastructure	Encourage partner municipalities to expand EV charging station infrastructure along I-86 and across region.	Mid-Term
I-86 Vibrant Communities	Beautification, wildflower plantings along I-86	Mid-Term
I-86	Add additional truck parking along the corridor based on supply gaps identified through survey	Mid-Term

Table 6.2 Regional Highway System Projects

Cities and Centers

PROJECT	DESCRIPTION	TIMEFRAME
Pedestrian Safety Improvements	Systematic pedestrian system safety improvements at 58 locations in the region	Near-Term



Sidewalk Inventories and Upgrades	In the City of Elmira downtown and neighborhood commercial district, as well as other town and village centers, particularly near parks, schools and transit stops. ADA compliance, etc.	Near-Term Mid-Term Long-Term
Complete Streets	Implement Complete Streets opportunities on roadways that exhibit excess capacity or that have opportunity for growing transit, pedestrian, and bicycle usage.	Near-Term Mid-Term Long-Term
Analyze Traffic Flows	Analyze Gray and First Street one-way pair in City of Elmira; consider conversion to two-way streets where appropriate	Mid-Term
Parking Strategy	Implement real-time parking application	Mid-Term Long-Term
Wayfinding and signage	Enhance Downtown Elmira and trail system wayfinding and signage	Mid-Term

Table 6.3 Cities and Centers Projects

Regional Multi-Use Trail Network

PROJECT	DESCRIPTION	TIMEFRAME
Countywide Trail System Plan	Update 2035 Bike Ped Plan	Near-Term
Citywide Multi-Use Lane Network	Identify and stripe roads for multi-use lanes.	Near-Term Mid-Term Long-Term

Table 6.4 Regional Multi-Use Trail Network Projects

Management and Operations

PROJECT	DESCRIPTION	TIMEFRAME
Bridge deck replacements	Bridge deck replacements to extend service life of multiple bridges in ECTC area	Near-Term
NYS Route 14 Resurfacing	Pavement resurfacing to correct pavement deficiencies on NYS Route 14 from Philo Road west to Oakwood Avenue	Near-Term
NYS Route 14 Resurfacing	MBC paving to return pavement to state of good repair and make lane adjustments on NYS Route 14 from Broad Street to Watkins Road	Near-Term
West Water Street Resurfacing	Pavement reconstruction to address pavement deficiencies on West Water Street from College Avenue to Railroad Avenue	Near-Term
Sign and Intersection Improvements	Phased, Federal aid eligible multi-project effort to perform sign and intersection improvements at seven locations in Chemung County	Near-Term



PROJECT	DESCRIPTION	TIMEFRAME
Wyncoop Creek Road over Tributary to Wyncoop Creek	Culvert replacement to return structure to state of good repair	Near-Term
Industrial Park Road over Badger Creek	Culvert replacement to return structure to state of good repair	Near-Term
Guiderrail repair and replacements	Guiderrail repair and replacements to address damaged or non-functional guiderrail at multiple locations in ECTC area	Near-Term
Bridge washing and deck sealing	Bridge washing and deck sealing to extend service life at multiple locations in ECTC area	Near-Term
Pavement markings	Pavement markings applications to enhance safety at various locations in ECTC area	Near-Term
Scour repair	Scour repair to extend service life and channel cleaning to improve hydraulics of structures at various locations in ECTC area	Near-Term
Infrastructure Asset Hardening	Improvements to improve system resiliency against heavy rain and flooding at multiple locations in ECTC area	Near-Term
Element Specific Bridge Repairs	Element specific bridge repairs to extend service life of bridges over railroads at multiple locations in ECTC area	Near-Term
Hazard Mitigation Treatments	Hazard mitigation treatments to improve system safety at multiple locations in the ECTC area	Near-Term
Traffic Signal Upgrades	Replace aging signals in Chemung County and municipalities	Near-Term Long-Term
Revise ECTC ITS Regional Architecture	Need to update in 2020 and every five years thereafter. Ready ITS for Smart City technology/ Smart City hub	Near-Term Mid-Term Long-Term
Upgrade traffic signal systems	Continue the ongoing program to update technology based on regular evaluation of the safety and mobility benefits	Near-Term Mid-Term Long-Term
Pavement Asset Management	Pavement asset management in years 5-10 and 11-20 for multiple locations in the ECTC area	Mid-Term Long-Term
State and Local Bridge Projects	State and local bridge projects in years 5-10 and 11-20 and additional bridge investments for multiple locations in the ECTC area	Mid-Term Long-Term
Pavement Markings	Continuous renewal of pavement markings. Restripe roads with narrower lanes where possible, incorporate opportunities for alternative modes where feasible.	Long-Term
Asset Management System	Continue to refine the usage of the existing asset management system for roads and bridges	Mid-Term Long-Term

Table 6.5 Management and Operations Projects



6.3 Illustrative List

The following projects/ strategies were identified throughout the course of the development of the LRTP as recommendations that would improve the regional multi-modal transportation system, however are lacking potential funding. However, ECTC would like to implement should additional funding become available, and thus are included in the Illustrative Projects list.

Project	Project Description
Clemens Center Parkway	Undertake a corridor study along Clemens Center Parkway.
Northern Arterial	Update the Northern Arterial alternatives, options, and cost estimates.
Elmira Gateways	Implement gateway treatments along Church and Water Streets to enhance entrance to downtown Elmira.
Hanover Square	Conduct tactical urbanism efforts to understand how to best implement treatments to improve Hanover Square, and undertake long term improvements.
W. Church Street and W. Water Street	Study SR 352 W. Church and W. Water Street for operational improvements
Chemung County	Construction of a regional trail network (include priority segments from below)
Chemung County	Implement the recommendations listed in the Chemung County Local Roads Safety Plan.

Table 6.6: Illustrative Projects List

6.4 New Mobility

Advances in technology have and will continue to make significant shifts in the way our transportation networks operate. Many regions are looking to such innovations to address increasing congestion, safety concerns, and enhance the overall experience of using the roadway. The increasing connectivity between devices such as cars, streetlights, and mobile phones presents opportunities for dynamic decision making in traffic signaling, parking, and safety.

Cities and regions are beginning to implement infrastructure that supports connected vehicles (CVs) to “future proof” their transportation system. This entails the installation of communicating devices that can interact with communication devices in vehicles. Such initiatives help communities prepare for the potential of an autonomous vehicle (AV) dominated road network.

In addition, mobile phone technology can play a significant role in addressing current and future transportation needs. This includes real-time parking availability information, payment for parking/tolls, live traffic information, transit information, and more. Mobility as a Service (MaaS), or the shift away from privately owned vehicles towards a service-based transportation system is also a strategy that communities are employing to help meet people’s first/last mile transportation needs while reducing parking demand. Such initiatives seek to make the transportation network more efficient and equitable for all.

Innovations and implementations of smart transportation technology are carving a new aspect to how people connect and interact with their cities. As private industry drives innovation in the field, public entities must keep up with policy and implementation.



While this Long range Transportation Plan does not outline any specific future mobility strategies, it does outline general guidance to facilitate the connection between future transportation strategies and new mobility and smart transportation elements. New mobility and smart transportation technologies that could be explored with future transportation strategies include:

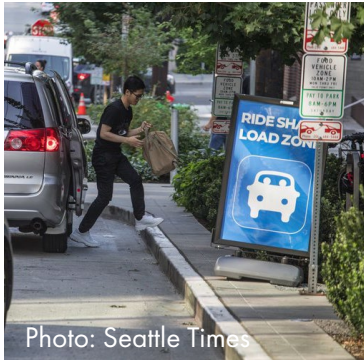


Photo: Seattle Times

Curbside Management

Balancing the needs for all roadway users to allow for flexible use of curbside areas to accommodate on-street parking, the growth of transportation network companies (TNCs) like Uber and Lyft, online shopping pick up/ delivery, transit, bike/pedestrian mobility, goods movement, and ultimately autonomous vehicles.

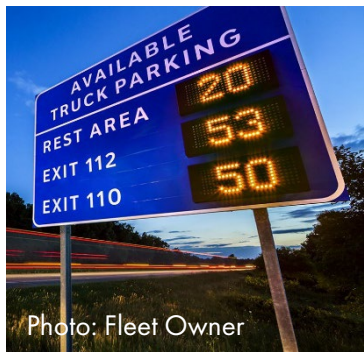


Photo: Fleet Owner

Parking Management

Including a variety of strategies that encourage more efficient use of existing parking facilities, improve the quality of service provided to parking facility users, and optimize parking facility design.



Photo: Detroit Driven

Connected Corridors

Roadways equipped with Connected Vehicle technology to allow for various traffic signal phasing and timing, roadway and travel information, vehicle-to-vehicle and vehicle to infrastructure communication, and data sharing to improve safety and operational conditions.



Photo: Paste Magazine

Mobility as a Service

Combination of public and private transportation services within a given geography that provides holistic, preferred, and optimal travel solutions to enable multi-modal end-to-end journeys paid for by the user as a single charge.





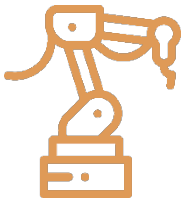
Inclusive and Universal Design

Updating current streetscapes and infrastructure to accommodate the needs of visually and hearing impaired pedestrians using tactile and mobile technologies to make streetscapes more adaptable.

6.5 External Opportunities

The future multimodal transportation system envisioned in this Long Range Transportation Plan should support the Southern Tier Upstate Revitalization Initiative Strategic Plan goal of advancing Elmira's economy through targeting Advanced Manufacturing, Healthcare, Food and Agriculture, and Tourism.

This advanced economy will be built through:



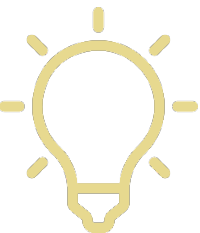
Investing in the advanced manufacturing industry

The URI strategic plan envisions 11,000 new jobs in the transportation industry cluster across the Southern Tier to support the growth of an advanced manufacturing industry. ECTC should consider improvements to the freight network within its planning area, such as truck stop electrification, which reduces idling and the associated greenhouse gas emissions.



Transforming the food and agriculture industry

The Southern Tier is well suited to advances in agriculture technology and production, with strong links to both manufacturing and tourism. A burgeoning food industry will require both a robust freight network for distribution purposes as well as a well-defined network of food-related tourism opportunities that is easily recognizable and navigable for visitors.



Promoting the Southern Tier's Innovative Culture

The URI strategic plan calls for the region to develop a strong innovative and exciting culture that attracts both tourism as well as a well-rounded workforce that is focused on entrepreneurship and innovation. To help foster this character, ECTC should focus on developing the downtown centers of its communities as walkable and bikeable places that focus on people and their interaction with the built environment over moving vehicles.



Chapter 7: Financial Plan

Federal requirements mandate that this Long Range Transportation Plan include a financial plan that demonstrates that the future transportation projects recommended in this plan can be implemented based on order of magnitude cost estimates and reasonably expected revenues. These fiscal constraints are critical to ensuring that the Long Range Transportation Plan is credible and provides realistic expectations of what ECTC and its partners can accomplish.

This chapter consolidates the project and program recommendations made in Chapter 6 as well as projects already identified in the adopted TIP to present a financially feasible plan and reasonably anticipated funding levels for ECTC and the Region. NYSDOT's estimates, or planning targets, are used to ensure that projects can be funded by the anticipated revenue streams. Since this Long Range Financial Plan goes beyond the 2021 expiration of the FAST Act, it assumes that federal funding levels for the surface transportation projects will generally remain constant. The financial forecast aligns with the level of funding anticipated to be available from each source through 2040. ECTC developed the financial plan in cooperation with NYSDOT and C TRAN (as the transit agency). NYSDOT has provided funding estimates that it expects to be available for projects and programs identified in the ECTC approved TIP and the Regions STIP. NYSDOT Region 6 works cooperatively with ECTC in the development of the Long Range Transportation Plan, and the Regions portion of the STIP without a formal sub-allocation of planning targets to the MPO. Due to the uncertainty of cost increases associated with transportation and infrastructure materials, supplies, and construction, this report escalates future year costs based on a two percent inflation rates provided by New York State. It is assumed that the projects to be selected/programmed in the outer years of the Long Range Transportation Plan will incorporate an inflated cost and also stay within the projected cost summary and expected revenue amounts.

The LRTP analysis forecasts revenue to be sufficient to cover the cost of implementing the recommended projects and programs. Given the unpredictability of funding sources, inflation, and economic factors, it is difficult to make precise mid- to long-term funding forecasts. Nevertheless, the LRTP provides estimates of reasonably expected revenues to cover the cost of implementing the recommendations over the 20-year period. Chapter 6 outlines illustrative projects, which are those projects and services identified as transportation needs in the region that currently lack a funding source.

Below is a discussion of funding programs that are included in this financial chapter.

- **National Highway Performance Program (NHPP)** – Provides funding for construction, reconstruction, resurfacing, restoration, rehabilitation, preservation, or operational improvement of segments of the National Highway System. This includes Interstate Highways and bridges on the NHS. Projects must support progress toward national goals for the condition and performance of the system.
- **Surface Transportation Block Grant (STBG)** – Formerly known as the Surface Transportation Program (STP), this source provides funding for roads functionally classified as rural major collector and above. Funds may be utilized on projects in Rural Areas, Urbanized Areas, Small Urban Areas; and for Enhancement, Safety, and Rail-Highway crossings. This program also funds bridge replacement and rehabilitation on non-federal aid routes. Other eligible activities include bicycle and pedestrian facilities and environmental mitigation to address impacts of the transportation system.
- **Highway Safety Improvement Program (HSIP)** – Provides funds to make improvements to high hazard locations on eligible roadways, including highway-rail grade crossings.



- **Transportation Alternatives Program (TAP)** – Provides funds that support bicycle, pedestrian, multi-use path, and transportation-related projects and programs. The federal government provides funds to New York State, and NYSDOT administers them.
- **FTA 5307** – Section 5307 is a formula grant program for urbanized areas providing capital, operating, and planning assistance for mass transportation. This program now includes funds previously available through the Job Access/ Reverse Commute program (FTA 5316), which provided funds for new or expanded transportation service to help link people to jobs and other employment-related services.
- **FTA 5310** – Section 5310 is a formula grant program for the special needs of elderly individuals with disabilities. The federal government appropriates funds annually based on an administrative formula that considers the number of elderly individuals with disabilities in each state. Funds available through the former New Freedoms program (FTA 5317), which encouraged services and facility improvements that go beyond those required by the Americans with Disabilities Act (ADA) are now part of this program.
- **FTA 5339** – Section 5339 is a formula grant program that provides capital funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities.

Table 7.1 portrays the projected revenues over the course of the Long Range Transportation Plan (2019-2040). Programs that are not apportioned by legislated formula are discretionary and typically allocated by Congress. These nonrecurring 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 this Long Range Transportation Plan.

Funding Type	2019	2020-2024	2025-2029	2030-2034	2035-2040
NHPP	\$21,900,000 ¹	\$113,240,000 ¹	\$106,650,000	\$108,780,000	\$110,960,000
STBG Off-System	\$6,610,000 ¹	\$13,220,000 ¹	\$4,180,000	\$4,270,000	\$4,350,000
STBG Flex	\$21,390,000 ¹	\$95,830,000 ¹	\$76,490,000	\$78,020,000	\$79,580,000
STBG Safety	\$0	\$0	\$0	\$0	\$0
STBG Rail	\$0	\$0	\$0	\$0	\$0
HSIP	\$0	\$8,020,000	\$8,180,000	\$8,340,000	\$8,510,000
TAP	\$3,738,000	\$75,000+TBD	TBD	TBD	TBD
Total Highway	\$53,638,000	\$230,385,000	\$195,500,000	\$199,410,000	\$203,400,000
FTA 5307	\$1,150,000	\$6,920,000	\$7,060,000	\$7,200,000	\$7,340,000
FTA 5310	\$55,000	\$670,000	\$680,000	\$700,000	\$710,000
FTA 5339	\$490,000	\$2,550,000	\$2,600,000	\$2,650,000	\$2,710,000
Total Transit	\$2,260,000	\$10,140,000	\$10,340,000	\$10,550,000	\$10,760,000

¹Funding values are higher than typical due to supplemental, BRNY, and the Center at Horseheads Access projects.

Table 7.1: Projected Federal Transportation Revenues (rounded to nearest 10,000)



Table 7.2 portrays the projected/anticipated project cost summary over the course of the Long Range Transportation Plan (2019-2040). Table 7.2 indicates that the projected expenditures on future transportation projects will not exceed the anticipated transportation revenues over the course of the Long-Range Transportation Plan.

ECTC Estimated/Programmed Project Cost Summary					
Funding Type	2019	2020-2024	2025-2029	2030-2034	2035-2039
NHPP	\$9,540,000*	35,800,000*	\$27,660,000	\$28,220,000	\$28,780,000
STBG Off-System	\$500,000*	\$0	\$0	\$0	\$0
STBG Flex	\$5,250,000*	\$39,790,000*	\$19,330,000	\$19,720,000	\$20,110,000
STBG Safety	\$0	\$0	\$0	\$0	\$0
STBG Rail	\$0	\$0	\$0	\$0	\$0
HSIP	\$3,630,000**	\$810,000	\$830,000	\$840,000	\$860,000
TAP	\$2,610,000*	\$75,000+TBD	TBD	TBD	TBD
Total Highway	\$21,530,000	\$76,475,000	\$47,820,000	\$48,780,000	\$49,750,000
FTA 5307	\$1,150,000	\$6,920,000	\$7,060,000	\$7,200,000	\$7,340,000
FTA 5310	\$55,000	\$670,000	\$680,000	\$700,000	\$710,000
FTA 5339	\$490,000	\$2,550,000	\$2,600,000	\$2,650,000	\$2,710,000
Total Transit	\$2,260,000	\$10,140,000	\$10,340,000	\$10,550,000	\$10,760,000

* Funding values are higher than typical due to supplemental, BRNY, and the Center at Horseheads Access projects.

** 2019 HSIP values are higher than typical due to inclusion of Pedestrian Safety Action Plan project.

Table 7.2 Projected/Anticipated Project Cost Summary (rounded to nearest 10,000)



Chapter 8: Potential Impacts of Transportation Strategies

The future transportation strategies identified in this Plan are developed to provide a future transportation system for the Elmira region that meets the goals and objectives outlined in Chapter 3, meet federal and state planning targets, and provide residents, businesses, and visitors of Chemung County with an inter-connected multi-modal transportation system. This chapter discusses the potential impacts the future transportation strategies identified in Chapter 6.

8.1 How Our Future Transportation Strategies Meet Plan Goals and Objectives

Goal 1 Ensure the safety and security of the transportation system for all users.	Future Mobility & Transit	Regional Highway System	Cities and Centers	Regional Multi-Use Trail Network	Management and Operations
Reduce the number of fatalities and serious injuries resulting from motor vehicle crashes in each five-year period from 2020 to 2040, using 2015 to 2019 as the base five years.		✓			✓
Minimize the number of pedestrian crashes that result in death or personal injury to that which is better than the statewide average in each five-year period from 2020 to 2040, using 2015 to 2019 as the base five years.		✓	✓	✓	
Minimize the number of bicycle crashes that result in death or personal injury to that which is better than the statewide average in each five-year period from 2020 to 2040, using 2015 to 2019 as the base five years.		✓	✓	✓	
Maintain C TRAN buses such that the NYSDOT safety inspection pass rate is 90% or higher per year, every year.	✓	✓			✓
Reduce the number of reported security incidents involving C TRAN passengers on buses and at bus stops, and C TRAN drivers over the life of the plan.	✓	✓			✓
Reduce the number of vehicle speeding occurrences on surface streets.		✓			✓

Table 8.1: Impacts on Goal 1

Goal 2 Invest in the transportation system infrastructure to bring all facilities and modes into a state of good repair	Future Mobility & Transit	Regional Highway System	Cities and Centers	Regional Multi-Use Trail Network	Management and Operations
Reduce the lane-miles of State and local Federal Aid system pavements rated Poor in the base period of 2020-2024, and continue that trend for the remainder of the LRTP		✓			✓
Improve sidewalk condition and ADA compliance for publicly owned and maintained as streets and roads are reconstructed			✓		✓
Replace buses in the C TRAN fleet on a schedule that complies with Federal Transit Administration guidelines on transit vehicle life for the life of the LRTP	✓				✓

Table 8.2: Impacts on Goal 2



Goal 3 Actively operate the transportation system to maximize efficiency and reliability of travel	Future Mobility & Transit	Regional Highway System	Cities and Centers	Regional Multi-Use Trail Network	Management and Operations
Update the ITS Regional Architecture and Implementation Plan in the next 5 years, and implement high priority actions as called for in the Plan	✓	✓			✓
Utilize active management and operation of the regional transportation system by 2025	✓	✓			✓
Create an ECTC Resiliency Plan that addresses operability of the regional transportation plan in unanticipated severe weather or facility failure after the update of the Long Range Transportation Plan is complete	✓	✓			
Prioritize transportation investments to improve transportation infrastructure resiliency in areas where known weather or hazard events have a tendency to take place or are known to occur	✓	✓			✓
Update the CTRAN communication, fare collection, and public information system (including real time customer information) in the period 2020-2024	✓		✓		✓

Table 8.3: Impacts on Goal 3

Goal 4 Promote connectivity among all modes of transportation to meet the region's mobility and accessibility needs	Future Mobility & Transit	Regional Highway System	Cities and Centers	Regional Multi-Use Trail Network	Management and Operations
Reallocate existing ROWs for multi-modal transportation opportunities. Program highest priority projects by 2025; program additional projects by 2040	✓		✓	✓	✓
Identify deficiencies in public transit service in terms of geographic coverage and time of day coverage. Implement and maintain modifications to transit operations to address highest priority needs and implement first-mile, last-mile solutions by 2025 and every five years thereafter	✓				✓
Implement and market ridesharing and other Transportation Demand Management approaches to improve and help meet the mobility needs of those without access to a vehicle. Enlist a minimum of 1,000 registered ride match requests by 2020	✓		✓		✓
Identify discontinuities in sidewalks, bicycle facilities, and trails and fill in gaps to develop a network. [High priority actions to be determined in Pedestrian/Bicycle/Trail Plan]	✓		✓	✓	

Table 8.4: Impacts on Goal 4



Goal 5 Ensure the efficiency of freight movement throughout the region to maximize support of the economy	Future Mobility & Transit	Regional Highway System	Cities and Centers	Regional Multi-Use Trail Network	Management and Operations
Identify and address bottlenecks on the highway network that interfere with reliability of truck travel and delivery		✓			✓
Monitor and modify the local truck route system in response to changing goods movement needs. Identify bridge restrictions (height/weight) of local networks that might impact this network		✓			✓
Increase number of overnight parking for trucks at public or private facilities within Chemung County		✓			✓

Table 8.5: Impacts on Goal 5

Goal 6 Integrate transportation and land use planning to promote economic development, sustainability, and enhanced livability	Future Mobility & Transit	Regional Highway System	Cities and Centers	Regional Multi-Use Trail Network	Management and Operations
Identify transportation facilities and services that are required for specific economic development opportunities, and prioritize them for timely implementation	✓	✓	✓	✓	✓
Identify transportation improvements that will improve neighborhood quality of life for residents of Elmira and surrounding municipalities. Complete Streets treatments will be considered for federal-aid highways and bridges based on the New York State Complete Streets law	✓		✓	✓	✓
Encourage land use development that has good accessibility to transit routes, including transit friendly improvements such as bus turnouts, bus shelters, and bus route signs	✓		✓	✓	✓

Table 8.6: Impacts on Goal 6

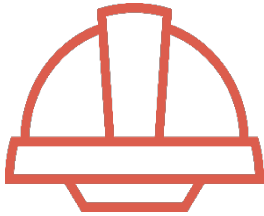
Goal 7 Ensure the efficiency of freight movement throughout the region to maximize support of the economy	Future Mobility & Transit	Regional Highway System	Cities and Centers	Regional Multi-Use Trail Network	Management and Operations
Based on consultation with state and federal environmental resource agencies, ensure that implementation of projects in the LRTP avoid or minimize environmental impacts	✓	✓	✓	✓	✓
Promote travel choices, including transit, shared-ride, and non-motorized modes that will reduce energy consumption and greenhouse gas production for the life of the LRTP	✓	✓	✓	✓	✓

Table 8.7: Impacts on Goal 7



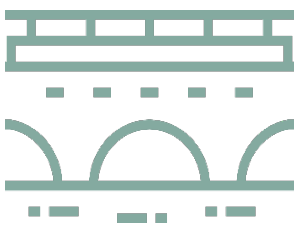
8.2 How Our Future Transportation Strategies Meet FAST Act National Performance Goals

The categories listed below provide a discussion on how future transportation strategies identified in this Plan will comply with FAST Act National Performance Goals:



Safety and Security

Future transportation strategies are aimed at improving safety and security to help achieve a reduction in traffic fatalities and serious injuries on all public roads. Safety improvements are aimed at making the transportation system safer for the public and meeting safety goals and performance indicators. I-86 is a major transportation route and is one of the focal points for improved safety.



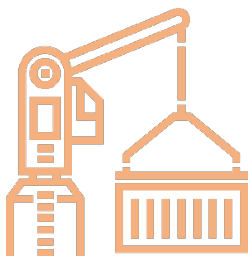
Infrastructure Condition

Future transportation strategies focus on preserving and maintaining the existing transportation system in a state of good repair. This will involve investing in the rehabilitation and maintenance of roadways and bridges in the ECTC region and using an asset management program to anticipate needs for future rehabilitation of these transportation assets



Congestion Reduction and System Reliability

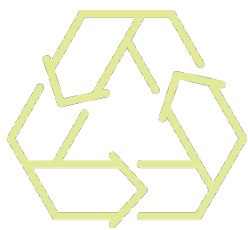
While the LOS of the region's roadways are generally good and congestion is rarely an issue, operational improvements are targeted towards creating a more effective and efficient transportation system. Further, enhancements are focused on maintaining the reliability of the transportation system for the movement of people and goods.



Freight Movement and Economic Vitality

Several future transportation strategies are aimed at improving the flow of freight and enhancing regional tourism and economic vitality through multi-modal transportation options. Active transportation is one of the focus elements aimed at promoting a more active lifestyle and creating more opportunities for bicycle and pedestrian mobility and decreasing the dependency on automobiles. An expanded multi-modal trail system will aid in attracting tourism to the region.





Environmental Sustainability

The potential impact of natural and human-caused hazards on transportation systems has necessitated a change in the way we plan, design, construct, operate, and maintain our critical transportation assets to make communities more resilient and sustainable. Given the limited availability of funds for transportation infrastructure projects, transportation planning and management agencies must protect their investments. Several Federal and State agencies have already begun assessing the vulnerability of their transportation infrastructure in the face of climate change and have been strategizing decision-making processes to prevent or mitigate the impacts of natural and manmade hazards on our critical infrastructure. That same thought process is included in the strategies outlined in this Long Range Transportation Plan ensuring that the region's future transportation system is resilient and sustainable in the face of natural and human-caused hazards and in the face of climate change. Due to past flooding events occurring in the region, a heightened awareness for improving resiliency is a goal of this plan.

8.3 Strategies for Environmental Analysis

According to the FAST Act, metropolitan and statewide transportation plans must include a discussion on types of potential environmental mitigation activities as part of their plans. While not specifically mapped, there are environmentally sensitive resources, such as wetlands, floodplains, habitat areas, cultural sensitive areas, farmlands, etc., located throughout the ECTC area. The following outlines strategies to consider when advancing transportation projects to avoid or mitigate potential environmental impacts relative to the decisions of the ECTC early in the planning process:

- Identify (through GIS) environmentally sensitive areas (both natural and cultural) early in the planning process for transportation projects as a means of avoidance and/or to establish early mitigation action plans prior to construction.
- Coordinate with local, state, and federal agencies early in the planning process for transportation projects to develop appropriate avoidance and/or mitigation plans before beginning project development.
- Minimize the construction of transportation projects that would impact environmentally sensitive areas.
- Embrace the principles of Context Sensitive Solutions (CSS) as a means of developing transportation projects that fit their physical setting and preserve scenic, aesthetic, historic, and environmental resources, while maintaining safety and mobility.

Steps to take in the project development process include the following:

- Avoid Impacts – The first strategy should be to avoid adverse impacts to environmentally sensitive areas.
- Minimize Impacts – If environmentally sensitive areas cannot be avoid, the transportation project should minimize its impacts.
- Mitigate Impacts – Where impacts to environmentally sensitive areas cannot be avoided, mitigation measures should be employed to preserve, repair, and restore environmentally sensitive areas either on or off-site.

ECTC recognizes that not every project will require the same level of environmental review and each project will be evaluated early in the planning process to determine the environmental review (SEQR and NEPA) needed and the agencies to coordinate with.



Reduced Project Delivery Delays

The Long Range Transportation Plan looks to improve project delivery to reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practice.

8.4 Environmental Justice

The planning and processes as outlined within the Elmira-Chemung Transportation Council 2040 Long Range Transportation Plan, will act in accordance with Title VI of the Civil Rights Act of 1964, the American with Disabilities Act, and the Clean Air Act Amendments of 1990. The purpose of Environmental Justice is to avoid, mitigate or minimize the adverse human health or environmental effects on low income and minority populations, and other underserved communities. Furthermore, it is imperative that these populations have full and fair access to the benefits and services within their community.

Historically, low- income and minority populations have been identified as the largest, most consistently disenfranchised group in terms of equal access and participation within citizen input processes. Title VI of the Civil Rights Act of 1954, requires federal funds to address any disproportionately high or adverse human health and environmental impacts, such as air and noise pollution to minority or low-income communities.

The Americans with Disabilities Act (ADA) was enacted into law in 1990, with the purpose of protecting the Civil Rights through providing "a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities." It is a major goal of the ADA that persons with disabilities have equal access in citizen participation, employment and the benefits of public services.

The Clean Air Act Amendments (CAAA) were signed into law in 1990 to ensure that the National Ambient Air Quality Standards (NAAQS) were upheld and outlined within a State Implementation Plan (SIP) to certify that pollutant concentrations will be reduced to the levels as outlined within the NAAQS.

Approximately 16% of Chemung County residents are living under the poverty threshold. Additionally, 21% of households report to having one car, while 5% of households are car-less (Census ACS 2017). To ensure that the transportation system is equitable across all populations, additional burdens will be considered in communities with high concentrations of low income minorities, one car households, and other traditionally underserved communities.





ELMIRA-CHEMUNG TRANSPORTATION COUNCIL LONG RANGE TRANSPORTATION PLAN

October 16, 2019

PUBLIC ENGAGEMENT SUMMARY OVERVIEW

This summary describes the public engagement process for the development of the Elmira-Chemung Transportation Council (ECTC) 2040 Long Range Transportation Plan (LRTP). Engagement activities included an online project questionnaire, two pop-up events and a public open house, as described below.

PROJECT QUESTIONNAIRE

OVERVIEW

A project questionnaire was administered online and through paper surveys at public events between April 1st, 2019 and October 1st, 2019. The questionnaire received 53 responses. A copy of all responses is included in Appendix B: Community Questionnaire and Responses. The questionnaire included four questions and took an average of three minutes for a respondent to complete. The survey asked respondents to provide contact information in order to receive project updates. This data has been excluded from this summary to protect the privacy of respondents.

PROMOTION

The questionnaire was promoted through social media and an e-blast to the project stakeholder list on April 3, 2019. The social media posts reached 1,005 people and resulted in 70 instances of engagement. Engagement included likes, shares, comments as well as tags and location check-ins. The MailChimp e-blast to stakeholders reached 116 recipients and was opened by 38. Images of promotional materials are included in Appendix B: Event and Questionnaire Promotion.

RESULTS

A summary of responses to the project questionnaire is included below.



Q1: What transportation area would you like to see more investment in by 2040?

Question 1 was multiple choice with options including "roads and bridges," and "bicycle and walking connections," "freight, rail and aviation, "transit and rideshare," and "other." Question 1 received 53 responses.

In response to Question 1, 26.4 percent of respondents prioritized "bicycle and walking connections." The option prioritized by the fewest respondents was "freight, rail and aviation" with 5.6 percent of respondents selecting this option. The option "other" was selected by 24.5 percent of respondents.

Q2: What is your vision for transportation in Chemung County in the year 2040?

Question 2 was open-ended and received 49 responses.

Response themes included improved safety (10.2% of respondents), public transportation (14.2% of respondents), affordability, and access (6.1% of respondents).

Q3: What NEW project or program could be the most important to making that vision a reality?

Question 3 was open-ended and received 45 responses.

Some themes that emerged from responses included the importance of collaboration to stretch limited resources, (e.g. "transit working with area school district, sports and social programs to offer contracts to transport families to events" and improved education and awareness (e.g. "...ensure people know what rights and responsibilities walkers, bikers, drivers, riders all have to one another"). Popular projects included expansion of the existing walking and biking trail system (16% of respondents) and restored passenger rail service (13% of respondents).

POP-UP ENGAGEMENTS

OVERVIEW

Pop-ups are a form of engagement in which the project team sets up a table or booth at an existing event to take advantage of foot traffic and opportunities for one-on-one conversations with members of the community. For the ECTC 2040 LRTP pop-ups were held at:

- The Elmira Street Painting Festival, Saturday, July 20th, 2019 from 12:00 to 2:00 PM
- The Wisner Market, Thursday, July 25th, 2019 from 11:00 AM to 1:00 PM



The format of the pop-ups included opportunities for attendees to take the ECTC 2040 LRTP Community Questionnaire on tablets or paper surveys. The table was staffed by Highland Planning. ECTC staff were also on hand to promote bike safety and the regional rideshare program. Maps of the Metropolitan Planning Organization (MPO) area were displayed on boards.

POP-UP AND SURVEY PROMOTION

Attendance of the Wisner Market pop-up was promoted by a Facebook post. The post reached 285 people and resulted in 29 instances of engagement on Facebook. Engagement includes likes, shares, comments as well as tags and location check-ins. Between the promotional post on Facebook and the Wisner Market pop-up, ten (10) electronic surveys were completed.

RESULTS

The pop-up at the Elmira Street Painting Festival engaged an estimated 15 people. Six (6) attendees completed paper copies of the project questionnaire which were logged by project team members. Four (4) attendees completed electronic surveys. An estimated 25 people were engaged at the Wisner Market pop-up. Six (6) paper surveys were filled out and four (4) electronic surveys were completed.

OPEN HOUSE

OVERVIEW

On Tuesday, October 8th, 2019, the Elmira-Chemung Transportation (ECTC) hosted a public meeting from 4:00—7:00pm at Downtown Grind in Elmira, NY. The purpose of the meeting was to present preliminary findings and updates to the ECTC 2040 Long Range Transportation Plan (LRTP) and solicit feedback from stakeholders and members of the public. The meeting was organized in an open-house format with six informational boards, and draft copies of the plan were available. The boards consisted of the following descriptions:

- ECTC 2040 Long Range Transportation Plan
- Regional Trends
- Transportation Conditions
- Goals & Objectives
- Future Transportation Projects
- Potential Impact of Transportation Strategies

PROMOTION

The event was promoted through a Facebook event posted by the ECTC Facebook page, an e-blast to stakeholders, and on the ECTC website.

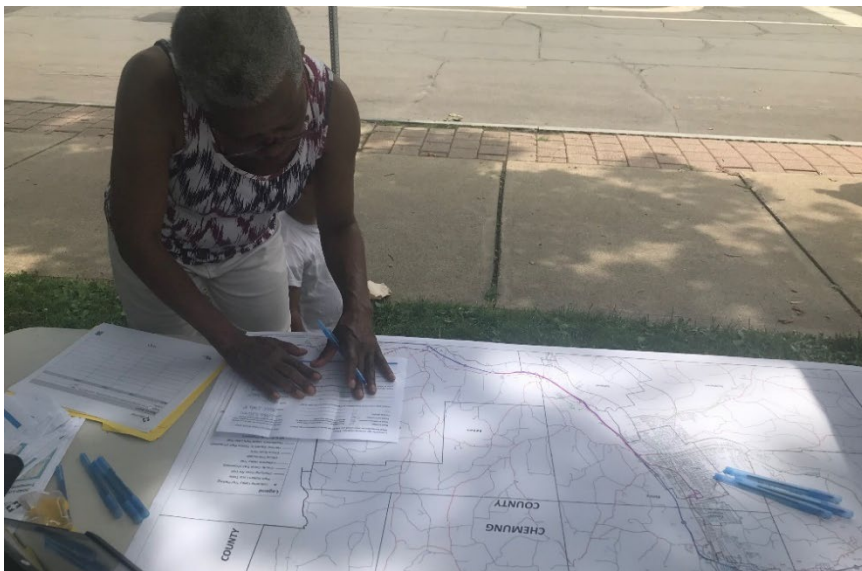
RESULTS

Approximately twenty (20) people attended the meeting. One (1) comment card was also submitted at the meeting. The Open House provided opportunities for stakeholders and residents to discuss the plan's contents with other stakeholders, the consultant team, and local officials.

APPENDIX A: EVENT PHOTOGRAPHS

Photographs from Elmira Street Painting Festival Pop-Up





Photographs from Wisner Market Pop-Up





Photographs from Public Open House

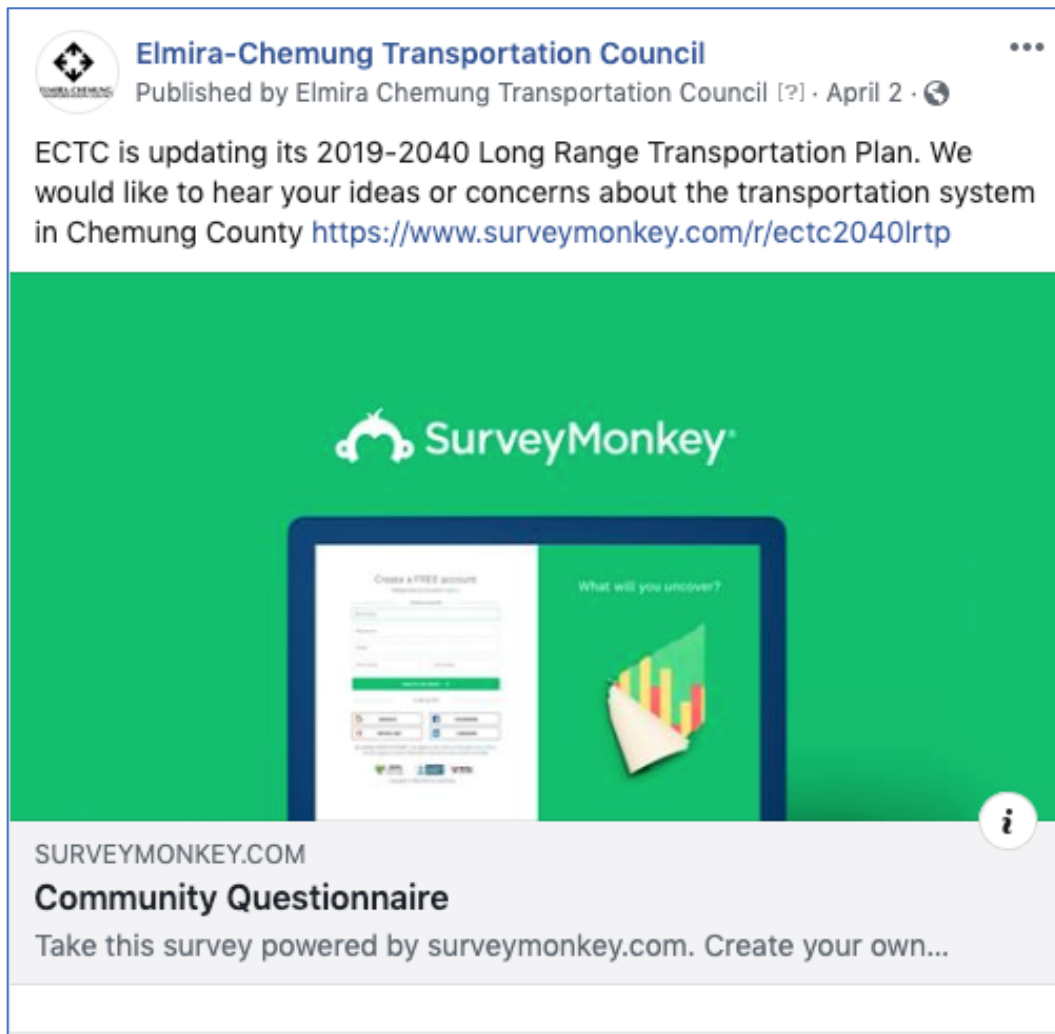






APPENDIX B: EVENT AND QUESTIONNAIRE PROMOTIONAL COMMUNICATIONS

Facebook Post Promoting Questionnaire





MailChimp E-Blast Promoting Questionnaire



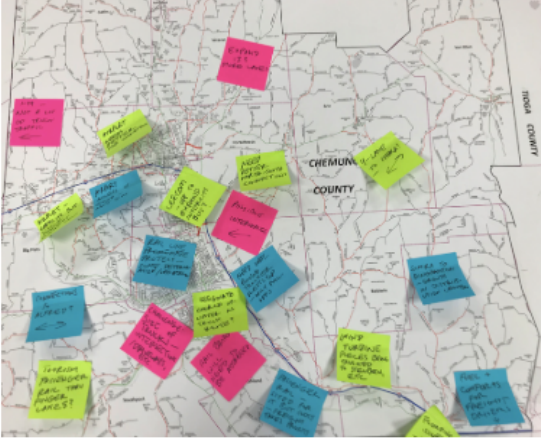
**ELMIRA-CHEMUNG
TRANSPORTATION COUNCIL**

ECTC Long Range Transportation Plan Stakeholder Workshops

Thank you to everyone who was able to attend the Stakeholder Group Workshops this past month. The project team gathered a lot of great insights into the opportunities and challenges for transportation in the region.

Below we've included a summary and list of key takeaways from the workshops.

[Workshop Summary and Key Takeaways](#)



Next Steps

Over the next few months, we'll be engaging transit riders, human service providers, planners and other community members to gather additional input for the 2040 Plan. We'll be popping up at local events this summer and holding a community forum this fall.

We encourage you to share the community questionnaire below with members of the public who take an interest in planning the future of transportation in Chemung County.

[Community Questionnaire](#)

Facebook Post Promoting Pop-Up Event





APPENDIX C: COMMUNITY QUESTIONNAIRE AND RESPONSES

Project Questionnaire Paper Trifold

Your feedback is important! Fill out this questionnaire to help us plan the future of transportation in Chemung County. Feel free to complete this questionnaire on the spot or mail it in later to the address provided. ABOUT THE PROJECT The Elmira-Chemung Transportation Council has received funding from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) of the U.S. Department of Transportation under the Metropolitan Planning Program, as well as with funds through the New York State Department Transportation (NYSDOT) for the development of the initial Long Range Transportation Plan (LRTP). The project will be developed to meet the metropolitan planning requirements of the current Federal transportation legislation, Fixing America's Surface Transportation (FAST) Act.	PLACE STAMP HERE	Elmira-Chemung Transportation Council 400 East Church Street, Lower Level Conference Room Elmira, NY 14901	 2040 Long Range Transportation Plan  Project Questionnaire 
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Long Range Transportation Plan

What transportation area would you like to see more investment in by 2040?

Roads & bridges

☐

Bicycle & walking connections

☐

Freight, rail & aviation

☐

Transit & rideshare

☐

Other

☐

If you selected "Other", please tell us in the space below what transportation area you would like to see more investment in by 2040:

What is your vision for transportation in Chemung County in the year 2040?

What **NEW** project or program could be the most important to making that vision a reality?

We want to hear from you

Please use the space on the left to respond to the prompt and provide your thoughts. Then leave us your contact information below.

Name:

Address:

Email:

Phone:

Have more to say? Email us at info@elmira-mpo.org or leave us a comment or message on our Facebook page (link listed below):

<https://www.Facebook.Com/ElmiraMPO/>



Project Questionnaire Responses

Date	What transportation area would you like to see more investment in by 2040?	Other	What is your vision for transportation in Chemung County in the year 2040?	What NEW project or program could be the most important to making that vision a reality?
	Response	Other	Open-Ended Response	Open-Ended Response
2019-08-02 20:51:45	Transit & rideshare		Improved regional bus service and connections. Schedule service with apps. Know locations and arrival times of buses. Great demand response service.	Work with TCAT to share technology.
2019-07-29 14:18:48	Roads & bridges			
2019-07-29 14:16:47	Other	roads & bridges, bicycle & walking connections	Roads in Horseheads to be cleaned up from debris and glass as we notice this in our neighborhood	Get the town workers raises so they might care about it
2019-07-29 14:15:21	Other	roads & bridges, transit & rideshare	Having more reliable ways for the elderly and those without cars to get to appts., etc. Taxis are very unreliable	
2019-07-29 14:13:29	Other	roads & bridges, bicycle & walking connections		
2019-07-29 14:12:26	Bicycle & walking connections			Fix more sidewalks
2019-07-29 14:11:09	Bicycle & walking connections		More bike trails	Bike trail to southport to Elmira
2019-07-25 11:53:44	Other	All are important	Better public transportation, more flights from the airport	Expanded public transit routes, more bike lanes, more bike paths
2019-07-25 11:41:50	Roads & bridges		Roads are bumpy and need repair	?

Date	What transportation area would you like to see more investment in by 2040?	Other	What is your vision for transportation in Chemung County in the year 2040?	What NEW project or program could be the most important to making that vision a reality?
2019-07-25 11:34:50	Other	Walking bridge for Lake St Bridge, bike routes, fix our streets!!!!!! I hate the holes and multiple uneven layers	Idk	Fix our streets, get the weeds out of them
2019-07-25 10:48:48	Bicycle & walking connections		More people walking and biking	N/a
2019-07-23 08:01:22	Transit & rideshare		More public transportation including regional rail service	Southern Tier passenger rail service.
2019-07-23 07:40:44	Bicycle & walking connections		Lime Scooters. Pass a law making them legal in Chemung County.	Indemnify Lime against any lawsuits by New York State. Take back the power.
2019-07-22 21:30:26	Transit & rideshare		Seasonal public transit to popular recreation areas: Harris Hill attractions, parks, river launches (incl. kayak/canoe/bike loading abilities on the buses!). MUCH more distinct, marked, safer bike lines on every road in the county.	Seasonal transportation to Harris Hill attractions and parks and river launches!!!!!!!!!!!! Buses should have racks for loading bikes and kayaks like they do so well in the PNW!

Date	What transportation area would you like to see more investment in by 2040?	Other	What is your vision for transportation in Chemung County in the year 2040?	What NEW project or program could be the most important to making that vision a reality?
2019-07-22 15:01:42	Bicycle & walking connections		More pedestrian n bike friendly	Safer crossings on Clemens center parkway. For cyclists, the lights turn red against them too quickly. For pedestrians, there needs to be better signage explaining that they need to push the button for more time to cross. And the light needs to change asap when the button is pushed. Nobody wants to wait in the cold or rain for a car to come along and trip the light. Crossing he parkway is clearly ped/bike bike unfriendly as it is, that's why so many people are hit or killed along its length, imo
2019-07-22 13:08:13	Other	roads & bridges and bicycle & walking connections	Expand bicycle paths on main roads in county	Downtown Elmira bike path & connections
2019-07-22 13:03:14	Other	bicycle & walking connections and transit & rideshare	More carpooling opportunities	
2019-07-22 13:00:02	Other	roads & bridges, Bicycle & walking connections, freight, rail & aviation, transit & rideshare, bus	Get to where need fast and cheap	More smaller faster buses with more routes. Rail, light and high speed.
2019-07-22 12:58:44	Transit & rideshare		More walkable street. Better transit system (bus, trolleys)	More awareness for the community
2019-07-22 12:57:10	Other	bicycle & walking connections and freight, rail & aviation	To be easily accessible to all locations 24-7	
2019-07-22 12:53:17	Other	bicycle & walking connections, transit & rideshare, electric charging stations and electric buses	More public transport-electric vehicles. More and better bike and walking paths	Electric charging stations!!!

Date	What transportation area would you like to see more investment in by 2040?	Other	What is your vision for transportation in Chemung County in the year 2040?	What NEW project or program could be the most important to making that vision a reality?
2019-07-20 12:26:35	Bicycle & walking connections		Matching flower pots	Matching flower pott co.
2019-07-20 12:02:13	Transit & rideshare		I'd love a regional light rail that connected the tri-county area and made us less car dependant	Passenger rail service
2019-07-20 11:58:23	Bicycle & walking connections		Matching flower pots	Restoring historical bildings
2019-07-20 11:55:46	Freight, rail & aviation		More flexibility with airlines in the Elmira Corning Regional Airport as well as more bike lanes	More bike lanes
2019-07-12 10:14:51	Bicycle & walking connections		We will become much less reliant on car and truck and return to people walking, bus, bicycle for sub 3 mile city needs. A return to rail usage as an efficient means of longer distance transit.	A project of education to help ensure people know what rights and responsibilities walkers, bikers, drivers, riders all have to one another. IF the city were to move towards a more sustainable transit system that was less individual focused on fossil fuel based energy people need to be confidant they will be able to use it.
2019-07-10 09:33:53	Roads & bridges		Traffic circle at hanover square	Traffic circle at Hanover square
2019-07-03 14:28:03	Bicycle & walking connections			
2019-05-10 20:04:24	Freight, rail & aviation		To have access to trains that run to major cities like NYC, Buffalo, etc.	I know this has been discussed in the past. I think it's important to have people in charge of our county who do more than talk about things.

Date	What transportation area would you like to see more investment in by 2040?	Other	What is your vision for transportation in Chemung County in the year 2040?	What NEW project or program could be the most important to making that vision a reality?
2019-05-10 18:03:01	Bicycle & walking connections		Affordable and accessible transportation for all ages.	Increased funding for individuals on public assistance who are trying to work or go to school
2019-05-10 13:51:12	Roads & bridges		I will not be here thank god but would be nice to have good roads to drive on so my truck does not get beat to heck when I come back once in awhile	Actually hire quality contractors to do the work and hold them to a time table to complete the work. Also spend the money we do have better.
2019-05-10 13:34:49	Roads & bridges		Roads and Bridges that are drivable with bike lanes clearly marked on All city streets.	Combination of bike trails/ walking trails AND better roadway surfaces so everyone can safely get around the city
2019-05-10 12:45:11	Transit & rideshare		Parents and families living in poverty will be able to not only be transported to medical appts, but to parent/teacher conferences, children's sporting events, band concerts, etc. Attendance at all of these things is needed for families to be successful and we are currently ignoring the social aspect of transportation and the impact on people living in poverty. How will people get out of poverty if they literally cannot get anywhere?	Transit working with area school district, sports and social programs to offer contracts to transport families to events.

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2019-05-10 11:22:07	Transit & rideshare		Anyone can use public transportation easily in Chemung County.	More accessibility for low-income families. Bike racks on the busses for those that may ride one way and need to take the bus afterward. Better hours of transportation.
2019-05-08 13:25:38	Bicycle & walking connections		Safer roads for pedestrians and bicycles - more sidewalks and bike paths.	
2019-05-02 10:51:34	Roads & bridges		Safe bridges and roadways	unsure
2019-04-23 11:51:30	Transit & rideshare		I may not need my own vehicle.	More transportation for elderly and handicapped.
2019-04-23 08:50:50	Bicycle & walking connections		More walking and biking trails. Better roads and bridges. Bus transportation to be continued.	Walking/bike trails.
2019-04-22 11:02:31	Transit & rideshare		That everyone would have easy access to health care and personal travel needs through public transportation within CHEMUNG, Steuben & Schuyler county	More public transpiration & easier access to that transportation- perhaps more busses, adding trams, RELIABLE MEDICAID TRANSPORT
2019-04-18 07:50:03	Transit & rideshare		More affordable means of public transportation. Public transportation that is offered on weekends to locations like the hospital at hours that workers would use like 6am or as late at midnight.	Researching and creating buses that are inexpensive as well as accessible

Date	What transportation area would you like to see more investment in by 2040?	Other	What is your vision for transportation in Chemung County in the year 2040?	What NEW project or program could be the most important to making that vision a reality?
2019-04-17 16:53:40	Transit & rideshare		Access to reliable transportation for everyone. Medicaid transport is NOT working and people are unable to attend their medical appointments. The system must be fixed or other options need to be made available for the vulnerable. We also need more extensive public transport system. It can take a very long time to go a short distance. And now with Southern Tier Peds leaving their Elmira office, it is even more important that frequent and reliable transportation is available to Horseheads/Big Flats. My dream is to bring back the AMTRAK Elmira/Corning-NYC train line. That would bring so much to our community. It would put us back on the map!	Bring back AMTRAK! Make it High Speed Rail - Elmira/Corning to NYC
2019-04-17 16:42:50	Roads & bridges		enhanced streetlights to provide better lighting, especially in areas well traveled by pedestrians and bicyclists, smart traffic lights to provide a more energy efficient commute, 4-way blinking stop lights during late evening and overnight hours. Enforcement of infractions by pedestrians and bicyclists to encourage compliance of the existing laws.	A committee of many stakeholders in the community, including pedestrians, bicyclists, drivers, truck drivers, transportation experts, engineers, community members, police and first responders, school personnel, crossing guards, parents and children, etc.
2019-04-17 16:44:40	Other	Accommodation for electric cars	More environmentally friendly vehicles in use.	Green New Deal
2019-04-17 13:16:26	Freight, rail & aviation		Passenger rail transportation between Chemung County and the New York metropolitan area to remove obstacles for tourists interested in heading to our area from the New York area.	Reinstatement of the passenger rail lines that once existed to Corning.

Date	What transportation area would you like to see more investment in by 2040?	Other	What is your vision for transportation in Chemung County in the year 2040?	What NEW project or program could be the most important to making that vision a reality?
2019-04-17 09:56:58	Other	ALL OF THE ABOVE!!!	Complete Public Transportation (bus, passenger rail connections throughout Chemung County and "Lend-a-Bike" for inter-city use.	as they are all interconnected, complete Public Transportation (bus, passenger rail connections throughout Chemung County and "Lend-a-Bike" for inter-city use.
2019-04-17 09:32:50	Roads & bridges		Smarter paving materials that reduce or eliminate the use of salt in winter and withstand seasonal temperature changes better.	Identifying new paving materials and technologies.
2019-04-17 09:15:48	Transit & rideshare		Comprehensive and quick transportation throughout towns and cities in the county. Available access to county parks through public transport.	Bus routes to county parks.
2019-04-17 08:43:24	Roads & bridges		meaningful long-term planning for our transit infrastructure which assures economic sustainability, especially as our critical interstate roadways age	dream project: restore historic passenger rail connections between Corning/Elmira and the outside world (NYC)!
2019-04-16 14:30:54	Bicycle & walking connections		Develop a river board walk - increased tourism, increased sales tax revenue, increased opportunity for physical activity - win, win, win. Affordable public transportation for all. Walking trails required part of every new development.	see above - apply for those nys grants that are given to each region all the time

Date	What transportation area would you like to see more investment in by 2040?	Other	What is your vision for transportation in Chemung County in the year 2040?	What NEW project or program could be the most important to making that vision a reality?
2019-04-02 17:28:21	Roads & bridges		More durable roadways that are less prone to annual construction.....electric cars that are charged the more they drive, in other words the roads are part of the energy source	serious investment in forward-thinking entrepreneurs who work with manufacturers to get it done, let's stop talking about it and do it
2019-04-02 15:14:29	Roads & bridges		Increased safety.	Increased knowledge of road rules, such as yields. Maybe stricter written exams or posted visual reminders. Elmira needs increased safety measures for pedestrians.
2019-04-02 15:17:34	Bicycle & walking connections		Safe well maintained bike paths connecting Horeseheads, Elmira Heights, Elmira and Southport.	
2019-04-01 15:46:08	Other	trails	safe, equitable, accessible	trails



Comments from Open House

The plan is comprehensive and visionary as far as priorities: a greater emphasis on non-auto centric modes of travel should not put an overabundance of infrastructure dollars on unsustainable/ environmentally degrading systems. Public Transit from buses to shuttles to trolleys should be #1. An increase in bike connectors and corridors is essential, complete streets, safe walkways, trails and refresh stations for walkers need major attention. Accommodating transport for the next 20 years will save money on the building end and maintenance end. Thanks.

Open House Comment Card

The image shows a comment card for the Elmira-Chemung Transportation Council's 2040 Long Range Transportation Plan. The card is divided into several sections. On the left, a green vertical banner contains the text "Your feedback is important!" followed by instructions to fill out the card and provide written input on the draft plan, and a note that the public comment period ends on October 29th, 2019. To the right of the banner, there is a small box for "DATE" and "TIME". Below this, the council's name and logo are displayed, followed by the title "2040 Long Range Transportation Plan". A map of the region is shown below the title. At the bottom right, the words "Comment Card" are printed above a blue rectangular box. On the left side, below the green banner, there is a section for "Return Address" with three horizontal lines for writing. The council's full address is printed vertically in the center: "Elmira-Chemung Transportation Council, 400 East Church Street, Lower Level, Elmira, NY 14901".



Draft Long Range Transportation Plan

Please provide your comments on the Draft Plan in the space below:

We want to hear from you

Please provide your contact information below so we can keep you informed about the project.

Name:

Address:

Email:

Phone:

Have more to say? Email us at ectc@ChemungCountyNY.gov or leave us a comment or message on our Facebook page: <https://www.Facebook.Com/ElmiraMPO/>

The public comment period closes October 21st, 2019

Elmira-Chemung Transportation Council 2040 Long Range Plan

How did we engage the public?

The public engagement process for the development of the Elmira-Chemung Transportation Council 2040 Long Range Transportation Plan included an online project questionnaire, two pop-up events and other opportunities for community input. Below is a timeline of those efforts.

January 2019 | public engagement plan

A public engagement plan is developed to ensure the 2040 Long Range Plan reflects a shared community vision for transportation

March 2019 | stakeholder workshops

A full day of workshops is held with representatives of government, business, human services providers and the arts and cultural communities in Elmira to discuss bicycling, walking, roads, bridges, freight, aviation and other transportation topics

April 2019 | community questionnaire

An online survey is launched and promoted through the ECTC Facebook page, a stakeholder email list and at pop-up events in the community

July 2019 | pop-ups

The project team provides opportunities for community members to take the survey and learn about the project at the Street Painting Festival and the Winter Market (see photos below)

October 2019 | open house & review

The draft plan is made available online and the official period for the public to comment on the plan opens