LONG RANGE TRANSPORTATION PLAN

2050

Watertown/Jefferson County Transportation Council

EXECUTIVE SUMMARY

The Watertown Jefferson County Area Transportation Council (WJCTC) Long Range Transportation Plan (LRTP) presents a comprehensive vision for the region's transportation network. This includes major roads, bicycle and pedestrian paths, and various multi-modal and intermodal facilities. The LRTP outlines proposed projects, considering growth and development within the limits of WJCTC's projected financial resources.

The U.S. Department of Transportation (USDOT) mandates that any metropolitan area with a population over 50,000 must have a designated Metropolitan Planning Organization (MPO) to qualify for federal highway and transit funding. Since 2014, WJCTC has been the MPO for the urbanized areas of Watertown and Carthage in Jefferson County. Its primary role is to manage a cooperative and inclusive regional transportation planning and funding process for all projects eligible for federal support from both the Federal Highway Administration and the Federal Transit Administration.

The LRTP is developed and maintained under the guidance of the Bipartisan Infrastructure Law (BIL), with WJCTC responsible for allocating federal, state, and local funds to regional transportation projects. The LRTP aims to create an integrated multi-modal surface transportation system, prioritizing elements that meet regional, statewide, and national objectives. It must cover at least a 20-year period and remain fiscally constrained, ensuring that the total cost of its recommendations does not exceed expected revenues.

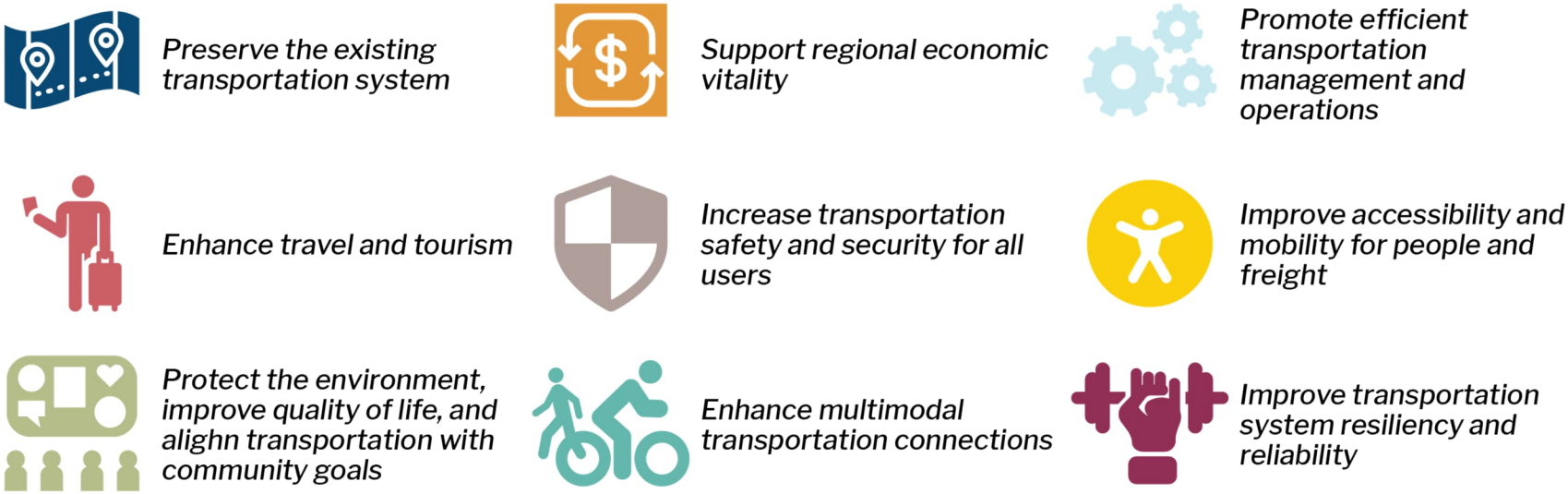
In the creation of this 2024 LRTP and its recommendations, WJCTC analyzed current transportation system data as well as present and projected community conditions. This revealed the existing transportation system in Watertown is generally in good condition and reliable. The three main challenges identified during the analysis included:

- The section of Watertown's downtown around Public Square has designated truck routes, which contribute to traffic congestion and bottlenecks.
- There is limited access to the Watertown Public Safety Building and City Industrial Park.
- There is overall need and opportunity for improved shared and active transportation systems.

The above listed key issues should be a critical consideration for future transportation projects within the WJCTC area in addition to the continued upkeep of the existing transportation system.

The 2024 LRTP was also shaped by public input. A Public Participation Plan was developed at the beginning of the process, detailing a methodology for soliciting input from key stakeholders and the broader community. This included stakeholder focus group meetings, public surveys, and various public engagement activities.

Ultimately, the LRTP aims to achieve the following goals:



To achieve these goals, the LRTP outlines several future transportation projects and program recommendations, presenting a financially feasible strategy to shape the region's transportation vision for the next 25 years. While the LRTP does not constitute a firm commitment to individual projects, it offers recommended strategies that direct the decision-making process toward achieving the overarching goals specified in the plan. Such strategies include:

- System Preservation, Maintenance, and Operations
- Multi-Modal Transportation Safety and Security
- Multi-Modal Transportation System Improvement and Expansion
- New Mobility

The LRTP process has fostered a collaborative effort, bringing stakeholders together to work toward a shared vision for the future of transportation and mobility in the region.

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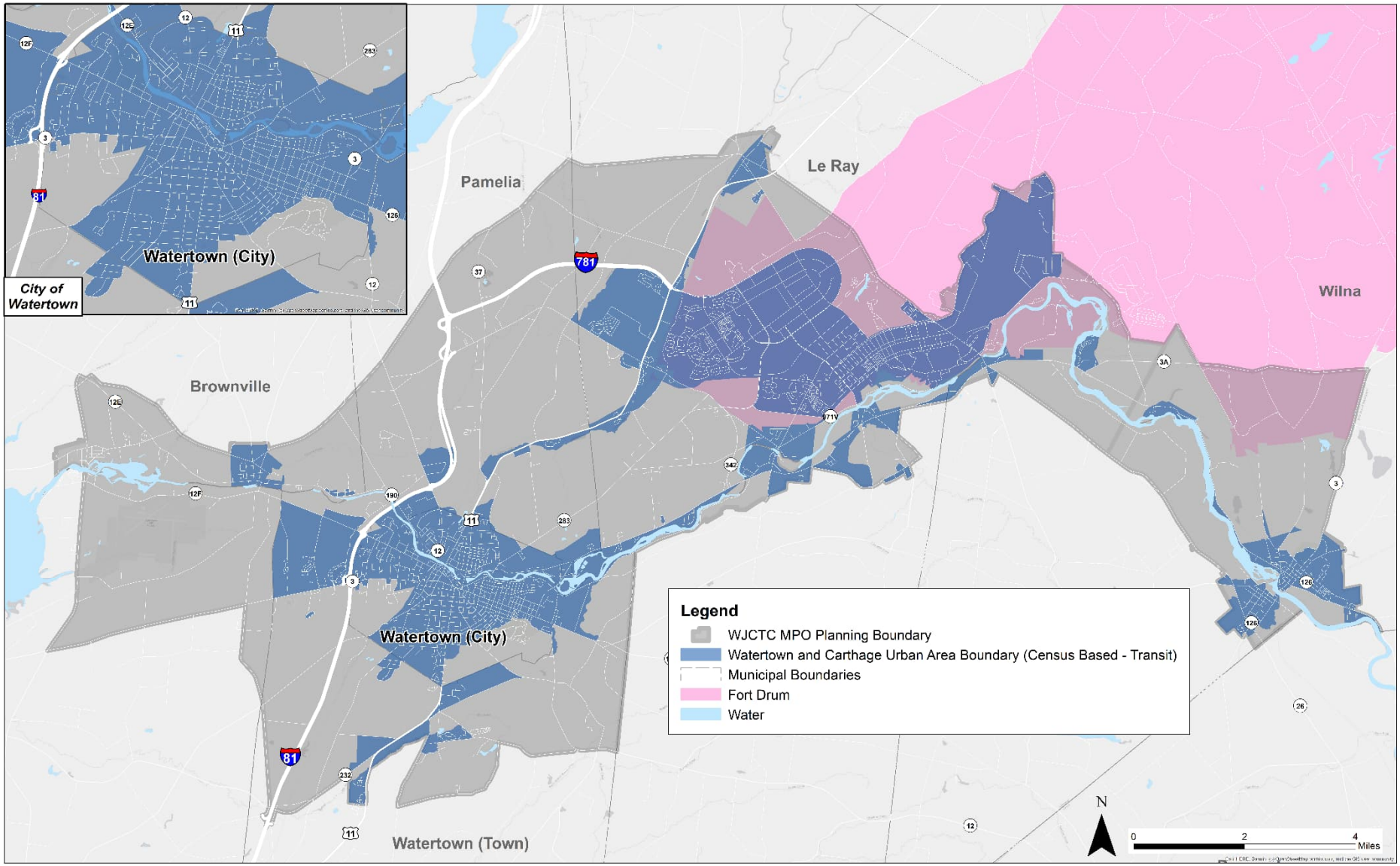
CHAPTER 1 - INTRODUCTION

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. The urbanized area in Jefferson County was newly designated as an MPO following the 2010 Census. In the 2020 Census, two urban areas, Watertown and Carthage, were identified within the MPO boundary.

The Watertown Jefferson County Area Transportation Council (WJCTC) was established in 2014 as the designated MPO for the urbanized area in Jefferson County, see Figure 1. WJCTC 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).

This document provides an update to the WJCTC 2045 Long Range Transportation Plan adopted on June 4, 2019.

Figure 1. WJCTC Urban Area Boundary



The WJCTC is responsible for developing and maintaining a Long Range Transportation Plan (LRTP), a Transportation Improvement Program (TIP), and a 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.

Transportation Improvement Program

The Transportation Improvement Program (TIP) is a five-year listing of capital surface transportation projects 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.

The WJCTC produced a TIP for 2023-2027. The planned projects include five categories: safety, pavement, bridge, transit asset management, and other. The total cost of these 34 projects are $72.099 million, with 69% of the budget allocated to bridge maintenance ($49.797 million). Federal-aid funds cover $58.338 million of the TIP-funded projects (80.9%). Figure 2 and Table 1 below summarize the TIP by funding source and Figure 3 provides a map of current TIP projects across the region.

Figure 2. Transportation Improvement Program by Funding Source (Millions)

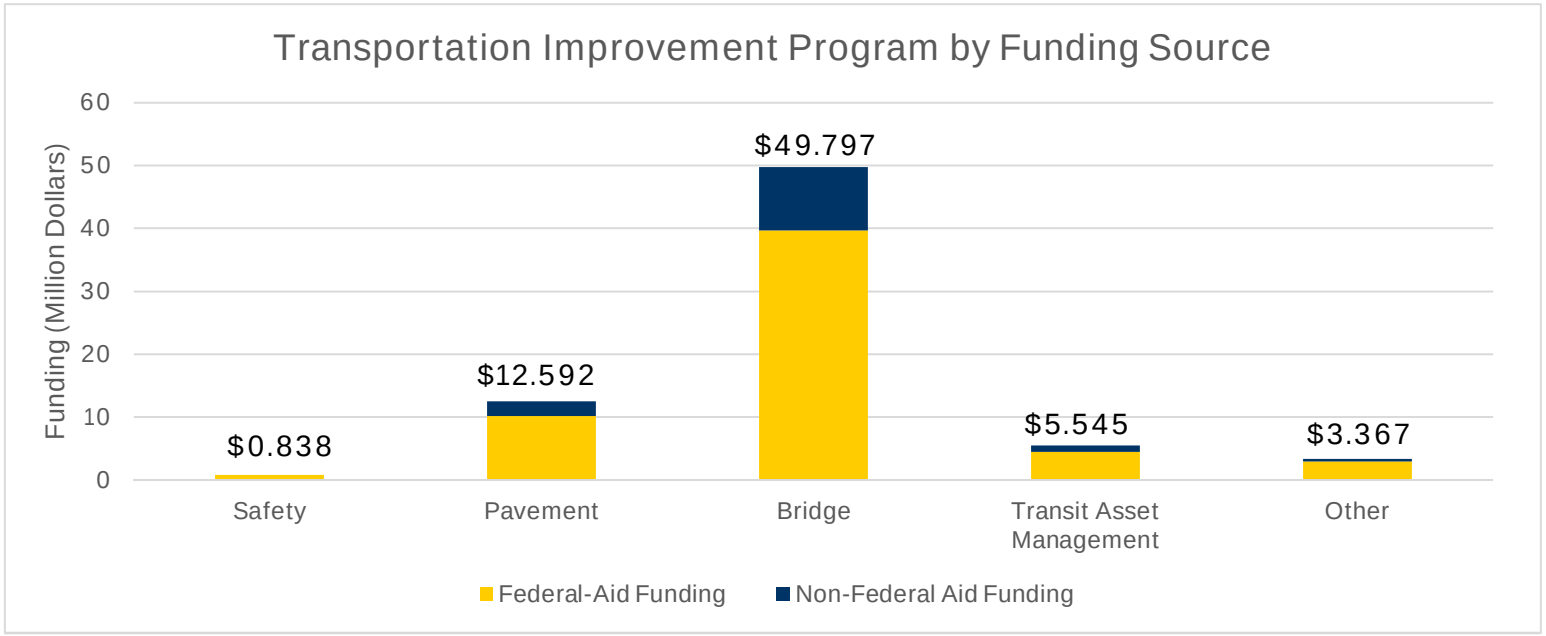
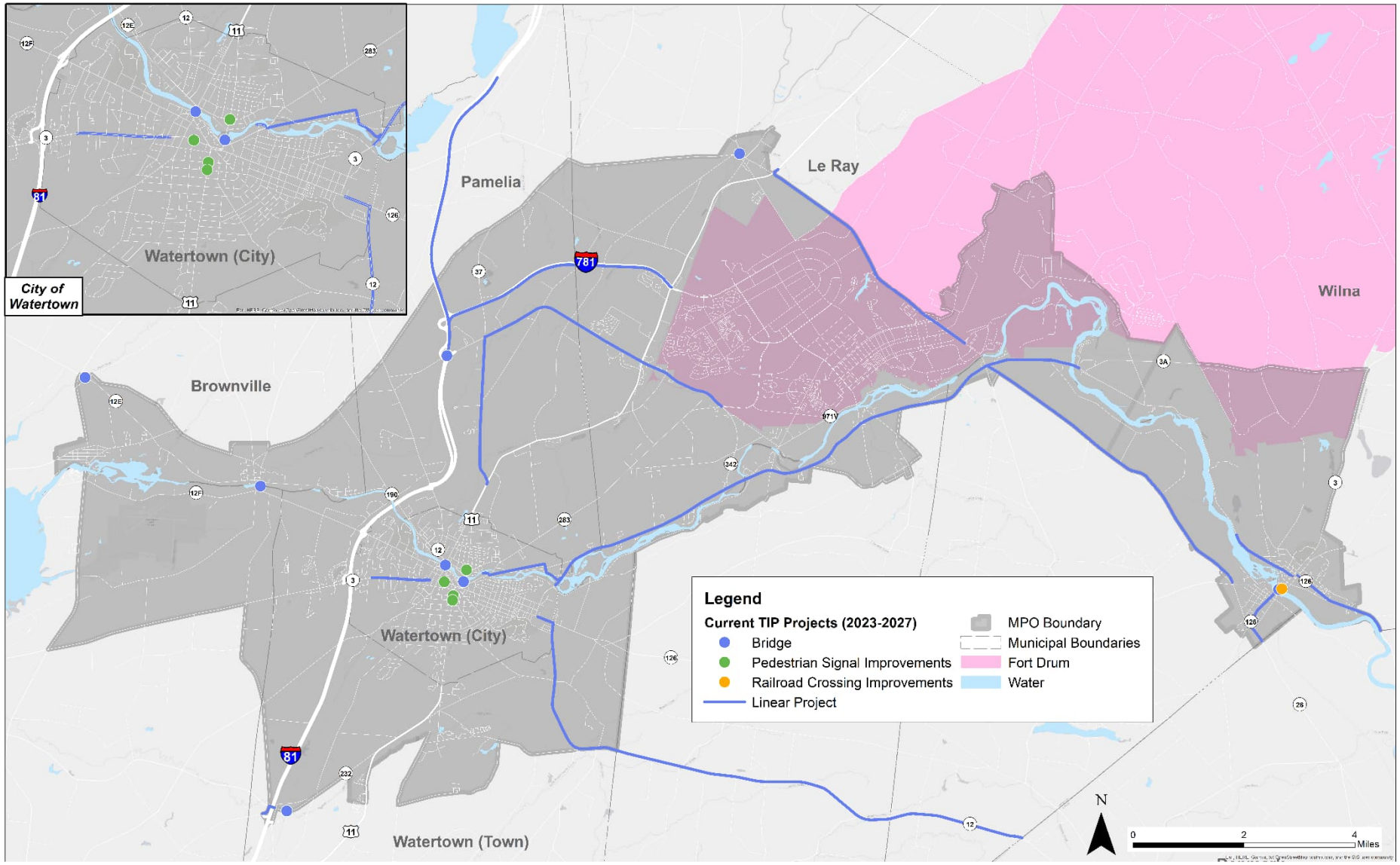


Table 1. Transportation Improvement Program by Funding Source (millions)

Category	Number of Current Projects	Funding Source	Total Cost (Millions)	Federal-Aid Funding (Millions)	Non-Federal Aid Funding (Millions)
Safety	2	Highway Safety Improvement Program (HSIP), National Highway Performance Program (NHPP)	0.838	0.830	0
Pavement	17	National Highway Performance Program (NHPP), Surface Transportation Block Grant (STBG) Flex	12.592	10.245	2.347
Bridge	6	Bridge Formula Program (BFP) Main, National Highway Performance Program (NHPP), Surface Transportation Block Grant (STBG) Flex, STBG Med Urban	49.757	39.696	10.061
Other	2	Transportation Alternatives Program (TAP) Flex, Highway Safety Improvement Program (HSIP) Rail	3.367	2.978	0.389
Transit Asset Management	7	FTA Section 5339 Funds – Bus and Bus Facilities Program, FTA Section 5307 Funds – Urbanized Areas	5.545	4.581	0.964
Total	34		72.099	58.338	13.761

Figure 3. TIP Current Projects



Unified Planning Work Program

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

WJCTC's current 2024-2025 Unified Planning Work Program (UPWP) covers from the timeframe of April 1, 2024 through March 31, 2025. The WJCTC received two primary sources of federal planning funds supporting UPWP activities: FHWA's Metropolitan Planning (PL) funds and FTA's Section 5303 Metropolitan Planning Program (MPP) funds. Federal funds allocated to the WJCTC in the 2024-2025 UPWP from these programs are approximately $2,834,575 ($352,866 of PL funds and $47,057 of MPP funds).

Carryover balances of FHWA PL funds are largely due to the accumulation from previous years, which have been accrued since 2013-2014. With this carryover, the total amount of FHWA PL funds identified in the UPWP available for programming is $2,518,771.

Table 2. 2024-2025 Unified Planning Program Available Funds

Summary of FHWA Planning Funds (PL)		
Previous Year's Balance	Amount Received	Amount Available
$2,165,905	$352,866	$2,518,771
Summary of FTA Metropolitan Planning Program Funds (MPP)		
Previous Year's Balance	Amount Received	Amount Available
$268,092	$47,057	$315,804

WJCTC Organizational Structure

The designated WJCTC Director is the NYSDOT Region 7 Planning & Program Manager. The WJCTC consists of three principal working groups – the Policy Committee (PC), the Highway Technical Committee (HTC), and the Transit Technical Committee (TTC).

Policy Committee

The Policy Committee is responsible for reviewing and approving all planning undertaken by the Council and its staff. Members of the Policy Committee include:

- City of Watertown Mayor
- City of Watertown City Manager
- Jefferson County Administrator
- Jefferson County Board of Legislators Representative

- New York State Department of Transportation (NYSDOT) Region 7 Regional Director (who represents the NYSDOT Commissioner)
- NYSDOT Region 7 Regional Planning & Program Manager
- NYSDOT Region 7 Local Stakeholder Group Representative

Highway Technical Committee

The Highway Technical Committee is responsible for coordinating transportation planning activities and providing technical advice to the Policy Committee. The Highway Technical Committee is composed of professional/ technical staff representatives from each of the member governments that focus on highway/bridge issues within the WJCTC boundary. Members of the Highway Technical Committee include:

- City of Watertown Superintendent of Public Works
- Jefferson County Highway Superintendent
- NYSDOT Region 7

Transit Technical Committee

The Transit Technical Committee is responsible for coordinating transportation planning activities and providing technical advice to the Policy Committee. The Transit Technical Committee is composed of professional/ technical staff representatives from each of the member governments that focus on transit issues within the WJCTC boundary. Members of the Transit Technical Committee include:

- City of Watertown Transit Director
- Jefferson County Community Development Coordinator
- NYSDOT Region 7 Transit Coordinator

Bipartisan Infrastructure Law and Planning Factors

This Long Range Transportation Plan is prepared under the guidance of the Bipartisan Infrastructure Law (BIL) (also known as the Infrastructure Investment and Jobs Act or IIJA) and NYSDOT "Forward Four" principles. The BIL was signed into law in 2021 and provides $550 billion in new Federal investment over fiscal years 2022 through 2026 in infrastructure, including roads, bridges, public transportation, water infrastructure, and resilience. The BIL continues all funding features that apply to Metropolitan Planning (PL) funding under the Fixing America's Surface Transportation (FAST) Act of 2015, including the performance management approach to carry out MPOs' federally-required planning and programming activities, in conformance with the following seven national performance goals for the Federal-Aid Highway Program:

- Safety – To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure Condition – To maintain the highway infrastructure asset system in a state of good repair.
- Congestion Reduction – To achieve a significant reduction in congestion on the National Highway System.
- System Reliability – To improve the efficiency of the surface transportation system.
- Freight Movement and Economic Vitality – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

- Environmental Sustainability – To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced Project Delivery Delays – 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.
- Promote Continuing, Cooperative, and Comprehensive Planning that improves the performance of the transportation network.

The LRTP supports the federal planning emphasis areas below, which were updated in 2021:

- Tackling the Climate Crisis – Transition to a Clean Energy, Resilient Future
- Equity and Justice40 in Transportation Planning
- Complete Streets
- Public Involvement
- Strategic Highway Network / U.S. Department of Defense Coordination
- Federal Land Management Agency Coordination
- Planning and Environment Linkages
- Data in Transportation Planning

The LRTP also incorporates the ten planning factors for the Metropolitan Planning Process as codified in 23 CFR 450.306(b):

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and non/motorized users;
3. Increase the security of the transportation system for motorized and non/motorized users;
4. Increase accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation;
8. Emphasize the preservation of the existing transportation system;
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10. Enhance travel and tourism.

In addition to continuing the metropolitan planning requirements under the FAST Act, the BIL requires the metropolitan transportation planning process to provide for consideration of projects and strategies that will promote consistency between transportation improvements and State and local housing patterns (in addition to planned growth and economic development patterns). This includes coordination with affordable housing organizations to review and provide comment on the LRTP.

The BIL also expands the scope of eligible projects under the National Highway Performance Program (NHPP) and the Surface Transportation Block Grant Program (SBTG) to include resiliency improvements such as protective features. The BIL establishes new transportation funding programs including the Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT), Carbon Reduction Program (CRP), National Electric Vehicle Infrastructure (NEVI) Formula Program, and the Bridge Formula Program (BFP). To address resilience in the region,

WJCTC is undertaking a transportation resiliency study that will investigate how extreme weather affects transportation infrastructure within the WJCTC service area and recommend ways to improve the resiliency (i.e. ability to withstand and/or recover quickly from extreme weather) of such infrastructure.

This LRTP must be financially constrained, meaning that the Plan cannot include more transportation projects and services than what can be funded with the amount of revenue forecasted to be available during the next 25 years.

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. MPOs like the WJCTC 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. The LRTP must be fiscally constrained in that system-level estimates of the costs of the recommendations contained in it cannot exceed reasonably expected revenues.

Stakeholder and Public Involvement in the Plan

Active participation of the public and community, area elected officials, and municipal professionals is essential in order for the transportation planning process to be effective. WJCTC is committed to facilitating meaningful public participation and has prepared and adopted a Public Participation Plan that outlines a standard policy for encouraging public input and ensuring access to major WJCTC activities and products. The Public Participation Plan is posted on the website at www.wjctc.org and is included as an appendix to this document.

A series of stakeholder focus group meetings were held to gather input on the opportunities and constraints that should be considered in the development of the 2050 Long Range Transportation Plan. These included the following:

- Government Stakeholder Meeting held on March 12, 2024. This meeting included elected officials and governmental agency representatives from across the region.
- Business Stakeholder Meeting held on March 12, 2024. This meeting included officials and representatives from area businesses, economic development and industrial development agencies, business development agencies, and transportation agencies.

- Transit Stakeholder Meeting held on March 12, 2024. This meeting included officials and representatives from transportation and transit service providers, affordable housing organizations, and public safety officials.

A summary of input from these stakeholder meetings is provided in Appendix A.

The following public participation efforts were included to present information to the public and obtain feedback on plan elements:

- A public information meeting held on March 12, 2024 at the Watertown City Hall that gave community members an opportunity to learn about the WJCTC, the 2050 Long Range Transportation Plan, and share their thoughts on the region's transportation needs. There were 12 attendees at the public meeting.
- A booth was set up at the Watertown Farm and Craft Market on May 22, 2024 to gather input from market goers.
- A final public information meeting was held on May 22, 2024 at the Dulles State Office Building to present the draft LRTP.
- A public survey to gather input on transportation experiences and preferences of people living in the Watertown-Jefferson County area was made available on Survey Monkey. There were 40 responses to the public survey.

Information was presented on the WJCTC website at www.wjctc.com and on the X (formerly known as Twitter) social media page, @NYSDOTWatertown.

A summary of public input is provided in Appendix A.

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was signed by President Clinton on April 11, 1994. EO 12898 directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse environmental effects of federal agency actions (including transportation projects) on the health or environment of minority populations and low-income populations to the maximum extent practicable and permitted by law. This law provides the following guidance:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental, social, and economic effects on minority and low-income populations;
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Federal guidance for environmental justice was taken in the considerations in organizing stakeholder involvement and public outreach for this project.

Plan Implementation

Recommended projects and programs will be carried out in stages through the life of the plan - 2050. Near-term investments are included in the TIP.

- NYSDOT is responsible for many of the region's heavily traveled roadways. They must confirm funding is available before proposed projects can be officially budgeted in the TIP, so coordination between the state and the other voting members of the Policy Committee is necessary.
- Public transit services within the City of Watertown are provided by CitiBus. 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 & EXISTING PLANS

Population

Historical Trends

Population trends have a significant impact on transportation infrastructure and services needs in a given area. Such infrastructure and services are needed to balance transportation demand that arises due to growth and development of an area.

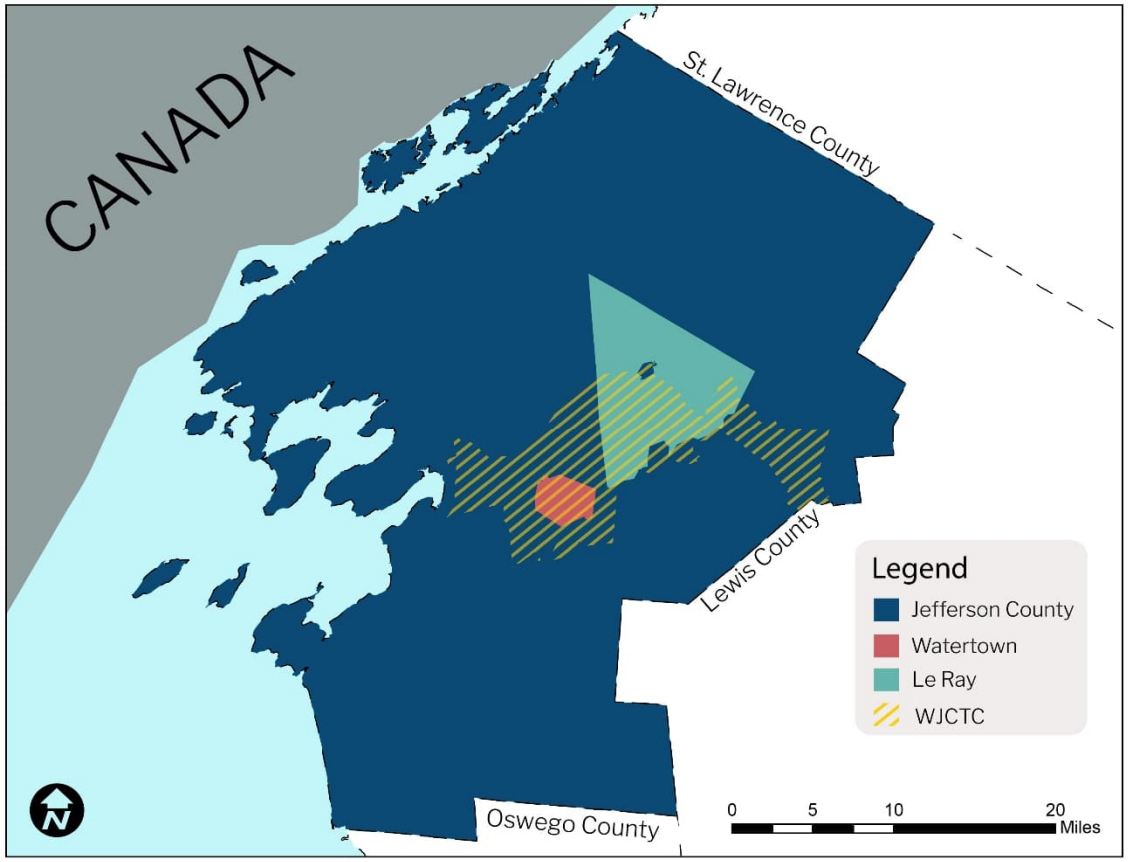
Based on data availability, data from the 1990, 2000, 2010, and 2020 Decennial Census were selected for New York State, Jefferson County, the City of Watertown, Town of Le Ray, and Watertown Urban Area for analysis. The City of Watertown and Town of Le Ray are the two most populated municipalities within Jefferson County as well as the largest generators of trip origination and completion. Data for the U.S. Census Bureau-designated "Watertown Urbanized Area" was included as it covers a similar geographic area to that of the Watertown Jefferson County Area Transportation Council. The Watertown Urban Area was designated in 2010 and thus does not have data available for years prior.

Table 3. Population Counts & Rates of Change – Decennial Data

Jurisdiction	1990	2000	2010	2020	% Change, 1990-2020	Annual % Change
New York State	17,990,455	18,976,457	19,229,752	20,201,249	12.28%	0.41%
Jefferson County	111,549	111,738	116,229	116,721	4.63%	0.15%
Watertown, City	29,661	26,705	26,753	24,685	-16.77%	-0.56%
Le Ray, Town	17,973	19,836	21,901	25,574	42.29%	1.41%
Watertown Urban Area	NA	NA	57,840	51,832	-10.38%*	-0.35%*

* Percent change for the Watertown Urban Area was only calculated based on years 2010 and 2020 due to data availability.

Figure 4. Jurisdictional Boundaries

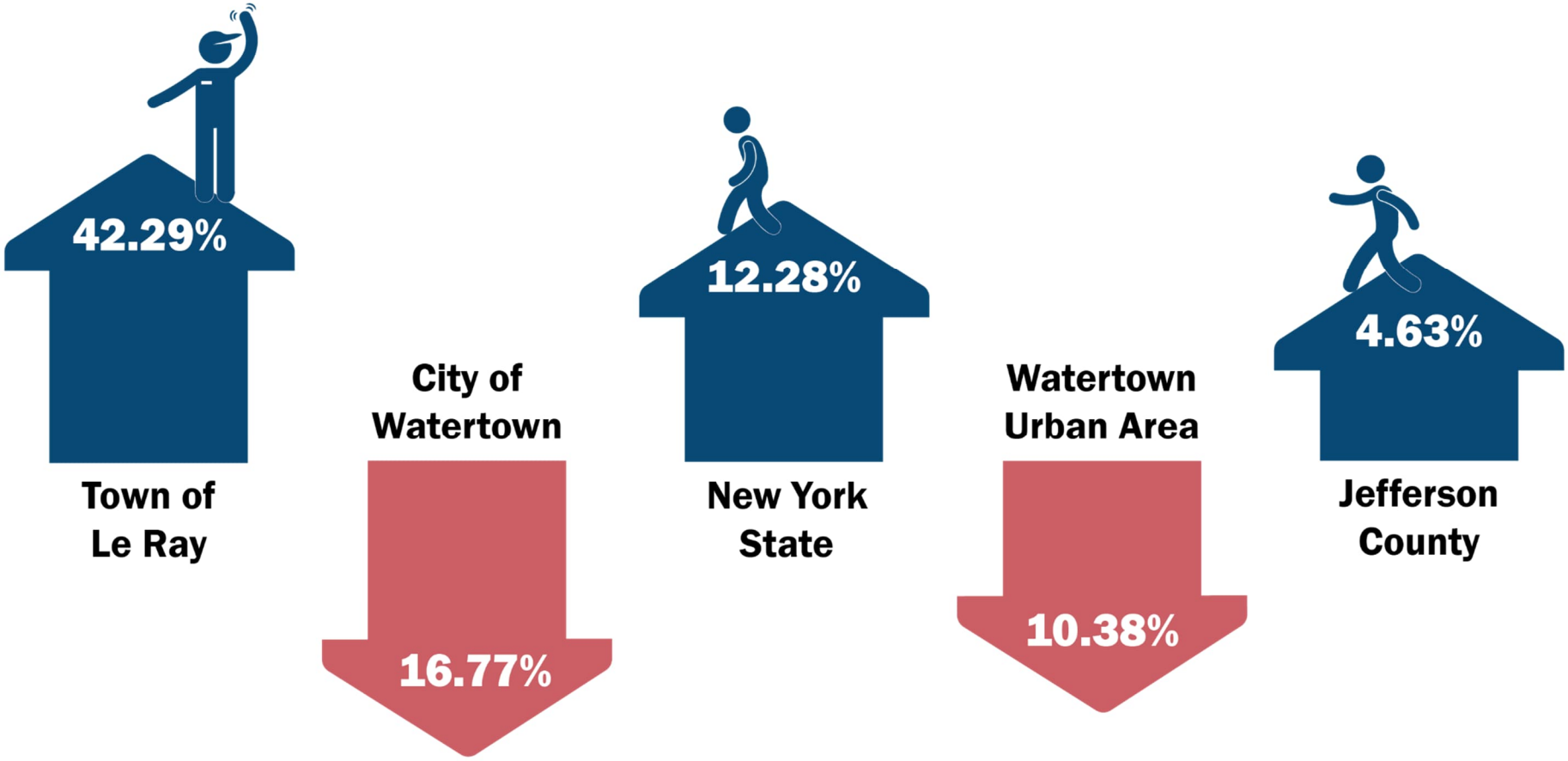


Overall, the population of Jefferson County increased by 4.63% between 1990 and 2020. This mirrored growth across New York State (12.28%) over that time, although growth was not quite as substantial in the County as the rest of the State. However, that population growth was not experienced uniformly across the County. The Town of Le Ray – which encompasses the residential end of the Fort Drum military reservation – grew by a staggering 42.29% during the 30-year period, overtaking the City of Watertown as the most populated municipality. During this same period, the City of Watertown lost 16.77% of its population. Approximately 43% of Jefferson County's population resides in either the City of Watertown or Town of Le Ray.

There was very little population change for the County in the decade before 2000, when the population grew by less than 0.1% annually. The same slow growth rate was seen here in the three decades before 1980. However, in the decade between 1980 and 1990, the population exploded by more than 25%, from 88,151 to 110,943 people. That sudden increase was caused by the expansion of the Fort Drum military reservation when the 10th Mountain Division of the U.S. Army was relocated here. Before that, "Camp Drum," as it was known, had been used primarily for summer training exercises for National Guard troops.

The 2010 Decennial Census shows another jump in the county population to 116,229 people. That growth was caused by the latest expansion at Fort Drum, which brought additional troops to this location including a third brigade of the 10th Mountain Division. In 2003, there were fewer than 12,000 soldiers assigned to Fort Drum. This figure reached as high as 19,000 during 2011. Fluctuations in troop levels as well as the average duration of troop assignment at the Fort have had significant impacts on population change in Jefferson County and will continue to do so in the future.

Figure 5. Population Rates of Change from 1990 to 2020



Population Projections

To understand how future changes in population will impact transportation infrastructure and public transit needs, population projection analysis is needed – a linear regression population projection was chosen for this analysis. This analysis is comprised of quantitative trend analysis using the linear regression projection model set up in a Microsoft Excel Workbook.

Population change trends were significantly altered due to increases in the number and duration of troops stationed at Fort Drum in the early 1990s and mid-2000s. Further, the waning end of the manufacturing job exodus perpetuated population loss in former industrial centers such as Watertown.

As indicated by the population data in Table 3, growth trends in Jefferson County appeared to stabilize in recent years. As a result, separate trend lines were developed based on post-1990 and post-2000 data. In order to rectify the two divergent growth trends to project probabilistic population growth, the two projections were combined into an average composite trend line.

The following figures depict population projections from 1990 through 2050 for Jefferson County as well as the City of Watertown and the Town of Le Ray. The figures illustrate quantitative linear regression composite projections based on U.S. Census Bureau data from 1990, 2000, 2010, and 2020.

The trends indicate a growing population for Jefferson County, a declining population for the City of Watertown, and a steadily growing population for the Town of Le Ray. However, some important qualitative considerations warrant monitoring for their impact on population changes in Jefferson County:

1. Troop stationing totals at Fort Drum
2. Troop deployment cycles to and away from Fort Drum during overseas military engagements
3. Recent population increases and Downtown Revitalization in the City of Watertown
4. New construction permits in the area around Fort Drum

Figure 6. Jefferson County Population Projections

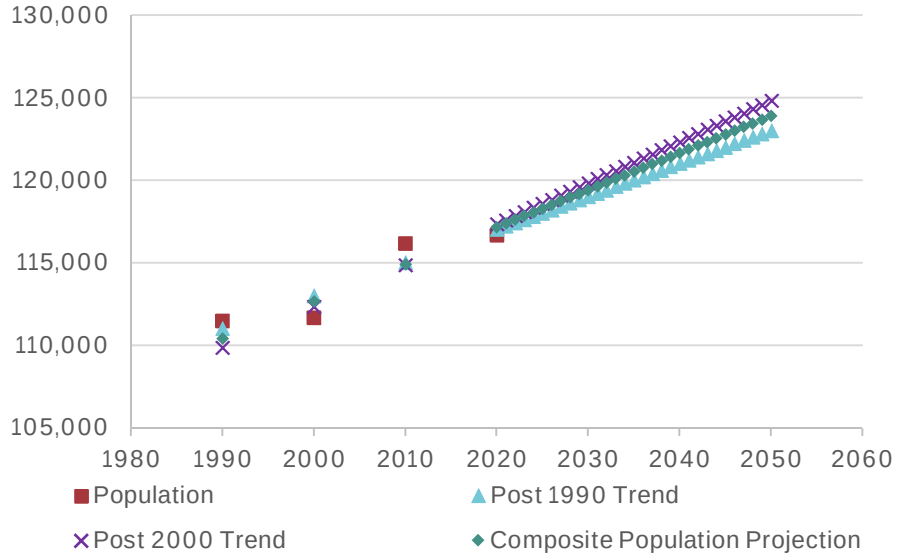


Figure 7. City of Watertown Population Projections

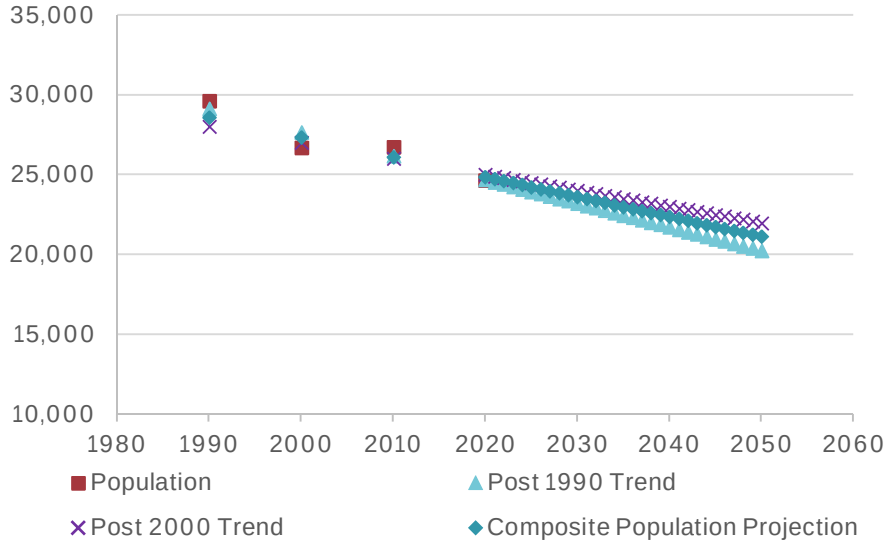
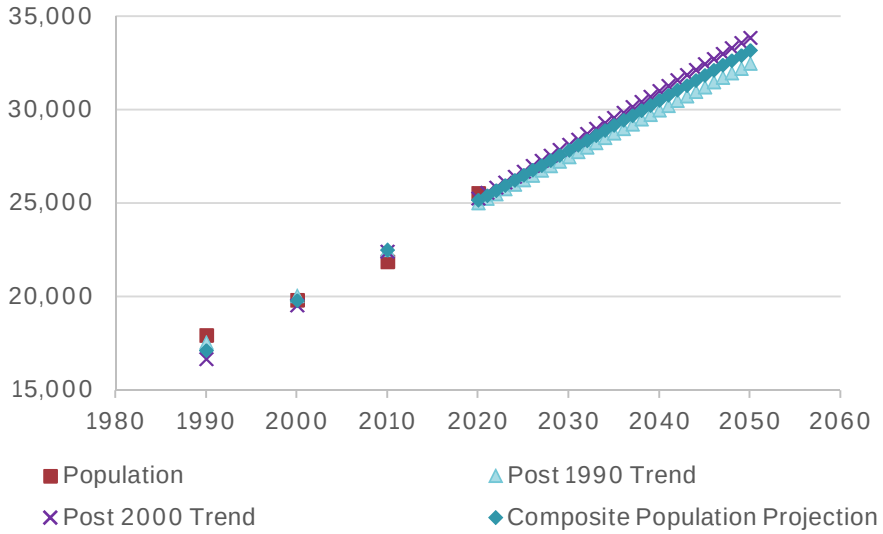


Figure 8. Town of Le Ray Population Projections



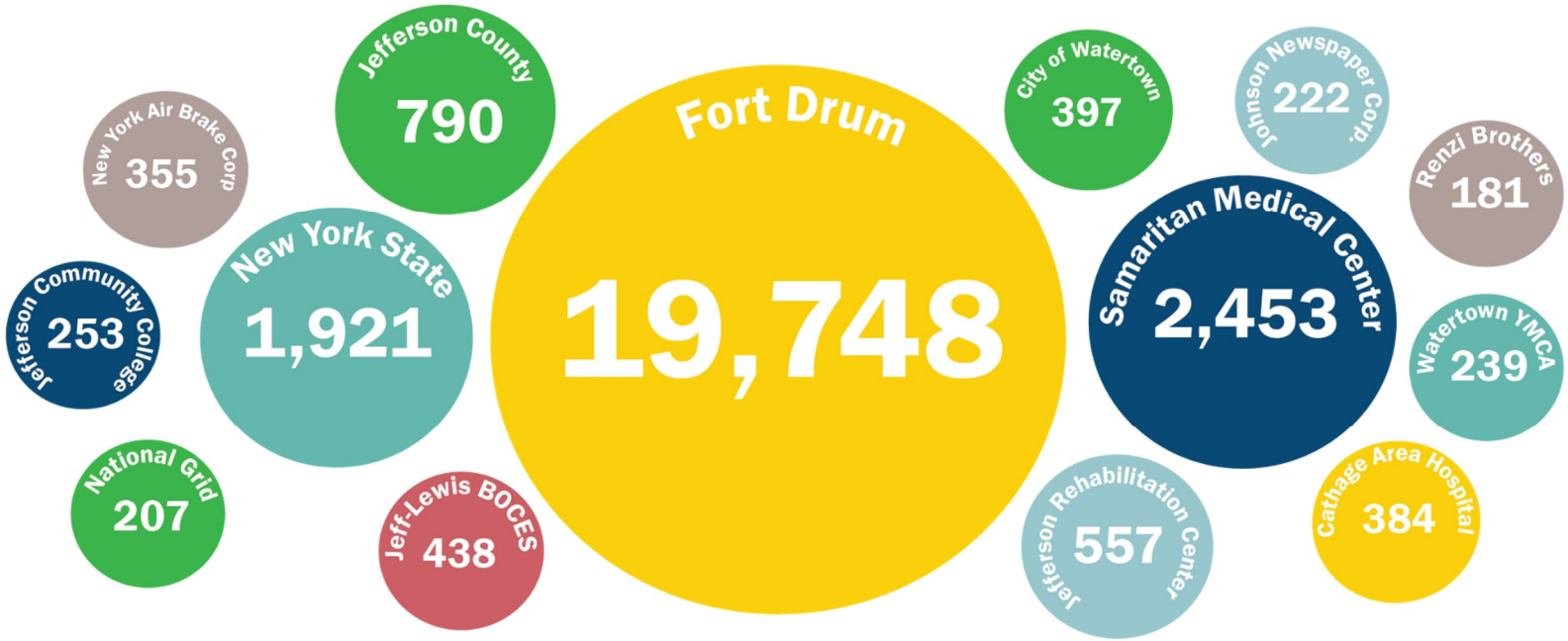
Industry & Employment

The composition of the local workforce has implications for transportation infrastructure and service needs. Where once factories were the major centers of employment, educational and medical institutions are now often the destinations where commutes end.

Major Employers

Fort Drum is a U.S. Army military reservation, home of the 10th Mountain Division, and is the region's largest employer, in its 2022 Economic Impact Assessment, the Fort reported it provided employment to more than 15,000 soldiers and 3,700 area civilians, generating $1.6 billion in annual economic impact. In addition, more than 6,600 military retirees reside within the region. Fort Drum encompasses approximately 168 square miles, some of which lies within the WJCTC boundary. In addition to Fort Drum, Jefferson County Economic Development (JCED) has identified other major employers that have greater than 150 employees, including: New York State, Samaritan Medical Center, Jefferson County, Jefferson Rehabilitation Center, Jeff-Lewis BOCES, New York Air Brake Corp., City of Watertown, Carthage Area Hospital, Jefferson Community College, Watertown Family YMCA, Johnson Newspaper Corp., National Grid, and Renzi Brothers.

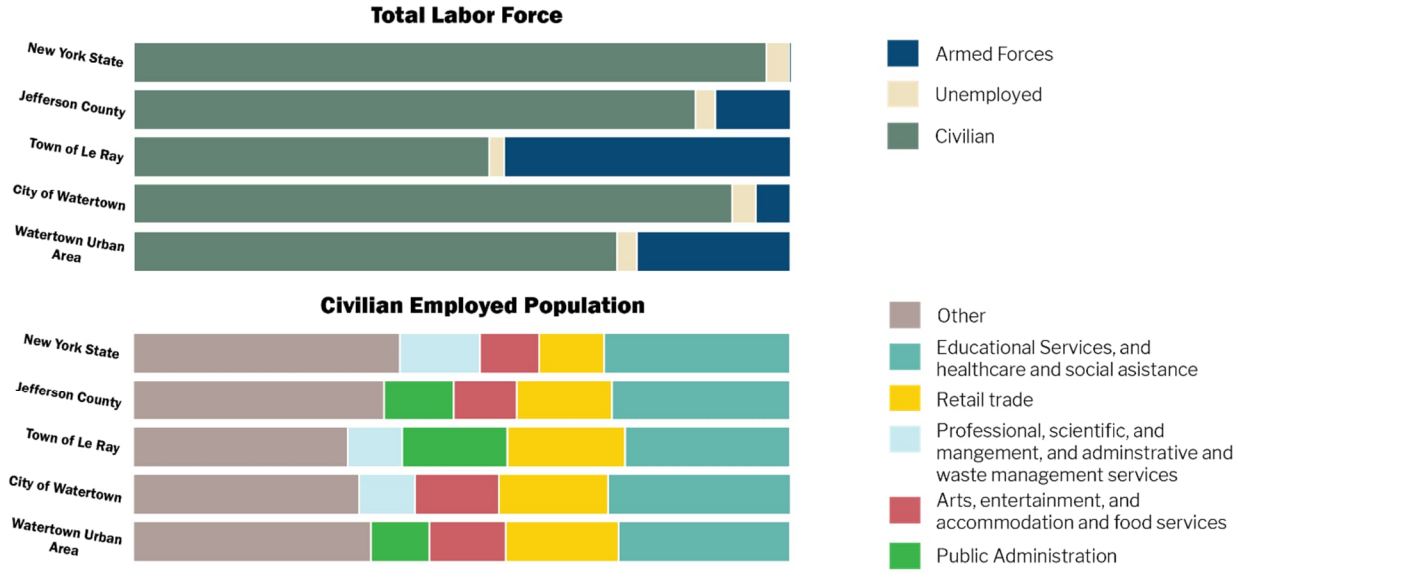
Figure 9. Number of Employees at Major Employers in Jefferson County



Workforce Composition

Changes in the workforce makeup of Jefferson County mirror that of New York State as a whole, with the notable exception of employment related to Fort Drum. The table on the following page depicts these figures according to the 5-year 2020 American Community Survey (ACS) from the US Census Bureau.

Figure 10 Workforce Composition



Jefferson County experienced a decrease in its unemployment rate since 2018, which now hovers around 3%. Of the working age population (16 years and older), 11.5% are involved in active duty with the armed forces. In the civilian labor force, the Education, Healthcare, and Social Services sector employs the largest percentage of workers across regions. There was a small increase in this sector within Jefferson County, increasing to 27.1% from 25.2%. The next largest employers within the County are the Retail Trade, Public Administration, and Arts/Entertainment/Recreation sectors, accounting for 14.5%, 10.6%, and 9.6% of the labor force, respectively. A small decrease in the Retail and Public Administration sectors and an increase in the Arts/Entertainment/Recreation sector have occurred in accordance with national trends, but much of the employment composition of the County remains unchanged since 2018.

At 43.6%, a significant portion of the working-age population in the Town of Le Ray is in active-duty military service. The unemployment rate is slightly below that of the County at 2.3%. The largest civilian employment sector by percentage in the Town is Education, Healthcare, and Social

Services at 25.1%. Other notable sectors include Retail Trade, Public Administration, and Technical Professions at 17.9%, 16%, and 8.3% respectively.

In the City of Watertown, 5.3% of the residents are active-duty military service members. The unemployment rate hovers right above that of the County at 3.6%. The workforce composition in Watertown is similar to that of Jefferson County and Le Ray. The Education, Healthcare, and Social Services sector employs a large portion of city residents at 27.8%, followed by Arts/Entertainment/Recreation, Retail Trade, and Technical Professions sector at 16.6%, 12.8%, and 8.5% respectively. In many ways, workforce composition within the Watertown Urban Area is an average of the County, City of Watertown, and Town of Le Ray. This makes sense as the geographic coverage of WJCTC covers the entirety of the City of Watertown as well as the major arterial corridors surrounding towns and hamlets.

By contrast, 0.1% of New York State residents are classified as active-duty members of the armed forces, however, Jefferson County, the Town of Le Ray, and City of Watertown have comparable civilian workforce compositions to that of New York State. As of the 5-year 2020 ACS data, statewide unemployment stood at 3.6%, a decrease from 5.2% in the previous LRTP. The highest employment sectors were Education, Healthcare, and Social Services, Technical Professions, Retail Trade, and Arts/Entertainment/Recreation at 28.3%, 12.2%, 9.9%, and 9%, respectively.

Table 4. 5-year 2020 American Community Survey Data – Workforce Composition

Description	New York State		Jefferson County		Town of Le Ray		City of Watertown		Watertown Urbanized Area	
	Estimate	%	Estimate	%	Estimate	%	Estimate	%	Estimate	%
Unemployed	570,570	3.60%	2,613	3%	358	2.3%	699	3.60%	1,177	3%
Armed Forces	23,512	0.10%	10,051	11.5%	6,933	43.6%	1,034	5.30%	9,223	23.4%
Civilian employed population 16 years and over	9,438,639	-	42,808	-	5,151	-	10,133	-	16,748	-
Agriculture, forestry, fishing and hunting, and mining	54,095	0.60%	818	1.9%	67	1.3%	8	0.1%	28	0.2%
Construction	537,024	5.70%	2,916	6.8%	168	3.3%	394	3.9%	861	5.1%
Manufacturing	562,150	6%	2,914	6.8%	154	3.0%	806	8.0%	11,44	6.8%
Wholesale Trade	210,094	2.20%	730	1.7%	86	1.7%	125	1.2%	239	1.4%
Retail Trade	939,055	9.90%	6,204	14.5%	922	17.9%	1,682	16.6%	2,882	17.2%
Transportation and warehousing, and utilizing	522,604	5.50%	1,580	3.7%	232	4.5%	107	1.1%	439	2.6%

Description	New York State		Jefferson County		Town of Le Ray		City of Watertown		Watertown Urbanized Area	
	Estimate	%	Estimate	%	Estimate	%	Estimate	%	Estimate	%
Information	265,898	2.80%	785	1.8%	124	2.4%	274	2.7%	426	2.5%
Finance and insurance, and real estate and rental and leasing	762,509	8.10%	1,631	3.8%	236	4.6%	364	3.6%	712	4.3%
Professional, scientific, and management, and administrative and waste management services	1,155,757	12.20%	3,083	7.2%	430	8.3%	862	8.5%	1,166	7.0%
Educational services, and health care and social assistance	2,673,758	28.30%	11,599	27.1%	1,295	25.1%	2,822	27.8%	4,373	26.1%
Arts, entertainment, and recreation, and accommodation and food services	854,148	9%	4,128	9.6%	398	7.7%	1,302	12.8%	1,945	11.6%
Other services, except public administration	451,662	4.80%	1,870	4.4%	215	4.2%	550	5.4%	1,036	6.2%
Public administration	449,885	4.80%	4,550	10.6%	824	16.0%	837	8.3%	1,497	8.9%

Commuting Patterns

Figure 11. Employee Inflow/Outflow – 2021 US Census Bureau

The employee inflow/outflow map depicts the geographic coverage of the Watertown-Jefferson County Transportation Council. Of the over 17,000 employees who reside within the WJCTC, a 55% of them stay within the area for work. As the WJCTC encompasses both the City of Watertown and the Fort Drum military base, there is a large inflow of commuters coming in for work – combined with the retained workers, more than 24,000 people are employed within the WJCTC. Comparatively, there are around 8,000 employed residents who flow out of the area for work. As population changes continue, particularly with population decreases in the City of Watertown, there is potential for changes in the employment inflow/outflow in the area as fewer residents are available for the local job market to tap into.

Table 5. WJCTC Employee Inflow/Outflow – 2021 US Census Bureau

Description	Count	Share
Employed in the Selection Area	24,587	100%
Living in the Selection Area	17,654	71.8%
Net Job Inflow (+) or Outflow (-)	+6,933	-
Living in the Selection Area	17,654	100%
Living and Employed in the Selection Area	9,709	55%
Living in the Selection Area but Employed Outside	7,945	45%
Employed in the Selection Area	24,587	100%
Employed and Living in the Selection Area	9,709	39.5%
Employed in the Selection Area but Living Outside	14,878	60.5%

Commute Travel Mode

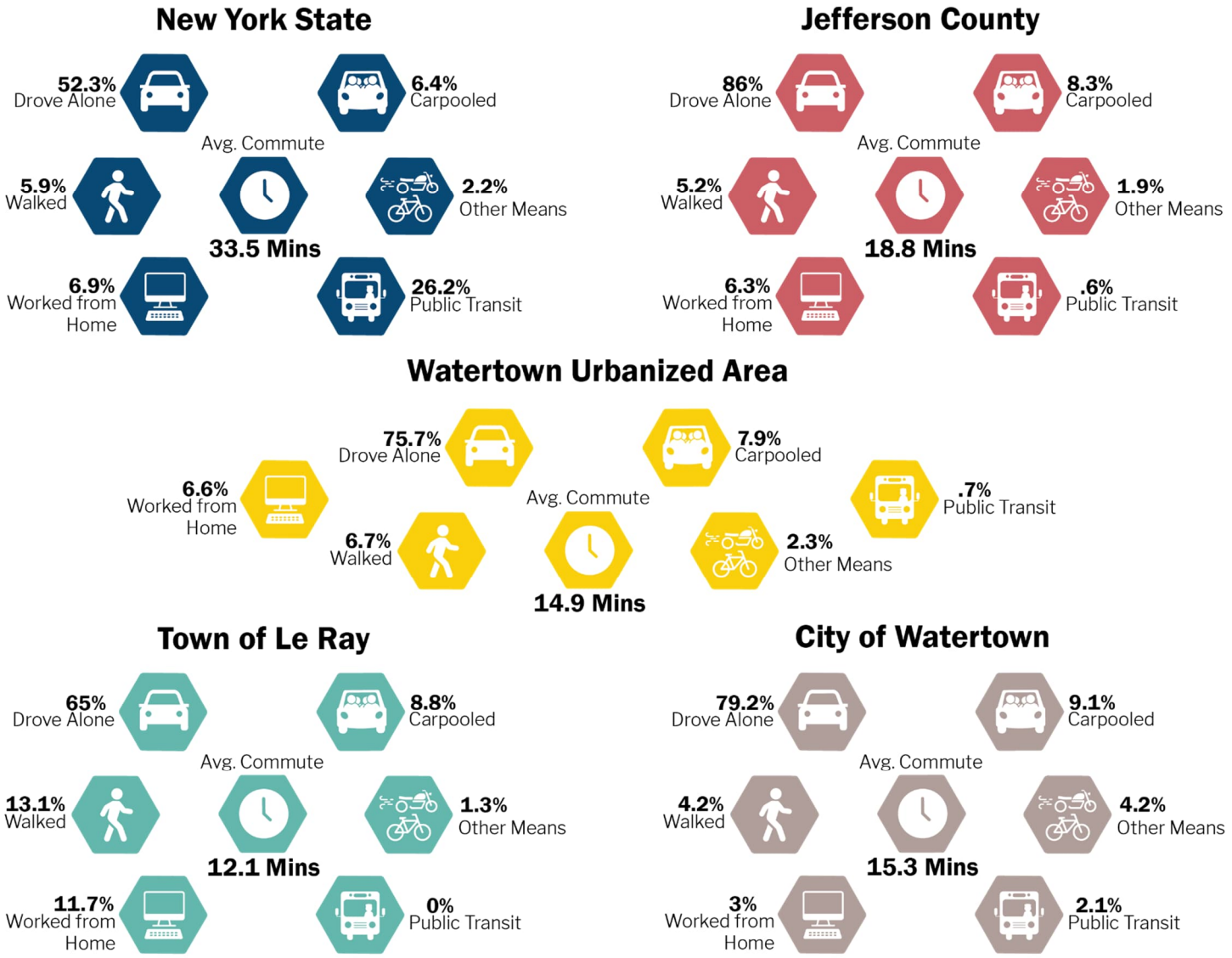


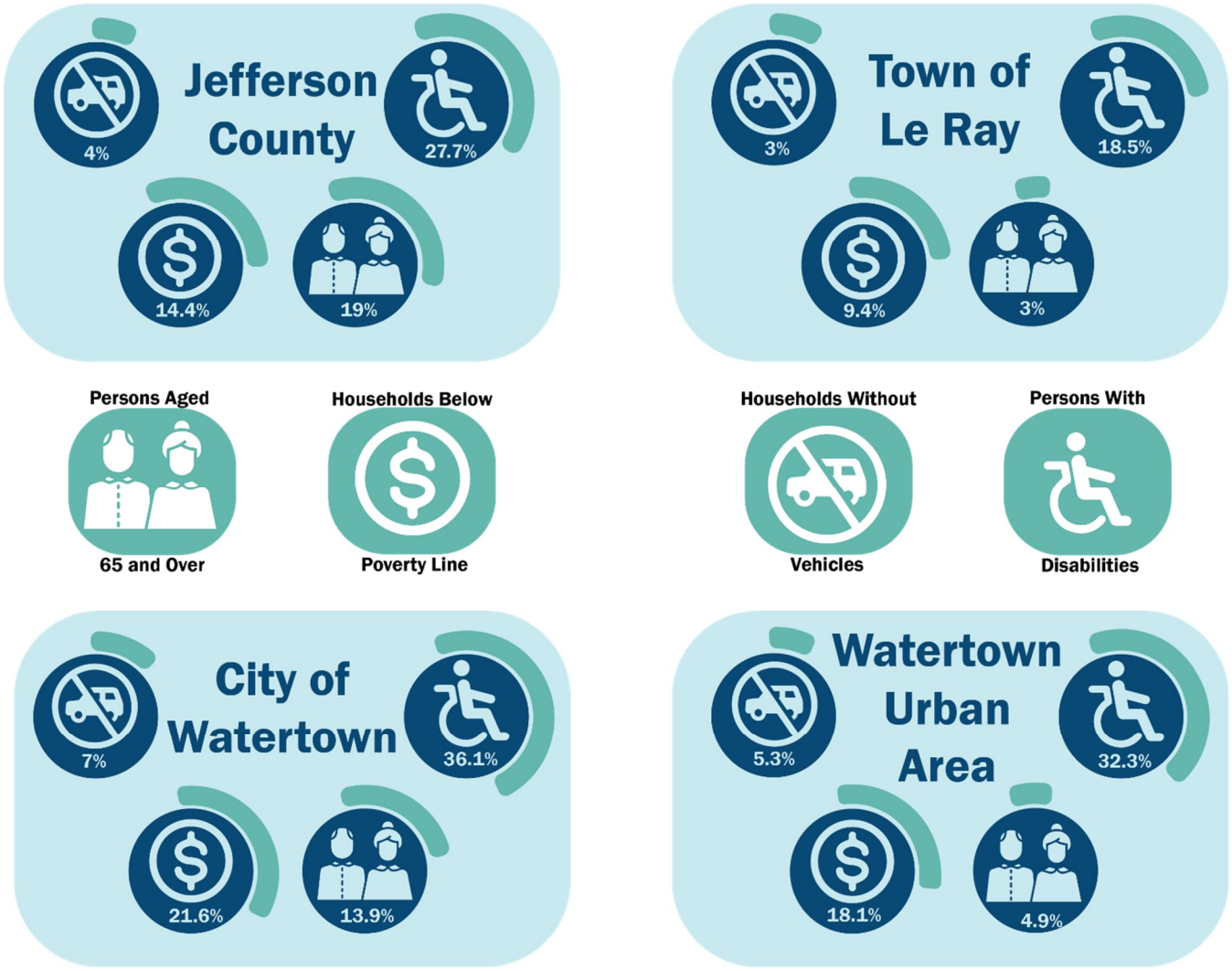
Figure 12. Work Commute – 5-year 2020 American Community Survey Data

Across the county, the average commute time is around 19 minutes, which compares favorably to that of the state. Across regions, driving alone (single occupancy vehicles) is the dominant form of transportation, followed by carpooling and walking to work, with the exception of the NYS averages, where public transit is the second most utilized commute method. While public transit utilization remains below 3% across the county, there may be a future uptick in the percentage of the population that uses it for their commute – as of March 2023, Jefferson County has pursued efforts to implement a startup county-wide public transportation system. Those efforts continue to be coordinated locally and with NYSDOT to initiate regional fixed-route service.

In the Town of Le Ray, the percentage of people walking to work has continued a downward trend that was identified in the 2045 LRTP, now standing at 13.1% compared to 17.5% recorded in 2018. While previously this decrease was attributed solely to members of the armed forces choosing to reside outside of the Army base, the aftereffects of the COVID-19 pandemic may also be a contributing factor, as working from home increased almost 6% in that same time frame. This trend can be seen reflected in Watertown and Jefferson County as well; compared to the 2045 LRTP, fewer commuters carpool to work, instead opting to work from home or drive alone.

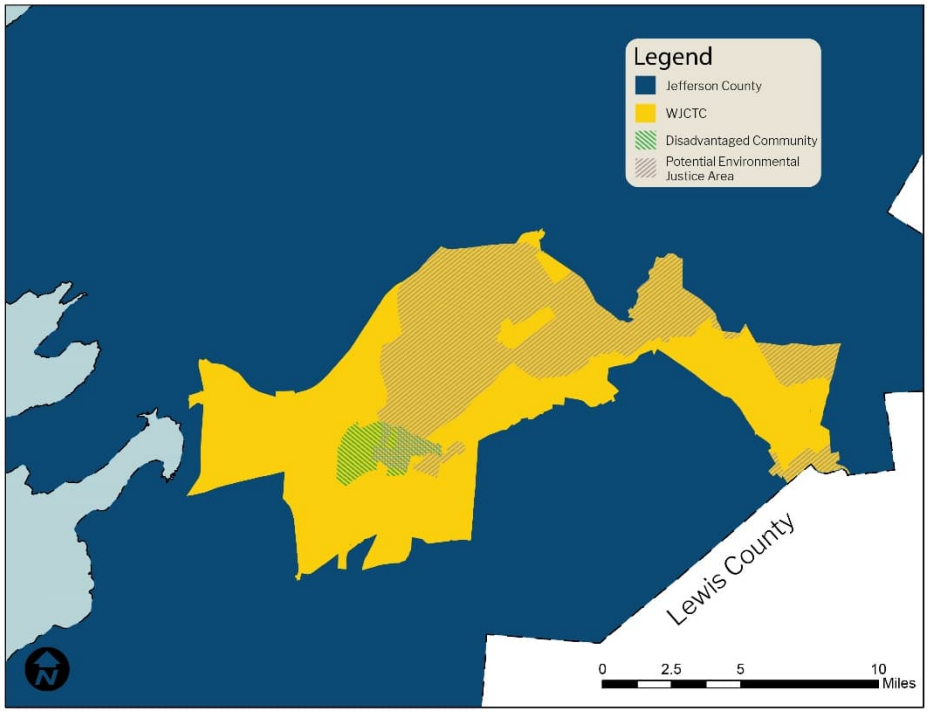
Disadvantaged Communities – Vulnerable Populations

Figure 13. Vulnerable Populations – 5-year 2020 American Community Survey Data



Disadvantaged communities are communities that are marginalized, underserved, and overburdened by pollution.[1] To create a holistic transportation plan that best accounts for the needs of all residents, disadvantaged communities should be taken into consideration during the development of the plan. Two of the biggest vulnerable population groups are persons with disabilities and households below the poverty line – these groups represent those that may have physical limitations that may prevent the use of a personal vehicle, require accessible public transit, or may simply be financially unable to maintain a personal vehicle. Understanding these demographics and their needs will help inform the nature of the transit recommendations in this plan and ensure that the benefits of the transportation improvements can be felt equitably across population groups.

Figure 14. DAC/PEJA Map



Data sources: NYSERDA (2023), NYSDEC (2020)

As the impacts of climate change are being felt more keenly across communities, it is important to acknowledge that it does not equally impact everyone within a population. The above socioeconomic factors also contribute to increased vulnerability and susceptibility to climate impacts. New York State recognizes the discrepancy in these impacts in the Climate Leadership and Community Protection Act (CLCPA) and tasked the Climate Justice Working Group with identifying disadvantaged communities (DAC) across the state.

45 different indicators were utilized to interpret the environmental burdens or climate change risks within a community, population characteristics, and health vulnerabilities that can contribute to more severe adverse effects of climate change. Additionally, NYS has also identified Potential Environmental Justice Areas (PEJAs), which represent communities or neighborhoods that are comprised predominantly of people of color or have a substantial portion of persons below the poverty line, which have been subjected to a disproportionate burden of environmental hazards. As shown in the map to the left, DAC census tracts are mainly concentrated within the City of Watertown, whereas the PEJAs are spread throughout the northeastern portion of the WJCTC.

At the federal level, Executive Order 14008 in 2021 created the Justice40Initiative in 2021 to support equitable investment of federal funding, with at least 40% of certain federal resources going to disadvantaged communities. USDOT is implementing Justice40 to "prioritize transportation projects that benefit rural, suburban, tribal, and urban communities facing barriers to affordable, equitable, reliable, and safe transportation."[2]

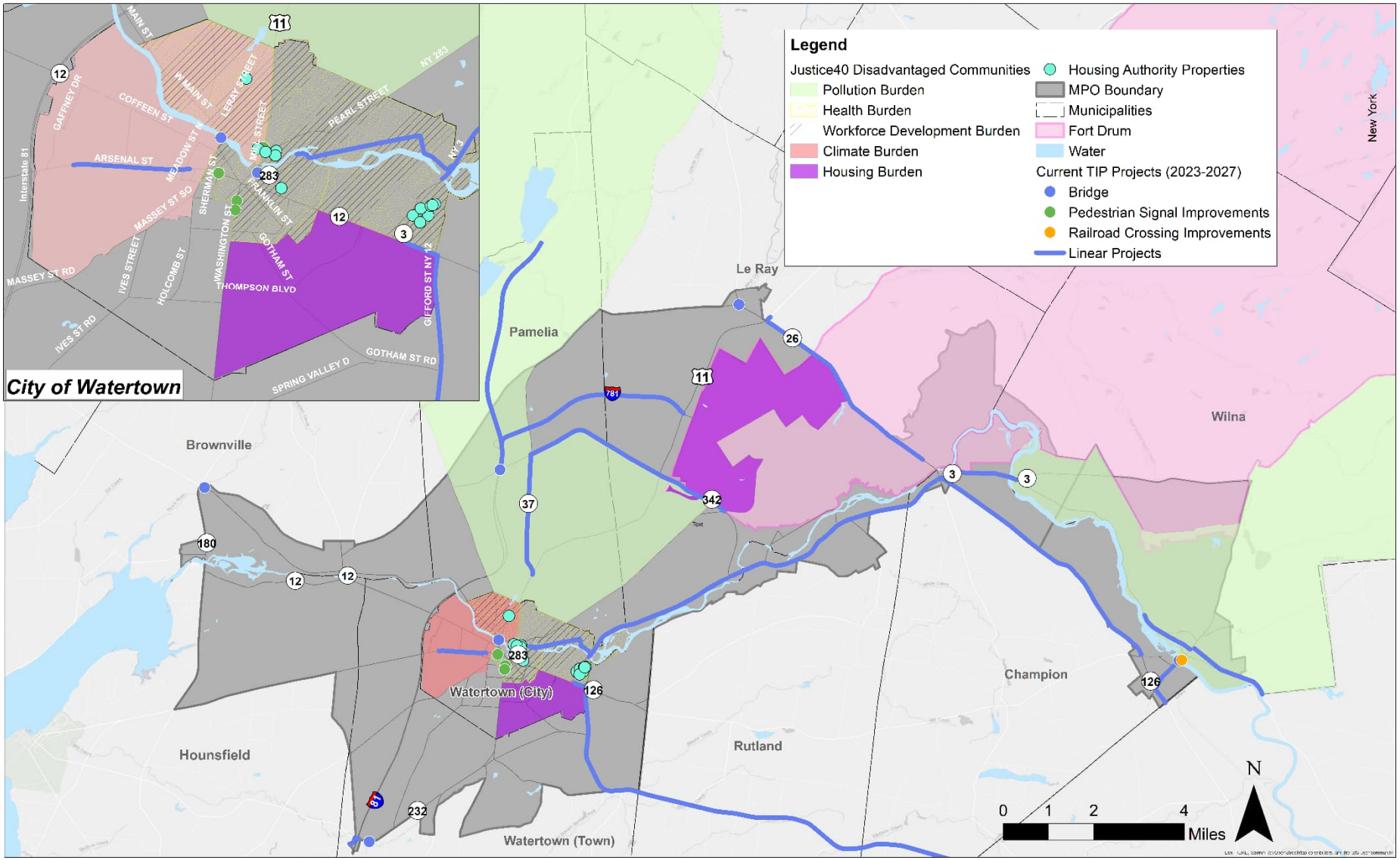
[1] Executive Order 14008 on Tackling the Climate Crises at Home and Abroad (2021)
[2] USDOT. Justice40 Initiative. https://www.transportation.gov/equity-Justice40

The Justice40 Initiative uses the Climate and Economic Justice Screening Tool (CEJST) to identify disadvantaged communities at the census tract level based on categories of burden including climate change, energy, health, housing, legacy pollution, water and wastewater, and workforce development. Census tracts are considered disadvantaged communities if they meet the threshold for at least one of the CEJST's categories of burden and are at or above the threshold for an associated socioeconomic burden (low income or education less than a high school diploma.) Additionally, a census tract that is surrounded by other disadvantaged communities or is at or above the 50th percentile for low income is also considered disadvantaged.

Within the WJCTC boundary, nine census tracts are considered disadvantaged communities by the current CEJST dataset (Version 1.0) as shown in Figure 15. Among these census tracts, four meet the burden threshold for both workforce development and health, and two census tracts each meet the thresholds for climate, housing, and pollution. All census tracts but one are considered disadvantaged within the City of Watertown (in the southwestern quadrant between Massey Street and Route 11). Under the Justice40 Initiative, these disadvantaged communities will be prioritized for transportation investment under USDOT's 40 covered programs across five modes.[3] As shown in Figure 15, the majority of projects in the current TIP (2023-2027) are located within or adjacent to disadvantaged communities.

[3] USDOT. Justice40 Covered Programs. https://www.transportation.gov/priorities/equity/justice40/covered-programs

Figure 15. Federally-Designated Disadvantaged Communities, Housing Authority Properties, and Current TIP Projects



Data source: USDOT Justice40 Initiative

Affordable Housing

The Bipartisan Infrastructure Law added to the metropolitan planning process the consideration of state and local housing patterns. This consideration supports coordination of transportation investments with housing needs and affordability and aligns with USDOT's Justice40 Initiative, which aims to invest at least 40% of federal resources from many grant programs to disadvantaged communities.

The Watertown Housing Authority manages 12 properties across seven subsidized communities in the City of Watertown. These properties are mapped in Figure 15 along with federally-designated disadvantaged communities with high housing burden, and current TIP projects. Data on housing burden was obtained from the Climate and Economic Justice Screening Tool Version 1.0 (November 2022). Housing burden measures housing cost, the degree of lead paint exposure in housing, historic underinvestment due to redlining, lack of green space, and the share of homes without indoor plumbing or kitchens within a census tract.

Within the WJCTC boundary, census tracts with high levels of housing burden are located in the southeast quadrant of the City of Watertown and within Fort Drum near the LTG Paul Cerjan Gate located at the terminus of I-781 near U.S. Route 11. The Watertown Housing Authority properties are located in disadvantaged communities along Eastern Boulevard, State Street, West Main Street, and LeRay Street.

Projects programmed in the current TIP that are located near affordable housing properties or within census tracts with high housing burden include:

- PIN 70PS02: City of Watertown Pedestrian Signal Improvement Project
  - Includes location at the intersection of Mill Street and Main Street East (adjacent to affordable properties at 113 Main Street, 454 Mill Street, and 215 Maywood Terrace).
- PIN 780788: Black River Trail Extension
  - Creates new recreation and access opportunities within 0.25 miles of several affordable housing properties.
- Other projects within or adjacent to areas with high housing burden (repaving projects):
  - PIN 7V2662: Gotham St to Eastern Boulevard
  - PIN 7V2663: Great Bend to Route 11
  - PIN 7V2465: Route 11 to 283

Affordable housing organizations that participated in stakeholder meetings for the LRTP 2050 update were the Watertown Housing Authority and Neighbors of Watertown, Inc. Stakeholders noted that affordable housing occupancy rates decrease with greater distance outside the City of Watertown because of limited transportation options and difficulty accessing services. Stakeholders also commented on the importance of prioritizing transportation investment in areas where affordable housing is available.

Existing Relevant Planning Documents

As they relate to transportation planning, local land use plans are important to transportation planning because they help identify areas where development and redevelopment is expected to occur and where supporting infrastructure is planned. The population and employment changes that occur as a result often dictate where transportation infrastructure changes will be needed. Additionally, coordination with local plans helps ensure that planning documents from the WJCTC and associated investments leverage public and private investments guided by local plans.

Table 6 below depicts a list of planning documents that are relevant to transportation planning in the Watertown-Jefferson County area. This table describes each document as well as relevant findings for this report. Relevant statewide plans such as the 2005-2030 Transportation Plan (2006), New York State Strategic Highway Safety Plan (2023), New York State Climate Action Council Scoping Plan (2022), and the New York State Pedestrian Safety Action Plan (2016), were used in the development of the plan in addition to the following local and regional plans.

Table 6. Watertown/Jefferson County Plan Reports Summary

Year	Plan Name	Description	Findings
2022	Watertown Truck Route Study	Evaluates ways to modify the existing designated truck routing between I-81 and Public Square to designate alternative truck routes that better accommodate trucks and other vehicles, making downtown safer for multi-modal transportation. The study investigates the issues and opportunities associated with truck traffic, their destinations, and impacts to adjacent land use and property within the City of Watertown and areas immediately adjacent to it, including I-81	The study proposes the following recommendations for routing, treatments, and technology: • Develop truck wayfinding that directs trucks to avoid Public Square and adjacent residential neighborhoods. • Restructure Routes NY 12 and US 11 through Watertown • Connect Black River Parkway to Waterman Drive • Restripe State Street or incorporate truck turning apron • Realign intersection of Mill Street at Public Square • Update truck route signage • Install traffic signal coordination infrastructure • Invest in ITS and connected vehicles including dynamic messaging boards on I-81 and prepare a connected vehicle architecture and communication system.
2022	Public Safety Building and City Industrial Park New Access Study for the City of Watertown	Identifies plausible locations for additional redundant (emergency and industrial) vehicular access to the Watertown Public Safety Building Complex and the City Center Industrial Park.	The study identifies short-term alternatives that would alleviate congestion at the intersection of Bellew Avenue South and Arsenal Street and reduce response times for emergency vehicles while providing critical redundant access to the Public Safety Building and City Industrial Park.. The study also identifies long-term alternatives that would provide combined commercial and emergency access routes to the Industrial Park. The long-term alternatives are likely to reduce heavy vehicle traffic.
2021	City of Watertown Consolidated Plan – Program Years 2021-2025	Outlines a plan for the City of Watertown's Community Development Block Grant (CBDG) program for program years 2021-2025. The plan's focus points are neighborhood stabilization and revitalization, affordable housing rehabilitation, homeownership, job support and creation, fair housing education, homeless assistance, support of public services, and environment and quality of life.	The plan identifies seven high priority projects to fulfill the program goals: a sidewalk replacement program, ADA ramp reconstruction, playground improvements, tree planting, a demolition project, an owner-occupied housing rehabilitation program, and a homebuyer program. The plan also includes funding for several lower-priority programs.

Year	Plan Name	Description	Findings
2021	Jefferson County Coordinated Transportation Plan for Mobility Services	Identifies approaches to address public transportation gaps, minimize duplicates in transportation services, and help to improve the coordination of transportation services for transit-reliant populations such as persons with disabilities, older residents, and college students. The plan's recommendations intend to enhance transportation access for Jefferson County residents and prioritize how federal and state public transportation resources will be utilized by the MPO, City of Watertown, Jefferson County, and third-party vendors.	The study identified the following goals and strategies to address transportation barriers • Provide the City of Watertown and Jefferson County residents with a safe, reliable, affordable, efficient, and east-to-access public transportation system • Increase stakeholder representation and mobility management in support of sustainability, efficiency, and oversight of a cohesive coordinated public transportation system • Create an excellent rider experience and increase ridership • Provide community outreach and education • Establish and implement the First Mile Last Mile program and increase transportation options • Develop alternative transportation modes for Jefferson County • Develop and implement a county-wide public transportation system
2021	WJCTC Bicycle and Pedestrian Study	Identifies gaps in non-motorist transportation networks in the City of Watertown and surrounding communities and provides recommendations for improvements. The study also evaluates a potential extension of the Black River trail's eastern terminus from the Village of Black River to Fort Drum.	The study identifies potential pedestrian and bicyclist facility recommendations, including: • Off-road and on-road corridor alternatives to connect communities west of the City of Watertown including Glen Park, Brownville, and Dexter • Improving connections to communities east of the City of Watertown including Deferriet, Herrings, and Carthage through on-road facilities, off-road facilities, and the expansion of the Black River trail • Improving connectivity within the City of Watertown through shared use roadways, shared use trails, and pedestrian-only trails • Traffic calming and intersection design improvements • Policy and regulatory recommendations such as implementing complete streets policies, reducing off-street parking minimums, and improving subdivision regulations • Improving wayfinding and signage

Year	Plan Name	Description	Findings
2021	City of Watertown Complete Streets Design Guidelines	Provides city staff, private developers, and residents with a reference tool for designing future city streets. The guidelines establish priorities to apply to the established road classification groups.	The guideline document categorized city street segments into one of eight street classification groups, based on geographical context and user priorities. Each classification group contains its own set of specifications and design recommendations. Recommended design considerations provided for each classification group include: • Target speed • Number of lanes and lane widths • Street parking • Sidewalks • Bike lanes • Utility placement • Street trees
2020	Revitalization and Redevelopment Plan for Sewall's Island and Factory Square	Develops a plan to bring activity and a mix of uses to Sewall's Island and Factory Square, while attracting new residents and visitors	The key strategies recommended in the plan are: • Reuse of the Black River Paper Company buildings in Factory Square into mixed-use development with loft-style apartments and a brewery or restaurant • Development of a boutique hotel in that reuses other buildings in Factory Square • Bringing mixed-use development to Sewall's Island, including new residences and commercial/retail uses.
2019	Fort Drum Region Transit Needs Assessment	Identifies Fort Drum troopers and families' transit needs and offers strategies to address unmet needs and transit gaps.	The study offers various strategies to addressing unmet needs and gaps. The needs and respective strategies are categorized into geographic and spatial, information, coordination, service quality, and hours of service and temporal gaps.
2019	Watertown-Jefferson County Area Transportation Council Transit Study	Describes a regional approach to transit and transportation throughout the WJCTC planning area. Identifies key corridors, schedules and budgets, and determining the best organizational structure for regional transit.	The study proposes three primary service scenarios in order of intended phasing: • Expanded CitiBus network: Expands the bus network to Fort Drum and areas just west of Watertown, including operations on Sundays. • MPO bounded network: Proposes new regional routes within the council boundaries • Regional network phases 1-3: Builds on the MPO bounded network by expanding new routes and increasing service to further areas in Jefferson County and parts of Lewis and St. Lawrence counties

Year	Plan Name	Description	Findings
2019	City of Watertown Comprehensive Plan	Describes a 10-year plan to achieve visions, goals, and strategies for the city. The plan also provides land use recommendations and divides the city into future land use character areas. The comprehensive plan was informed by public input and previous planning efforts.	The plan identifies 10 major goals for the city: • Strengthen community building efforts, retaining, and attracting more residents to the city • Foster a renewed interest in Watertown's neighborhoods • Create great public spaces and amenities that activate the public realm and enhance the character and livability of the city • Foster redevelopment to create dynamic nodes with a mix of uses • Leverage existing community assets by connecting and improving them for residents and visitors • Capitalize on the Black River as key asset to drive social, recreational educational, and economic opportunity • Position Watertown as a sustainable, competitive community for the future • Make Watertown more attractive to developers, investors, and businesses • Ensure Watertown's infrastructure is modern, clean, safe, efficient, and well maintained • Preserve and enhance Watertown's natural, cultural, and scenic resources
2019	Planning Targets for Federal Transportation Administration (FTA) NYS Public Transportation Programs 2020-2024	Provides summary of major FTA funding programs with tables including federal funds.	The following are the major FTA funding programs: Urbanized Areas Formula Grants/High Density and Growing States (Section 5307/5340), Rural Area Formula Grants (Section 5311), Enhanced Mobility of Seniors and Individuals with Disabilities (Section 5310), Fixed Guideway Capital Investment Grants (Section 5309), State of Good Repair Grants (Section 5337), Bus and Bus Facilities Program (Section 5339), Metropolitan, Statewide, and Nonmetropolitan Planning Programs (Sections 5303, 5304, 5305).
2019	City of Watertown Downtown-Riverfront Parks Connection Feasibility Study	The City of Watertown developed the Feasibility Study to improve connections for pedestrians and bicyclists from the City's downtown Public Square to two of its riverfront parks, the Veterans' Memorial Riverwalk and Whitewater Park.	The study recommends design concepts to enhance connection to improve streetscapes and enhance connectivity, including: 1. Priority 1 (short-term): Projects to connect the JB Wise parking lot and provide over north-south connections between downtown and riverfront parks. 2. Priority 2: Projects to develop secondary connections between the downtown and riverfront. 3. Priority 3: Projects that further enhance park spaces. 4. Priority 4: Projects that require further design and engineering before implementation.

CHAPTER 3 – SETTING THE CONTEXT

This chapter outlines the goals and objectives on which the 2050 Plan is structured and describes how performance measures will be used to monitor progress in implementing the plan.

The WJCTC 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 Bipartisan Infrastructure Law, the FAST Act, as well as NYSDOT "Forward Four" principles for statewide MPO planning.

Goals and Objectives

The goals set forth below were guided by the key issues that the New York State Department of Transportation and U.S. Department of Transportation require to be addressed in the region's Long Range Transportation Plan. However, the specific objectives were developed through listening to stakeholder and public input and reviewing the goals that communities identified in various plans that have already been adopted.

For example, the City of Watertown developed policies and a program for local waterfront revitalization intended to promote citizens' access to the Black River, which has been incorporated into Goal 7 of this plan. Some of the specific objectives in Goal 2 are designed to support the implementation of Jefferson County's *Comprehensive Economic Development Strategy*. Improving access to transit (Goal 8) is part of the county's Coordinated Transportation Plan for Mobility Services, as well as an important issue identified for the WJCTC transit plan that was being prepared during the development of this Plan.

Goal 1 Emphasize Preservation of the Existing Transportation System

Objectives

1. Maintain pavement and bridges in a condition that meets the targets adopted by NYSDOT and WJCTC.
2. Renew pavement markings and signs as needed to maintain visibility.
3. Maintain safe, accessible sidewalks and trails.
4. Replace transit vehicles by the end of their useful life.

Goal 2 Support the Economic Vitality of the Region

Objectives

1. Facilitate cross-border business opportunities, including Canadian tourism, and capitalize on the convenience of the Thousand Islands Bridge crossing as a critical regional conduit for tourism and commerce.
2. Develop strategies to help area businesses manage high transportation costs for agricultural and manufacturing goods.
3. Improve rail siding infrastructure to support growth of the region's agricultural industry.
4. Facilitate the ability for Fort Drum to drive economic vitality for the region.

Goal 3 Promote Efficient Transportation System Management and Operations

Objectives

1. Use technology as appropriate to improve and manage roadway and transit operations.
2. Coordinate with NYSDOT on traffic plans for alternative routes during Interstate 81 closures.

Goal 4 Enhance Travel and Tourism

Objectives

1. Identify and promote walking, hiking and bicycling routes to foster tourism.
2. Develop and publicize a system of recommended truck routes to help separate thru-truck traffic from pedestrian-oriented downtown areas.
3. Improve the walkability of Public Square to support a vibrant business district and downtown economic development.
4. Develop a regional pedestrian and bicycle network to spur tourism and economic activity and access for residents.

Goal 5

Increase the Safety and Security of the Transportation System for Motorized and Non-Motorized Users

Objectives

1. Design "Complete Streets" that accommodate motorized vehicles, transit, bicycling and walking for all users, including those with disabilities.
2. Promote awareness and enforcement of traffic laws, particularly near schools and in residential areas.
3. Continue coordination for emergency preparedness among Fort Drum, emergency responders, and operators of the area's transportation system.

Goal 6

Increase the Accessibility and Mobility of People and Freight

Objectives

1. Connect the area's workforce to available jobs.
2. Connect transportation with affordable housing options.
3. Strengthen transportation links between Fort Drum and surrounding communities.
4. Enhance the pedestrian and bicycling network to promote healthy lifestyles and sustainable commuting options.

Goal 7

Protect and Enhance the Environment; Improve Quality of Life; and Promote Consistency Between Transportation Improvements and the Community's Other Goals.

Objectives

1. Prioritize transportation investments that help the area's businesses remain viable and attract new residents.
2. Preserve and stabilize neighborhoods by focusing transportation investment in areas with other existing infrastructure.
3. Provide additional public access to the waterfront area while protecting its scenic and historic qualities for continued local waterfront revitalization.

Goal 8

Enhance Transportation Connections, Across and Between Modes, for People and for Freight.

Objectives

1. Build partnerships among the region's public and private transit operators to extend the areas and hours for which service can be provided.
2. Implement a regional public transportation service.
3. Develop and maintain convenient connections to and from Watertown International Airport, both by road and by public transit.

Goal 9 Improve Transportation System Resiliency and Reliability

Objectives

1. Manage delays, including those resulting from seasonal traffic changes.
2. Reduce or mitigate stormwater impacts on the surface transportation system.
3. Reduce the percentage of trips taken by Single Occupancy Vehicles.

Federal Planning Factors Included in the Long Range Transportation Plan

As mentioned previously, the Long Range Transportation Plan is required to consider specific factors such as mobility, safety, and accessibility. These factors are listed in current federal transportation legislation, enacted in November 2021 as the *Bipartisan Infrastructure Law* (BIL). Table 7 demonstrates the relationship between the required planning factors and the goals and objectives of the 2050 Plan. For example, the first federal planning factor – supporting the region's economic vitality – corresponds directly to Goal 2 of the Plan. However, Goals 4, 6, and 9 also support economic vitality by promoting travel-based tourism in the area, improving people's access to jobs, and helping make travel more reliable.

Table 7. Relationship of Federal Planning Factors to WJCTC 2050 LRTP Goals

Federal Planning Factors	Corresponding Plan Goals
Support the economic vitality of the region, especially by enabling global competitiveness, productivity, and efficiency	2, 4, 6, 9
Increase the safety of the transportation system for motorized and non-motorized users	5, 9
Increase the security of the transportation system for motorized and non-motorized users	5, 9
Increase the accessibility and mobility of people and for freight	3, 6, 8, 9
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, 7
Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight	6, 8
Promote efficient system management and operations	3
Emphasize the preservation of the existing transportation system	1
Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation	5,7, 9
Enhance travel and tourism	2, 4
Promote consistency between housing patterns and transportation improvements	2, 6

Performance Measures

WJCTC and other Metropolitan Planning Organizations are also required by federal law to incorporate the use of performance measures in their planning processes, including the LRTP. Pursuant to MAP-21 (and carried through into the FAST Act and Bipartisan Infrastructure Law), 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:

- Safety – To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure Condition – To maintain the highway infrastructure asset system in a state of good repair.
- Congestion Reduction – To achieve a significant reduction in congestion on the National Highway System for both recurring and non-recurring delays.
- System Reliability – To improve the efficiency of the surface transportation system.
- Freight Movement and Economic Vitality – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental Sustainability – To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced Project Delivery Delays – 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.
- Promote Continuing, Cooperative, and Comprehensive Planning that improves the performance of the transportation network.

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

- Preservation First - Preservation of the existing transportation system should be the main focal point.
- System Not Projects - Consider systematic transportation improvements and not just focus on individual projects.
- Maximize Return on Investments - Establish a strategy to invest in a way that produces the greatest possible return on investment.
- Make it Sustainable - Create a sustainable transportation system with long lasting benefit to the public, economy, and environment.

Performance-Based Planning Framework

USDOT established several performance measures that states, MPOs, and public transportation providers must use to conduct a performance-based approach to transportation decision making to support the national goals described above. The performance measures address highway safety, pavement and bridge condition, passenger and freight travel reliability, congestion and mobile source emissions, transit asset condition, and transit safety.

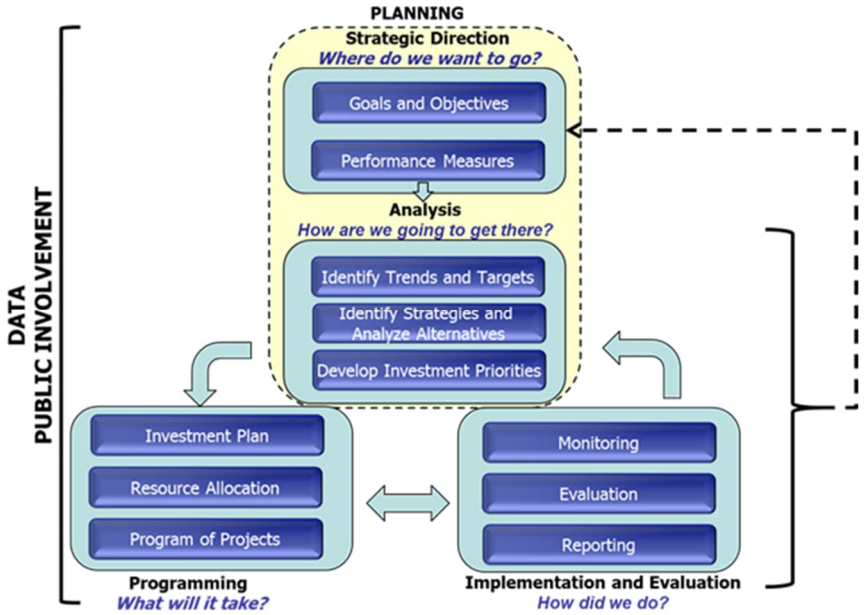


Figure 16. USDOT Performance-Based Planning Process

Performance measures are a way to evaluate whether a plan is being implemented. 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 WJCTC have agreed to cooperate to set targets and track performance as described in the following sections.

The WJCTC is committed towards working with its state and federal partners to ensure that its plans, programs, and activities are compliant with the provisions of federal transportation law. The WJCTC continues to develop its TIP to demonstrate progress toward the establishment of performance measures outlined below and will continue to work with partners to develop future performance measures. This LRTP includes performance targets associated with the following FHWA and FTA performance measure rulemakings:

- Highway Safety Improvement Program (HSIP) and Highway Safety
- Pavement and Bridge Condition
- System Performance/Freight/Congestion Mitigation & Air Quality Improvement (CMAQ) Program
- Transit Asset Management

Highway Safety

The FHWA Highway Safety rule established five performance measures for safety on all public roads. The performance measures are five-year rolling averages:

- Number of Fatalities
- Rate of Fatalities per 100M Vehicle Miles Traveled (VMT)
- Number of Serious Injuries
- Rate of Serious Injuries per 100M VMT
- Number of Nonmotorized Fatalities and Serious Injuries

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. WJCTC has adopted the NYSDOT statewide 2024 performance targets for safety, which are shown below. The focus is on improving performance over previous years (baseline data).

Table 8. WJCTC Adoption of NYSDOT Statewide Performance Targets for Safety

SAFETY MEASURE	2024 TARGET
Number of fatalities	1,016
Rate of fatalities per 100 million vehicle-miles traveled	0.886
Number of serious injuries	11,090
Rate of serious injuries per 100 million vehicle-miles traveled	9.606
Number of non-motorized user fatalities and serious injuries	2,628

Pavement & Bridge Condition

The FHWA Pavement and Bridge Condition rules established the following six performance measures for all bridges and pavements on the National Highway System, which includes all Interstates and some non-Interstate routes, as well as on- and off-ramps connected to these routes:

- Percent of NHS bridges (by deck area) classified as in good condition;
- Percent of NHS bridges (by deck area) classified as in poor condition;
- Percent of Interstate pavements in good condition;
- Percent of Interstate pavements in poor condition;

- Percent of non-Interstate NHS pavements in good condition; and
- Percent of non-Interstate NHS pavements in poor condition.

Table 9. New York State Pavement and Bridge Performance Measures adopted by WJCTC

BRIDGE CONDITION MEASURE	BASELINE 2022	2-YEAR TARGET (2024)	4-YEAR TARGET (2026)*
Percentage of bridge deck area that is in Good condition	25.3%	24.1%	21.1%
Percentage of bridge deck area that is in Poor condition	11.3%	12.5%	12.8%

PAVEMENT CONDITION MEASURE	BASELINE 2022	2-YEAR TARGET (2024)	4-YEAR TARGET (2026)*
Percentage of Interstate system in Good condition	45.3%	53.2%	54.3%
Percentage of Interstate system in Poor condition	1.1%	1.4%	1.7%
Percentage of non-Interstate NHS route system in Good condition	18.9%	22.3%	20.7%
Percentage of non-Interstate NHS route system in Poor condition	7.6%	9.3%	10.9%

**Only a 4-year target is required for the non-Interstate NHS.*

"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.

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.

On the NY Interstate system, the percentage of pavement in good condition decreased from 2019 to 2021, while pavement in poor condition held steady. The statewide targets for 2024 and 2026 reflect anticipated improvements in Interstate pavement in good condition and a small increase in the percentage in poor condition. On the non-Interstate NHS system, pavement in good condition decreased slightly from 2017 to 2021, while

pavement in poor condition decreased. NYSDOT has made positive progress in increasing the percent of NHS bridge deck area in good condition from 2017 to 2021, from 22.8 percent to 25.3 percent. The percent in poor condition rose slightly over the same time period.

These targets are lower than what NYSDOT or WJCTC 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.

System Performance, Freight and Congestion, Mitigation & Air Quality Improvement Program

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, pick 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 FHWA System Performance, Freight, and Congestion, Mitigation and Air Quality Improvement Program (CMAQ) Performance Measures Final rule established the following six performance measures:

For the National Highway Performance Program (NHPP)

1. Percent of person-miles on the Interstate system that are reliable;
2. Percent of person-miles on the non-Interstate NHS that are reliable;

For the National Highway Freight Program (NHFP)

1. Truck Travel Time Reliability Index (TTTR);

For the CMAQ Program

1. Annual hours of peak hour excessive delay per capita (PHED);
2. Percent of non-single occupant vehicle travel (Non-SOV); and
3. Cumulative two-year and four-year reduction of on-road mobile source emissions for CMAQ funded projects (CMAQ Emission Reduction).

The three CMAQ performance measures listed above are applicable only in areas that do not attain or have only recently attained national air quality standards. The WJCTC is not subject to establishing targets for these performance measures.

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.

Table 10. WJCTC System Performance Measures

LEVEL OF TRAVEL TIME RELIABILITY	HISTORIC DATA				BASELINE 2022	2-YEAR TARGET (2024)	4-YEAR TARGET (2026)*
	2017	2018	2019	2020			
Percent of person-miles traveled on Interstates that were reliable	83.2%	80.7%	78.8%	86.9%	81.6%	75.0%	75.0%
Percent of person-miles traveled on non-Interstate NHS routes that were reliable	--	--	80.3%	86.8%	85.7%	70.0%	70.0%

**Only a 4-year target is required for the non-Interstate NHS.*

The targets that NYSDOT and WJCTC 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. As additional years of data are collected, it will become possible to predict performance with more confidence, and the targets may be revised.

The freight travel time reliability 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.

Table 11. WJCTC Freight Performance Measures

LEVEL OF TRUCK TRAVEL TIME RELIABILITY	HISTORIC DATA				BASELINE 2022	2-YEAR TARGET (2024)	4-YEAR TARGET (2026)*
	2017	2018	2019	2020			
Ratio of 95th percentile truck travel time to the average (50th percentile) truck travel time on Interstates	1.39	1.43	1.47	1.33	1.39	2.00	2.00

**Only a 4-year target is required for the non-Interstate NHS.*

Transit Asset Management

In addition to the measures shown above, which are mostly highway-related, there are certain measures that must be tracked for public transit. The WJCTC agrees to support the Statewide Transit Asset Management Target outlined below by planning and programming projects in the TIP that will, once implemented, make progress toward achieving the transit assets targets.

The Watertown CitiBus transit service is a Tier II provider, which means they participate in a group plan where targets are established by NYSDOT for the entire group. The NYSDOT Tier II Transit Asset Management plan performance measures are outlined in Table 12.

Table 12. Public Transit Performance Measures

Statewide Transit Asset Management Targets		
Asset	Useful Life (miles)	Useful Life (years)
BR1 – Over-the-road Bus	500,000	12
BU – Bus (5310)	350,000	10
BU1 – Bus (5307)	350,000	10
BU1 – Bus (5311)	350,000	10
CU – Cutaway Bus (5310)	150,000	5
CU1 – Cutaway Bus (5307)	150,000	5
CU1 – Cutaway Bus (5311)	150,000	5
RT – Rubber-tire Vintage Trolley (5307)	500,000	12
RT – Rubber-tire Vintage Trolley (5311)	500,000	12
Suburban (5310)	150,000	5
VN – Van (5310)	150,000	5

Transit Safety

The FTA Public Transportation Agency Safety Plan (PTSAP) rule applies to certain providers of public transportation systems. Providers must develop and implement a PTASP that includes performance targets for the following performance measures:

- Total number of reportable fatalities by mode.
- Reportable fatality rate per total vehicle revenue miles by mode.
- Total number of reportable injuries by mode.

- Rate of reportable injuries per total vehicle revenue miles by mode.
- Total number of reportable safety events by mode.
- Rate of reportable safety events per total vehicle revenue miles by mode.
- System reliability – mean distance between major mechanical failures by mode.

The WJCTC has adopted the safety targets/measures included in the Watertown CitiBus System Safety Program Plan Agency Safety Plan, updated in 2024. Table 13 shows the 2024 safety targets/ measures the CitiBus Fixed Route system and Table 14 shows the 2024 safety targets/ measures for the CitiBus ADA/ Paratransit system.

Table 13. CitiBus Fixed Route 2024 Safety Targets

FIXED ROUTE	2-Year Target (2024)
Fatalities (Total)	0
Fatalities (Per 100k VRM)	0
Injuries (Total)	1
Injuries (Per 100k VRM)	0.17
Safety Events (Total)	10
Safety Events (Per 100k VRM)	2
System Reliability VRM Between Failures	7,500

Table 14. CitiBus ADA/Paratransit 2024 Safety Targets

ADA/ PARATRANSIT	2-Year Target (2024)
Fatalities (Total)	0
Fatalities (Per 100k VRM)	0
Injuries (Total)	0
Injuries (Per 100k VRM)	0
Safety Events (Total)	4
Safety Events (Per 100k VRM)	0.8
System Reliability VRM Between Failures	25,000

CHAPTER 4 – EXISTING TRANSPORTATION SYSTEM

This chapter offers a discussion of the WJCTC existing multi-modal transportation system along with an assessment of existing conditions experienced across the WJCTC planning area. Information used for this chapter was based on data and information obtained from NYSDOT, Jefferson County, and City of Watertown.

Highway System

Roadway Infrastructure

The WJCTC area's roadway network is characterized by a system of state highways, county roads, and local streets. This network of arterial, collector, and local roads supports residents, visitors, and freight traveling on approximately 663 miles of roadways. This includes approximately 165 miles of local roads within the U.S. Army base of Fort Drum that are geographically located within the WJCTC region but are not subject to the MPO process. Fort Drum roadways would fall under the purview of the U.S. Department of Defense and the FHWA's Eastern Federal Lands office.

Table 15. lists major roadways in the WJCTC planning area that provide regional and international connections. I-81 runs north-south through the region, facilitating international travel between the U.S. and Canada via the Thousand Island Bridge over the St. Lawrence River.

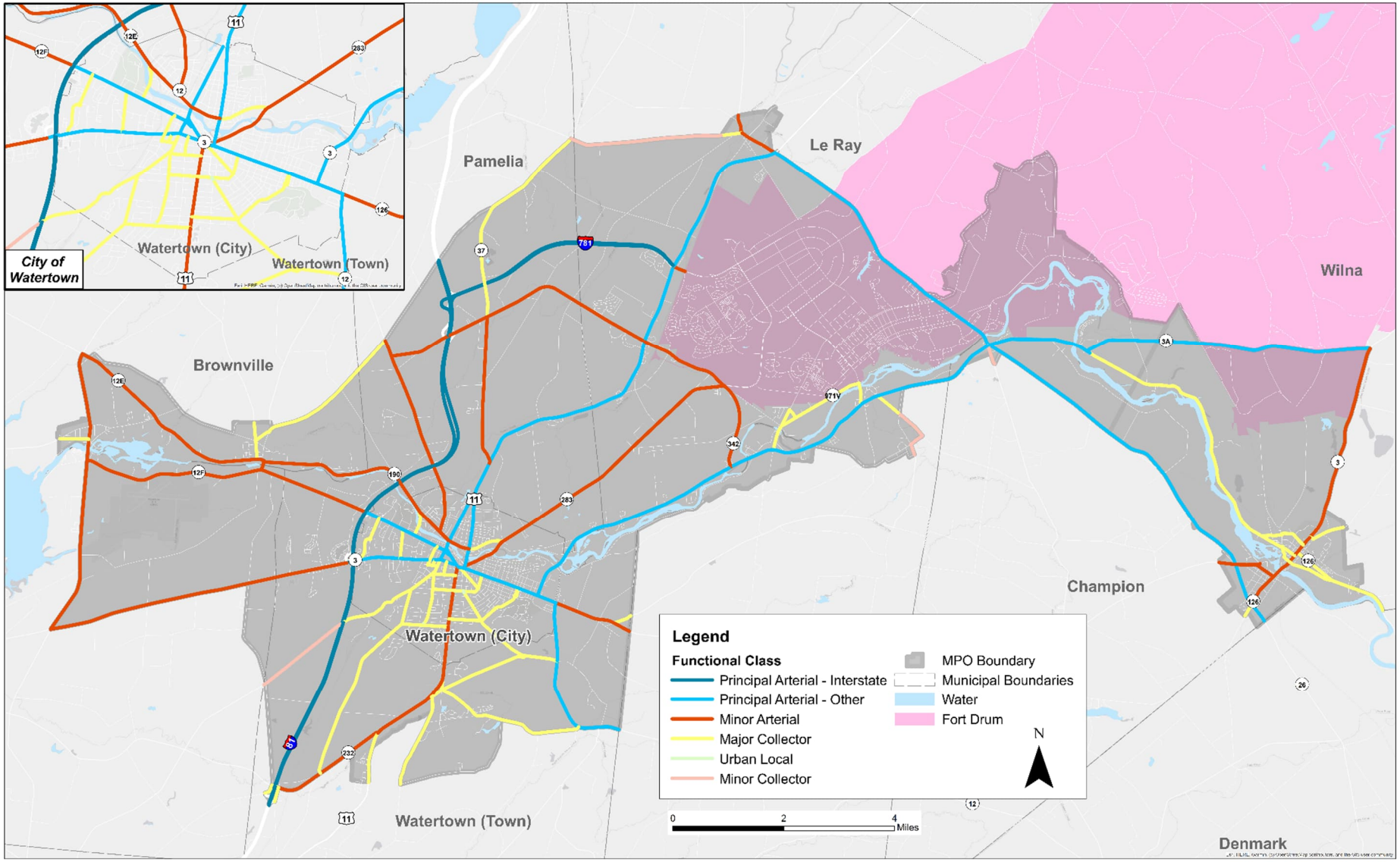
Table 15. Major Roadways in the WJCTC Area

Roadway	Key Jurisdiction	Functional Classification
I-81	State	Principal Arterial - Interstate
I-781	State	Principal Arterial - Interstate
US 11	City of Watertown within city boundaries, State outside city boundaries.	Principal Arterial – Other, Minor Arterial, Major Collector
NY 3	State jurisdiction on Arsenal Street from Massey Street to the Western City limit, and also on Eastern Boulevard. City of Watertown on Arsenal Street between Massey Street and Eastern Boulevard. State outside city boundaries.	Principal Arterial – Other, Minor Arterial, Major Collector
NY 3A	Jefferson County	Principal Arterial - Other

Roadway	Key Jurisdiction	Functional Classification
NY 12	State jurisdiction, except for the City jurisdiction along the following streets within the City boundaries: West Main Street, Mill Street, Public Square, North Massey Street, and State Street west of Eastern Boulevard.	Principal Arterial – Other, Minor Arterial
NY 12E	State	Minor Arterial
NY 12F	City of Watertown within city boundaries, State outside city boundaries.	Principal Arterial – Other, Minor Arterial
NY 26	State	Principal Arterial - Other
NY 37	State	Minor Arterial, Major Collector
NY 126	State	Minor Arterial, Major Collector
NY 180	State	Minor Arterial
NY 232	State	Minor Arterial, Major Collector
NY 283	City of Watertown within city boundaries, State outside city boundaries.	Minor Arterial
NY 342	State	Minor Arterial

Most of the roads in the WJCTC planning area are owned and maintained by local towns and municipalities. These municipalities receive funding from the Consolidated Local Street and Highway Improvement Program (CHIPS). The figure to the on the next page identifies the proportion of total road miles by linear foot owned by the New York State Department of Transportation, Jefferson County, and local municipalities. The total lane miles under control of NYSDOT, however, is 286 lane miles.

Figure 17. Functional Classification of Roadway Network



Federal-Aid Eligible Roads

The Federal-Aid Highway Program, administered by the Federal Highway Administration (FHWA), provides financial support towards the construction and preservation of the Interstate Highway System, primary highways, and certain local roads. Approximately 200 miles of interstate and state roads within the WJCTC MPO boundary are eligible for the Federal-Aid Highway Program; local roads may be eligible when doing a safety enhancement project. Most of these roads are owned by the New York State Department of Transportation. Figure 19 provides a picture of eligible roads within the MPO boundary. 32% of the existing roadways qualify for federal aid allowing for a shared cost for construction and long-term maintenance, allowing the municipalities to direct a majority of their roadway maintenance funds towards local streets.

Figure 18. Total Road Mileage by Functional Class in the WJCTC Area

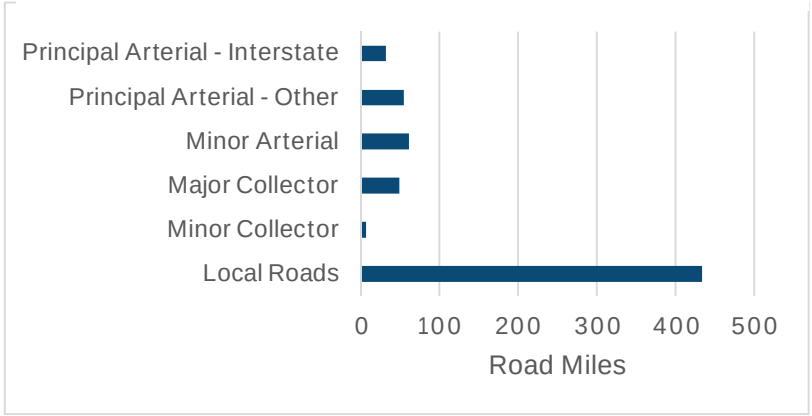
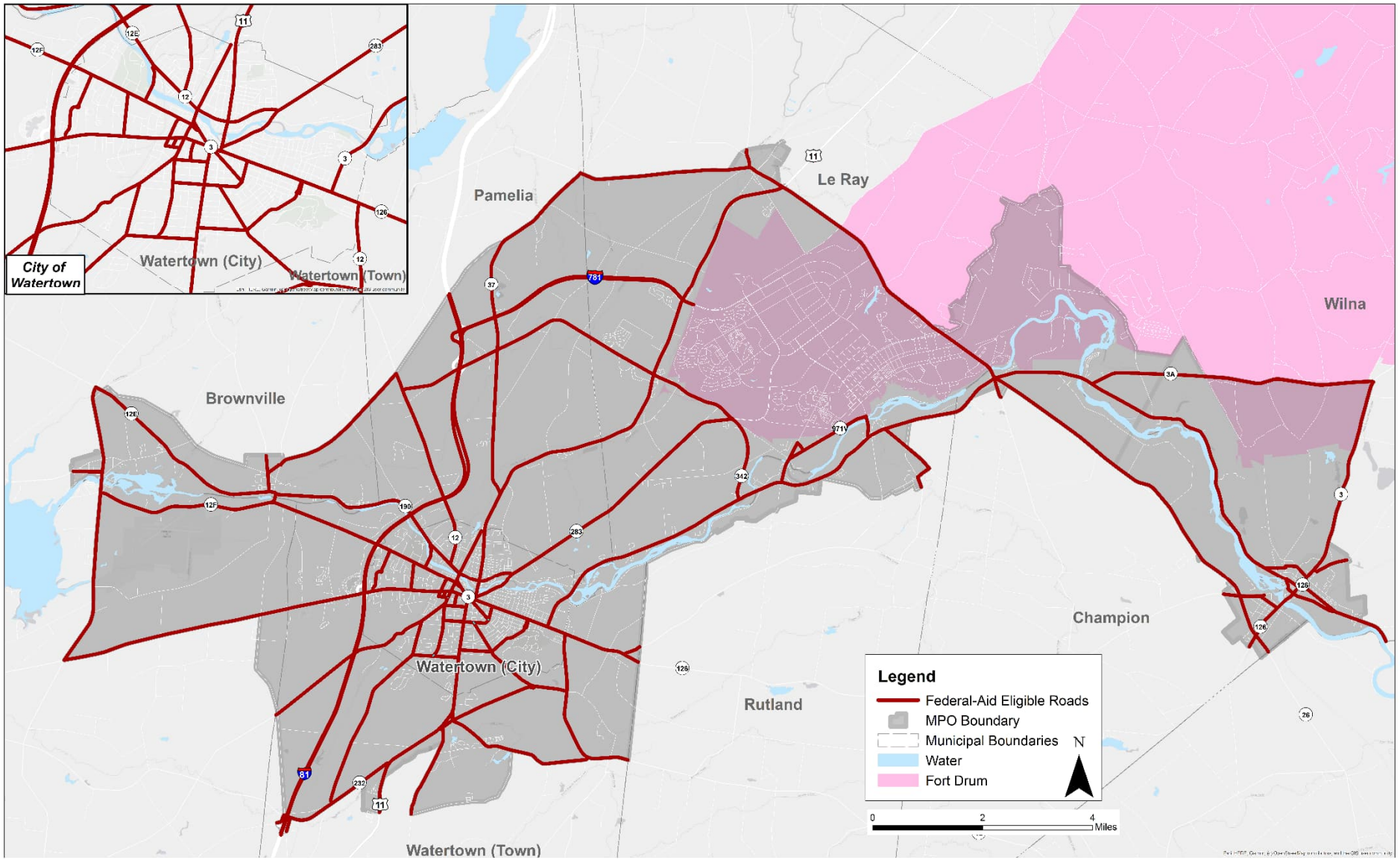


Figure 19. Federal Aid Eligible Roads



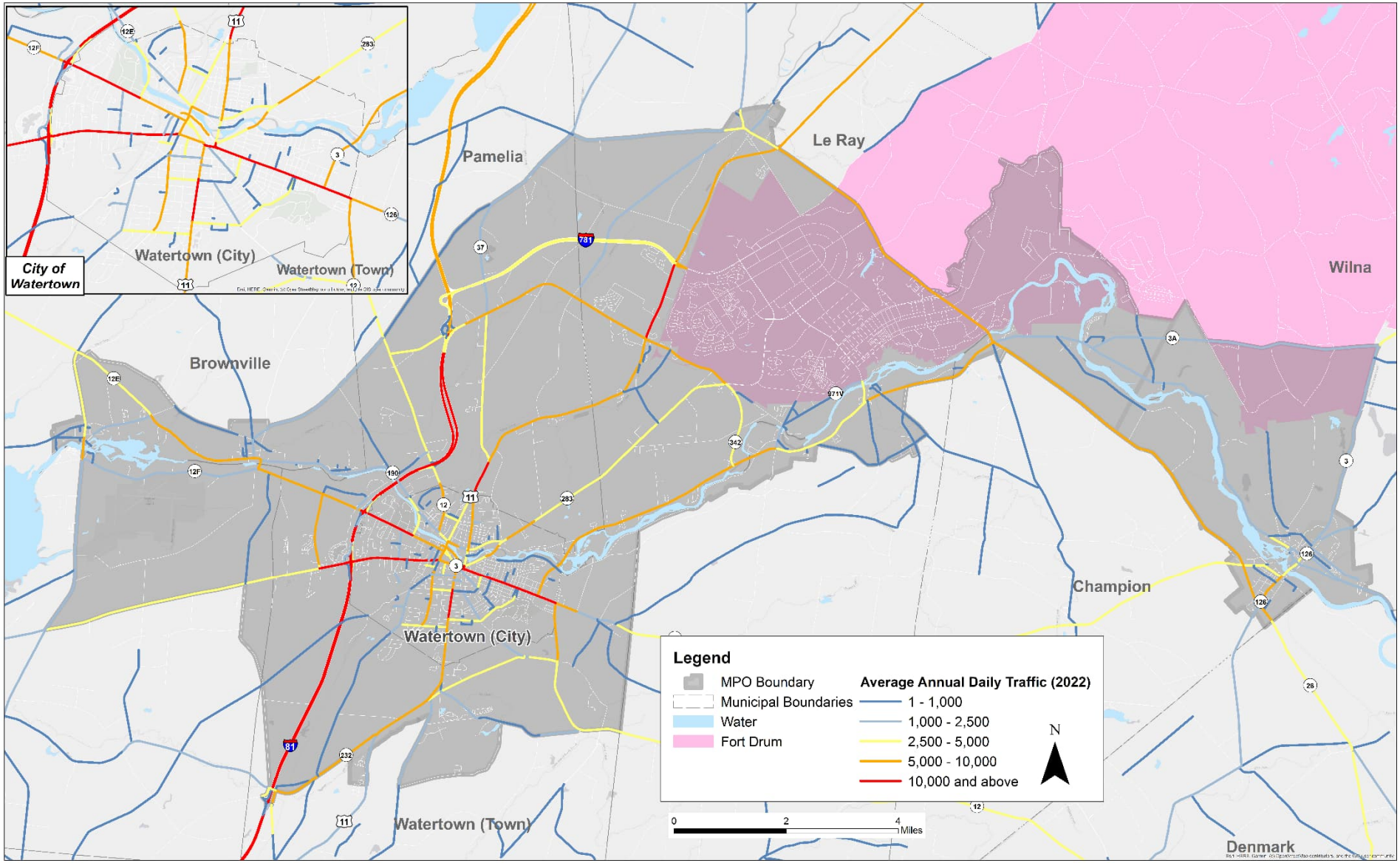
Average Annual Daily Traffic (AADT)

The roadways within the WJCTC area have generally low average annual daily traffic (AADT) compared to average AADT on other roadways throughout New York, and largely operate under capacity. The southern entrance into Fort Drum is the only roadway segment that reaches roadway capacity at certain times based on the volume-to-capacity (V/C) ratio from New York State Data. The V/C ratio is a metric used to measure roadway capacity sufficiency by comparing roadway demand (volume of vehicles) to supply (carrying capacity); lower values are indicative of free flowing or stable traffic conditions, while higher values are indicative of traffic congestion and travel delays.

The principal arterials and interstates on the west side of Watertown – I-81, Arsenal Street, and the Court Street Bridge – have the highest average AADT in the WJCTC area. However, the V/C ratio shows that traffic volumes on these roads do not exceed roadway capacity.

This consistently high level of service (LOS) opens opportunities for improved multi-modal accommodations through lane repurposing, traffic calming, road dieting, or other accessibility enhancements offering more choices for movement for residents, visitors, and commerce within the region.

Figure 20. Annual Average Daily Traffic



Fort Drum Access

Fort Drum has 4 gates; the LTG Paul Cerjan Gate is the main visitor gate located at the terminus of I-781 near U.S. Route 11. The MT Belvedere Gate is located off SR 342, the Oneida Avenue (Gasoline Alley) Gate is for commercial access and is located off SR 26, and the WSAAF Gate is located off SR 26 and provides access to the airfield.

Pavement Score of Lane Miles/Roadways

Pavement deterioration is not a significant concern for most roadways within the WJCTC area. Most of the federal aid roadways within the WJCTC area (as measured in lane miles) are in "good" condition or better. The pavement condition ratings are based upon the New York State Department of Transportation Standards. However, while much of the roadway system is currently in good condition, the 39% of roads with a "fair" pavement rating may require repairs in the near future.

Only 5% of the roads in the WJCTC area rate in "poor" condition. These roads include segments of Washington Street and Holcomb Street in the City of Watertown and Military Road in the Town of Brownville.

Figure 21. Pavement Condition of Federal Aid Roads

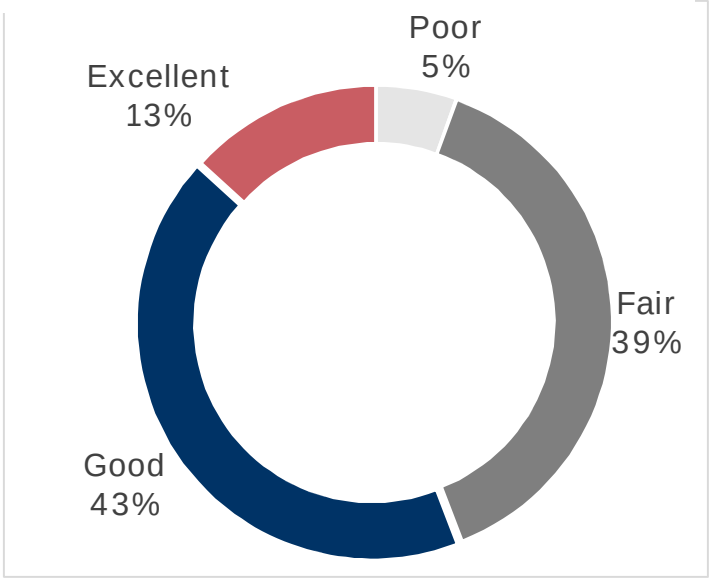
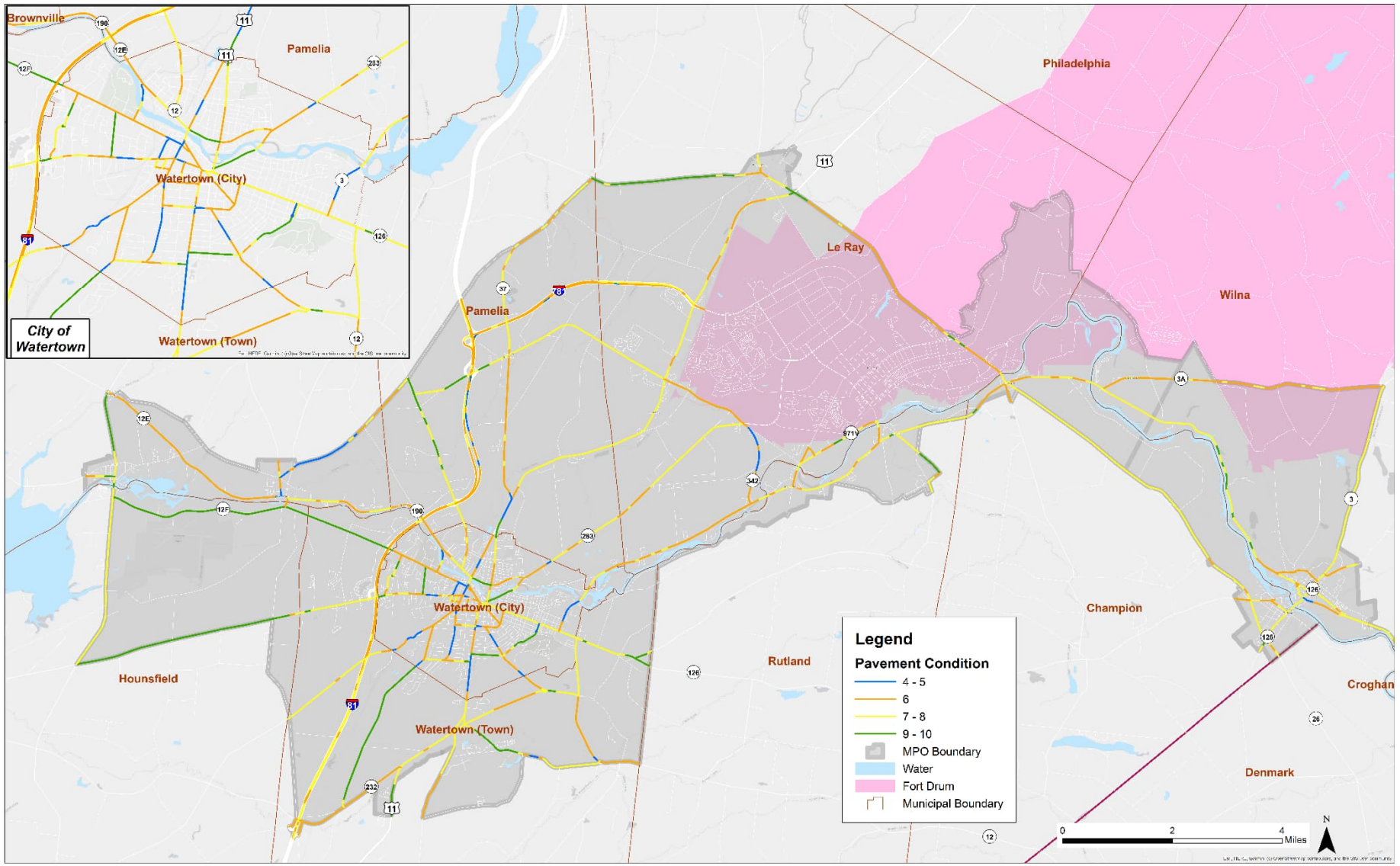


Figure 22. Pavement Condition in the WJCTC Area



Intelligent Transportation System (ITS) Equipment

Intelligent Transportation Systems (ITS) is a national program that integrates information and advanced communication technologies into transportation infrastructure and vehicles to improve mobility, operations, safety, and environmental impacts. Figure 23 maps the location of NYSDOT ITS infrastructure in the WJCTC area.

Within the City of Watertown, NYSDOT owns eight three-color signals. Within the WJCTC MPO boundary, there are 15 intelligent transportation system locations, including one on NYS Route 3 (Arsenal Street) at the southbound onramp to I-81, and one at NYS Route 12F (Coffeen Street) at the southbound off-ramp from I-81, and four along the I-81 mainline. There are eight ITS locations in the vicinity of the interchange between I-781 and US Route 11 near the LTG Paul Cerjan Gate to Fort Drum.

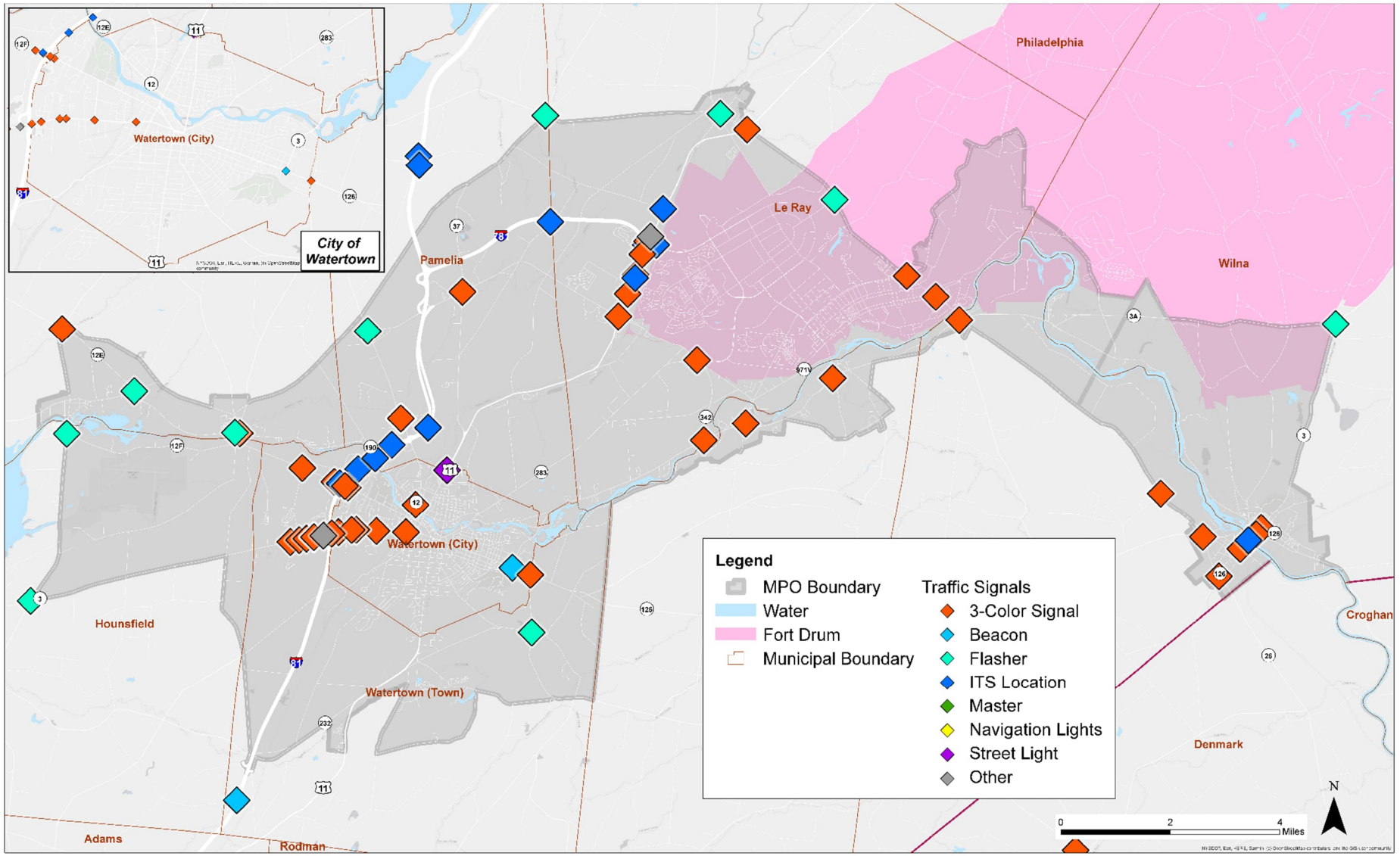
There are ten variable messaging signs (VMS) located in Jefferson County operated by NYSDOT to communicate real-time information to motorists. These VMS are located on portions of I-81, NY 11, and I-781, which are roadways with high AADT relative to the region's average AADT. Eight are permanent VMS and two are semi-permanent. VMS can display topics such as incident management and public safety, congestion management and motorist guidance, construction and maintenance activity, special events, weather, law enforcement, and public service campaigns.[4]

A 3-Color Signal is a traditional traffic signal that is controlled either by a camera, sensor, or other connected system that allows for remote timing of an individual traffic signal and/or coordinated timing of multiple traffic signals along a corridor.

A Beacon or Flasher is a flashing traffic signal intended to draw a driver's attention to the traffic control, or other flashing light intended to draw attention to a speed limit, school zone, crosswalks, low bridge clearance, or other wherever driver compliance is critical.

[4] https://www.thruway.ny.gov/commercial/forms/tap633.pdf

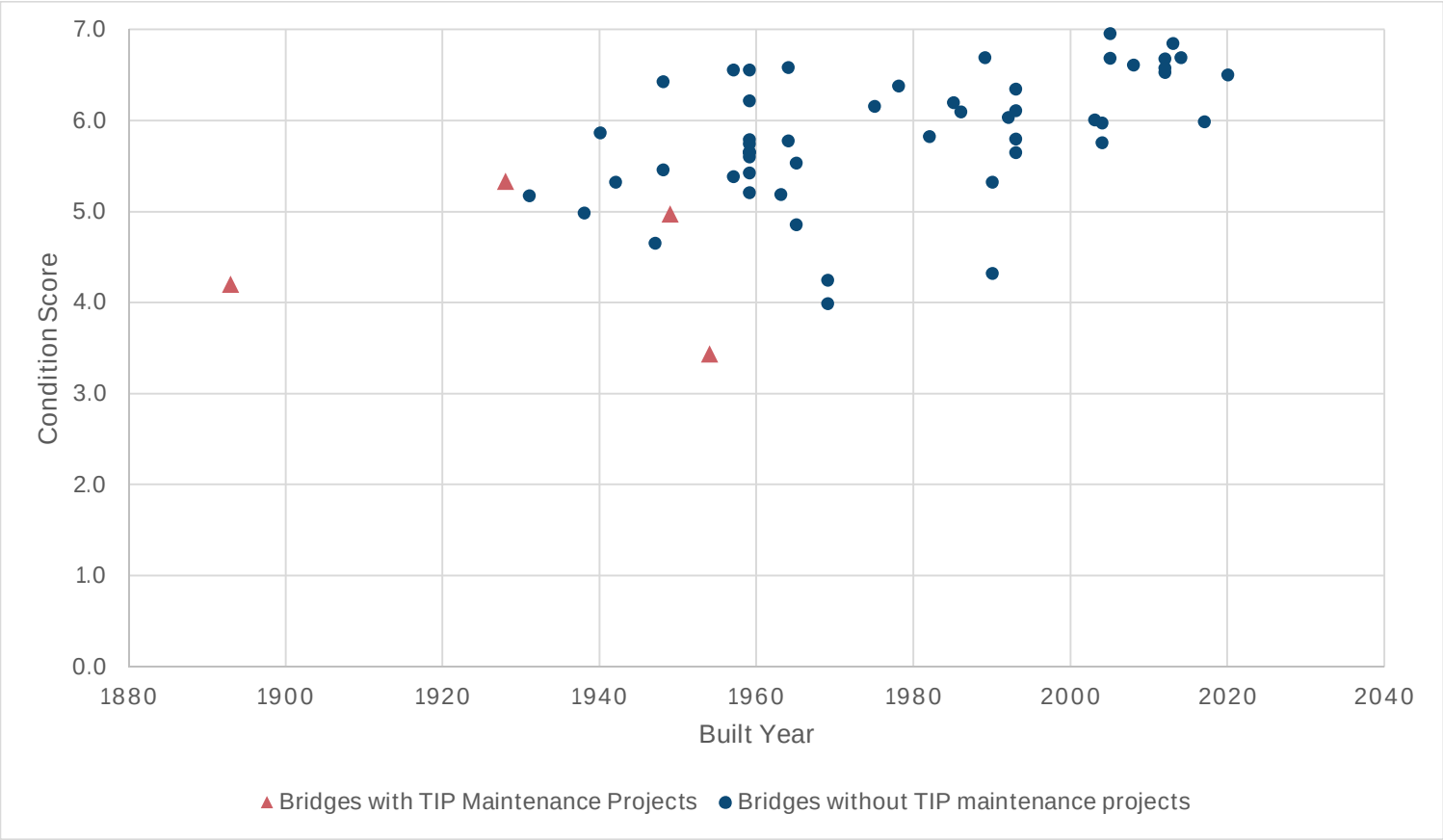
Figure 23. ITS Infrastructure in the WJCTC Area



Bridges

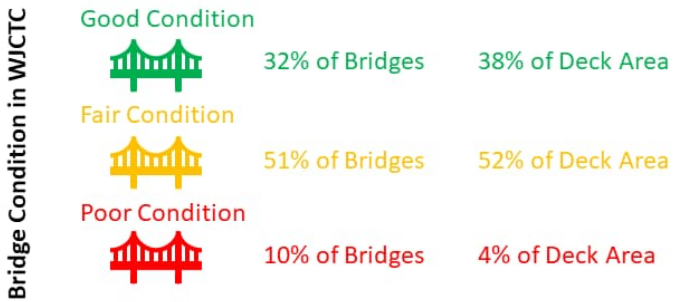
The Black River runs through the center of the City of Watertown, necessitating that the region relies on several bridges for connectivity over the river. The WJCTC area has 71 bridges that cross waterways, railroads, and roadways. Out of these 71 bridges, 61 are located on federal aid roadways. More than half of these bridges located on federal aid roadways were built prior to 1965 and will continue to require maintenance, rehabilitation, and even replacement.

Figure 24. NYSDOT Condition Rating by Built Year for Bridges on Federal Aid Roadways in the WJCTC Area



Using the National Bridge Inventory (NBI) rating system provided in GIS, among the 71 bridges on federal aid roadways, 23 have ratings in "good" condition with a condition score of 7 or greater; 36 bridges are in fair condition with a score of 5 or 6; five bridges are in poor condition with a score of 4 or less; and seven bridges have no score.

In terms of bridge deck area within the WJCTC area, 4% is in "poor" condition, and 38% is in "good" condition. Therefore, bridge condition exceeds the federal performance targets adopted by WJCTC as outlined in Chapter 3 – Setting the Context.

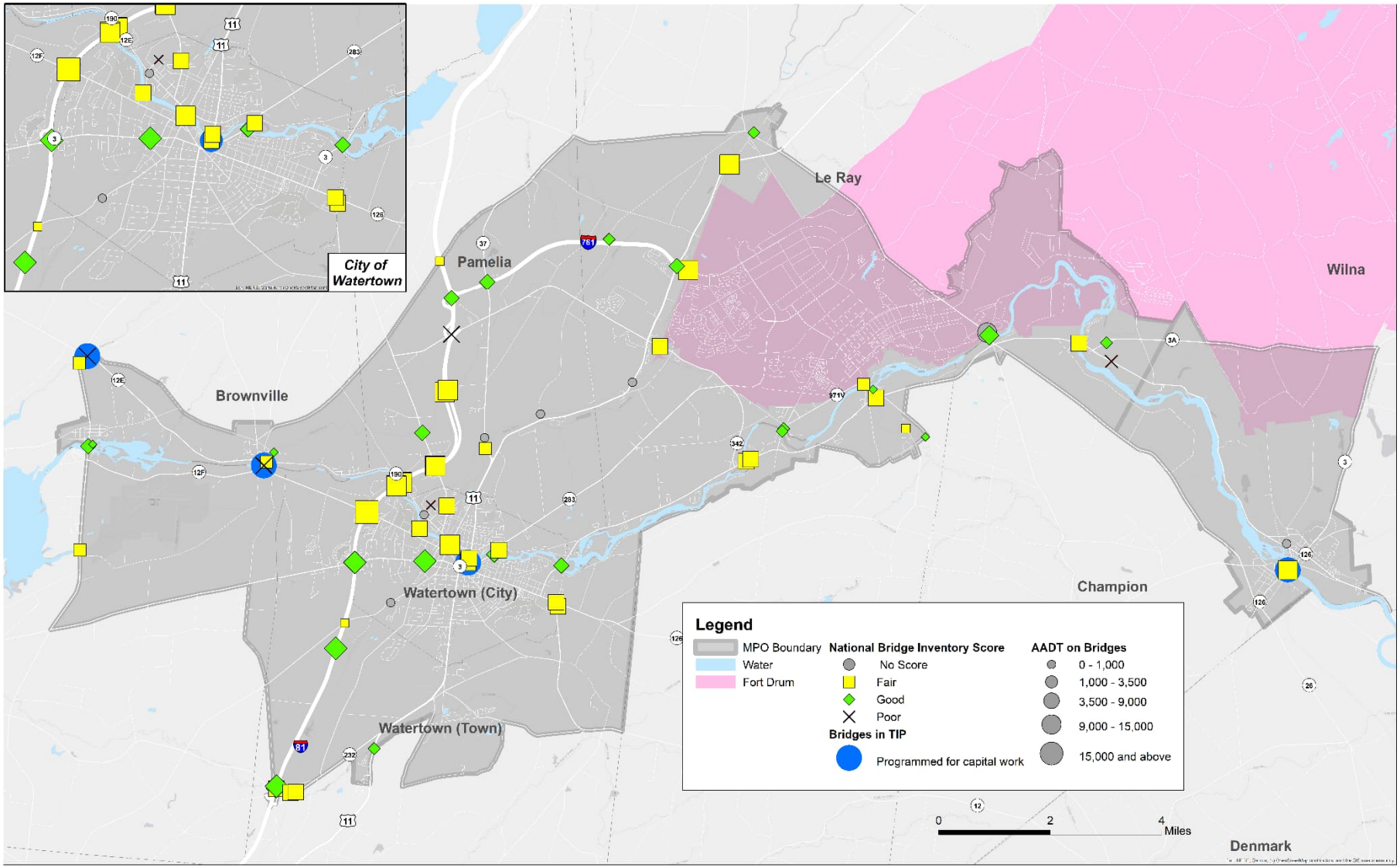


The five bridges in poor condition are:

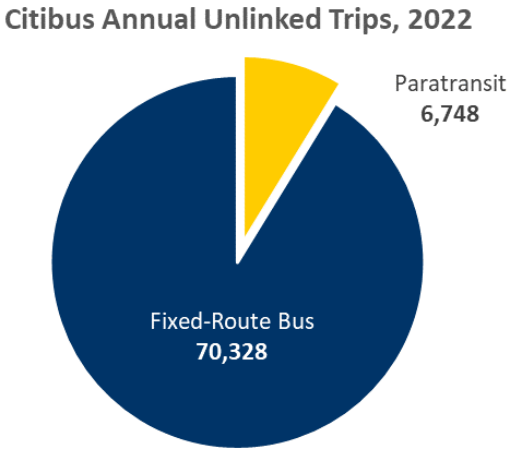
1. NYS Route 12E crossing the Perch River in Brownville (scheduled for replacement)
2. Bridge Street over Black River in Brownville connecting NY 12 E and NY 12F (scheduled for replacement 2024)
3. Cayuga Avenue crossing Kelsey Creek in the City of Watertown
4. NYS Route 342 crossing I-81 in the Town of Pamelia (scheduled for replacement)
5. NYS Route 3 crossing the Power Canal in the Town of Wilna

Plans are in place to rehabilitate or replace three of these bridges (#1, #2, and #4) in a five year window; all of which are on federal aid roadways.

Figure 25. Bridge Rating and AADT in the WJCTC Area



Transit/ Public Transportation



Transit in the WJCTC area consists of a fixed-route bus and demand-response system in the City of Watertown operated by CitiBus. Current transit service includes two routes that extend beyond the City of Watertown, and the WJCTC has explored ways to create regional connections to key origins and destinations through a 2019 Transit Study.

Based on the 2022 Federal Transit Agency Profile for the City of Watertown CitiBus, CitiBus operates within a 17-square-mile service area with five fixed routes and a small fleet of demand-response paratransit. All five routes radiate out of the Public Square of Watertown and provide service to neighborhoods within the city. CitiBus has limited service hours during the weekdays and does not provide late-night or Sunday service.

CitiBus has seen a 35% decrease in fixed-route transit ridership over the five-year period from 2018 to 2022. During the same period, demand-response paratransit ridership decreased by 22%. This reduced transit ridership aligns with a nationwide trend caused by the COVID-19 pandemic. As of December 2023, nationwide transit ridership was at 77% of pre-pandemic levels (prior to April 2020).[5] Figure 26 shows the five-year trends in CitiBus trips, including bus and demand response trips. Figure 27 provides a map of CitiBus routes and bus stops relative to federally-designated disadvantaged communities. CitiBus service currently reaches all six census tracts designated as disadvantaged communities within the City of Watertown.

[5] American Public Transportation Association. December 2023. APTA Public Transportation Ridership Update Policy Brief. APTA-POLICY-BRIEF-Transit-Ridership-12.01.2023.pdf

Figure 26. Annual Unlinked Trips 2018-2022

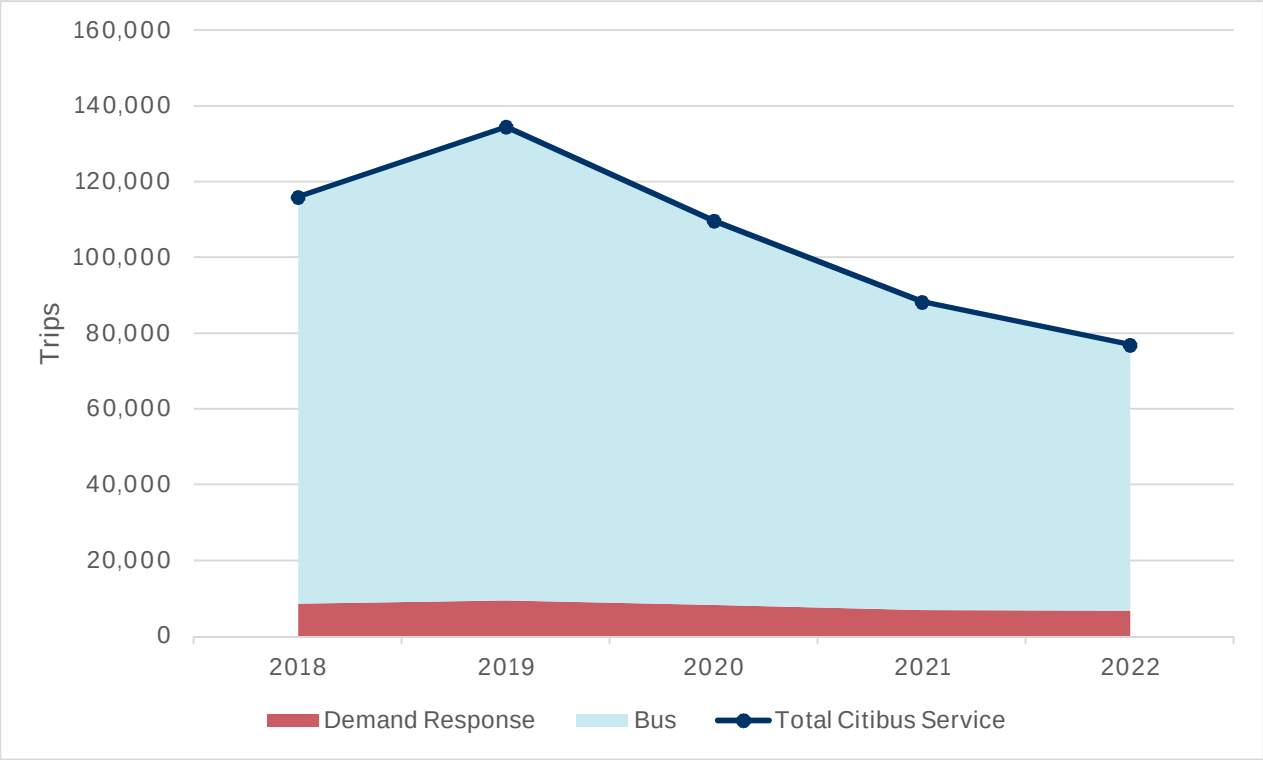


Figure 27 shows the CitiBus routes in Watertown, along with census tracts designated as disadvantaged communities under the federal Justice40 Initiative.

WJCTC Transit Study

The WJCTC completed a Transit Study in 2019 that includes a service plan, capital plan, and financial plan for the regional transit network. The plan proposes three service scenarios that can be phased over time to build on one another, including:

1. Expanded CitiBus network: Expands service to Fort Drum and areas just west of Watertown including operations on Sundays.
2. MPO bounded network: Creates new regional routes within the WJCTC boundary.
3. Regional network Phases 1-3: Add new routes and increased service to more distant destinations in Jefferson and parts of Lewis and St. Lawrence County.

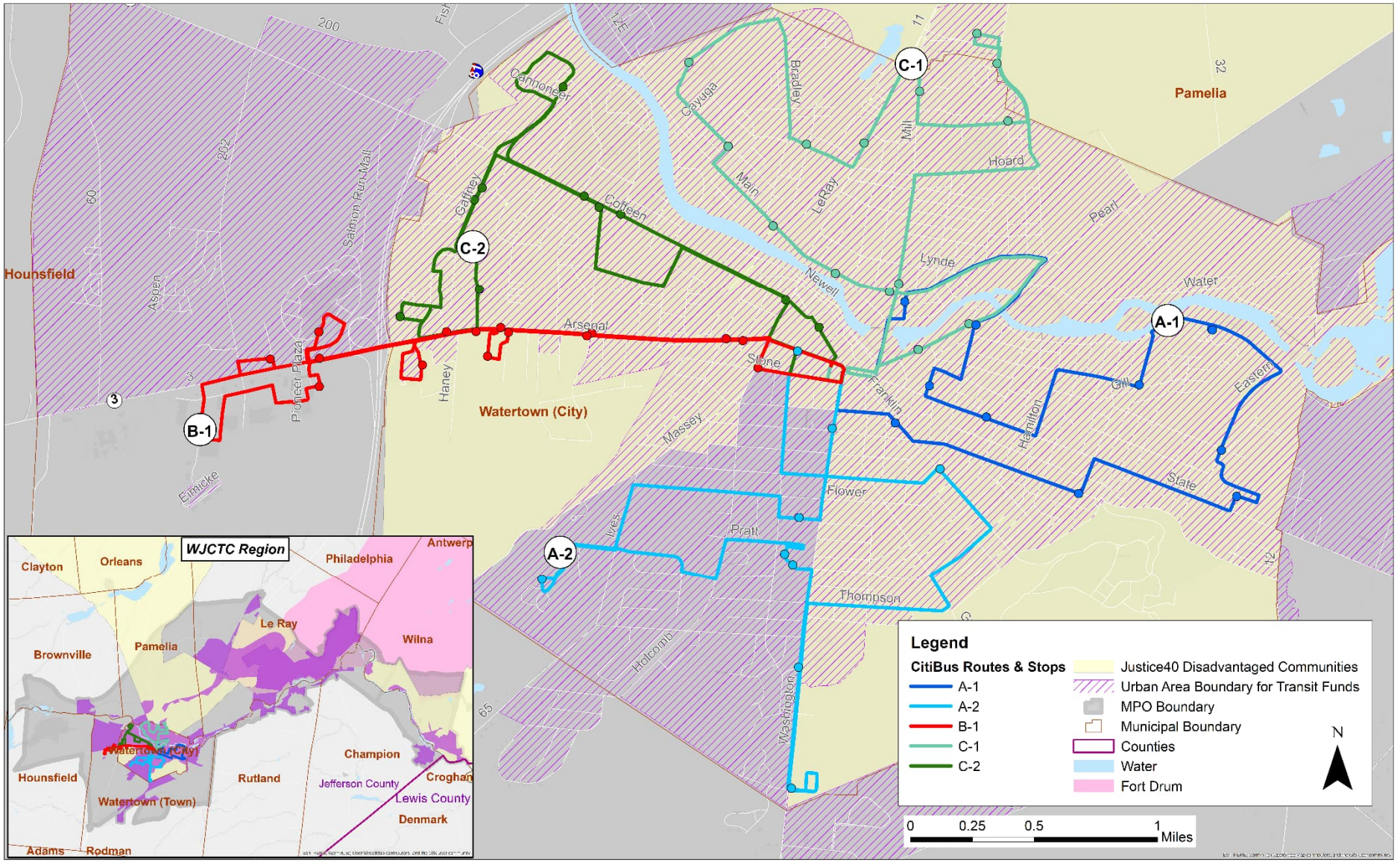
Additional Demand Response Transportation

The Jefferson Rehabilitation Center (JRC) is a non-profit agency that provides services to persons with disabilities and operates 13 dedicated bus runs throughout Jefferson County on Monday through Friday between 6:00am and 7:30am to pick up participants from their homes and drop them off at program site facilities. This service also takes participants home in the evening. In addition to demand response service, the JRC bus service operates two fixed routes in Watertown.

Regional and Intercity Transit

In addition to the local transit service, the Adirondack Trailways operates regional bus service between Massena and Syracuse enroute to New York City via US 11 and I-81. Watertown is Trailways' only stop within the WJCTC area. The Trailways stop in Watertown has changed locations several times in recent years; it is currently located at the Byrne Dairy gas station on Coffeen Street approximately one mile west of downtown. Ticket sales in Watertown show a heavy southbound travel pattern. Jefferson County is working to create a regional transit service with fixed routes and first-mile, last-mile, demand-based service that both feed into the CitiBus route system.

Figure 27. Transit – CitiBus Routes

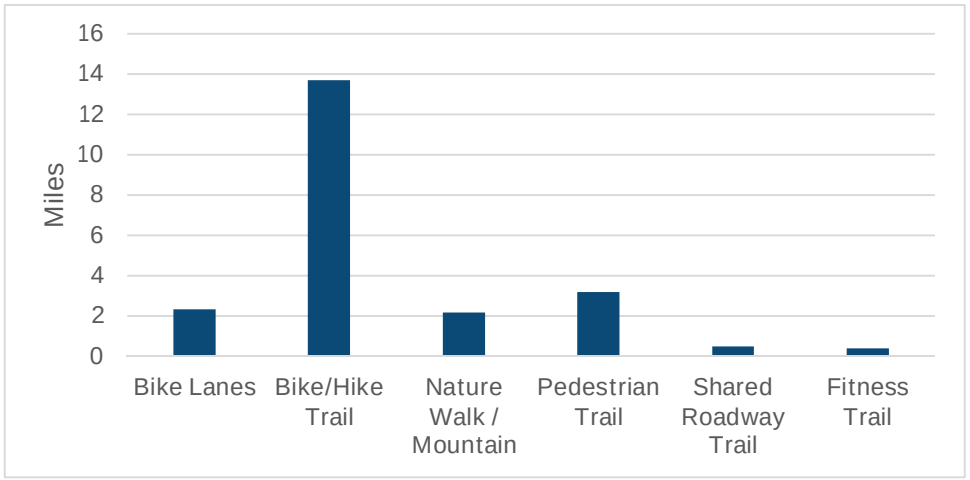


Bicycle and Pedestrian

Cycling is uniquely viable in small towns like Watertown because of its smaller geographic size, lighter and slower traffic, and radial street pattern. The City of Watertown has two miles of bike lanes, which are located on short, disconnected stretches of W. Main Street, Washington Street, and Coffeen Street. Watertown also has a 19-mile network of off-street bicycle and hiking trails along the Black River and around the Thompson Park Zoo and Conservancy.

Currently, the 1.75-mile Black River Trail western expansion project is programmed in the 2023-2027 TIP to connect the existing Black River Trail at the intersection of Route 3 and Huntington Street, extending west to Factory Square Park. Figure 28 portrays the types of trails and linear miles of various trails across the region.

Figure 28. Existing WJCTC Regional Trail Network

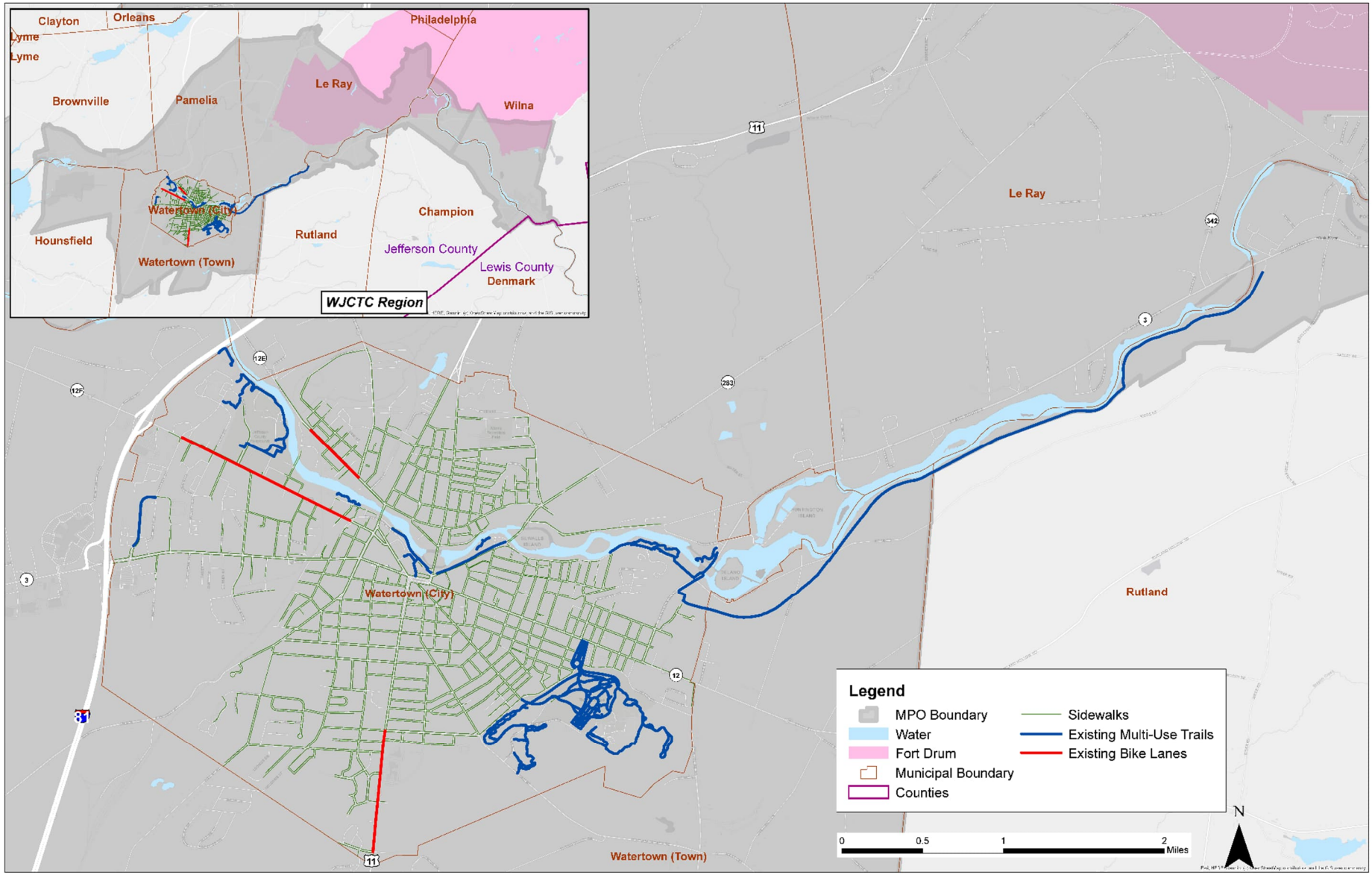


The sidewalk network is well-connected within the City of Watertown and provides near complete coverage of the city. Rural and suburban areas will not need the same level of pedestrian infrastructure coverage, but villages in the region contain a strong network of sidewalks within their boundaries. The WJCTC Bicycle and Pedestrian Study notes that the lack of pedestrian and bicycle facilities on key corridors detracts from safe access to goods and services. There is need for better regional connections to local businesses, including segments of NY State Routes 11, 12, 342, and 26.

The 2021 WJCTC Bicycle Pedestrian Connectivity Study proposes the development of a regional pedestrian and bicycle network to spur tourism and economic activity and access for residents. The network would link the City of Watertown to the west with the Villages of Glen Park, Brownville, and Dexter. In addition to the three villages, the network would connect key activity centers and points of interest including the Fairgrounds / Bicentennial Park, Jefferson County Community College, General Brown Elementary School and High School, and Fish Island Park. Long-range connectivity east of the City of Watertown prioritizes extension of the Black River Trail from the Village of Black River to the Hamlet of Great Bend, with the ultimate goal to connect the Village of Deferiet, Herrings, and Carthage. There is an opportunity to leverage rural roads with low AADT's as rural bicycle routes that tourists can use to travel across the greater region and potentially even access the Thousand Islands and Lake Ontario areas. Further, there is a desire by the City of Watertown to enhance the walkability of Public Square which could include some reconfiguration of Public Square to open more pedestrian and open spaces.

Figure 29 portrays the bicycle and pedestrian infrastructure in the region, including on-street bike lanes and separated paths or trails, and sidewalks within the City of Watertown.

Figure 29. Existing Bicycle Network



Freight

The bulk of the freight traffic in the WJCTC area is supported by trucks, with lesser use of rail. As Figure 30 shows, I-81 has the highest volume of trucks, making up to 26% of the vehicle mix with up to 3,947 trucks a day. Due to the alignment of the road network, several truck movements that are destined for the Watertown area end up passing through the Watertown Public Square area.

Watertown's industrial center is in the eastern part of the city on Pearl Street, which is not easily accessible from I-81 for trucks travelling in the north-south direction. The consideration of an alternative route to access the area via I-81 will help reduce the truck movement through the downtown area. Additionally, the City Centre Industrial Park off Arsenal Street experiences constraints to truck traffic in that there is only a single entry/exit and the poor right turn geometry for trucks from Arsenal Street to Bellew Avenue into the industrial park.

The absence of any truck route bypass around the City of Watertown means trucks passing through or destined to Watertown often travel through the urban core of the city. There are limited alternatives for truck routing to bypass the urban core that wouldn't require the rerouting of trucks down neighborhood streets.

In 2022, WJCTC completed the Watertown Truck Route Study to evaluate ways to modify the existing designated truck routing between I-81 and Public Square to designate alternative truck routes that better accommodate trucks, other vehicles, and makes downtown safer for multi-modal transportation. This study was coordinated concurrently with the Industrial Park Access Study to create improved safety access to the Public Safety Center and to enhance truck access to and from the industrial park and throughout Watertown. Recommendations included routing, administrative actions, treatments, signage and technology. As shown in Figure 31, the Watertown Truck Route Study proposed a route restructure that would simplify NY Route 12 and US Route 11 so that they are consistent routes for both northbound and southbound travelers, diverting trucks from Public Square. Recommendations from the Watertown Truck Route Study are summarized in Table 16 below.

Table 16. Recommendations from Watertown Truck Route Study

Recommendation	Short-Term Actions	Mid-Term Actions	Long-Term Actions
Administrative Actions	Rename Black River "Parkway" or designate as a truck route Post bridge clearance of Court Street Bridge over Black River Parkway	Public Square restricted access	-
Treatments	Move Mill Street stop bar Restriping of the roadway	Add a mountable turning apron on the westbound State Street Approach at Mill Street	Realign intersection of mill street at Public Square

Recommendation	Short-Term Actions	Mid-Term Actions	Long-Term Actions
Signage	Clarify the preferred truck route	Depict a preferred route to I-81 on surface streets around Watertown, directing all traffic, but especially trucks, to use an alternative to Public Square Place signage on I-81 to alert trucks which exits to take if they are carrying a through-load.	Clarify the proposed route structure on NY Route 12, NY Route 12F, and US 11.
Technology	App-based mapping and navigation	Traffic signal coordination	Intelligent transportation systems and connected vehicles technology

Intermodal Connections

Due to relatively high costs, freight movement via air is usually reserved for specific types of goods and commodities with time sensitive deliveries. The WJCTC area is home to Watertown International Airport (ART) with very limited outbound and inbound freight traffic (less than 1 ton/month).

The CSX rail line, running from Syracuse to the Province of Quebec in Canada, passes through Watertown. This freight line is owned by CSX and supports freight movement for manufacturing facilities in Watertown and Carthage. CSX also owns and operates a rail yard towards the southern border of Watertown.

Stakeholders noted the value of existing rail spurs between Arsenal Street and Coffeen Street and at City Center Industrial Park (Bellew Ave) with discussions of a future intermodal terminal.

Figure 30. Truck Volume

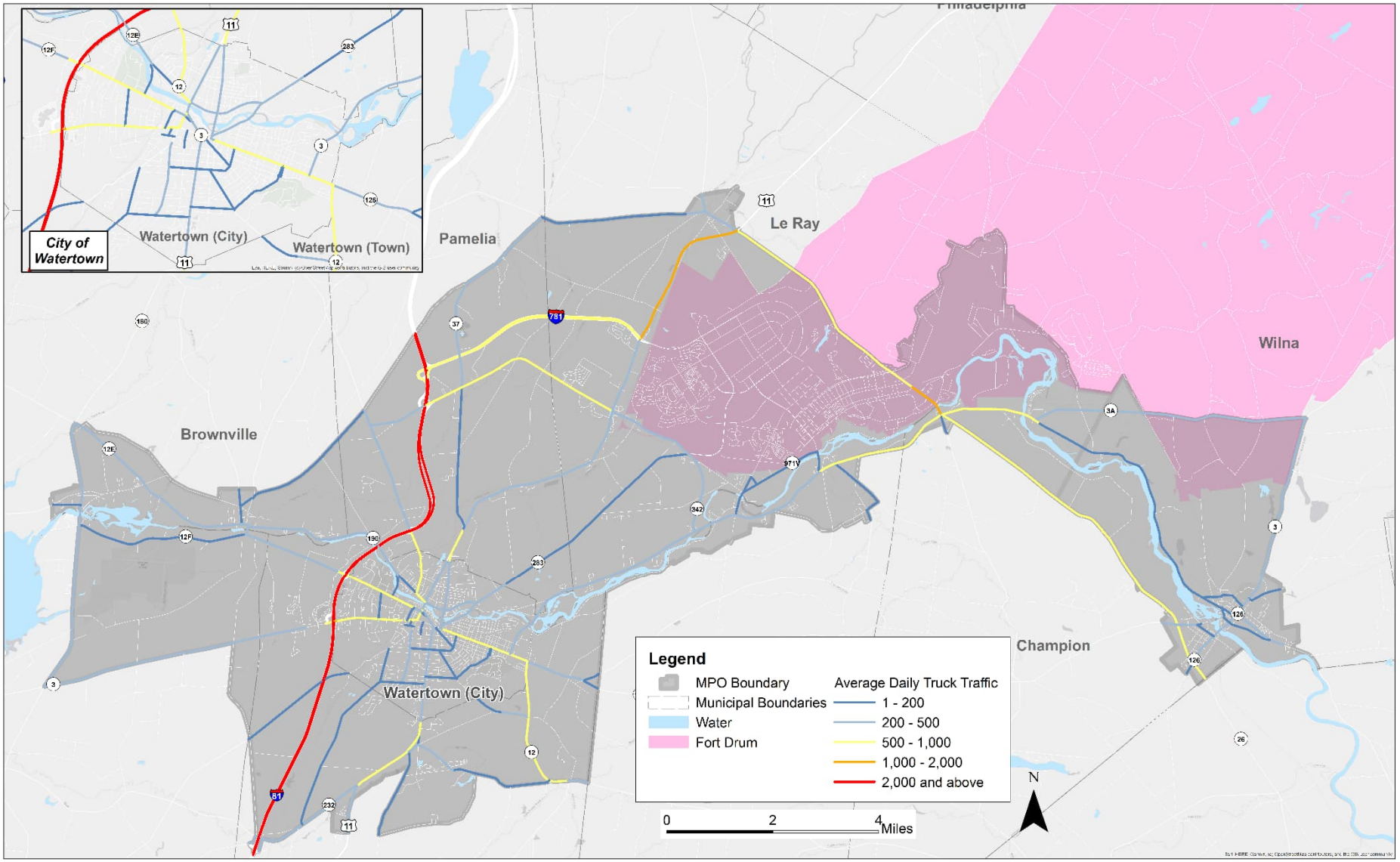
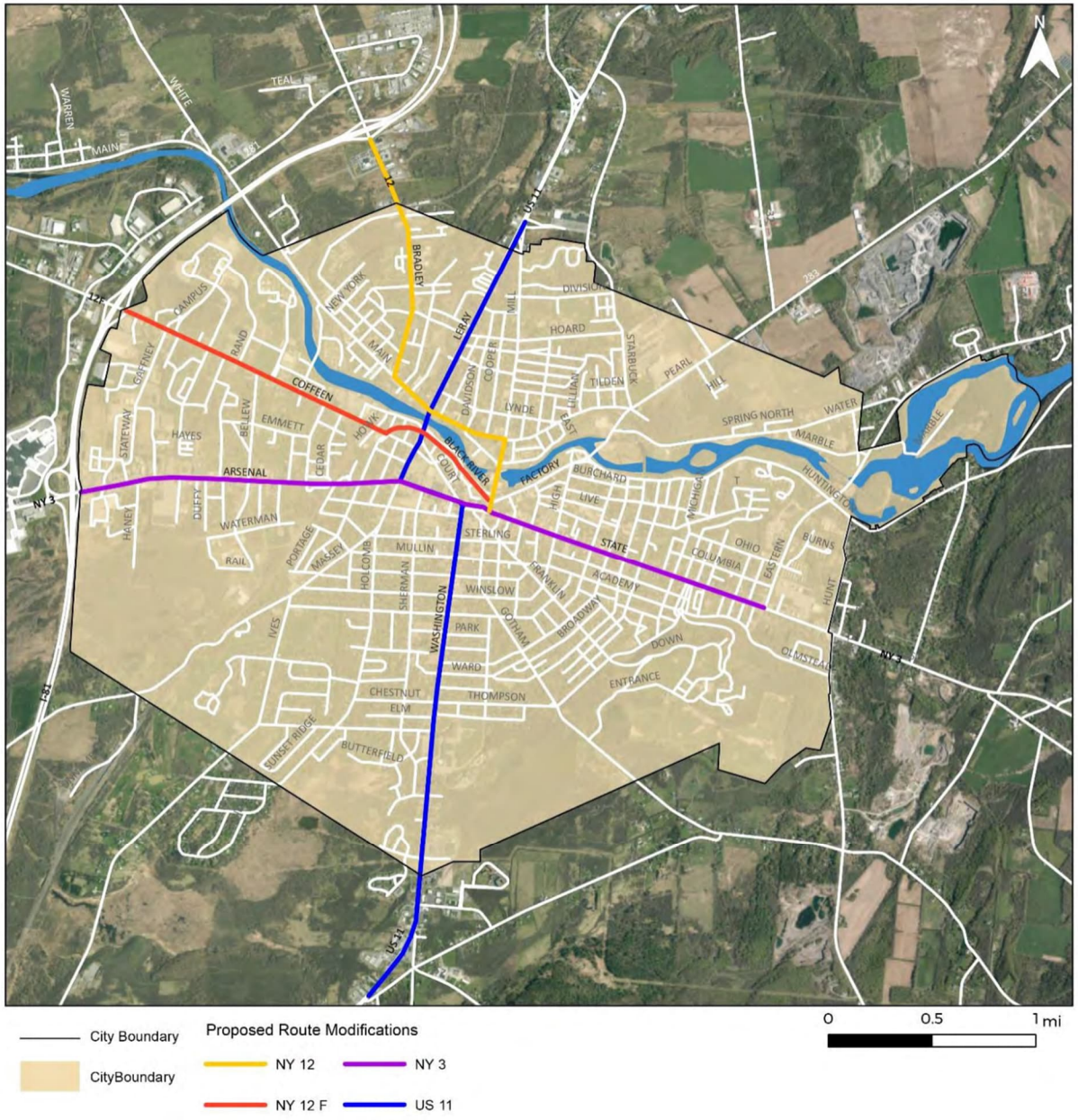


Figure 31. Proposed Truck Route Structure Throughout Watertown (2022 Watertown Truck Route Study)



Safety

The number of annual crashes in the WJCTC area has fluctuated over the past eight years, increasing to a peak between 2017 and 2019, followed by a decrease. The City of Watertown had the highest number of crashes of the towns, villages and cities in the MPO, with 1,129 crashes in 2022. The following figures represent crash data which include property damage crashes, in addition to personal injury and fatality crashes in the City of Watertown and Jefferson County between 2017 and 2022. The Jefferson County data is inclusive of the City of Watertown data. The source of this data is the NYSDOT CLEAR Crash Data Viewer.

Figure 32. Comparison of Total Crashes in Watertown and Jefferson County

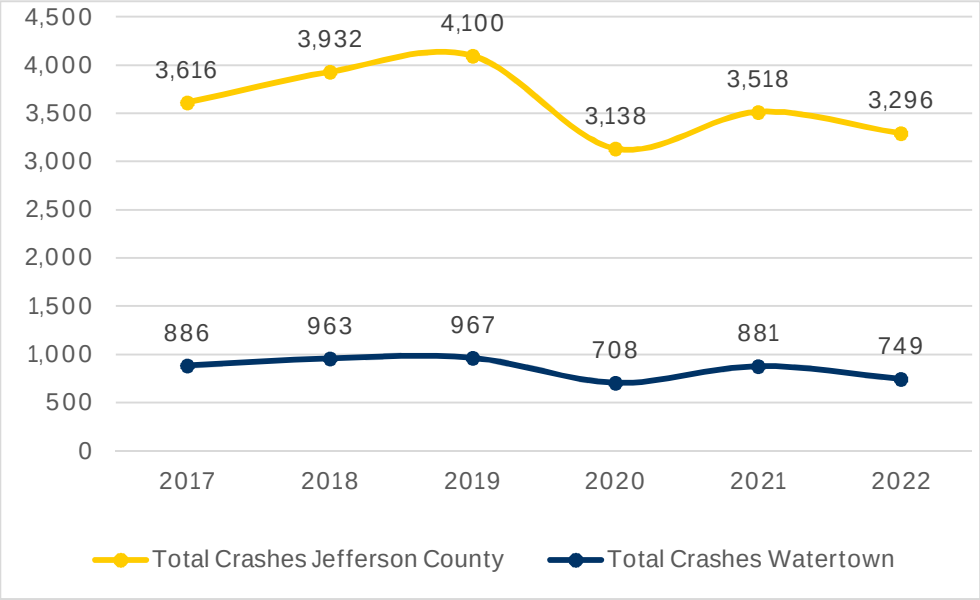
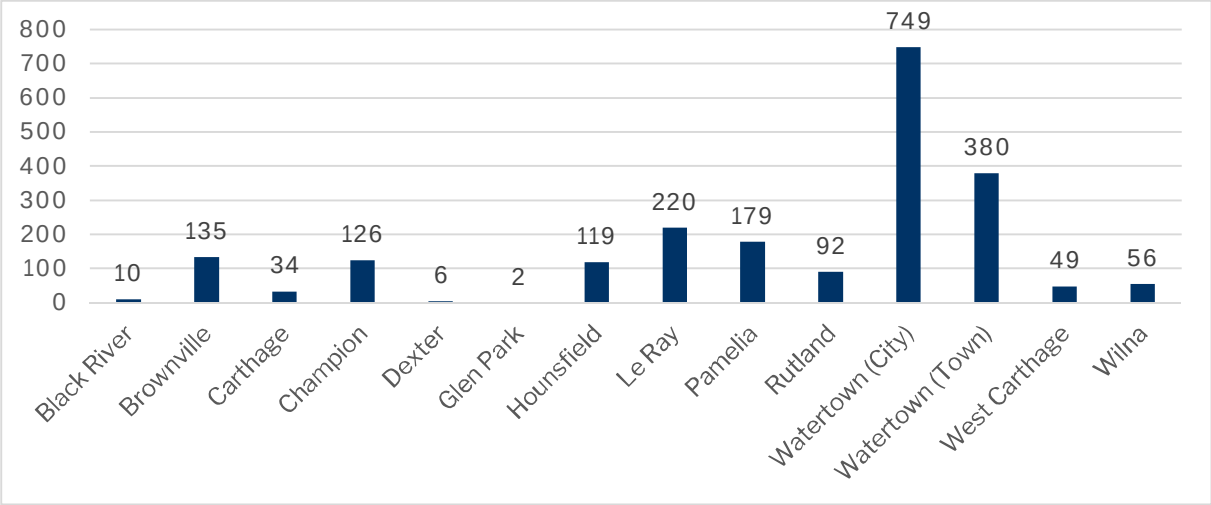
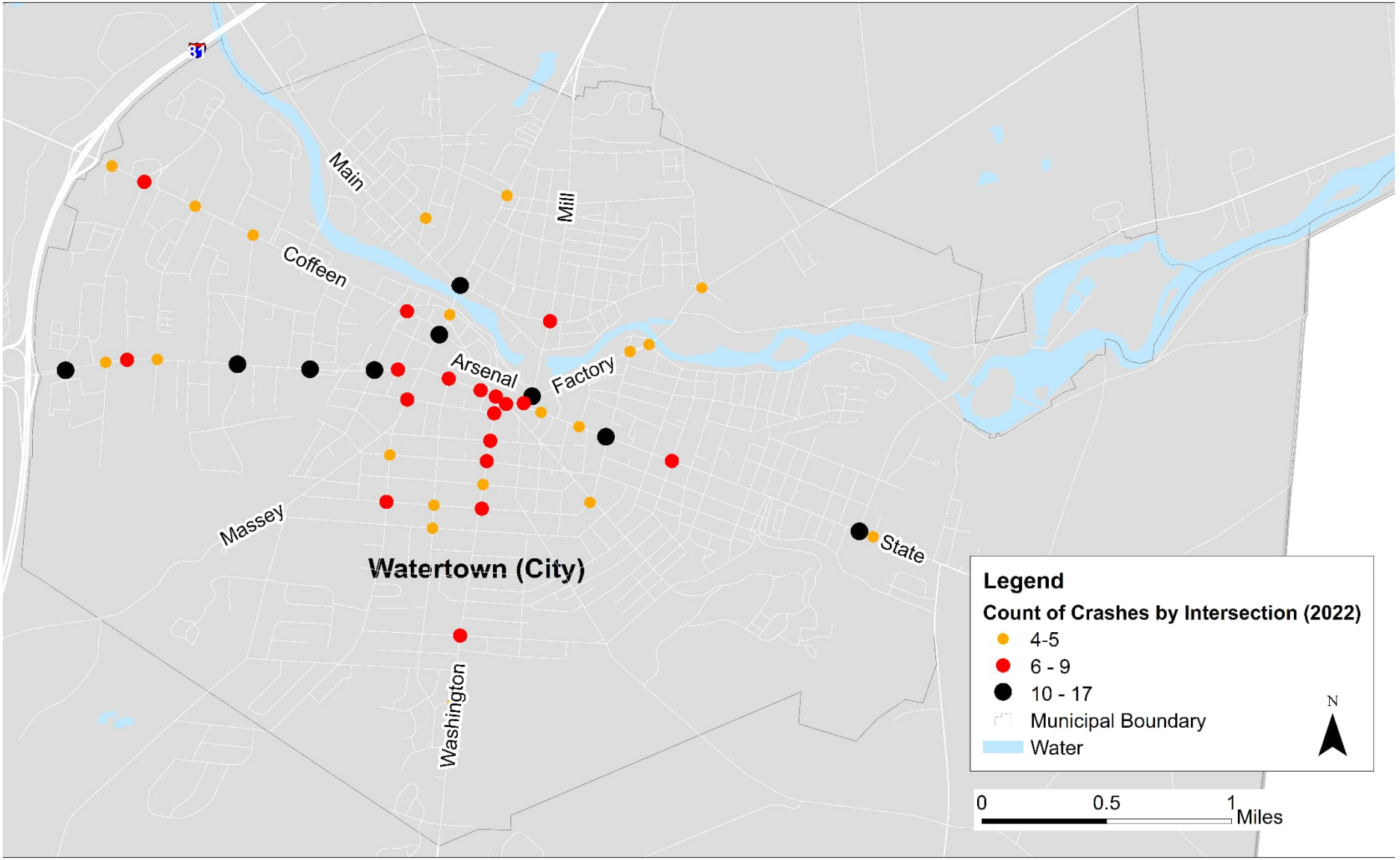


Figure 33. Total Crashes in WJCTC Municipalities, 2022



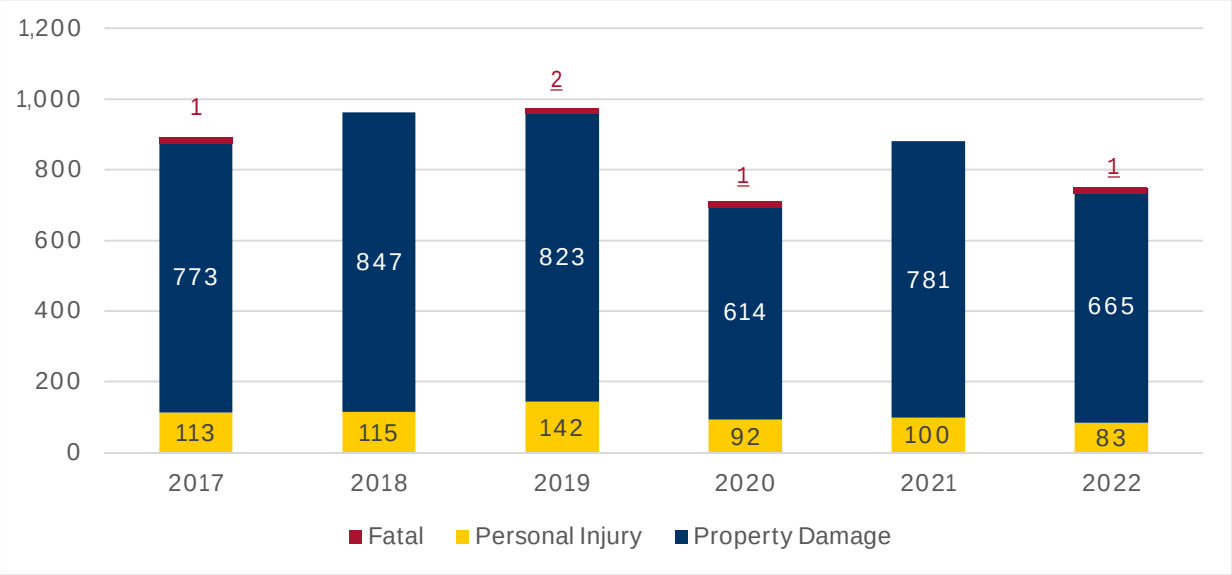
The City of Watertown intersections with the highest volume of crashes in 2022 are displayed in Figure 34. Crash location data from 2022 shows that the highest frequency of crashes in the City of Watertown occurred on Arsenal Street, Washington Street, State Street, and Coffeen Street.

Figure 34. Locations in Watertown Experiencing the Most Crashes, 2022



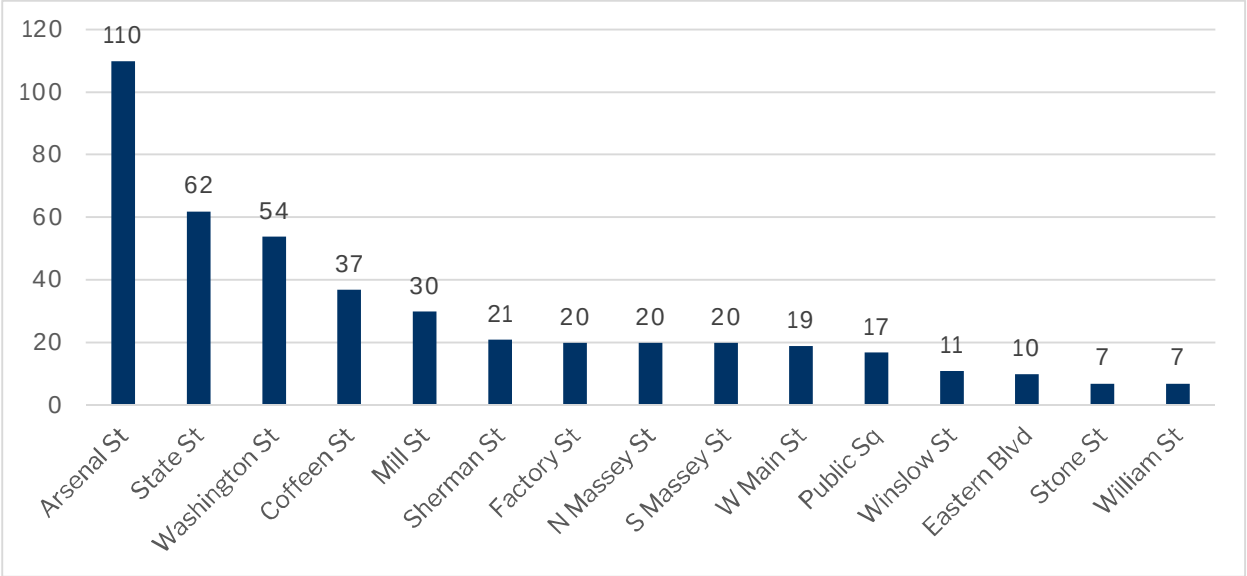
Between 2017 and 2022, the most common contributing factors to crashes in Jefferson County were unsafe speed, driver inattention/distraction, following too closely, slippery pavement, failure to yield right-of-way, backing unsafely, and improper passing or lane usage. Most crashes in Watertown resulted in property damage and 11%-15% resulted in personal injury.

Figure 35. Watertown Crashes



Watertown's highest volume of crashes in 2022 occurred on Arsenal Street, State Street and Washington Street, which all had more than 50 crashes. These four streets are all main streets with high traffic volume connecting the center city to suburban area. Since a road diet was implemented on part of Washington Street, crashes have decreased over 44% since their peak in 2019 (97 crashes) to 2022 (54 crashes).

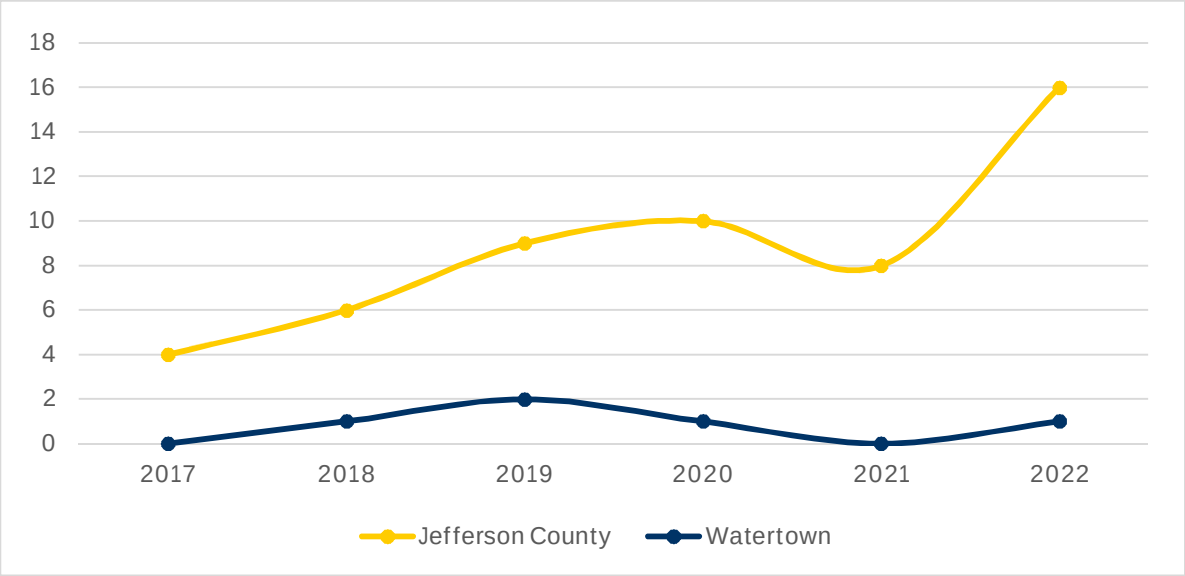
Figure 36. Watertown Crashes by Street, 2022



Fatal Crashes

Jefferson County's fatal crash rate has increased between 2017 and 2022, with sixteen fatal crashes in 2022. The City of Watertown has remained relatively stable with one fatal crash in 2022. The lower proportion of fatal crashes to total crashes in Watertown is likely the result of the lower traffic speeds normally seen in urban areas, as all roads within the City of Watertown have posted speed limits of 30 mph or lower.

Figure 37. Fatal Crashes in Jefferson County and Watertown, 2017-2022



The TIP for 2022 to 2027 includes improvements to high-crash intersections, including pedestrian signal improvements at Public Square, the intersections of Main Street and Mill Street, Washington Street at intersections with Sterling Street and Academy Street, and the intersection of Arsenal and Sherman Street. Pavement resurfacing has been completed on Arsenal Street spanning the high-crash intersections with Breen Avenue, Bellew Avenue, and South Meadow Street, and on Massey Street from the Court Street Bridge to Clinton Street.

Statewide Highway Safety Programs

The New York State Strategic Highway Safety Plan (SHSP) is a key guiding document that provides strategies to reduce and prevent fatal and serious injury crashes. The 2023 SHSP identifies seven emphasis areas, which include intersections, vulnerable road users, roadway departures, age-related, road user behaviors, aggressive driving, and alternate road vehicles and commercial vehicles. The Plan considers data and emergency response as cross-cutting considerations due to their applicability on all crash types and causes.

On behalf of Federal Highway Administration (FHWA), NYSDOT implements the Highway Safety Improvement Program (HSIP) which is aimed at providing funding to improve infrastructure. All public roads within the state, including local roads, are eligible to receive HSIP funds. These projects must meet the safety objectives identified in the SHSP and include improving safety for pedestrians, improving data analysis tools and capabilities, improving the design and operation of highway intersections, decreasing fatalities resulting from travel lane departures, and improving work zone safety. As discussed in 23 CFR § 490.207 (National Performance Management Measures for the Highway Safety Improvement Program) and 23 CFR § 490.209 (Establishment of Performance Targets), MPOs must establish a target or agree to support the statewide targets for each of the following performance measures for carrying out HSIP:

- Number of fatalities

- Rate of fatalities
- Number of serious injuries
- Rate of serious injuries
- Number of non-motorized fatalities and non-motorized serious injuries

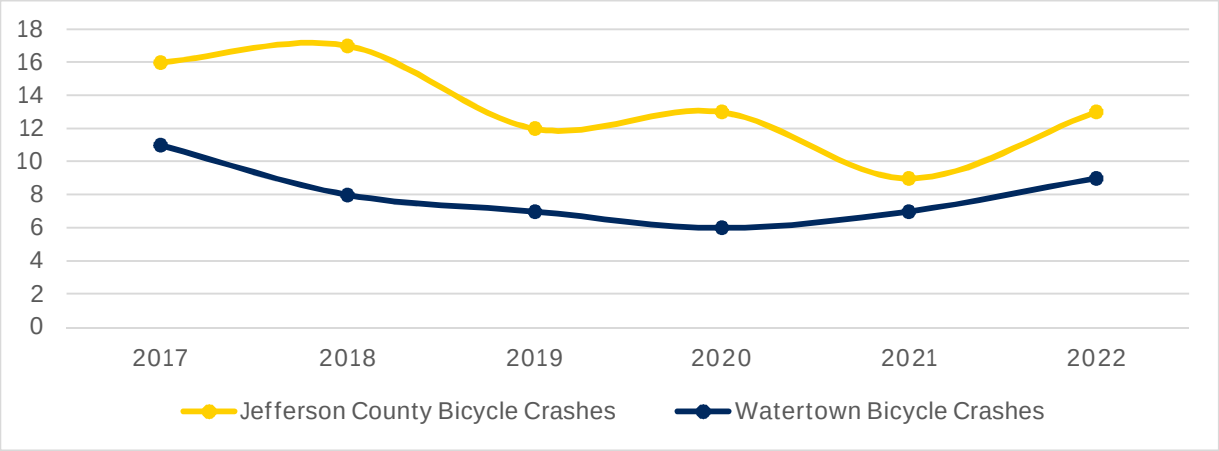
In addition to highway safety programs administered at the federal level, NYSDOT has various programs and initiatives to improve highway related safety in the state. These programs are developed and implemented through the Highway Safety Planning Section of NYSDOT.

Safety grants to reduce deaths and serious injuries on roadways are also granted through the Governor's Traffic Safety Committee (GTSC). GTSC is led by the Commissioner of the Department of Motor Vehicles (DMV). Grants through GTSC are available for state, local, and not-for-profit agencies.

Bicycle/Pedestrian Safety

Interactions of bicycles and pedestrians with vehicular traffic is a major consideration to safety. Jefferson County has been experiencing between nine and seventeen bicycle-motor vehicle crashes per year since 2017. Sixty percent of bicycle-motor vehicle crashes in Jefferson County occurred within the City of Watertown. Improving bicycling safety is obviously important for reducing injuries to people riding bicycles but safer cycling would also encourage more people to cycle.

Figure 38. Bicycle/Motor Vehicle Crashes, 2017-2022

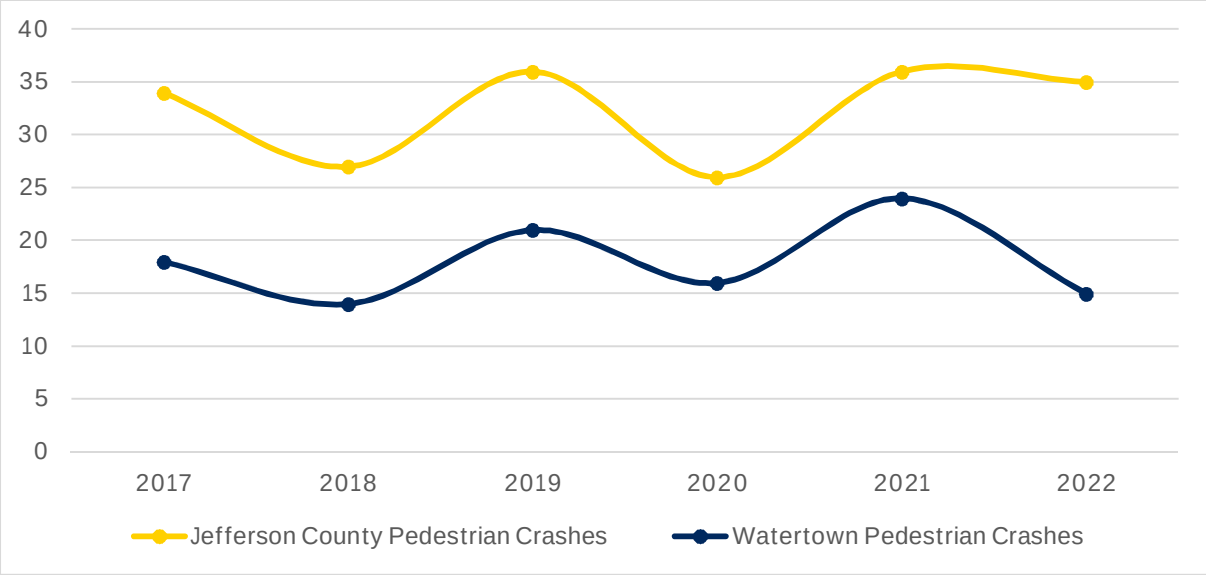


The safest and most secure option for bicyclists is off-street or physically separated infrastructure and should always be the first choice rather than continued reliance on shared lanes. On-street bikeways bring benefits of a more complete bike network but also require a higher level of confidence. Improvement to signage and street markings identifying and encouraging awareness of cyclists in shared lanes with decrease the conflict between cars and bicyclists.

Pedestrian collisions are often the result of the lack of convenient or accessible sidewalks or crossings. Jefferson County has experienced between 26 and 36 pedestrian-motor vehicle crashes per year since 2017. About 56 percent of pedestrian crashes in Jefferson County occurred within the City of Watertown.

Bicycle and pedestrian safety enhancements and projects that create additional comfortable opportunities for bicyclists and pedestrians should be considered for future capital projects. The City of Watertown has adopted a Complete Streets policy that requires that bicycle and pedestrian accommodations be considered when undertaking capital projects on roadways. In addition, the City of Watertown has also adopted Complete Streets Design Guidelines that provide City staff as well as community residents and developers with a reference when designing City street improvements.

Figure 39. Pedestrian/Motor Vehicle Crashes, 2017-2022



Pedestrian Safety Around School Districts

Pedestrian safety around the schools is a concern due to high volume of vehicular traffic and high pedestrian numbers. In 2017, The City of Watertown implemented a road diet on Washington Street, near Case Middle School and Watertown High School, converting the roadway from 4 lanes to 3 lanes, thus reducing vehicle speeds. Other areas may wish to consider road diet projects and implement Complete Street elements near schools to improve safety. Continued encouragement is needed to get more students to walk to school rather than being driven, which will help reduce higher traffic volumes around schools.

Security

Federal Security

Federal security is implemented at the U.S.-Canada border at two border posts: the Alexandria Bay Port of Entry (on the U.S. side) and the Wellesley Port of Entry (on the Canadian side). The U.S. Customs and Border Protection Alexandria Bay Port of Entry processes small boats, private aircrafts, and vehicular traffic over the Thousand Islands Bridge traveling between the U.S. and Canada. International travel is also

facilitated by a privately operated, seasonal ferry providing transport from Cape Vincent, NY to Wolfe Island, ON. U.S. Customs and Border Patrol enforces federal customs and navigation laws at these points of entry (19 CFR 101.1).

Federal aviation security regulations apply to the Watertown International Airport. The airport complies with Transportation Security Administration rules. Jefferson County prepared a Tarmac Contingency Plan in 2017 pursuant to §42301 of the FAA Modernization and Reform Act of 2012.

Gate Restrictions at Fort Drum require background check security systems. These systems use a high-level identity matching engine to determine the clearance of the individual entering the facility and their military credentials. The presence of this security gate necessitates the need for transit vehicles and rideshare/ taxis to pick-up/ drop-off passengers at the entry. The presence of Fort Drum within the WJCTC generates additional security needs along adjacent roadways.

Major Projects Ongoing or Underway in the Near Term

- NY Route 12E over Black River (Brownville Bridge)

This project replaces the Brownville Bridge which carries Route 12E over the Black River with a new bridge located approximately 0.6 miles to the west of the existing bridge. A Planning Study has been completed and the project is currently in construction.

- NY Route 342 over Interstate 81

This project will replace the bridge that carries Route 342 over Interstate 81 and reconfigure ramps at I-81 interchange 48 to improve operational characteristics. The project is located in the Town of LeRay and the anticipated let date is in 2026.

Overall Transportation Challenges and Opportunities

Overall transportation challenges and opportunities in the WJCTC region are summarized in Table 17 and discussed in further detail below. These challenges and opportunities are derived from technical analysis and supplemented by stakeholder and community input.

Table 17: Overall Transportation Challenges and Opportunities

Transportation Challenges	Transportation Opportunities
Watertown's radial street network and designated truck routes create traffic bottlenecks in downtown Watertown, particularly around Public Square.	Implement recommendations of the Watertown Truck Route Study (2022) to support economic development and public safety.
The Watertown Public Safety Building and City Industrial Park (co-located on the same site) are limited by one access point. The limited access to this site creates challenges related to commercial vehicle congestion and response of emergency services.	Implement recommendations of the Public Safety Building & City Industrial Park New Access Study (2022) to provide secondary access and alleviate congestion.

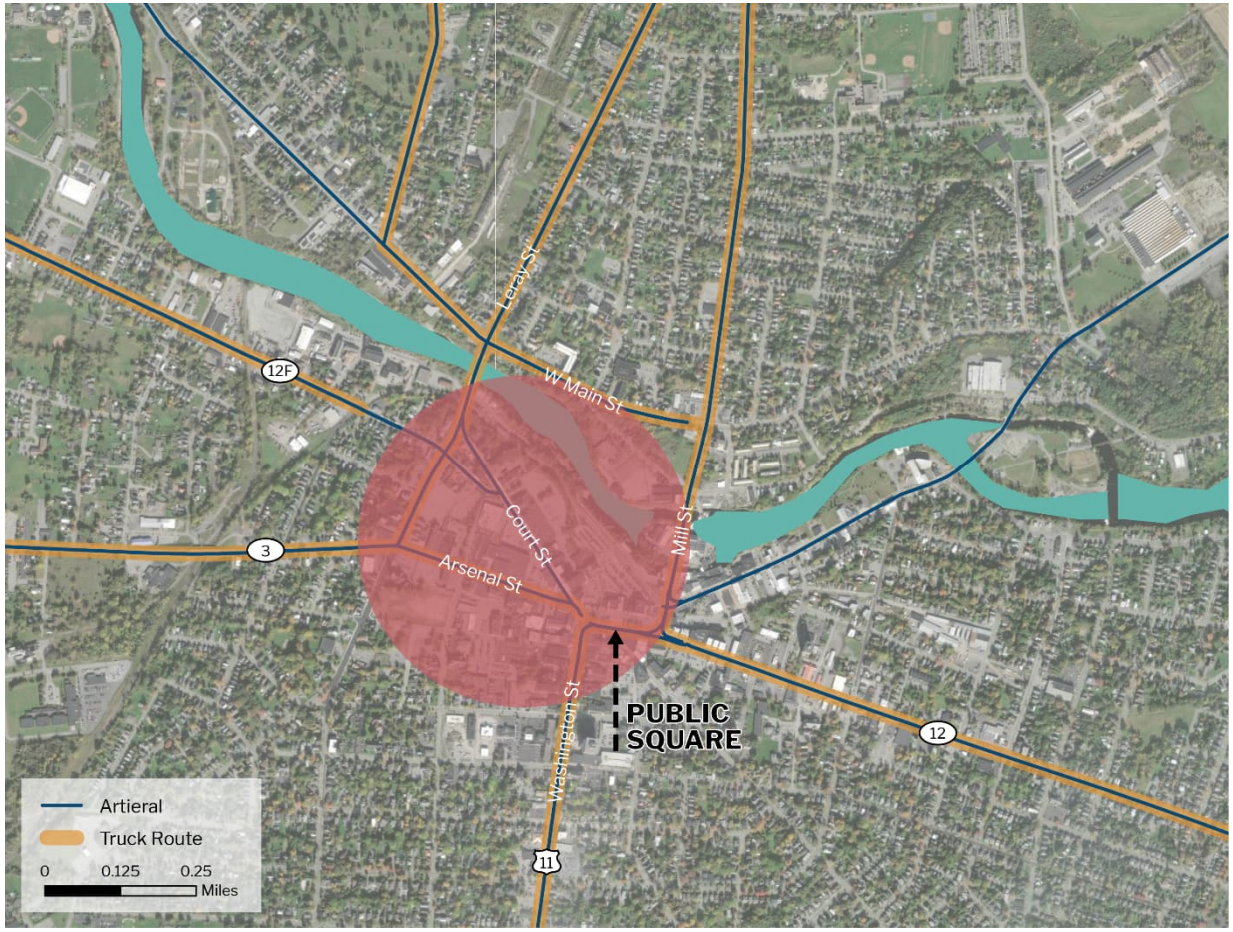
Transportation Challenges	Transportation Opportunities
There is lack of adequate and connected facilities for bicyclists and pedestrians, particularly on high-traffic corridors such as NY Route 3 and NY Route 26.	Implement recommendations of WJCTC Bicycle and Pedestrian Study (2022) to enhance nonmotorized connections to businesses, services, parks, and tourist destinations. Additionally, enhance the comfort and safety of pedestrians in Public Square.
Need for more public transportation services and alternative options to driving, particularly outside of the City of Watertown.	Optimize CitiBus services and pursue new mobility services such as regional/rural transit and connections to Fort Drum. Implement a county-wide transit service complimented by first-mile/ last-mile connections to provide regional mobility services.
Need to better serve disadvantaged communities, including the region's low-income, aging, and mobility-impaired populations.	Ensure that transportation investments are providing equitable investment in disadvantaged communities and are enhancing connections to/ from affordable housing.
Need to adapt the region's transportation system to accommodate electric vehicles and to withstand and recover from potential future disruptions including the impacts of human and natural caused events.	Advance regional transportation resilience strategies through the forthcoming WJCTC Resiliency Study and Electric Vehicle Plan.

Watertown has a radial street network with major arterials bisecting the city core. Over the years, this alignment has created bottlenecks for traffic leading in and out of the downtown area, particularly around the Public Square. The conjunction of NY Route 3 with NY Route 12 and US 11 at Public Square complicates the flow of traffic during morning and evening peak hours.

The section of downtown around Public Square has designated truck routes, which may contribute not only to congestion and traffic bottlenecks, but also conflicts for pedestrians accessing the area. Moreover, the substantial noise generated by heavy truck traffic could detract from the ambiance of the Public Square, and may deter certain activities like outdoor dining. The lack of clear signage around Public Square could be a contributing issue to such impacts of truck traffic around Public Square.

Figure 40 identifies major arterials that cut through Downtown Watertown, along with road segments designated as truck routes. The signing of state routes is confusing and could be updated to create an accurate and seamless NY 12 and US 11 route through Public Square. The 2022 Watertown Truck Route Study recommended a series of signage, technology, routing, treatments, and administrative actions to help trucks avoid Public Square, congested intersections, and residential streets. This Long Range Transportation Plan recommends improvements to Public Square, truck routing, and waterfront access through future transportation strategies in Chapter 5 to enhance pedestrian and public space opportunities while redirecting truck traffic away from Public Square and reducing vehicular traffic impacts.

Figure 40. Downtown Watertown Circulation Bottlenecks



Additionally, there are challenges associated with limited access to the Watertown Public Safety Building and City Industrial Park, which inhibits response times from emergency services and creates commercial congestion due to heavy truck traffic originating from the industrial park and other commercial land uses along Bellew Avenue. The site has only one access point, using Bellew Avenue, to access Arsenal Street, and this intersection features a tight turning radius that often results in trucks driving over the curb. In 2022, WJCTC undertook a Public Safety Building & City Industrial Park New Access Study to assess opportunities for secondary access to the industrial park and public safety building. Recommended alternatives for further study are shown in Figure 41 below. These include a near-term alternative using Coleman Avenue through the existing plaza parking area, improvements at the S. Bellew Avenue and Arsenal Street intersection and constructing an additional spur to accommodate the needs of both the public safety building complex and industrial park. The long term recommendation for further study is to construct an additional corridor parallel to Arsenal Street to mitigate heavy vehicle traffic.

Figure 41. Recommended Alternatives for Further Study from the Public Safety Building & City Industrial Park New Access Study

Stakeholders and members of the public also identified the need to improve shared and active transportation options including public transportation, new mobility services, walking, and biking. Transit demand is growing, especially among the region's aging population and people with mobility impairments. Existing public transportation services largely address travel needs for groceries and medical appointments, but opportunities for social and recreational trips are lacking. CitiBus provides paratransit service within the City of Watertown, but there are limited transit options outside the City. CitiBus is currently restructuring routes to better reach key activity centers such as BOCES. To address regional needs for more transit coverage, Jefferson County is working to establish a regional public transit service that would include several fixed-routes and demand-responsive first-mile, last-mile that would feed into the CitiBus Routes. This effort is described in Chapter 5 as a multi-modal transportation system improvement project.

The federal Justice40 initiative and New York State Climate and Community Protection Act provide frameworks for the region to prioritize transportation investments to best serve disadvantaged communities and improve social, environmental, and health outcomes. New federal initiatives and funding programs under the Bipartisan Infrastructure Law (2021) and Inflation Reduction Act (2022) have created dedicated funding opportunities for projects that support transportation resilience and the transition to electric vehicles. The WJCTC's forthcoming Resiliency Study and EV Plan will guide the region to capitalize on these funding opportunities and position itself for a resilient future.

CHAPTER 5 - FUTURE TRANSPORTATION SYSTEM

The future transportation system for the WJCTC region will be based on the goals and objectives outlined in Chapter 3, meet the federal and state planning targets outlined by FHWA and NYSDOT, and provide the residents, businesses, and visitors of Watertown with an inter-connected, multi-modal transportation system. Further discussion of the potential impacts of future transportation recommendations is provided in Chapter 7.

Input from the WJCTC Policy Committee and stakeholder and public engagement process along with analysis of existing transportation conditions and data outlined in Chapter 4 led to the identification of multi-modal transportation opportunities and strategies that should be considered as part of the development of this Long Range Transportation Plan.

Recommended Future Transportation Strategies

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

- System Preservation, Maintenance, and Operations
- Multi-Modal Transportation Safety and Security
- Multi-Modal Transportation System Improvement and Expansion
- New Mobility

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 section. Further, based on the fiscal constraints of funding availability over the life of this Long Range Transportation Plan outlined in Chapter 6: 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.

Through discussions with CitiBus, the region's public transit provider, and based on information provided by the transit operator, CitiBus has indicated the ability to operate and maintain all services and facilities under their control that are outlined in this Long Range Transportation Plan.

The funding and timeline of projects is explained further in the Financial Plan in Chapter 6.

System Preservation, Maintenance, and Operations

WJCTC looks to preserve and maintain its existing transportation infrastructure in a state of good repair. This will involve investing in the rehabilitation and maintenance of roadways and bridges in the WJCTC region and using an asset management program to anticipate needs for future rehabilitation of these transportation assets. Below are some general strategies, followed by a more descriptive listing of future transportation strategies built around system preservation, maintenance, and operations.

- Undertake routine preventive and corrective maintenance on the area's transportation system to keep it in a state of good repair for all modes of transportation.
- There may be opportunities to reduce maintenance and operational costs by developing a more efficient transportation system by exploring innovative ways to reduce maintenance and operational costs, rightsizing roadways, optimizing traffic signal operations, and using Intelligent Transportation Systems (ITS) elements.
- There may be opportunities to increase resiliency and sustainability of the transportation system through preventative and corrective measures and by using best practices for sustainability.

Below are specific system preservation, maintenance, and operational transportation strategies that the WJCTC looks to implement during the life of the Long Range Transportation Plan.

Table 18. Recommended Future System Preservation, Maintenance, and Operations Strategies

Project Type	Project	Project Description	Location
Bridge	NY Route 12E over Black River (Brownville Bridge)	Based on a preferred alternative identified in the planning study, replace bridge structure over Black River with a new bridge structure.	Towns of Hounsfield and Brownville, Village of Brownville
Bridge	Mill Street over Black River	Undertake major repairs to or replace bridge structure near Knowlton Technologies	City of Watertown
Bridge	NY Route 232 over CSX Railroad	Replace bridge deck and make other repairs as needed.	Town of Watertown
Bridge	Noble Street over West Creek	Undertake major repairs to or replace bridge structure	Village of Evans Mills
Bridge	Bradley Street over Kelsey Creek	Undertake major repairs to or replace bridge structure	City of Watertown
Bridge	NY Route 342 over I-81	Replace bridge structure and reconfigure ramps	Town of Pamelia
Bridge	I-81 over Philomel Creek	Undertake major repairs to or replace both I-81 bridge structures	Town of Pamelia
Bridge	NY Route 3 over Felts Mills Creek	Undertake major repairs to or replace bridge structure	Town of Rutland

Project Type	Project	Project Description	Location
Bridge	12E over Perch River	Replace bridge structure	Town of Brownville
Bridge	Route 126 over Black River	Repairs to address deficient elements on bridge	Village of Carthage and Village of West Carthage
Intersection	Intersection of Pearl Street and Main Street East	Traffic signal operational improvements and change from single-phase to protected-permitted phasing to improve overall intersection LOS	City of Watertown
Highway	Route 3A from Deferiet to Fargo	Implement signal and physical improvements to address issues with safety, queuing, and delays.	Town of Deferiet, Town of Fargo
Highway	NY Route 342 from NY Route 37 to NY Route 283	Resurface 4.9 miles of NY Route 342	Town of Pamelia, Town of LeRay
Highway	NY Route 26 from NY Route 126 to NY Route 3 and from Great Bend to US Route 11	Resurface 10.8 miles of NY Route 26	Village of West Carthage, Town of LeRay
Highway	NY Route 126 from Route 3 to Lewis County Line and from NY Route 26 to Bridge Street	Resurface 2.7 miles of NY Route 126.	Village of Carthage and Village of West Carthage
Highway	NY Route 3 from from Watertown City Line to Deferiet, and from Carthage West village line to NYS Route 126.	Resurface 12.9 miles of NY Route 3	City of Watertown, Town of Rutland, Town of Champion
Highway	Interstate-81 from NY Route 342 to Perch River	Resurface 5.5 miles of Interstate 81	Town of Pamelia
Highway	NY Route 970K from NY Route 232 to Interstate-81 southbound ramp	Resurface 0.3 miles of NY Route 970K.	Town of Watertown
Intersection	Intersection traffic signal optimization	Optimize traffic signal operations at the following intersections: • Pearl St./ Water St. • Main Street West/ Mill St. • Arsenal St./ Meadow St.	City of Watertown

Project Type	Project	Project Description	Location
Intersection	Intersection of Coffeen Street/ Black River Parkway/ Meadow Street North	Convert lane geometry on Black River Parkway approach from a shared thru/ left and right lane to a dedicated left turn lane and shared thru/ right turn lane and provide traffic signal optimization.	City of Watertown
Intersection	Interstate I-81 and Bradley Street Intersection	Implement signal and physical improvements to address issues with safety, queuing, and delays.	Town of Pamelia
Transit	CitiBus Operating Assistance	Operating assistance for City of Watertown transit operations to enable and sustain continued operation of service	City of Watertown
Transit	CitiBus Project Administration	Project administration for City of Watertown Transit Operations	City of Watertown
Transit	Preventative Maintenance	Preventative maintenance to extend the life of the City of Watertown bus fleet for transit operations	City of Watertown
Transit	Replacement of Paratransit Vehicles	Replace 2 existing City of Watertown paratransit buses to maintain a state of good repair	City of Watertown
Transit	Replacement of Transit Vehicles	Replace 3 City of Watertown transit buses to maintain state of good repair	City of Watertown
Transit	Replace Bus Engine	Replace 1 City of Watertown bus engine to extend service life of transit assets	City of Watertown
Transit	Purchase Fare Collection System	Purchase fare collection systems for City of Watertown transit operations	City of Watertown
Transit	Genfare Upgrade	Upgrade to the existing Genfare system on buses along with installation and implementation of POS systems to improve transit payment access.	City of Watertown
Transit	Transit Operating Assistance	Operating assistance for City of Watertown paratransit operations	City of Watertown
Transit	Purchase Shuttle Bus	Purchase 1 shuttle bus for City of Watertown transit operations	City of Watertown
Transit	Purchase Support Vehicle	Purchase 1 support vehicle (pickup truck with snowplow) for City of Watertown transit operations	City of Watertown
Transit	Purchase and Install Signs	Purchase and install signs for City of Watertown transit operations	City of Watertown
Transit	Purchase Vehicle Lift	Purchase 1 four post vehicle lift for City of Watertown transit operations	City of Watertown

Project Type	Project	Project Description	Location
Transit	Replace Transit Buses	Replace 2 City of Watertown transit buses to maintain state of good repair	City of Watertown
Transit	Purchase No/Low Emission Buses	Purchase 5 no/low emission buses for network expansion and transition to no emission vehicles.	City of Watertown
Transit	Enhanced Mobility for Seniors and Individuals with Disabilities	Purchase 1 new replacement vehicle to enhance mobility for seniors and individuals with disabilities	City of Watertown
Transit	Enhanced Mobility for Seniors and Individuals with Disabilities	Purchase 2 new replacement vehicles to enhance mobility for seniors and individuals with disabilities	City of Watertown
Transit	Enhanced Mobility for Seniors and Individuals with Disabilities	Purchase 2 new replacement vehicles to enhance mobility for seniors and individuals with disabilities	City of Watertown
Transit	Enhanced Mobility for Seniors and Individuals with Disabilities	Operating assistance to increase service for seniors and individuals with disabilities	City of Watertown
Transit	Construction of New CitiBus Facility	Construct a new transit garage to improve efficiency in operations.	City of Watertown
Annual	Annual Bridge Maintenance	Annual allowance for bridge maintenance activities	WJCTC
Annual	Annual Highway Resurfacing and Maintenance	Annual allowance for highway resurfacing and routing maintenance	WJCTC
Annual	Annual Traffic Signal Improvements	Annual allowance for traffic signal improvements and optimization	WJCTC

Multi-Modal Transportation Safety and Security

The Long Range Transportation Plan aims to encompass an active and wide-ranged approach towards safety and security by providing a framework under which areas are identified for appropriate improvements. Some general strategies aimed at improving the safety and security of the transportation system include:

- Continue coordination of emergency preparedness amongst communities, public safety, transportation providers and operators, emergency responders, and especially Fort Drum.
- Undertake planning level safety studies for corridors or intersections identified has having high crash rates. Crash data from 2016 shows that the highest crash frequency occurred on Arsenal Street, Washington Street, State Street, and Coffeen Street, outlined further in Chapter 4. These corridors should be studied further to identify causes of crashes and potential safety improvements.
- Promote awareness and enforcement of traffic laws, particularly near school zones where pedestrian activity is high.

- Identify locations where highways can be made safer for multi-modal transportation such as complete streets, road diets, Safe Routes to Schools, etc. Sidewalks should be included along federal aid roadways, especially where trip destinations exist that would accommodate non-motorized transportation.
- When undertaking route system preservation, maintenance, and operational projects, WJCTC will consider the vulnerabilities of transportation assets to anticipated natural and human-caused hazards and include features that improve resiliency and recovery of these assets.

Below are specific multi-modal transportation safety and security strategies that the WJCTC looks to implement during the life of the Long Range Transportation Plan.

Table 19. Recommended Future Multi-Modal Transportation Safety and Security Strategies

Project Type	Project	Project Description	Location
Intersection	NY Route 3 (Arsenal Street) at S. Bellew Avenue	Geometric improvements to the intersection of Arsenal Street and S. Bellew Avenue to provide safer and more efficient ingress and egress for City Center Industrial Park	City of Watertown
Intersection	I-81 Exit 48 Off Ramp to NY Route 342	Implement safety improvements to off-ramp intersection with NY Route 342.	Town of Pamelia
Intersection	NY 12 interchange with I-81 (Exit 47)	Implement turn lanes with interchange at truck stop.	Town of Pamelia
Intersection	Intersection of S. Massey Street/ Holcomb Street/ Clinton Street	Make geometric and safety improvements to intersection which currently consists of multiple odd-angle intersections resulting in safety and operational issues	City of Watertown
Intersection/Pedestrian	Pedestrian Signal Improvements	Install or upgrade pedestrian signals at six intersections. Upgrades will include countdown timers, high visibility pavement markings, accessible pedestrian signals, and upgrades to sidewalk ramps as needed.	City of Watertown
Railroad Crossing	MWHA rail crossing at State Street	Railroad crossing improvements at the State Street – MWHA rail crossing to improve safety for the traveling public,	Village of Carthage
Railroad Crossing	CSX railroad overpass at South Massey Street.	Implement safety improvements to address height and width issues with railroad overpass.	City of Watertown

Project Type	Project	Project Description	Location
Freight	Reroute Designated Truck Routes in Watertown	Revise the existing designated truck routing between I-81 and Public Square to remove portions of Coffeen Street and Arsenal Street between I-81 and Public Square from the designated truck routing and replaced with a designated truck route along Bradley Street and W. Main Street (NY Route 12) between I-81 and Mill Street. Designated truck routing would continue along Mill Street, completing the gap in designated truck routing through Watertown using this route to get to designated truck routes east and south of Public Square (see further description below)	City of Watertown
Intersection/ Freight	W. Main Street intersections with Bradley Street, US 11 (Leray Street), Mill Street, and Pearl Street	Improve intersections to better accommodate the movement of truck traffic.	City of Watertown
Bike/Ped	Watertown Public Square	Provide safety improvements, traffic calming, and walkability enhancements to Public Square	City of Watertown
Transit	Purchase Tracking System	Purchase tracking system for City of Watertown transit operations	City of Watertown
Transit	Purchase Security Equipment	Purchase security equipment for rolling stock and transit facility	City of Watertown
Annual	Annual Highway Safety Improvements	Annual allowance for highway and intersection safety improvements	WJCTC
Annual	Annual Bike/Ped Improvements	Annual allowance for bike/ ped safety improvements	WJCTC

Multi-Modal Transportation System Improvement and Expansion

An enhanced and expanded multi-modal transportation system will offer the City of Watertown and the surrounding area an organized and well-connected network that provides mobility and connectivity across the region. The measure of a good multi-modal network is the seamless use of different modes simultaneously on the transportation system that allows for reliable alternatives. The WJCTC encourages an integrated multi-modal transportation system with efficient connections between modes that will support economic development and help to strengthen regional tourism as well as support efficient and appropriate movement of freight. Further, the WJCTC seeks to improve transit and bike/ pedestrian alternatives to driving that are convenient options providing quality movement to people dependent on non-auto centric transportation.

- Expand and enhance the bicycle and pedestrian infrastructure throughout the City of Watertown and across the region, developing a network of biking and pedestrian trails. This includes implementing the Empire State trail system through the region and providing

multiple regional bicycle connections. The implementation of Complete Streets on both urban and rural roadways can improve overall safety and mobility by providing opportunities for motorized vehicles, transit, bicycle, walking, and goods movements. The City of Watertown has adopted a Complete Streets policy that requires that bicycle and pedestrian accommodations be considered when undertaking capital projects on roadways. This policy should continue to be utilized.

- Look into opportunities for siting of new rail sidings at strategic locations to more efficiently and cost-effectively ship bulk goods, potentially aiding the agricultural and logistics industries.
- Look into opportunities for improving truck delivery access and cost-effectiveness for industries across the Watertown region.

Below are specific multi-modal transportation improvement and expansion strategies that the WJCTC looks to implement during the life of the Long Range Transportation Plan.

Table 20. Recommended Future Multi-Modal Transportation Improvement and Expansion Strategies

Project Type	Project	Project Description	Location
Highway	S. Bellew Avenue Extension	Extend S. Bellew Street over CSX Railroad to intersect with Massey Street to provide the City Center Industrial Park a secondary means of ingress and egress. This will help with truck access as well as emergency access and create new opportunities for system connectivity and reliability.	City of Watertown
Highway/ Freight	Black River Parkway Bypass	Construct a new or improved roadway using a combination of Scio and N. Meadow Streets between Arsenal Street and Coffeen Street to create a Public Square bypass route that would use Black River Parkway as a bypass extending from Mill Street to Arsenal Street.	City of Watertown
Highway	Black River Parkway Extension	Using the Black River bypass route outlined above or a new roadway along the railroad right-of-way, continue Black River Parkway bypass route south of Arsenal Street to intersect with a newly constructed S. Bellew Avenue extension, resulting in a bypass from Mill Street around to S. Massey Street.	City of Watertown
Highway	Arsenal Street Bypass	In conjunction with the above mentioned Black River Parkway bypass and extension, construct a new roadway along an abandoned railroad right-of-way parallel to Arsenal Street that would connect S. Bellew Avenue in the City Centre Industrial Park with Arsenal Street near the intersection of Towne Center Drive, west of I-81 creating a bypass for traffic traveling between I-81 and central Watertown, bypassing Arsenal Street and freeing up capacity on Arsenal Street.	City of Watertown
Bike/Ped	Black River Waterfront Access	Enhance bike/ped accessibility to Black River waterfront area and to Black River Trail from Public Square.	City of Watertown

Project Type	Project	Project Description	Location
Bike/Ped	Black River Trail Western Extension	Extend Black River Trail west to connect Eastern Boulevard with Factory Street.	City of Watertown
Bike/Ped	Black River Trail Extension	Extend Black River trail to provide connection to Fort Drum.	Village of Black River and Town of LeRay
Bike/Ped	Black River Trail Extension	Extend Black River trail east-west across the region, ultimately connecting communities along the Black River from Carthage to Lake Ontario and enhancing bike/ hike tourism.	WJCTC
Bike/Ped	Watertown to The Thousand Islands trail	Provide bicycle connection between Watertown and Thousand Islands Bridge to Canada.	WJCTC
Bike/Ped	Install or Upgrade Ped Signals	Install and/or upgrade ped signals at 6 intersections.	City of Watertown
Bike/Ped	Complete Streets Improvements	Implement Complete Streets projects on Scio Street, Sill Street, Green Street, Coleman Avenue, the outermost segment of Gotham Street, and the segment of Arsenal St. that is within downtown.	City of Watertown
Transit	Purchase and Construct Transit Shelters	Purchase and construct 12 passenger shelters for City of Watertown transit operations.	City of Watertown
Transit	CitiBus Route Restructure and Expansion	Restructure and expand CitiBus transit service, adding stops and another route, to reach the Jefferson-Lewis BOCES facility and the Samaritan Summit Village apartments in the Town of Watertown.	Town of Watertown
Transit	Regional Jefferson County Transit Service	Establish regional transit service in Jefferson County that feeds into Watertown and CitiBus services through fixed routes and demand-response service.	Jefferson County

Public Square and Truck Routing

Watertown's Public Square is a unique place. Moving forward, care should be taken to ensure it is an attractive place for pedestrians and bikes to move throughout the space as well as become a community gathering and event place. Managing traffic through the square, especially freight is crucial to encourage this movement. There is a desire by the City of Watertown to enhance walkability of Public Square which could include some reconfiguration of Public Square to open more pedestrian and open spaces. These efforts resonate with the City of Watertown's 2019 Comprehensive Plan, which recommends improving the walkability of downtown.

The freight truck traffic through the square is particularly prominent because designated truck routes from multiple directions terminate near Public Square, combined with the lack of clear signage. Truck traffic is generated by and destined for the Watertown Industrial Area on Pearl

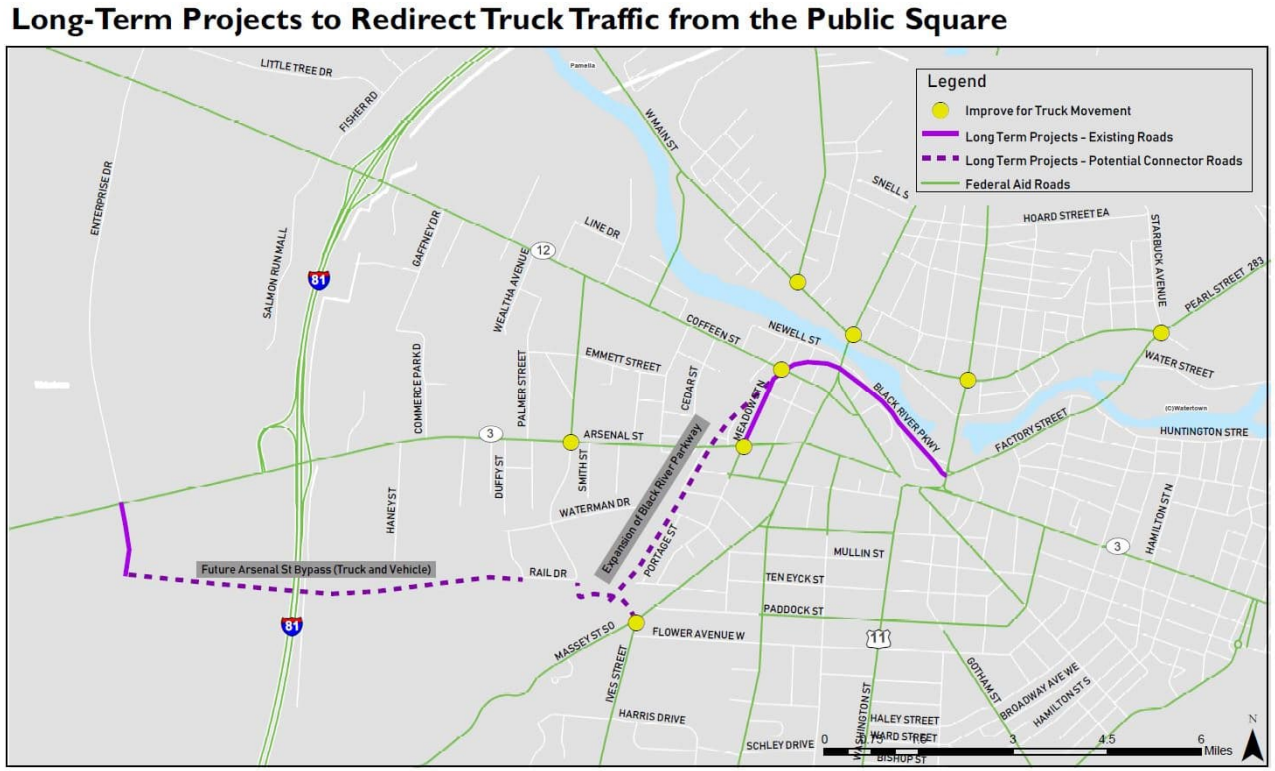
Street. This is detrimental to all other activities in the square and leads diminished enjoyment of pedestrians in the downtown area. Alternate routes for the trucks should be explored to remove thru trucks from Public Square and conducting a Truck Routing Study is recommended as a follow up UPWP item.

A short-term solution proposed is to revise the existing designated truck routing between I-81 and Public Square to remove portions of Coffeen Street between I-81 and Public Square from the designated truck routing and replaced with a designated truck route along Bradley Street and W. Main Street (NY Route 12) between I-81 and Mill Street. Designated truck routing would continue along Mill Street, completing the designated truck routing through Watertown using this route to get to designated truck routes east and south of Public Square. This rerouting can help reduce the number of trucks using city streets to access their destinations.

A longer-term concept could be to develop a bypass route in which thru traffic could bypass Public Square, and eventually Arsenal Street through a combination of the following strategies, also portrayed in Figure 42:

- Extend S. Bellew Street over CSX Railroad to intersect with Massey Street to provide the City Center Industrial Park a secondary means of ingress and egress. This will help with truck access as well as emergency access and create new opportunities for system connectivity and reliability.
- Construct a new or improved roadway using a combination of Scio and N. Meadow Streets between Arsenal Street and Coffeen Street to create a Public Square bypass route that would use Black River Parkway as a bypass extending from Mill Street to Arsenal Street.
- Using the Black River bypass route outlined above or a new roadway along the railroad right-of-way, continue Black River Parkway bypass route south of Arsenal Street to intersect with a newly constructed S. Bellew Avenue extension, resulting in a bypass from Mill Street around to S. Massey Street.
- In conjunction with the above mentioned Black River Parkway bypass and extension, construct a new roadway along an abandoned railroad right-of-way parallel to Arsenal Street that would connect S. Bellew Avenue in the City Centre Industrial Park with Arsenal Street near the intersection of Towne Center Drive, west of I-81 creating a bypass for traffic travelling between I-81 and central Watertown, by passing Arsenal Street and freeing up capacity on Arsenal Street.

Figure 42. Future Truck Route and Thru Traffic Bypass



WJCTC Area Transit System Improvements

Stakeholders in the WJCTC area are implementing recommendations of the 2019 Transit Study. CitiBus is currently restructuring its routes by adding stops and another route to reach BOCES and Samaritan Village. Additionally, Jefferson County is working to start a rural transit service that provides four fixed routes and a first-mile, last-mile demand-based service as a feeder to the fixed routes. The four fixed routes under consideration include:

1. Carthage into Watertown
2. Southern Jefferson County into Watertown
3. Gouverneur Route 11 into Watertown
4. Alexandria Bay-Clayton into Watertown.

The Jefferson County Transit service would be a feeder into the CitiBus service. Next steps are to determine the allocation of transit service within the MPO boundary versus outside of it, and then to apply for federal funding.

New Mobility

Many cities have looked to innovative technological applications and infrastructure to address increased congestion, improve safety, and enhance overall quality of transportation networks. The basis of most of these technologies is the IoT, or the "Internet of Things," which reference the ability of devices (i.e., cars, streetlights, mobile phones) to be in communication with each other within a network. The data exchange within these networks allows for dynamic decision making in traffic signaling, parking, and safety.

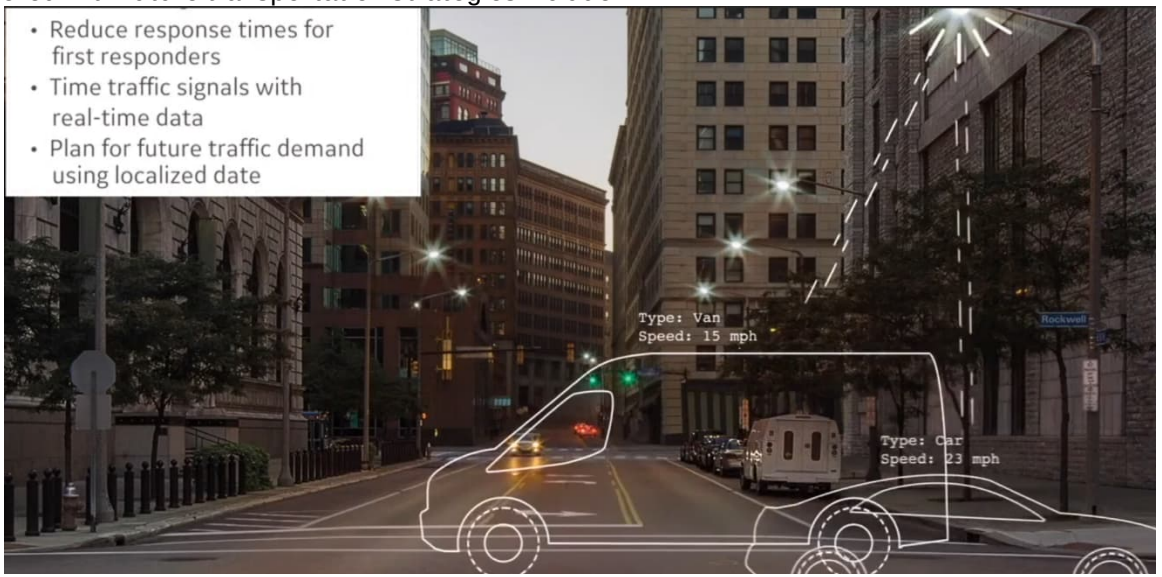
Connected vehicles (CVs) and the infrastructure that supports them are a way in which cities are "future proofing" their streets. The establishment of a smart transportation network requires the implementation of communicating devices both on the street and docked on the transportation device (i.e., vehicle, bus, bike). By implementing such infrastructure, cities are addressing the current need of CV data while preparing for the possible future of an AV dominated road network.

Aside from infrastructure and vehicles, cities are leveraging mobile technology to address transportation needs. Cities are developing personalized applications to show real time parking opportunities, payment schemes, traffic information, and transit service scheduling, to name a few, to make transportation networks more efficient. The rise of Mobility as a Service (MaaS) services is also being explored to meet people's first/last mile transportation needs and to limit the need for parking by promoting car and rideshare. These options are intended to diminish the need for personal car ownership and travel and better manage how transportation infrastructure used.

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 outlines 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:

- 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/ped mobility, goods movement, and ultimately autonomous vehicles.
- 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.

- 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.
- 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.
- First and Last Mile Solutions – Services that enhance connections to and from fixed-route public transportation: the "first mile" from a trip origin to a bus stop or the "last mile" from a bus stop to the trip destination. Examples include demand-response shuttles, ride-hailing services such as Uber or Lyft, and micromobility services such as bikeshare.
- 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.

CHAPTER 6 - FINANCIAL PLAN

Federal requirements mandate that this Long Range Transportation Plan include a financial plan that demonstrates how the future transportation system recommendations can be implemented based on order of magnitude cost estimates and reasonably expected revenues. Both costs and revenues must be expressed in year of expenditure dollars to accurately account for the anticipated revenues available to the region and the impact of inflation on the costs of materials and labor to implement projects through 2050. These financial constraints are critical to ensuring that the Long Range Transportation Plan is credible and provides realistic expectations of what can be accomplished.

This chapter consolidates the project and program recommendations made in Chapter 5 as well as projects already identified in the adopted TIP to present a financially feasible plan that meets the needs of the WJCTC and the region's transportation system over the next 25 years. Available funding sources are identified and described here. Forecasts are presented for the level of funding anticipated to be available from each source through 2050.

The projected revenue is then compared to the recommended projects and programs to demonstrate that the anticipated level of funding will be sufficient to cover the cost of implementing the recommended Plan.

The timeframe of fiscally constrained projects is outlined as follows:

- Near-Term – strategies planned within the next 5 years (2025-2029). This includes projects programmed in the current TIP (2023-2029) that have not been completed yet where expenditures will occur within the life of this Long Range Transportation Plan.
- Mid-Term – strategies planned between the next 5 to 10 years (2030-2040)
- Long-Term – strategies planned between the last 10 years of the Plan (2040-2050)

This chapter also identifies projects and services that have been identified as transportation needs in the region, but cannot currently be funded, known as Illustrative projects. Illustrative projects are recommended strategies that are not likely to be able to be funded over the course of the Plan but if additional funding becomes available, could be funded (i.e., not fiscally constrained).

Due to the uncertainty of cost increases associated with transportation and infrastructure materials, supplies, and construction, future year costs are escalated based on inflation rates provided by New York State for 2022 TIP and STIP guidance.

Likewise, there is just as much uncertainty regarding the availability of future revenues for transportation projects and programs in the region. To account for the uncertainty in the composition of federal transportation funding programs, reasonably expected future revenues are outlined according to where the majority of funds spent on federal aid roads and transit come, discussed below.

1. 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.
2. 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, Enhancement, Safety, and Rail-Highway crossings. 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. Funding for the Transportation Alternatives Program is funded through the STBG set-aside.

3. Highway Safety Improvement Program (HSIP) – Provides funds to make improvements to high hazard locations on eligible roadways, including highway-rail grade crossings.
4. 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.
5. FTA 5310 – Section 5310 is a formula grant program for the special needs of elderly individuals with disabilities. Funds (which are subject to annual appropriations) are appropriated 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 combined in this program.
6. 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 21 portrays the projected revenues over the Near-Term (2023-2027), Mid-Term (2028-2033), and Long Term (spread across 5-year increments: 2034-2039, 2040-2045, and 2046-2050). The Near-Term projected revenues are based on the WJCTC's internal Program Management software, and the Mid-Term projected revenues assume $3.4 million in federal spending per year. The Long-Term projected revenues assume a 1% increase over the mid-term horizon of 2023-2027 and a 1% increase over each of the subsequent long-term increments (2034-2039, 2040-2045, and 2046-2050).

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.

Table 21. Projected Federal Transportation Revenues

Funding Type	Near-Term 2023-2027	Mid-Term 2028-2033	Long-Term 2034-2039	Long-Term 2040-2045	Long-Term 2046-2050
NHPP	$18,856,730	$7,800,000	$7,878,000	$8,036,348	$8,116,711
STBG	$8,258,349	$7,800,000	$7,878,000	$8,036,348	$8,116,711
HSIP	$1,273,829	$430,000	$434,300	$443,029	$447,460
CRP	$99,997	-	-	-	-
Other Federal[1]	$23,916,501	-	-	-	-
TOTAL HIGHWAY	$52,405,406	$16,030,000	$16,190,300	$16,515,725	$16,680,882
FTA 5307	$7,651,655	$7,689,913	$7,766,812	$7,922,925	$8,002,155
FTA 5310	$575,995	$578,875	$584,664	$596,415	$602,380
FTA 5339	$4,338,756	$4,360,450	$4,404,054	$4,492,576	$4,537,502
TOTAL TRANSIT	$12,566,406	$12,629,238	$12,755,530	$13,011,917	$13,142,036

NOTE[1] includes Freight Funds & Bridge Formula Funds

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 but likely can't be included in the financially constrained financial plan but WJCTC would like to implement should additional funding become available, and thus are included in the Illustrative Projects list, outlined in Table 22.

Table 22. Illustrative Projects List

Project Type	Project	Project Description
Highway	Black River Parkway Extension	Using the Black River bypass route outlined above or a new roadway along the railroad right-of-way, continue Black River Parkway bypass route south of Arsenal Street to intersect with a newly constructed S. Bellew Avenue extension, resulting in a bypass from Mill Street around to S. Massey Street.
Highway	Arsenal Street Bypass	In conjunction with the above mentioned Black River Parkway bypass and extension, construct a new roadway along an abandoned railroad right-of-way parallel to Arsenal Street that would connect S. Bellew Avenue in the City Centre Industrial Park with Arsenal Street near the intersection of Towne Center Drive, west of I-81 creating a bypass for traffic travelling between I-81 and central Watertown, bypassing Arsenal Street and freeing up capacity on Arsenal Street.

Project Type	Project	Project Description
Highway	Black River Trail Extension	Extend Black River trail east-west across the region (appx. 12 miles), ultimately connecting communities along the Black River and enhancing bike/ hike tourism.
Transit	Multi-Modal Transit Hub	Develop a multi-modal, multi-agency transit hub integrating services operated by CitiBus, Jefferson County, the City of Watertown, Uber, Lyft, and Trailways. In the future, shared mobility services such as carshare and bikeshare could be included. An ideal location would be the former Mercy Hospital Site at 250 Stone Street.

CHAPTER 7 - POTENTIAL TRANSPORTATION STRATEGY IMPACTS

The future transportation strategies identified in this Plan are developed to provide a future transportation system for the Watertown region that meets the goals and objectives outlined in Chapter 3, meet federal and state planning targets, and provide residents, businesses, and visitors of Watertown with an inter-connected multi-modal transportation system. This chapter discusses the potential impacts of the future transportation strategies identified in Chapter 5.

How our Future Transportation Strategies meet Plan Goals and Objectives

Goal 1 Emphasize Preservation of the Existing Transportation System	System Preservation, Maintenance, and Operations	Multi-Modal Transportation Safety and Security	Multi-Modal Transportation System Improvement and Expansion	New Mobility
Maintain pavement and bridges in a condition that meets the targets adopted by NYSDOT and WJCTC.	✓	✓	✓	✓
Renew pavement markings and signs as needed to maintain visibility.	✓	✓	✓	✓
Maintain safe, accessible sidewalks and trails.	✓			
Replace transit vehicles by the end of their useful life.	✓	✓	✓	✓

Goal 2 Support the Economic Vitality of the Region	System Preservation, Maintenance, and Operations	Multi-Modal Transportation Safety and Security	Multi-Modal Transportation System Improvement and Expansion	New Mobility
Facilitate cross-border business opportunities, including Canadian tourism, and capitalize on the convenience of the Thousand Islands Bridge crossing.		✓	✓	✓
Develop strategies to help area businesses manage high transportation costs for agricultural and manufacturing goods.		✓	✓	
Improve rail siding infrastructure to support growth of the region's agricultural industry.			✓	✓
Facilitate the ability for Fort Drum to drive economic vitality for the region.	✓		✓	✓

Goal 3 Promote Efficient Transportation System Management and Operations	System Preservation, Maintenance, and Operations	Multi-Modal Transportation Safety and Security	Multi-Modal Transportation System Improvement and Expansion	New Mobility
Use technology as appropriate to improve and manage roadway and transit operations.	✓			✓
Coordinate with NYSDOT on traffic plans for alternative routes during Interstate 81 closures.	✓			✓

Goal 4 Enhance Travel and Tourism	System Preservation, Maintenance, and Operations	Multi-Modal Transportation Safety and Security	Multi-Modal Transportation System Improvement and Expansion	New Mobility
Identify and promote walking, hiking and bicycling routes to foster tourism.	✓	✓	✓	✓
Develop and publicize a system of recommended truck routes to help separate thru-truck traffic from pedestrian-oriented downtown areas.		✓	✓	✓
Improve the walkability of Public Square to support a vibrant business district and downtown economic development.	✓	✓	✓	✓
Develop a regional pedestrian and bicycle network to spur tourism and economic activity and access for residents.	✓	✓	✓	✓

Goal 5 Increase the safety and security of the transportation system for motorized and non-motorized users	System Preservation, Maintenance, and Operations	Multi-Modal Transportation Safety and Security	Multi-Modal Transportation System Improvement and Expansion	New Mobility
Design "Complete Streets" that accommodate motorized vehicles, transit, bicycling and walking for all users, including those with disabilities.		✓	✓	✓
Promote awareness and enforcement of traffic laws, particularly near schools and in residential areas.		✓		
Continue coordination for emergency preparedness among Fort Drum, emergency responders, and operators of the area's transportation system.		✓		

Goal 6 Increase the Accessibility and Mobility of People and Freight	System Preservation, Maintenance, and Operations	Multi-Modal Transportation Safety and Security	Multi-Modal Transportation System Improvement and Expansion	New Mobility
Connect the area's workforce to available jobs.			✓	
Connect transportation with affordable housing options.			✓	
Strengthen transportation links between Fort Drum and surrounding communities.			✓	
Enhance the pedestrian and bicycling network to promote healthy lifestyles and sustainable commuting options.			✓	

Goal 7 Protect and Enhance the Environment; Improve Quality of Life; and Promote Consistency Between Transportation Improvements and the Community's Other Goals.	System Preservation, Maintenance, and Operations	Multi-Modal Transportation Safety and Security	Multi-Modal Transportation System Improvement and Expansion	New Mobility
Prioritize transportation investments that help the area's businesses remain viable and attract new residents.	✓		✓	
Preserve and stabilize neighborhoods by focusing transportation investment in areas with other existing infrastructure.	✓		✓	
Provide additional public access to the waterfront area while protecting its scenic and historic qualities for continued waterfront revitalization.	✓		✓	

Goal 8 Enhance Transportation Connections, Across and Between Modes, for People and for Freight.	System Preservation, Maintenance, and Operations	Multi-Modal Transportation Safety and Security	Multi-Modal Transportation System Improvement and Expansion	New Mobility
Build partnerships among the region's public and private transit operators to extend the areas and hours for which service can be provided.	✓		✓	✓
Implement a regional public transportation service.		✓	✓	✓
Develop and maintain convenient connections to and from Watertown International Airport, both by road and by public transit.	✓	✓	✓	✓

Goal 9 Improve Transportation System Resiliency and Reliability	System Preservation, Maintenance, and Operations	Multi-Modal Transportation Safety and Security	Multi-Modal Transportation System Improvement and Expansion	New Mobility
Manage delays, including those resulting from seasonal traffic changes.	✓		✓	✓
Reduce or mitigate stormwater impacts on the surface transportation system.	✓		✓	
Reduce the percentage of trips taken by Single Occupancy Vehicles.	✓	✓	✓	✓

The categories listed below provide a discussion on how future transportation strategies identified in this Plan will comply with 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. Security plays an important role in the region's transportation system due to the presence of Fort Drum and the need to be able to maintain access to/from Fort Drum and in a safe and secure manner.

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 WJCTC region and using an asset management program to anticipate needs for future rehabilitation of these transportation assets.

Congestion Reduction and System Reliability

While the level of service (LOS) of the region's roadways are generally good and congestion is limited to certain locations during peak times, 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. Additionally, expanded public transportation service will improve mobility and access to affordable housing, jobs, essential services, and businesses.

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 manufactured hazards on our critical infrastructure. The Bipartisan Infrastructure Law has created several funding programs to support transportation system resiliency, and the WJCTC is undertaking a resiliency study to identify opportunities to increase the resilience of the regional transportation system. The strategies outlined in this Long Range Transportation Plan are intended to ensure 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.

According to the Bipartisan Infrastructure Law and 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 WJCTC area. The

following outlines strategies to consider when advancing transportation projects to avoid or mitigate potential environmental impacts relative to the decisions of the WJCTC early in the planning process:

1. 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.
2. 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.
3. Minimize the construction of transportation projects that would impact environmentally sensitive areas.
4. 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:

1. Avoid Impacts – The first strategy should be to avoid adverse impacts to environmentally sensitive areas.
2. Minimize Impacts – If environmentally sensitive areas cannot be avoid, the transportation project should minimize its impacts.
3. 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.

WJCTC 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 (State Environmental Quality Review, SEQR, and National Environmental Policy Act, 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.