

Appendix A1:

Project Purpose and Need

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Acronyms and Abbreviations

BNMC	Buffalo Niagara Medical Campus
BRT.....	Bus Rapid Transit
DEIS	Draft Environmental Impact Statement
GBNRTC	Greater Buffalo Niagara Regional Transportation Council
LRT	Light Rail Transit
Metro	Niagara Frontier Transit Metro System, Inc.
Metro Rail.....	Metro Light Rail Transit System
NFTA	Niagara Frontier Transportation Authority
Project	Buffalo-Amherst-Tonawanda Corridor Transit Expansion
TDI	Transit Dependency Index
UB	University at Buffalo

Appendix A. Project Purpose and Need

The Niagara Frontier Transit Metro System, Inc. (Metro) operates a 6.4-mile light rail transit line called Metro Rail that provides service along Main Street in Buffalo, New York, from KeyBank Center in Downtown Buffalo to the State University of New York, University at Buffalo (UB) South Campus. Metro is proposing to expand high-capacity transit service from the current terminus at Metro Rail University Station on the UB South Campus to Tonawanda and Amherst, New York, including connections to the UB North Campus, which opened in the 1970s.

Figure A-1 shows the Project Corridor alignment where the build alternatives—a Light Rail Transit (LRT) Alternative and a Bus Rapid Transit (BRT) Alternative—are being considered. The corridor alignment is proposed along Main Street, Kenmore Avenue, Niagara Falls Boulevard, Maple Road, and Sweet Home Road, through the UB North Campus to John James Audubon Parkway and I-990 (Project Corridor). Ten stations are proposed as part of the seven-mile Buffalo-Amherst-Tonawanda Corridor Transit Expansion (Project). Two proposed stations—Boulevard Mall and I-990—would contain a “park & ride” facility. This appendix describes the purpose of the Project and the need for transportation improvements. In addition, this appendix explains the goals and objectives of the corridor improvements.

Improvements to transit service in the Greater Buffalo region have been considered for over 50 years. The concept for Metro Rail evolved in the 1960s and 1970s as one segment of a proposed 43-mile network of rapid-transit rail lines across the region. Plans were developed for a 14-mile rail line running between downtown Buffalo and north of the planned UB North Campus in Amherst. Due to funding, the rail line was scaled back to a 6.4-mile rail line terminating at the UB South Campus. This line opened in 1985 and continues to operate as the existing Metro Rail.

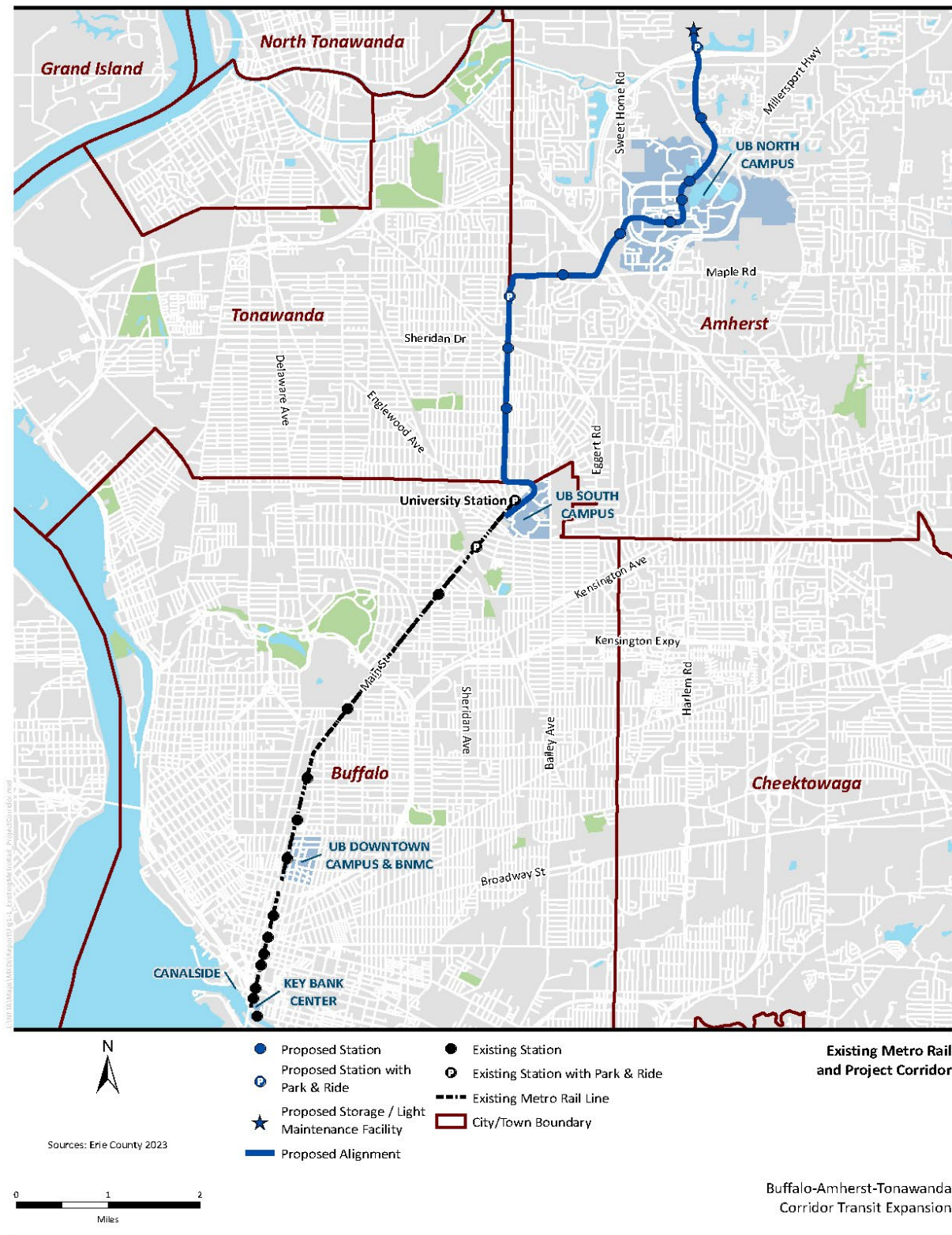
The existing Metro Rail serves a diversity of activity centers and land uses. These activity centers and land uses range from recreation, family activities, and dining at the waterfront to the urban commercial center of downtown Buffalo, the Buffalo Niagara Medical Campus (BNMC), the UB campuses and other colleges, to established residential neighborhoods, and emerging commercial and employment centers in Amherst. College enrollment in the metropolitan area has grown over 300% from 1960 to 2022¹. For example, UB enrollment has steadily increased by nearly 7% between the years 2013 and 2023 for a total enrollment of 31,891 students in 2023, despite the effects of the COVID-19 pandemic².

¹ U.S. Census of Population and Housing: 1960. Final Report PHIC (1)-19. <https://www2.census.gov/library/publications/decennial/1960/population-and-housing-phc-1/41953654v1ch9.pdf>.

American Community Survey (ACS) 1-Year Estimate, 2022.

² New York State University (SUNY), 2023 Enrollment Data. <https://tableauserver.suny.edu/t/IRPublic/views/Enrollment2013-2023/CampusEnrollment?%3Aembed=y&%3AisGuestRedirectFromVizportal=y>

Figure A-1. Existing Metro Rail and Project Corridor



In 2010, Metro updated its 2001 Strategic Assessment. The review examined available rights-of-way and major arterial corridors as possible locations for major transit investments. The 2010 assessment revisited four existing corridors from the 2001 Strategic Assessment:

- Northwest to Tonawanda/Niagara Falls (Tonawanda Corridor)
- Northeast to Amherst/UB North Campus (Amherst Corridor)
- East to Airport area (Airport Corridor)
- South to Southtowns (Southtown Corridor)

Also, six additional corridors (Bailey Avenue, Broadway, Delaware Avenue, Elmwood Avenue, Hertel-Fillmore, and Seneca Street) were identified for assessment. The 10 corridors were reviewed based on their market intensity, development potential, travel patterns, and existing ridership. They were also compared with modern light rail transit and bus rapid transit peer systems across the United States to determine if corridor conditions were within similar ranges. Out of the 10 corridors, five corridors scored well in all categories and were identified as good candidates for further study, including the Amherst Corridor (*i.e.*, the Project Corridor).³

The proposed Project evaluates the opportunity for a major transit investment along the Amherst Corridor. Metro is also in the planning and design phases of implementing BRT along the Bailey Avenue Corridor, which connects to the proposed Project Corridor at UB South Campus.

A.1 PROJECT PURPOSE

The purpose of the Project is to link established and emerging activity centers (e.g., UB campuses, BNMC, the Buffalo central business district, employment and retail centers, and the Buffalo waterfront) along the existing Metro Rail line in Buffalo with existing and emerging activity centers in Amherst and Tonawanda by providing fast, reliable, safe, and convenient transit. The Project would serve existing Metro riders; attract new transit patrons; improve regional connections between Buffalo, Amherst, and Tonawanda; and support equitable transit-oriented development and affordable housing opportunities. In addition, the Project would:

- Improve mobility along the Project Corridor by increasing transportation options and accessibility in communities throughout the Greater Buffalo region.
- Better connect the three UB campuses by providing improved mobility options that includes a “one-seat ride” between campuses (service that does not require a transfer).
- Improve the system operating efficiency of the transit network by providing convenient and seamless connections for transit patrons between activity centers and competitive travel times.

³ NFTA-Metro. June 2010. Metro Strategic Assessment.

- Support local and regional land use planning and transit-oriented development as outlined in the Greater Buffalo Niagara Regional Transportation Council (GBNRTC) and NFTA Metro Comprehensive Transit-Oriented Development Plans, 2019⁴ and 2023.⁵
- Provide equitable mobility options through the investment in transit that serves transit-dependent populations and improves their opportunities for participation in the regional workforce and overall economy.
- Help relieve parking constraints and capacity issues on the BNMC, UB campuses, Project Corridor, and downtown Buffalo, and minimize traffic and parking-related impacts on neighborhoods.

A.2 PROJECT NEED

The Buffalo metropolitan region is experiencing economic growth and transformation, including over \$1 billion of projects that have been recently completed, that are under construction, or that are planned for the region. These projects are intended to enhance revitalization; promote smart growth; incentivize innovation and entrepreneurship; develop the workforce; and advance manufacturing, tourism, and health and life sciences.⁶ As reported in the GBNRTC 2019 Comprehensive Transit-Oriented Development Plan, the existing and proposed Project Corridor is expected to experience faster population growth (an increase of 5.8 percent versus 1.3 percent for the region) and employment growth (an increase of 13.3 percent versus 12.5 percent for the region) than the balance of the region between 2015 and 2040.

This growth will increase the demand for work trips and non-work trips, including shopping, medical services, and entertainment. As jobs and population increase, transportation issues and challenges will need to be addressed. This Project seeks to serve these increased travel needs along the corridor, ensuring residents have mobility options and continued access to employment opportunities, in Buffalo, Amherst, and Tonawanda.

The need for increased mobility and enhanced, equitable, and sustainable transit service that the Project would serve has three main components: (1) serve existing and future travel demand generated by recent and future regional development; (2) provide high-quality regional transit service; and (3) improve service for transit-dependent populations. As illustrated by Figure 1-2, the Project needs are described in the subsequent sections of this document.

⁴ GBNRTC and NFTA Metro. May 2019. "Comprehensive Transit-Oriented Development Plan, Final Report."

⁵ GBNRTC and NFTA Metro. September 2023. "Comprehensive Transit-Oriented Development Strategic Implementation Plan, Planning Program — Phase II, September 2023."

⁶ Western New York Regional Economic Development Council. January 2017. "Buffalo Billion Phase II — Buffalo Niagara's Strategic Plan for Prosperity."

Figure A-2. Project Needs



A.2.1 Serve Existing and Future Travel Demand

Within the Project Corridor there is a need to serve existing and future travel demand with a transportation investment to ensure continued mobility for the affected communities and the region. Table A-1 summarizes existing daily automobile travel in the corridor, which is anticipated to grow in the future.

Table A-1. Existing Travel Demand

Project Corridor Roadway	Average Daily Corridor Trips, 2020
Kenmore Avenue	11,535
Niagara Falls Boulevard	21,014
Maple Road	13,657
Sweet Home Road	8,982
John James Audubon Parkway	11,328

Source: Greater Buffalo Niagara Regional Transportation Council

GBNRTC’s adopted metropolitan long-range transportation plan—*Moving Forward 2050: A Regional Transportation Plan for Buffalo Niagara*—includes a transit investment in the region.⁷ As a result of anticipated growth and development and as stated in the plan, the existing roadway network experiences traffic congestion, particularly during peak periods. Without mitigation, the anticipated level of new development will further increase congestion within the Project Corridor. Expanding roadway capacity is not always viable, because of constraints including limited available rights-of-way, potential environmental impacts, and concerns that roadway investments are not a sustainable or long-term solution, nor do they encourage compact mixed-use development.

The following state, regional, and local plans establish mobility, safety, economic, equity, and sustainability goals for the region. The Project would help address these regional goals. These state, regional, and local plans are listed below:

⁷ GBNRTC. May 2018. *Moving Forward 2050*. <https://www.gbnrtc.org/metropolitan-transportation-plan>

- New York State Department of Transportation Niagara Falls Boulevard Pedestrian Safety Corridor Evaluation, 2019⁸
- One Region Forward: A New Way to Plan for Buffalo Niagara, 2014⁹
- Moving Forward 2050: A Regional Transportation Plan for Buffalo Niagara, 2018¹⁰
- Framework for Regional Growth: Erie and Niagara Counties, New York, 2006¹¹
- University at Buffalo 2020 Plan¹²
- Western New York 2011 Regional Economic Development Strategic Plan¹³
- Queen City in the 21st Century: Buffalo's Comprehensive Plan, 2006¹⁴
- Town of Amherst Bicentennial Comprehensive Plan, 2020¹⁵
- Amherst Boulevard Central District Generic Environmental Impact Statement, 2019¹⁶
- Town of Tonawanda 2014 Comprehensive Plan Update, 2015¹⁷
- Comprehensive Transit-Oriented Development Plan, Final Report, 2019
- Comprehensive Transit-Oriented Development Strategic Implementation Plan, Planning Program – Phase II, 2023

Anticipated developments such as the BNMC's future expansion plans are expected to further exacerbate travel needs within the Project Corridor. The BNMC, in preparing for its major expansion, has developed an extensive Transportation Demand Management Program that includes working with Metro to increase transit service opportunities and usage, as well as multimodal transportation.

The GBNRTC and NFTA's 2019 Comprehensive Transit-Oriented Development Plan documents the opportunity for 8.4 million square feet of commercial (office and retail) and residential space throughout the corridor that could be stimulated by an investment in high-quality transit. This economic development potential helps meet the goals and objectives of the region. These economic development objectives and opportunities will also increase future travel demand needs within the Project Corridor, even beyond those stated in Table A-2.

⁸ New York State Department of Transportation. June 2019. "Transportation Project Report – Pedestrian Safety Corridor Evaluation, Niagara Falls Boulevard (Project Identification Number: SESS.17.121)."

⁹ University at Buffalo Regional Institute, State University of New York at Buffalo. 2014. "One Region Forward: A New Way to Plan for Buffalo Niagara."

¹⁰ GBNRTC. May 2018. "Moving Forward 2050: A Regional Transportation Plan for Buffalo Niagara."

¹¹ Erie & Niagara Counties, New York. October 2006. "Framework for Regional Growth."

¹² University at Buffalo. 2009. "UB 2020 Plan."

¹³ New York State Regional Economic Development Councils – Western New York Regional Economic Development Council. November 2011. "WNY Regional Economic Development Strategic Plan: A Strategy for Prosperity in Western New York."

¹⁴ City of Buffalo Office of Strategic Planning. February 7, 2006. "Queen City in the 21st Century: Buffalo's Comprehensive Plan."

¹⁵ Town of Amherst. Amended December 14, 2020. "Amherst Bicentennial Comprehensive Plan (2020)."

¹⁶ Town of Amherst. November 12, 2019. "Boulevard Central District Final Generic Environmental Impact Statement."

¹⁷ Town of Tonawanda. January 2015. "Town of Tonawanda 2014 Comprehensive Plan Update."

A.2.2 Provide High-Quality Regional Transit Service

There is a need for faster, more frequent, more convenient, and more reliable regional transit service in the Project Corridor. Figure 1-3 presents the existing Metro Bus Routes within and near the Project Corridor. The Project Corridor is served by Metro with four bus routes (Routes 34, 35, 44, 49). Three of these routes (Route 34, 44, and 49) connect with the Metro Rail University Station. Buses on these routes operate in mixed traffic with frequent stops, making it difficult to achieve optimal high-quality transit service. The reliability of these routes is impacted by traffic congestion delays and winter weather can further delay service. Metro Bus has set an agency wide service standard requiring 84% of transit vehicles must depart on-time¹⁸. This need is summarized and supported by the on-time arrival performance for Routes 34, 35, 44, and 49. On-time performance is defined as the percentage of bus trips (weekday only) that arrive at a scheduled stop location on-time, as described in Table A-2.

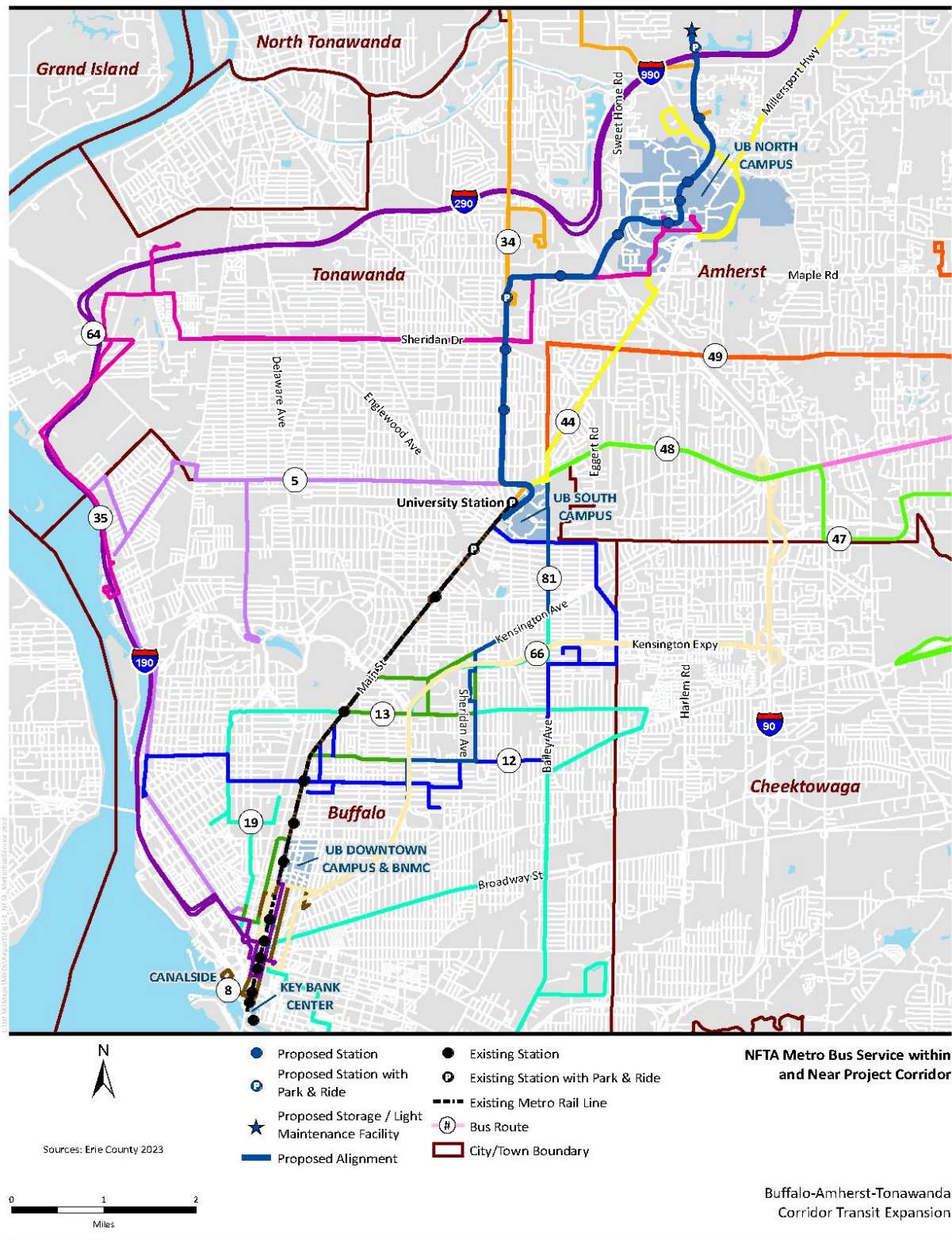
Table A-2. Performance of Existing Transit Services within the Project Corridor

Route Number	Route Name	Weekday On-time Performance by Route	Meets Metro Bus 84% On-time Service Standard (Y/N)
Route 34	Niagara Falls Boulevard	82.6%	No
Route 35	Sheridan	78.9%	No
Route 44	Lockport	77.7%	No
Route 49	East Amherst	75.6%	No

Source: FY 2023 NFTA Performance Report

¹⁸ NFTA Service Design Guidelines & Delivery Standards, 2021.

Figure A-3. NFTA Metro Bus Service within and Near Project Corridor

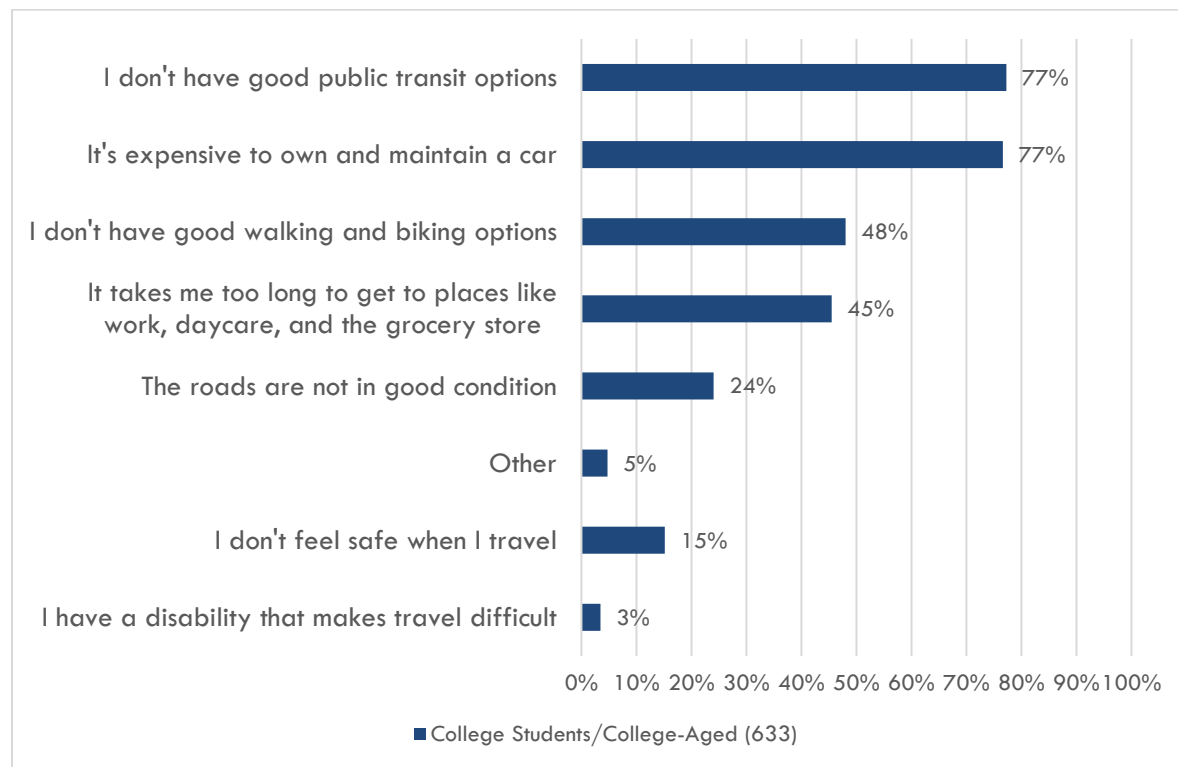


Another key need for high-quality transit service is influenced by UB students. It is assumed that many UB students are reliant on transit services for mobility and have limited access to an automobile. UB student housing and academic activities are located on North campus in Amherst and South Campus in Buffalo. Academic activities are also located at the BNMC in downtown Buffalo. Therefore, UB provides Stampede shuttle bus service between South and North campuses exclusively for the UB community. The existing Metro Rail service connects South Campus to the BNMC. Current ridership on the UB Stampede is 6,842 average riders daily (weekday and weekends) between August 24, 2023, and December 16, 2023. (Source UB Transportation Division). Presently students traveling from UB North Campus to the BNMC by transit must transfer from the UB Stampede to the existing Metro line on South Campus, incurring a “travel time penalty” because of this need for a transfer.

There are also several student housing opportunities located “off campus”. For students living off campus, they must transfer to, or from, existing Metro bus or rail services to reach one of the UB campuses then transfer to the UB Stampede service, also resulting in at least a two-seat transit trip and the inconvenience of a “travel time penalty”.

Project community outreach was conducted in January and February 2024. Outreach included a public survey and “listening sessions”. Students and college-aged survey respondents expressed their top three transportation challenges as highlighted in Figure A-4 below.

Figure A-4. Students and College Aged Survey Responses to the Question, “What are your top three current transportation challenges?”



In summary, the existing bus service (NFTA Metro Bus) has limited-service coverage within the Project Corridor and is impacted by traffic congestion which degrades on-time arrival performance. The UB Stampede connects the two campuses, but experiences significant average daily ridership and Stampede riders are impacted by transfer delays when connecting to other area transit services.

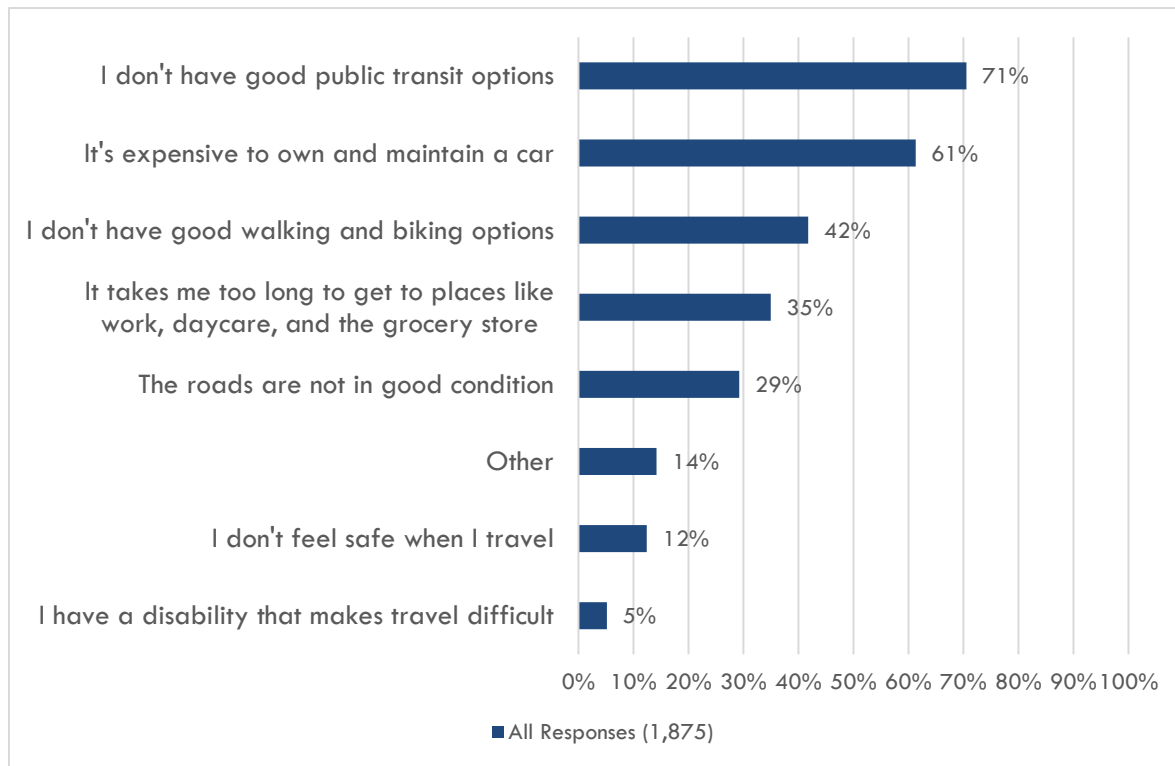
A.2.3 Improve Service for Transit-Dependent Populations

Limited transit service in the Project Corridor especially impacts the mobility and access of transit-dependent populations, including people who cannot drive or do not have access to a vehicle. These segments include the elderly, the disabled, low-income persons, and students. GBNRTC's 2017 Onboard Survey found that most transit riders using Metro transit services are transit dependent: 84 percent of riders do not have access to a vehicle, 58 percent can be classified as low income, and 57 percent of riders in the region do not have a valid driver's license.¹⁹

Project community outreach was conducted in January and February 2024. Outreach included a public survey and "listening sessions", as summarized in Appendix J2 of this Draft EIS. Survey respondents indicated residency within ten unique zip codes spanning the City of Buffalo, Town of Tonawanda, and Town of Amherst. Survey respondents expressed their top three transportation challenges as highlighted in Figure A-5.

¹⁹ Greater Buffalo-Niagara Regional Transportation Council. 2017. "Niagara Frontier Transportation Authority Onboard Survey." <https://www.gbnrtc.org/surveys/>.

Figure A-5. Survey Responses to the Question, “What are your top three current transportation challenges?”

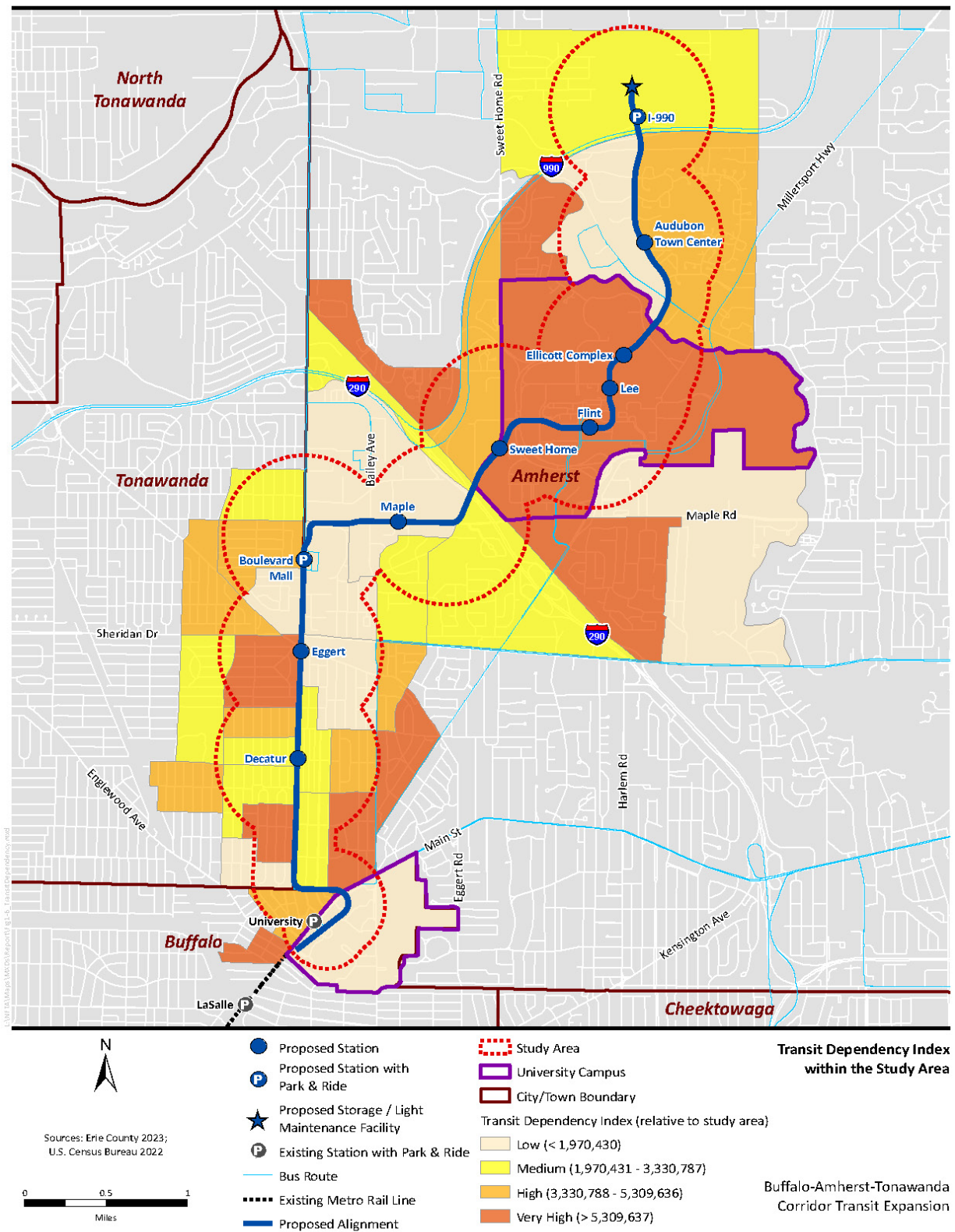


To better understand and visualize transit needs, Metro assessed transit dependency for the Project Corridor using a transit dependency index (TDI). The study area for this analysis is defined as 0.25 mile from the Project alignment and 0.5 mile from the proposed stations. The TDI is used to assign scores to geographies based on the combined density of persons in poverty, minorities, seniors ages 65 and above, children ages 17 and under, and zero-vehicle households. These populations have a higher reliance on public transit to meet their mobility needs. TDI was calculated using the following formula:

$$\text{TDI} = \text{Population Density} \times (\text{housing units without a vehicle} + \text{senior citizens} + \text{children ages 17 and under} + \text{minority population} + \text{individuals below poverty})$$

The results of the TDI were grouped into four categories relative to the study area: very low, medium, high, and very high (Figure A-6). The populations with the highest transit-dependency relative to the study area (shown in red in Figure A-6) are located on the UB North Campus and surrounding areas east of Sweet Home Road and north of the I-290, two areas west of Niagara Falls Boulevard near the proposed Eggert Station and Ford Avenue, and areas north of Main Street near the UB South Campus.

Figure A-6. Transit Dependency Index within the Study Area



Source: Erie County and U.S. Census Bureau, 2021

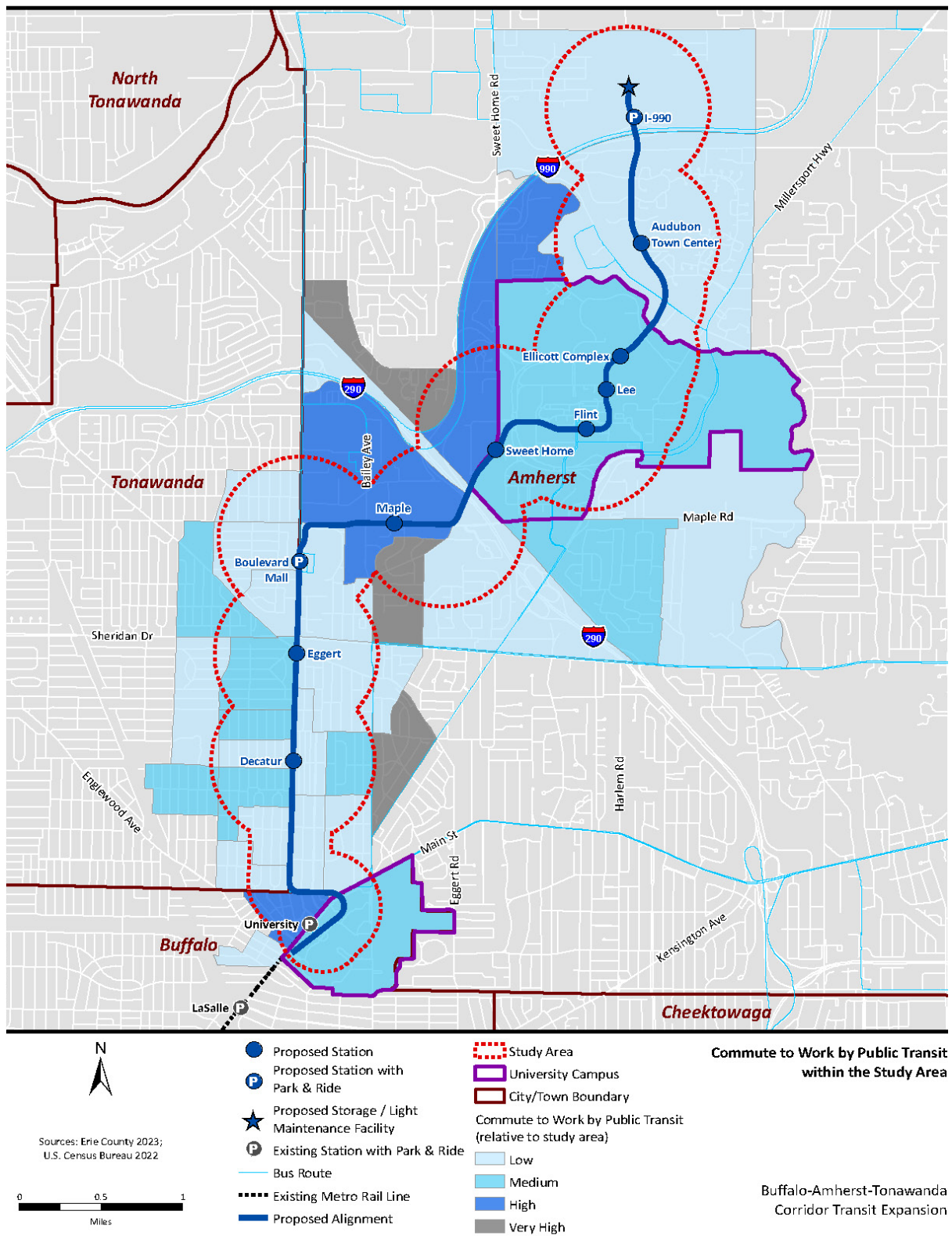
Figure A-7 presents commute-to-work data for the study area. The study area was grouped into the same four categories as the TDI: very low, medium, high, and very high. Among areas with the highest percentage of residents who commute to work by transit (shown in grey in Figure A-7), there is minimal overlap with the areas that have the highest TDI (shown in red in Figure A-6). There are two areas of overlap that mostly lie outside of the study area; one is north of the interchange between the I-290 and the I-990 and the other is west of Bailey Avenue and north of Millersport Highway. The other part of the study area with “very high” rates of transit commuting corresponds to a TDI score of “medium.” This spatial mismatch between the highest levels of transit dependency and transit commuting in the Study Area suggests that factors beyond dependency impact commute choice, i.e., the choice not to commute to work by transit could be a result of the limited available transit options or the cost of transit fare deterring low-income commuters from using transit.

The lack of quality transit service in the Project Corridor involves both residential origins and key trip destinations, including work and other trip purposes. The study area has many senior-living complexes, facilities serving people with disabilities, low-income housing complexes, apartment complexes, and student housing. The current Metro Rail and Metro Bus routes serve some, but not all these locations. For example, current bus routes provide some service to the UB North Campus and the Town Center on JJ Audubon Pkwy, but most residents of the many housing complexes in this area do not have convenient public transit options.

The transit-dependent populations in the study area are adversely impacted by limited connectivity and the unreliability of the existing transit services. Extending the reach of a high-quality transit service is needed to make employment opportunities, healthcare, shopping, and entertainment throughout the Project Corridor more accessible for corridor residents.

Limited connectivity of the existing transit services impacts the transit-dependent populations in the study area by limiting where in the region they can reasonably travel. A lack of transit options limits opportunities and negatively impacts accessibility to both commuting and non-work travel. Increased transit service along the Project Corridor would increase the study area population’s access to high-quality transit and employment opportunities in Amherst and Buffalo, along with improved access to health care, educational facilities, and retail destinations. Moreover, with an increasingly aging population and with a rising number of students, increased transit service would help the region respond to the travel challenges faced by transit-dependent populations and to changing demographic trends.

Figure A-7. Commute to Work by Public Transit within the Study Area



Source: Erie County and U.S. Census Bureau, 2021

A.3 PROJECT PURPOSE, GOALS, AND OBJECTIVES

As stated, there are three primary needs for increased mobility and enhanced, equitable, and sustainable transit service within the Project Corridor: (1) serve existing and future travel demand generated by recent and future regional development; (2) provide high-quality regional transit service; and (3) improve service for transit-dependent populations. The purpose for the Project is to address and serve these needs with an investment in high-quality transit service, including its supporting infrastructure, while meeting regional planning objectives.

Table 1-3 presents the goals and objectives of the Project, focusing on key transportation, economic, and environmental issues. These goals and objectives, which are directly linked to the Project purpose and need, will guide the development of the Project.

Table A-3. Goals and Objectives

Goals	Objectives
<ul style="list-style-type: none"> Develop a cost-effective, attractive, and high-quality transit service to serve the Buffalo-Amherst-Tonawanda corridor. 	<ul style="list-style-type: none"> Provide cost-effective transit service to transit-dependent populations. Provide a reliable and convenient transit service. Provide more convenient transit services for riders transferring to or from Metro Rail at University Station. Improve mobility. Reduce number of transfers.
<ul style="list-style-type: none"> Mitigate the growth of traffic congestion on study area roadways. 	<ul style="list-style-type: none"> Increase the share of trips using transit in study area.
<ul style="list-style-type: none"> Improve the accessibility of transit in the study area. 	<ul style="list-style-type: none"> Increase the number of transit options for travelers. Improve the connectivity of transit services. Improve livability by providing increased access to facilities such as affordable housing, jobs, education, medical services, food shopping, retail shopping, entertainment, etc. Provide equitable levels of access to populations that are traditionally underserved.
<ul style="list-style-type: none"> Increase the effectiveness of the regional transit system. 	<ul style="list-style-type: none"> Increase system ridership. Increase system revenue. Build on investment/reinvestment of original Metro Rail.
<ul style="list-style-type: none"> Support sustainable future economic growth in the study area. 	<ul style="list-style-type: none"> Serve new markets with high-quality transit services to support economic development. Provide the basis for equitable transit-oriented development and design to enable the development/redevelopment of quality neighborhoods. Strengthen the regional economy.
<ul style="list-style-type: none"> Avoid or minimize adverse community and environmental effects. 	<ul style="list-style-type: none"> Avoid or minimize impacts to sensitive environmental resources. Avoid or minimize negative impacts to neighborhoods. Avoid or minimize negative impacts to businesses.