

2.5 Multimodal Choices and Connections

Overview

Multimodal transportation systems have been a part of Erie County throughout its history – lake shipping, military roads, canals, railroads, and interstates have all contributed to its economic well-being. Add to that today’s airports, mass transit facilities, and an extensive network of pedestrian and bicycle trails, and Erie County displays an impressive array of multimodal transportation opportunities in its role as a regional transportation hub. A key to good transportation planning is to look at all of these elements together to plan for the overall movement of people and goods, rather than planning for each mode of travel independently. The Project for Public Spaces (PPS) – a nonprofit planning, design and educational organization that has been recognized nationally and internationally for their dedication to “placemaking” states this concept quite simply as follows: “If you plan cities for cars and traffic, you get cars and traffic. If you plan for people and places, you get people and places.” (www.pps.org).

Transportation in Erie County clearly encompasses far more than just cars and traffic, so the 2040 LRTP balances a variety of needs and opportunities while also aiming to improve the connectivity of the local and regional transportation network with intraregional, interregional, and interstate transportation systems and facilities. With that end in mind, this plan incorporates a multimodal assessment of:

- Roadway System
- Pedestrian, Bicycle, and Trail Network
- Public Transportation
- Rail Service
- Air Travel
- Waterborne Transportation

Within the Erie LRTP, Multimodal Choices and Connections combines ideas that are consistent with Federal Planning Factor #4: “Increase the accessibility and mobility options available to people and for freight”; and Federal Planning Factor #6: “Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.”

At the state level, providing mobility for people, goods, and commerce is a focal point of the PA Mobility Plan, directly supportive of numerous Keystone Principles and Smart Transportation, and is specifically cited under statewide LRTP guidance as a characteristic of successful plans that support both multimodal and intermodal support both multimodal and intermodal futures.

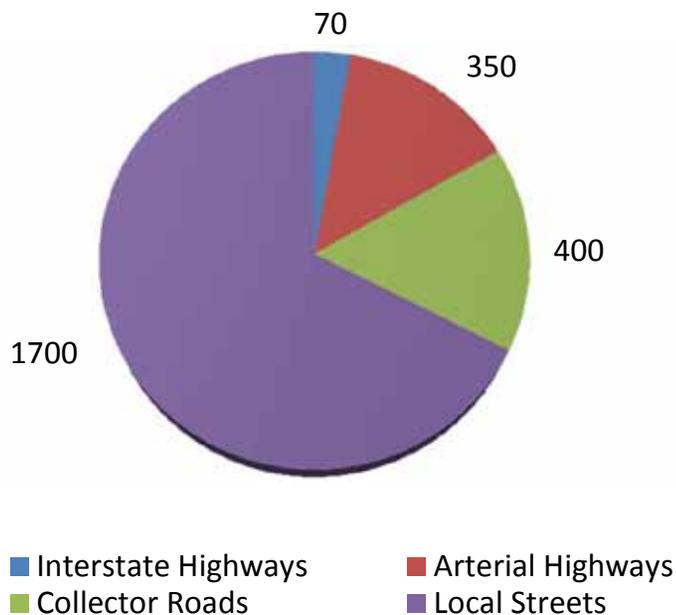


Baseline Perspectives

Roadway System

There are over 2,500 miles of roads in Erie County consisting of interstate highways (I 79, I 86, I 90), US routes (US 6, US 6N, US 19, US 20), and numerous state routes and local streets. Ownership and maintenance of these roads are under the authority of either PennDOT (800 miles) or the local municipalities (1,700 miles).

Exhibit 2.5.1 - Roadway System Mileage



Given today's climate of limited transportation funding, maintenance needs of our aging infrastructure, the consequences of urban sprawl, and concerns with community or environmental impacts, "new" roads, such as bypasses, are all but a thing of the past. An almost universal objective is to place greater emphasis on the preservation and management of the existing transportation system and to support the establishment of priorities to address existing roadway and bridge deficiencies before building new, extended, or widened roads.

Areas throughout the county's roadway system that were noted as concerns typically centered on preservation and maintenance issues, local road paving and maintenance, or on major commercial access issues that included the following:

- **Preservation and Maintenance:** Several state and local bridges, state route maintenance and repaving projects, or local federal aid route maintenance and repaving projects were identified. These types of projects are a clear priority for addressing the state's structurally-deficient bridge problem and maintaining the existing highway network. However, those priorities are mostly tracked and prioritized independent of this plan by PennDOT and the Erie MPO. Within the 2040 LRTP these issues are largely addressed by line-item funding.
- **Access to/from the Port of Conneaut:** Impacts to US 20 or US 6N into Erie County and through Springfield Township may need to be evaluated in order to identify traffic, truck traffic, or safety related needs pending the Ohio Department of Transportation's (ODOT) plans to construct new access roads between the Port of Conneaut and US 20 near the Ohio-Pennsylvania state line.
- **Access to/from a future Inland Port:** Pending future industrial park and/or Inland Port developments in the western portion of Erie County, impacts along PA 18 and US 6N may require attention, particularly through the boroughs of Albion, Cranesville, and/or Platea.
- **Access to/from the City of Corry:** Stakeholder outreach highlighted a desire to improve interstate access for areas in the southeast corner of Erie County. Existing state routes to that area largely include two-lane roadways with a variety of constraints – bridge restrictions and PA 99 congestion to the west along US 6N; winding, rural roads to the south along PA 8 or PA 89; or winter travel issues and commercial traffic restrictions to the north into New York via Route 426 or Chautauqua County Route 1. Targeted improvements to US 6N could enable better access to I 79; and improvements to PA 8 or to PA 89 / PA 430 could enable better access to I-86, I 90, and the City of Erie.

Exhibit 2.5.2 - Roadway Functional Classification



Level of Service (LOS) Descriptions

LOS is an industry-standard method of assigning letter-grades A through F to a location to reflect the amount of congestion that motorists perceive to be there. General travel conditions at each LOS may generally be described as follows:

LOS A, B, or C: represents relatively smooth operations ranging from “free flow” at LOS A with no congestion to “stable flow” at LOS C with only minor delays and occasional impediments to speed or maneuverability.

LOS D: represents occasional unstable traffic flows in which speeds and the freedom to maneuver are restricted. Additional traffic at this level will likely introduce more extensive operational problems.

LOS E: represents unstable flow with breakdowns occurring more frequently. Operating conditions are at or near full capacity with reduced speeds, higher delays, or fewer passing opportunities due to minimal gaps in traffic.

LOS F: represents failure conditions in which delays, queuing, or overall levels of congestion are generally unacceptable to motorists.



Transportation Operations

In order to quantify the operations of the County’s roadway segments and intersections, a ‘2010 Baseline’ for existing conditions was established using the Erie County Travel Demand Model (see sidebar - next page). The Model was then adjusted to include 2040 population and employment projections and all current 2011 Transportation Improvement Program projects that will be open to traffic by 2040. The result of these adjustments is the ‘2040 No-Build Scenario’.

One of the primary measures of effectiveness used in evaluating transportation operations is referred to as the “Level of Service” or LOS (see left). The LOS is a letter grade that ranks each roadway and intersection from A to F, with A representing the best operations and F representing the worst operations.

Deficient levels of service are expected to be found throughout the County on Interstates and major roadways in the 2040 No-Build Scenario. Some of the key deficiencies include:

Interstates

- I-90 between the SR 98 and SR 8 Interchanges

Arterials

- SR 5 from west of SR 98 to the Bayfront Parkway and from SR 955 to Troupe Road
- Bayfront Parkway from West 8th Street to the Bayfront Connector
- 38th Street from Asbury Road to Old French Road
- US 20 from I-79 to Water Street
- Alternate SR 5 at the Bayfront Connector
- SR 832 from I-90 to US 20
- Interchange Road from Zuck Road to I-79
- US 19 from 38th Street to US 20
- US 19 from Oliver Road to Townhall Road
- SR 97 from I-90 to US 20
- SR 8 from I-90 to US 20

Boroughs and Cities

- US 20 in Girard
- SR 18 in Platea Borough
- US 6N from Frye Road to SR 99 in Washington Township and the Borough of Edinboro
- SR 99 from US 6N to Crane Road in Washington Township and the Borough of Edinboro
- US 19 in Waterford Borough
- SR 8 in Union City
- SR 8 in Wattsburg Borough
- US 20 west of Northeast Borough

General Measures of Effectiveness

Four general measures of effectiveness were used to evaluate the operations of the over-all transportation network:

- *Network-Wide Vehicle Miles of Travel (VMT)* – This measures the number of miles vehicles travel county-wide. Under the No-Build conditions 15% of the county-wide VMT operate at LOS D or worse.
- *Network-Wide Vehicle Hours of Travel (VHT)* – This measures the amount of time the county’s travelers travel each day. Under the No-Build conditions 19% of the county-wide VHT operates at LOS D or worse.
- *Overall Network Delay* – This measures the amount of time that is added to county-wide travel due to traffic congestion on roadways or intersections. Under the No-Build Conditions county travelers are delayed over 2,558,000 hours per year, with over 12% of the delay resulting from all-way stop controlled or signalized intersections.
- *All-way Stop or Signalized Intersection LOS* – This measures the traffic operations at the signalized or all-way stop controlled intersections. Under the No-Build conditions, 48 of the county’s 362 fully controlled intersections operate at LOS D or Worse.

All told, user delay costs are expected to reach over \$46 million per year by 2040 under the 2040 No-Build Scenario.

Erie County Travel Demand Model

As part of this 2040 LRTP update, the Erie County Travel Demand Model was enhanced and re-calibrated. The TDM is a computer-based model that estimates the travel demand of the County’s residents, visitors, and workers. The model was validated within published guidelines

The largest enhancement of the model was the inclusion of intersection-level estimates of travel delay, rather than relying on roadway segment-level estimates of delay. This allows the model to be more targeted in the evaluation of proposed transportation projects and identify the specific causes of congestion. This is important since the stop signs, yield signs, and traffic signals along the County’s roadways account for a significant portion of overall travel delay.

The travel demand model predicts existing and future traffic volumes, travel speeds, travel time, and congestion along the area’s roadways. These conditions vary according to changes in population, employment, roadway capacity, or traffic control.



Exhibit 2.5.3 - Traffic Volume (Countywide)

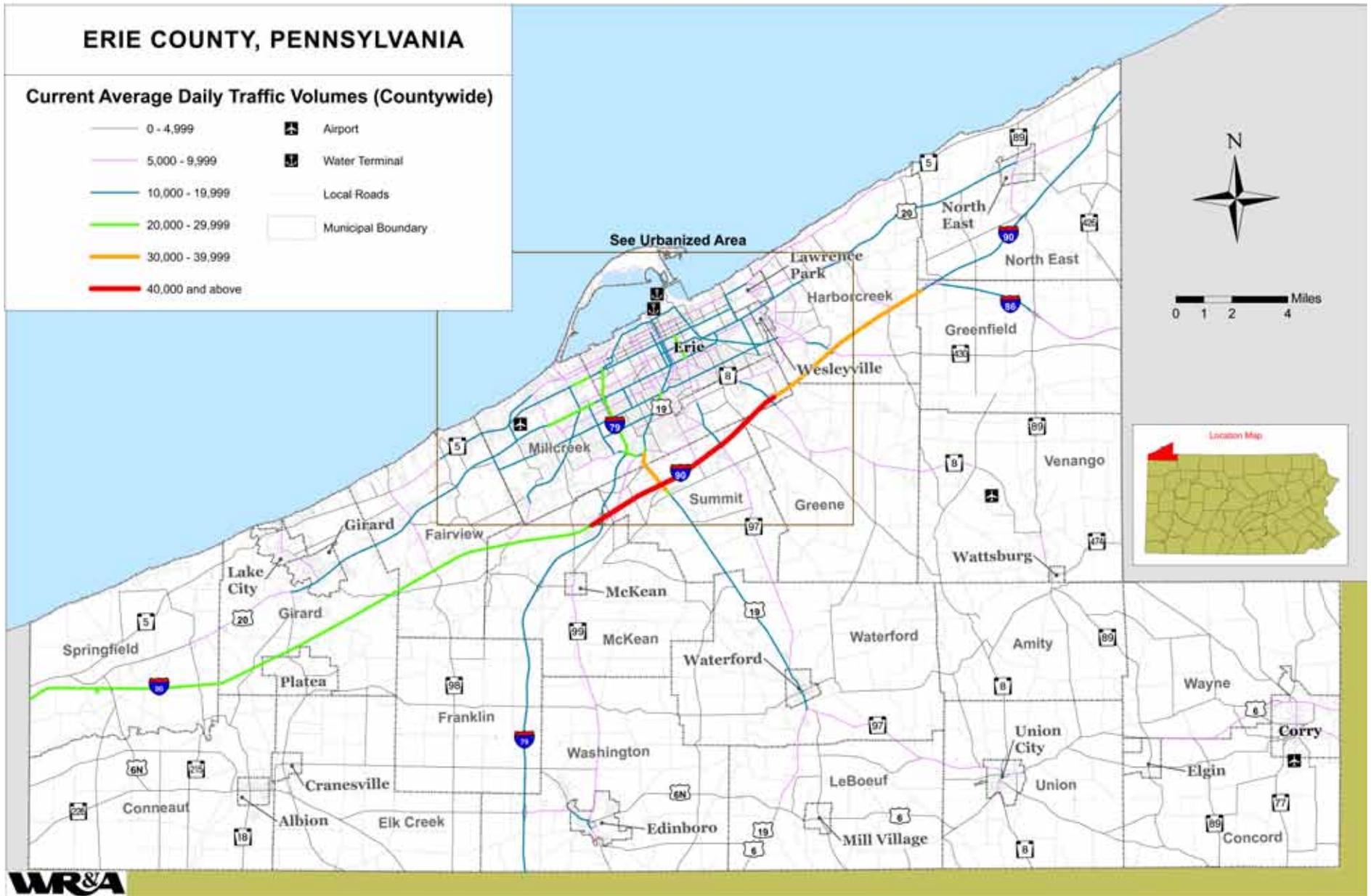
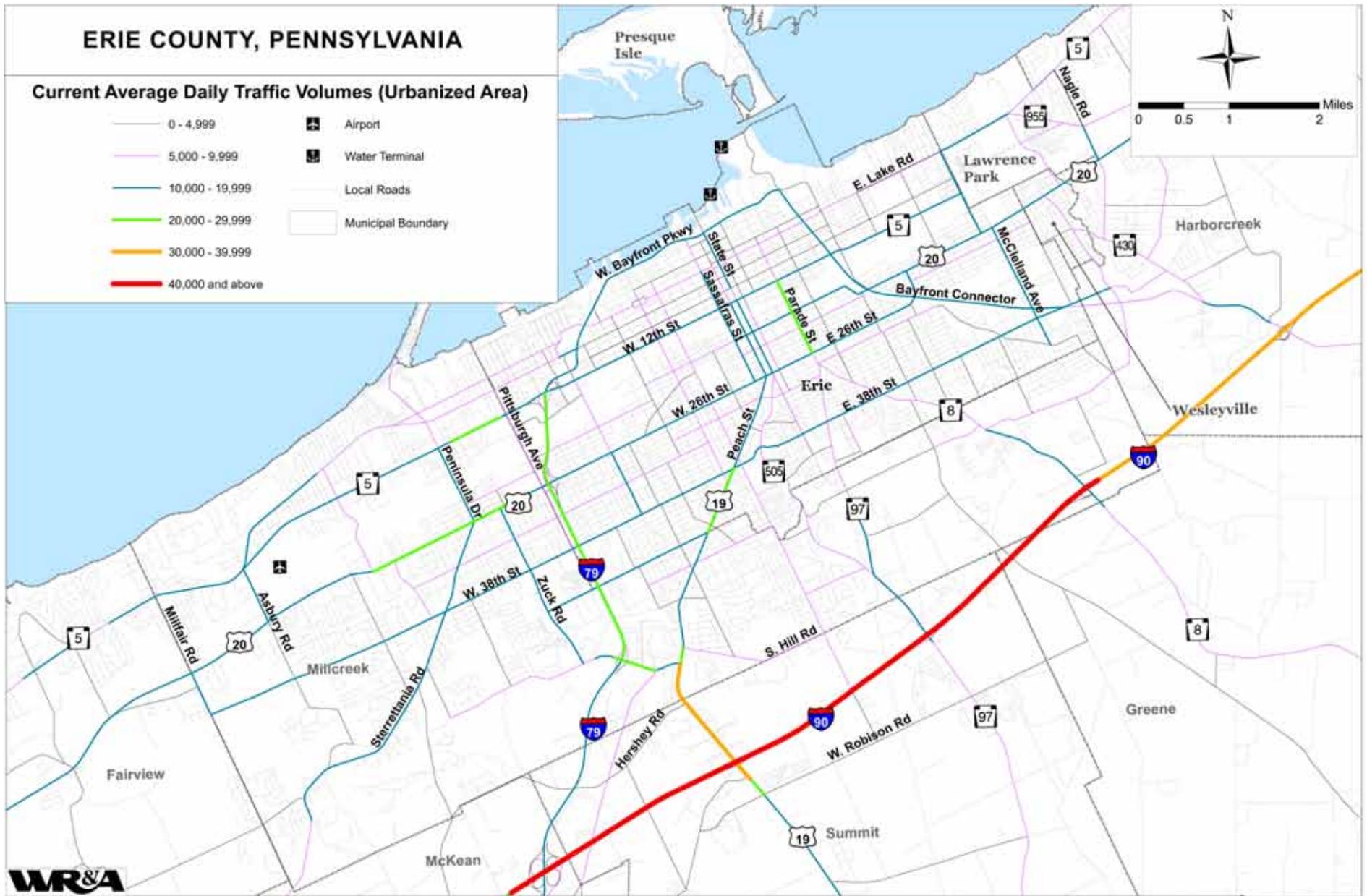


Exhibit 2.5.4 - Traffic Volume (Urban Areas)



● 1 PLAN INTRODUCTION ● 2 TRANSPORTATION SYSTEMS, TRENDS AND ISSUES ● 3 BLUEPRINT PLANNING ● 4 RECOMMENDATIONS AND IMPLEMENTATION



Exhibit 2.5.5 - 2010 Baseline Level Of Service

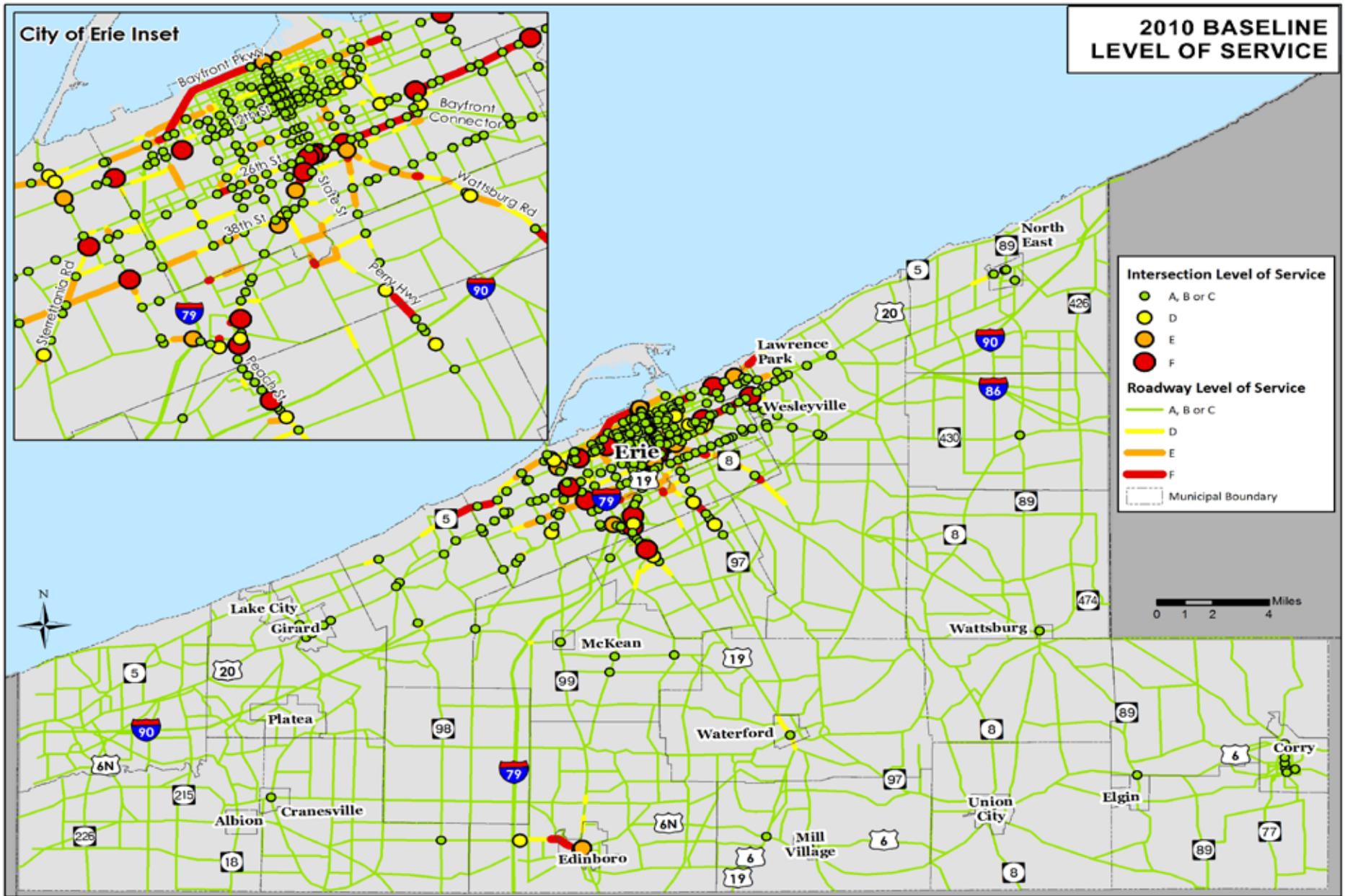
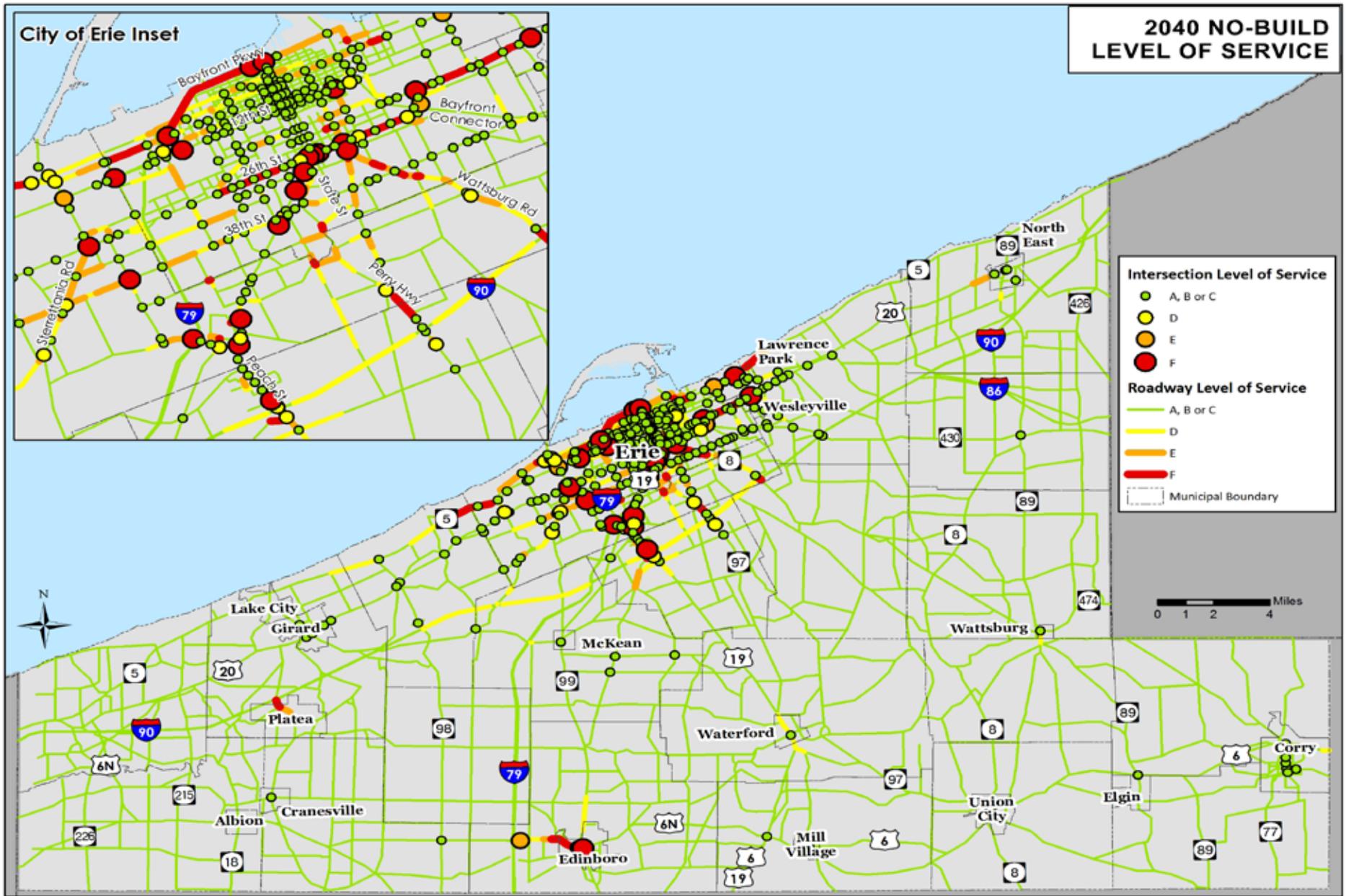


Exhibit 2.5.6 - 2040 No-Build Level Of Service



1 PLAN INTRODUCTION
 2 TRANSPORTATION SYSTEMS, TRENDS AND ISSUES
 3 BLUEPRINT: PLANNING
 4 RECOMMENDATIONS AND IMPLEMENTATION



Pedestrian, Bicycle, and Trail Network

Erie County's pedestrian, bicycle, and trail network serves many of the urban areas with an extensive public sidewalk system and multi-use walking / biking pathways, while also connecting to and through the more rural areas with a combination of off-road recreational trails, rail-trail corridors, and statewide bicycle routes. Notable focal points of this system include:

- *BicyclePA Route A*: runs north-south through the entire state from the Pennsylvania / West Virginia border, entering Erie County along PA 98 before turning onto PA 832 and connecting with Presque Isle.
- *BicyclePA Route Y*: runs east-west through the entire state from Ohio to New York, entering Erie County from Crawford County along US 19 before turning east onto US 6 to Warren County as a designated PA Byway and Heritage Corridor.
- *BicyclePA Route Z*: runs east-west from Ohio to New York, mostly following PA 5 and the Great Lakes Seaway Trail.
- *The Great Lakes Seaway Trail*: a designated National Scenic Byway (the first in Pennsylvania) that runs east-west for approximately 64 miles through Erie County primarily along PA 5, but including portions of Alternate PA 5, the Bayfront Parkway, Presque Isle Drive, and US 20. The Great Lakes Seaway Trail is part of a broader 518 mile route that connects the shores of Lake Erie to the Niagara River, Lake Ontario, and the St. Lawrence River in New York, providing biking and driving linkages to unique historical locations, cultural heritage sites, and scenic vistas. Locally, popular destinations include Presque Isle State Park and Lighthouse, Tom Ridge Environmental Center, the Bayfront District, Erie Maritime Museum, Land Lighthouse, and Lake Erie Wine Country (www.seawaytrail.com).
- *PA Route 6 Heritage Corridor*: one of twelve state designated Heritage Areas in Pennsylvania. The corridor runs east-west across the state's northern tier through eleven counties along US Route 6. Through Erie County the corridor also includes US Route 6N which spurs off the main corridor west a Mill Village Boro and runs through the boroughs of Albion and Edinboro. The corridor is managed by the Route 6 Alliance. The group's purpose is to plan and implement programs that help enhance, maintain, and preserve the characteristics of Route 6 in Pennsylvania in order to attract visitors to communities along the corridor. Municipalities along the corridor can also apply to become 'Heritage Communities', a program which provides assistance for community tourism initiatives and provides priority consideration for certain state discretionary funding programs. (www.paroute6.com)



Current philosophies on maintaining and expanding the non-motorized transportation system emphasize the need to provide safe local and regional walking and biking routes to link pedestrians and bicyclists with neighborhoods, employment centers, services, commercial areas and other business districts, parks, and cultural facilities such as schools and churches. Accomplishing this goal within Erie County will likely require a focus on the following:

Priority Pedestrian / Bicycle Network: Establish a “Priority Pedestrian / Bicycle Network” in order to develop a city and/or region-wide sidewalk, bicycle, and trail improvement program that will highlight key corridors for future prioritization and identify locations for design standards or maintenance.

Accessibility: Ensure the accessibility of the bicycle and pedestrian network to all residents of the region, including specific actions ranging from the incorporation of ADA curb ramps and related improvements to the installation of bike racks and lockers throughout the county.

Complete Streets: Plan for a “Complete Streets” approach that integrates transit, bicycle, and pedestrian facilities and related requirements into all appropriate roadway and bridge improvement, reconstruction, or expansion projects.

- *Bayfront District Trail Network:* includes a network of trails through the City of Erie to connect various amenities and provide public access to the waterfront for pedestrians and bicyclists. Notably included is the Bayfront Connector Trail – a paved multi-purpose trail that runs along the Bayfront Connector and connects Presque Isle State Park to Penn State Behrend.
- *Karl Boyes Trail:* designated a National Recreation Trail, this ADA accessible multi-purpose trail makes a circuit of Presque Isle State Park, connects to the Perry Monument, and is a popular destination for bicyclists, in-line skaters and joggers.
- *Corry Junction Greenway Trail:* Erie County’s first Rail-to-Trail venture and supported by the Northwest Pennsylvania Trail Association, it runs north-south for approximately six miles through the Brokenstraw Valley and along the old Penn Central rail corridor to connect Corry across the state line to Clymer, New York (www.nwpatrail.org). On a broader scale, the Corry Junction Greenway Trail is currently one link in the Erie-to-Pittsburgh Trail Alliance’s (EPTA) plan for a continuous trail linking the Erie Bayfront to the Point State Park in Pittsburgh (www.eriepittsburghtrail.org).

Throughout the development of this plan, a number of specific pedestrian and bicycle related issues, needs, and potential projects were identified by the general public, focused stakeholder groups, individual municipalities, the Project Advisory Committee, and from previous studies and plans. Interests ranged from individual crosswalk, intersection, or sidewalk segment improvements, to municipal-wide pedestrian networks, to countywide rail trail and bicycle route expansion. The list of projects are summarized as follows:

- *Erie Metro Area Issues:* Within the City of Erie and the surrounding metropolitan area, pedestrian / bicycle / trail concerns included:
 - City of Erie – Possible bike route improvements to 8th Street, Greengarden Boulevard, or Lincoln Avenue
 - Millcreek Township – numerous requests including bike route upgrades to PA 832, Sterrettania Road, and Peninsula Drive; pedestrian/bike safety concerns along Asbury Road, West Lake Road, and the entrance to Presque Isle State Park; multi-use trail requests to connect local schools to Asbury Road through Asbury Woods; and sidewalk expansion requests for 38th Street, Washington Avenue, and Peach Street near the Millcreek Mall.
 - Lawrence Park Township – Shoulder improvements for pedestrian/bike access along PA 5
 - Fairview Township – Creation of multi-use facilities with school and park connections
 - Harborcreek Township – Pedestrian crossing concerns and bike route paving along the Bayfront Connector, PA 430, and Jordan Road near Penn State Behrend.

- *Erie County Area Issues:* Throughout Erie County’s outlying communities, pedestrian / bicycle / trail concerns included:
 - Summit Township – Bike route maintenance and drainage concerns along PA 97 near Marsh Road
 - Greene Township – Bike route and sight distance improvements along PA 8 at Bennett Road
 - Edinboro – Bike route modifications and signing improvements around US 6N at PA 99
 - Corry – Sidewalk expansion along US 6 and near the Wal-Mart
 - Waterford – Pedestrian access and bridge crossing improvements near US 19 / PA 97 and the Fort LeBoeuf Judson House
 - Countywide – Improvements to bike route signing along Flatts Road, installation of bike racks and lockers, wider shoulders for “share the road” travel and related driver / cyclist education
- *Bayfront Pedestrian Crossings:* The 2009 Erie Waterfront Master Plan identified numerous potential locations for at-grade pedestrian crossing improvements, pedestrian overpasses, roundabouts and other intersection improvements along the Bayfront Parkway.
- *Bayfront Trails:* Also included in the 2009 Erie Waterfront Master Plan were a dozen trail extension and improvement projects throughout the Bayfront area.
- *Rail and Rural Trails:* Stakeholder outreach and document reviews identified several candidate sites for greenway and water trail extensions or improvements.

The concepts listed here could exceed \$60 million in construction costs, not including right-of-way or environmental mitigation costs. The next step in the project development process for most of these projects should be to conduct regional feasibility study and prioritization projects. This approach will help to advance projects more rapidly, capitalize on other project or development opportunities whenever they arise, and provide the most safety, mobility, or recreational benefits to the county and its communities at-large. These projects should also include development of bicycle and pedestrian design standards for various roadway and area types within the county.



Public Transportation

Public transportation options within Erie County include local transit, trolley, shuttle, and paratransit services; local park and ride facilities; inter-city motor coach services; and local taxi services.

The "e"

The Erie Metropolitan Transit Authority (the "e") administers and operates local public transit service in Erie County. The "e" 's fixed bus route services primarily include 12 daily routes traversing the City of Erie and the surrounding urbanized areas. In addition, the "e" operates four county routes on select days that serve the outlying communities as far as Harbor Creek, Albion, Corry, and Edinboro; and four special service routes/schedules serving university destinations for Mercyhurst main campus, Mercyhurst Northeast, Gannon University, and Edinboro University.

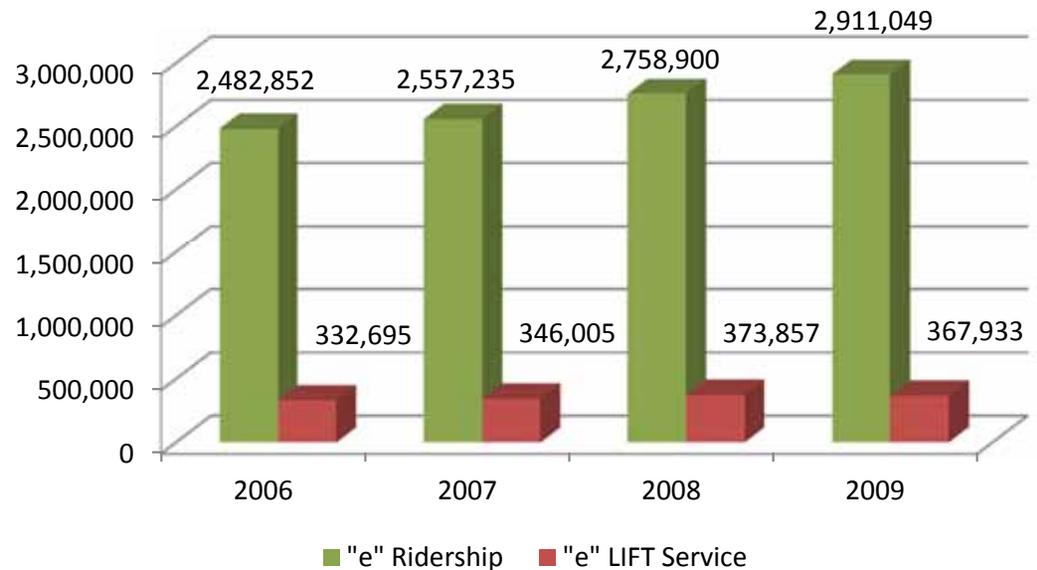
The transit authority also operates the "e" LIFT paratransit service as a door-to-door, shared ride, advance request transportation system available to the general public. Included in this program is a Rural Transportation Program for Persons with Disabilities (PwD) funded through PennDOT, as well as a Medical Assistance Transportation Program (MATP) free for qualified individuals.

Additional programs include Welfare to Work (WtW) services, free transit programs for senior citizens, and Bike on the Bus programs. The BayLiner Trolley is also operated by the "e" as a free public transit option that helps both employees and the tourist industry for many downtown Erie venues. The BayLiner utilizes a special low ride / low floor trolley with fixed stops and the ability to be "flagged down" along its State Street route from the Bayfront to 14th Street.



Graphic Source: http://www.ride-the-e.com/_files/docs/file_84.pdf

Exhibit 2.5.8 - Annual EMTA Ridership (Passengers)



The “e” has indicated that their fixed route needs are generally well met. Recent ridership trends for 2006 through 2009 show an increase of approximately 16% for combined regular transit and paratransit services, which amounts to almost half a million additional passengers. Good relationships with the Erie County MPO and PennDOT District 10, as well as successful university partnerships with Mercyhurst and Edinboro, have helped to maintain and improve services, expand university routes, and plan for technology improvements such as vehicle tracking systems that enable users to better predict transit times based on real-time information. Potential future concerns and opportunities identified by the “e” include:

- Construction of a new transit facility. This is the priority project for the “e”. The existing facility has insufficient parking, problematic access for buses, and environmental concerns for employees. Also, the transit and paratransit services currently operate from separate locations. The new facility will enable the “e” to consolidate in order to improve efficiency.
- Expansion of the Automated Vehicle Location (AVL) system to the entire bus fleet.
- Expansion of services for universities and tourism destinations.
- Construction of additional park and ride facilities in southern Erie County near the I-79 & US 6N interchange, and in the eastern urbanized area near the I-90 & Bayfront Connector interchange.

In addition to the “e” ’s priorities, several comments related to transit were received from stakeholder interviews and the general public:

- Improve countywide transit service including daily service on current routes serving the outlying communities, additional service to the Girard/Lake City area, and the creation of a ‘rural loop’ to provide better connections between destinations in the southern region of the county.
- Update the “e” ’s Transit Service Planning Study (June 2006) in order to quantify current demand, needs, and the feasibility of adding or expanding service to underserved areas.
- Improve bus shelters and construct new shelters at key transit stops. As part of this effort a detailed inventory of existing shelters should be established as well as design standards to ensure safety, accessibility, while also reflecting community character that adds to the aesthetics of the area. Partnerships with local businesses, universities, and municipalities should be explored to assist with the design and maintenance of these facilities.

- Strengthen coordination between the “e” and economic development agencies to identify potential job access commuting routes to link disadvantaged populations with potential employers.

Park & Ride

Park & ride facilities help to encourage ride sharing and reduce single occupancy vehicle (SOV) use for daily commuters. They can also provide extended benefits when planning for anything from tourist activities or special events, to emergency services staging or evacuation scenarios. There are currently two park & ride lots within Erie County, with a third under construction including:

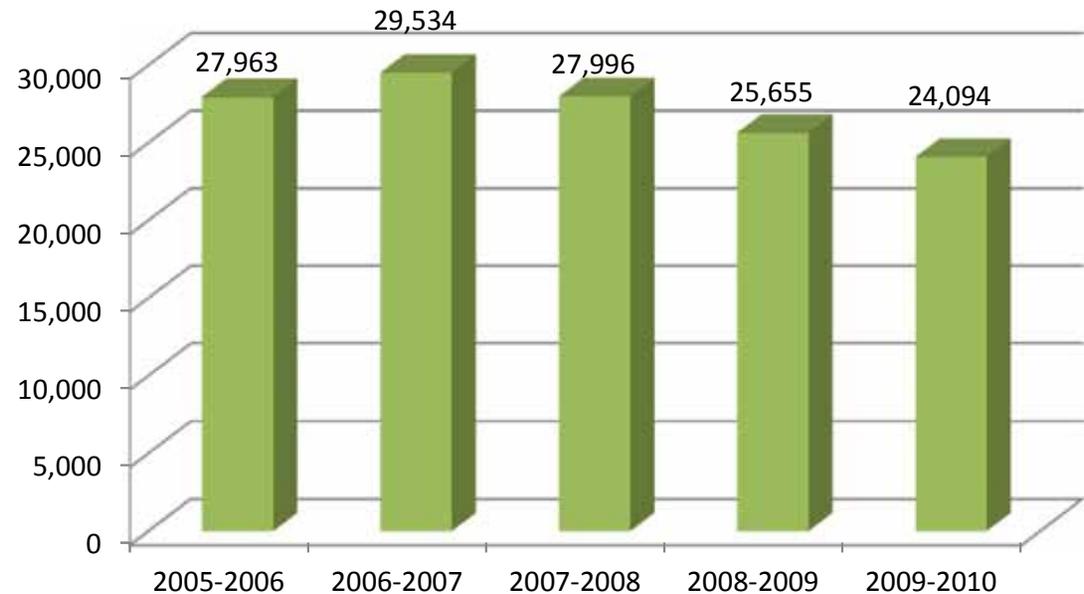
- Liberty Park – Bayfront Parkway at Liberty Street (225 spaces)
- Intermodal Center – Bayfront Parkway at Holland Street (151 spaces)
- Lincoln Avenue (under construction) – 12th Street at Lincoln Avenue (152 spaces)



Inter-City Motor Coach

Regularly-scheduled inter-city motor coach service within Erie County is provided by Greyhound Lines. Additional charter operations around the area are provided by carriers such as Coach USA, Anderson Coach, or Gray Line of Niagara Falls. Greyhound Lines (www.greyhound.com) operates out of Erie's Intermodal Center located downtown along the Bayfront Parkway and provides both passenger motor coach service and Greyhound Package Express service. Greyhound service links Erie passengers to over 2,300 destinations across North America. Locally over the past several years, Erie Greyhound has averaged just over 27,000 passengers annually.

Exhibit 2.5.9 - Annual Greyhound Ridership (Passengers)



Taxi

Erie Yellow Cab is the largest taxi service provider within Erie County and provides on-call point-to-point transportation throughout the county and all surrounding areas. Additionally, Erie Yellow Cab accommodates prearranged time call service to homes, hotels, or places of work, as well as on-demand delivery and courier service. Public cab stands are also maintained at the airport, Greyhound bus station, and within four blocks of the Amtrak train station.

Additional taxi services within the county are provided by the Corry Cab Company and a number of private limousine services. Seasonal water taxi services (approximately late May through mid-October) are also provided by the Erie-Western Pennsylvania Port Authority with connections between the Bayfront at Dobbins Landing and Liberty Park to the Waterworks at Presque Isle State Park.

Rail Service

Extensive railroad infrastructure in Erie County includes two primary Class I railroads (CSX and Norfolk Southern), several regional and short line railroads, and Amtrak passenger service (along the CSX rail corridor) along the Lake Shore Limited route.

Freight Rail

Historically, over 70 trains per day pass through the main east-west rail corridor operated by CSX Transportation (CSX) and Norfolk Southern (NS) for approximately 95 miles through the county. These rail lines generally run parallel to each other along the northern edge of the county and the Lake Erie shoreline, with CSX and NS providing the bulk of Class I rail freight service between Chicago and Buffalo. CSX operations fall within their Chicago Line and Lakeshore Line; NS operations fall within their Buffalo / Cleveland Line.



Exhibit 2.5.10 - Statewide Rail Network & Freight Volumes

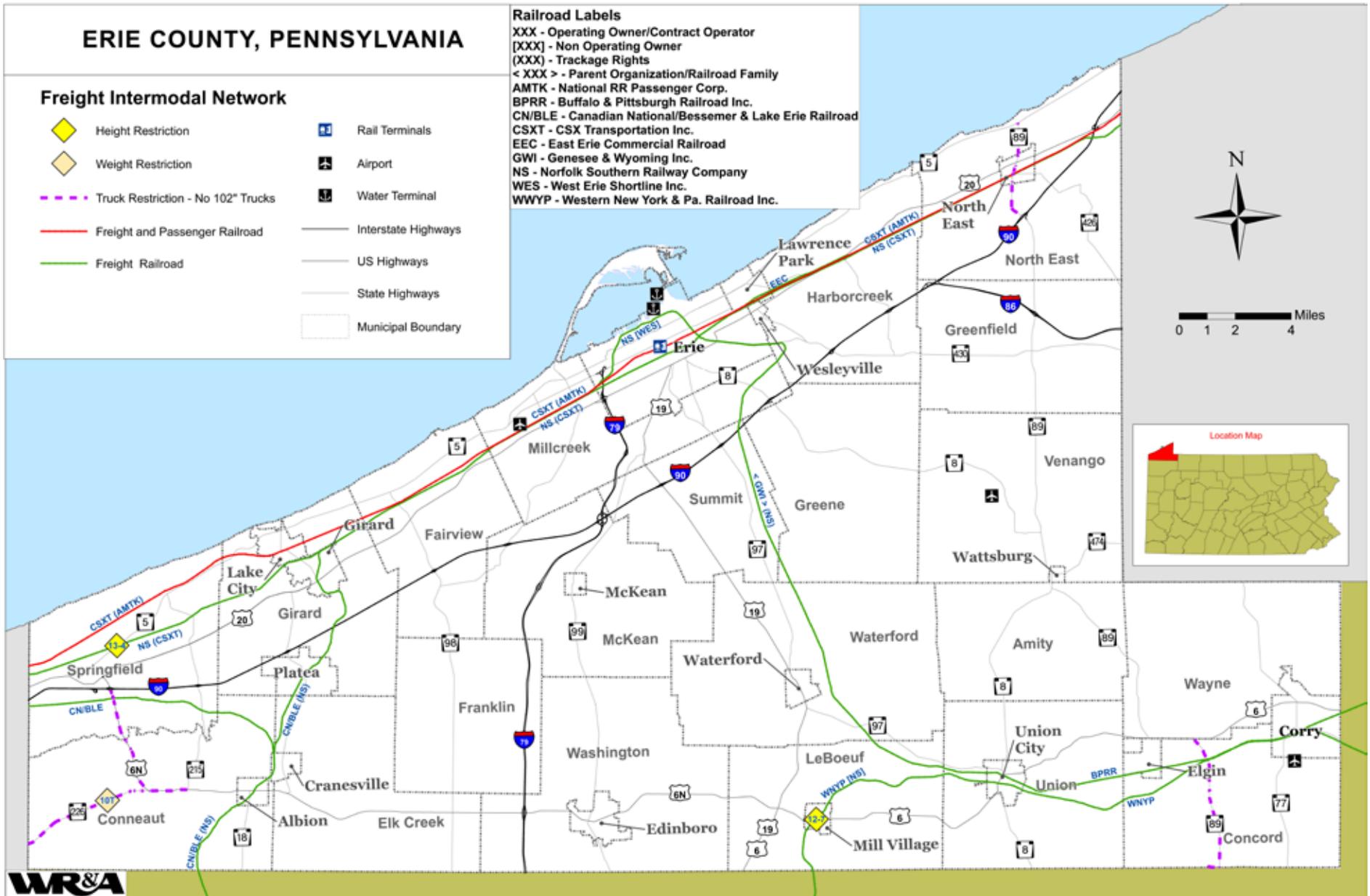
Corridor	Units		Ton-Miles		Trackmiles	
	(Thousands)		(Millions)			
Central Corridor	1,464.4	34%	12,897.0	54%	581	12%
Erie Corridor	842.3	20%	1,649.8	7%	95	2%
I-95 Corridor	639.6	15%	812.9	3%	136	3%
Southwest Corridor	562.1	13%	4,108.7	17%	183	4%
I-81 Corridor	294.4	7%	854.2	4%	67	1%
Harrisburg-Binghamton Corridor	191.1	4%	1,027.4	4%	180	4%
All Others	281.6	7%	2,609.8	11%	136	74%
Total	4,275.5	100%	23,959.8	100%	1,278	100%

Graphic Source: Pennsylvania Intercity Passenger and Freight Rail Plan, February 2010.

According to the 2010 Pennsylvania Intercity Passenger and Freight Rail Plan:

- The Erie Corridor is “double-stack cleared”, meaning that tunnel, bridge, or other clearances are sufficient to allow the passage of specially-designed cars that can carry two double-stacked shipping containers instead of just one. The corridor is also “286K Compliant”, meaning that the track itself is able to support up to 286,000 pound cars. Both conditions are important to accommodating future increases in freight volumes or efficiencies.
- The Erie Corridor amounts to only 2% of Pennsylvania’s freight network in terms of track miles, but carries 20% of its carloads. However, 85% of that traffic is through-traffic; both lines (CSX and NS) have very little local industry service and primarily serve as through-lines.
- By commodity type, 75% of the corridor traffic consists of intermodal, coal, or automotive (transportation equipment) freight.

Exhibit 2.5.11 - Freight Intermodal Network



Additional carriers and short line rail operators provide rail service to or through many of the outlying communities within Erie County. Daily rail traffic on these lines is considerably less. Carriers include:

- The Canadian National / Bessemer & Lake Erie Railroad (CN/BLE) connects locally through Albion and Girard as part of a 127 mile line between the Lake Erie Port of Conneaut, Ohio, and steel mills in Pittsburgh. The Class I service primarily carries coal, ore, steel, stone, limestone, and other bulk products.
- The Buffalo & Pittsburgh Railroad (BPRR) connects locally from the City of Erie through Union City and Corry on its way to Elk County. The Class II / regional service is part of Genesee & Wyoming's (GWI) New York / Ohio / Pennsylvania region that operates 527 miles of rail line from New York State through Bradford, Dubois, and Butler, PA, allowing connections with CSX, NS, and the Western NY & PA Railroad.
- The Western NY & PA Railroad (WNYP) connects locally to Mill Village, Union City, and Corry with Class III / local service south to Crawford and Venango Counties, or north to Hornell, New York.
- The East Erie Commercial Railroad (EEC) operates a short section of local switching / terminal line as a test track for GE transportation systems adjacent to the CSX rail corridor
- The West Erie Shortline Railroad (WES) owns a section of track that allows connections to the NS mainline for companies along the Bayfront area in downtown Erie.

The rail network serves the county well locally, regionally, and nationally. However, several concerns were identified with regard to the supporting connections, infrastructure, or development needed to take advantage of that existing network. More specifically, it was noted that:

- Regional industries have inadequate access to intermodal rail networks. Economic development agencies report regular inquiries for large tracts of rail-served industrial properties.
- Rail access to the Port of Erie includes just one track, no tail track, and out-of-date siding.
- The Erie Economic Development Corporation has emphasized that several local sites may benefit from rail capital improvements, and that the re-use of rail in Erie and along brownfield sites should be considered. As an example, recent construction of new storage tracks and a load-unload facility at the former International Paper site supported new industrial development resulting in over 3,500 railcar loadings annually between 2008 and 2010.





- Sections of rail corridor between Corry and Union City have been identified as possible candidates for reducing the line to a single-track in order to open up additional industrial property and/or development opportunities, while also potentially reducing railroad maintenance costs and at-grade crossing concerns.
- Specific freight expansion opportunities may benefit from larger-scale planning and coordination such as the Port of Erie, Erie Inland Port initiative, or the Marcellus Shale industry. As an example, Marcellus Shale fracking materials have begun to be off-loaded to silos in the Corry area for local distribution by truck, and additional opportunities specific to that industry may exist.

Passenger Rail

Amtrak provides passenger rail service through Erie along the Lakeshore Limited Line from Chicago to Albany, where the line splits to serve Boston or New York City. Service is limited to one train in each direction daily, currently scheduled at 1:36 AM for the westbound train, and 7:22 AM for the eastbound train. Ridership trends include:

- Trends since 2006 show a net ridership increase of more than 80%, with more than 15,000 total boardings and alightings in 2010.
- Monthly ridership volumes range from approximately 900 to 1,500 trips per month with typical peaks around March (spring break), July (summer vacations), and November (winter holidays).
- Approximately 50% of all trips between Erie and points east begin or end in New York City.
- Approximately 76% of all trips between Erie and points west begin or end in Chicago.



The Lake Shore Limited operates along CSX tracks, an important freight corridor for New York and New England. Shared freight and passenger rail usage often leads to delays, particularly through congested areas in Chicago or single-track segments in New York. These delays are reflected in an estimated on-time performance for the Lake Shore Limited of only 65-77%. However, much of the right-of-way through Pennsylvania is double-track or better, so few of these delays stem from this portion of the route. Recent New York State requests to double-track the route between Rensselaer and Schenectady and install new signals at the Rensselaer Station could modestly improve the on-time performance and travel time for the overall route.

Exhibit 2.5.12 - Annual Amtrak Ridership (Total Boardings & Alightings Out of Erie Station)

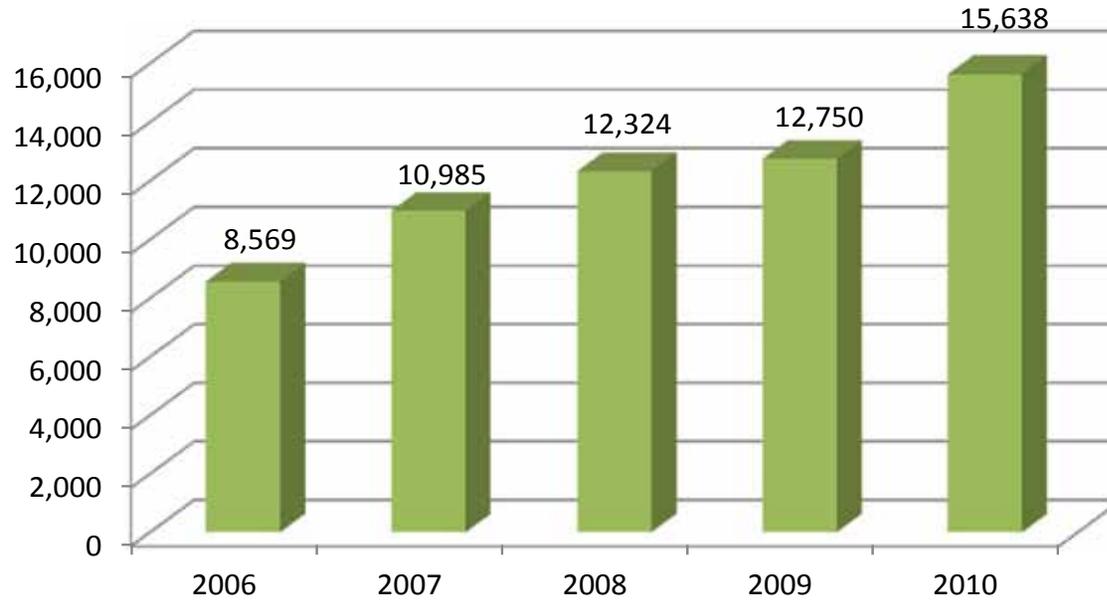


Exhibit 2.5.13 - 2010 Amtrak Travel To/From Boston Out of Erie Station

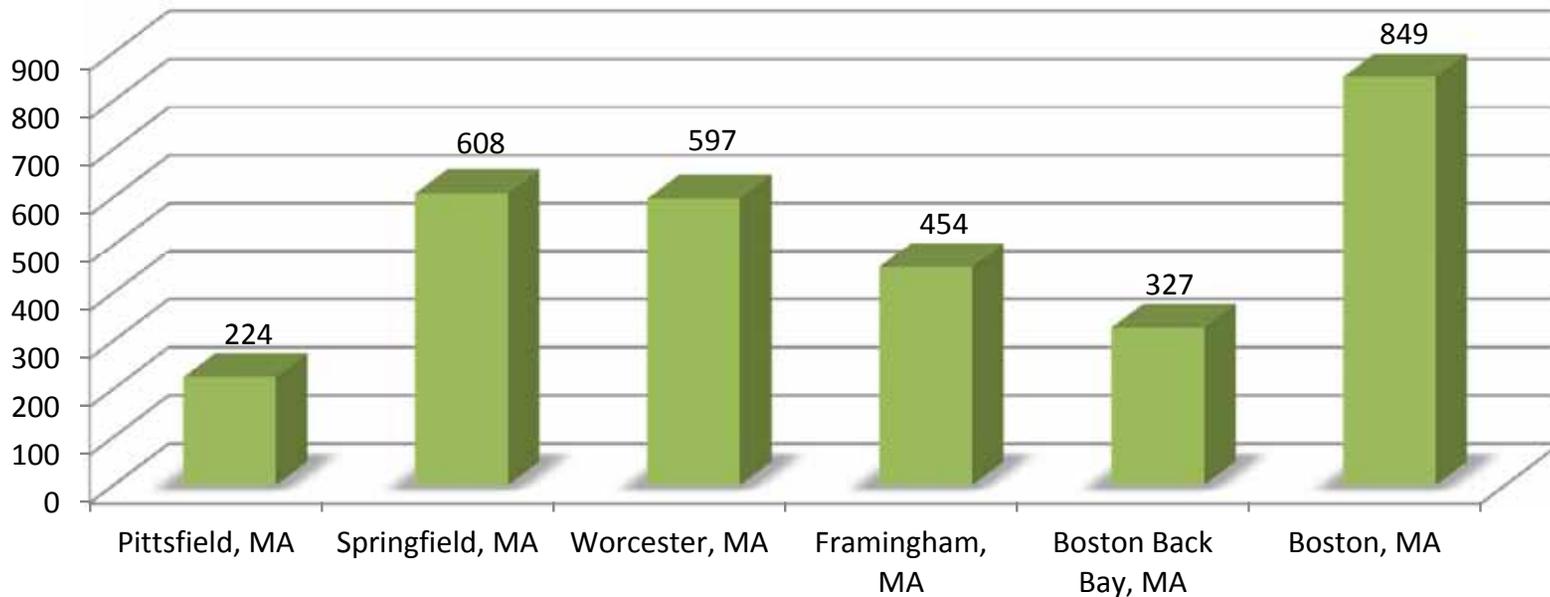


Exhibit 2.5.14 - 2010 Amtrak Travel To/From New York Out of Erie Station

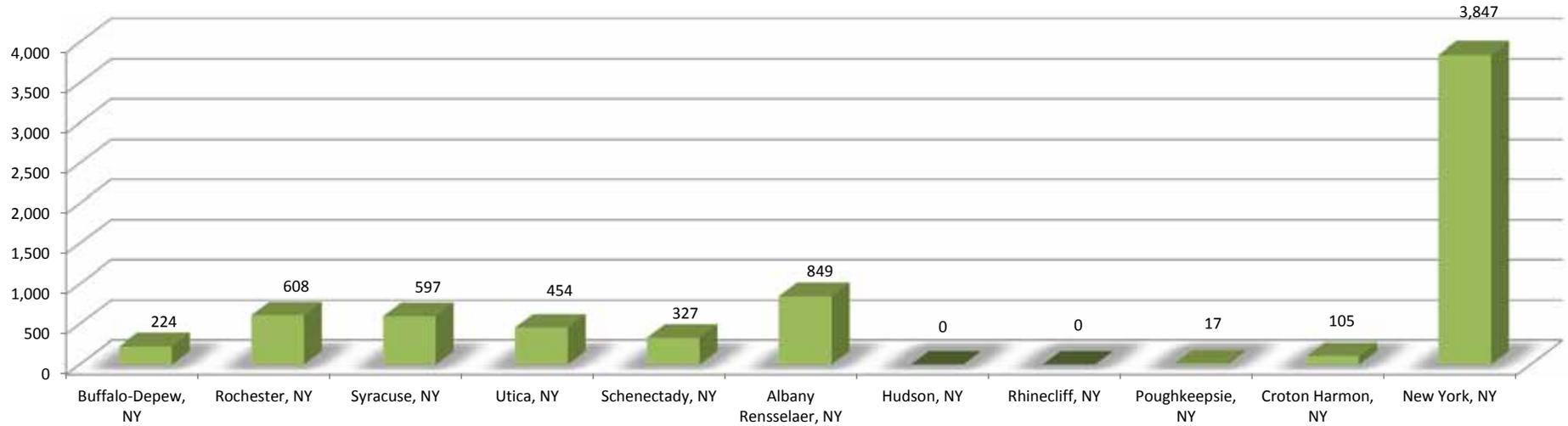
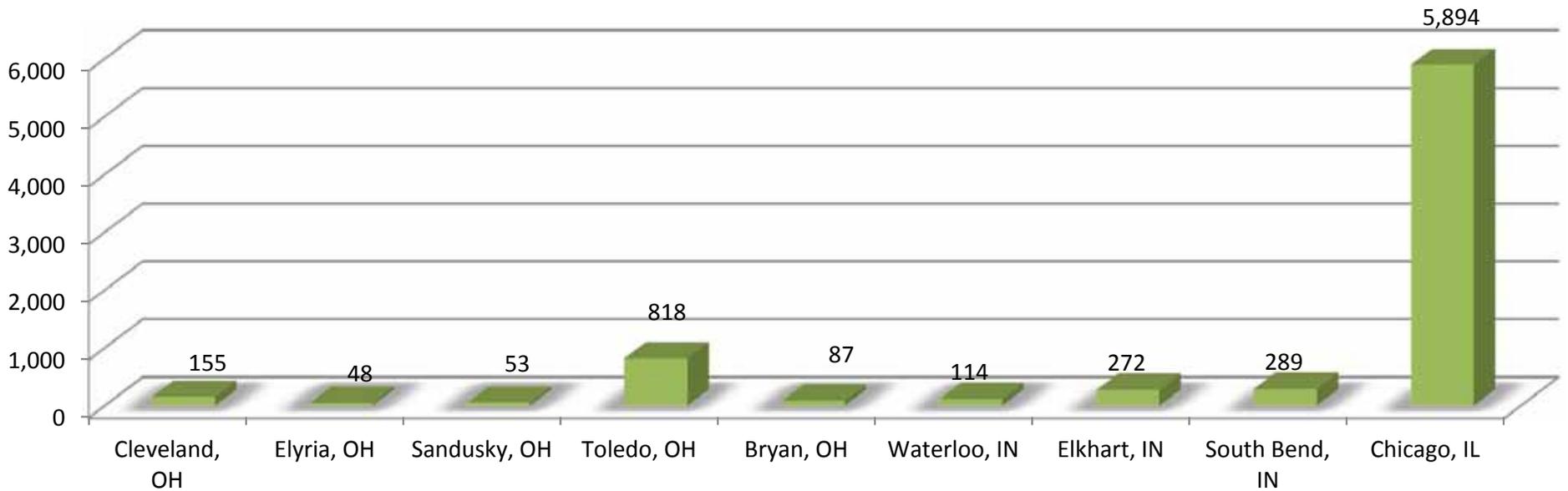


Exhibit 2.5.15 - 2010 Amtrak Travel to/From Chicago Out of Erie Station



Amtrak service is operated out of Union Station in the City of Erie. The station is owned by Logistic Plus USA, Ltd., which leases a small portion of the station to Amtrak and also provides long term parking facilities for Amtrak passengers at no cost. The 23-unit parking lot is located within one block of the station and is connected by adequate pedestrian facilities. One “caretaker” staffs the station during its hours of operation from 12:00 AM to 7:45 AM, though the station does not provide a baggage check or ticket office. Passengers must pre-order tickets on-line or by phone. Station amenities include a waiting area for passengers with carry-on luggage only, rest room, vending machine, and courtesy phone.

Local Amtrak-related concerns generally focused on the limited frequency and late-night schedule of the route, including a disconnect with the availability of late-night bus service and confusion regarding station parking. Broader-based comments highlighted interest in improving service schedules to/from Cleveland, adding passenger service to Pittsburgh, and investing in high-speed regional rail service.

High-Speed Rail

Interest and funding for high-speed rail has historically increased throughout various congressional and state acts from 1965 to 2010; however, that interest is focused on a limited number of officially-designated high speed rail corridors, identified in the National Rail Plan. Three such corridors currently terminate within 150 miles of Erie:

- The Keystone Corridor (Philadelphia – Harrisburg – Pittsburgh)
- The Empire Corridor (New York City – Albany – Buffalo)
- The Chicago Hub Network (Chicago – Toledo – Cleveland)

The 2010 Pennsylvania Intercity Passenger & Freight Rail Plan completed by PennDOT lists the Lakeshore Limited Line through Erie as one of Pennsylvania’s Priority Corridors; but also notes that Erie is geographically isolated from the other major population centers in Pennsylvania, and that Erie’s success will depend on its relationships with Buffalo, NY and Cleveland, OH. The 2010 plan recommends that PennDOT engage in discussions with New York, Ohio, and the Federal Rail Administration (FRA) to include the Lakeshore Limited corridor in the future National Rail Plan with consideration of high-speed rail. Such coordination would tie-in with the efforts and findings of The Ohio & Lake Erie Regional Rail Ohio Hub Study, which proposed four high-speed rail corridors, one of which would pass through Erie along a Cleveland – Buffalo – Niagara Falls – Toronto route.



Air Travel

Two public airports serve Erie County and the region. Erie International Airport / Tom Ridge Field, located in Millcreek Township, is the primary commercial service airport for northwestern Pennsylvania. Corry-Lawrence Airport in the City of Corry is a general aviation airport serving businesses in northwestern Pennsylvania and western New York.



Erie International Airport / Tom Ridge Field

What is now the Erie International Airport (ERI) / Tom Ridge Field began in the 1920's as Griswald Field, an all grass airstrip. In 1938, Griswald Field was dedicated to the City of Erie and renamed the Port of Erie Airport until 1951 when the Erie Municipal Airport Authority (EMAA) was formed. In 2008, the governing body was again restructured and expanded to a 9-member independent board forming the Erie Regional Airport Authority (ERAA), which currently governs and operates the airport.

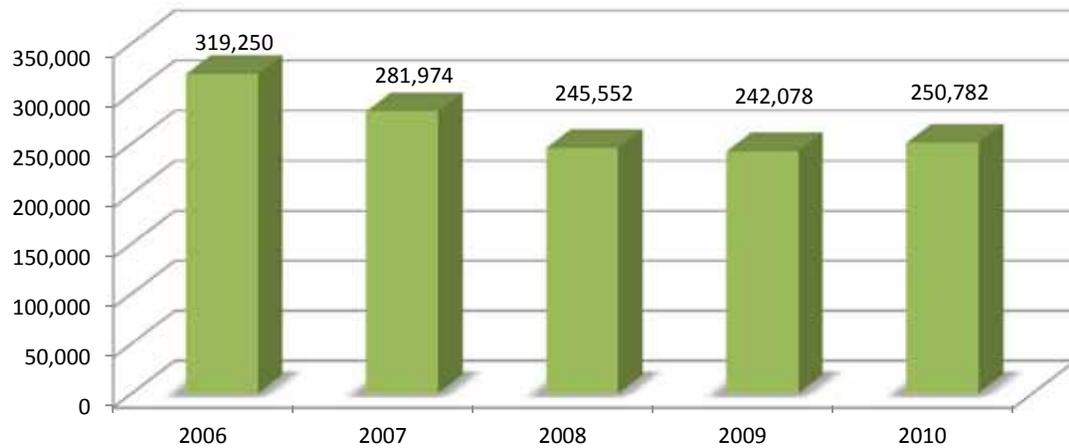
Today the Erie International Airport is an important regional facility and one of only 16 scheduled service airports within the state. Current commercial air carriers include:

- United – offers daily round-trip flights to its connecting hub in Cleveland
- Delta Airlines – offers flights to its connecting hub in Detroit
- US Airways – operates daily round trip flights to Philadelphia

Total passenger volumes and the number of air operations have decreased over recent years, although that trend reversed with an upswing in 2010. The decrease in passenger volumes can be attributed to the rising costs of aviation fuel, current economic conditions, and a reduction in commercial air service offered at ERI to the previously served destinations of Atlanta, Pittsburgh, Harrisburg, Charlotte, Cincinnati, and New York City. Total enplanements and deplanements have varied from 250,000 to over 320,000 trips annually, with nearly 900 travelers each day during peak months.

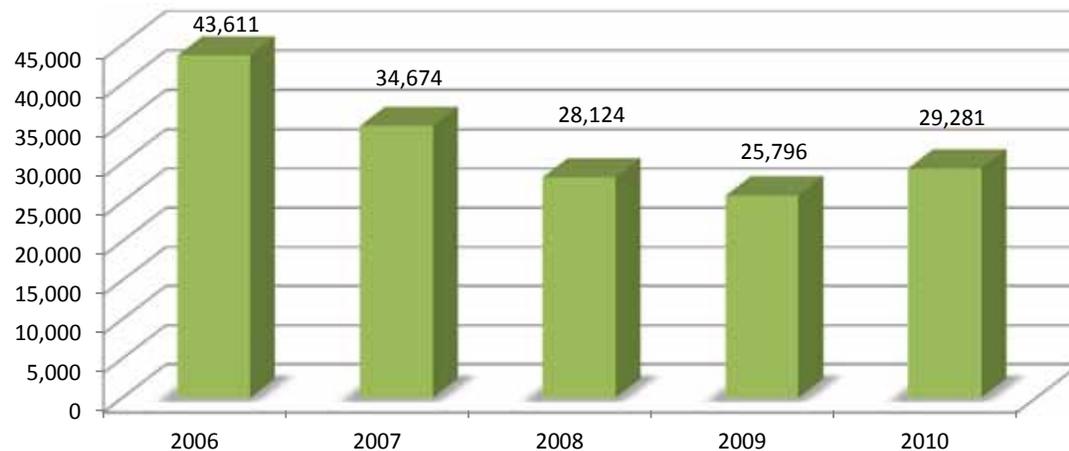
Construction activities for a milestone runway extension project at the airport – the largest capital improvement project in its history – are ahead of schedule and anticipated for completion by the end of 2012. The primary goal of the \$83 million project is safety-focused on an extension of the main runway to 7,500', and the addition of FAA-required standard safety areas of 1,000' at each end of the runway (the airport has otherwise been operating under an FAA safety waiver set to expire in 2014). A secondary benefit is that the longer runway will have fewer weight restrictions and will allow commercial aircraft to fly with more passengers, luggage, cargo, or fuel for longer distances nonstop. The extra runway length will also help reduce flight delays or cancellations and be able to accommodate larger aircraft with more seats per jet. Combined, these conditions will make the Erie International Airport much safer, but also more attractive and profitable for commercial airlines, charter flights, or cargo carriers.

*Exhibit 2.5.16 - Annual Trips to/From Erie International Airport
(Total Enplanements and Deplanements)*



Data Source: www.erieairport.org, Airport Traffic Statistics Report for 2006-2010.

*Exhibit 2.5.17 - Annual Air Traffic At Erie International Airport
(Total Operations)*



Data Source: www.erieairport.org, Airport Traffic Statistics Report for 2006-2010.

The Runway 6-24 Extension Project will be completed by the end of 2012 and addresses the number one priority identified under the latest Erie International Airport Master Plan. Supporting project activities have included business and property mitigations, off site wetlands replacement, storm water and utility improvements, and relocation of Powell Avenue. The project is a successful example of inter-governmental cooperation between the City of Erie, Millcreek Township, Erie County, PennDOT, the ERAA, and the FAA. It has leveraged substantial federal and state discretionary funding for the Erie area, capitalized on the use of county gaming funds, and could provide a full return on its investment in just two years time through economic benefits to the community.

The airport's website (www.erieairport.org) notes that the project "will contribute significantly to the region's economy by removing a hindrance to existing corporate expansion and will foster entrepreneurial business opportunities previously hampered by inadequate airport capacity." Possible service expansion may include destinations such as Orlando, Atlanta, and Charlotte, as well as additional vacation charter flights.



In addition to the runway extension project, other priorities within the airport's master plan include:

- *New Markets*: Capitalize on the pending completion and success of the runway extension project as a means to expand new markets including commercial service destinations, vacation charter trips, or corporate travel activities.
- *Air Cargo Facility*: Construct an air cargo facility to allow for multi-modal opportunities to connect air freight with truck distribution. Such a facility could focus on high value, small quantity, just-in-time shipping and aim to increase the air cargo volume that currently passes through Erie International Airport. Air cargo opportunities may also be planned to capitalize on future benefits of the Erie Inland Port initiative.

- *Terminal Expansion*: Consider a two-phase terminal expansion, or potentially one new terminal project, to improve the facility in general, achieve modern building efficiencies (heating, lighting, etc.), and enhance the airport's image and service opportunities that are crucial to the airport's commercial and corporate travel markets.
- *Maintenance and Emergency Services Facility*: Consider new facilities to enhance maintenance efficiencies, safety, or response times for airport incidents.
- *Air Traffic Control Tower*: Design and construct a modern tower with accompanying technology and equipment improvements to replace aging facilities and air traffic control equipment.
- *Parking Facility*: Develop a new parking facility and covered walkway connections to improve passenger and corporate travel amenities that will help to offset winter travel effects of the region's lake-effect snow season.
- *Master Plan Update*: Revisit the airport's detailed master plan in the 2014 / 2015 time frame with a revised 20 year planning horizon to reflect revised projections after the completion of the runway extension project .

Corry-Lawrence Airport



The Corry-Lawrence Airport is located in the City of Corry, approximately 25 miles southeast of Erie, and operated by the Airport Authority of the City of Corry. It is a general aviation facility and one of several throughout the state classified as a Business Service Airport, although the estimated mix of airport activity is 65% private versus 35% corporate. The airport operates one 4,100' runway, sees over 3,700 air traffic operations annually, and is home-base to approximately 20 privately-owned aircraft.

Over the past ten years, approximately \$3-4 million of airport investments have helped to attract new corporate activities. Several future improvements are noted in the airport's master plan, including a runway extension to 5000' in order to accommodate larger corporate jets and help attract additional corporate air travel. Constraints that potentially complicate the extension project include water reservoir issues at the runway's north end and grading and road relocation issues on the runway's south end. Other future improvements include new hangar and terminal building construction, entrance road and parking area improvements, navigation and lighting improvements, taxiway paving and rehabilitation, and obstruction removal.

Waterborne Transportation

Bordered on its northern edge by Lake Erie, waterborne transportation and waterfront access for both freight and recreational purposes are vital components of the quality of life and economic vitality of Erie County. From a freight perspective, activities are centered at the Port of Erie, Pennsylvania's only Great Lakes Port. The Port of Erie is located on the natural bay formed by Presque Isle and provides access to Canada and the Atlantic Ocean. It is this natural connection to water transport that led to the early development of Erie as a strategic outpost for trade and military efforts. Today, the Port of Erie is multi-faceted; while it continues to serve industrial and trade interests, it is also central to capitalizing upon the economic and recreational opportunities of Lake Erie for residents and visitors. Throughout the area, marinas, beach fronts, fishing opportunities, scenic vistas, and related local waterfront access are integral and valued components of life in Erie County.

Waterborne Freight and Commerce

The Erie-Western Pennsylvania Port Authority (EWPPA) owns and manages the Port of Erie in a manner that surpasses the traditional concept of a working-port to that of a valuable component of Erie's character. EWPPA leads or is involved with many efforts to meet their mission to "promote industrial, commercial and recreational opportunities for the citizens of Pennsylvania on Presque Isle Bay and adjacent waters." This role was clarified in the recent Waterfront Master Plan (2009) that outlines the major projects and top priorities of the Port and for the Erie Bayfront.

The Port of Erie encompasses industrial and shipping facilities east of Dobbins Landing, and commercial, light industrial and residential uses to the west. Freight facilities include the Mountfort Terminal, which handles the port's general cargo. These facilities remain viable economic pursuits in large part due to convenient access to interstate highway system and Class I railroads.

While the existing facilities are valuable assets, several general concerns and needs include:

- Rail access onto Mountfort Terminal is geometrically below standard and operationally inadequate with no storage for rolling stock and no tail-track or bypass-track for efficient and safe switching operations.

Port of Erie Freight Highlights:

Erie Sand and Gravel encompasses over 15 acres, 90,000 square feet of warehouse storage, 1,400' of dockage, and 250' of rail or truck loading dock area

Donjon Shipbuilding & Repair encompasses 44 acres, more than 200,000 square feet of production area, 4,000 feet of pier space, and one of only two dry docks on the Great Lakes capable of dry docking 1,000 foot Great Lakes Self-Unloading vessels.

Connections to I-79 or I-90 via the Bayfront Parkway or Bayfront Connector.

Local rail spurs connect to the CSX mainlines and serve the Mountfort Terminal.





- Freight volume through the Port has been almost entirely limited to one commodity (aggregates) and diversification into new markets or opportunities is desirable. Efforts may require the development of terminal back lands (south of the Mountfort Terminal) for industrial development and commodity handling to diversify freight types and increase freight volumes at the Port of Erie.
- The existing wharf, warehousing, and crane equipment within the port is generally under utilized; future commodity diversification may require new storage or material handling equipment to accommodate specialized cargos (e.g., liquid bulk, wood products).
- Regional trade patterns indicate a strong market orientation toward both Canada and Northern Europe, suggesting the viability of feeder-ship service to Montreal or other Canadian ports.

Recreational Waterfront Access



As part of the 2040 LRTP, the public was asked to identify the most important components of Erie County's transportation system. Waterfront access was the third most-often cited component, ranking just below the local roadways and nearly equal with highway access. The primary waterfront access points for residents are Presque Isle State Park and the Port.

Within the Port of Erie, development over the years has gone beyond a traditional focus on freight shipping to include activities that have revitalized the entire Bayfront. The new Erie County Convention Center, Sheraton Hotel, and supporting recreational venues have been central to this revitalization effort. The 1988 Recreation Plan and land use regulations in the City of Erie's Waterfront District Zoning Ordinance have led to the Port developing its natural amenities to capitalize upon recreational pursuits.



The port area contains both passive and active recreational areas, as well as several boat and fishing access points that attract thousands of visitors each year. Just a few examples include:

- Local boat slips at Lampe Marina (252 slips), Perry’s Landing Marina (245 slips), Bay Harbor East Basin (233 slips), or Bay Harbor West Basin (231 slips) for vessels up to at least 45’ length.
- Liberty Park’s Pepsi Amphitheater, which hosts a number of community events.
- The Bayfront Center for Maritime Studies facility, which offers programming for boat building and navigational study.
- The Erie Maritime Museum, which is home to an authentic early 19th century replica of the USS Brig Niagara, which served Commodore Oliver Hazard Perry during the Battle of Lake Erie in the War of 1812.

The EWPPA also intends to construct additional pedestrian and bicycle amenities and safety enhancements at the intersections, State Street, Cranberry Street, and Liberty Street along the Bayfront Parkway. Future activities also include increasing the opportunities for recreational boating and use of the water, development of under utilized or unoccupied parcels, and improving Bayfront circulation patterns.

Waterfront access serves a variety of uses for many other locations throughout Erie County. Specific points of interest and important county and community assets included:

- Marina access and boat launch areas, such as those located in the Elk Creek or Walnut Creek Access Areas in the western portions of the county; near Presque Isle in the central portion of the county; or the Northeast Marina located farther east in the county.
- Stream fishing opportunities such as Elk Creek or Walnut Creek in western portions of the county; Four Mile through Twelve Mile Creeks in the Harborcreek area; or Sixteen Mile Creek and Twenty Mile Creek in the Northeast area.
- Access to public beach areas such as those throughout Presque Isle, Avonia Beach Park in Fairview Township, Shades Beach in Harborcreek Township, or Freeport Beach / Hallie Reid Park in Northeast Township.



The success of the plan in improving multimodal choices and connections will be measured by ranking projects based upon:

- **Pedestrians** – Extent to which the project will enhance pedestrian travel.
- **Bicycles** – Extent to which the project will enhance bicycle travel.
- **Public Transportation** – Extent to which the project will enhance public transportation services or related facilities.
- **Rail Service** – Ability to help improve passenger or freight rail services.
- **Air Travel** – Ability to help improve passenger air travel or air freight opportunities.
- **Waterborne Transportation** – Ability to improve port, dock, boat ramp, or other waterfront facilities or opportunities for both freight and recreational purposes.



Future Planning Perspectives

From a multimodal transportation perspective, future planning efforts specific to Erie County should capitalize on opportunities to enhance existing choices and facilities specific to each mode of travel, while also expanding options for intermodal connectivity, particularly as related to freight and goods movement. Candidate projects should aim to address not just those traditional congestion-related issues, but also the issues and concerns that are vital to the economic vitality, safety, and quality of life for Erie County residents and visitors. Highlights of this approach by mode include the following:

Roadway System: In addition to the expected preservation and maintenance line-items, the need to resolve any existing and future deficiencies while also planning for potential economic developments (e.g., access to the Port of Conneaut, Erie Inland Port) is essential.

Pedestrian, Bicycle, and Trail Network: The Erie MPO, municipal officials, and stakeholder groups should collaborate to develop an organized approach to plan and prioritize pedestrian, bicycle, and trail improvements. This approach should focus on establishment of a Priority Pedestrian / Bicycle Network, consideration of both ADA and general accessibility issues, and promotion of a Complete Streets approach where project opportunities arise. The goal would be to advance the best mix of projects more rapidly from concept level to project feasibility, into design and construction. Development and utilization of focused line-item programs may be a flexible way in which to address future improvements. Design standards should be established for consistent treatment of bicycle and pedestrian facilities for various roadway type and land use context. Priority bicycle routes should be identified for community, municipal, and PennDOT maintenance crews so that debris removal and spring clean-up can be prioritized to ensure that cyclists can traverse these pathways safely.

Local Transit: Local transit planning should emphasize moving people to jobs. This goal may require improvements, where feasible, to the speed and frequency of the “e”’s City and County routes, or development of a “rural loop” service through key outlying municipalities. Particular attention should be given to any under-served or newly developing centers of employment which may be identified through partnerships between the “e” and the area’s economic development partners and business community. Other transit system improvements include expanding university routes, adding or enhancing park & ride facilities or bus stop shelters at strategic locations, continuing pursuit of a new and expanded transit operations facility, continuing support for the area’s tourist industry, and updating the system-wide Transit Service Planning Study.

Regional Transit: On a broader scale, improvement of local to regional connectivity for transit should be encouraged. Improvements may include bus or shuttle route enhancements to and from the Greyhound and Amtrak stations. Parking, informational signing, or other facility improvements at any of the inter-city transit stops may also be beneficial.

Freight Rail Service: Intermodal infrastructure, equipment, and industrial property development should be supported to capitalize on the county’s extensive railroad infrastructure and expand rail freight opportunities. This focus would include the development of new rail-served properties, and investment in new and improved rail sidings at industrial properties along existing mainline routes of the CSX, NS, CN/BLE, and BPRR railroads. Extensive coordination between the Economic Development Corporation, the Great Lakes Business Partnership, the Economic Development Lead Team, and other economic development partners, can help to guide and prioritize specific improvement opportunities or target areas.

Passenger Rail Service: A detailed study of the existing Amtrak station as it relates to parking demands, parking needs, and coordination of transit or shuttle services during operating hours may be beneficial. From a broader perspective, opportunities to expand train service, add routes, or establish high-speed rail should be considered with respect to the 2010 Pennsylvania Intercity Passenger & Freight Rail Plan, which recommends that collaborative discussions engage Ohio, New York, and the FRA in the context of the National Rail Plan.

Air Travel: Future airport planning efforts should capitalize on the pending completion and success of the Erie International Airport’s runway extension project as a means to expand to new markets. Formal updates to the airport’s master plan should also continue to consider efforts such as the development of an air cargo facility, terminal expansion, and other priority infrastructure or facility improvements. Future planning efforts for the Corry-Lawrence Airport should similarly continue to focus on maintenance and improvement of existing airport infrastructure and related assets and planning for expansion of corporate air travel opportunities.

Waterborne Transportation: As with the plans to support freight rail service opportunities, planning to improve waterborne freight transportation should focus on intermodal infrastructure, equipment, and property development issues. Specifically, this includes improvements to rail access, storage track, and bypass track through the Mountfort Terminal, as well as the development of terminal back lands for industrial use and freight diversification. Alternative or specialized cargos may necessitate port modifications (new wharf, staging areas, rail sidings, cranes, and other equipment) or the development of new private terminals as required by industrial and market demands or a potential feeder service to one or more Canadian ports. The 2009 Erie Waterfront Master Plan should also be revisited to incorporate the latest insight and recommendations resulting from the authority’s 2011 Bayfront Mobility Initiative Freight Analysis.



