

Exhibit 3.5.21 – Total Population within 20 Minutes of Waterfront Access

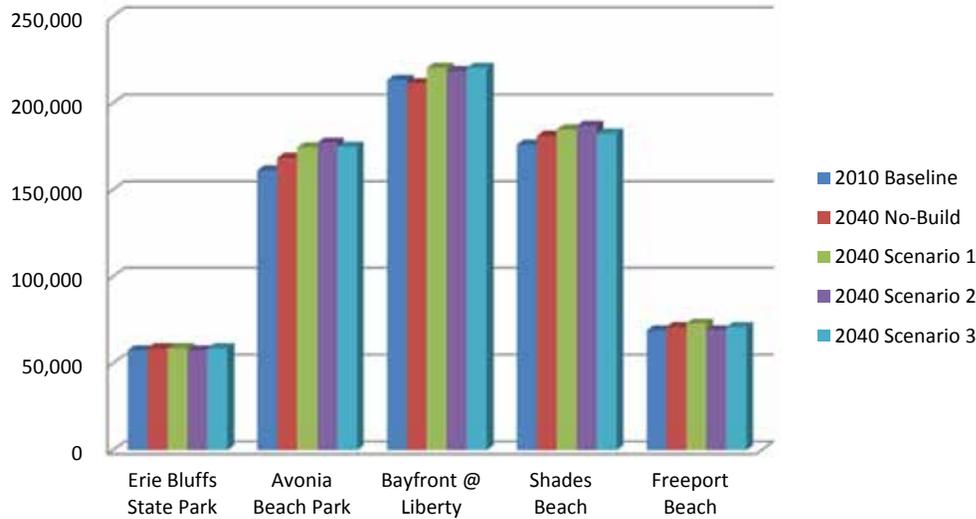
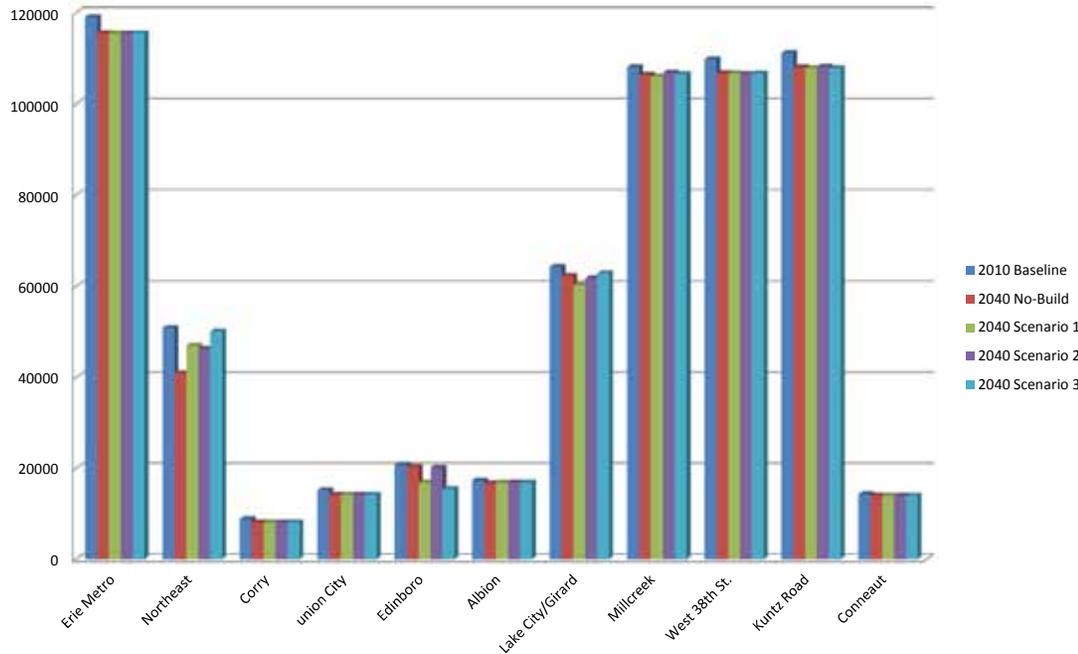


Exhibit 3.5.22 – Number of Jobs within 20 Minutes of Environmental Justice Locations



Waterfront Access

As an assessment of an important asset and quality of life issue within Erie County, waterfront access is summarized in terms of the number of people within 20 minutes travel time of representative waterfront locations during the worst delay period in the TDM (Exhibit 3.5.21).

Specific benchmarks (Exhibit 3.5.3) include:

- Erie Bluffs State Park (Girard Township)
- Avonia Beach Park (Fairview Township)
- Erie Bayfront / Liberty Park (City of Erie)
- Shades Beach Park (Harborcreek Township)
- Freeport Beach / Halli Reid Park (Northeast Township)

Environmental Justice Access to Jobs

As an assessment of potential benefits to the County’s existing Environmental Justice communities and related economic impacts, access to jobs is tabulated in terms of the number of jobs within 20 minutes of representative communities based on applicable demographic, employment, and travel time data in the TDM (Exhibit 3.5.22). Specific benchmark communities (Exhibit 3.5.3) include:

- Area 1 – Erie Metro
- Area 2 – Northeast
- Area 3 – Corry
- Area 4 – Union City
- Area 5 – Edinboro
- Area 6 – Albion
- Area 7 – Lake City / Girard
- Area 8 – Millcreek



System Efficiency and Preservation - The evaluation of each scenario's impact on system efficiency and preservation included measures addressing impacts on levels of service, overall vehicle-hours of delay for automobiles and trucks, and automobile travel time to the Bayfront in Erie.

Levels of Service

As an assessment of traffic congestion and operations along roadway segments and at key intersections throughout the county, level of service (LOS) results from the TDM are compiled. LOS is a letter-grade that reflects how well a specific roadway segment or intersection is operating in terms of capacity, delay, or its ability to handle the traffic volume demands. Specific LOS details from the TDM will be summarized for the AM and PM peak periods and as follows:

- Overall Vehicle-Miles-Traveled (VMT) by LOS (*Exhibit 3.5.23*)
- Overall Vehicle-Hours-Traveled (VHT) by LOS (*Exhibit 3.5.24*)
- Summary LOS Maps (*Exhibits 3.5.25 through 3.5.29*).
- Number of Intersections by LOS (*Exhibit 3.5.30*)

Exhibit 3.5.23 – Network Vehicle Miles Traveled at LOS D, E, F (Percent)

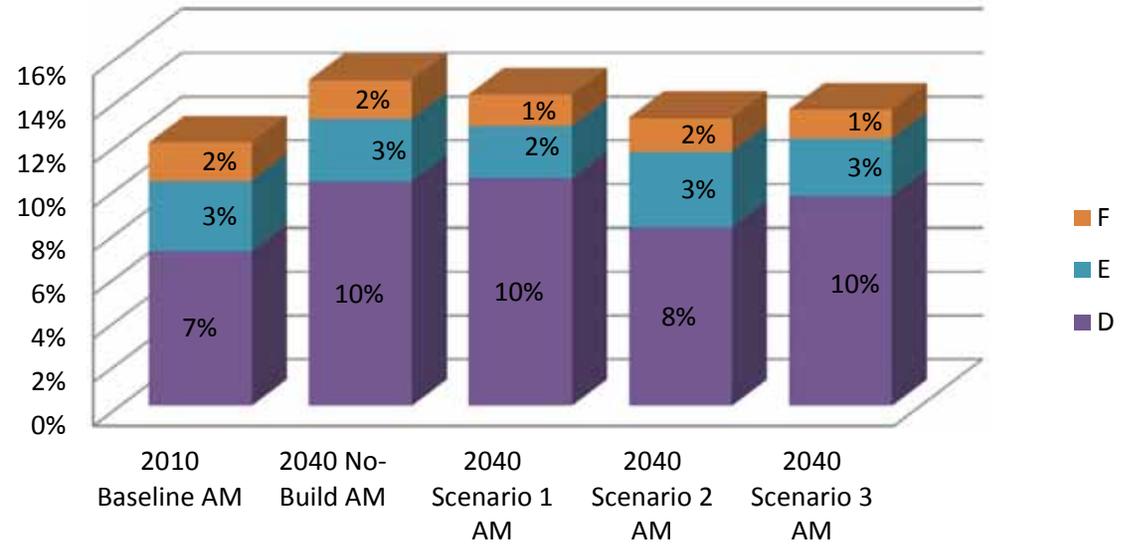


Exhibit 3.5.24 – Network Vehicle Hours Traveled at LOS D, E, F (Percent)

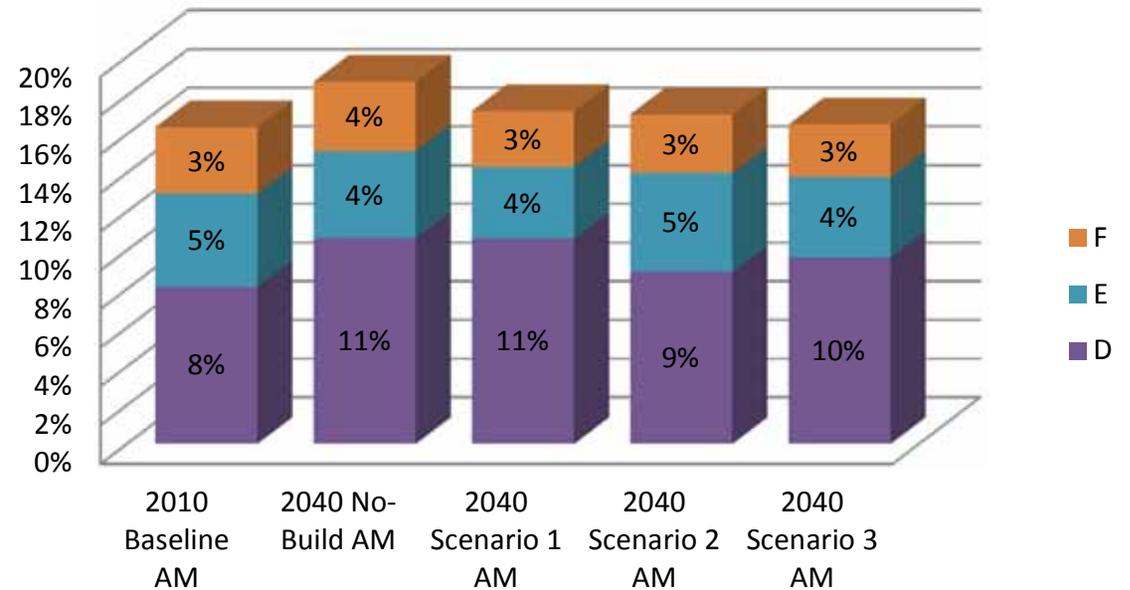


Exhibit 3.5.25 – 2010 Baseline Level of Service

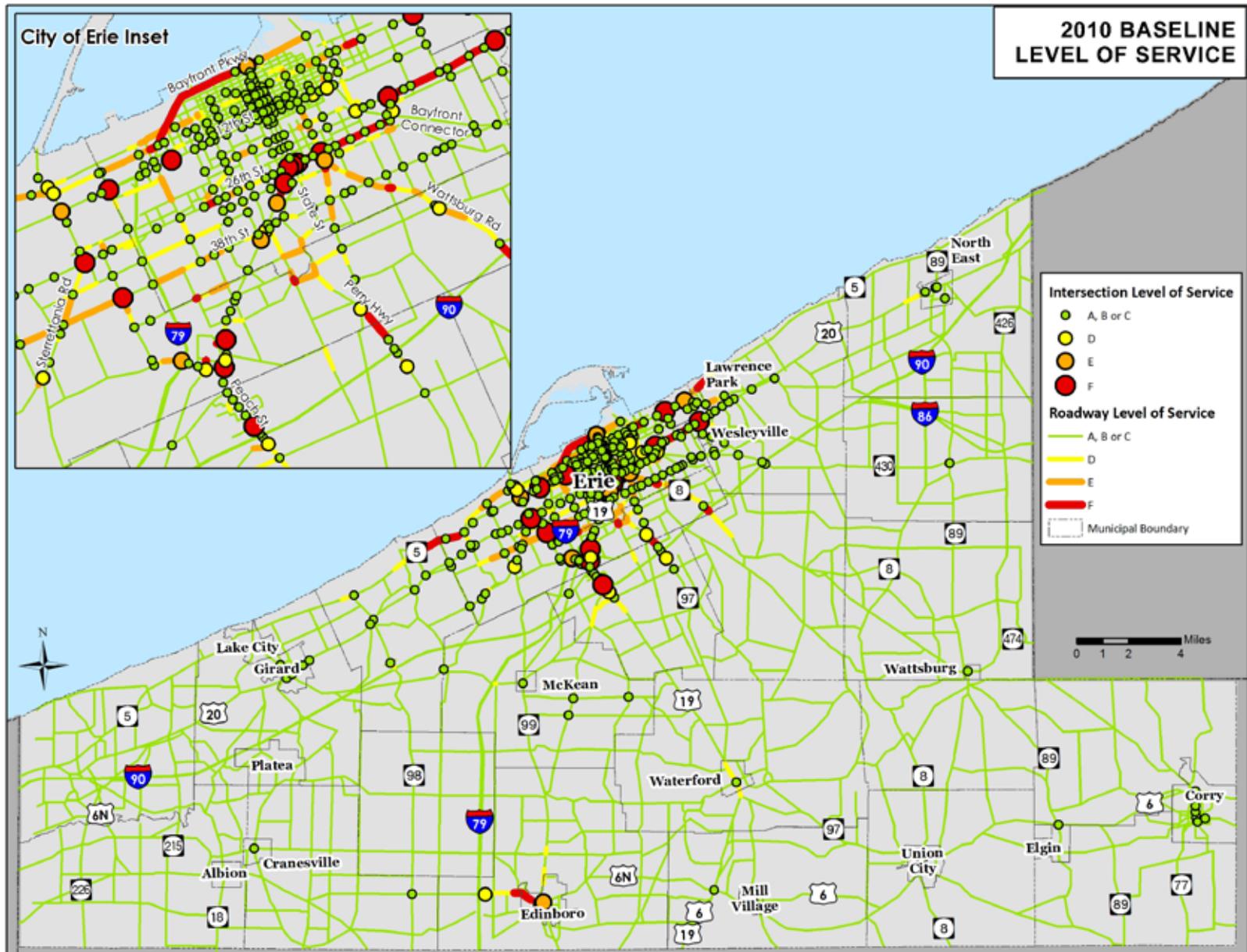


Exhibit 3.5.26 – 2040 No-Build Level of Service

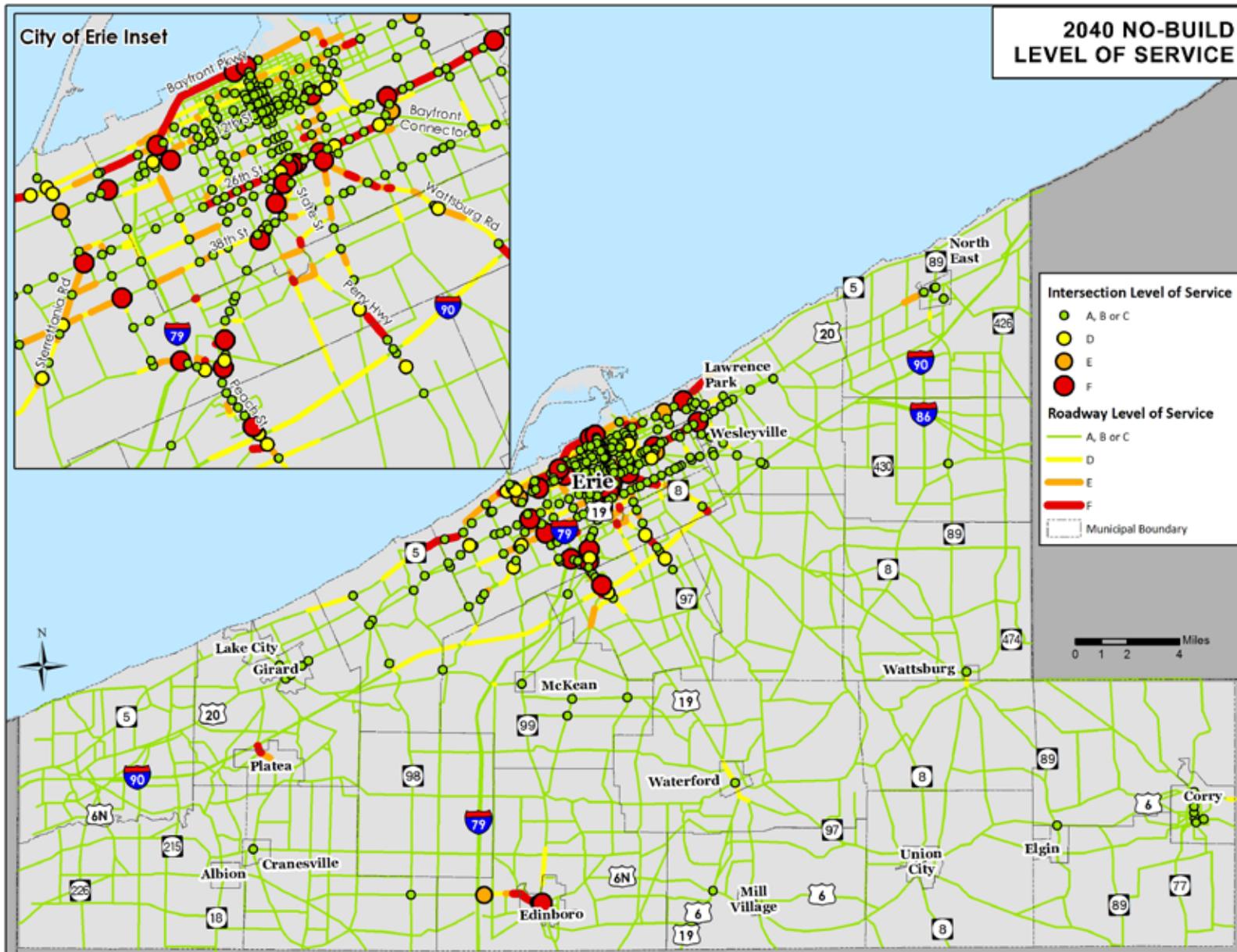
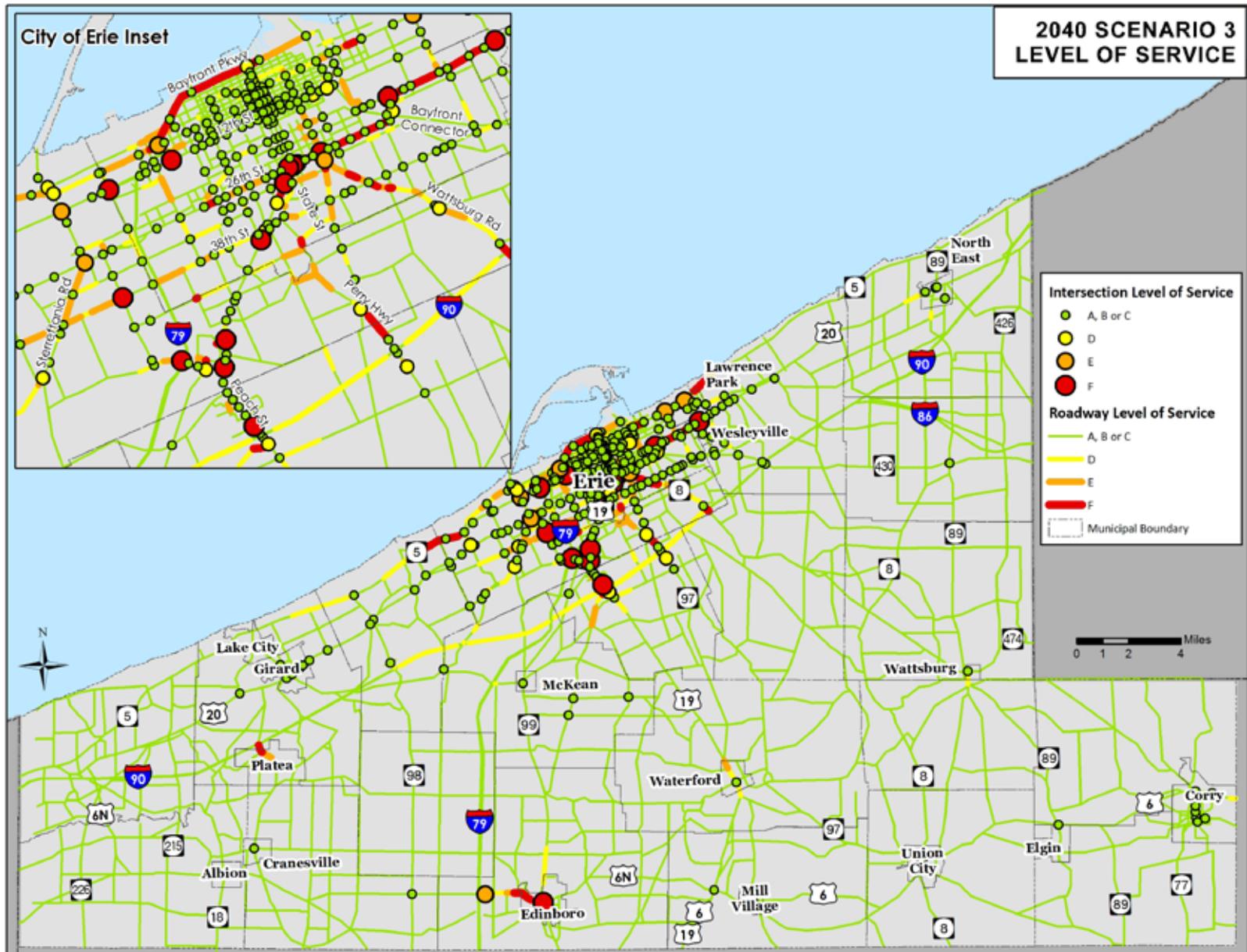


Exhibit 3.5.29 – 2010 Scenario 3 Level of Service



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:

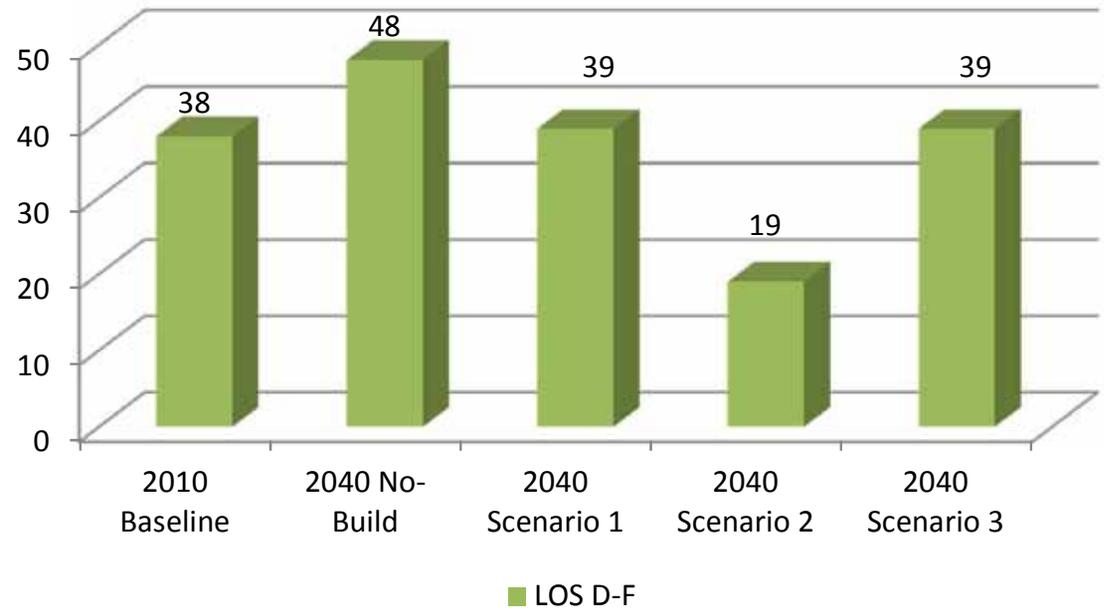
LOS A, B, or C: represents relatively smooth operations ranging from “free flow” at LOS A with no congestion to “stable flow” at LOS C with only minor delays and occasional impediments to speed or maneuverability.

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.

Exhibit 3.5.30 – Network Intersections Operating at LOS D-F



Overall Delay

As an assessment of general travel conditions throughout the county’s roadway network, a summary of specific travel time and delay measurements from the TDM include overall network delay for automobiles and trucks (*Exhibit 3.5.31*).

Travel Time

As an assessment of mobility and access to the City of Erie for countywide residents, a summary table of the percent of countywide population within 10, 20, 30, and 40 minutes of the Bayfront in Erie was summarized (*Exhibit 3.5.32*) and a travel time contour map depicting travel time to the Bayfront in Erie (*Exhibits 3.5.33 through 3.5.37*).

Exhibit 3.5.31 – Overall Network Vehicle Hours of Delay (Hours per Year)

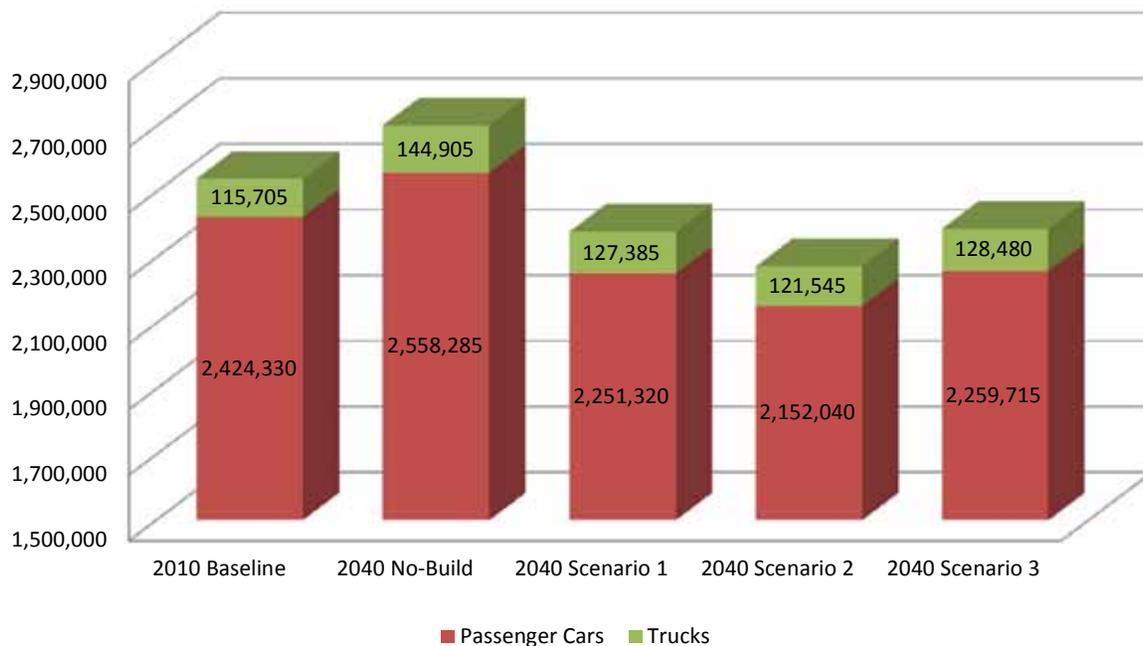


Exhibit 3.5.32 – Percentage of Erie County Population by Travel Time to Downtown Erie

	2010 Baseline	2040 No-Build	2040 Scenario 1	2040 Scenario 2
Within 10 minutes	57%	59%	60%	60%
Within 20 minutes	21%	20%	19%	20%
Within 30 minutes	15%	15%	14%	14%
Within 40 minutes	5%	4%	4%	4%



Exhibit 3.5.33 – 2010 Baseline Auto Travel Time Contour Bayfront Area

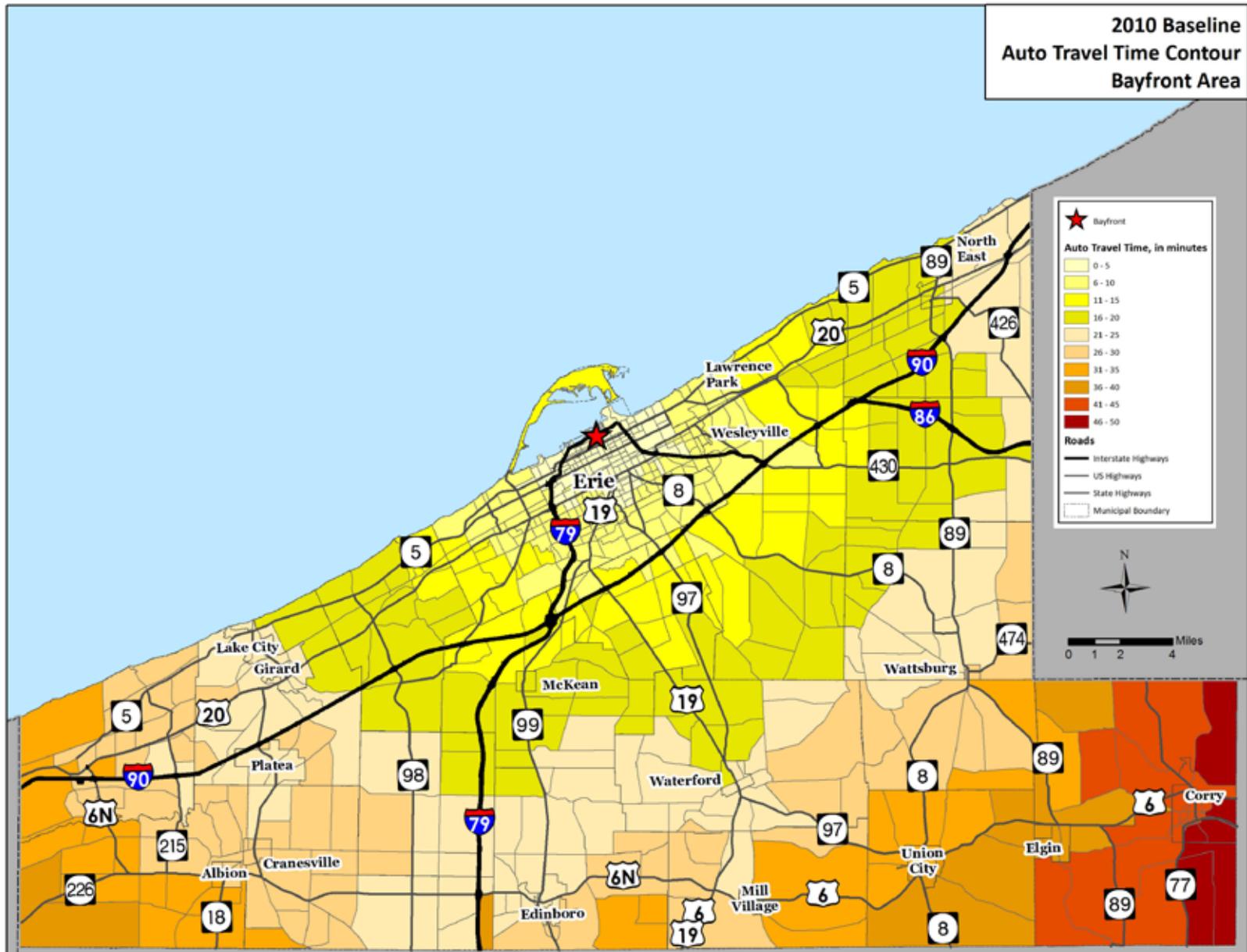


Exhibit 3.5.34 – 2040 No-Build Auto Travel Time Contour Bayfront Area

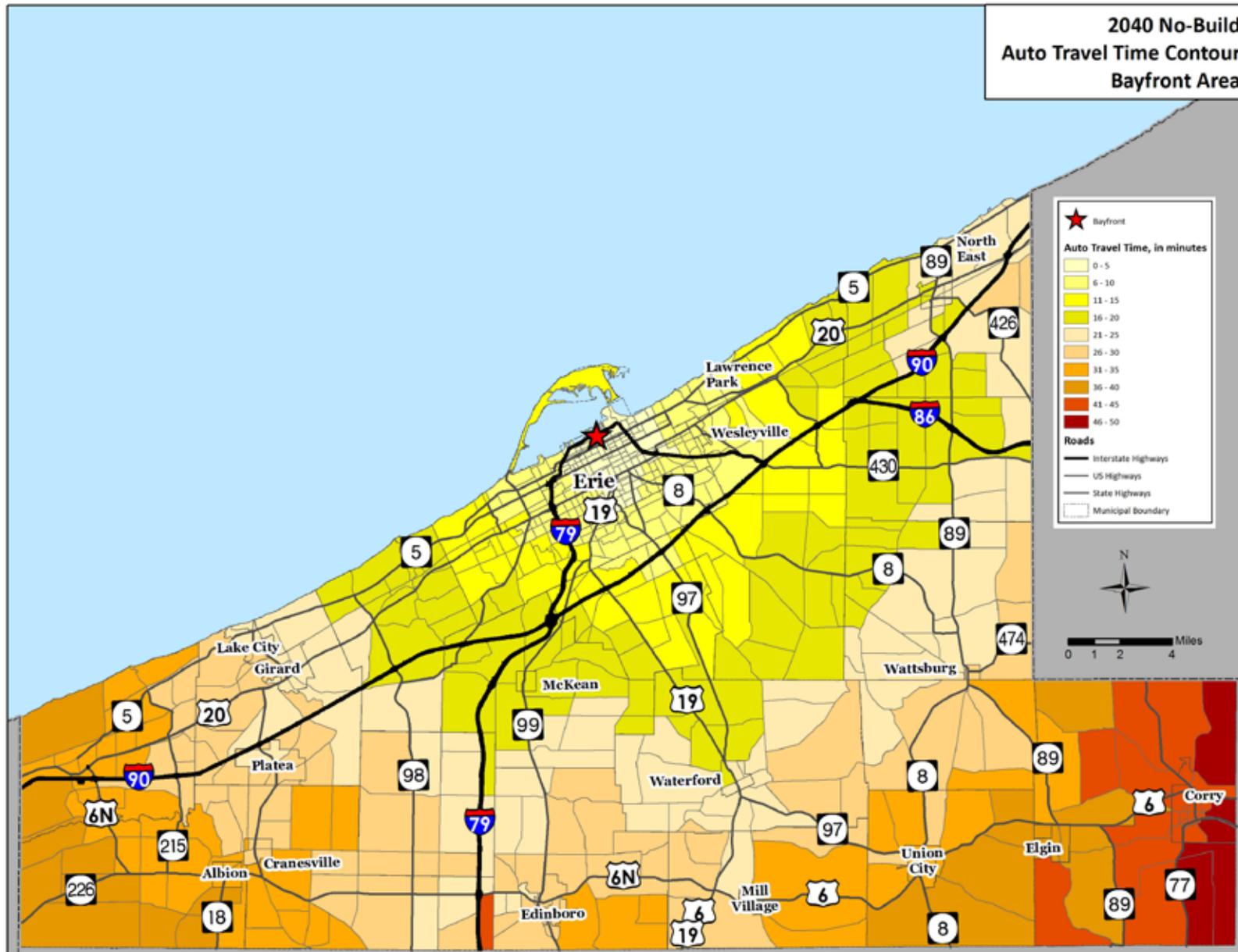


Exhibit 3.5.35 – 2040 Scenario 1 Auto Travel Time Contour Bayfront Area

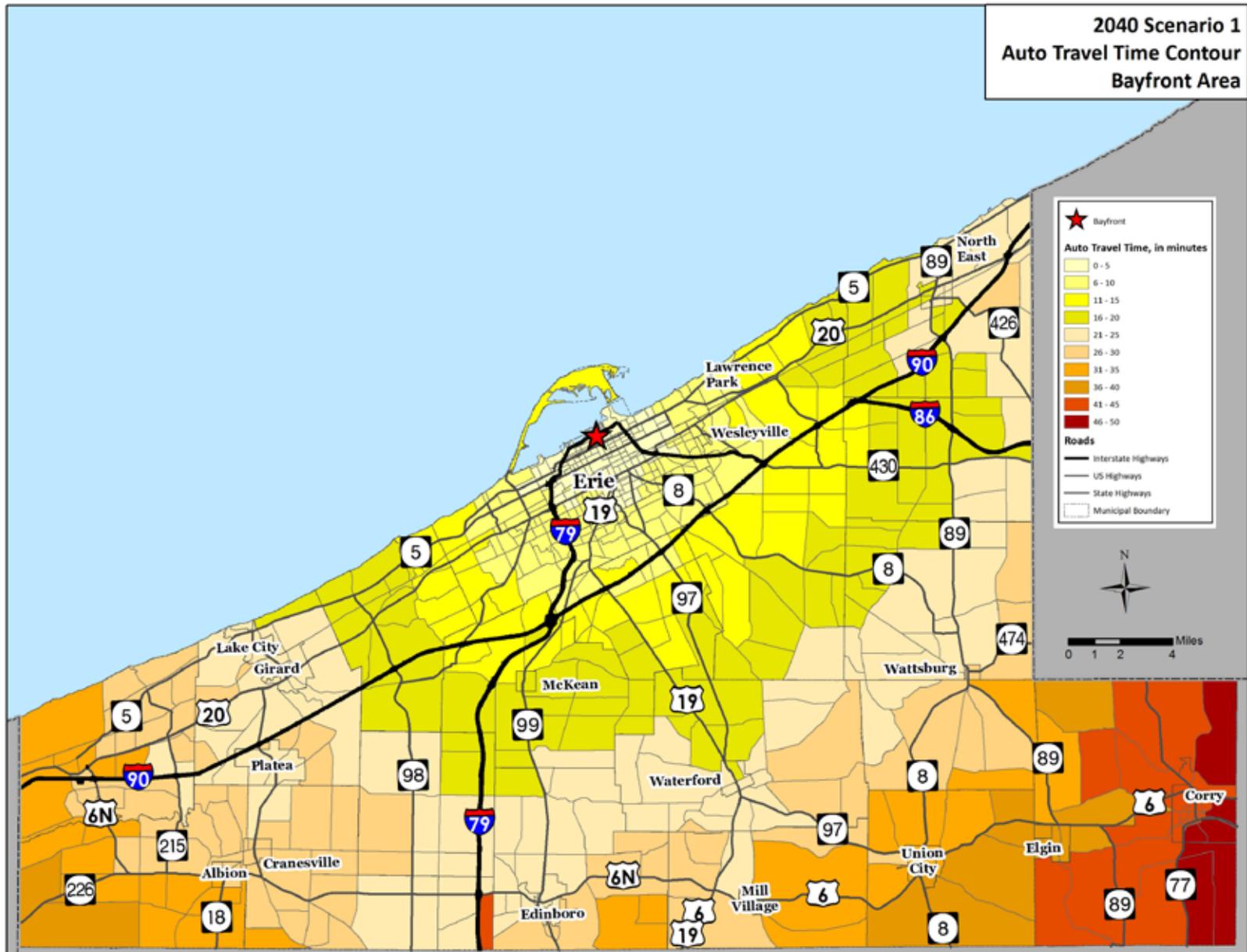


Exhibit 3.5.36 – 2040 Scenario 2 Auto Travel Time Contour Bayfront Area

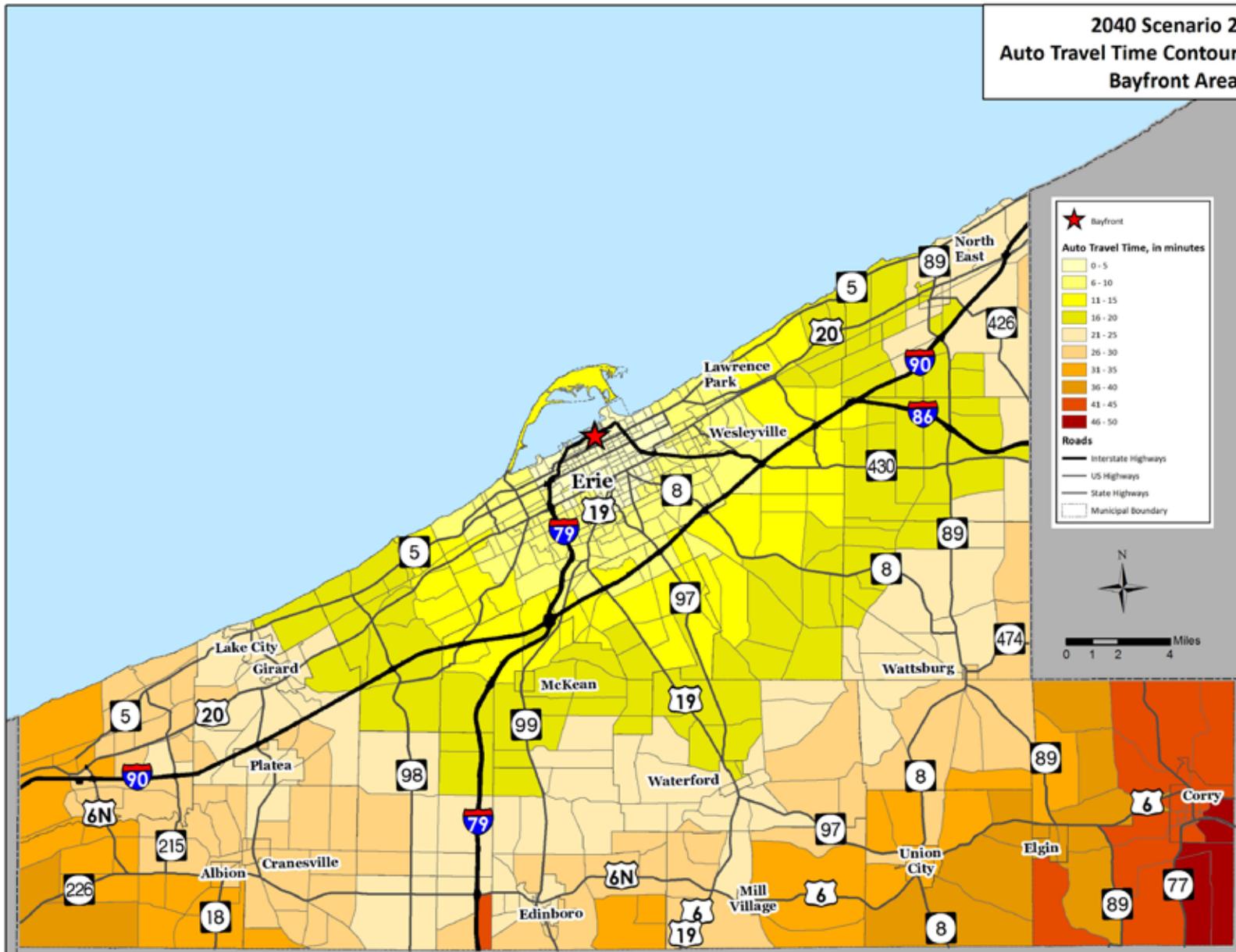


Exhibit 3.5.37 – 2040 Scenario 3 Auto Travel Time Contour Bayfront Area

