



Executive Summary



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INTRODUCTION

In September 2005, the *2007 Twelve Year Transportation Program* for Erie County, Pennsylvania, identified regional upgrades of various urban-rural corridors in southeast Erie County, including US 6N, as an “immediate priority” related to safety and mobility improvements. That same year the communities of Edinboro, Franklin Township, and Washington Township adopted a multi-municipal comprehensive plan. As an outgrowth of those undertakings, the Erie County Department of Planning administered this *US 6N Corridor Land Use and Transportation Study* to focus on those portions of the US 6N corridor located in Washington Township and the Borough of Edinboro ([Exhibit A](#)).

The goals of this study were to establish an overall vision for and spell out the future needs of the US 6N corridor specifically, and then to identify enabling ordinances and locally-preferred transportation improvement alternatives that may be developed and implemented to address those needs. Based on guidance from and coordination with a Project Advisory Committee (PAC), a set of project-specific goals and objectives were defined as follows:

- Encourage growth within the desired areas
- Enhance pedestrian and bicycle circulation
- Improve traffic flow, including:
 - Manage truck traffic within the Borough of Edinboro
 - Improve safety along the corridor
 - Better accommodate special events or unexpected incidents along area roadways
 - Reduce traffic congestion

BACKGROUND DATA

To begin to assess the study area and establish current conditions, various sets of background data were collected and utilized throughout this study. Efforts first focused on land use to include the following:

- Research current land use policies, ordinances, and their implications.
- Assess current land use, zoning, and development patterns.
- Establish future land use assumptions.

Other data focused on the study area’s transportation system. Specific tasks included field surveys of the existing transportation network, including roads and intersections, as well as pedestrian, bicycle, and transit systems. Traffic volume counts and related data were collected at 4 roadway segment locations and 28 different intersections. Origin-destination surveys, travel time measurements, and crash histories were also conducted and/or reviewed to help identify existing conditions and deficiencies throughout the study area.

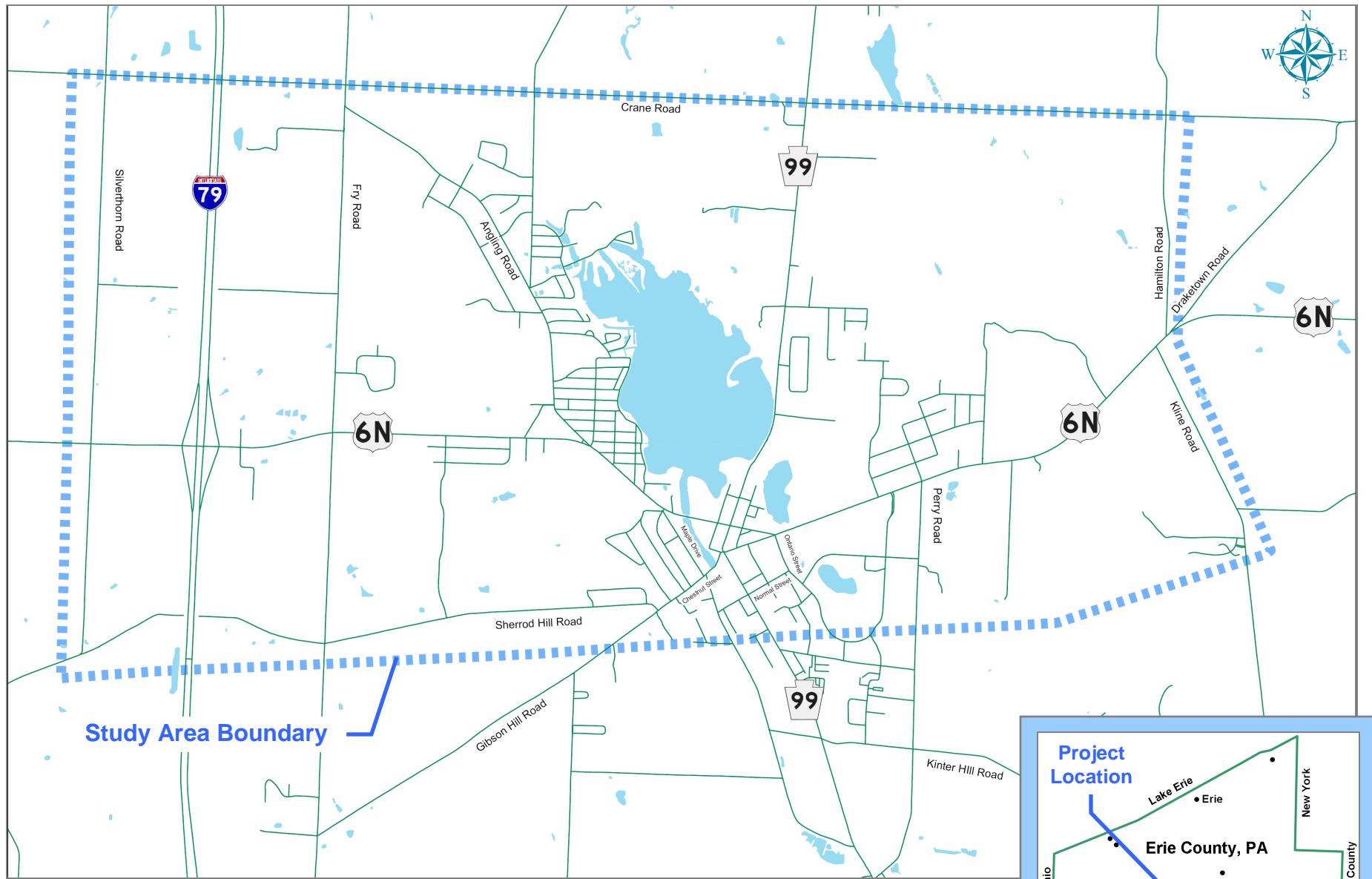
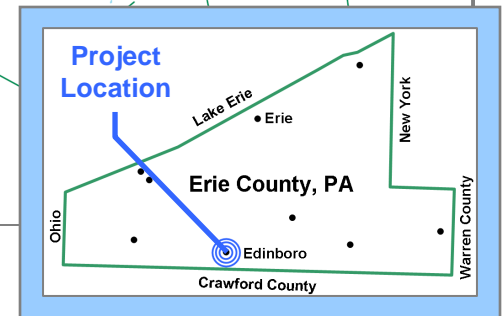


Exhibit A: Project Location Map



EXISTING CONDITIONS

Input from Public Meeting #1 identified several recurring themes as follows: improve intersections, add traffic lights, add bypasses, reduce congestion, and enhance bicycle / pedestrian circulation. These themes were generally consistent with findings from the analysis of existing conditions, which notably included the following:

- The sidewalk and bicycle networks were disconnected with several missing segments. Transit stops typically lacked shelters and were not accessible per Americans with Disabilities (ADA) standards.
- Various crash clusters were identified with trends related to driver error, inclement weather, and side-street delays or access problems.
- From an access-perspective, a full one-third of the stop-controlled side-street approaches that were analyzed were failing or operating marginally.
- From a mobility-perspective, existing congestion along US 6N was heavily-focused at the single failing intersection of US 6N and SR 99.

FUTURE NEEDS AND PROJECTIONS

Considering various physical and funding limitations, anticipated right-of-way issues, existing and projected developments, and the overall community context of the study area, PENNDOT's Smart Transportation philosophy was considered to blend the needs of the community with the needs and constraints of the transportation infrastructure.

These needs were first defined in terms of land use in which most future development is expected in Washington Township ([Exhibit B](#)). Future development that will impact the US 6N corridor thus amounts to 650 residential units, 362,000 square feet of new retail development, and 60,000 square feet of new industrial development through future year 2030. Network-wide, this development results in approximately 45% growth in traffic between years 2007 and 2030.

Without improvements, this level of growth will cause intersection failures at over half of the locations that were analyzed, including failures at almost every intersection along US 6N, as well as "severe" congestion and increased safety concerns along US 6N between I-79 and SR 99. To address these concerns, a broad range of transportation improvement alternatives would be investigated, with particular emphasis on reducing congestion while also improving mobility, access, and safety.

6N Corridor Study: Future Development Areas

Future Development Areas

- Area 1
- Area 2
- Area 3
- Area 4
- Area 5

Other Development Considerations

- Golf Course
- Wal Mart
- Kline Road Sewage Treatment Plant
- PA 99 Commercial Corridor
- Goodell Farm
- Walker Drive Area
- Edinboro University
- Lakeside

Study Area Acreages:
 Edinboro Borough 1,187 Acres
 Franklin Township 714 Acres
 Washington Township 6,131 Acres

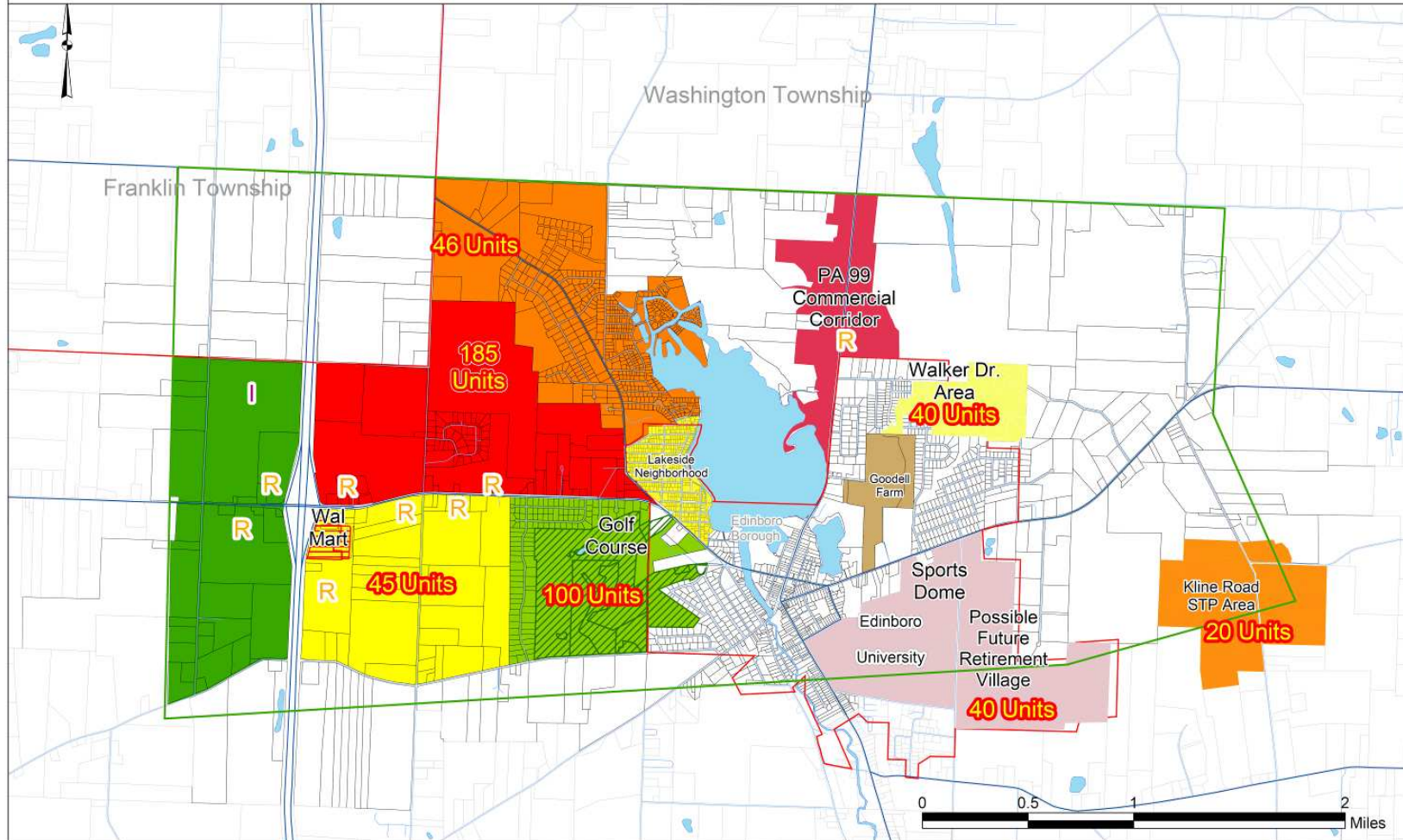


Exhibit B: Future Development Areas

LOCALLY-PREFERRED ALTERNATIVES

Numerous improvement alternatives were reviewed in-line with the project-specific goals and objectives including several independent options related to land use, pedestrian and bicycle circulation, truck traffic, corridor safety, special events and incident management. Specifically along the US 6N corridor, overall upgrades focused on the following packages:

- Traditional roadway widening alternatives with full-access at most intersections
 - 3-Lane Alternative
 - 5-Lane Alternative
- Limited roadway widening with controlled-access at most intersections
 - 2-Lane Median Alternative
- Combination alternatives that incorporate system upgrades (i.e., new or improved local roadway connections that make more efficient use of the existing facilities)
 - 3-Lane Alternative with System Upgrades
 - 2-Lane Median Alternative with System Upgrades

Based on feedback from Public Meeting #2, approximately 72% of the respondents preferred either the Three-Lane Alternative or the Three-Lane Alternative with System Upgrades. Combined with the findings of this report and extensive coordination with the PAC and other community stakeholders, locally-preferred land-use and transportation improvement alternatives (centering on the Three-Lane Alternative with System Upgrades) were selected to help achieve the project-specific goals and objectives. For ease of reference and to consolidate the improvements into a reasonable set of projects and actions that would help to facilitate efficient planning, programming, and implementation, the locally-preferred alternatives were organized into groups as part of a final “Project Action Plan” ([Exhibits C and D](#)).

Each project or action was also reviewed to assign responsible parties, conceptual cost estimates, and assumed priorities based on the anticipated location, scope, type, and cost. When combined, it is projected that the groups of preferred alternatives will satisfy all of the project goals and objectives to encourage growth within the desired areas, enhance pedestrian and bicycle circulation, and improve traffic flow throughout the study area. These benefits will include improving safety along the study area roadways and eliminating all intersection failures identified in this report, as well as the ultimate goal of achieving the desired long-term vision for US 6N and the surrounding communities.

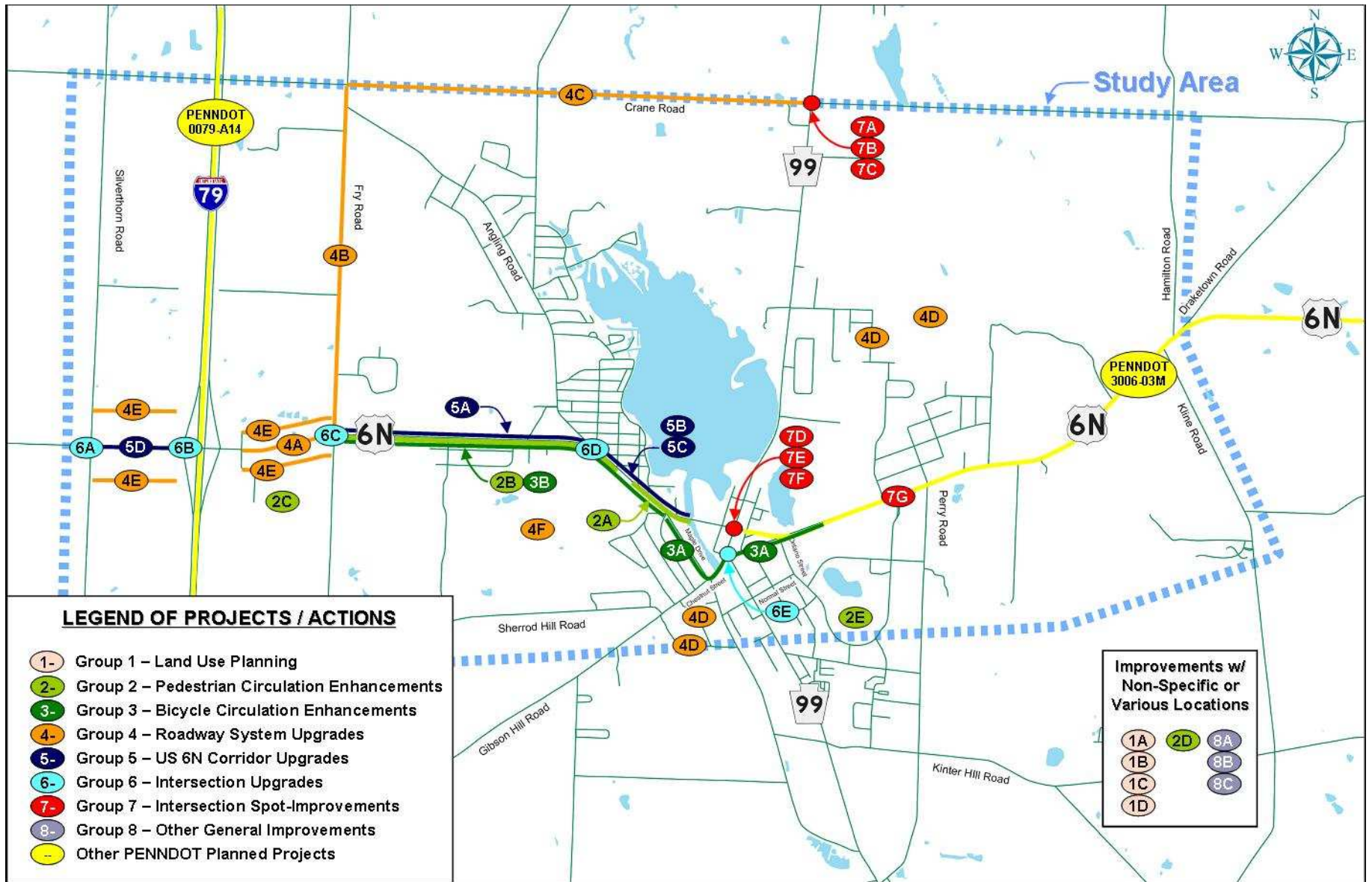


Exhibit C: Preferred Alternative Index Map

Exhibit D: Project Action Plan

Group ID	Project or Action	Responsible Party	Conceptual Cost^{1,2}	Priority Rating³
1	Land Use Planning			
(1A)	Future Land Use Plan	Borough, Township	N/A	Complete
(1B)	Ordinance Updates (Borough of Edinboro)	Borough	Nominal ⁴	A
(1C)	Ordinance Updates (Washington Township)	Township	Nominal ⁴	A
(1D)	Official Map (Borough of Edinboro)	Borough	Nominal ⁴	A
2	Pedestrian Circulation Enhancements			
(2A)	Sidewalk Segments	Borough, Developers	\$85,000	A/B
(2B/3B)	Multi-Use Path / Sidewalk	Borough, Township, PENNDOT	\$545,000	A
(2C)	Park & Ride Lot	EMTA, Edinboro University	\$1,009,000	B
(2D)	Transit Access Enhancements	EMTA, PENNDOT	\$64,000	B
(2E)	Regional Transit Center Investigation	EMTA, Edinboro University	Project Driven	B
3	Bicycle Circulation Enhancements			
(3A)	Signed Bike Route	Borough, PENNDOT	\$2,000	A
(2B/3B)	Multi-Use Path / Sidewalk	See Group 2	See Group 2	See Group 2
4	Roadway System Upgrades			
(4A)	US 6N Merge Lane Extension	PENNDOT	\$138,000	A
(4B)	Fry Road Improvements and Shoulder Upgrades	Township, PENNDOT	\$732,000	A
(4C)	Crane Road Improvements and Shoulder Upgrades	Township, PENNDOT	\$955,000	A
(4D)	Marginal Access Roads (Local Street Connections)	Borough, Township	Project Driven	B
(4E)	Marginal Access Roads (I-79 / US 6N Development Area)	Developers (Cost), Township, PENNDOT (Permits)	Developer Driven	B/C
(4F)	Marginal Access Roads (US 6N / Golf Course Development Area)	Developers (Cost), Township, PENNDOT (Permits)	Developer Driven	B/C

Exhibit D: Project Action Plan (Continued)

Group ID	Project or Action	Responsible Party	Conceptual Cost ^{1,2}	Priority Rating ³
5	US 6N Corridor Upgrades			
(5A)	US 6N (Fry Road to Angling Road) 3-Lane Section	PENNDOT	\$1,348,000	B
(5B)	US 6N (Angling Road to Outlet Bridge) Phase 1 (3-Lane w/ Re-Striping)	PENNDOT	\$22,000	A
(5C) Option 1	US 6N (Angling Road to Outlet Bridge) Phase 2 (Option 1, 3-Lane w/ Widening)	PENNDOT	\$584,000	B
(5C) Option 2	US 6N (Angling Road to Outlet Bridge) Phase 2 (Option 2, 2-Lane w/ Median)	PENNDOT	\$199,000	B
(5D)	US 6N (Silverthorn Road to Fry Road) 5-Lane Section	PENNDOT, Future Developers	Developer Driven	C
6	Intersection Upgrades			
(6A)	Traffic Signal (US 6N / Silverthorn Road)	Developers (Cost), Township, PENNDOT (Permits)	\$162,000	B
(6B)	Traffic Signal (US 6N / I-79 Southbound Ramp)	Developers (Cost), Township, PENNDOT (Permits)	\$162,000	B
(6C)	Traffic Signal (US 6N / Fry Road)	Developers (Cost), Township, PENNDOT (Permits)	\$162,000	B
(6D)	Roundabout (US 6N / Angling Road)	Borough, PENNDOT	\$953,000	A/B
(6E)	Roundabout (SR 99 / Chestnut St / Waterford St)	Borough, PENNDOT	\$560,000	A/B
7	Intersection Spot-Improvements			
(7A)	SR 99 / Crane Road Phase 1 (No-Passing Zones)	Township, PENNDOT	\$16,000	A
(7B)	SR 99 / Crane Road Phase 2 (EB Left-Turn Lane)	Township, PENNDOT	\$147,000	A
(7C)	SR 99 / Crane Road Phase 3 (SB Right-Turn Lane)	Township, PENNDOT	\$32,000	A
(7D)	US 6N / SR 99 Phase 1 (Left-Turn Prohibitions)	PENNDOT	\$31,000	B
(7E)	US 6N / SR 99 Phase 2 (4-Lane West / NB Dual Left-Turns)	PENNDOT	\$250,000	C
(7F)	US 6N / SR 99 Phase 3 (4-Lane East / WB Dual Through-Lanes)	PENNDOT	\$250,000	C
(7G)	US 6N / Scotland Road (WB Left-Turn Lane)	PENNDOT, Edinboro University	\$276,000	C

Exhibit D: Project Action Plan (Continued)

Group ID	Project or Action	Responsible Party	Conceptual Cost ^{1,2}	Priority Rating ³
8	Other General Improvements			
(8A)	Winter Weather Driver Education and Public Outreach	Edinboro University, PENNDOT, Borough, Township	Nominal	Ongoing
(8B)	Monitor Localized Issues / Concerns (Truck Traffic)	Borough, Township	Nominal	Ongoing
(8C)	Monitor Localized Issues / Concerns (Special Events / Incident Management)	Borough, Township	Nominal	Ongoing
-	TOTAL			
All	Total Package of All Improvements Above, minus Project or Developer-Driven Costs	Varies	\$8,684,000	Varies

Note 1: Estimates are intended for conceptual use only, are based on year 2008 dollars rounded to the nearest \$1000, and include 15% contingency, 12% engineering, and 8% construction inspection costs.

Note 2: Estimates do not include potentially substantial costs related to right-of-way, utilities, and environmental impacts or related mitigation.

Note 3: Priority ratings were assigned as "A" for immediate, "B" for short to mid-term, "C" for long-term and "Ongoing" for continuous or regular tasks such as monitoring of certain conditions.

Note 4: Nominal costs would include staff time and legal advertisement.