

Data

Needs

Analysis



Scoping Study



Fayette County
US 60 (Winchester Road)
from Polo Club Blvd to
Haley Road
Item No. 7-80150.00

Prepared by the KYTC
Division of Planning and
KYTC District 7

June 2021



I. PRELIMINARY PROJECT INFORMATION			
County:	Fayette	Item No.:	7-80150.00
Route Number(s):*	US 60	Road Name:	Winchester Road
Program No.:	1300201D	UPN:	FD52 034 0060 012-017
Federal Project No.:	STP 5211122	Type of Work:	MAJOR WIDENING (O)
2020 Highway Plan Project Description:			
ADDRESS CONGESTION AND IMPROVE SAFETY ON US 60 FROM MP 12.41 TO 16.37 BY WIDENING AND MODERNIZING US 60 FROM THE END OF THE FOUR-LANE SECTION NEAR POLO CLUB BLVD TO KY 859 (HALEY RD). (2020CCN)			
Beginning MP:	12.41	Ending MP:	16.37
		Project Length:	3.96
In TIP:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Use PDP/CHAF to Verify Project Data		
State Class.:	<input checked="" type="checkbox"/> Primary <input type="checkbox"/> Secondary Route is on: <input type="checkbox"/> NHS <input type="checkbox"/> NN <input type="checkbox"/> Ext Wt		
Functional Class.:	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural Arterial Truck Class.: AAA % Trucks: 6.102		
MPO Area:	Lexington	Terrain:	Rolling
ADT (current):	16,402 (MP 11.966-13.271)[2019] 13,374 (MP 13.271-16.367)[2018]		
Access Control:	<input type="checkbox"/> None <input checked="" type="checkbox"/> Permit <input type="checkbox"/> Fully Controlled <input type="checkbox"/> Partial Spacing: <input type="text"/>		
Median Type:	<input checked="" type="checkbox"/> Undivided <input type="checkbox"/> Divided (Type): <input type="text"/>		
Existing Bike Accommodations:	None	Ped:	<input type="checkbox"/> Sidewalk
Posted Speed:	<input type="checkbox"/> 35 mph <input type="checkbox"/> 45 mph <input checked="" type="checkbox"/> 55 mph <input type="checkbox"/> Other (Specify): <input type="text"/>		
KYTC Guidelines Preliminarily Based on :		55 MPH Proposed Design Speed	
COMMON GEOMETRIC			
Roadway Data:	EXISTING	PRACTICES**	
No. of Lanes	2	4	Existing Rdwy. Plans available? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Year of Plans: 1950 <input checked="" type="checkbox"/> Traffic Forecast Requested Date Requested: 6/1/2021 <input type="checkbox"/> Mapping/Survey Requested Date Requested: <input type="text"/> Type: <input type="text"/>
Lane Width	12'	12'	
Shoulder Width	10'	8'	
Max. Superelevation***	8.00%	8%	
Minimum Radius***	1,910'	965'	
Maximum Grade	5%	5%	
Minimum Sight Dist.	495'	495'	
Sidewalk Width(urban)	N/A	N/A	
Clear-zone [†]		24'	
Project Notes/Design Exceptions? <input type="text"/>			
Bridge No.:[‡]	034B00007N (Bridge #2)		
Sufficiency Rating	85.4		Existing Geotech Data Available? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Detour Length(s): 3.1
Total Length	24'		
Width, curb to curb	N/A		
Span Lengths	12'-12'		
Year Built	1952		
Posted Weight Limit	Not Posted		
Structurally Deficient?	Not Deficient		
Functionally Obsolete?	No		
Existing Bridge Type	Double-RC Box Culvert		
*If more than one road is included in the project, include additional sheets. **Based on proposed Design Speed ***AASHTO's A Policy on Geometric Design of Highways and Streets †AASHTO's Roadside Design Guide ‡If more than two bridges are located on the project, include additional sheets.			

II. PROJECT PURPOSE AND NEED**A. Legislation**

Since 2006, a planning study (Item #: 7-8340.00) has been identified with legislative support in the last eight Enacted Highway Plans including the current Enacted Highway Plan. Item 7-8340.00 only included a planning phase with SPP funds.

<i>Funding</i>	<i>Phase</i>	<i>Year</i>	<i>Amount</i>
FED	D	2022	\$1,622,000
FED	R	2024	\$1,216,000
FED	U	2026	\$1,170,000
FED	C	2026	\$15,184,000

Item number 7-80150.00 was a legislative add in for the 2020 Enacted Highway Plan to address congestion and improve safety on US 60 from Polo Club Blvd to Haley Rd (KY 859). Currently, funding is available in the current biennium for the design phase.

B. Project Status

The project was sponsored in SHIFT 2020 by D7 and had a final score of 31.9 under the CHAF ID 20190154. The project is included in the 2020 Highway plan as 7-80150.00. Currently, design funding was authorized by FHWA on March 17, 2021. TC-10 Authorization No. 13002. This funding is Federal Surface Transportation Program design funds with State fund to match. A portion of this project is also listed in the Lexington Area Metropolitan Planning Organization's (LAMPO) 2045 Metropolitan Transportation Plan (MTP) Short Range Financial Plan MTP ID 9 (Study) and in the Long Range Financial Plan MTP ID 60.

C. System Linkage

US 60 is listed as a Minor Arterial on the State Primary System connecting the inside of the Urban Service Boundary (USB) of Fayette County into Clark County and the rest of Eastern Kentucky. It runs parallel to I-64, serving as a secondary alternative route connecting Lexington to Clark County and parts eastward. US 60 also provides access to local and regional travel. US 60 is not on the National Highway System.

D. Modal Interrelationships

This section of US 60 currently does not have any bicycle or pedestrian facilities. The 2018 Lexington Area Bicycle and Pedestrian Master Plan envisions a network of walkways and bikeways resulting in a true mobility choice that enhances connectivity, promotes economic growth, and increases user safety. In this Master Plan, a major bikeway was identified on US 60 from Man o War to the county line. This bikeway is intended to connect to the Brighton Rail Trail via Man o War or other existing and proposed local and minor bikeways. Sidewalks were also identified along US 60 in the Master Plan, however it is considered for implementation by future development. The complete streets concept was identified in the Master Plan as well as the 2018 Imagine Lexington Comprehensive Plan (Comp Plan) for a portion of US 60 from Polo Club Blvd to Man o War Blvd. This goal for implementation of this concept is in the mid to long term. The aforementioned items will be evaluated for it's feasibility in design. There is no interaction with railways or waterports.

E. Social Demands & Economic Development

Most recent census data shows Fayette County at over 320,000 residents. Per the 2018 Comp Plan, population projections show an increase of 80,000 new residents within the USB in the next 20 years. The largest demographic represented in this growth are young professionals and senior citizens; an age group that often prefer walkable communities and low maintenance living. The top employers in Fayette County include the University of Kentucky and UK Healthcare, Fayette County Public Schools, and LFUCG. As referenced in the Comp Plan, around 49.5% of those who work in Fayette County live outside the county, which generates a considerable amount of traffic on the major arterials leading into Lexington. The Hamburg area is expected to see significant growth for the foreseeable future in residential and commercial development including a new Medical Campus situated on 129 acres that will provide inpatient and outpatient services and produce over 700 new jobs. Fayette County Public Schools has plans to add an elementary and middle school on Polo Club Blvd. Although the Comp Plan does not designate general land use or include a land use map, the plan does incorporate policies known as "Placemaking", a concept where each development complements it's neighbor. One such policy recommends locating high-density areas of development along higher capacity roadways that may facilitate transit enhancements in the future.

II. PROJECT PURPOSE AND NEED (cont.)**F. Transportation Demand**

Recent traffic counts show an AADT of 16,402 in 2019 with about 6.1% truck traffic. Over the last 10 year period, this section of US 60 has seen considerable traffic growth. The 2010 AADT count at the same station was 10,200. As the Hamburg area between Polo Club Blvd and Man o War Blvd steadily develops as anticipated, the MPO's version of the LAMPO model estimates close to 17,000 AADT in the section between Polo Club Blvd and Man o War Blvd. This volume is closely matched in the section of US 60 between North Cleveland Road and Haley Road. These projections are based on a 2045 Full Build Scenario, which includes traffic impacts due to future development in the Hamburg area as well as improvements from surrounding projects listed in the MPO's Transportation Improvement Program (TIP) and MTP.

G. Capacity

The Man o War Small Urban Area (SUA) Study (2016) included an analysis of the intersection of US 60 and Polo Club Blvd. The study recommendation was to include a signal at the intersection as well as placing the second left turn lane on Polo Club into service. This recommendation was based on engineering judgement as well as traffic projections showing a no build level of service (LOS) of F due to increasing left turn movements from Polo Club Blvd onto US 60 going toward I-75. Although the SUA made the recommendation for a signal, it did not evaluate the need for additional lanes on US 60. The signal will need to be evaluated in the design process to determine whether or not the intersection meets warrants. For the US 60 corridor as a whole, providing additional lanes may be necessary based on the MPO's version of the LAMPO model showing projected volumes as much as 16,700 AADT along the corridor. Current traffic counts on US 60 already show an AADT of 16,402 consisting of 6.1% truck traffic. The weight classification on this route is AAA (80,000 lb limit)

H. Safety

For this segment of US 60, an initial 5 year crash analysis was pulled from the Kentucky State Police Collision Database. Between May 1, 2016 and May 1, 2021 there were 216 collisions, including 1 fatality, 92 injuries, and 153 property damage only collisions. Seven of the collisions involved a commercial vehicle. The collisions along the corridor are relatively spread out with a few clusters around the intersections, particularly around Polo Club Blvd and Man o War Blvd. Many of the reported collisions that involved 2 or more vehicles were side swipes and rear ends. This may be a result of unexpected vehicle stops or turns, which may indicate a need for turn lanes or other general improvements to the intersections or entrances.

I. Roadway Deficiencies

This section of roadway has not been upgraded with exception of resurfacings and maintenance work. The roadway surface is in relatively good to fair condition with much of the length of roadway having an IRI roughness under 100. The geometric deficiencies of the roadway are minor with one short grade in excess of 5.00%. There appears to be plenty of clear zone on the corridor and per the archived plans dated in 1950, has an extensive 150' of right of way width through the entire length of the project limits. This section of US 60 lacks bicycle accommodation. With the recommendations shown in the LAMPO's 2018 Bicycle and Pedestrian Master Plan, paved shoulders or a shared use path may be warranted for consideration. With full shoulders, rumble strip gaps may be considered for bicycle safety. Providing accommodations for bicycles and pedestrians with this project will be evaluated during the design process.

III. PRELIMINARY ENVIRONMENTAL OVERVIEW**A. Air Quality**Project is in: ☐ Attainment area ☐ Nonattainment or Maintenance Area ☐ PM 2.5 County

STIP Pg. #:

TIP Pg. #: 36

No air quality impacts are anticipated

B. Archeology/Historic Resources☐ Known Archeological or Historic Resources are present

No known sites are present, however, archeological & historical impacts are possible.

C. Threatened and Endangered Species

Potential impacts to T & E species (bats)

D. Hazardous Materials☐ Potentially Contaminated Sites are present ☐ Potential Bridge or Structure Demolition

No evidence of hazardous materials in project area

E. PermittingCheck all that may apply: ☐ Waters of the US ☐ MS4 area ☐ Floodplain Impacts ☐ Navigable Waters of the US ImpactsAre 401/404 Permits likely to be required? ☐ Yes ☐ No Impacts to: ☐ Wetlands ☐ Stream/Lake/Pond☐ ACE LON ☐ ACE NW ☐ ACE IP ☐ DOW IWQC ☐ Special Use Waters

Possible Waters of th US impacts (Stream)

F. NoiseAre existing or planned noise sensitive receptors adjacent to the proposed project? ☐ Yes ☐ NoIs this considered a "Type I Project" according to [KYTC Noise Analysis and Abatement Policy?](#) ☐ Yes ☐ No

No noise impacts anticipated

G. SocioeconomicCheck all that may apply: ☐ Low Income/Minority Populations ☐ Relocations ☐ Local Land Use Plan available

No relocations anticipated

H. Section 4(f) or 6(f) ResourcesThe following are present on the project: ☐ Section 4(f) Resources ☐ Section 6(f) Resources

No Section 4(f) or 6(f) impacts are anticipated

[Anticipated Environmental Document:](#)

CE Level 2



IV. PROJECT NEED, PURPOSE & SCOPE**A. Need:**

The Lexington USB contains the largest concentration of developed land within Fayette County. With Lexington being a central hub in the medical and education industries, these employers attract several thousand employees from outside Fayette County resulting in heavy traffic on the County's arterial routes. Within the USB, population projections show an increase of 80,000 new residents in the next 20 years. The resulting growth, is now generating demand for a safer and more efficient transportation facility including multimodal considerations such as bicycle, pedestrian, and transit. With the growth in the nearby Hamburg area, traffic demand is expected to escalate at the I-75 interchanges for Winchester Road as well as Man o War Blvd. This additional demand suggests a need to divert traffic away from these interchanges with an alternative route. The 2019 traffic count on US 60 in this area was an AADT of 16,402 consisting of 6.1% truck traffic. Based on an initial crash analysis, there were 216 collisions, including 1 fatality, 92 injuries, and 153 property damage only collisions that occurred on this stretch of US 60 in the past 5 years.

B. Purpose:

The purpose of this project is to provide additional capacity and mobility on US 60 between Polo Club Blvd and Haley Road while maintaining driver expectancy and minimizing the impacts to the surrounding environment.

C. Scope:

US 60 provides a secondary route to I-64 and serves as a connection from the Hamburg area to I-64 and to the rest of Eastern Kentucky. The Hamburg area is expected to see significant growth for the foreseeable future in residential and commercial development, including a new Medical Campus that will provide inpatient and outpatient services. The scope of the project is to provide a solution that will have a positive impact to the capacity and mobility on the US 60 corridor between Polo Club Blvd and Haley Road that can serve the future traffic demands coming into and out of the Hamburg area and the rest of the USB.

V. PROJECT ESTIMATE & METHODOLOGY**Estimate Methodology:**

Estimates listed are from the 2020 Enacted Highway Plan which is derived from planning level estimates and escalated based on the fiscal year listed. Design funding is available in the current biennium.

Current Estimate

<u>Phase</u>	<u>Estimate</u>
Planning	
Design	(2022) \$1,622,000
R/W	(2024) \$1,216,000
Utilities	(2026) \$1,170,000
Const	(2026) \$15,184,000
Total	\$19,192,000

VI. UTILITIES POTENTIALLY AFFECTED - CONTACT INFORMATION

Company Name -	Kentucky Utilities
Contact -	Caroline Justice
Email Address -	caroline.justice@lge-ku.com
Phone No. -	502-627-3708
Company Name -	Windstream
Contact -	Steve Johnson
Email Address -	steve.johnson@windstream.net
Phone No. -	859-357-6209
Company Name -	AT&T KY
Contact -	Frank Ambrose
Email Address -	fa2207@att.com
Phone No. -	502-867-8240
Company Name -	AT&T Legacy
Contact -	Mike Diederich - Primary
Email Address -	MD4145@att.com
Phone No. -	216-750-0135
Company Name -	Columbia Gas
Contact -	David Lemmons
Email Address -	
Phone No. -	859-288-0249
Company Name -	Spectrum
Contact -	Kelly Oram
Email Address -	john.oram@charter.com
Phone No. -	859-519-3434

VI. UTILITIES POTENTIALLT AFFECTED - CONTACT INFORMATION (cont.)

Company Name -	Kentucky American Water
Contact -	Krista Citron
Email Address -	krista.citron@amwater.com
Phone No. -	859-268-6352
Company Name -	LFUCG
Contact -	Brian Knapp
Email Address -	bknapp@lexingtonky.gov
Phone No. -	859-258-3410
Company Name -	Metronet
Contact -	David Fritz
Email Address -	
Phone No. -	866-258-3410
Company Name -	Kentucky Wired
Contact -	Alvin Barksdale
Email Address -	
Phone No. -	859-286-8146

VII. TABLES AND EXHIBITS

VACANT LAND WITHIN USB

EXHIBIT 1

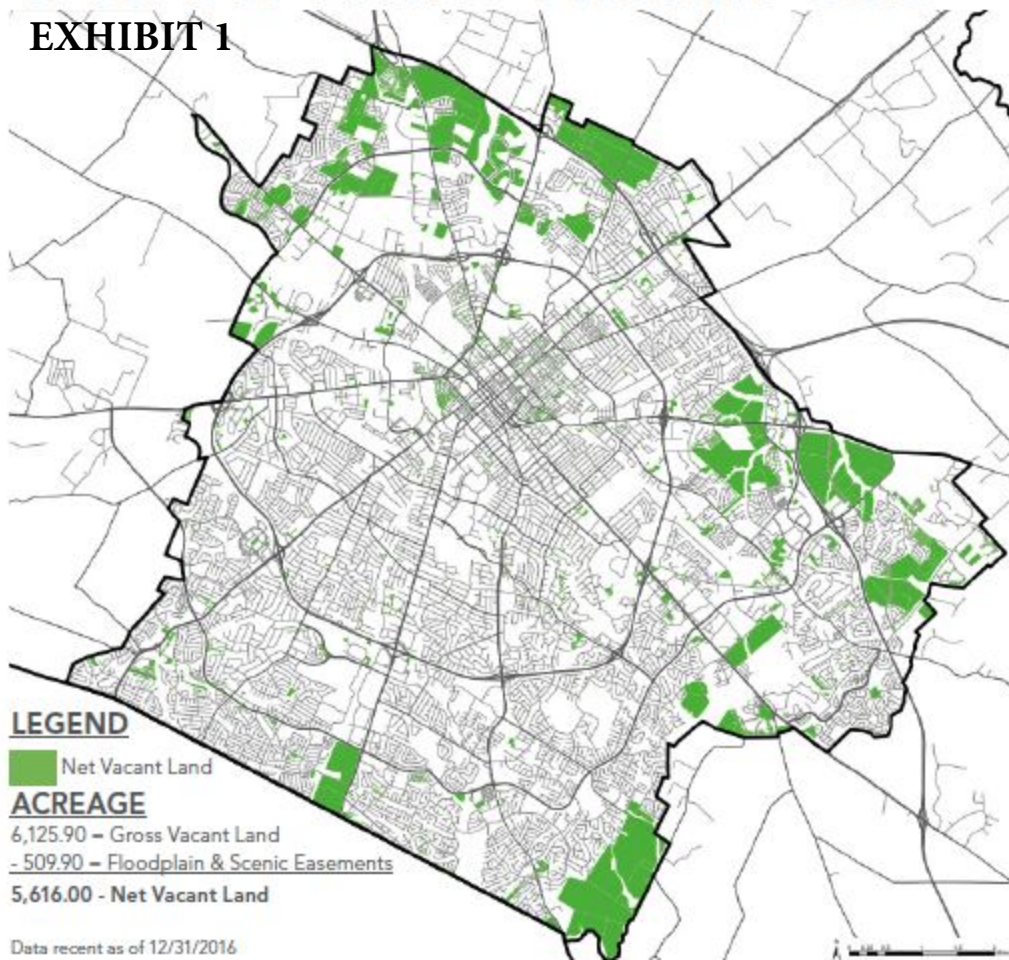


EXHIBIT 2: MPO'S LAMPO MODEL - 2045 FULL BUILD TRAFFIC PROJECTIONS

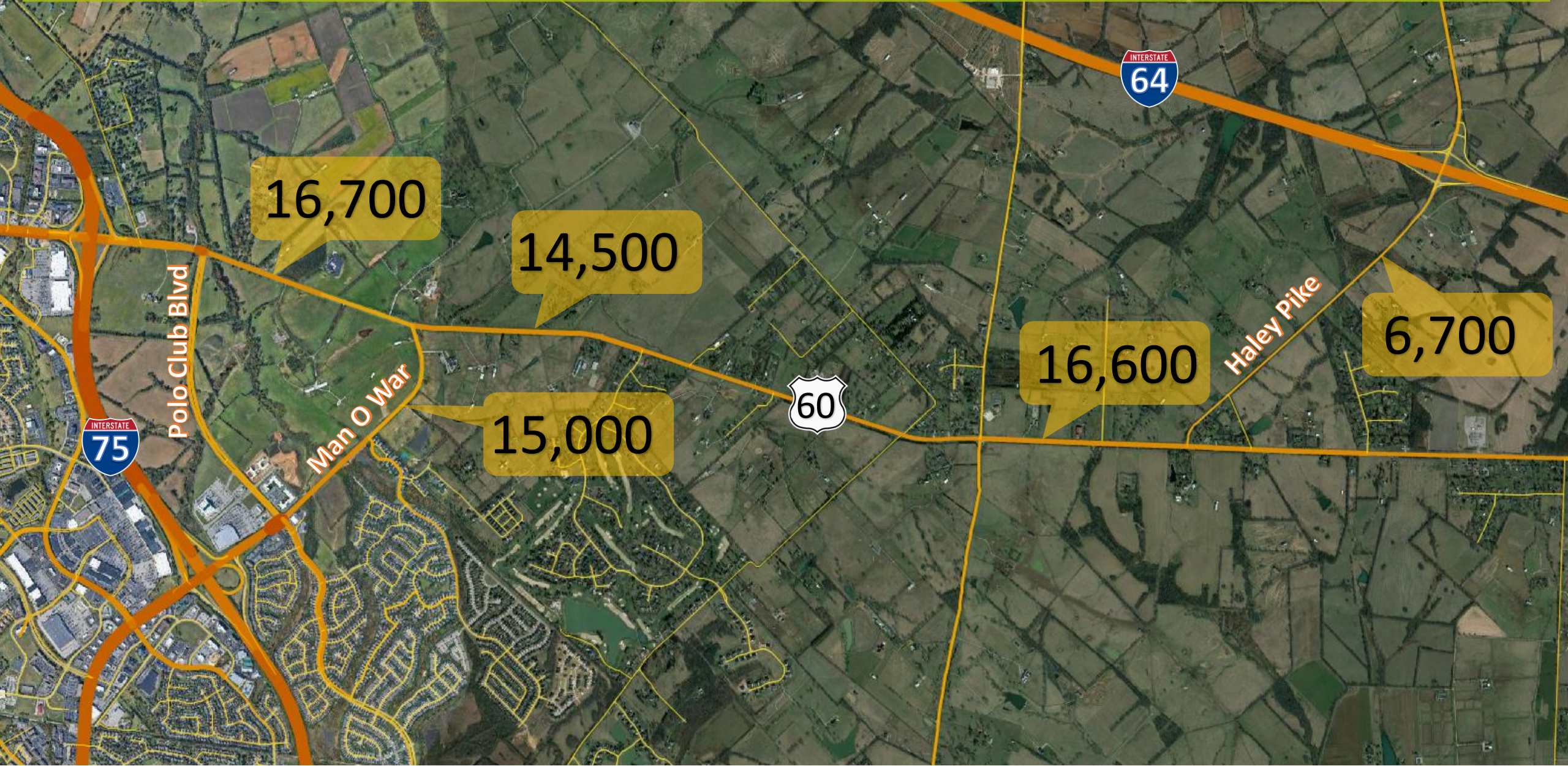


FIGURE 6 – PROPOSED 2025
WEEKDAY AM(PM) VOLUMES
U.S. 60 (WINCHESTER RD.)

EXHIBIT 3

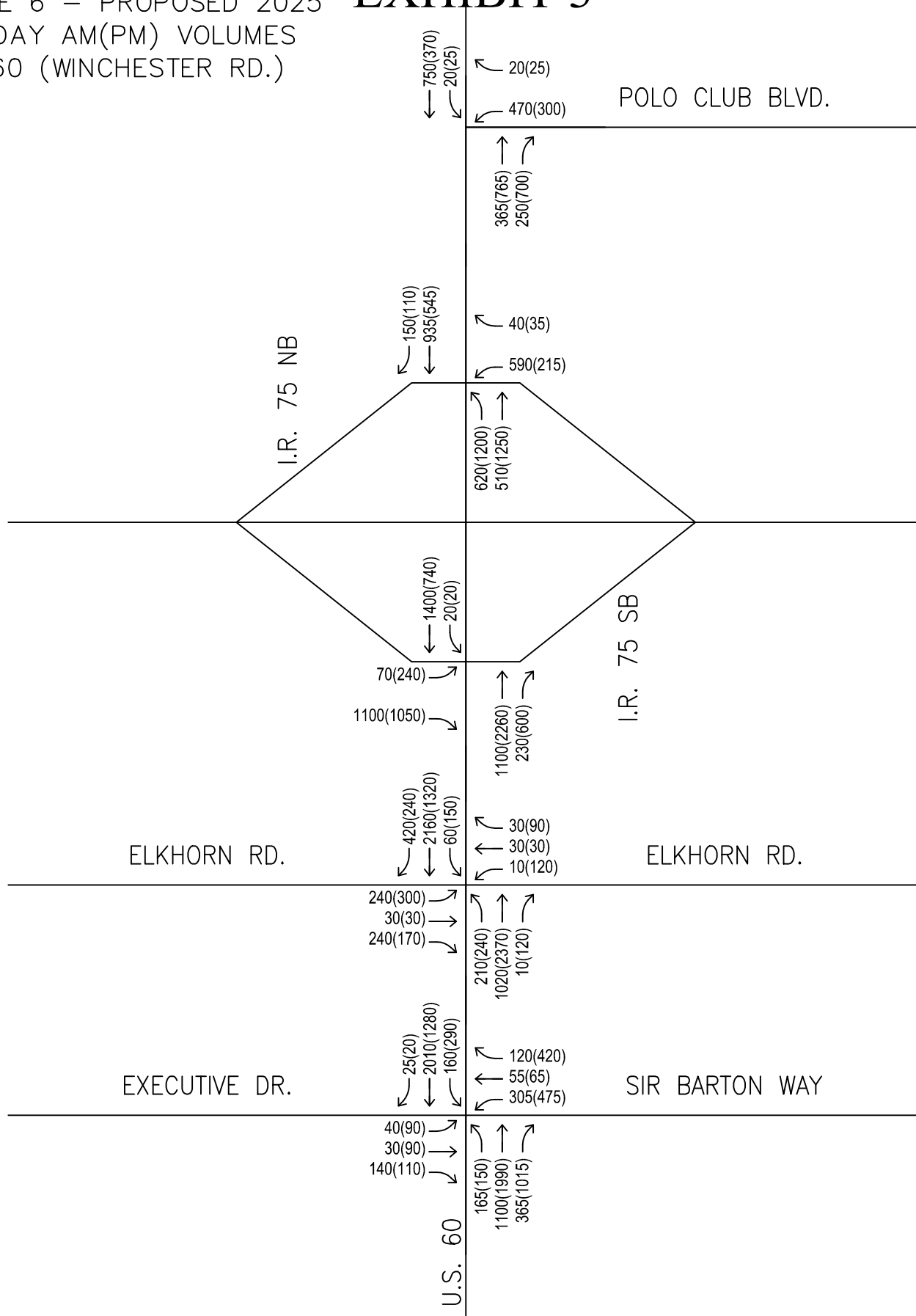
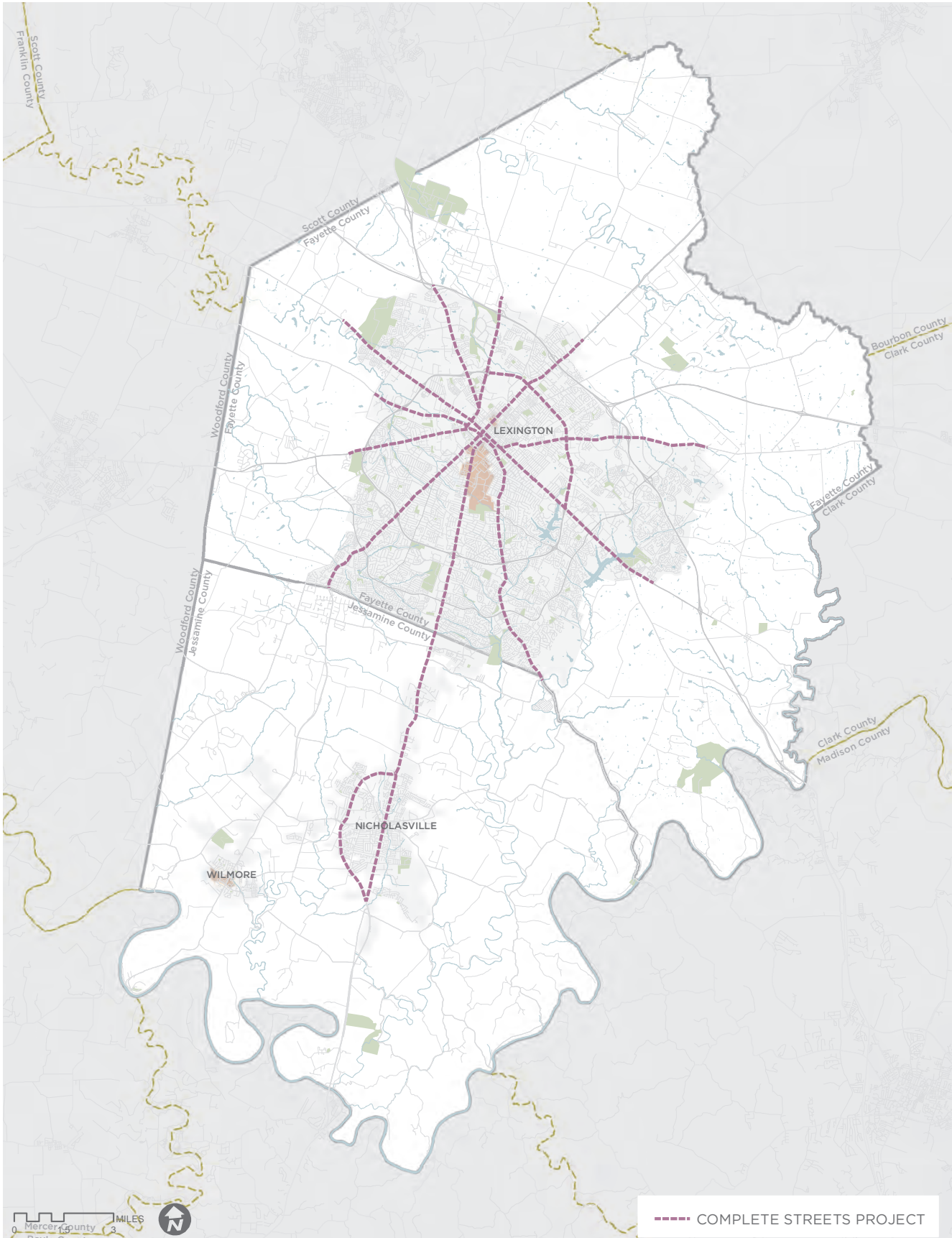


EXHIBIT 4: COMPLETE STREETS NETWORK



Bikeway Network

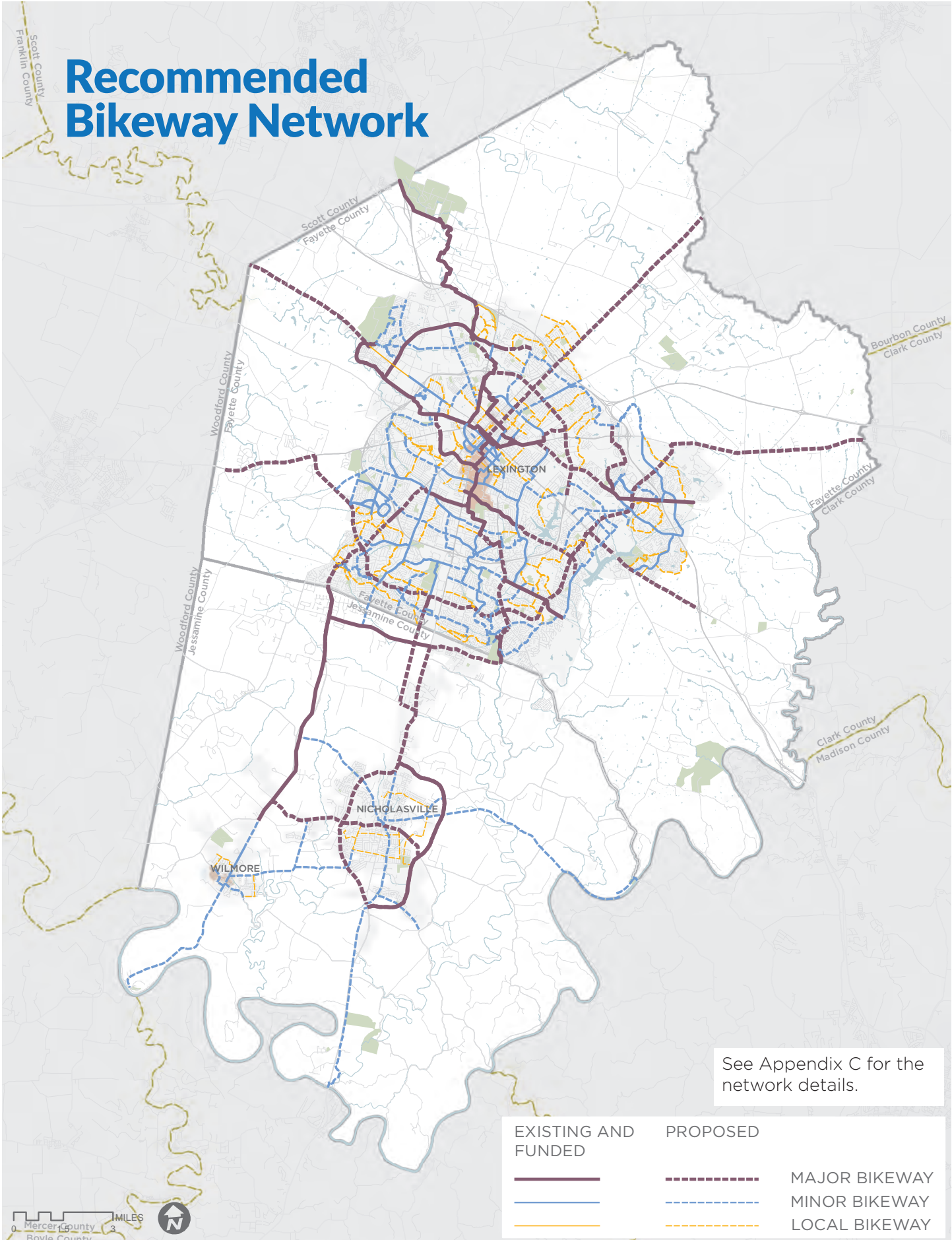
Trails & Pedestrian Network

Complete Streets

Intersections

EXHIBIT 5

Recommended Bikeway Network



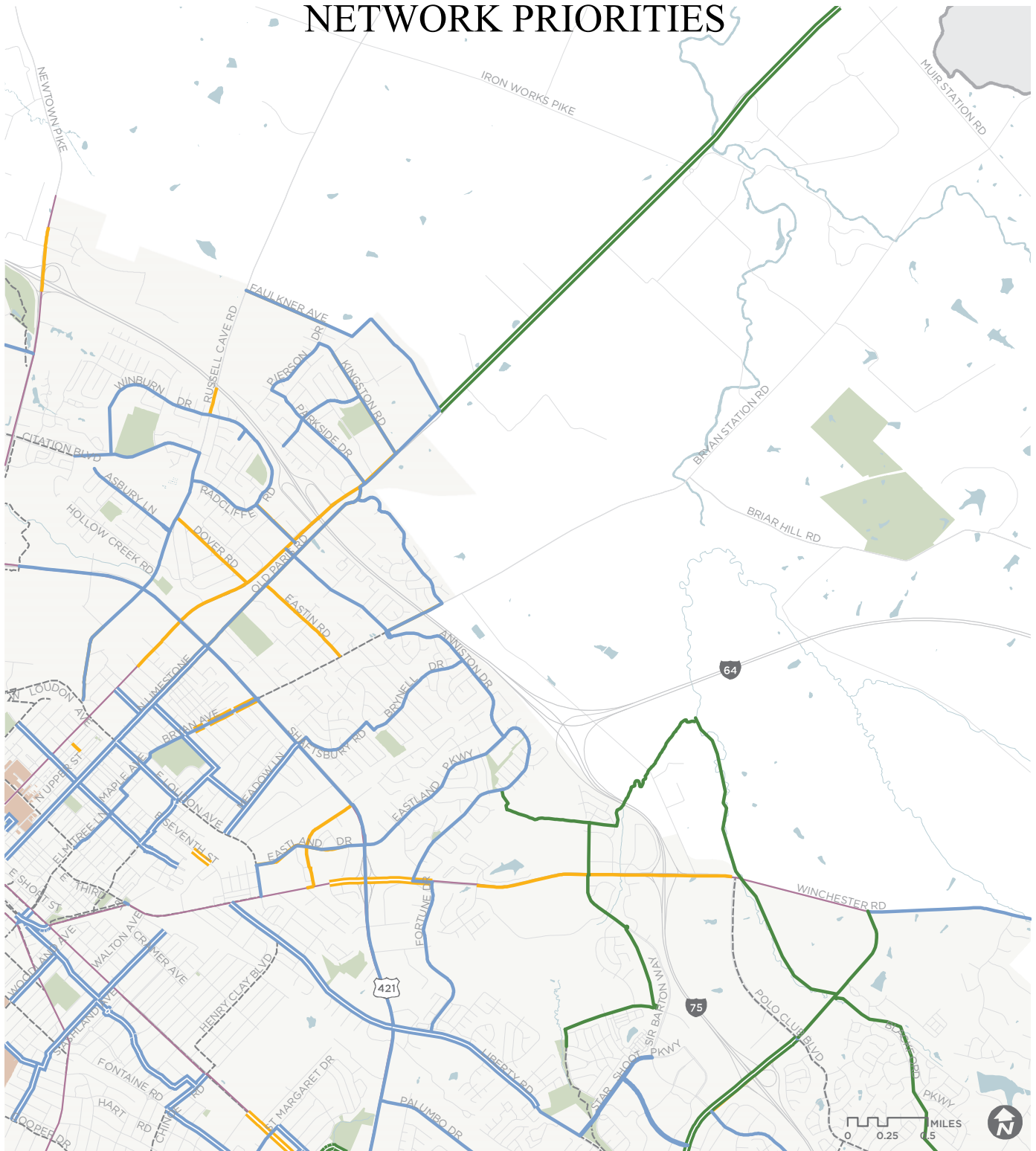
Bikeway Network

Pedestrian Network

Complete Streets

Intersections

EXHIBIT 6: BIKE AND PEDESTRIAN MASTER PLAN NETWORK PRIORITIES



NETWORK PRIORITIES Northeast Lexington

SHORT-TERM	MID- AND LONG-TERM	
		BIKWAY PROJECT
		SHARED USE TRAIL PROJECT
		PEDESTRIAN IMPROVEMENT PROJECT
		COMPLETE STREET PROJECT
		EXISTING AND FUNDED BIKWAY NETWORK