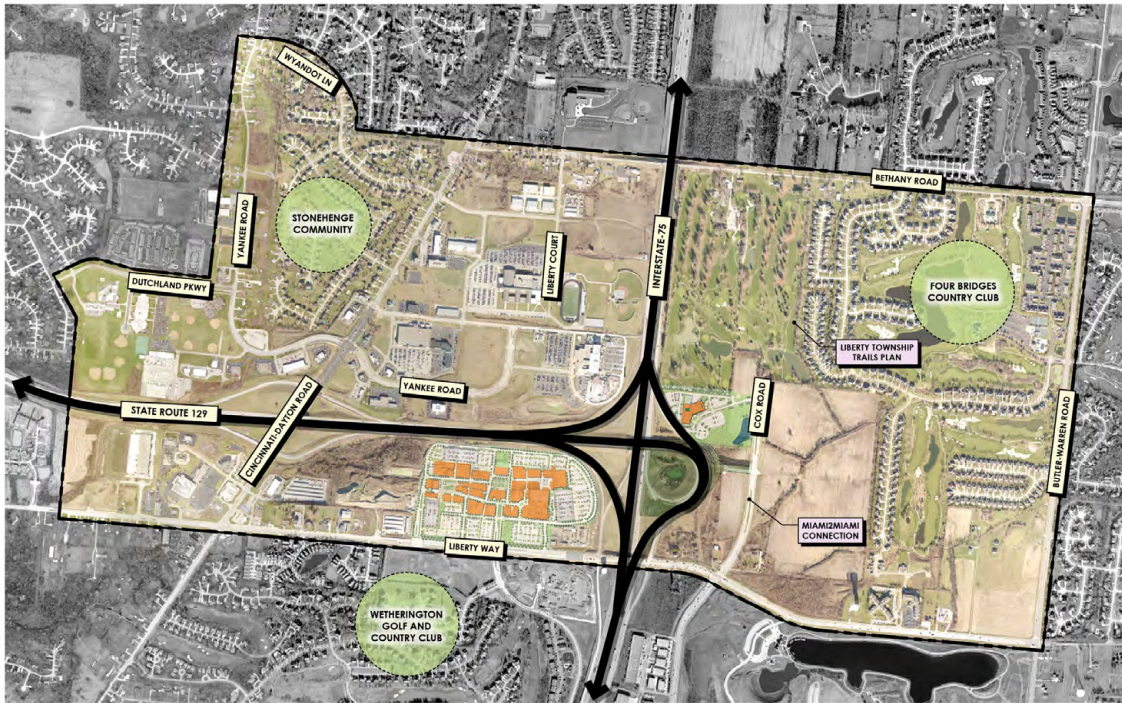


LIBERTY TOWNSHIP



PEDESTRIAN FEASIBILITY STUDY



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5
PRELIMINARY DATA



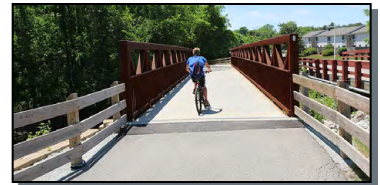
13
OVERALL SITE ANALYSIS



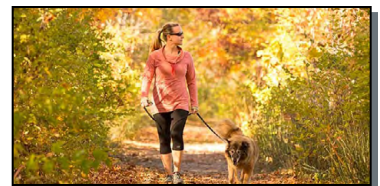
17
**SITE INVENTORY, ANALYSIS, AND
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49
CONCLUSION - PEDESTRIAN FEASIBILITY STUDY



APPENDIX 1 - 53
**EXISTING SIDEWALKS/SHARED USE PATHS AND
PROPOSED SIDEWALKS/SHARED USE PATHS**



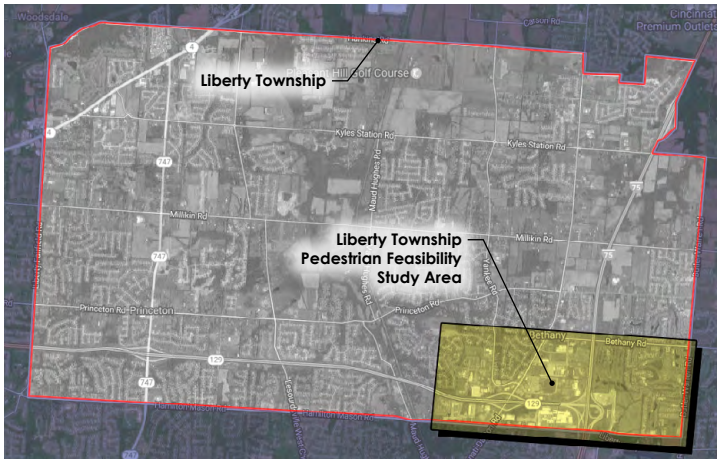
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PRELIMINARY DATA

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History of Liberty Township

The neighborhoods of Liberty Township, within or adjacent to this study area, began a housing boom in the mid 1990's with the development of the Stonehenge subdivision and the expansion of the Woodland View subdivision. Then once again by adding the Four Bridges subdivision at the turn of the millennium. As of the 2010 Census, the study area included about 3,415 households and 11,000 residents of the 37,259 residents in the township. The population of the township continues to expand into 2017 at the writing of this report with the addition of the Liberty Center mixed-use development, which includes 238 apartment units.



2013 Comprehensive Vision Plan

In February of 2014, Liberty Township released the 2013 Comprehensive Vision Plan, which included a chapter on Parks, Recreation, and Trails (Section V). This chapter describes the existing conditions of the pathway infrastructure and goals for pedestrian and bicycle infrastructure.

The following information has taken segments from this report that includes the Committee's observations and goals for the future pedestrian pathways and connections within the community.

Observations:

"...the majority of existing sidewalk infrastructure is located within subdivision developments. There are few sidewalks along the main roads of the Township, which causes the sidewalk systems within the subdivisions to be isolated because they generally do not connect beyond the subdivision. Furthermore, sidewalk has not always been a requirement of development in Liberty Township and several older subdivisions and commercial developments do not include sidewalk. The network of sidewalk and Path in Liberty Township is viewed as a puzzle ..."

"While it has been shown that transportation in Liberty Township is very car-oriented, pedestrian and cycling modes of transportation should not be overlooked. Pedestrian and bicycle transportation offer many benefits to residents and the community over motor vehicles. They are less costly, offer exercise and health benefits, improved quality of life, are less polluting to the air, the required infrastructure is less costly and requires less physical space than roadways and parking lots."

Goals:

1. **Make sidewalk connections between subdivisions, schools, regional trails, and commercial developments.**
2. **Prioritize closing gaps in the existing sidewalk network along main thoroughfares and providing sidewalks where pedestrians currently walk with no sidewalk.**
3. **Start at destinations (commercial, schools, parks, etc.) and spider out in making sidewalk connection priorities based on a ½ mile walking radius.**
4. **Provide for safe pedestrian crosswalks.**
5. **Future traffic improvements should support multiple forms of transportation, including pedestrians.**

"...it is a goal put forth by the Vision Plan Steering Committee that pedestrian and bicycle infrastructure should be provided to give residents the option to use these modes of travel for trips where it is practical or desired. Future infrastructure improvements in Liberty Township should be evaluated for opportunities to provide safe accommodation for pedestrian and bicycle traffic in addition to motorized vehicles. Specific areas of the Township where safe pedestrian infrastructure is needed are within a comfortable walking distance, generally a ½ mile, of schools, parks, churches, and commercial areas. Safe pedestrian connections are especially important around schools. An increase in children walking to school, along with increased traffic congestion in the vicinity of the schools with parent drop-offs and pick-ups require proper infrastructure to ensure the safety of pedestrians. Efforts to provide safe pedestrian access surrounding the schools are already underway, with Lakota Schools using the Safe Routes To School program to make infrastructure improvements. Specific details of planned bicycle and pedestrian improvements are shown in Section 5.2 Bicycle, Pedestrian, and Paths Plan [of the 2013 Comprehensive Vision Plan]."

Objective:

- Continue to create a pedestrian and bicycle network as outlined in the Liberty Township Trails Plan (LTTP).
- Liberty Township will continue to work with the Lakota Schools regarding their Safe Routes to School Plans.
- Liberty Township, along with Lakota Schools and Butler County Engineer's Office (BCEO), will take into account, and seek to mitigate increased traffic at school locations.

The observations and goals documented in the 2013 Comprehensive Vision Plan are echoed in our observations of Liberty Township's walkability. For the complete report, see the 2013 Comprehensive Vision Plan at the Liberty Township website or administration office.

General Constraints

Below is a list of constraints from observations taken during the preliminary walk-through of the site. These include:

- Lack of continuous sidewalks
- Missing curb cuts
- Poorly constructed and/or maintained walking surfaces
- Narrow walkway widths
- Wide street crossings
- High vehicular traffic along walkways
- Bridges lack pedestrian walkway
- Highways and Arterial roadways serve as boundaries
- High-speed, high volume traffic adjacent to schools, parks, shopping, and residential areas
- Lack of shade (i.e. from trees, building facades, or canopies)
- Location of utilities become obstacle for development

Typical Elements of Pedestrian-Friendly Streets

The most walkable streets have been identified as having these four common characteristics from the view of a pedestrian:

1. Usefulness
2. Safety
3. Comfort
4. Interesting features

Usefulness

- A walkway must connect two destinations without interruption (i.e. lack of sidewalks, crosswalks, or curb cuts).
- A walkway will seem more useful if the pedestrian can reach their destination within a reasonable time frame. The average walking time frame does not exceed 10-12 minutes.
- Usefulness begins at the community planning stage. Integrated use developments in designated districts will bring the population closer to more uses.
- Interconnected streets and small block patterns allow for more mobility and access for pedestrians to get to more uses.
- Appropriate use of signs and signals for both pedestrians and motorists, with equitable treatment for pedestrians.



Safety

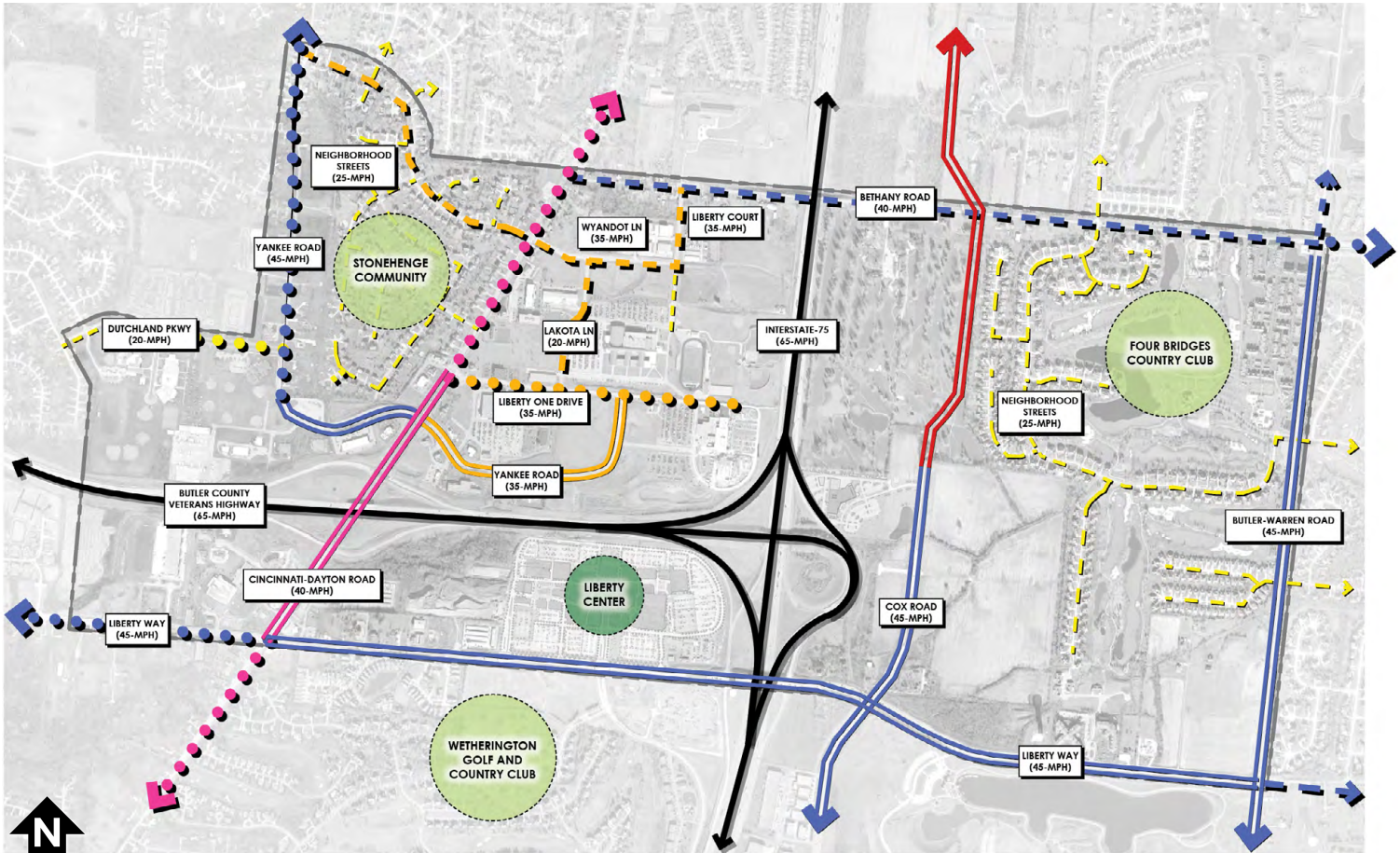
- More accurately, the perception of safety, a walk will become more useful if a pedestrian feels safe.
- Separate the pedestrian from the vehicular traffic. In more urban environments this is done by street parking. For suburban areas, a lawn/landscape bed buffer can keep pedestrians feeling separated from the road.
- Traffic-calming treatments to help ensure that motor vehicles are operated at or below compatible speeds (i.e. raised medians, roundabouts, tight corner curbs, speed tables).
- Narrow streets naturally and comfortably slow traffic and allow pedestrians to have a shorter distance to cross at crosswalks.

Comfort

- Pedestrians are more prone to walk in areas that are "enclosed". A street can seem enclosed if the building facades are at the roadway, and a tree canopy or building canopy is above the walkway.
- Trees and building facades provide shade from the sun in the summer months where walking is more feasible.
- Median islands on wider streets provide a refuge area for crossing pedestrians.
- Adequate lighting at the walkway. (i.e. lower light poles and fixtures).
- Wide, accessible, and well-maintained sidewalks.

Interesting features

- Public art, street furnishings, and public park space can enhance the pedestrian experience.
- Reduce the interaction between pedestrian and parking lots, blank walls, and repetition.

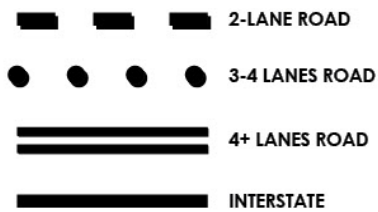


Roadway Hierarchy

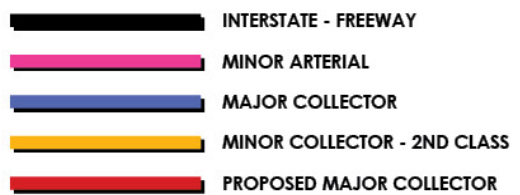
An important measure in determining walkability is how fast and how wide the roadway is that pedestrians must parallel and cross. The graphic above shows the number of lanes and speeds of each roadway within the study area. Most of the arterial roadways have speeds in excess of 40 mph and 4 or more lanes. These border and separate the neighborhoods from businesses and schools.

- The Four Bridges County Club community to the east of Interstate 75 is bordered by 5-lane roads with speeds of 40-45 mph.
- The Stonehenge community is given the most opportunity of connectivity by having its bordering roadways vary from two, three, and four lanes; however all speeds of these roads are 40-45 mph. This will reduce the perceived safety for the pedestrian as well as the feasibility of walking to uses beyond Cincinnati-Dayton Rd. To the west, Yankee Road is in the process of expanding to a three-lane road with a 6ft sidewalk on the west side of the road (as of the writing of this report).

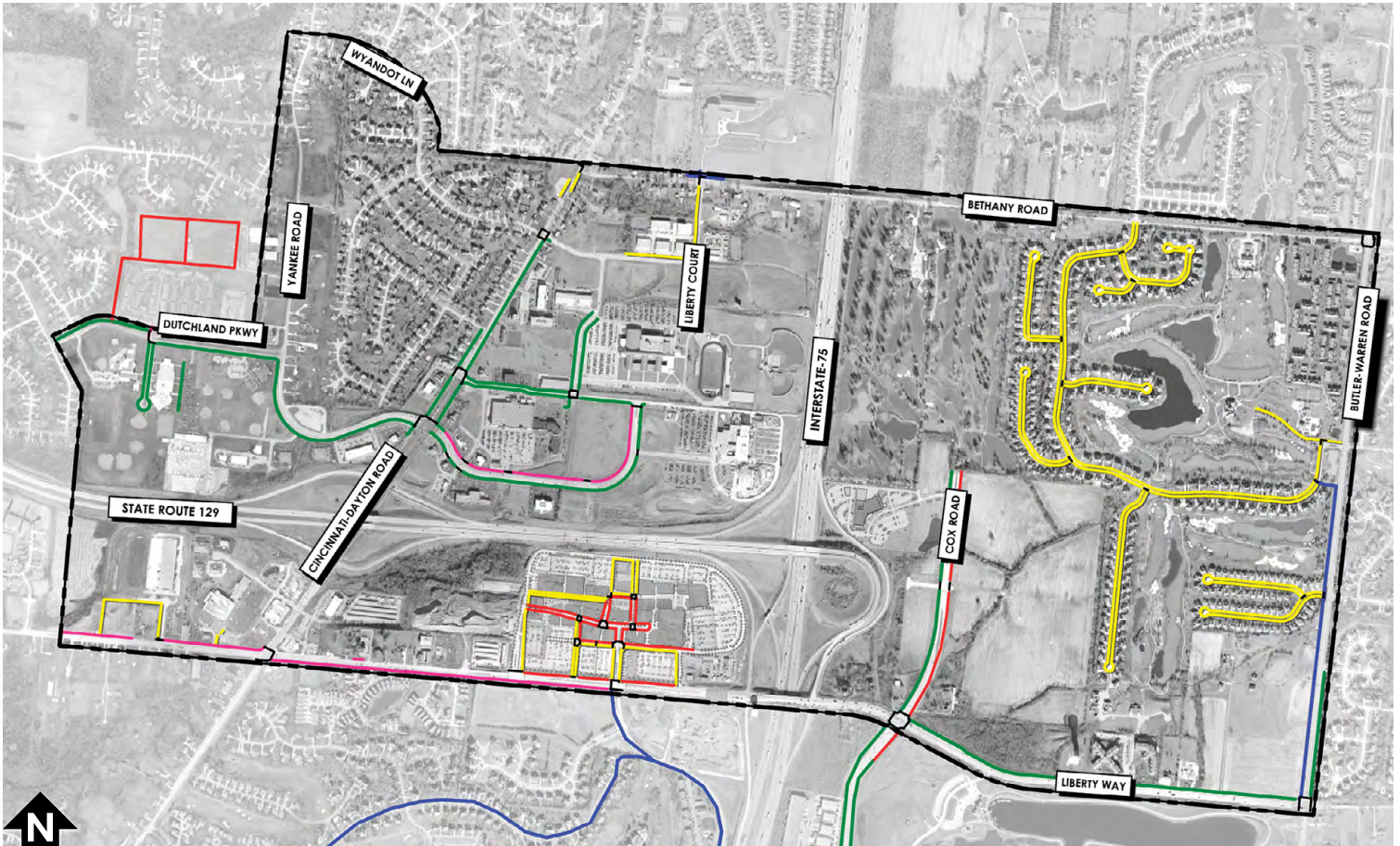
NUMBER OF TRAFFIC LANES



BUTLER COUNTY THOROUGHFARE PLAN 2007



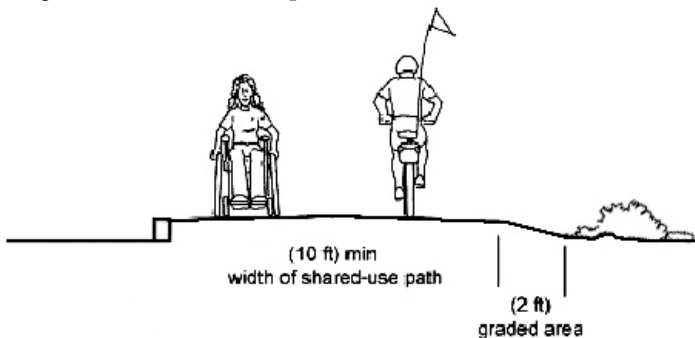
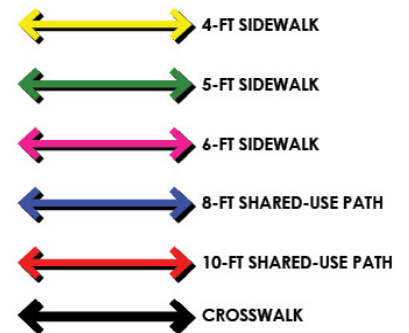
- The Wetherington Golf and County Club community in West Chester is separated from the walkable Liberty Center development by Liberty Way - a 100 ft wide 5+ lane roadway. The only crosswalk is at the intersection of Tylers Place Blvd. Note: Liberty Way is outside of Liberty Township's jurisdiction for infrastructure improvements.



Existing Pedestrian and Bicycle Infrastructure

The pedestrian infrastructure within this study area generally stays within each development or are missing completely. This results in pathways that lead to nowhere, and ultimately, less use for the infrastructure that does exist. The exhibit above shows the existing sidewalks, shared-use paths, and crosswalks within the study area, labeled by width of path.

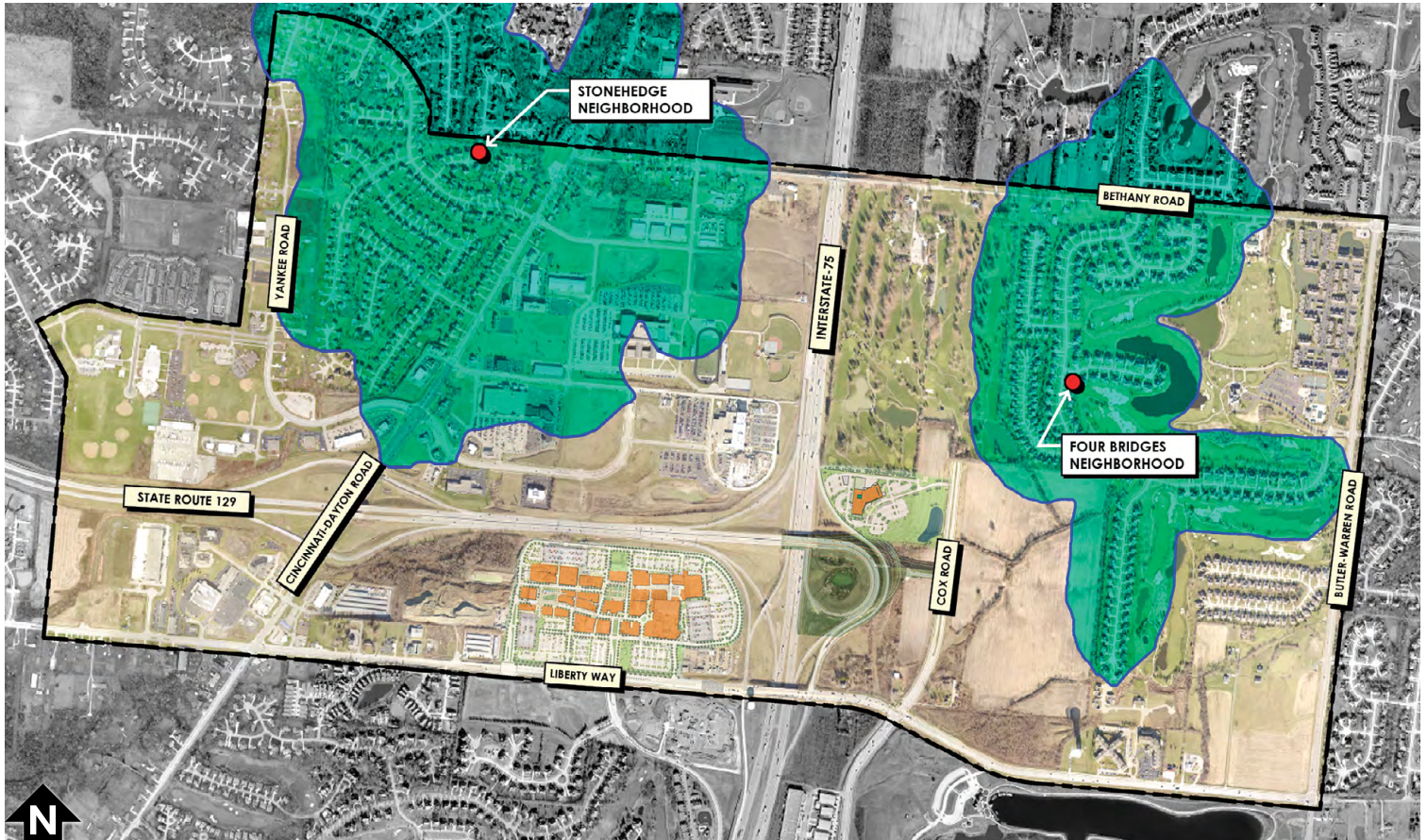
A critical part of the pedestrian access route is the crosswalk. As many of the residential neighborhoods are bordered by high traffic arterial roadways, the feasibility of walking often ends at the edge of a neighborhood that lacks a perceived safe means to cross.



Typical shared-use path

Existing off-street routes for bicycles are limited to four areas:

- Within the golf course neighborhood of Four Bridges and along part of Butler-Warren Road,
- Within and in front of Liberty Center at Liberty Way, behind the YMCA on Yankee Road, and along Cox Road.
- The only non-isolated of these routes is at Cox Road, which joins a shared bike path to the south.
- Cox Road is along the proposed route of the Miami2Miami Connection and LTP, discussed later in this report.



Distance Factors

Distance is the key factor limiting utilitarian walking trips. Although distance is a subjective factor in mode choice, walking trips are predominantly short.

An often cited study, the 1995 Nationwide Personal Transportation Survey, established that at least 5.4 percent of all trips are made by walking. The study also found that the average pedestrian trip length was 0.53 miles. As uses become more distant, the probability of walking is reduced. A more detailed description of walking trip purposes and average trip length (both in distance and time) is in the chart below.

Purpose of Trip	Distance (miles)	Duration (minutes)
To or from work	0.74	10.86
Shopping	0.44	9.42
School/church	0.55	10.89
Doctor/dentist	0.81	14.80
Visit friends or relatives	0.47	9.07
Other social/recreational	0.64	12.74
Other	0.79	12.37

Source: U.S. Department of Transportation, 1995 Nationwide Personal Transportation Survey (Washington, DC, 1997).

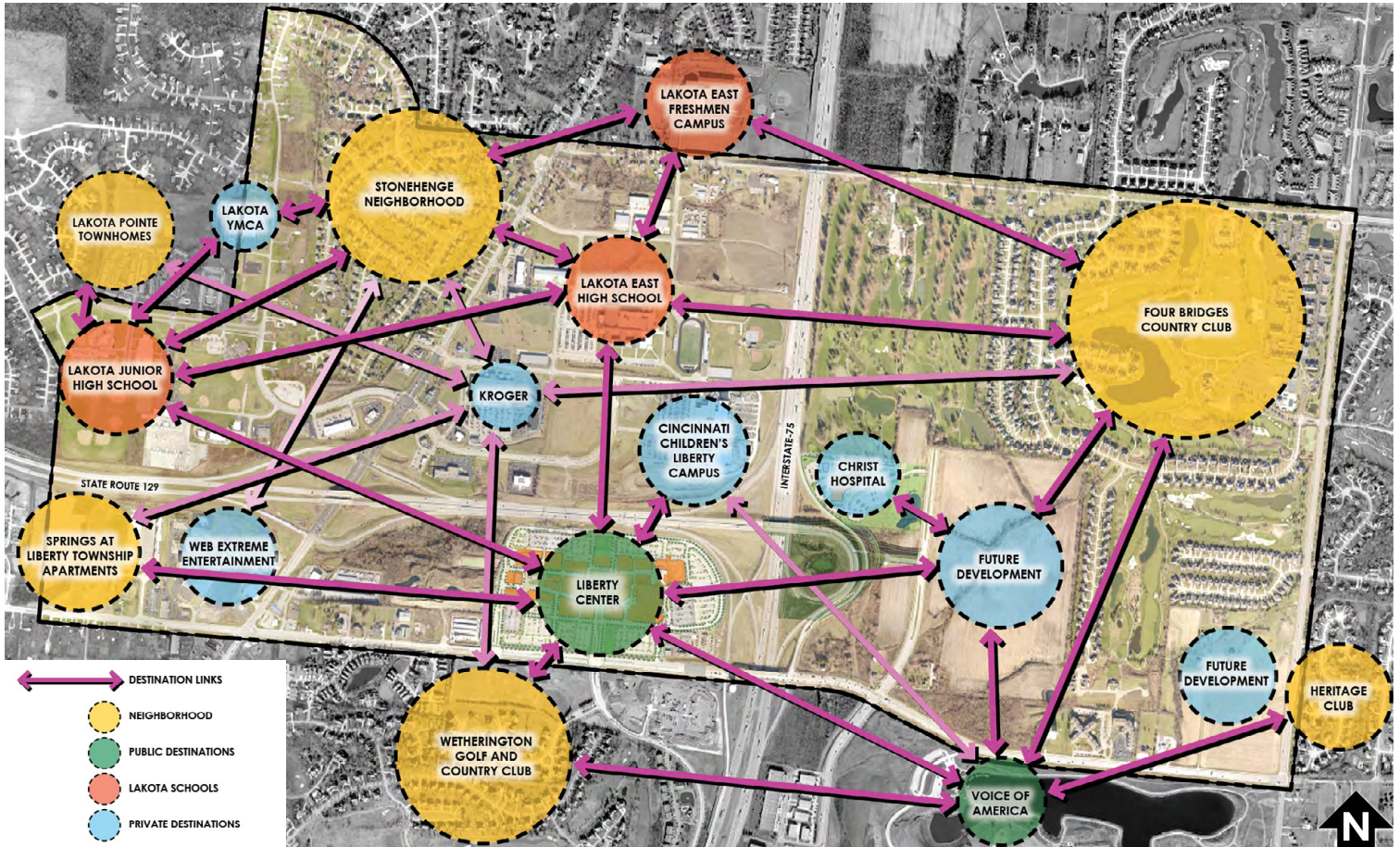
Simulated 15 minute walk

- A simulated 15 minute walk from a central location of the Stonehenge subdivision reveals residents could walk to several shopping/grocery venues, schools, and restaurants assuming comfortable conditions are provided. Approximately 16 years ago, some individuals in Stonehenge wanted sidewalks. Research was done with grants and due to high cost the sidewalks were not put in.
- The same simulation shows Four Bridges subdivision is secluded from almost all other uses within a 15 minute walk.

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OVERALL SITE ANALYSIS

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Connectivity

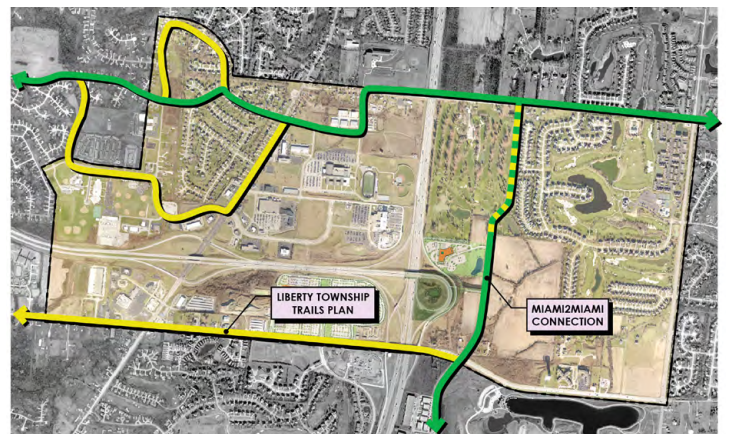
The exhibit above shows a mix of destinations and their relation to each other. This exhibit depicts what pedestrian connections would ideally occur in a walkable community. Connecting neighborhoods to daily uses (i.e. grocers and schools) by providing pedestrian access routes is an important way to ensure the usage of the current pedestrian access infrastructure.

There has been an increased interest to connect pedestrians and

cyclists on a regional level. Organizations like OKI have developed plans to create a regional shared-use route that run through Liberty Township. OKI, in collaboration with local communities, have proposed the Miami2Miami Connection to connect the Little Miami Scenic Trail in Warren County to the Great Miami River Trail in Butler County. The preferred route of the Miami2Miami Connection goes through the limits of this study area and is shown in the exhibit below.



Example of Shared-use path



Miami2Miami Connection and LTTP Exhibit

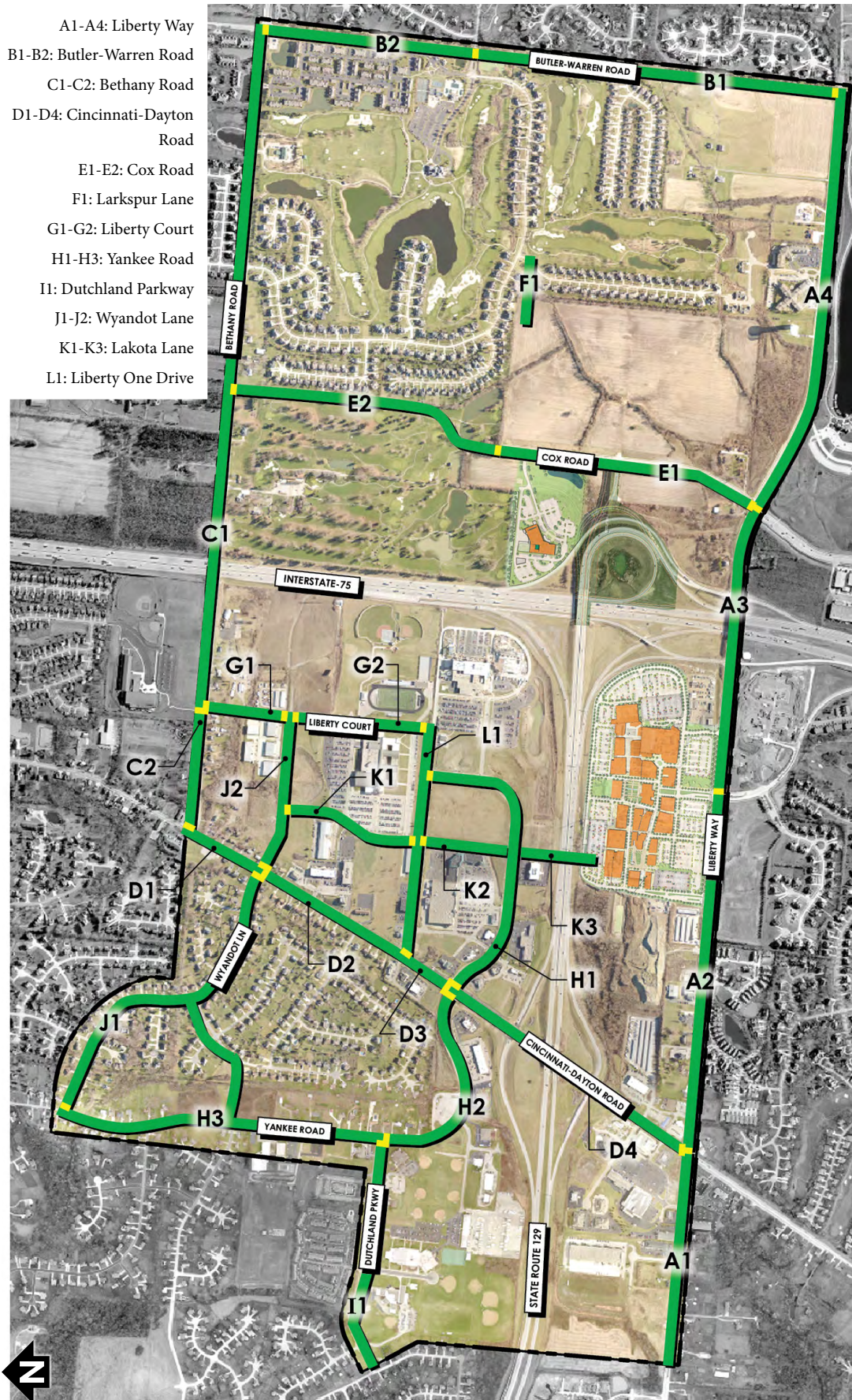
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**SITE INVENTORY, ANALYSIS,
AND RECOMMENDATIONS**

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Key Map

- A1-A4: Liberty Way
- B1-B2: Butler-Warren Road
- C1-C2: Bethany Road
- D1-D4: Cincinnati-Dayton Road
- E1-E2: Cox Road
- F1: Larkspur Lane
- G1-G2: Liberty Court
- H1-H3: Yankee Road
- I1: Dutchland Parkway
- J1-J2: Wyandot Lane
- K1-K3: Lakota Lane
- L1: Liberty One Drive



Legend

The pages following this key map have the following information:

- Site Inventory
- Site Analysis
- Recommendations
- Development Priority
- Level of Magnitude

Site Inventory

- Description of existing conditions

Site Analysis

- Opportunities and constraints per each study area

Recommendations

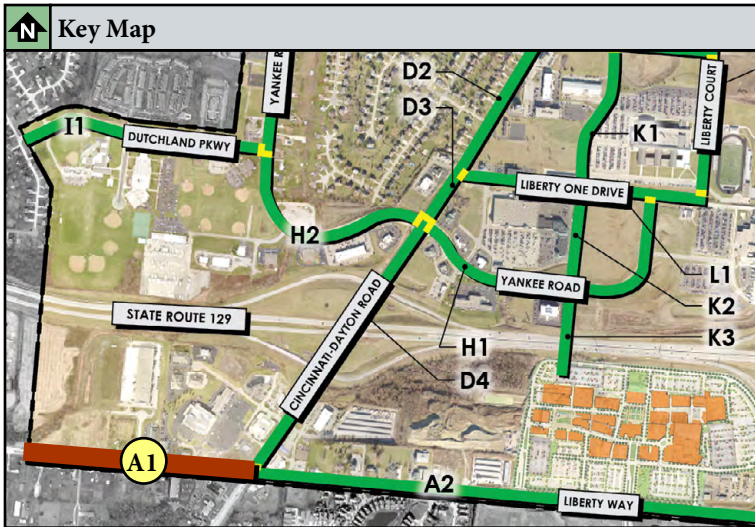
- Recommendations to development per each study area

Level of Magnitude

- Under 100K \$
- 100K - 500K \$\$
- 500K - 1.0M \$\$\$
- 1.0M - 3.0M \$\$\$\$
- 3.0M and Over \$\$\$\$\$

Although the level of magnitude implies a cost associated with each recommendation, these costs are to be seen only as loose figures to help gauge efforts to implement the recommendations.

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A1 Hamilton Mason Road: Office Park to Cincinnati-Dayton Road

Site Inventory

- Sidewalks – 6-ft with fragments on north side; none on south side
- Sidewalks about the roadway with little to no buffer
- Roadway – Approximately 65-ft wide – 5 lanes
- Speed limit – 45 mph
- Traffic use – high
- Crosswalks at Office Place Drive is 80ft in length; minimal striping
- Many residential curb cuts on south side
- No trees at roadway or sidewalk
- Overhead utilities located on south side of road

Site Analysis

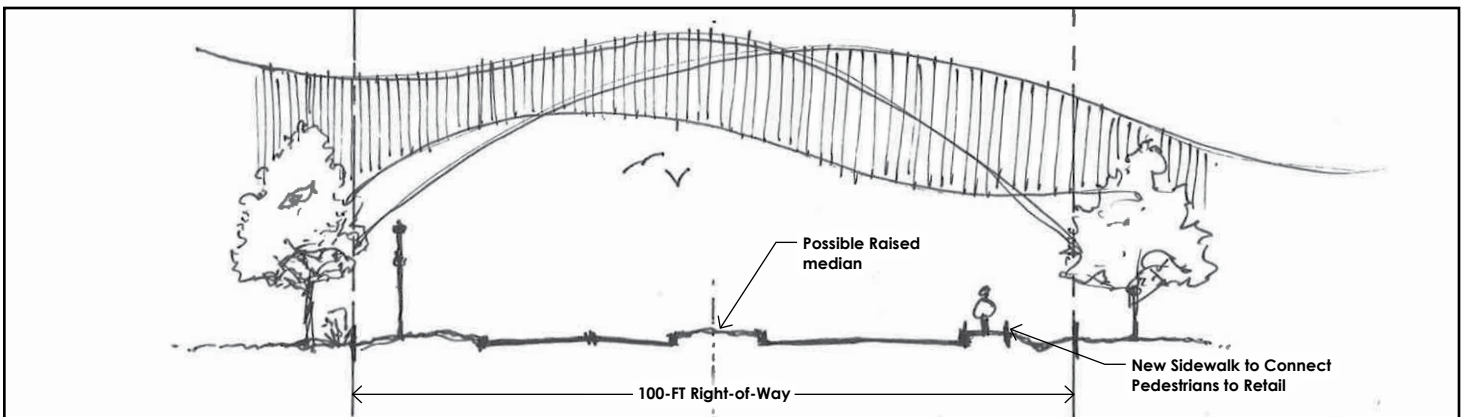
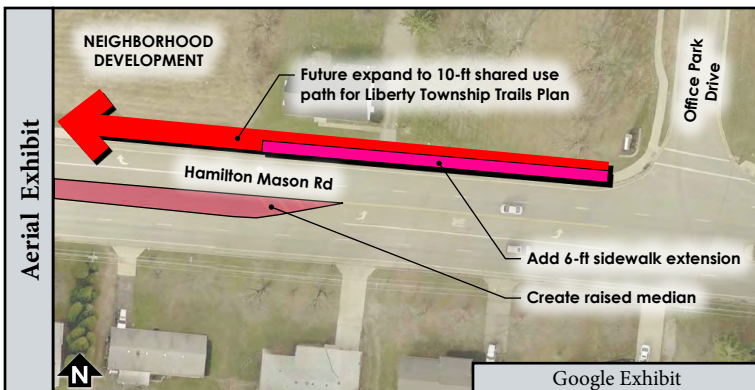
- A 200ft section of sidewalk is missing on the north side of Hamilton Mason Road.
- Lack of shade trees along the walking path reduces user comfort.
- High vehicular speeds reduce pedestrian’s perceived safety when crossing or walking alongside roadway.
- Crosswalks along Hamilton Mason Road do not cross at the narrowest part of roadway.
- Proximity of sidewalk to roadway reduces pedestrian’s perceived comfort and safety.
- The proposed Liberty Township Trails Plan route runs along this roadway.
- South side of Hamilton Mason Road is in West Chester Township

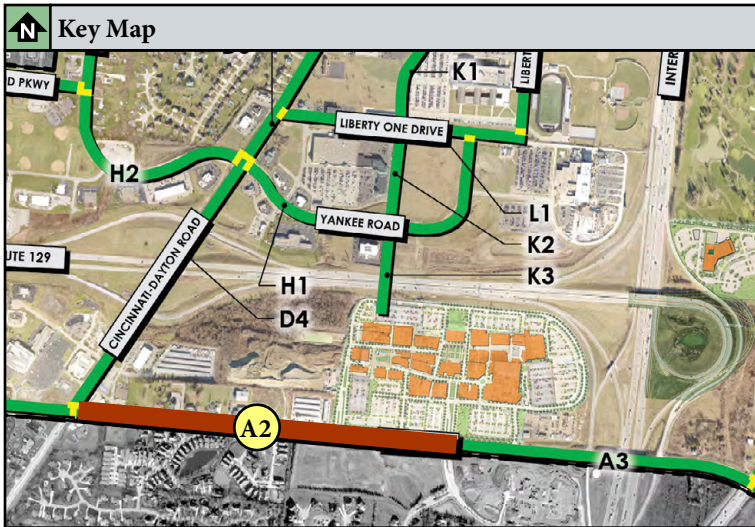
Recommendation

- Connect fragmented sidewalks.
- Widen existing 6-ft sidewalk to a 10-ft shared-use path. Path to become part of the proposed Liberty Township Trails Plan route.
- Add shade trees south of sidewalk/shared-use path.
- Coordinate with West Chester Township to add refuge island at crosswalks on any boulevard-style roadway.
- Relocate crosswalks to cross road at shortest distance on north side of roadway.
- Coordinate with West Chester Township to construct raised and/or colored medians to naturally slow vehicles and provide pedestrian refuge when crossing.
- Continue sidewalk through Liberty Towne Centre Shopping Center.

Level of Magnitude: \$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





A2 Liberty Way: Cincinnati-Dayton Road to Liberty Center (Tylers Place Blvd.)

Site Inventory

- Sidewalks – 6-ft on south side; 8-ft shared-use path at Liberty Center; Many fragments on north side;
- 6-ft buffer from roadway.
- Trees along sidewalk at Liberty Center only
- Roadway – Approximately 65-ft wide – 5 lanes
- Speed limit – 45 mph
- Traffic use – high
- Overhead utilities located on south side of road
- Steep grades, drainage ditch, and retaining wall at north side

Site Analysis

- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.
- Distance between uses make walking less feasible.
- Physical restrictions at the north side of the roadway limit pedestrian access improvements.
- Proximity of sidewalk to roadway increases pedestrian's perceived sense of comfort and safety.
- The proposed Liberty Twp. Trails Plan route runs along this roadway.
- South side of Liberty Way is in West Chester Twp.

Recommendation

- **Option A** – Work with West Chester Township to widen existing 6-ft sidewalk to become a 10-ft shared-use path. Path to become part of the proposed Liberty Township Trails Plan route.
- **Option B** – Support future development north of Liberty Way and west of Liberty Center to include pedestrian paths that connect to Cincinnati-Dayton Road. Add shade trees south of sidewalk / shared-use path.
- **Option C** – With future infrastructure improvements, re-stripe to narrow vehicular lanes and create a dedicated bike lane. Coordinate with Butler County Eng. Office for roadway improvements.

Level of Magnitude:

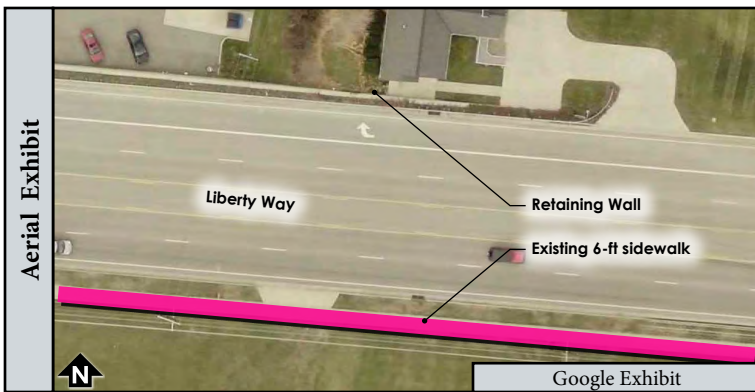
- Option A \$\$\$
- Option B \$
- Option C \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



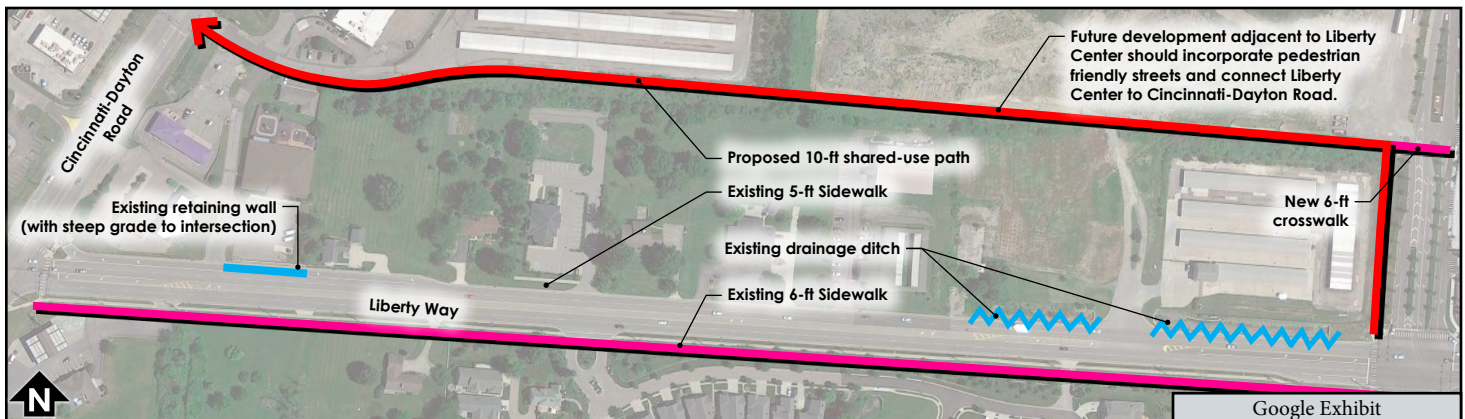
Existing Conditions

View East

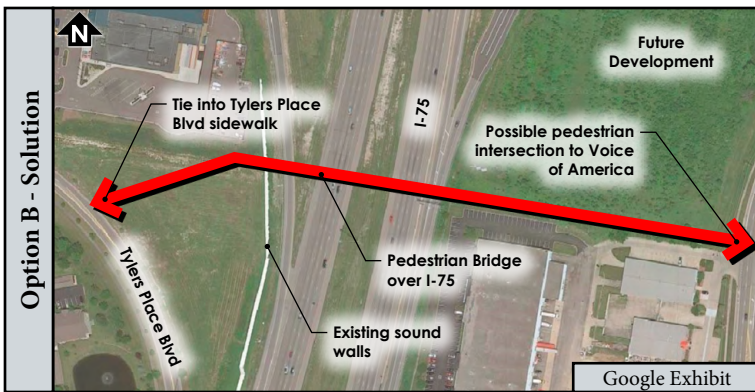
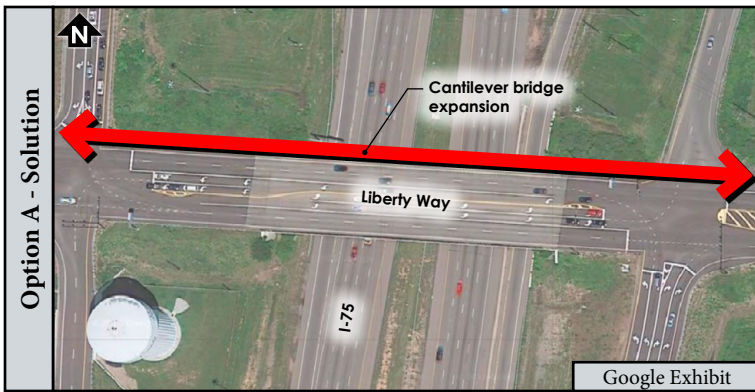
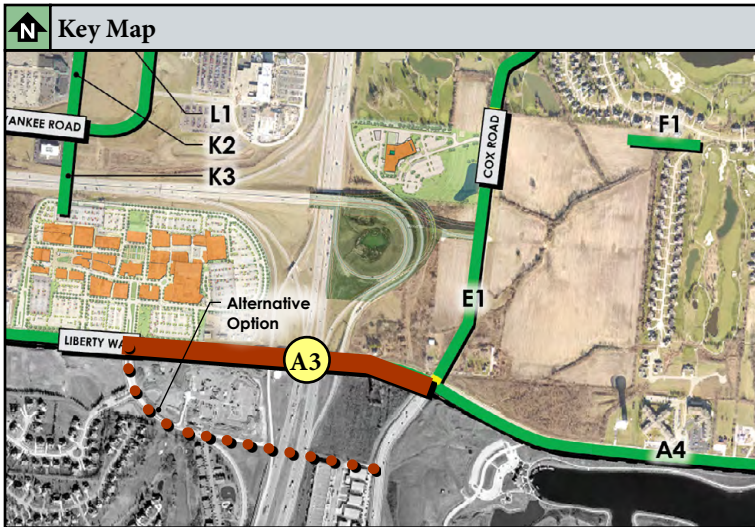


Aerial Exhibit

Google Exhibit



Google Exhibit



A3 Liberty Way: Liberty Center (Tylers Place Blvd.) to Cox Road

- Site Inventory**
- Sidewalks – None on south side; 8-ft shared-use path at Liberty Center; None at overpass
 - Trees along sidewalk at Liberty Center only
 - Roadway – Minimum 80ft wide – 6 lanes
 - Speed limit – 45 mph
 - Traffic use – high
 - Interstate 75
 - Existing sound walls

- Site Analysis**
- High vehicular speeds reduce pedestrian’s perceived safety when crossing or walking alongside roadway.
 - Distance between uses make walking less feasible.
 - No pedestrian access over Interstate 75.
 - Current vehicular lane configuration does not allow for additional pedestrian or bicycle lanes.
 - Improvements at overpass need ODOT approval.
 - The proposed Liberty Township Trails Plan route runs along this roadway.
 - South side of Liberty Way is in West Chester Township

- Recommendation**
- **Option A – Cantilever:** Add cantilever shared-use path at overpass.
 - **Option B – Pedestrian bridge:** Work with West Chester Township to add 10-ft shared-use path from Liberty Center south along Tylers Place Blvd. Path to become part of the proposed Liberty Township Trails Plan route. Add pedestrian bridge across I-75. Continue 10-ft shared-use path to Cox Road.

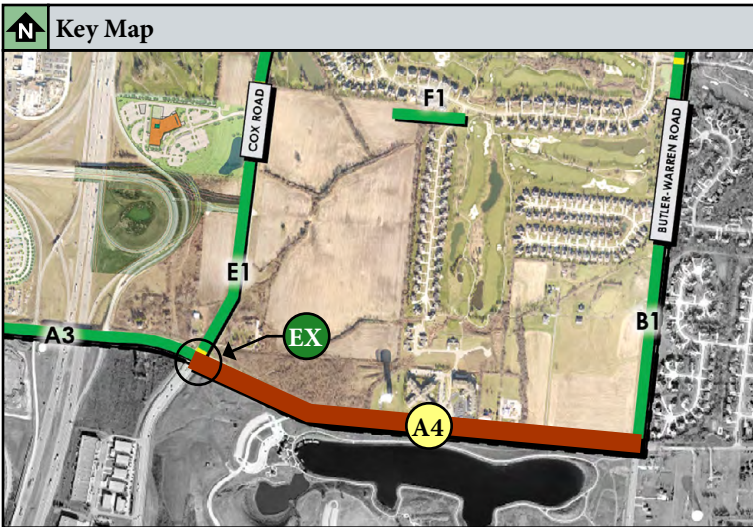
Level of Magnitude:

Option A \$\$\$\$

Option B \$\$\$\$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





A4 Liberty Way: Cox Road to Butler-Warren Road

Site Inventory

- Sidewalks – 5-ft sidewalk on north side; no sidewalks on south side - Voice of America (VOA) has shared-use path that connects to the intersection of Liberty Way and Butler-Warren Road, but does not connect to Liberty Way at Cox Road (stops at parking lot).
- Roadway – Approximately 65-ft wide – 5 lanes
- Speed limit – 45 mph
- Traffic use – very high
- Overhead utilities located on north and south side of road
- No trees at roadway or sidewalk

Site Analysis

- Distance between uses make walking less feasible.
- Proximity of sidewalk to roadway increases pedestrian's perceived sense of comfort and safety.
- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.
- This section of Liberty Way is entirely in West Chester Township

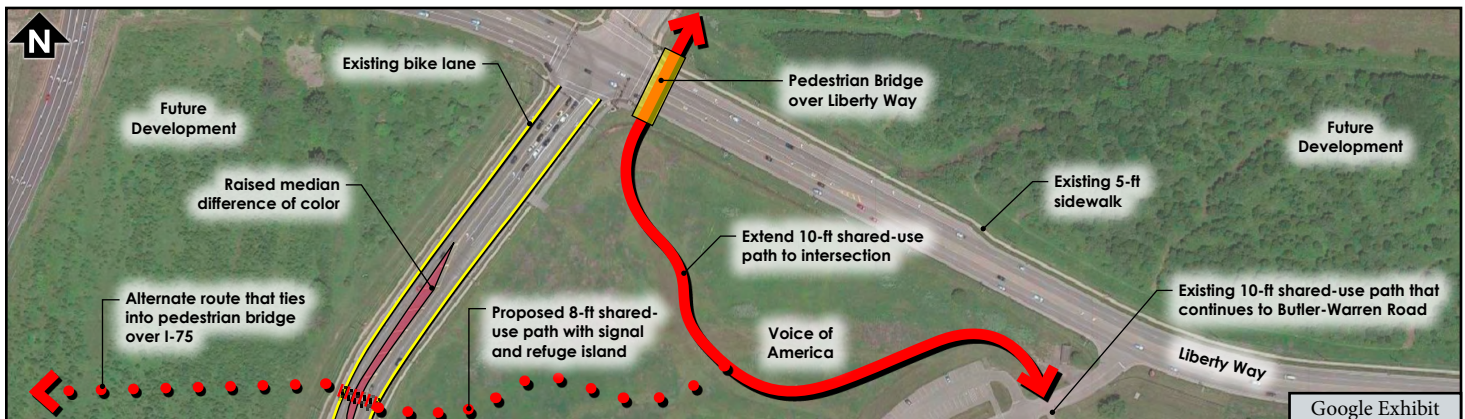
Recommendation

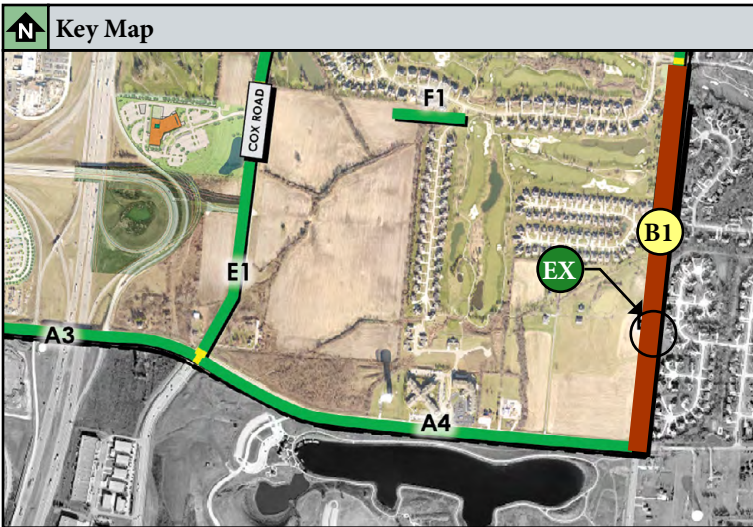
- **Option A:** Work with MetroParks of Butler County to extend the shared-use path from the VOA's parking lot to the corner of Liberty Way and Cox Road. Work with West Chester Township to upgrade crosswalk along Cox Road.
- **Option B:** Pedestrian bridge along Cox Road over Liberty Way

Level of Magnitude:

- Option A \$
- Option B \$\$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





B1 Butler-Warren Road: Liberty Way to Four Bridges Drive

Site Inventory

- Sidewalks – 8-ft asphalt shared-use path on west side; 5-ft concrete sidewalk on east side; not continuous. Shared-use path on west side of Butler-Warren Road turns west off roadway into Four Bridges subdivision.
- Roadway – Approximately 70ft wide – 5 lanes
- Speed limit – 45 mph
- Traffic use – very high
- Overhead utilities located on east side of road
- East side of Butler-Warren Road is in Deerfield Township and the City of Mason.

Site Analysis

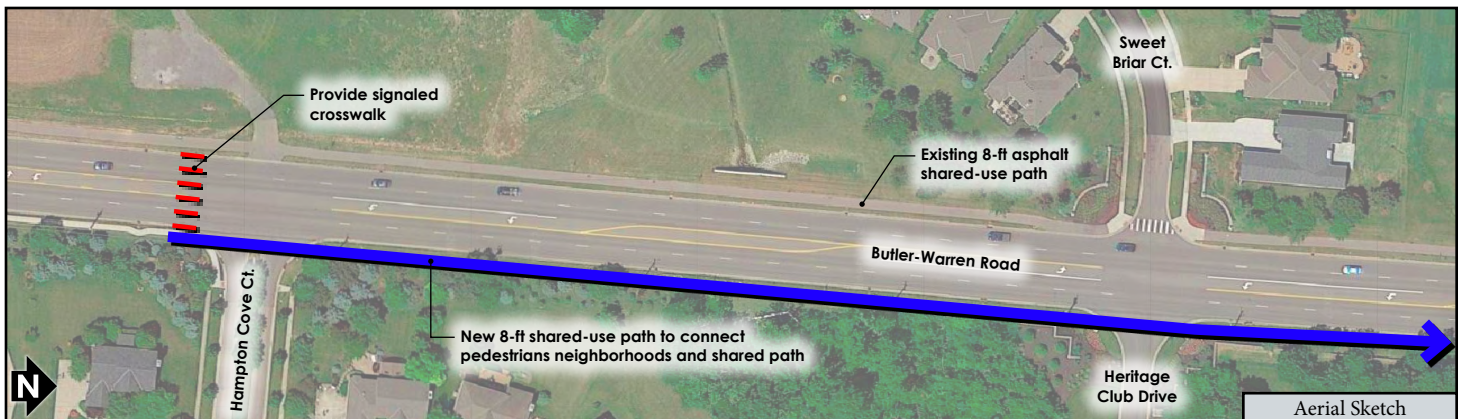
- Distance between uses make walking less feasible.
- Lack of crosswalk between Mason's Heritage Club and Four Bridges subdivisions reduces safety and perceived comfort for pedestrians.
- Lack of shade along shared-use path reduces user comfort.
- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.

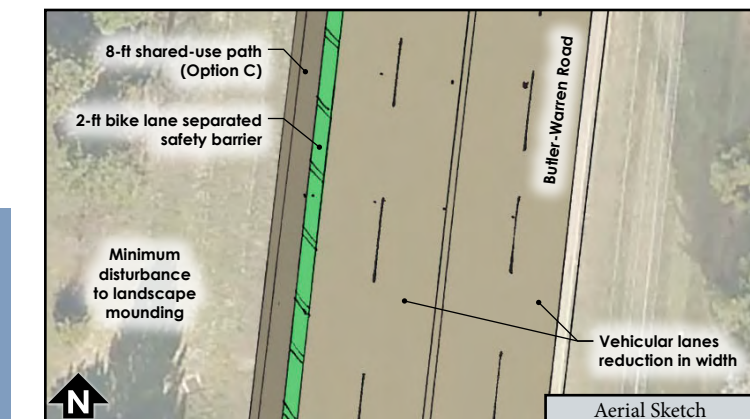
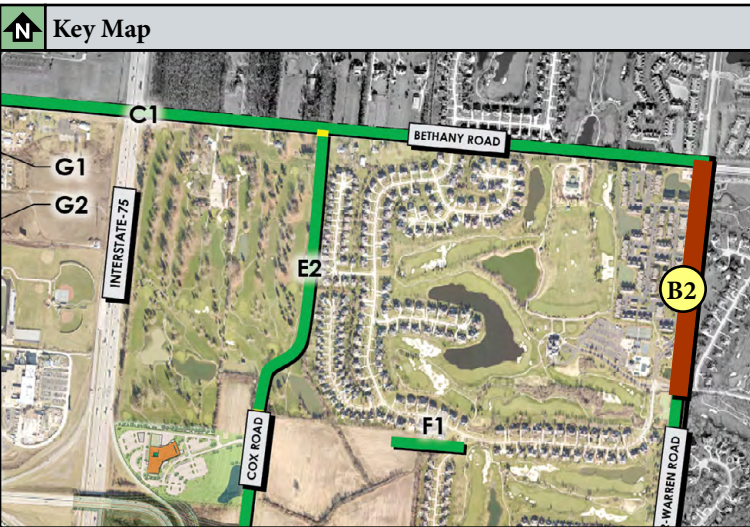
Recommendation

- Extend existing 8-ft shared-use path north to Four Bridges Drive.
- With development at Butler-Warren Rd and Liberty Way intersection, add a signaled crosswalk and refuge island into Hampton Cove Court
- Coordinate with the Warren County Engineer's Office.

Level of Magnitude: \$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





B2 Butler-Warren Road: Four Bridges Drive to Bethany Road

Site Inventory

- Sidewalks – None
- Roadway – Approximately 70ft wide – 5 lanes
- Speed limit – 45 mph
- Traffic use – very high
- Overhead utilities located on east side of roadway
- Landscape mounding on west side of roadway
- Steep grades and retaining wall on west side of roadway

Site Analysis

- East side of Butler-Warren Road seems more available to have pedestrian walkway upgrades.
- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.
- Distance between uses makes walking less feasible.
- Existing landscape on both sides of roadway provides adequate shade.
- Existing landscape mounding adds additional site grading to any pedestrian access improvements.
- East side of Butler-Warren Road is in Deerfield Township and the City of Mason.

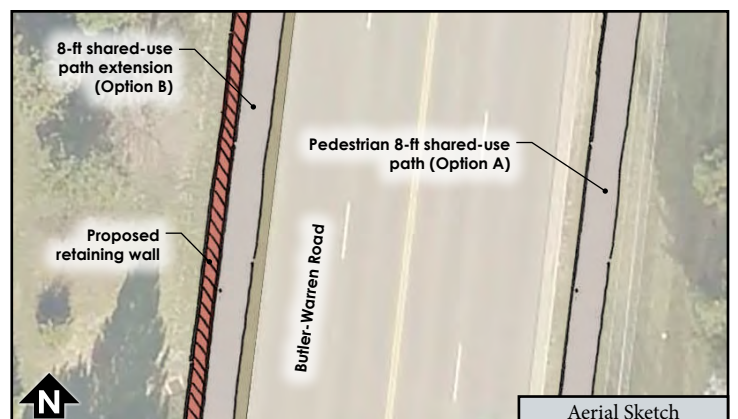
Recommendation

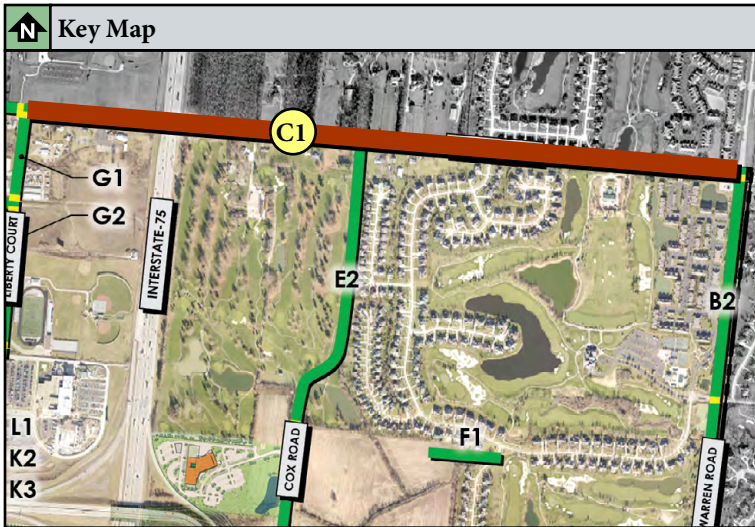
- **Option A – East Side Extension:** Work with the City of Mason to add 8-ft shared-use path on east side of Butler-Warren Road. Relocate or avoid overhead utilities, where applicable.
- **Option B – West Side Extension:** Extend 8-ft shared-use path on west side of Butler-Warren Road to connect to the proposed Miami2Miami Connection at Bethany Rd. Add retaining wall to control grading, where applicable.
- **Option C –** With future infrastructure improvements, re-stripe to narrow vehicular lanes and create a dedicated bike lane.

Level of Magnitude:

- Option A \$\$\$
- Option B \$\$\$\$
- Option C \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





C1 Bethany Road: Butler-Warren Road to Liberty Court / I-75 Overpass

Site Inventory

- Sidewalks – None; except at Lakota East Freshman Campus (10-ft shared-use path)
- Roadway – Approximately 20-32ft wide – 2 lanes
- Speed limit – 40+ mph
- Traffic use – medium
- Overhead utilities located on north side of roadway and close to roadway

Site Analysis

- Distance between uses makes walking less feasible.
- Right-of-way distance allows for expansion.
- 2040 OKI Regional Transportation Plan recommends widening Bethany Road to 4 lanes and adding a shared-use path. Total projected cost: \$15.99m.
- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.
- The proposed Miami2Miami Connection runs along part of this roadway.
- Overpass infrastructure is in place for future road widening.

Recommendation

- Utilize 2040 OKI Regional Transportation Plan recommendation. With future roadway expansion, separate shared-use path from roadway and tie into existing 10-ft shared-use path at Lakota East Freshmen Campus. Future expansion should include dedicated shared-use overpass. Add shade trees along south side of shared-use path.
- Improve crosswalks with Cox Rd. extension.

Level of Magnitude: \$\$\$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



Existing Conditions

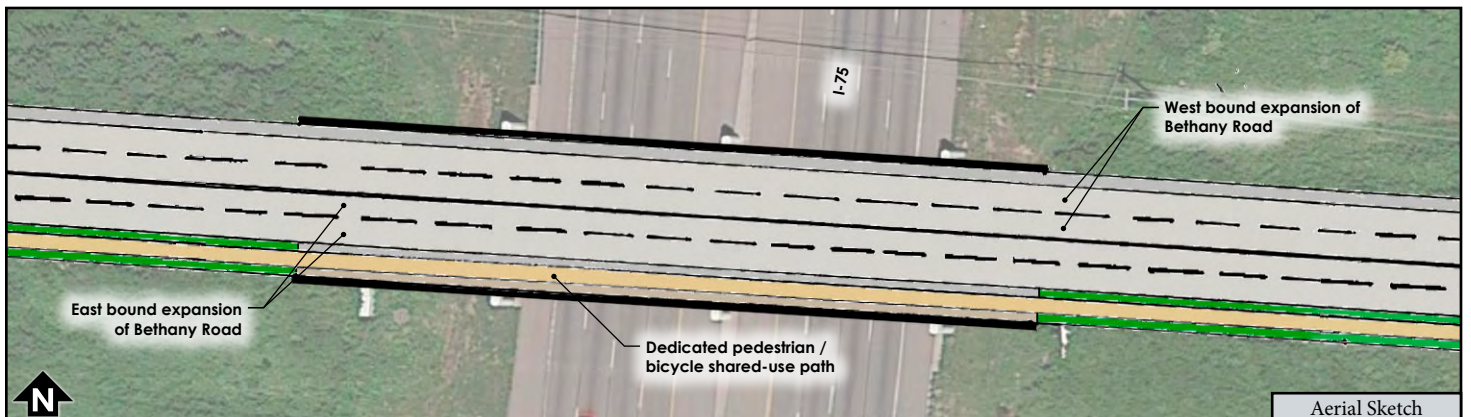
View West



Cantilever Exhibits

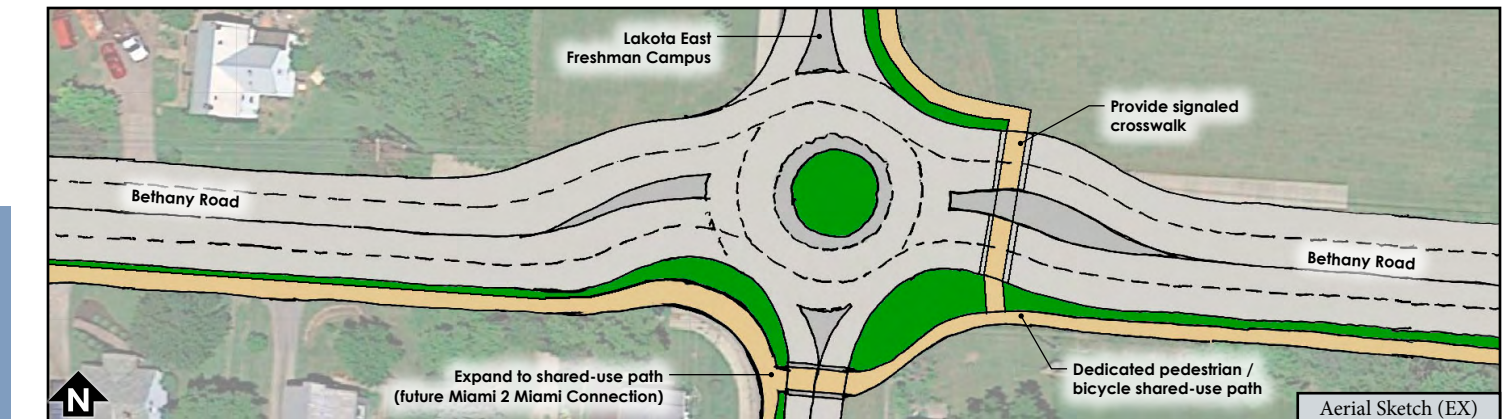
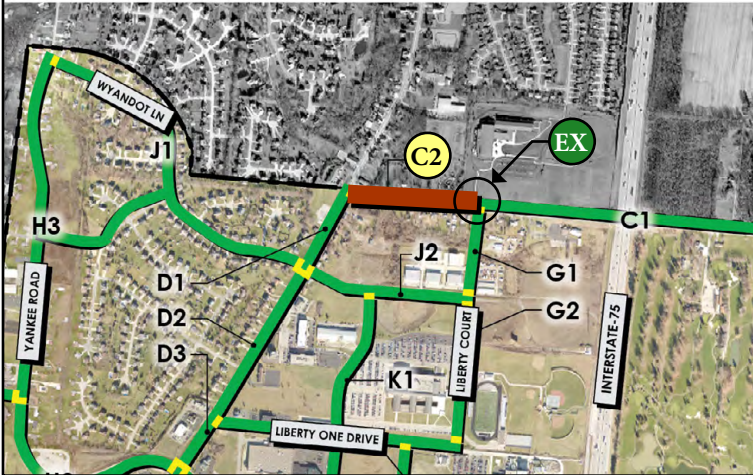
Dedicated pedestrian / bicycle shared-use path

Support Image



Aerial Sketch

Key Map



C2 Bethany Road: Liberty Court to Cincinnati-Dayton Road

Site Inventory

- Sidewalks – None; except at Lakota East Freshman Campus (10-ft shared-use path)
- Roadway – Approximately 20-32ft wide – 2-3 lanes
- Speed limit – 40 mph
- Traffic use – medium
- Houses are close to roadway
- Overhead utilities are close to roadway (north and south)

Site Analysis

- Distance between uses makes walking less feasible.
- Drainage ditch and steep grades on north side of roadway require bridge for any pedestrian access improvements.
- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.
- 2040 OKI Regional Transportation Plan recommends widening Bethany Road to 4 lanes and adding a shared-use path. Projected cost \$15.99m.
- Development along Cincinnati-Dayton Road is within the Bethany Downtown Business District Overlay.

Recommendation

- Utilize 2040 OKI Regional Transportation Plan recommendations of future roadway expansion a separate shared-use path would be installed on the south side of Bethany Road. A proposed roundabout would reduce school traffic from Lakota East Freshmen Campus. The addition of shade trees along shared-use path would encourage pedestrian use.
- During the planning process of the Bethany Road expansion, crosswalk upgrades with signals should be included to provide safe crossing for students at the Lakota East Freshman Campus.

Level of Magnitude: \$\$\$

Under 100K \$ 100K - 500K \$\$\$ 500K - 1.0M \$\$\$\$ 1.0M - 3.0M \$\$\$\$\$ 3.0M and Over \$\$\$\$\$\$

D1 Cincinnati-Dayton Road: Bethany Road to Wyandot Lane

Site Inventory

- Sidewalks – None on west side of roadway; 4-ft on east side – fragmented;
- Roadway – Approximately 50ft wide – 3-4 lanes
- Speed limit – 40 mph
- Traffic use – high
- Multiple curb cuts on west side of road
- Mix of commercial and residential uses
- Dedicated turn lane onto Bethany Road
- Continuous two-way left turn lane
- Overhead utilities are close to roadway

Site Analysis

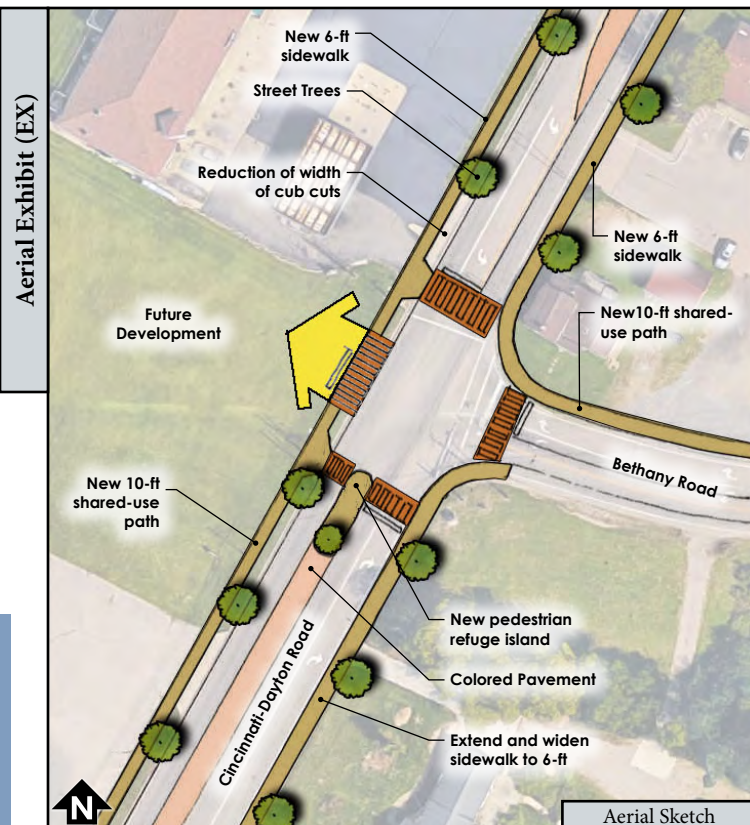
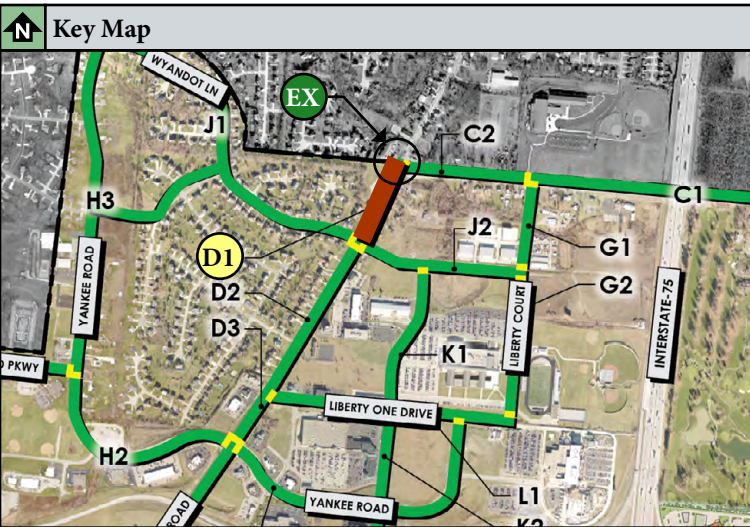
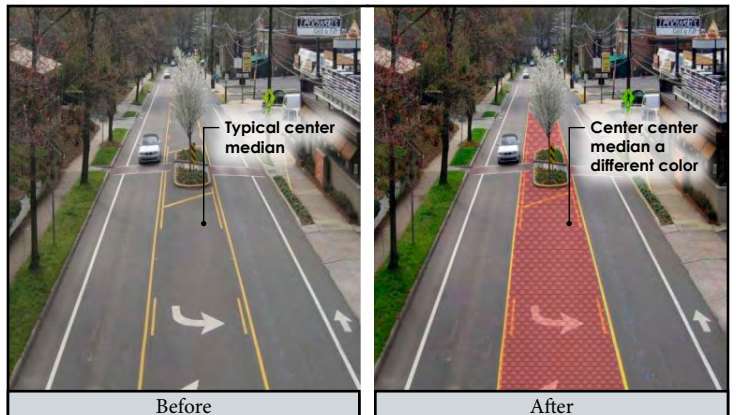
- A mix of commercial and residential uses makes walking more feasible.
- Lack of shade trees along the sidewalk reduces user comfort.
- Development along Cincinnati-Dayton Road is within the Bethany Downtown Business District Overlay.
- High vehicular speeds reduce pedestrian’s perceived safety when crossing or walking alongside roadway.
- A new business development is being built on the east side of Cincinnati-Dayton Road.

Recommendation

- With future infrastructure improvements, widen existing 4-ft sidewalk on east side of Cincinnati-Dayton Road to be a minimum of 6-ft wide and extend south to Wyandot Lane. Separate sidewalk from roadway by adding a lawn or landscape buffer. Add shade trees along sidewalk. Add a raised and/or colored median to naturally slow traffic and give more prominence to the pedestrians at crosswalks. Enhance crosswalk with refuge island and more prominent striping.
- Continue 10-ft shared-use path on west side of Cincinnati-Dayton Road south to Wyandot Lane.

Level of Magnitude: \$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



D2 Cincinnati-Dayton Road: Wyandot Lane to Liberty One Drive

Site Inventory

- Sidewalks – 4-ft - 6-ft on west side of roadway - fragmented; 4-ft – 6-ft on east side of roadway
- Roadway – Approximately 50ft wide – 4 lanes
- Speed limit – 40 mph
- Traffic use – high
- Multiple curb cuts on west side of roadway.
- Commercial on east; residential on west
- Street luminaries at sidewalk on east side of roadway.
- Overhead utilities are close to roadway
- Trees provided along sidewalk on east side of roadway.
- A pond sits adjacent to roadway on east side.

Site Analysis

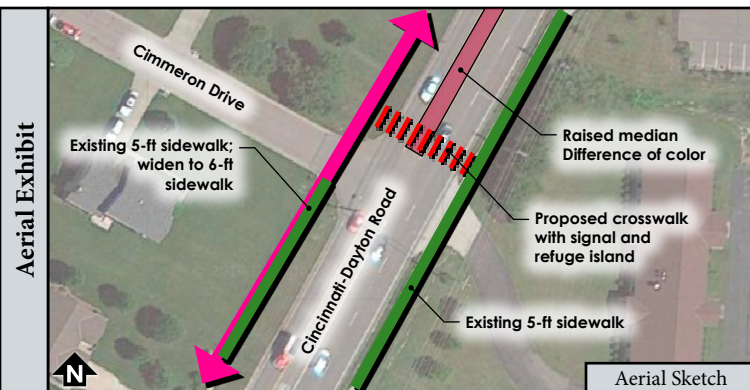
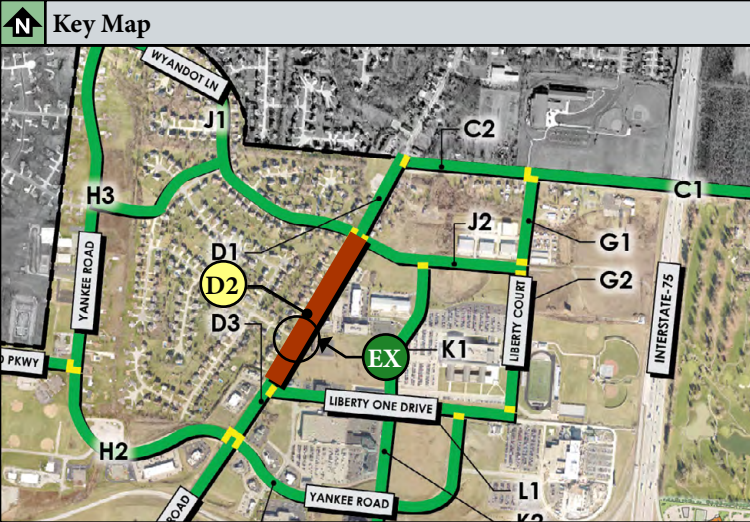
- For pedestrian comfort, adequate lighting, shade, and a buffer from vehicular traffic is provided along most of sidewalk on east side of roadway.
- A mix of commercial and residential uses makes walking more feasible.
- Development along Cincinnati-Dayton Road is within the Bethany Downtown Business District Overlay.
- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.
- Grading and utilities must be considered with pedestrian access enhancements.
- The proposed Liberty Twp. Trails Plan route runs along this roadway.

Recommendation

- Extend and widen sidewalk on west side of roadway to become a 6-ft sidewalk. Path to become part of the proposed Liberty Twp. Trails Plan route. Separate shared-use path from roadway by adding a lawn or landscape buffer. Add shade trees along new shared-use path.
- Add a raised and/or colored median to naturally slow traffic and give more prominence to the pedestrians at crosswalks. Enhance crosswalk with refuge island, signal, and more prominent striping.
- With future infrastructure improvements, widen sidewalk on east side of roadway to be minimum of 6-ft wide.

Level of Magnitude: \$\$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



D3 Cincinnati-Dayton Road: Liberty One Drive to Yankee Road

Site Inventory

- Sidewalks – None on west side of roadway; 5-ft on east side of roadway
- Roadway – Approximately 85-105-ft wide – 6-8 lanes
- Speed limit – 40 mph
- Traffic use – very high
- Pedestrian refuge island provided
- No trees provided along roadway
- Commercial uses on both sides of roadway
- Overhead utilities located on east of roadway
- Steep grades on west side of roadway

Site Analysis

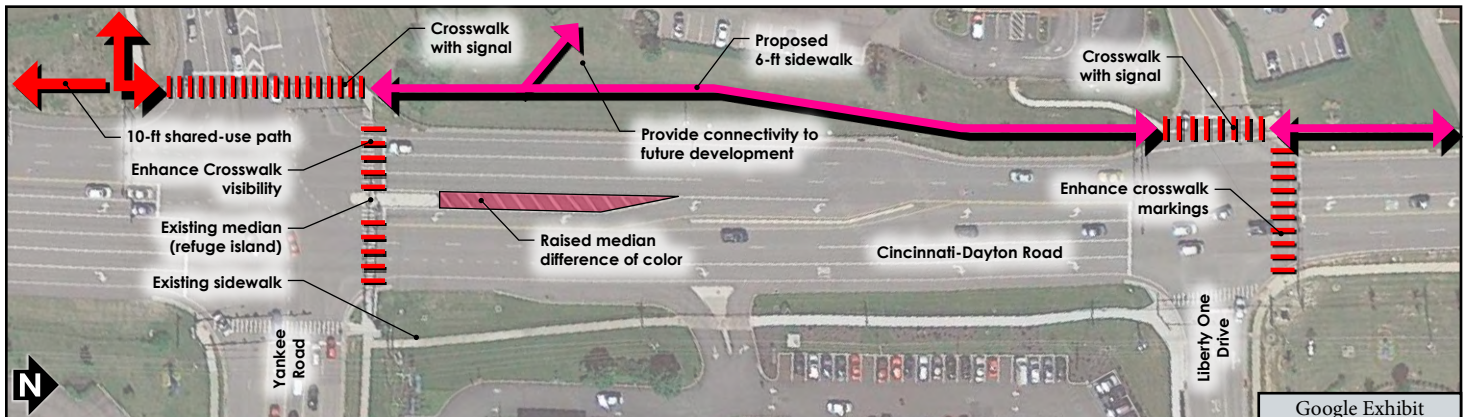
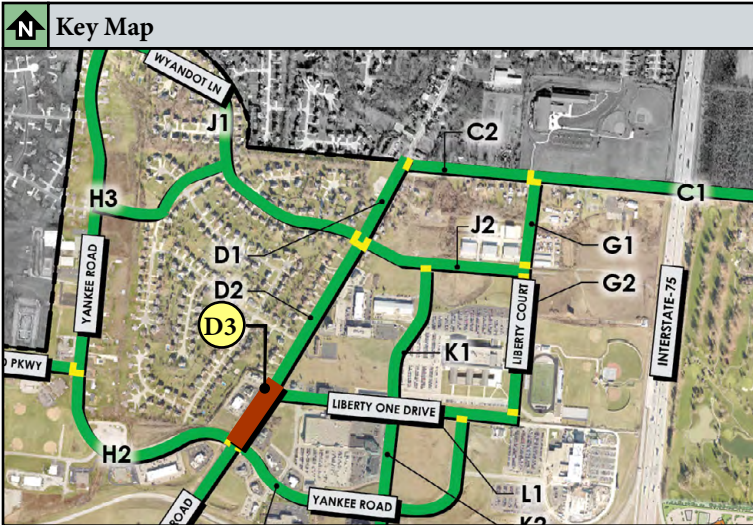
- Lack of shade trees along the walking path reduces user comfort.
- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.
- Wide spans of roadway reduce pedestrian's perceived safety when crossing road.
- Development along Cincinnati-Dayton Road is within the Cincinnati-Dayton Business District Overlay.
- The proposed Liberty Twp. Trails Plan route runs along this roadway.

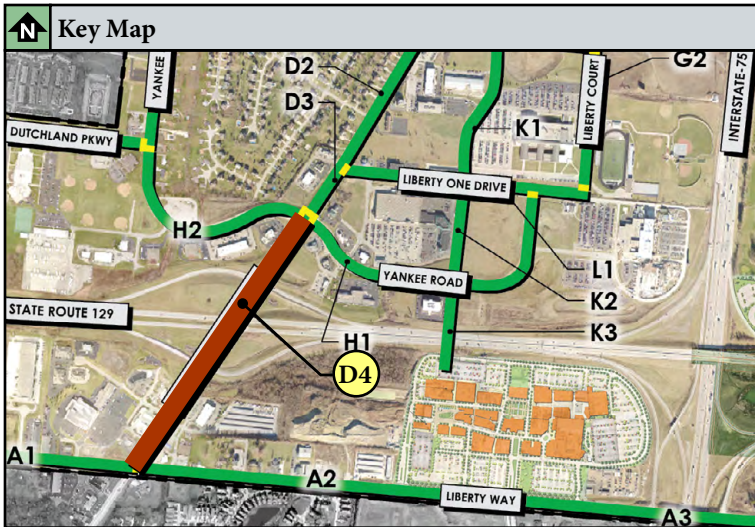
Recommendation

- Extend and widen sidewalk on west side of roadway to become a 6-ft sidewalk. Path to become part of the proposed Liberty Twp. Trails Plan route. Separate sidewalk from roadway by adding a lawn or landscape buffer. Add shade trees along shared-use.
- With future infrastructure improvements, widen sidewalk on east side of roadway to be minimum of 6-ft wide.
- With future development, provide connectivity to pedestrian access routes.

Level of Magnitude: \$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





D4 Cincinnati-Dayton Road: Yankee Road to Liberty Way

Site Inventory

- Sidewalks – None
- Roadway – Approximately 70-130ft wide – 5-8 lanes
- Speed limit – 40 mph
- Traffic use – high
- Pedestrian refuge island provided at Cin-Day Rd and Liberty Way
- No trees provided along roadway
- Commercial uses on both sides of roadway
- Overhead utilities located on east of roadway
- SR 129 overpass
- Wetland / stream / retaining wall to east of roadway

Site Analysis

- Adequate space below bridge to support pedestrian access infrastructure.
- Lack of shade trees along the walking path reduces user comfort.
- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.
- Wide spans of roadway reduce pedestrian's perceived safety when crossing road.
- Distance between uses make walking less feasible.
- Existing right-of-way makes pedestrian access improvements more feasible on west side of roadway.
- Development along Cincinnati-Dayton Road is within the Cincinnati-Dayton Business District Overlay.

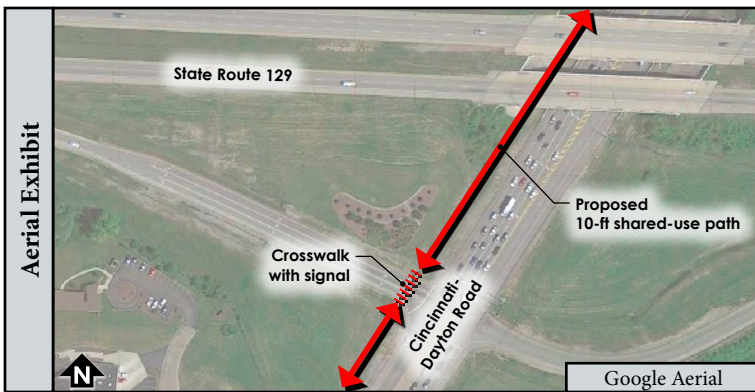
Recommendation

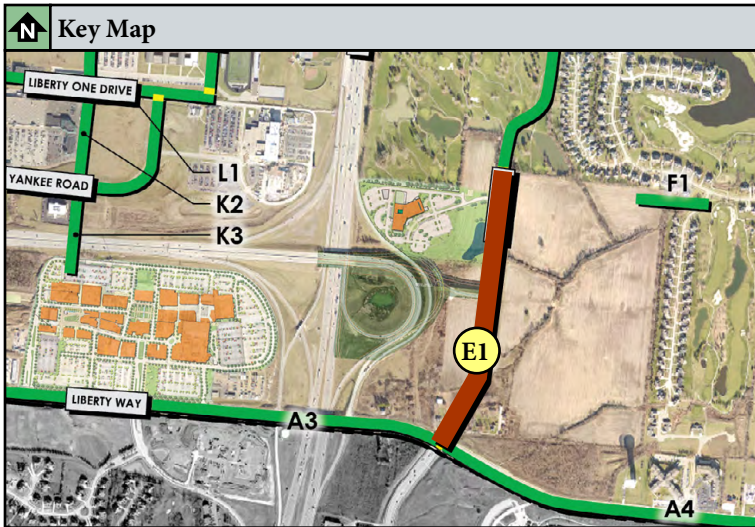
- **Option A** – Construct an 10-ft shared-use path on the west side of Cincinnati-Dayton Road to connect to the Liberty Twp. Trails Plan route at Liberty Way. Separate shared-use path from roadway by adding a lawn or landscape buffer. Add shade trees along shared-use path.
- **Option B** – With future infrastructure improvements, re-stripe to include a dedicated bike lane. Separate bike lane from vehicular traffic (i.e. install flexible delineator posts).
- New prominent crosswalks and refuge island at the intersection of Cincinnati-Dayton Road and Liberty Centre Drive. Continue sidewalk through Liberty Towne Centre Shopping Center.

Level of Magnitude:

Option A \$\$\$\$
 Option B \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





E1 Cox Road: Liberty Way to Green Crest Golf Club (South)

Site Inventory

- Sidewalks – 5-ft on west side of roadway; 10-ft shared-use path on east side of roadway
- Roadway – Approximately 80ft wide – 4-6 lanes boulevard-style
- Speed limit – 45 mph
- Traffic use – medium
- 14-25-ft raised median provided - landscaped
- No trees provided along roadway
- Future commercial development planned on both sides of roadway.
- No street or pedestrian path lighting

Site Analysis

- Lack of shade trees along the walking path reduces user comfort.
- High vehicular speeds reduce pedestrian's perceived safety when crossing or walking alongside roadway.
- Wide spans of roadway reduce pedestrian's perceived safety when crossing road.
- Boulevard-style center median provides opportunity for pedestrian refuge at crosswalks as well as shade from trees.
- This section of Cox Road has been developed to include a sidewalk and shared-use path that coincides with future traffic volumes and projected business developments.
- An interchange from SR 129 may alter pedestrian access routes.
- The proposed Miami2Miami Connection runs along this roadway.

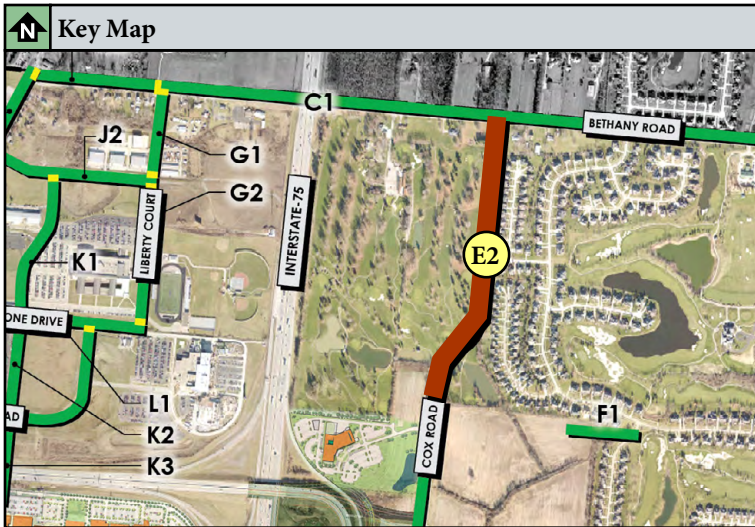
Recommendation

- With future development, add shade trees along shared-use path and sidewalk.
- Plan future pedestrian access improvements coinciding with new development. Include prominent crosswalks and refuge islands within median.
- With future infrastructure improvements, widen sidewalk on west side of roadway to be minimum of 6-ft wide.

Level of Magnitude: 💰

Under 100K 💰 100K - 500K 💰💰 500K - 1.0M 💰💰💰 1.0M - 3.0M 💰💰💰💰 3.0M and Over 💰💰💰💰💰





E2 Cox Road: Extension from Green Crest Golf Club (South) to Bethany Road

Site Inventory

- Existing golf course.

Site Analysis

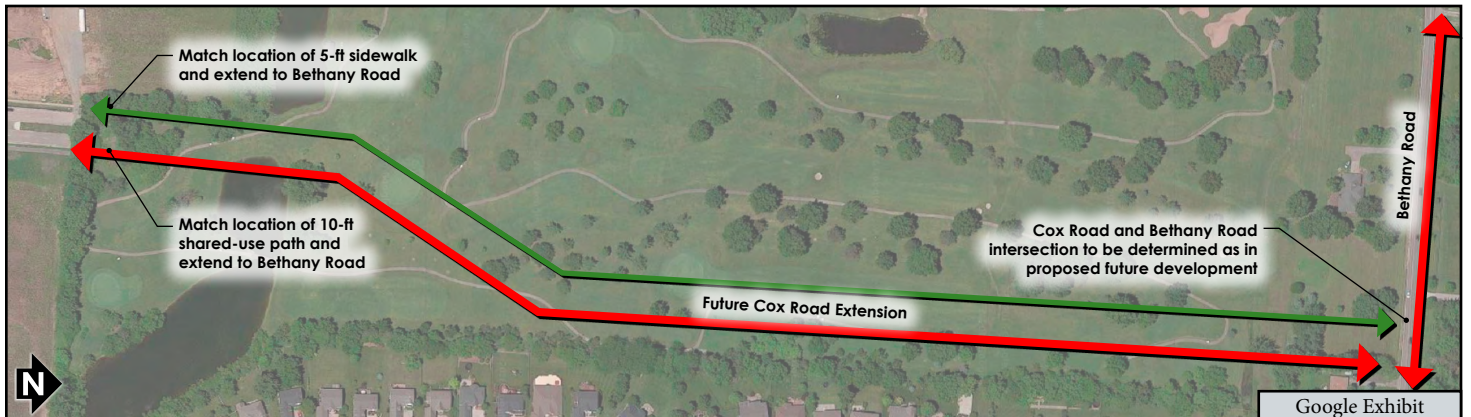
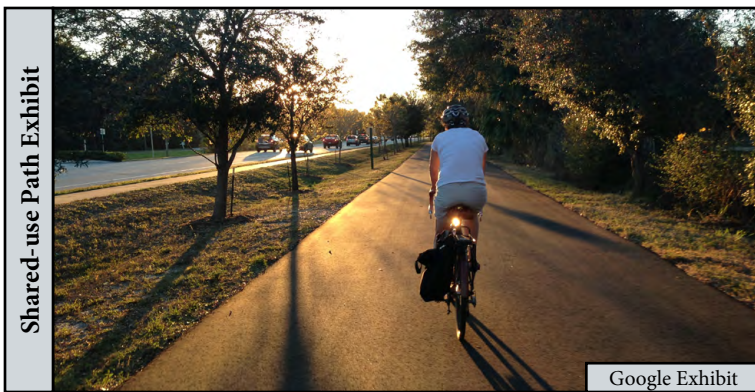
- Site is undeveloped.
- The proposed Miami2Miami Connection runs along this roadway.
- Cox Road Corridor Overlay District

Recommendation

- Extend existing shared-use path and sidewalk along new extension of Cox Road. Path to become part of the proposed Miami2Miami Connection route.
- Plan future pedestrian access improvements coinciding with new development. Future development should include shade trees along shared-use path. Include prominent crosswalks and refuge islands within median.

Level of Magnitude: \$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



F1 Larkspur Lane to Cox Road Development

Site Inventory

- Sidewalks – Existing 5-ft sidewalks on both sides of roadway throughout Four Bridges neighborhood. Roadway (Larkspur Lane)– 24-ft wide – local street
- Speed limit – 25 mph
- Traffic use – low
- Residential uses isolated from business uses
- Natural stream located along Larkspur Lane
- Trees throughout route.
- Shade trees along sidewalks at Larkspur Lane
- Future commercial development planned on both sides of roadway.

Site Analysis

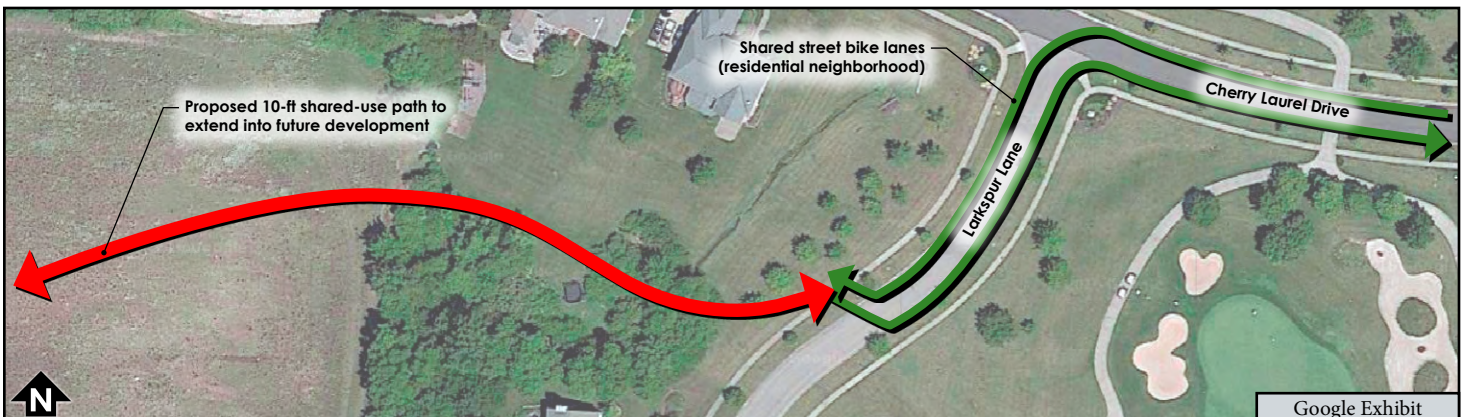
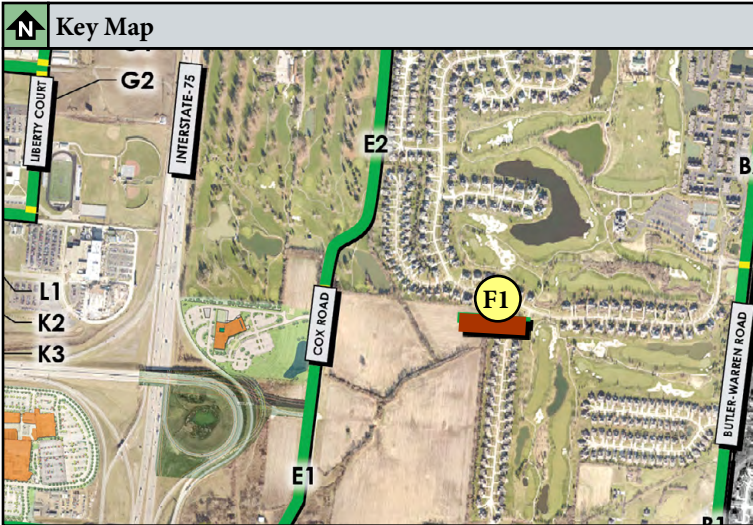
- No connection from residential to commercial zone exist.
- Pedestrian access to and from the Four Bridges neighborhood only exists at Larkspur Lane to Liberty Way
- Distance between uses make walking less feasible.

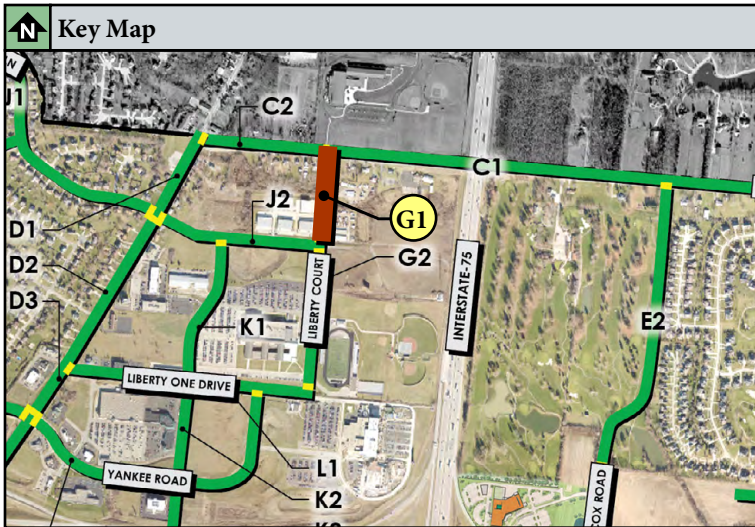
Recommendation

- Connect shared-use path from Four Bridges to future Cox Road development. Add decorative bridge over natural stream and protect stream bank and habitat.

Level of Magnitude: \$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





G1 Liberty Court: Bethany Road to Wyandot Lane

Site Inventory

- Sidewalks – 4-6-ft on west side of roadway; none on east side of roadway
- Roadway – Approximately 30ft wide – 2 lanes
- Speed limit – 35 mph (20 mph school zone)
- Traffic use – low (medium with peak hours)
- Existing trees at west of roadway – not continuous
- Overhead utilities at west of roadway are close to existing sidewalk.
- School zone

Site Analysis

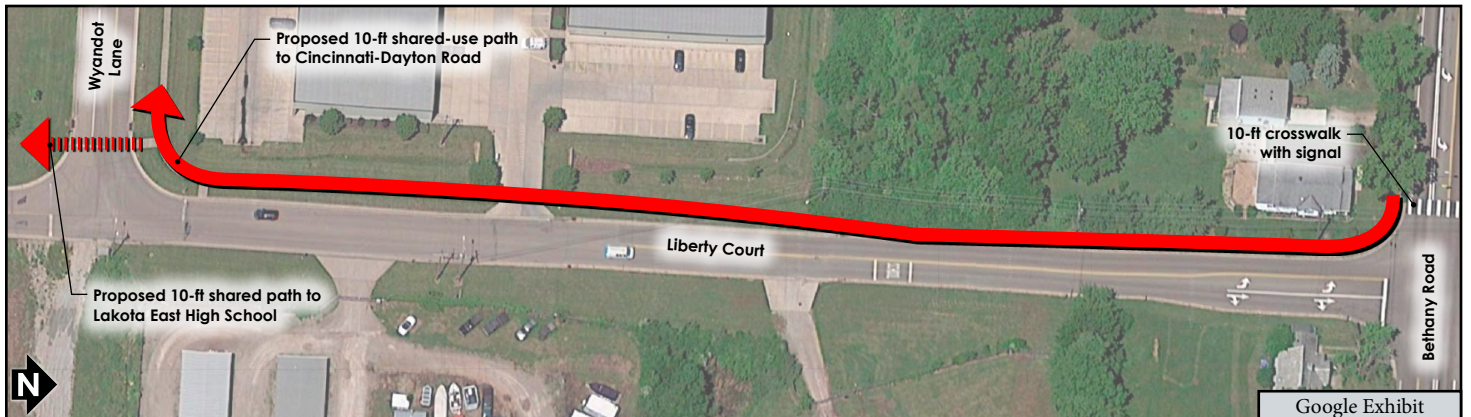
- Lack of shade trees along the walking path reduces user comfort.
- High vehicular speeds reduce pedestrian's perceived safety when crossing and walking alongside road.
- Some existing trees and overhead utilities may need removed / relocated to support pedestrian access improvements.
- The proposed Miami2Miami Connection runs along this roadway.

Recommendation

- Widen existing sidewalk on west side of roadway to be 10-ft shared-use path. Path to become part of the proposed Miami2Miami Connection route. Separate shared-use path from roadway by adding a lawn or landscape buffer. Add shade trees along shared-use path.
- Location of recommended shared-use path (east vs. west side of roadway) can be dependent on future roadway improvements on Bethany Road.

Level of Magnitude: \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



G2 Liberty Court: Liberty Crossing to Wyandot Lane

Site Inventory

- Sidewalks – None
- Roadway – Approximately 30ft wide – 2 lanes
- Speed limit – 35 mph (20 mph school zone)
- Traffic use – low (medium with peak hours)
- Existing trees at west of roadway – 35’ from roadway
- Utility poles at east of roadway
- School zone

Site Analysis

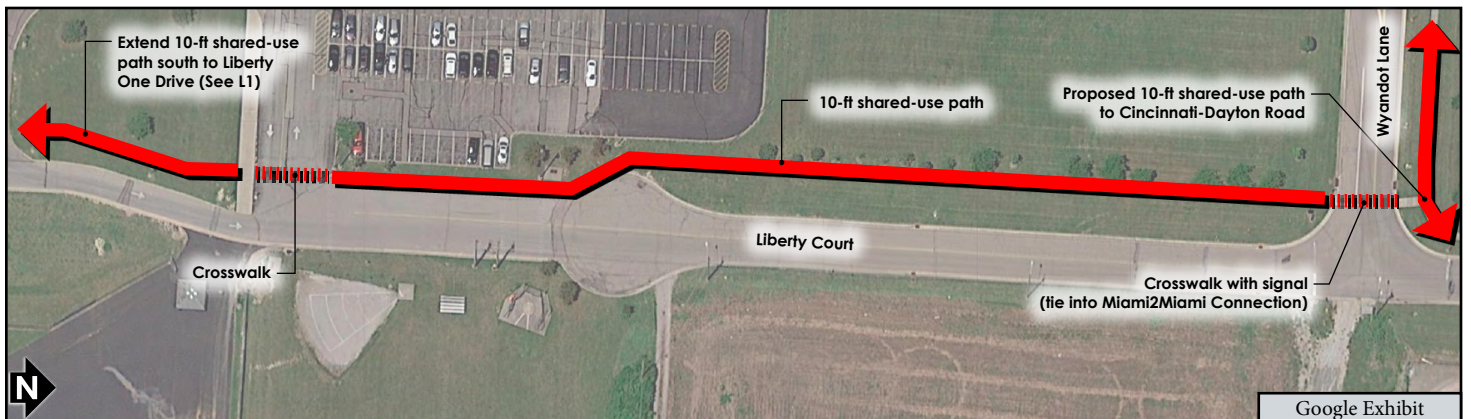
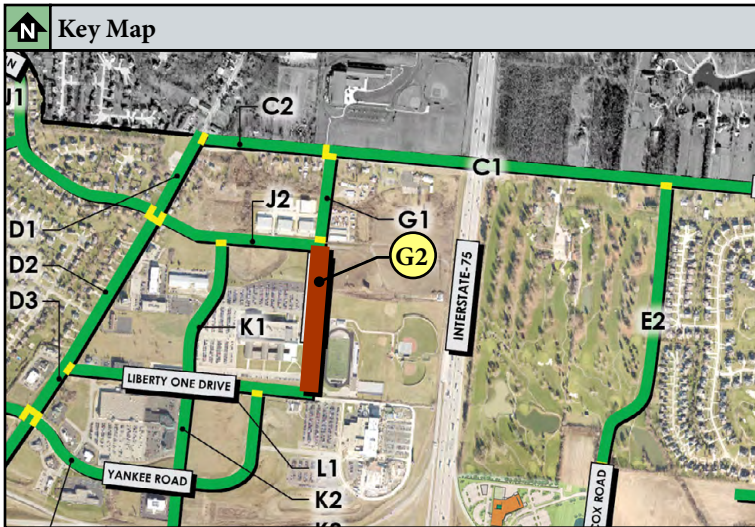
- High vehicular speeds reduce pedestrian’s perceived safety when crossing and walking alongside road.
- Distance between uses make walking less feasible.
- Potential easement needed for pedestrian access.

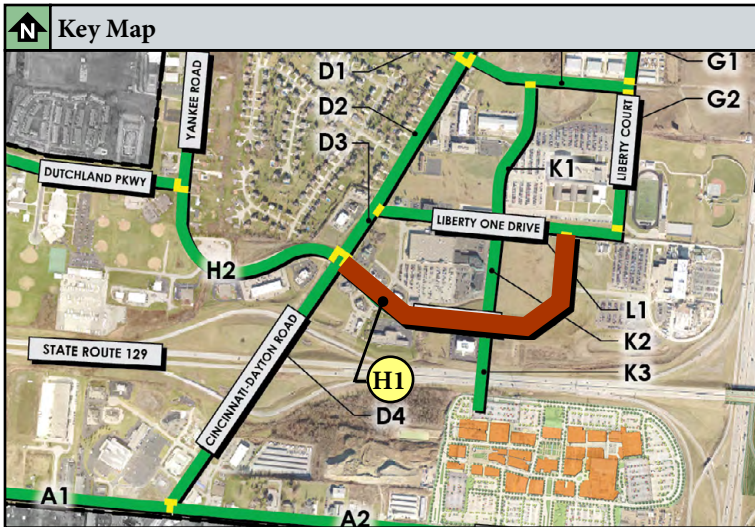
Recommendation

- Add 10-ft shared-use path on west side of roadway near existing tree line. Add shade trees between shared-use path and roadway.
- Add more prominent crosswalk at Wyandot Lane and at Lakota East High School.
- Location of recommended shared-use path (east vs. west side of roadway) can be dependent on future roadway improvements on Bethany Road.

Level of Magnitude: \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





H1 Yankee Road: Liberty One Drive to Cincinnati Dayton Road

Site Inventory

- Sidewalks – varies between 5-6-ft on both sides of roadway
- Roadway – Approximately 60ft wide – 5-lane boulevard
- Speed limit – 35 mph
- Traffic use – medium
- Several curb cuts along pedestrian route
- Long spans of roadway without crosswalks

Site Analysis

- Connection for existing and future retail / businesses to / from Cincinnati Children’s Liberty Campus.
- High vehicular speeds reduce pedestrian’s perceived safety when crossing and walking alongside road.
- Development along Yankee Road is within the Cincinnati-Dayton Business District Overlay.
- Distance between uses make walking less feasible.
- Lack of crosswalks will make pedestrians more likely to cross at dangerous areas of roadway.

Recommendation

- Add shade trees along sidewalk. Add prominent crosswalks and refuge islands. Add raised / colored center lane to naturally slow traffic and make pedestrian walk more prominent.

Level of Magnitude: \$

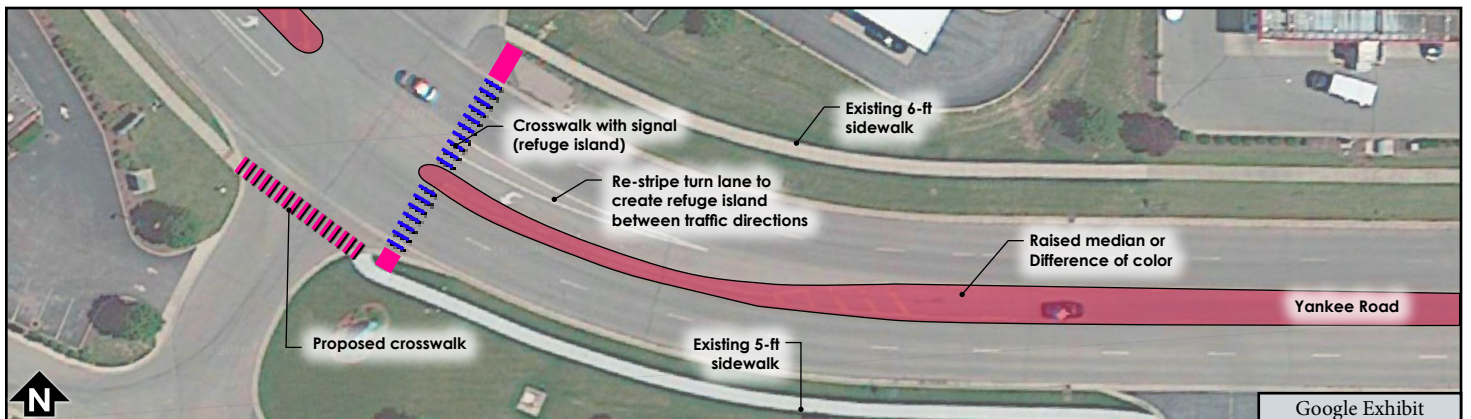
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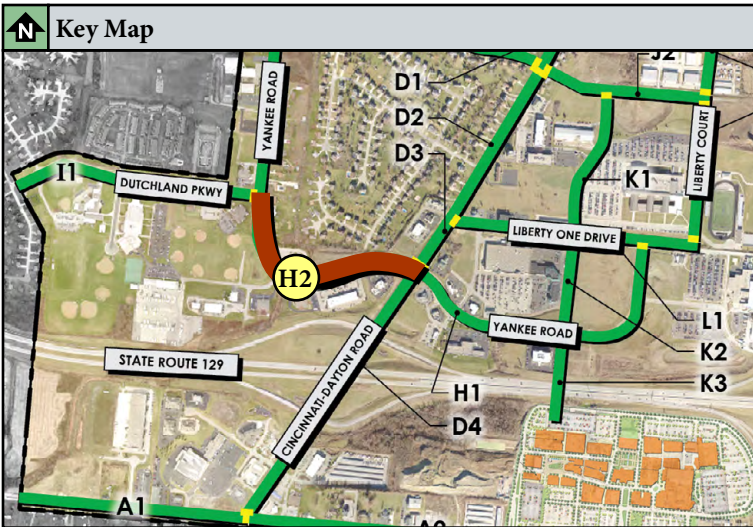


Existing Conditions



Pedestrian Crosswalk Exhibit





H2 Yankee Road: Cincinnati-Dayton Road to Dutchland Parkway

Site Inventory

- Sidewalks – 5-ft concrete sidewalk on south and west; none at north and east side of roadway
- Roadway – Approximately 50-90ft wide – 3-7 lanes
- Speed limit – 45 mph
- Traffic use –high
- Long and narrow crosswalk at Cincinnati-Dayton Road
- No trees provided along roadway
- Utility poles cross from north to west side of roadway at bend

Site Analysis

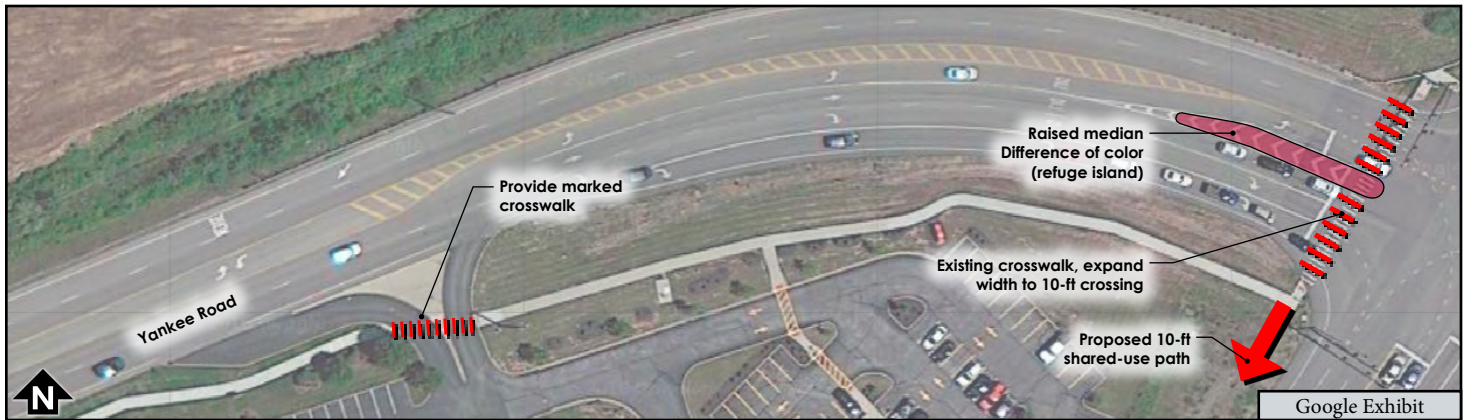
- Lack of shade trees along the walking path reduces user comfort.
- High vehicular speeds reduce pedestrian’s perceived safety when crossing and walking alongside road.
- Distance between uses make walking less feasible.
- Development along Yankee Road is within the Yankee Road West Business District Overlay.
- Wide spans of roadway reduce pedestrian’s perceived safety when crossing road.
- South side of roadway has longer pedestrian route than north side.
- The proposed Liberty Township Trails Plan route runs along this roadway.

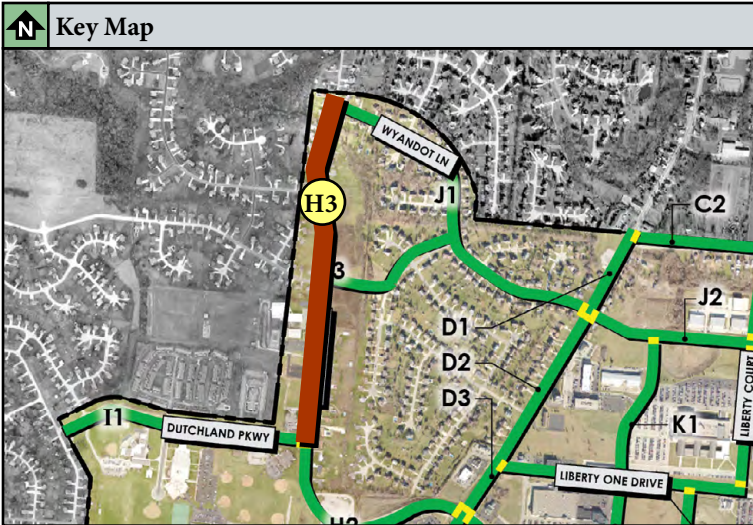
Recommendation

- Add shade trees along shared-use path. Enhance crosswalk with refuge island and more prominent striping.

Level of Magnitude: \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





H3 Yankee Rd: Dutchland Parkway to Wyandot Lane

Site Inventory

- Sidewalks – None
- Roadway – Approximately 22-30ft wide – 2 lanes
- Speed limit – 45 mph
- Traffic use – medium
- No crosswalks
- Trees provided along roadway
- Overhead utilities located on west of roadway 10-ft from roadway.
- Several residential curb cuts on both sides of roadway.

Site Analysis

- Tall shade trees along the walking path makes walking more comfortable.
- High vehicular speeds reduce pedestrian's perceived safety when crossing and walking alongside road.
- Distance between uses make walking less feasible.
- Development along the south end of Yankee Road is within the Yankee Road West Business District Overlay.
- Part of the proposed Liberty Township Trails Plan (LTTP) runs along this roadway Yankee Road.
- The proposed Miami2Miami Connection will be at the intersection of Yankee Road and Wilhelmina Drive.

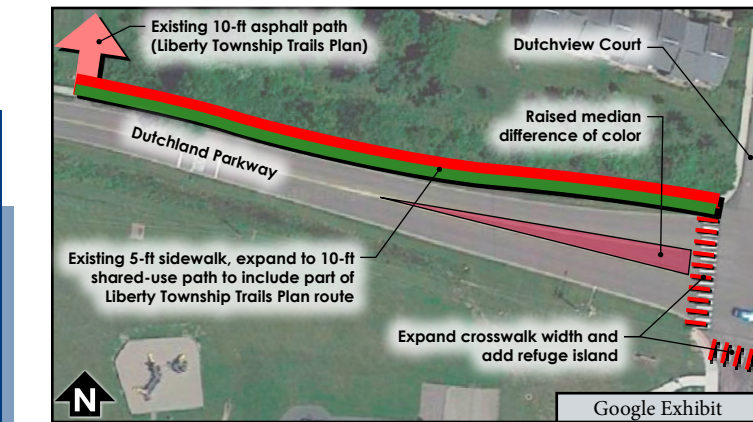
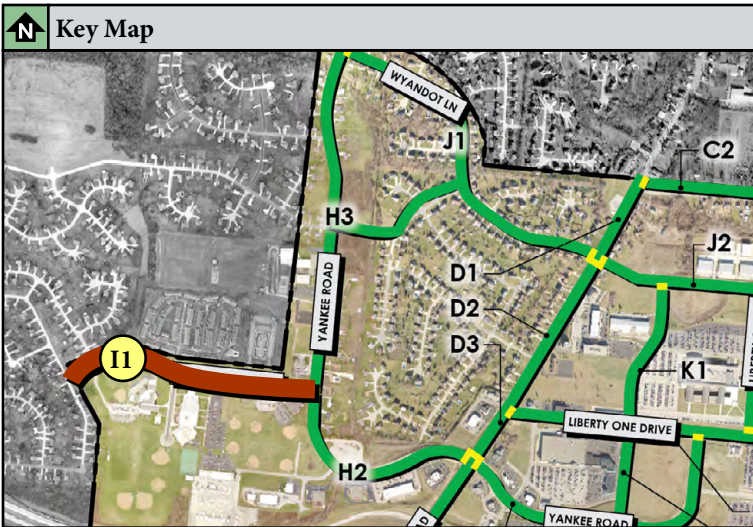
Recommendation

- Connect residents to Liberty Junior High School and Lakota YMCA with 10-ft shared-use path. Path to become part of the proposed Miami2Miami Connection route. Separate from roadway with lawn / landscape buffer. Add shade trees along shared-use path. Add prominent crosswalks to cross Yankee Road at intersecting residential streets.

Level of Magnitude: \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





I1 Dutchland Parkway

Site Inventory

- Sidewalks – 5-ft concrete sidewalk on both side of roadway; fragmented
- Roadway – Approximately 75-ft wide – 4-lane boulevard
- Speed limit – 20 mph
- Traffic use – low (medium with peak hours)
- Missing crosswalks
- Overhead utilities located on south of roadway near sidewalk.
- Drainage ditch on both sides of roadway.

Site Analysis

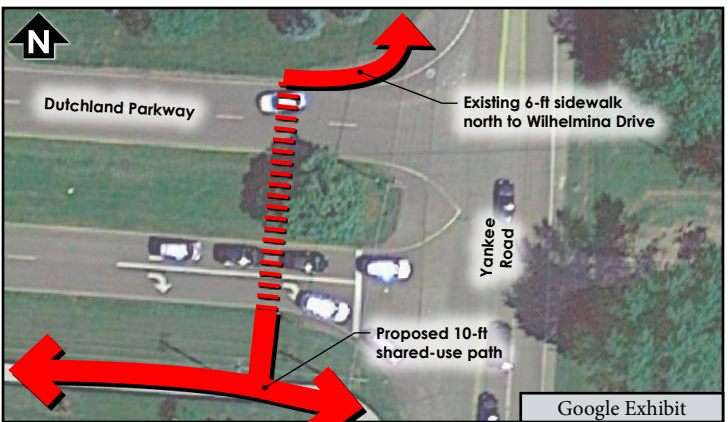
- Safe route needed for students who walk home.
- Distance between uses make walking less feasible.
- Sidewalks are separated from the roadway by lawn buffer for pedestrian's safety.
- No direct sidewalk connection between Woodland Elementary School and Woodland View Dr.
- The proposed Liberty Township Trails Plan routes runs along this roadway.

Recommendation

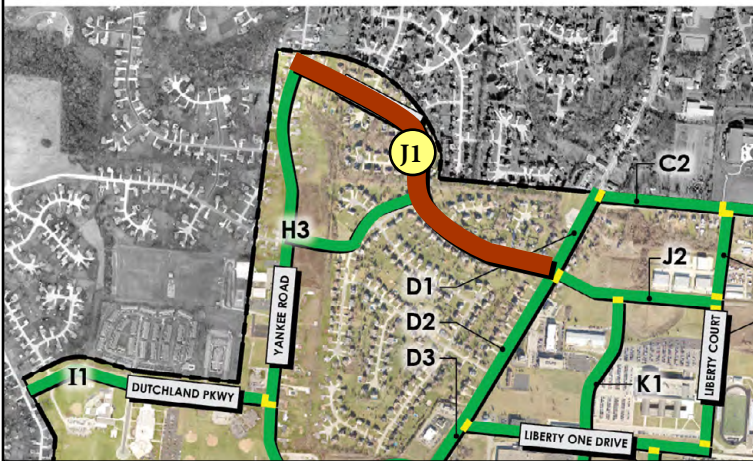
- Widen existing sidewalk to be 10-ft shared-use path. Add prominent crosswalk into Liberty Junior High School. Add shade trees along shared-use path. Enhance crosswalks with more prominent striping and refuge island.
- Add prominent crosswalks at Dutchland Parkway to cross behind curb radii for shorter crossing. Provide refuge island.

Level of Magnitude: \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



Key Map



J1 Wyandot Lane: Yankee Road to Cincinnati-Dayton Road

Site Inventory

- Sidewalks – None
- Roadway – Approximately 32ft wide – 2 lanes
- Speed limit – 25 mph
- Traffic use – low (medium with peak hours)
- No crosswalks
- No overhead utilities – street lamps alternate side of roadway (approx. 14-ft height).

Site Analysis

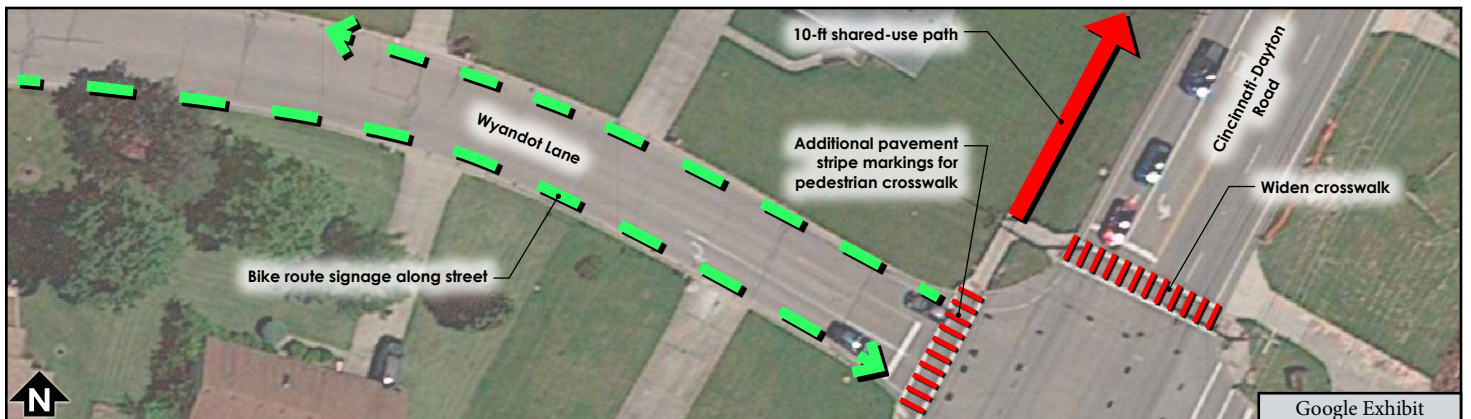
- Low vehicular speed and usage allow for shared-use roadway between pedestrians and vehicles.
- Wide 2 lane roadway may encourage vehicular traffic to exceed the speed limit.
- Road width can accommodate on-street parking.
- The proposed Miami2Miami Connection runs along this roadway.

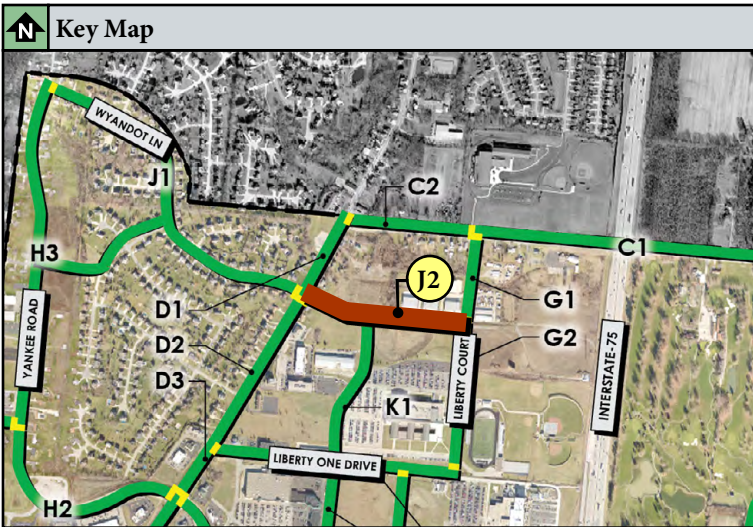
Recommendation

- Signed shared on-street bike route to encourage cycling and bring attention to larger vehicular traffic.
- Enhance crosswalk with more prominent striping at Cincinnati-Dayton Road. Add prominent crosswalk at Yankee Road to tie into proposed shared-use path. See recommendation for H3. Add more shade trees along south side of roadway.

Level of Magnitude: \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





J2 Wyandot Lane: Cincinnati-Dayton Road to Liberty Court

Site Inventory

- Sidewalks – None on south side of roadway; 4-ft concrete sidewalk on north side of roadway - fragmented
- Roadway – Approximately 36-46-ft wide – 3-4 lanes
- Speed limit – 35 mph
- Traffic use – low (medium with peak hours)
- No crosswalks
- No trees at roadway
- Dedicated turn lanes onto Lakota Lane and Liberty Court
- Continuous two-way left turn lane
- Overhead utilities are approximately 5-ft off roadway on south side

Site Analysis

- Open fields on both side of roadway are planned for future development. Development along Cincinnati-Dayton Road is within the Bethany Downtown Business District.
- Development on the east end of Wyandot Lane is within the Highway Commercial / Entertainment District Overlay.
- Distance between uses make walking less feasible.
- Sidewalks at north of roadway are adequately separated from roadway.
- The proposed Miami2Miami Connection runs along this roadway

Recommendation

- Widen existing sidewalk to be 10-ft shared-use path. Path to become part of the proposed Miami2Miami Connection route. With future development, extend path to Cincinnati-Dayton Road and add more shade trees along south side of shared-use path.
- Enhance crosswalk with more prominent striping at all intersections. Add prominent crosswalk at Lakota Lane.
- Encourage future development to place building between parking lot and shared-use path and to provide connection to pedestrian access.

Level of Magnitude:

\$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



K1 Lakota Lane: Wyandot Lane to Liberty One Drive

Site Inventory

- Sidewalks – 5-ft concrete sidewalk on both sides of roadway; fragmented
- Roadway – Approximately 30ft wide – 2 lanes
- Speed limit – 35 mph; 20mph School Zone
- Traffic use – low (medium with peak hours)
- No crosswalks
- Minimal trees at roadway

Site Analysis

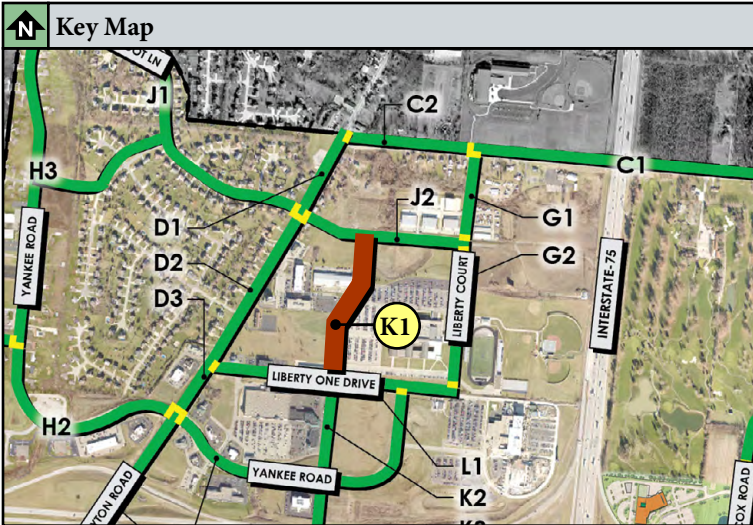
- Open fields on both side of roadway are planned for future development and zoned as Community Business District. Development on west side of Lakota Lane is within the Bethany Downtown Business District.
- Distance between uses make walking less feasible.
- Existing sidewalks are adequately separated from vehicular traffic.
- Section of road connects school with proposed Miami2Miami Connection route and adjacent neighborhoods.

Recommendation

- Extend existing sidewalk with shared-use path to Miami2Miami Connection at Wyandot Lane. Enhance crosswalk with more prominent striping at all intersections.
- Encourage future development to place building between parking lot and shared-use path and to provide connection to pedestrian access. Add additional shade trees along shared-use path. Add landscape buffer between pedestrian access and parking lots.

Level of Magnitude: \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



Existing Conditions

View North



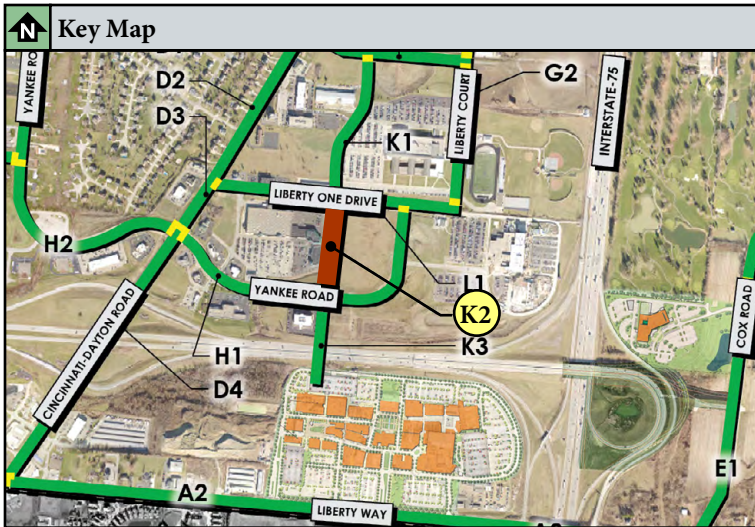
Pedestrian / Bicycle Connections

Support Image



Support Image





K2 Liberty One Drive to Yankee Road (Future Easement)

Site Inventory

- Undeveloped land
- Drainage ditch on west edge of property
- Site is mostly flat

Site Analysis

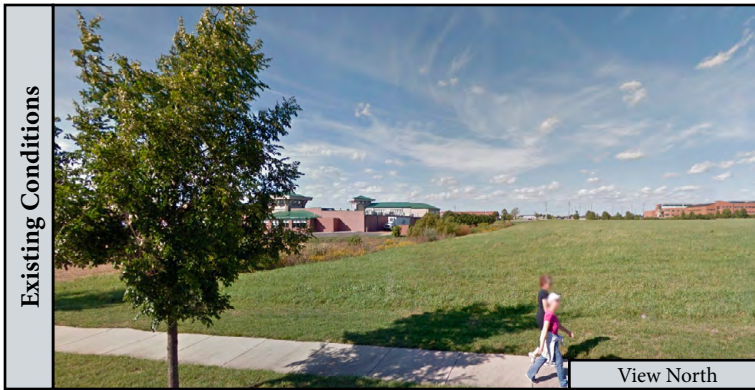
- Distance between uses make walking less feasible.
- Easement needed for pedestrian access.

Recommendation

- Connect Lakota East High School and Liberty Center with 10-ft shared-use path (see proposed pedestrian bridge at K3). Add shade trees along shared-use path. Add prominent crosswalk and refuge island at Yankee Road.
- Encourage future development to place building between parking lot and shared-use path and to provide connection to pedestrian access.

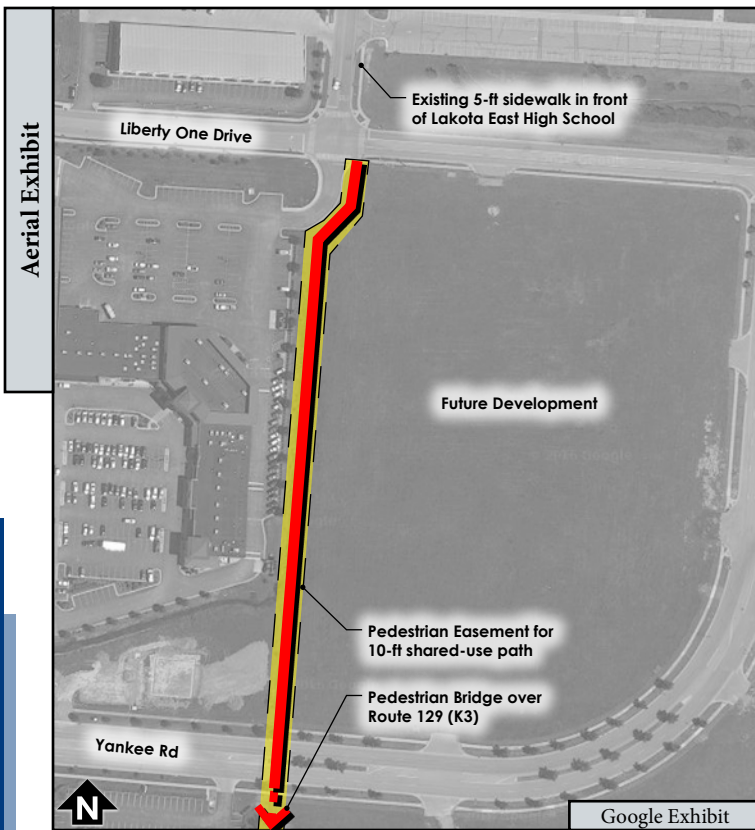
Level of Magnitude: \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



Existing Conditions

View North

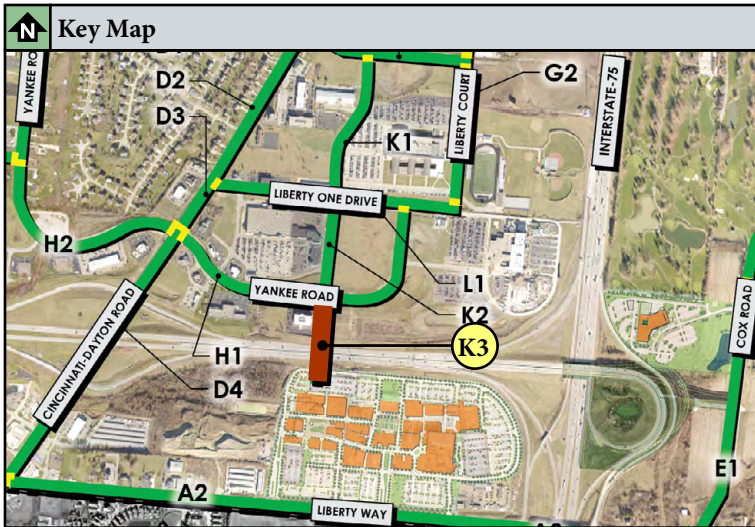


Aerial Exhibit

Google Exhibit



Support Image



K3 Yankee Road to Liberty Center (Future Easement)

Site Inventory

- Undeveloped land

Site Analysis

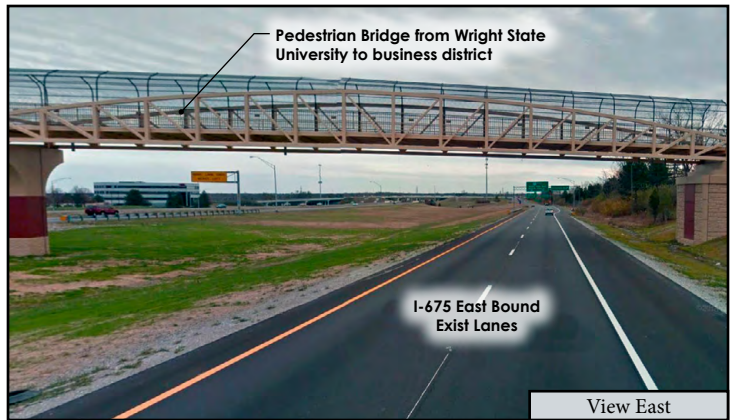
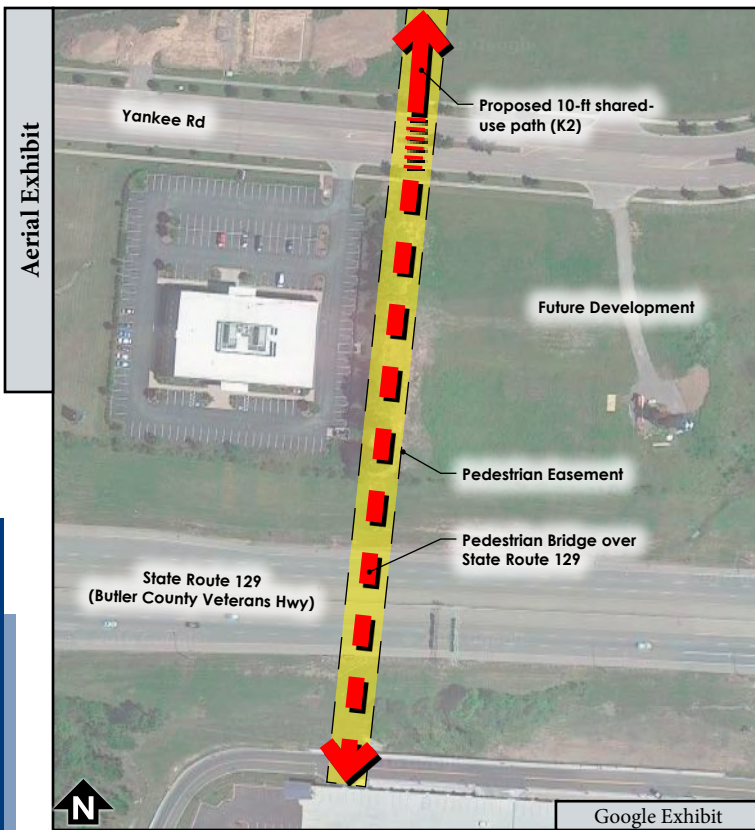
- Distance between uses make walking less feasible.
- Potential easement needed for pedestrian access.
- State Route 129 is a barrier from Liberty Center and uses to the north.
- ODOT approval required.

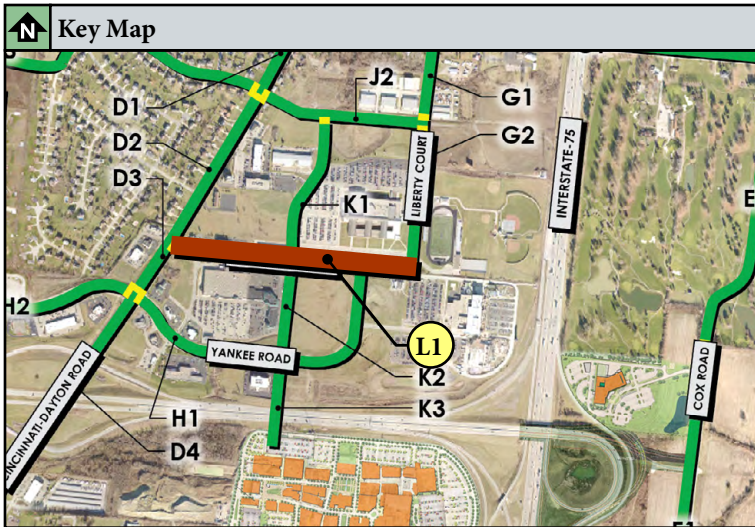
Recommendation

- Connect Lakota East High School and Children’s Hospital with Liberty Center by adding a pedestrian bridge over SR 129. Extend proposed shared-use path to pedestrian bridge.

Level of Magnitude: \$\$\$\$\$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$





L1 Liberty One Drive

Site Inventory

- Sidewalks – 5-ft concrete sidewalk on both sides of roadway
- Roadway – Approximately 40-ft wide – 3 lanes
- Speed limit – 35 mph
- Traffic use – low / medium
- Crosswalks at Lakota Lane
- Trees at south side of roadway

Site Analysis

- Distance between uses make walking less feasible.
- Existing sidewalks are adequately separated from vehicular traffic.
- Fence and steep drainage ditch buffer to north of roadway between Lakota East High School and Children's Hospital.
- Pedestrian access to Lakota East High School comes from west

Recommendation

- Add striping and signage for on-street shared bike lane.

Level of Magnitude: \$

Under 100K \$ 100K - 500K \$\$ 500K - 1.0M \$\$\$ 1.0M - 3.0M \$\$\$\$ 3.0M and Over \$\$\$\$\$



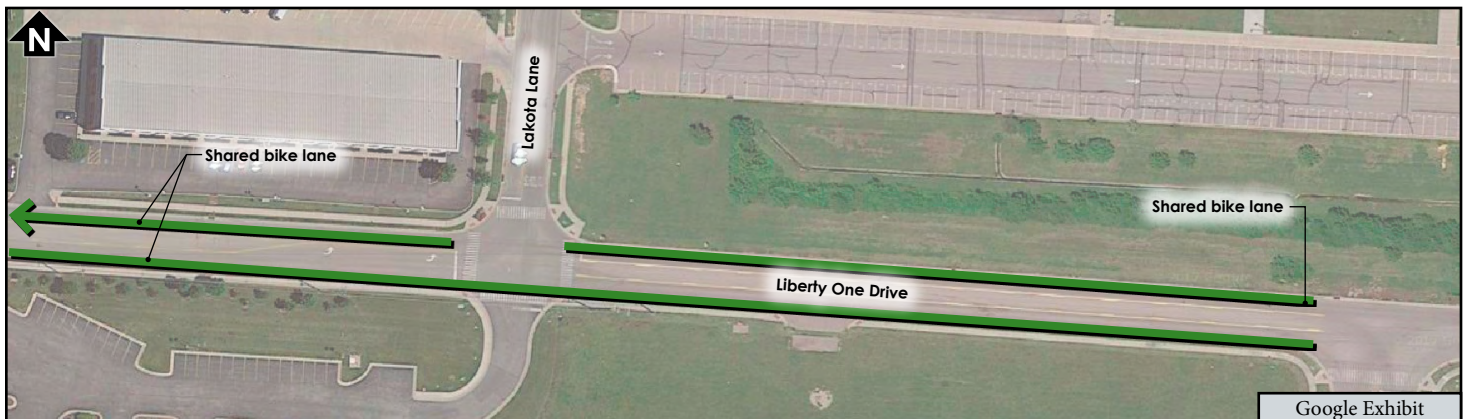
Existing Conditions

View East



Shared Bike Lane Example

Support Image



Google Exhibit

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CONCLUSION - PEDESTRIAN FEASIBILITY STUDY

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Summary and Purpose

The intent of this study was to look at existing infrastructure and recommend general improvements that could be applied to make Liberty Township more connected with walking and cycling pathways. As development progresses in Liberty Township, this report will assist in creating a connected pedestrian and cycling infrastructure in the study area. During a preliminary walk-through of the study area, the project team documented existing infrastructure, general constraints, and opportunities for improvement.

The project team studied several resources to support the recommendations. Below are a list of resources that impacted the recommendations of this report.

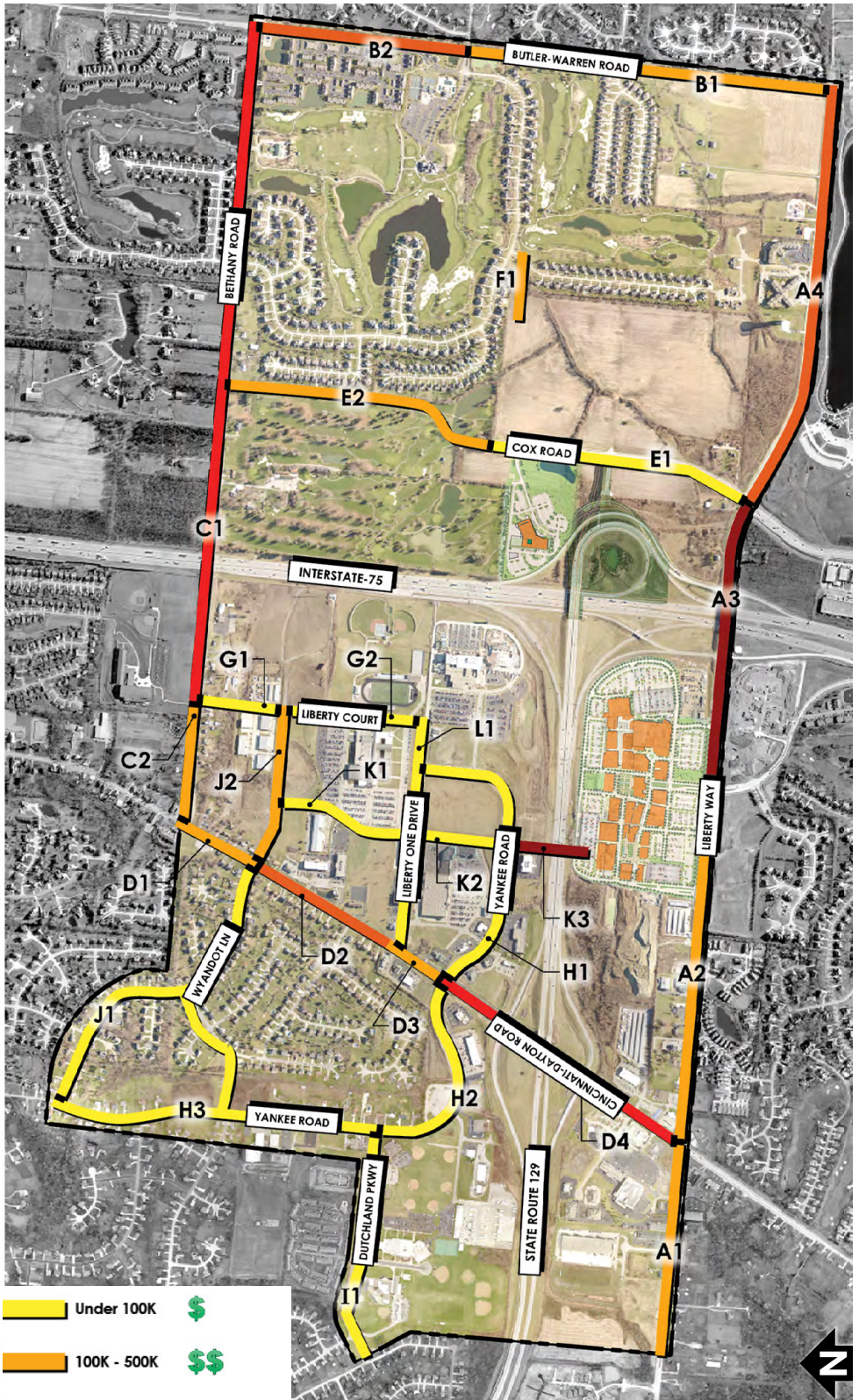
- 2013 Comprehensive Vision Plan
- Butler County Engineer's Office supporting data
- Butler County Thoroughfare Plan 2007
- Liberty Township's supporting data (trail maps, existing bike routes, etc...)
- OKI's Miami2Miami Connection
- 2040 OKI Regional Transportation Plan
- State and Federal standards
- National and regional master plans
- Township zoning and overlay districts
- Subdivision regulations

This report ranks suggested improvements by perceived level of magnitude and by priority. Although subjective, several considerations formed this judgment including:

1. The anticipated effectiveness of the recommended improvement, other proposed route recommendations (i.e. Miami2Miami Connection, Liberty Township Trails Plan),
2. The obstacles found along each route,
3. How each route compliments the vision of the Township

Although the level of magnitude implies a cost associated with each recommendation, these costs are to be seen only as loose figures to help gauge efforts to implement the recommendations.

Level of Magnitude



	Under 100K	\$
	100K - 500K	\$\$
	500K - 1.0M	\$\$\$
	1.0M - 3.0M	\$\$\$\$
	3.0M and Over	\$\$\$\$\$

Next Steps:

Create or modify a standard for future development to incorporate and connect to pedestrian access infrastructure and positive elements of walkability outlined in this report.

- Create guidelines for overlay districts to include integrated uses to support shorter walking trips. Include appropriate signage for pedestrian access and requirements for shade trees along pedestrian infrastructure.
- Continue to require new developments to include sidewalks and/or shared-use paths that connect existing or proposed routes outlined in this report.



Create or modify a standard for future roadways to include pedestrian access infrastructure and positive elements of walkability.

- Work with Butler County Engineer’s Office to incorporate more multi-modal street profiles into future road projects. This should include options of bike paths, bike lanes, refuge islands, and raised medians in areas that are recommended in this report.
- Show examples of traffic-calming treatments that help ensure naturally slower traffic speeds. These treatments include raised medians, colored medians, roundabouts, tight corner bulbs, narrow lane widths, and speed tables.
- Set minimum walkway width of 6ft for sidewalks and 10ft for shared-use path for future developments. Widening sidewalks allow pedestrians adequate space to pass each other.



Create standard for upgrading existing infrastructure.

- With future infrastructure improvements, plan incremental upgrades to widen walkways and include striping for bike lanes along existing roadways.
- Create phasing plan to incorporate the installation of shade trees at walkways for pedestrian comfort.
- With future infrastructure improvements, relocated walkways away from the roadway to increase perceived safety of pedestrians.

Seek out grant opportunities, public and private partnerships to assist with the implementation of the future improvements.



APPENDIX 1

EXISTING SIDEWALKS/SHARED USE PATHS AND PROPOSED SIDEWALKS/SHARED USE PATHS

APPENDIX 1

EXISTING SIDEWALKS/SHARED USE PATHS AND PROPOSED SIDEWALKS/SHARED USE PATHS

