CHAPTER 3
EXISTING CONDITIONS, OPPORTUNITIES & CONSTRAINTS

3.1 INTRODUCTION

A very important step in planning for bicycle facilities involves an in-depth evaluation of the community's existing infrastructure and its compatibility for the types of bicycling desired by the community. Equally important is an assessment of the community's bicycle destinations, such as parks, schools, or businesses that residents would like to be able to access by bicycle. This section begins with a brief review of the common types of bicycle users and facilities followed by a detailed examination of the existing facilities within the Village of Evendale. Special emphasis is placed on recreational riding (expressed as a priority by the community). Opportunities and constraints to development of bicycle facilities are considered during the examination of key streets and destinations. Project recommendations for development based on the opportunities and constraints identified in this section, along with attention given to priorities specified by stakeholders and the public, will be developed in Section 4.0.

3.2 Bicyclists and Facilities

TYPES OF BICYCLISTS

Bicycle riding can be classified in many ways. Groups are often based on a rider's comfort level, physical ability and trip purpose. One simple way to classify types of riders is according to the ABC system: Advanced (A), Basic (B) or Children (C).

Advanced Riders

Advanced riders are typically comfortable riding on-road with motor vehicle traffic. They can often ride long distances in varying topography and at speeds up to 20 mph. Utilitarian trips, such as commuting to work, are common for these riders but they often take recreational trips as well. They prefer routes that are more direct and less scenic when on utilitarian trips. Advanced riders usually avoid riding on sidewalks. These riders are typically familiar with the rules of the road and safe riding techniques.

(Source: Bikes Belong)

Basic Riders

This group encompasses most adult riders. Basic riders use their bicycle occasionally, generally for recreation or exercise. They are most comfortable riding on off-road facilities such as shared use paths or sidewalks but will occasionally use a bike lane. They may ride at speeds up to 12 mph and will choose less direct routes with low traffic volumes. They may be unfamiliar with traffic laws pertaining to bicycling and methods of safe riding.

Children

Child riders frequently ride for recreation but do use bicycles for utilitarian trips as well such as commuting to school or to a friend's house. They are classified separately from basic riders because their cognitive and physical abilities are less developed than adults. The ability to perceive depth and gauge the speed of oncoming vehicles is often less keen in children. Children will often assume that they are visible or will simply not be cognizant that they are in danger. They may have less ability to swiftly and accurately control their bicycle in dangerous situations. Finally, since children do not drive motor vehicles, they are much less likely to be familiar with the rules of the road.

(Source: Bikes Belong)

TYPES OF FACILITIES

There are as many different types of bicycle facilities as there are types of riders. Each type may suit one type of rider better than another. The following is a list of the most common types of facilities and the types of riders that frequent them:

Shared Use Path

Shared use paths are typically wide paved or gravel surfaces, completely separated from and usually not adjacent to roadways. They are used almost exclusively for non-motorized travel. Typical widths are eight to ten feet. Shared use paths are often used for recreation but, depending on directness, may also be utilized for utilitarian trips. They are used by all types of riders but advanced riders may choose other routes if the path is not direct or is too crowded. The Loveland Bike Trail is an example of a shared use path.

Shared use path in Wyoming adjacent to the West Fork of the Mill Creek

Sidewalk or Side Path

Sidewalks or side paths are usually adjacent to roadways and most often used by pedestrians. Sidewalks are often constructed of concrete and are raised above the roadway level by a curb. Widths vary with four feet generally being a minimum. Sidewalks may be separated from the roadway by a narrow strip of grass.

Side paths are a cross between a sidewalk and a shared use path. They are generally wider than sidewalks with widths of eight to ten feet and are often separated from the roadway by several feet. Basic riders and children often feel most comfortable riding on a sidewalk rather than within the roadway pavement, especially on high volume roadways. Riding on the sidewalk is often misperceived as being safer than riding on the street. Studies show that accidents are actually more likely on the sidewalk because motorists often do not observe bicyclists on the sidewalk when pulling into driveways or turning at side streets. Additionally, when pedestrians are present on the sidewalk, their movements can be unpredictable which may cause a cyclist to crash when attempting to pass.

Bike Lane

Bike lanes are travel lanes within the roadway pavement which are exclusively used by bicycles. They are usually located at the right edge of the roadway and have a minimum width of five feet. The lanes are marked for bicycle use by signs and/or pavement markings. Bike lanes continue through intersections to help guide cyclists through the intersection and to the left of right turning vehicles. They are often used by more advanced riders but some basic riders may feel comfortable using a bike lane since they don't have to share a lane with a motor vehicle. Bike lanes can be found in several locations in the Cincinnati area such as Kenwood Road south of I-71.

(Source: www.pedbikeimages.com/Carl Sundstrom)

Paved Shoulder

When paved shoulders are used as a bicycle facility, they often function as a bike lane except that they are not marked for exclusive bicycle use. They provide similar separation from motor vehicle traffic as bike lanes without the guidance at intersections. Because paved shoulders are not marked for exclusive bicycle use, motor vehicles may occasionally occupy the paved shoulder for emergencies or break-downs. Rumble strips may be present on paved shoulders which may be difficult for cyclists to navigate. Also, paved shoulders are not afforded the same level of maintenance as a bike lane so they are more likely to be covered in debris or other obstacles. As with bike lanes, advanced riders may be more likely to use the paved shoulder but basic riders may also be comfortable using them.

Paved shoulder on Glendale-Milford Road

Shared Lane

Shared lanes are roadway lanes shared by motor vehicles and bicycles. These lanes may be marked for shared use by signs or pavement markings such as sharrows (shared lane arrows) but this is not required. Unless the lane is wide enough for a bicycle and motor vehicle side by side (14 feet or more) motorists must use the adjacent lane when passing a bicyclist. Except for low volume roads, shared lanes are often used by only the most advanced bicyclists.

"Sharrows" are used to mark bicycle position in a shared lane. (Source: www.pedbikeimages.com/Heather Bowden)

Other Facilities

Two other types of bicycle facilities are cycle tracks and bicycle boulevards. Cycle tracks are similar to bike lanes except they are separated from the roadway travel lanes by either a curb, parking lane or some other physical barrier. They can also be a part of the sidewalk where sidewalk widths can accommodate marking for exclusive bicycle use. Bicycle boulevards are on road facilities on low volume streets that function as through streets for bicycles but not for motor vehicles. This is done by blocking a through street to motor vehicle traffic at select locations while permitting bicycles to continue. Neither cycle tracks nor bicycle boulevards have been constructed in the Cincinnati area.

3.3 Bicycling in Evendale Today

BICYCLE RIDERS IN EVENDALE

Based on the results of the public survey in Chapter 2, most riders in Evendale would be classified as Basic. Ninety-seven percent of bicyclists ride for recreation only. Six percent of respondents currently ride their bicycles daily (although many indicated their bike usage would increase with improvements in facility and safety within the village.

Bicycle counts in Evendale were not conducted as part of this study. However, a recent study shows that bicycle ridership in Cincinnati is on the rise, increasing by 200% between 2000 and 2009.[1]

BICYCLE FACILITIES IN EVENDALE

There are very few exclusive bicycle facilities in Evendale. Figure 3.3-1 shows the locations of shared use paths, sidewalks, bike lanes and paved shoulders within the village.

Paved shared use paths are available in Baxter Park and Griffin Nature Preserve. The paths in Baxter park are generally used to access other facilities by foot and are not necessarily intended as bike paths. Path widths are four to five feet which makes it difficult to pass pedestrians or other cyclists. In addition to the paved paths in Baxter Park, there is a 0.4 mile gravel loop path around soccer field number 4. Access to this path is difficult, however, via a steep incline from the roadway near the Shelterhouse. In Griffin Nature Preserve, Evendale recently constructed a 0.3 mile asphalt loop path in the meadow adjacent to Wyscarver Road. At six feet in width, it is a bit narrower than the standard width of eight feet for shared use paths. The short length makes it good for children but most adult cyclists will find multiple loops uninteresting. In addition to the paved loop, a short gravel path leads from the loop path to the pond.

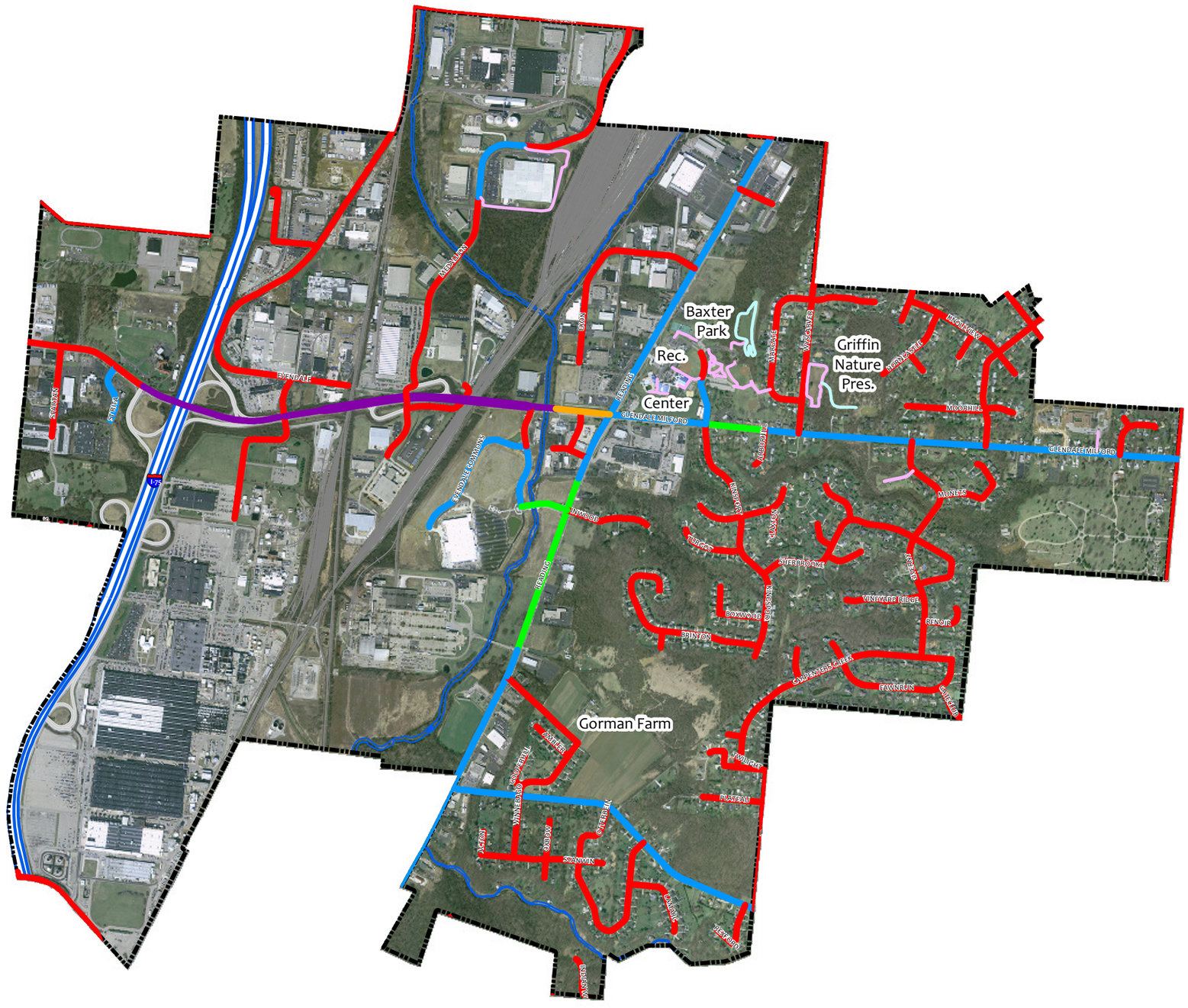
Sidewalks are not common in Evendale. Less than twenty percent of the length of Evendale's streets have an adjacent sidewalk and of that total, only 15% have sidewalks on both sides. Sidewalks are present on Reading Road, portions of Glendale-Milford Road and Cooper Road. Most residential streets do not have sidewalks.

The only road with a bike lane in the village is Glendale Milford Road between Evendale Drive and Cunningham Drive. This bike lane was striped in 2010 following a resurfacing project. Safely navigating the ramps at Medallion drive is a concern.

Excepting Glendale-Milford Road where the paved shoulder was converted to a bike lane, the only other road in Evendale with a paved shoulder is Evendale Drive. The width of the shoulder varies with some locations as narrow as 2' and others as wide as 20' (near the Sharonville border).

Shared lanes, where bicyclists must share the same space as motor vehicles, comprise most

Paved path in Griffin Nature Preserve



Legend

Bicycle Facilities with Streets

- No Bicycle Facilities (Bicycles share lane with motor vehicles)
- Sidewalk on One Side
- Sidewalk on Both Sides
- Paved Shoulder or Bike Lane on One Side
- Paved Shoulder or Bike Lane on Both Sides

Off-Street Bicycle Facilities

- Gravel Path
- Paved Path

Bicycle Master Plan

Figure 3.3-1

Existing Bicycle Facilities

N W E S

Scale
1 inch = 1,600 feet

August 30, 2011

Village of Evendale

of the bicycle facilities in Evendale. Section 3.4 analyzes how bikeable the on-road bicycle facilities are.

BICYCLE DESTINATIONS

The public survey presented in section 2 asked respondents to identify destinations to which they would like to travel by bicycle. The number one response was the Evendale Recreation Center followed closely by Gorman Farm. Other popular responses include local parks such as Sharon Woods and Griffin Nature Preserve, neighboring communities, friend's house, commercial businesses such as shops and restaurants and bike routes to downtown. A map of these popular destinations within and around Evendale is shown in figure 3.3-2.

LAND USE & PUBLIC FACILITIES

The Village of Evendale's land use is separated into two distinct zones. Residential development is concentrated in the eastern portion of the village in the higher elevations while commercial and industrial land use is situated in the western portion of the village within the flood plain of the Mill Creek. The village strategically owns a significant portion of land separating these two zones. The public lands comprise Baxter Park and the recreation center, Gorman Farm and a number of other parcels currently vacant. The village's parcels provide a buffer between the residential zone and the commercial / industrial zone. The village property also provides a unique opportunity to provide bicycle and pedestrian connectivity between the residential and commercial / industrial zones. Land use and public ownership in the village is depicted graphically on Figure 3.3-3.

BICYCLE LAWS

Title 45 of the Ohio Revised Code permits bicycle usage on all roads in the state except freeways. In Evendale, therefore, a bicycle may be used on every road within the village except Interstate 75. Bicycling is also permitted on sidewalks, where present, according to Evendale Code .

RECREATIONAL BICYCLE COURSES

The Village of Evendale has mapped out three bicycle courses for residents using existing paths and streets. The 0.3 mile asphalt path in Griffin Nature Preserve is designated for beginners. The one mile route from Gorman Farm to Griffin Nature Preserve via Kingsport Drive, paths in Baxter Park and Margate Terrace is designated as an intermediate route. The advanced course creates a 4.5 mile loop around the southern residential zone using portions of neighborhood streets, Mohler, Cooper, Reading and Glendale-Milford Roads. Sidewalks are present along the busier streets for uncomfortable in traffic. Steep topography along this route makes it a challenging fitness course. The Recreational Bicycle Courses map is shown in Figure 3.3-4.

TRANSIT

Bicycling to destinations such as downtown Cincinnati can be aided by use of the public transit system. All Metro buses in the Cincinnati area operated by the Southern Ohio Regional Transit Authority (SORTA) are equipped with bicycle racks on the front of the bus.

Metro currently does not have service within the Village of Evendale. Routes are available in the neighboring communities (#43 in Reading, #62 & # 66 in Sharonville and #4, #66 & #67 in Blue Ash). The bicycle conditions on the roads to these bus routes, including Reading Road,

Sharon Road and Glendale-Milford Road pose a significant barrier to accessing these by bicycle (see Section 3.4 for bicycle conditions on these streets).

References:

[1] Byrnes, Mark, Is Bicycle Commuting Really Catching On? And if So, Where?, The Atlantic Cities, September 21, 2011

Glendale

Sharon Woods

Sharonville

The Sphere
(Sports Plus)

Shops/Restaurants

Baxter Park

Griffin Nature Preserve

Woodlawn

Recreation Center

Evendale Elementary

Summit Park

Shops/Restaurants

GE

Boy Scouts

Gorman Farm

Reading

Blue Ash

UC Blue Ash

Downtown Cincinnati

Legend

- Parks and Open Space
- Major Bicycle Destination
- Minor Bicycle Destination

Bicycle Master Plan

Figure 3.3-2

Bicycle Destinations Map

N W E S

Scale
1 inch = 1,600 feet

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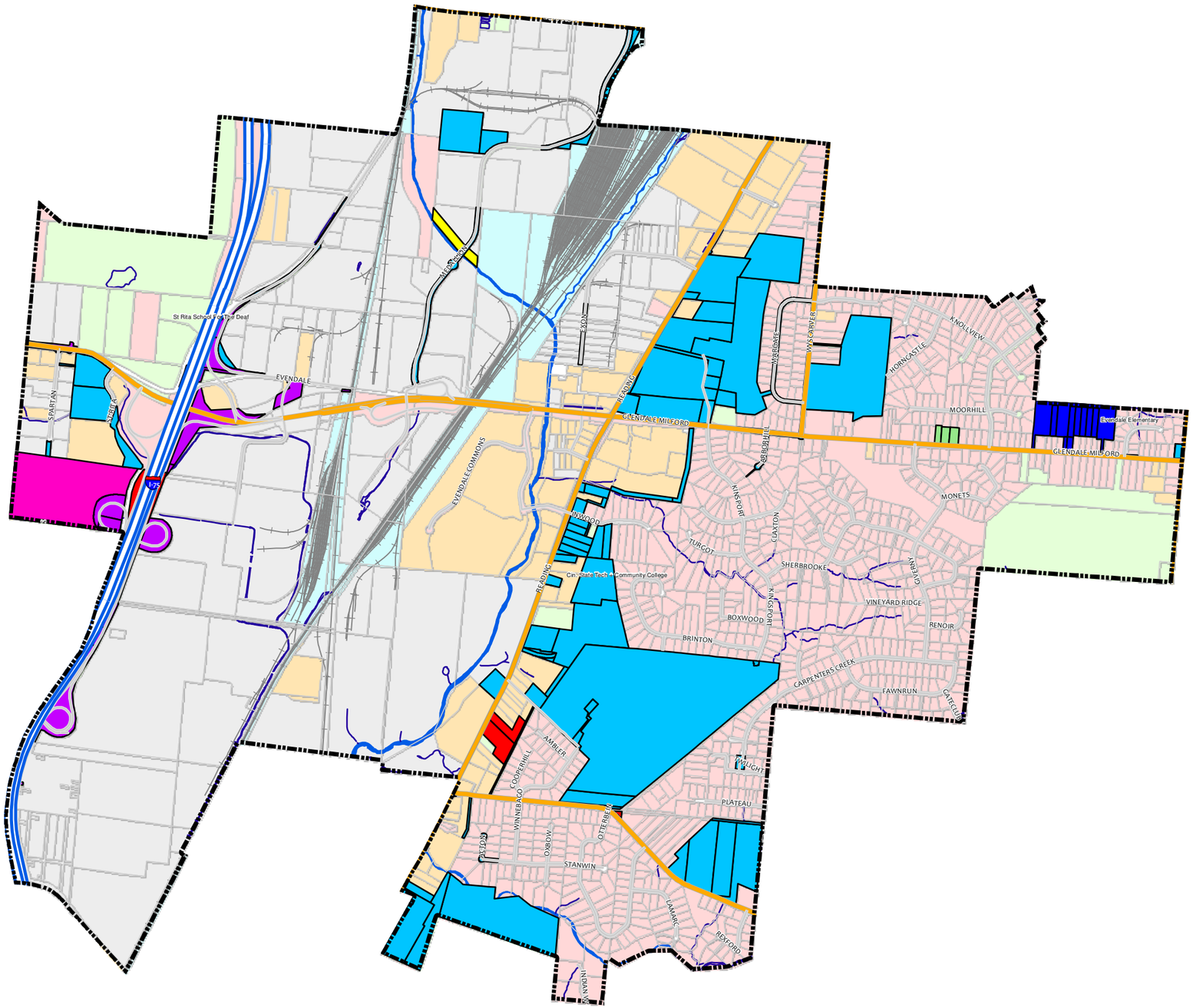
Village of Evendale



Legend

Public Ownership

- Village of Evendale
- City of Cincinnati
- Hamilton County
- State of Ohio
- Princeton Schools

Conservancy Ownership

- Mill Creek Conservancy
- Cincinnati Nature Center

Land Use

- Agricultural
- Commercial
- Industrial
- Public Utilities/Railroad
- Open Space (private ownership)
- Residential
- Uknown

Bicycle Master Plan

Figure 3.3-3

Public Ownership & Land Use Map

N W E S

Scale
1 inch = 1,600 feet

August 30, 2011

Village of Evendale

Figure 3.3-4

Recreational Bicycle Courses

3.4 Bikeability of Evendale Streets

The Village of Evendale has approximately 26 miles of public streets within its borders. Two-lane residential streets represent the largest portion of the total at 13 miles. Minor streets serving commercial and industrial interests comprise about 8 miles. The remaining 5 miles account for the major arterial streets carrying traffic through the village, namely Reading Road and Glendale-Milford Road. Not included in the total is approximately 2 miles of Interstate 75 which runs through the village.

The primary mode of transportation conveyed by the streets of Evendale is the motor vehicle. Tens of thousands of cars and trucks drive along the village's road network every day. The mode share represented by bicycles on Evendale's streets is unknown but believed to be very small by observation.

The safety and ease of riding on-road varies considerably with road conditions, shoulder width, speed and traffic volumes. The bikeability of any one route can be qualitatively measured using the Bicycle Level of Service.

Bicycle Level of Service

The Bicycle Level of Service (BLOS) is a measurement of how compatible a roadway is for biking. Roadway segments are graded from A to F. A grade of A indicates that a road is easy to ride and safe for bicycling while a grade of F indicates a road that is very dangerous and difficult to ride. Factors affecting the BLOS of a roadway include lane width, shoulder (or bike lane) width, speed limit, traffic volume, trucks, adjacent development and on-street parking.

A BLOS grade of at least C is often used as a goal to ensure reasonable bicycle access throughout a community.

Methodology

For this study, routes were selected for analysis based on existing or potential connectivity to other routes or destinations.

Field measurements, including lane width and shoulder width, were collected throughout the village on each roadway to be analyzed. Speed limit, disposition of parking and adjacent development were noted for each location. Every route was ridden by bicycle to get a cyclist's perspective of the roadway.

Speed limits were assumed to be 25 mph unless otherwise posted. Similarly, parking was assumed to be permitted in the curb lane unless signs with prohibitions were posted or it was otherwise obvious that parking was inapplicable.

Traffic volumes were collected from a variety of sources or, in some cases, estimated. Records from the Ohio Department of Transportation and the Ohio Kentucky Indiana Regional Council of Governments were searched for the major thoroughfares. This was supplemented with data from a recent study by TEC Engineering, Inc. of all traffic signals in the Village. Trip generation calculations were used to estimate traffic on roadways having no records, primarily residential streets.

Assessment of Evendale Streets

The collected data was analyzed using a spreadsheet developed by the Federal Highway Administration. The results are graphically depicted on Figure 3.4-1.

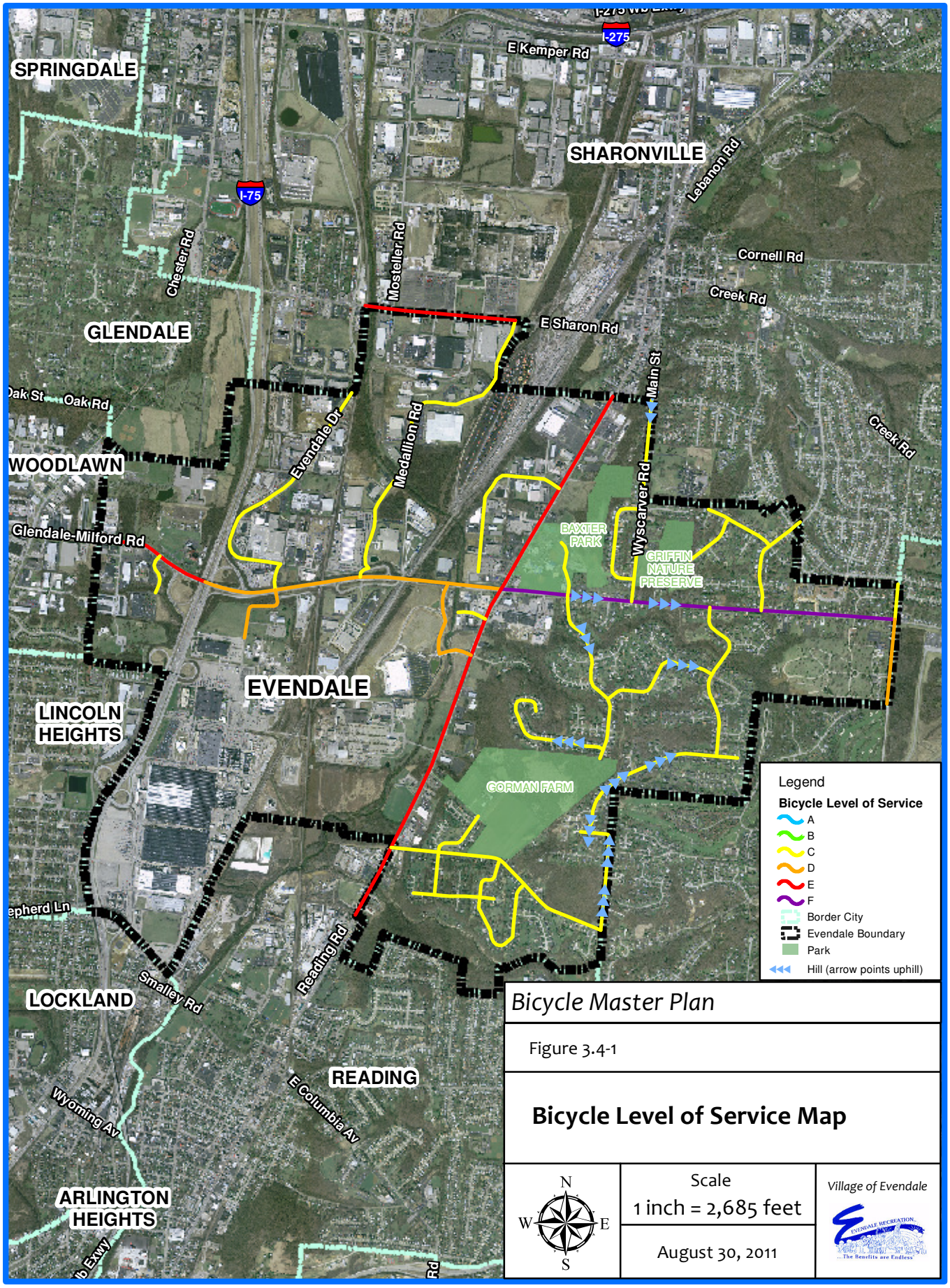
The major arterials in Evendale, Reading Road and Glendale-Milford Road generally received low grades ranging from D (moderately low

compatibility) to F (very low compatibility). This is primarily due to the very high traffic volumes on these streets, high speeds and lack of a paved shoulder or bike lane in most locations. Although a bike lane/paved shoulder does exist on Glendale-Milford Road in some locations, the high traffic volumes and speed still reduce the BLOS to D. Other major arterials bordering Evendale (Sharon Road & Plainfield Road) also received low scores for BLOS for similar reasons.

Nearly all other routes in Evendale scored a BLOS of C (moderately high compatibility). This includes all the residential streets as well as Cooper Road, Wyscarver Road, Medallion Drive and Evendale Drive. Residential streets did not score better than a C because lane widths are narrow, parking is permitted and there are no paved shoulders. Essentially, bicycles are required to share the same space as motor vehicles and, when passing, motorists must cross into opposing traffic.

Although Glendale Milford Road and Reading Road form the primary routes through the village (and correspondingly carry the highest traffic volumes) it is noteworthy that the secondary routes such as Cooper Road and Wyscarver Road scored a BLOS of C. These routes may be useful alternative bicycle routes to access sites in Blue Ash and Sharonville instead of the heavily traveled primary corridors.

It is important to note that the Bicycle Level of Service does not account for intersections or ramp terminals, which can be significantly more dangerous and difficult to maneuver on a bicycle. Intersections are considered more fully below.


SPRINGDALE
GLENDALE
WOODLAWN
EVENDALE
LINCOLN HEIGHTS
LOCKLAND
READING
ARLINGTON HEIGHTS
SHARONVILLE
I-275
I-75
E Kemper Rd
Lebanon Rd
Cornell Rd
Creek Rd
Chester Rd
Mosteller Rd
E Sharon Rd
Main St
Oak Rd
Evendale Dr
Medallion Rd
Wyscarver Rd
Glendale-Milford Rd
BAXTER PARK
GRIFFIN NATURE PRESERVE
GORMAN FARM
Reading Rd
Smalley Rd
Wyoming Av
E Columbia Av
Legend
Bicycle Level of Service
A
B
C
D
E
F
Border City
Evendale Boundary
Park
Hill (arrow points uphill)
Bicycle Master Plan
Figure 3.4-1
Bicycle Level of Service Map
N
W
E
S
Scale
1 inch = 2,685 feet
August 30, 2011
Village of Evendale

READING ROAD

Reading Road is a federal route, US 42, and under the jurisdiction of the Ohio Department of Transportation. It has four lanes throughout Evendale with a median island in many locations. Sidewalks are present on the east side for the entire length and on the west side in the vicinity of Wal-Mart. Lane widths are narrow at 11' and there is no shoulder or bike lane. The adjacent development is heavily commercial and there are many driveways. The speed limit is 40 mph south of Glendale-Milford Road and 35 mph north. Traffic volumes range from 13,000 to 17,000 vehicles per day with five percent heavy trucks. The grade of the roadway is relatively flat throughout.

Reading Rd looking North near Gorman Farm

Right of way width is variable along the corridor with the minimum width being approximately 70 feet. The sidewalk on the east side is separated from the roadway by a grass buffer having an average width of 8 feet and a minimum width of 5 feet. On the west side of the roadway, the distance between the edge of pavement and the right of way varies considerably from 0 feet to 50 feet. On average however, there is approximately 18 feet of space available behind the curb to the right of way line.

The Bicycle Level of Service for Reading Road is E, corresponding to very low compatibility for bicycling. This is primarily because of the very heavy traffic volumes, high speeds and the lack of an adjacent shoulder or bicycle lane.

OPPORTUNITIES

Improving bicycle access on Reading Road could be accomplished by adding bicycle lanes or sharrows on the road.

- Adding a five foot bicycle lane in each direction would improve the BLOS from E to D or C depending on location.
- The five to eight foot grass buffer present on the north bound side could be removed to add a northbound bicycle lane.
- On the south side there is often sufficient width to add a bicycle lane.
- Adding sharrows would not improve the BLOS but would provide cyclists more comfort by giving legitimacy to their presence.

CONSTRAINTS

- Adding a bicycle lane on the north side would remove the grass buffer between the roadway and the sidewalk. This would reduce pedestrians' level of service by giving them higher exposure to roadway traffic. It would also reduce the aesthetics of the corridor by

READING ROAD

removing green space.

- A bicycle lane on the south side may require right of way or easement acquisition in some locations.

- The cost of adding a bicycle lane in each direction may be prohibitive.

- Work on Reading Road to accommodate bicyclists would need to be coordinated with ODOT.

Reading Rd looking North near the Recreation Center

GLENDALE-MILFORD ROAD

West of Reading Road

Glendale-Milford Road is the primary east / west route through the village. It was formerly Ohio State Route 126 and under the jurisdiction of the Ohio Department of Transportation. When SR 126 was rerouted to the Ronald Reagan Highway, jurisdiction of the route was given over to the Village of Evendale. The roadway has two distinct segments in Evendale divided at the intersection with Reading Road.

West of Reading Road, Glendale-Milford Road basically functions as a limited access highway, with four 12 foot lanes, a paved shoulder of approximately 6 feet, a concrete median and a speed limit of 45 mph. Traffic volumes in this segment are approximately 24,000 vehicles per day. The topography is fairly flat.

Portions of the paved shoulder between Cunningham Drive and Evendale Drive have recently been striped as a bike lane. The bike lane extends through ramp terminals for Medallion Drive. Maneuvering a bicycle safely through the ramp terminals can be challenging, especially at the ramps entering Glendale-Milford Road where cyclists and merging vehicles are required to share space. A similar situation exists at the Interstate 75 Ramps without the benefit of bike lane striping. West of Interstate 75, the paved shoulder is discontinued on both sides of the road.

The BLOS for Glendale-Milford Road west of Reading Road is D, moderately low compatibility, wherever a paved shoulder or bike lane is present. This grade is primarily a result of the high traffic volumes and speed. West of Interstate 75 where the paved shoulder is discontinued, the BLOS drops to E since cyclists must share a travel lane with motor vehicles in this area.

West Bound Glendale-Milford Road at the Bridge over the Mill Creek

East Bound Glendale-Milford Road near the bridge over the Norfolk Southern Railroad. The shoulder area has been converted to a bike lane.

GLENDALE-MILFORD ROAD

West of Reading Road

OPPORTUNITIES

The village has already taken advantage of opportunities to improve bicycle access on Glendale-Milford Road west of Reading Road by converting the existing shoulders to bicycle lanes in some areas. Additional work is needed to complete the conversion including improvements to the Medallion Drive ramp terminals, striping the bike lane left of the right turn lane to Cunningham Drive, converting the remaining shoulders to bike lanes and addressing the I-75 ramp terminals.

CONSTRAINTS

Constraints to completing the bicycle lanes on Glendale-Milford Road west of Reading Road include:

- West of I-75, the existing paved shoulder is discontinued on both sides of the road.

- Positioning the bike lane to safely traverse the ramp terminals at Medallion Drive and I-75 will be challenging.

West Bound Glendale-Milford Road west of I-75. The existing paved shoulder ends in this location.

East Bound Glendale-Milford Road at the Medallion Drive Interchange. The bicycle lane configuration through the interchange is a concern.

GLENDALE-MILFORD ROAD

East of Reading Road

East of Reading Road, where Glendale-Milford Road traverses the residential area of Evendale, there are two 12 foot lanes, no shoulder and the speed limit is 35 mph. Traffic volume is approximately 18,000 vehicles per day in this segment. Sidewalks are present on at least one side throughout and on both sides for a short segment east of Kingsport. A steep hill having a grade of approximately 6% is present in this portion as Glendale-Milford Road rises out of the Mill Creek floodplain. Evendale Elementary School is near the eastern end of Glendale-Milford Road. Baxter Park and the Evendale Administration and Recreation Complex is located at the intersection with Reading Road.

Right of way width in this area is approximately 60 feet. The sidewalk on the north side is separated from the roadway by a five foot grass buffer. On the south side, where a sidewalk is missing for most of this stretch, the distance between the edge of pavement and the right of way line varies between 12 and 30 feet. Overhead electric lines are located on this side of the road within the right of way.

This portion of Glendale-Milford Road has a BLOS of F, extremely low compatibility for bicycling. This is the lowest graded roadway in Evendale, based on the BLOS methodology. The very low grade is primarily due to three factors – the very high traffic volumes, only one lane in each direction and lack of a paved shoulder (or bike lane).

Glendale-Milford Road looking east at entrance to Evendale Elementary

OPPORTUNITIES

Improving bicycle access on Glendale-Milford Road east of Reading Road could be accomplished by adding bike lanes, sharrows or a multi-use path on the south side of the road. Bicycle facilities on this road would provide access to destinations including Evendale Elementary and Blue Ash to the East and the recreation center, commercial district and a potential Mill Creek Trail to the west.

- The additional width on the south side of the road could be used to widen the roadway by five feet on each side to construct a bike lane. This would increase the bicycle level of service from F to D. While a D rating is lower than the goal of C, it would be a significant improvement over the existing BLOS.

- Space for a bicycle lane could also be taken from the existing grass buffer separating the sidewalk on the north side from the roadway.

- A bike lane could be added in the uphill direction only with sharrows in the downhill direction. While this would not provide as much benefit as bike lanes in both directions, it would at least provide a separated space for bikes moving slowly uphill.

GLENDALE-MILFORD ROAD
East of Reading Road

- A ten foot multi-use path could be developed in the available space on the south side of the road. This would help to complete the gaps in the sidewalk system.

CONSTRAINTS

Constraints to adding bicycle facilities along Glendale-Milford Road east of Reading Road include:

- Topography – widening Glendale-Milford Road to the south side and/or constructing a multi-use path on the south side of the road would require significant excavations or embankments in some areas.

- Landscaping impacts – trees and landscaped areas are present near the edge of Glendale-Milford Road in many areas. Widening the road to the south would necessarily impact many of these plantings. Although these are within the public right of way, property owners would likely disapprove of this.

- Gateway impacts – at the Park Hills subdivision entrance, decorative fencing and landscaping serving as the gateway to the neighborhood would likely be impacted. Again, although these features appear to be within the public right of way, the neighborhood would likely object to the impacts.

- Utilities – the overhead utility lines would likely need to be relocated if the road was widened to the south or if a multi-use path was constructed on the south side.

Glendale-Milford Road looking west at the Kingsport Drive intersection.

Glendale-Milford Road at entrance to Park Hills subdivision. Landscaping and fencing may be impacted by the addition of bicycle facilities on the south side of the road.

COOPER ROAD

Cooper Road is a two-lane east-west route near the southern boundary of Evendale with the City of Reading. Lane widths are approximately 11 feet, there are no paved shoulders and the speed limit is 25 mph. Traffic volumes on the road average around 4,000 vehicles per day. The surrounding development is mainly residential except immediately at the intersection with Reading Road. The road is fairly flat within Evendale but has a significant grade (approximately 7%) east of the Evendale border with the City of Blue Ash.

The width of the public right of way on Cooper Road is sixty feet throughout Evendale. There is a six foot grass buffer separating the sidewalk on the north side from the roadway. There is approximately four feet of width between the sidewalk and the right of way line. On the south side of the road where there is no sidewalk, there is approximately sixteen feet of width between the edge of pavement and the right of way line. Overhead utility lines are present in this space.

The BLOS for Cooper Road was measured as C. This grade indicates that Cooper Road has a moderately high compatibility for Bicycling. This is primarily because of lower traffic volumes and low speed.

Cooper Road looking west near Mohler Road

OPPORTUNITIES

Bicycle accommodations along Cooper Road would provide an excellent alternative to bicycling along Glendale-Milford Road to reach destinations in Blue Ash.

- Bicycle lanes could be added on either side of Cooper Road utilizing the additional width available on the south side. Adding bicycle lanes would increase this roadway's BLOS from C to B which would make it one of the top rated roads in the village for bicycling.

- A ten foot multi-use path could be constructed in the available right of way on the south side of the road.

- Space for bicycle lanes or a multi-use path could also be taken from the available space on the north side of the roadway if needed.

CONSTRAINTS

Constraints to improving Cooper Road for bicycle access include:

- Landscaping impacts – landscaping on the south side of Cooper Road would be impacted by widening to this direction.

- Utility impacts – widening to the south would impact the existing overhead utilities.

WYSCARVER ROAD

Wyscarver Road is a two-lane route running from Glendale-Milford Road north into the City of Sharonville. Lane widths are approximately 12 feet, shoulders are not present and the speed limit is 25 mph. Average daily traffic on the road is unknown but estimated to be about 4000 vehicles per day. Within Evendale the grade is fairly flat but there is a significant hill having an approximate grade of 9% within the Sharonville portion of the road.

The public right of way width on Wyscarver Road is sixty feet. The roadway itself only occupies approximately 26' of this space including curbs leaving approximately 17 feet of space on each side of the roadway. Overhead utilities are located along both sides of the road within the right of way.

Wyscarver Road received a BLOS grade of C based on the estimated traffic volumes.

OPPORTUNITIES

Improving Wyscarver Road for bicycle use would provide enhanced access to Griffin Nature Preserve, the Recreation Center and Baxter Park (via Margate Terrace) and destinations in Sharonville including Sharon Woods.

- Bicycle lanes could be added in both directions using the available right of way width on both sides of the roadway. Adding bicycle lanes would improve the BLOS from C to B making Wyscarver Road one of the most bikeable routes in the village.
- A ten foot multi-use path could be constructed on one or both sides of the roadway within the available right of way.

CONSTRAINTS

- Utilities – Overhead utility lines would need to be relocated for bicycle lanes or a multi-use path.
- The 9% grade on Wyscarver Road within Sharonville could be considered a significant deterrent to bicycling this route. To make the route viable from destinations in Sharonville, coordination with Sharonville would be needed to ensure a separated facility (bike lane or path) in the uphill direction as bicyclists may move too slowly to safely share a lane with motor vehicles.

Wyscarver Road looking north at Margate Terrace. Griffin Nature Preserve is at the right.

OTHER ROUTES

Several other routes within Evendale present opportunities for expanded bicycling or route connectivity.

KINGSPORT DRIVE

Kingsport Drive, south of Glendale-Milford Road, is a residential street and one of the primary access points for the surrounding neighborhoods. It also connects the recreation center with Gorman Farm. The route scored a BLOS of C, which means it has moderately high compatibility for bicycling. Although the route may be a primary link in the bicycle connectivity network, infrastructure improvements may not be needed because it has low speeds, low traffic volumes and already meets the minimum goal for bicycle level of service. Signing and/or pavement marking may be helpful to mark the roadway as a bicycle route and alert motorists.

HORCASTLE / KNOLLVIEW/ SHARONDALE/ THORNVIEW

These neighborhood roads could play a role in providing bicycle connectivity to Evendale Elementary avoiding the more dangerous Glendale-Milford Road. One key element needed to provide this connectivity is a link through Griffin Nature Preserve. Similar to Kingsport Drive, the routes all scored a BLOS of C and may not need any additional improvements other than signing and/or pavement marking. Sharondale Road is actually wide enough however at 31 feet to provide a bike lane in each direction. Coordination with Sharonville would be needed for the portion of Thornview Drive within its boundaries.

Kingsport Drive looking south

Sharondale Drive looking north at Knollview Drive

OTHER ROUTES

EVENDALE DRIVE

Evendale Drive is a north/south roadway located in the western part of the village between Glendale-Milford Road and Sharon Road. Industrial businesses are located on the route. The roadway has shoulders in some locations varying in width from three feet to as wide as 30 feet (near Sharon Road). The existing shoulders and available right of way do present an opportunity for expanding bicycling on this route by adding bike lanes. There were no significant bicycle destinations identified on this route however it could be used for connectivity to the Mill Creek and the General Electric plant (See Thru the Valley) as well as provide an alternate route to Sharonville and Glendale. Constraints to using this route as a bicycle facility include heavy truck traffic as well as connectivity challenges at the south end to Glendale-Milford Road and on the north end at Sharon Road.

Evendale Drive looking north near Glendale-Milford Road

THRU THE VALLEY

The Ohio Department of Transportation is currently in the design phase of a major improvement on Interstate 75 within the Village of Evendale dubbed "Thru the Valley". Neuman Way, which parallels I-75 adjacent to the General Electric aircraft plant, will be completely reconfigured as part of the work. The new roadway is planned to be more pedestrian and bicycle friendly with a multi-use path included in the design adjacent to the roadway. The path will extend from Glendale-Milford Road to Shepherd Lane and will not only provide bicycle and pedestrian access to the GE plant but will also provide connectivity from bicycle facilities on Glendale-Milford Road. The route could also be used as an alternate to a potential Mill Creek Trail (see Section 3.6) if bicycle facilities are constructed on Evendale Drive north of Glendale-Milford Road. The intersection of Shepherd Lane and Neuman Way is close to the Mill Creek as is Evendale Drive near Sharonville.

INTERSECTIONS

The Bicycle Level of Service generally applies to road segments only and doesn't take into account intersections, which can often be one of the most difficult and dangerous parts of the road for cyclists to negotiate.

Intersections can pose significant problems for cyclists, particularly where there are two or more through lanes and turning lanes are present.

There are scores of intersections within the village but most are minor in residential areas. The most problematic intersections for bicycle travel generally involve those on the primary routes, Reading Road and Glendale-Milford Road.

INTERSECTIONS

Glendale-Milford Road & Kingsport Drive

The intersection of Kingsport and Glendale-Milford Road is one of particular interest with respect to bicycling because Kingsport connects the residential area south of Glendale-Milford Road with the Recreation Center on the north side. Additionally, cyclists may use this crossing to access other bicycle destinations within the residential area, such as Gorman Farm, Griffin Nature Preserve and Evendale Elementary. In the Phase 1 public survey, residents expressed safety concerns with crossing Glendale-Milford Road at Kingsport.

The existing intersection is signalized. Crosswalks with pedestrian beacons are located on the north, south and west legs of the intersection. The length of the crosswalk across Glendale-Milford Road is approximately 45 feet.

Stakeholders identified concerns with pedestrian visibility in the crosswalks at this intersection. Although there are no known accidents involving a pedestrian, several near misses have been observed. There doesn't appear to be any major obstructions blocking visibility at the curb ramps except for trees in the grass buffer areas between the sidewalk and the roadway. One possible issue could be right turning vehicles. Often vehicles making a right turn on red may not observe pedestrians in the crosswalk of the street onto which they are turning. Right turns on red are permitted.

There are no specific existing bicycle facilities on any of the approach legs of this intersection. Bicyclists must either ride on the street through the intersection or use the pedestrian crosswalks.

Aerial view of the Glendale-Milford Road / Kingsport Drive intersection (Source: CAGIS)

INTERSECTIONS

Glendale-Milford Road & Kingsport Drive (continued)

OPPORTUNITIES

Bicycle improvements through this intersection will be dependent on the types of bicycle facilities (if any) on the approaches. Crossing Glendale-Milford Road is the direction of most concern as residents would most frequently be riding bicycles to and from the recreation center.

- A crosswalk could be added to the eastern leg of this intersection to provide pedestrians (and bicyclists walking their bicycles) access to all quadrants of the intersection.
- The double lines currently used to mark the crosswalk could be supplemented with 24" wide, closely spaced longitudinal lines to increase visibility.
- Right turns on red could be prohibited to reduce the chance of a vehicle turning into a pedestrian or bicyclist.
- Glendale-Milford Road could be widened to allow a median island to be constructed. This would provide a refuge space for pedestrians (or cyclists walking their bicycles). It would also simplify crossing by only requiring pedestrians to cross one direction of traffic at a time.

CONSTRAINTS

- Prohibiting right turns on red may be frustrating to drivers at times when there are no pedestrians or bicyclists present to justify the regulation.
- Widening this intersection for a median island would negatively impact the adjacent properties.

Existing crosswalk on Glendale-Milford Road at Kingsport Drive looking south

INTERSECTIONS

Glendale-Milford Road & Reading Road

This intersection is the largest in Evendale at the crossing of the two primary routes through the village. The intersection has two through lanes in each direction on each leg with left and right turning bays on all approaches. A traffic signal controls movement through the intersection. Crosswalks with pedestrian beacons are present across the north and east legs. The width of the intersection is approximately 105 feet (crossing Reading) and 120 feet (crossing Glendale Milford Road). Two of the corners have a radius of approximately 50 feet while the radius of the other two is about 125 feet. The large radii contributes to the crosswalk length.

Landscaped medians are present on Reading Road but end prior to the intersection on both the north and south approaches.

Approximately 35,000 vehicles go through this intersection every day. Only the west leg (Glendale Milford Road) has a shoulder which becomes a bike lane just west of the next intersection. The north, south and east approaches are curbed without shoulders.

There are many bicycle destinations in the village and beyond that may require a cyclist to travel through this intersection. Residents of the village traveling west to points in Woodlawn or Glendale, employers such as GE, commercial businesses like Wal Mart and Starbucks, and even possibly to the future Mill Creek Trail may need to ride through this intersection absent any future access points from the residential area.

Aerial view of the Glendale-Milford Road / Reading Road intersection. (Source: CAGIS)

INTERSECTIONS

Glendale-Milford Road & Reading Road (continued)

Currently, riding a bicycle through the intersection can be intimidating for all but the most advanced cyclists. There are no pavement markings or signs to delineate bicycle routes through the intersection such as bike lanes or sharrows. Cyclists must share the traffic lanes with motor vehicles. Cyclists intimidated by riding through the intersection may chose to use the crosswalk but the length and number of vehicles can also be intimidating.

OPPORTUNITIES

The type of bicycle facilities used on the approach road will largely govern the type of guidance for bicycles through the intersection.

- Since bicycle lanes are already present on Glendale-Milford Road west of Reading Road, bicycle lanes could be provided through the intersection as well. This can be done by striping a bike lane on the left side of the existing right turn lanes on Glendale-Milford Road. No widening would be required. Bike lane markings or sharrows could then be carried through the intersection guiding cyclist to either to or from the bike lanes on Glendale-Milford Road west of Reading Road.
- Similar treatments could be utilized if bike lanes are added to Reading Road.
- Painted bike lanes within the intersection (green is typically used) could be employed to give added visibility.
- Crosswalks could be shortened by reducing the corner radii and extending the landscaped median to intercept the crosswalk. A median provides a refuge for crossing pedestrians and also simplifies crossing by only requiring pedestrians (or cyclists walking their bicycles) to cross one direction of travel at a time.
- Crosswalks could also be made more visible by supplementing the double transverse lines with 24" wide, closely spaced longitudinal lines.
- Crosswalks could be added across the southern and western legs to complete the pedestrian access to all quadrants.

CONSTRAINTS

- The lack of bicycle facilities on the approach legs limits the type of guidance that can be used within the intersection.
- Reducing the corner radii may require larger vehicles to swing wider when turning.
- Extending the median islands on Reading Road may also require larger vehicles to swing wider when turning.