Bike and Walking Trail Master Plan City of Marion, KY



April 10. 2021



By The Pennyrile ADD 300 Hammond Dr Hopkinsville, KY 42240

BICYCLE AND PEDESTRIAN PLAN

The primary goal of the *Bike and Walking Trail Master Plan for Marion, Kentucky*, is to improve the quality of life in Crittenden County, Kentucky by increasing opportunities to walk and bike, in and around, the City of Marion. The community feels that developing bicycle and pedestrian infrastructure will increase the health, safety and economic development of the community. This type of infrastructure will help both individuals and the community as a whole.

Health

Most Kentuckians do not get enough physical activity and as a result have chronic health conditions. The lack of even moderate exercises like walking or biking three (3) or four (4) times a week leads to premature death and years of healthy life lost. Walking and bicycling have many benefits to health to include lowering blood pressure, increasing circulation and reducing body fat and diabetes.

Safety

Planning exclusively for motorized vehicle traffic leaves pedestrians and bicyclists at risk of even greater amounts of accidents and collisions while using the local road network. Planning for and constructing a complete network of sidewalks, multi-use trail, wide buffers/shoulders, marked crosswalks at intersections, and bicycle facilities can decrease accidents. The presence of properly marked crosswalks and continuous and well-maintained sidewalks should help decrease the number of collisions and make it safer for all ages and abilities to have recreation and exercise opportunities.



Example photo

Active Living

"Active living" can mean different things to different people. The Kentucky State Physical Activity and Nutrition (KY SPAN) Program focuses on connecting everyday destinations in communities with active living routes. Active living routes are sidewalks, bike lanes, multi-use paths, and amenities to support their use.

In order to promote active living within our communities, we need to recognize that bicycling, walking and using assistive devices such as wheelchairs are basic fundamental forms of transportation that are sometimes overlooked in this age or high-tech motorized travel. People need and want communities where streets are safe, accessible, and comfortable for all users, including those traveling by car, bike, or wheelchair

Destinations

Identifying popular destinations for people walking and biking is important when developing a trail and sidewalk network. Providing access to these areas will increase the use of the trails and sidewalks. Also, popular public destinations need to include pedestrian enhancements like bike racks and safe crossings on streets near these facilities.

The Marion Plan identified the following places as primary destinations:

- City/County Park
- Crittenden County High School
- US 60 Commercial Strip on north side of City
- Downtown Business District
- Industrial Park on south side of City
- Hospital
- Public Library
- Major residential neighborhoods

These key existing land uses in the City of Marion are show on *Exhibit 1, Existing Land Use, City of Marion, KY*. One of the goals of this Plan is to use the trail and sidewalk systems to connect these key destinations to residential areas.

Economic Development

Businesses that are looking for new cities to locate in want to locate in communities with bike and walking infrastructure. The younger generation wants more outdoor recreational activities when choosing where to live or starting a family. Therefore, bike and walking trails are all part of a list of quality of life issues prospective new companies are looking for when choosing a new site.

Types of On-Road Cyclists and the Related Facilities They Need

Cyclists are broken down into three (3) separate groups or types based on their skill level, and these different skill levels or "types" are used in planning bike routes. These three (3) types are advanced bicyclists, basic bicyclists and children or novice cyclists.

Type "A" Cyclist: Advanced Bicyclists

These are experienced riders (16 years of age or older, with a valid driver's license, and with several years of riding experience) who can operate under most traffic conditions. They comprise the majority of the current users of collector and arterial streets/roadways and are best served by the following:

- Direct access to destinations usually via the existing street and highway system.
- The opportunity to operate at maximum speed with minimum delays.
- Sufficient operating space on the roadway or shoulder to reduce the need for either the bicyclist or the motor vehicle operator to change position when passing.



Design/facility recommendations: Clean/smooth pavement, lower speeds, and share the road signs.

Type "B" Cyclists: Basic Bicyclists

These are casual or new adult and teenage riders who are less confident of their ability to operate in traffic without special provisions for bicycles. Some will develop greater skills and progress to the advanced level, but there will always be many millions of basic bicyclists. They prefer:

- Comfortable access to destinations, preferably by a direct route, using either low-speed, low traffic-volume streets or designated bicycle facilities.
- Well-defined separation of bicycles and motor vehicles on arterial and collector streets (bike lanes or shoulders) or separate bike paths.





Design/facility recommendations: Clean/smooth pavement, lower speeds on secondary roadways, wide/clean shoulders, separated multi use paths, wide bike lanes (5-foot min).

Type "C" Cyclist: Children or novice cyclists:

These are beginning cyclists or riders that may only ride a few times a year (this may include adults or children). Children (age 18 or below) riding in the roadway should be monitored by parents.

These riders prefer:

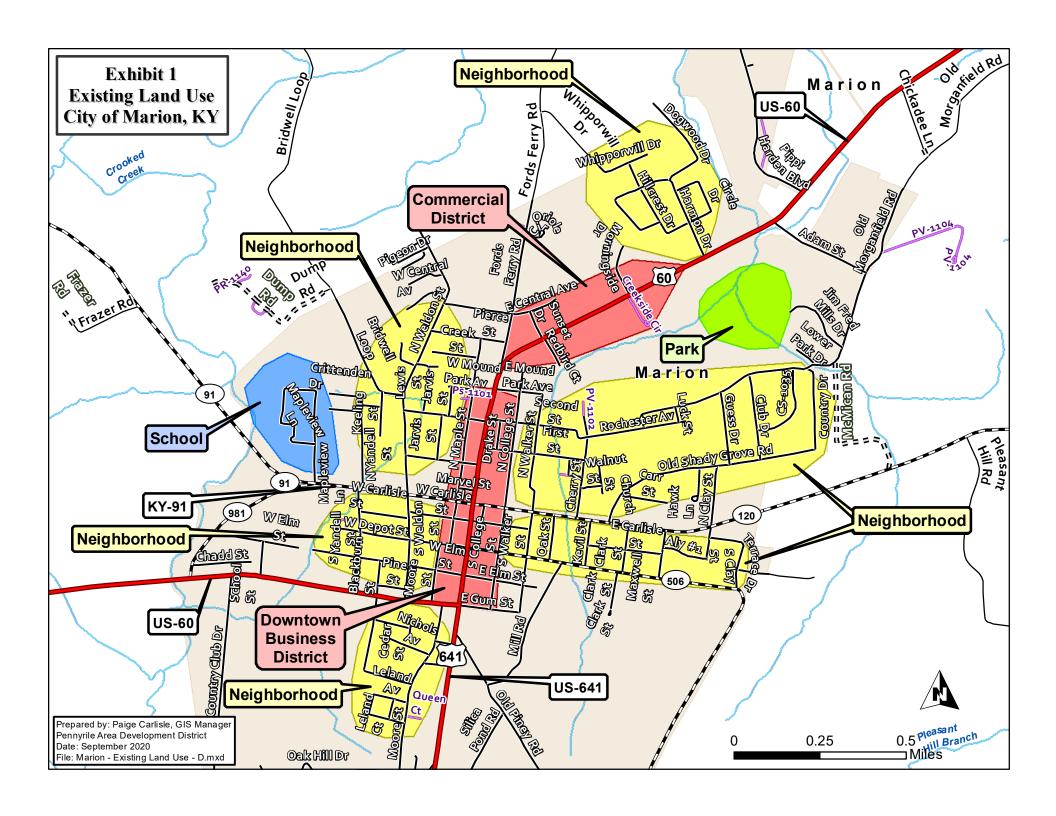
- Access to key destinations surrounding residential areas, including schools, recreation facilities, shopping, or other residential areas.
- Residential streets with low motor vehicle speed limits and volumes.
- Well-defined separation of bicycles and motor vehicles on arterial and collector streets or separate bike paths.



Design/facility recommendations: Separated multi use paths, lower speed limits on city streets, wide/clean shoulders, and or easy off-road trails.

SUCCESS OF THE PLAN

The success of the Marion Bicycle and Pedestrian Plan is dependent on the commitment of the community leaders and key stakeholders. The Plan requires the commitment of the City, as well as the Crittenden County Fiscal Court to pursue projects, grants and political support for pedestrian and bicycle improvements. However, the citizens of Crittenden County are the most important key to the long-term success of the Plan. Citizens need to recruit others and build a grassroots movement to help sustain the Plan and insure the implementation of the projects they support.



NEW MULTI-USE TRAIL CONCEPTS

There have been several "Concept Trails" identified as possible bike and walking multiuse trails. These are intended to be a minimum of 8-foot wide asphalt trails. It is common for communities to use creeks and river corridors as Bike/Pedestrian trail routes. Due to flood plains and swift moving water, it almost renders the property within 30 feet of a creek the size of Crooked Creek as undevelopable for commercial and residential land uses and most row crop farmers tend to leave buffers along the edge of these creeks to prevent erosion. Therefore, obtaining easements for bike and walking trails next to creeks tends to be easier because the land value next to the creek is low and other useful options are very limited.

These Trail easements on privately owned land could be donated or purchased. The hope is the property owners are willing to help the community and be a part of making the community a better place to live. Trail easements have clauses where the City assumes all insurance and legal liabilities for public use of these trails with "*Hold Harmless*" agreements.

If one property owner is not willing to provide a trail easement, hopefully, the property owner on the other side of the Creek would be willing to agree to an easement. Easement would only be obtained if the property owners are willing to sell or donate easements. No eminent domain or other non-voluntary means will be used to obtain any easements. The only easements acquired, on any future trails, will be 100 percent voluntary.

The property owners agreeing and donating an easement for the trail could be recognized for their contributions. There could be a plaque with their names thanking the families at the entrance of the trail. If there are five (5) families that donated easements along one section, then all five (5) should have their names on the plaque thanking them for the donation. Some farmers may want creek maintenance agreements for the City/County to clear obstruction from the Creek to help reduce flooding.

This is a 30-Year Plan that is designed to look 30 years into the future. Most of these properties targeted for trails will change hand at least once over the next 30 years, which will give the City different opportunities to get easements should a current property owner not be willing to agree to an easement for a trail. The goal would be to piece together easements over a 30-Year period. Even with a 30-Year time line, the city will not get all of the proposed trail easements necessary to complete all the trails in this plan. That is why it is important to try to obtain easements on all the trails the Community targets with a committee that has researched the best way to proceed.

INDUSTRIAL PARK CREEK TRAIL CONCEPT

This project involves the development of a Bike/Walking trail adjacent to the Industrial Park Creek as shown on *Exhibit 2, Industrial Park Creek Trail, Bike and Walking Trail Concept Map*. The entire 0.75 miles of the proposed Industrial Park Creek Trail shown as Phase 1 on the attached Concept Map is in the 100 Year FEMA Flood Plain.

The concept would be to develop an approximate 8 to 10 foot-wide concrete or asphalt Bike and Pedestrian Trail with 1 to 2-foot gravel shoulders. Most Bike/Walking Trails (Multi-Use Trails) are between 6 to 8 feet wide. However, this trail could double as a one-lane, one-way vehicle maintenance road to remove brush and other debris that occasionally dams the Creek and increases flooding. Trails along creeks can also serve a dual purpose to help reduce flooding by providing easy access for Creek maintenance. Also, people biking or hiking the trail can report beaver dams and other debris obstructions in the Creek before they become critical problems. Most trail grants require a minimum of 8-foot-wide trails for multi-use trails, (multi-use trails allow both cyclist and walkers). The community may want to consider an 8-foot-wide trail with 2-foot-wide gravel shoulders just for better width requirements for maintenance vehicles.

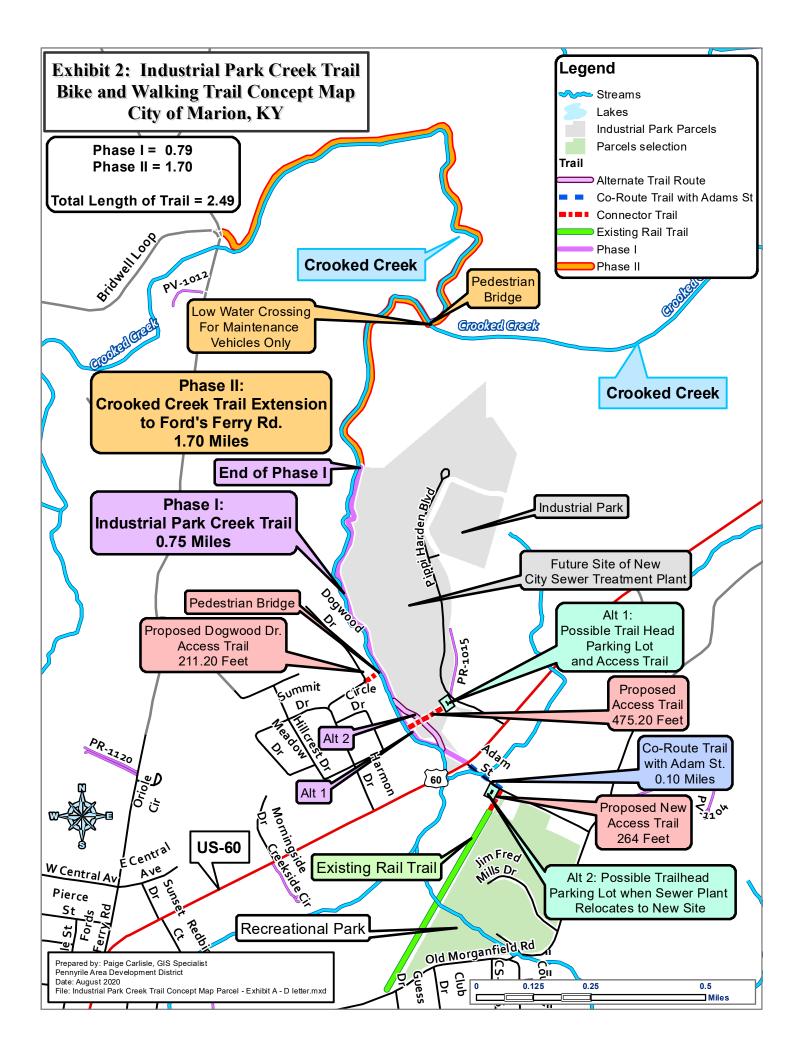
The proposed Trail easement would extend 30 to 40 feet from the edge of the bank of the creek, and in some places, additional easement width would be required to maneuver around some obstacles. The 30-foot-wide easement from the creek bank gives the design engineers the ability to locate the trail at least 10 feet from the bank to help prevent the stream bank from collapsing. It also provides buffers for construction of the trail and, in some cases, to excavate some steep hillsides into a more level grade.

One major advantage to developing the *Industrial Park Creek Trail* is that the City already owns the property. The community would need to survey and record easements along the Trail. Before future industrial lots sell, the City must "lock-in" either easements or fee simple ownership of the trail. Since this property is already owned by the City, having fee simple ownership along the trail for all but the future Sewer Plant site is better than an easement. One Industrial lot has already been sold for the City's future Sewer Treatment Plant, but this is still publicly owned land, and there should be no conflicts with the proposed trail. The sewer plant will need access to the creek so an easement would be more appropriate on this parcel for the proposed trail.

The second section of the proposed Crooked Creek Trail shown on Exhibit 2, as Phase 2, from Industrial Park Property to Fords Ferry Road, involves four (4) property owners on the east side of the Creek and two (2) property owners on the west side of the Creek. The northeast side is the preferred side because it is slightly higher in elevation, which would reduce trail maintenance due to flooding. If getting an easement on one side becomes an issue with one of the property owner(s), the Creek along this route can be crossed with a pedestrian bridge should the Creek need to be crossed to access a trail easement on the other side.

One of the goals of this Trail would be to provide access to the City/County Park, as well as the existing Rail Trail in the Park. This would require an at-grade pedestrian crossing on US 60 near the intersection of Adam Street, as well as co-routing a small section of Adam Street as a Bike and Walking trail to access the existing Park Rail Trail. A signalized cross-walk could be installed at this proposed US 60 at-grade crossing. The City owns the Sewer Plant property between US 60 and the existing Rail Trail. The Sewer Plant is being relocated to the Industrial Park, and the possibility exists that the City could provide a 30-foot-wide easement along the Adam Street road frontage of this property contiguous to the Adam Street right-of-way. The

Trail could be relocated off the street right-of-way completely once the Sewer Plant abandons the property.	he



OLD KENTUCKY GUARD ARMORY TRAIL SYSTEM

This concept involves two (2) or three (3) trails that are in the vicinity of the Old Kentucky Guard Armory property. These proposed multi-use trails are shown on *Exhibit 3, Old Kentucky Guard Armory Trail System Bike and Walking Trail Concept Map*. This map shows several different alternate trails. The alternate trails are presented as different options, which are not listed in any priority.

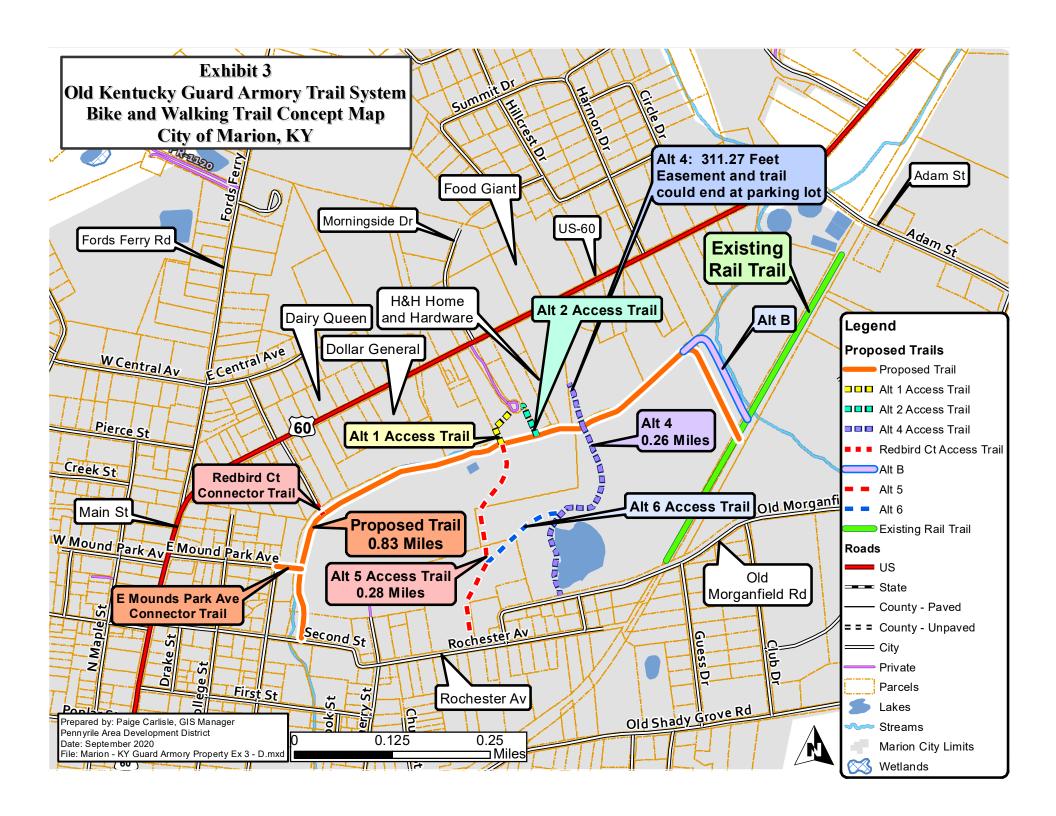
The proposed Main East/West Tail (0.83 mile) that runs along the rear of the properties facing US 60 has three (3) major benefits. It will provide better access to pedestrians needing to walk to the Food Giant and the other commercial stores along US 60 from residential neighborhoods south of the Old Kentucky Guard Armory site and west of the downtown area. It would also connect to the existing Rail Trail in the City/County Park, which gives better pedestrian access to the Park, as well as creating a longer trail system for general exercise purposes.

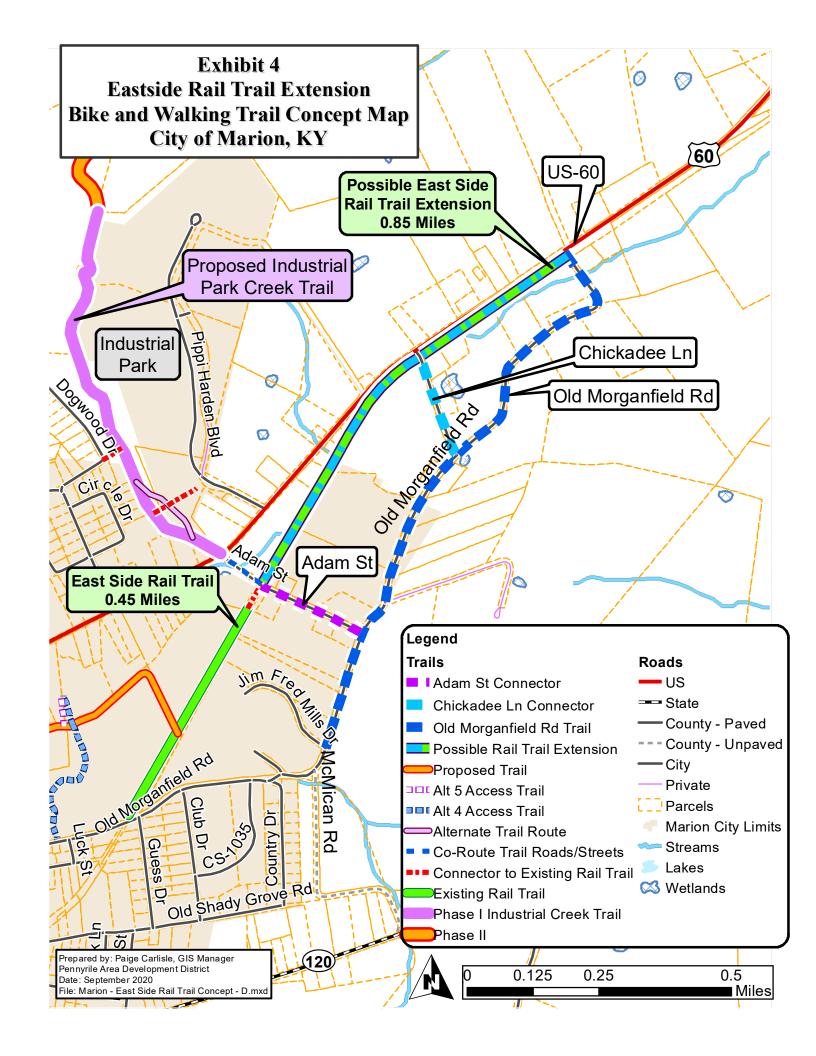
The goal would be to obtain trail access to businesses with driveways and parking lots along US 60. Since there are no sidewalks along this route, this is an alternate way of providing better pedestrian access to the businesses along the commercial strip. There are some possible *Access Trails* shown on Exhibit 3 that are listed as possibilities access points, but there are other options.

There are two (2) North/South Concept Trail shown on Exhibit 3. This could start from either the Old Kentucky Guard Armory property on Rochester Avenue or from Old Morganfield Road near the large pond on the City owned property just west of the City/County Park. The concept would be that one of these trails would tie into the Main East/West Trail, and also provide better pedestrian access to the main grocery store in town (Food Giant), as well as the other commercial properties along this strip of US 60 for the residential areas south of Rochester Avenue.

EASTSIDE RAIL TRAIL EXTENSION

This concept involves extending the existing Rail Trail inside the City/County Park eastward along the old abandoned rail bed from Adam Street near the intersection of US 60 and Old Morganfield Road as shown on *Exhibit 4, Eastside Rail Trail Extension*. This would extend the existing Rail Trail by another 0.85 miles. This concept also recommends co-routing a section of Morganfield Road as a designated "Share the Road" bike route. This section of Old Morganfield Road has a low traffic count and could possibly be used as a bike route to "loop" back into the City and to the City/County Park.





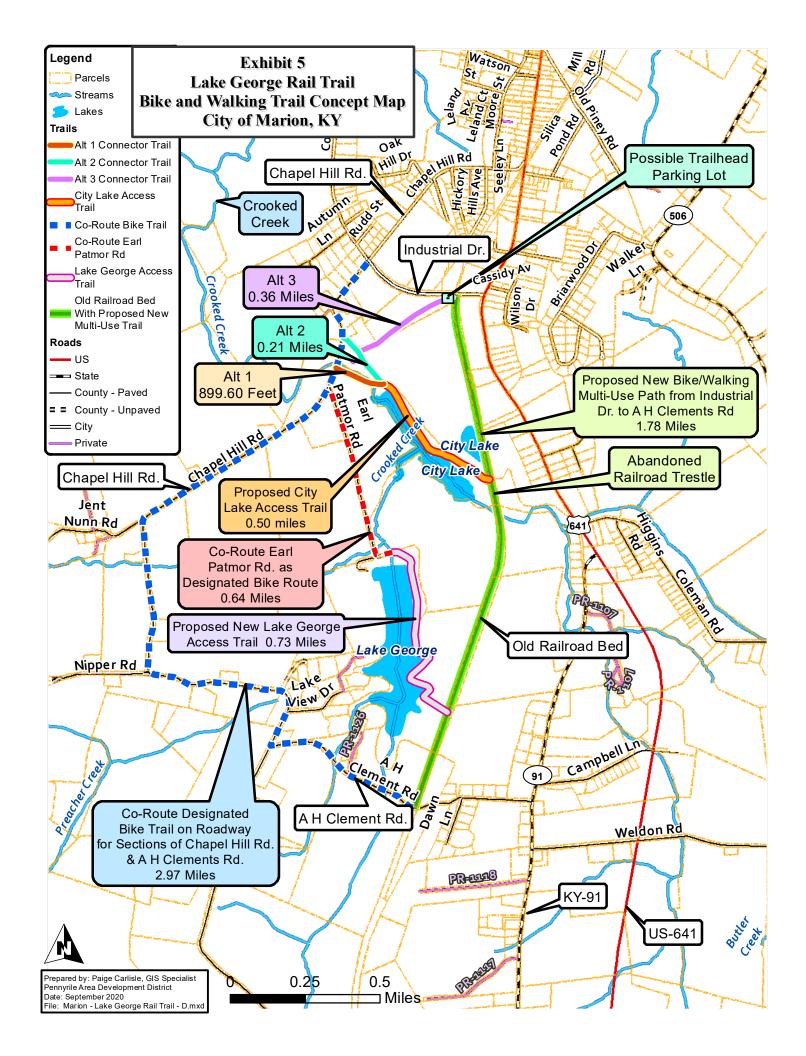
LAKE GEORGE RAIL TRAIL

This concept involves using the existing City owned properties around Lake George and City Lake, as well as their access roads and the old abandoned rail bed south of Industrial Drive, to create new multi-use trail systems as shown on *Exhibit 5, Lake George Rail Trail*. In this concept, there are several different variations that could be designed to make different options to this trail systems.

There are six (6) different property owners that own sections of the old rail bed from south of Industrial Drive to A.H. Clements Road. One of these property owners is listed as unknown. The unknown parcel is contiguous to the City owned property of Lake George – so there is a possibility that one of these six (6) sections is already city owned property. The goal would be to obtain either easements or fee simple ownership of the old rail road right-of-way, or at least some sections of it, between Industrial Dr and A.H. Clements Road.

There are several design issues that make the Lake George Trail System concept more complicated. On the northeast end of City Lake there is a large wetland area that could possibly involve having to obtain a trail easement from the property owner to the north on a very small piece of land. On the east side of Lake George, there is a small section of land where the property line is very close to high water level of the Lake. An easement may be needed from the property owner to the east for a very short distance on one small section where the Lake level is so close to this one spot on the property line. On the old rail road right-o-way between Industrial Drive and City Lake, there is one farmer that row crops on both sides of the old rail road bed who has regraded the old rail road bed down so farm machinery can easily access both sides. There is an old rail road bridge over Crooked Creek on the east end of City Lake that would need to have an engineering assessment completed to determine whether it is structurally capable to be used and re-constructed as a trail bridge. It may be necessary that the existing bridge needs to be replaced, which would add a significant cost to this project. However, there are engineering and design solutions to all of these issues.

The Lake George Trail System can still be a viable project if one or more trail legs are not developed. For example, if one of the individuals that owns a section of the old Rail Road property between Industrial Dr. and City Lake does not want to sell or give an easement, there is the possibility of using an alternate trail (Alt 3) as shown on *Exhibit 5*, *Lake George Rail Trail Map*, to access the proposed City Lake Trail. This alternate trail (Alt 3) runs along a wooded ravine southwest to the entrance of the City Water Plant. If both the old rail road and Alt 3 are not obtainable, there is the possibility that trail head parking could be located near the entrance of the Water Plant and the trail only involves the two city lake properties and a section of the rail road right-of-way between the two lakes.



RAIL TRAIL EXTENSION FROM OLD SHADY GROVE ROAD TO OLD MORGANFIELD ROAD

This concept involves extending the existing rail trail in the City/County Park southwest from Old Morganfield Road to Old Shady Grove Road as shown on *Exhibit 6, Rail Trail Extension from Old Shady Grove Road to Old Morganfield Road*. This would be a 0.29-mile extension of the existing rail trail in the Park.

The main purpose of this extended trail would be to provide better off-street trail access to the Park and the proposed new Kentucky Guard Armory Trail System, which would provide better access to the commercial properties along the US 60 Commercial Strip.

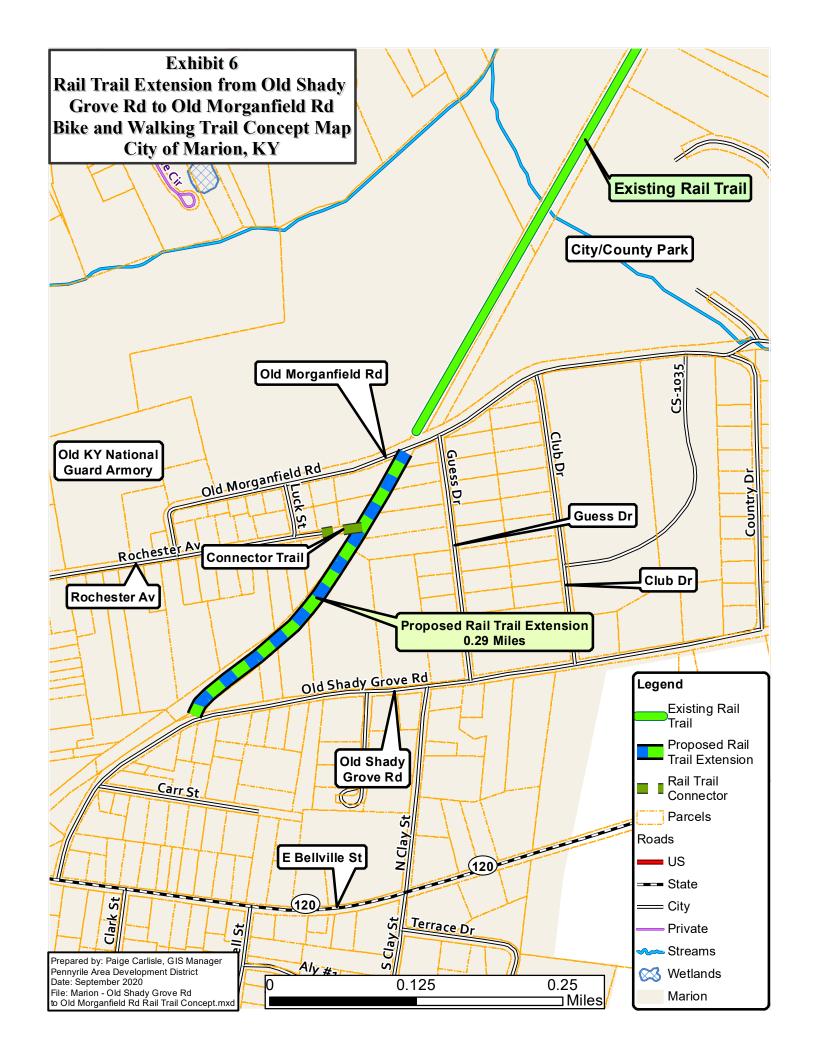
WESTSIDE CROOKED CREEK TRAIL

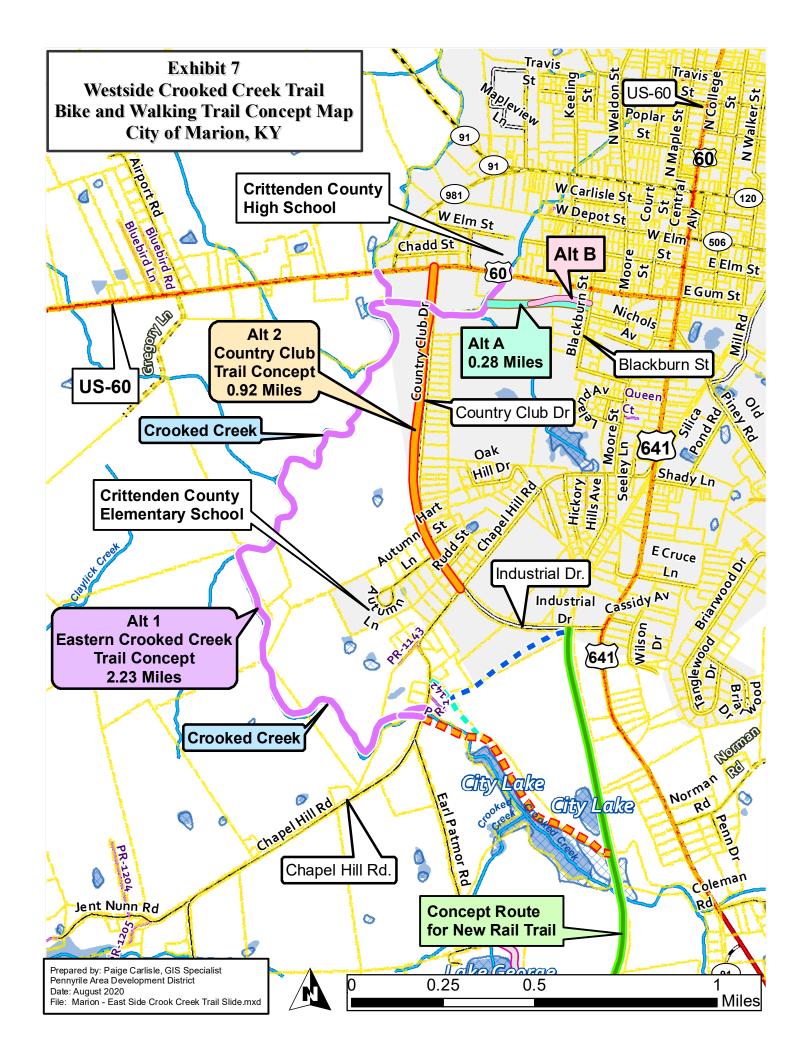
This concept involves building a new multi-use trail along Crooked Creek on the west side of the City of Marion as shown on *Exhibit 7, Westside Crooked Creek Trail*. There is the possibility that a new trail could be created from the High School running southwest behind the hospital and then crossing over County Club Lane and running along Crooked Creek to the south as it runs parallel to County Club southward behind the Crittenden County Elementary School to where the creek intersects with Chapel Hill Road across from the entrance to the Water Department. This trail is proposed to be 2.23 miles long and run next to the Creek along the entire route. There are 7 to 8 property owners along this route, and the creek is small enough to make it feasible to install one, or more, small pedestrian bridges to cross the creek if needed to gain access to the other side for access easements.

This concept also shows two (2) possible Alternate Trails than run from Blackburn Street next to a small unnamed creek that runs parallel to US 60 and feeds into Crooked Creek next to the hospital. One Alternate is north of the unnamed creek and one runs south of the creek. If the trail was able to access Blackburn Street, it would allow bicyclist and walkers to use the intercity local street system to access the trail without having to get on US 60, which has a high traffic count and no sidewalks in this area.

Due to the number of property owners, this will take years to piece together the easements to make this trail. As with most trails that involve multiple owners, there will be no one (1) year where all the property owners will agree to an easement. These trail easements are pieced together over years. If one owner says no to an easement, you ask the owner on the other side of the creek for an easement. If both owners on both side sides of the Creek say no to easement requests, then the city needs to wait until one of the ownerships change hands and then make a new request to the new owner.

On Exhibit 7 Westside Crooked Creek Trail, it also shows the possibility of running a multi-use trail next to the County Club Drive right-of-way on the west side of the road. The majority of the property next to this right-of-way is in the 100 Year Flood Plain. This is listed as an option to the Trail next to the Creek.





STATE ROUTES AND CITY STREET THAT NEED SIDEWALKS

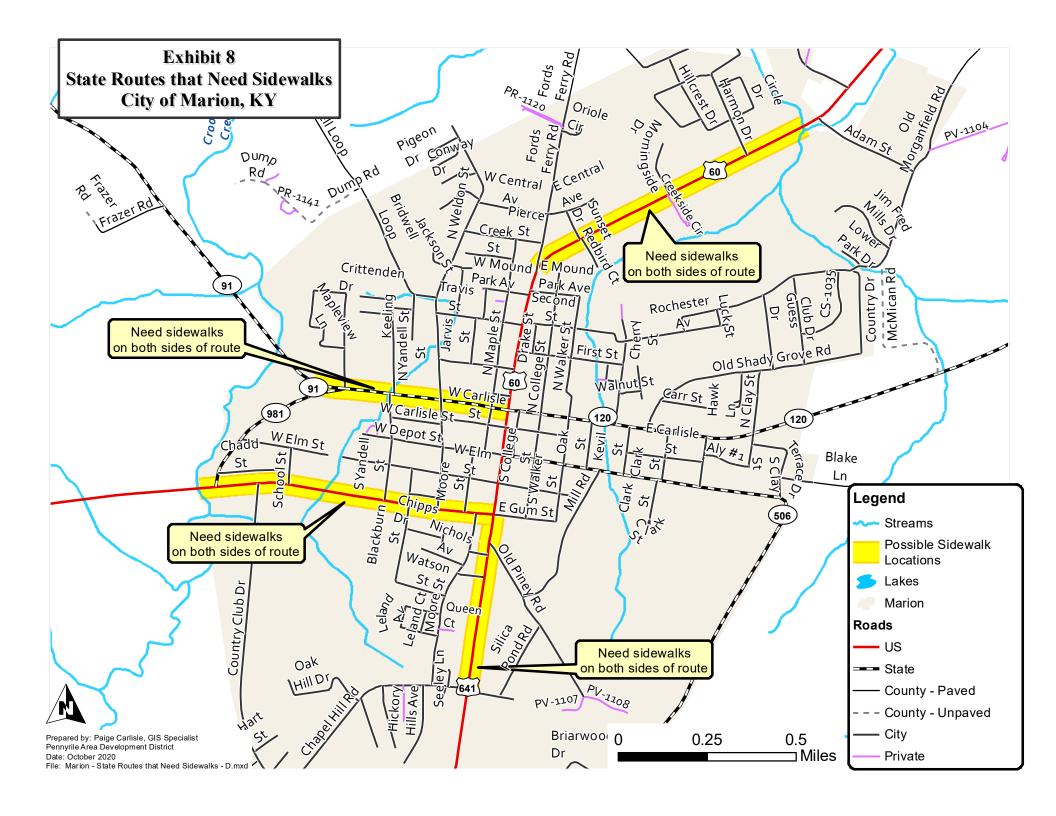
As shown on *Exhibit 8, State Routes That Need Sidewalks*, these State routes inside the City are major arteries with high traffic counts. Sidewalks are needed along these routes for safety and as a mode for people to walk or bike to work or as a general means to get around town. When one of these routes are reconstructed by the State, sidewalks should be a part of the new design and added infrastructure.

The wider multi-use trails are not viable along some city streets. In some locations, the normal four (4) foot wide side walks are still preferred. In some cases, the wider multi-use trails will need additional rights-of-way, or easements, and with some older city lots with short front yard setback, obtaining additional rights-of-ways or easements is not practical.

PUBLIC INPUT AND SURVEY

The public was given the opportunity to comment on a draft copy of the *Bike and Walking Trail for the City of Marion, KY*. This was accomplished by asking the local newspaper to do an article of the proposed Plan and including links to the Pennyrile ADD web site where staff had a PDF file of the Draft Plan that could be reviewed, as well as a link to an on-line survey. In Appendix A, the survey questions and the public responses to these questions are listed to provide public input to the Plan.

NOTE: This document was created, in part, by funding through the Centers for Disease Control and Prevention, cooperative agreement #NU58DP006497

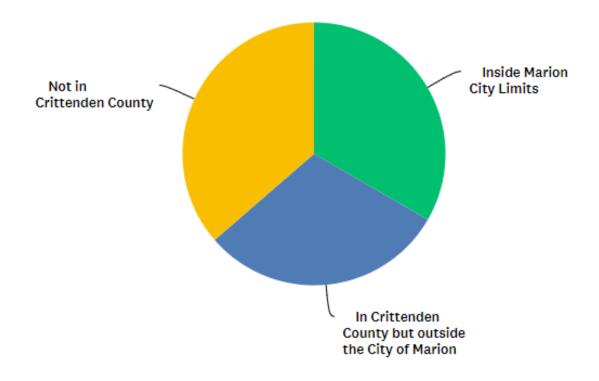


APPENDIX A

Community Survey

Where do you live?

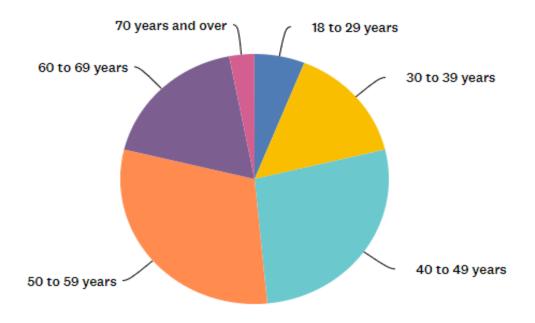
Answered: 33 Skipped: 0



ANS	SWER CHOICES	▼ RESPONSES	•
•	Inside Marion City Limits	33.33%	11
•	In Crittenden County but outside the City of Marion	30.30%	10
•	Not in Crittenden County	36.36%	12
тот	AL		33

How old Are You?

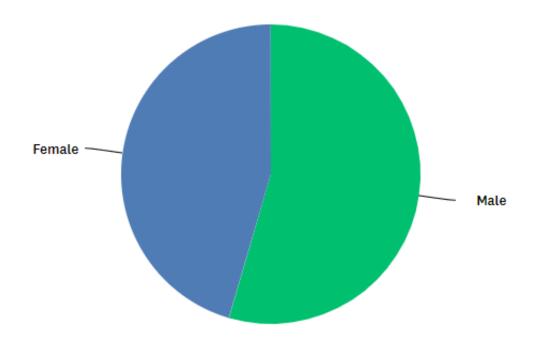
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ANS	WER CHOICES	•	RESPONSES	•
•	Under 18 years		0.00%	0
•	18 to 29 years		6.06%	2
•	30 to 39 years		15.15%	5
•	40 to 49 years		27.27%	9
•	50 to 59 years		30.30%	10
•	60 to 69 years		18.18%	6
•	70 years and over		3.03%	1
тот	AL			33

What is your gender?

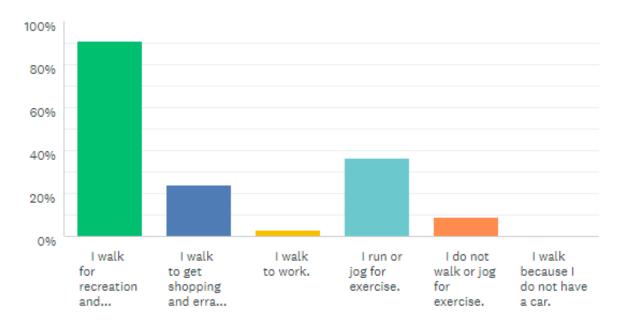
Answered: 33 Skipped: 0



ANSWER CHOICES	▼ RESPONSES	•
▼ Male	54.55%	18
▼ Female	45.45%	15
TOTAL		33

Please check all answers that apply to you.

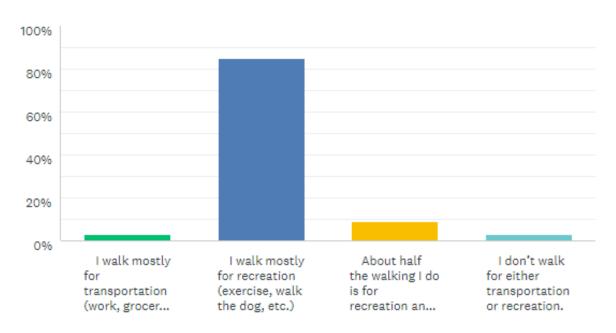
Answered: 33 Skipped: 0



ANS	WER CHOICES	•	RESPONSES	•
•	I walk for recreation and exercise.		90.91%	30
•	I walk to get shopping and errands		24.24%	8
•	I walk to work.		3.03%	1
•	I run or jog for exercise.		36.36%	12
•	I do not walk or jog for exercise.		9.09%	3
•	I walk because I do not have a car.		0.00%	0
Tota	ll Respondents: 33			

Do you walk mostly for transportation or recreation (choose one answer)?

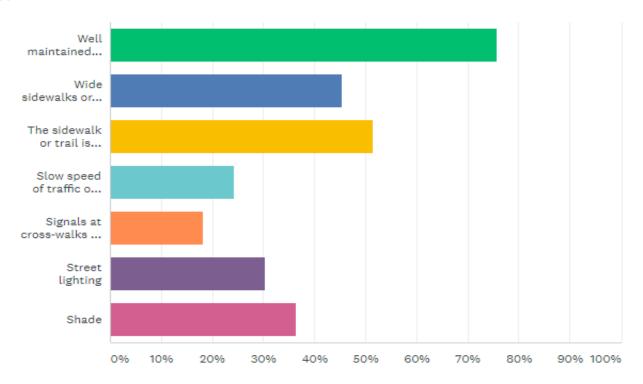
Answered: 33 Skipped: 0



ANS	ANSWER CHOICES ▼		RESPONSES	•
•	I walk mostly for transportation (work, grocery, school, etc.)		3.03%	1
•	I walk mostly for recreation (exercise, walk the dog, etc.)		84.85%	28
•	About half the walking I do is for recreation and half is for transportation.		9.09%	3
•	I don't walk for either transportation or recreation.		3.03%	1
тот	AL			33

What makes a good sidewalk or trail for walking (Choose up to 3 answers).

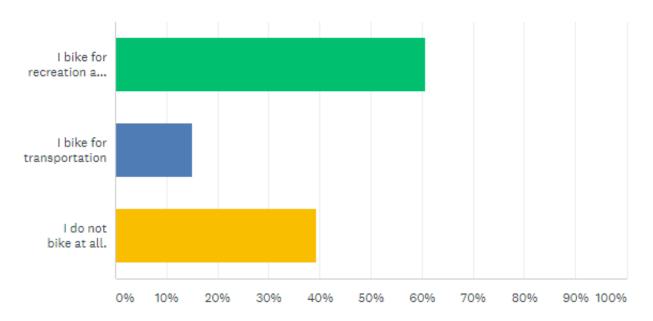
Answered: 33 Skipped: 0



ANS	WER CHOICES	•	RESPONSES	, •
•	Well maintained sidewalks or trails (no gaps, bumps or tripping hazards)		75.76%	25
•	Wide sidewalks or trails		45.45%	15
•	The sidewalk or trail is physically separated from the street by a grass strip off the roadway entirely.		51.52%	17
•	Slow speed of traffic or low traffic volume on Streets next to trails or sidewalks.		24.24%	8
•	Signals at cross-walks to cross busy streets		18.18%	6
•	Street lighting		30.30%	10
•	Shade		36.36%	12
Tota	al Respondents: 33			

Please check all the answers that apply to you.

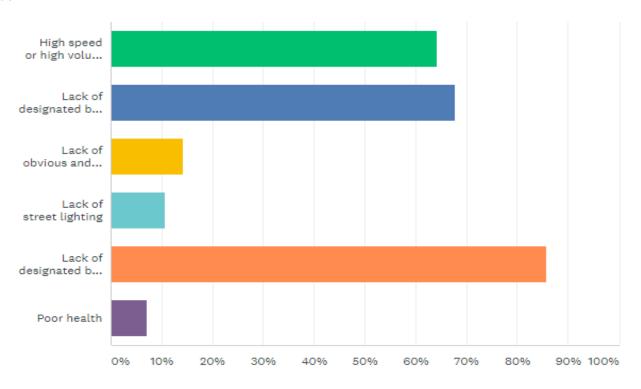
Answered: 33 Skipped: 0



ANS	SWER CHOICES	•	RESPONSES	•
•	I bike for recreation and exercise.		60.61%	20
•	I bike for transportation		15.15%	5
•	I do not bike at all.		39.39%	13
Tota	al Respondents: 33			

If you ride a bike, what prevents you from riding your bike more often (Choose up to three (3) answers).

Answered: 28 Skipped: 5



ANS	WER CHOICES	•	RESPONSES	•
•	High speed or high volume of traffic on streets		64.29%	18
•	Lack of designated bike lanes		67.86%	19
•	Lack of obvious and secure bike parking around Marion		14.29%	4
•	Lack of street lighting		10.71%	3
•	Lack of designated bike trails that are separated from streets		85.71%	24
•	Poor health		7.14%	2
Tota	al Respondents: 28			

Res	nor	ises

Industrial Park Creek Trail (4)
Exhibit 3 (4)
Exhibit 8 State Routes that need sidewalks (3)
Exhibit 7 (3)
Exhibit 9 (1)
Armory (5)
Exhibit 2 (2)
Exhibit 5 (2)
Comfortable access to destinations, preferably by a direct route, using either low-speed, low traffic-volume streets or designated bicycle facilities. • Well-defined separation of bicycles and motor vehicles on arterial and collector streets (bike lanes or shoulders) or separate bike paths. (1)
Lake George (1)
Westside Crooked Creek (1)
Rail Trail – Shady Grove to Old Morganfield (1)
Exhibit 6 (1)
Eastside (3)
Dirt trail with little grade (1)
Mountain Bike Trail (1)

Responses

- 1. A natural surface trail for mountain biking, hiking and trail running.
- 2. No, however I think it is important to not get overambitious with this project. Whatever can be done the soonest would probably be best in my opinion.
- 3. just the one in the northern commercial district sidewalks
- 4. Money should be utilized to pave old rail line to give access to tourism. Which would offer recreation options for community members. Internal bike lanes will make little difference within the city due to lack of driver awareness to cyclist. What lacks in the area are good locations to do long distance rides for cyclist, a trail map for gravel roads in the county for mountain bikes, and woodland trails that would cleaned and marked for both hikers and mountain bikers. This would allow community outlets for exercise, fitness organizations to offer special events, and perhaps a linking of tourism options for County to County rides along the old rail lines. Look at many of the rails to trails programs thought out the US.
- 5. I think ALL of the city streets need sidewalks because the number of kids (and adults) walking IN the streets has started to create a major hazard.
- 6. Old railroad bed.
- 7. It would be wonderful to have a connection to the City-County Park and walking trail.
- 8. The unused roadbed paralelling new 641 from Coleman Rd. to the county line. With parking at each end.
- 9. No recommendations, just hope the city actually goes through with at least one new route as well as sidewalks north of town, and to the high school/hospital.