



City of Corbin, Kentucky Bicycle and Pedestrian Master Plan



2020

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INTRODUCTION

This Bicycle and Pedestrian Master Plan was developed to address health, safety, tourism, and economic issues in the city of Corbin in Whitley & Knox County, Kentucky. This plan focuses on bicycle and pedestrian needs and facilities in this area. According to Kentucky's Vision for Access to Physical Activity Report, active transportation, such as walking or bicycling, allows residents to get physical activity while performing daily routines, such as commuting to work or school. Walking is one of the most popular forms of physical exercise for adults because it does not require special skills or expensive equipment.

PURPOSE OF THE PLAN

The purpose of the Master Plan is to identify, design, and construct needed walkways and bikeways that connect neighborhoods, business centers, parks, and schools. It sets forth ideas and strategies for making Corbin an inviting place to bike and walk. The Master Plan is a road map to guide local and state governments, developers, road builders, citizens, and bicycle and walking advocates when planning and developing projects in the community.

BENEFITS OF WALKING AND BICYCLING

There are a number of reasons to promote walking and bicycling in Corbin:

Improved Public Health

For 2018, Kentucky was ranked the 45th healthiest state in the nation. Whitley County ranks 111th in Health Outcomes and 77th for Health Factors out of 120 Kentucky Counties. It is widely recognized that regular daily physical activity reduces the risk for heart disease, diabetes, and obesity. By increasing the amount of public space for convenient and safe recreation and active transportation, Corbin can increase the overall health of the community.

Improved Mobility

Accommodations for walking and bicycling as an alternative means of travel appeal to a broader range of individuals within the community. Children and seniors, in particular, benefit from having multi-modal choices (non-motorized transportation options) for daily travel and activity. By planning and providing more connections and greater access to all parts of the community, Corbin can increase the ability to meet their complete transportation needs.

Enhanced Economy and Quality of Life

A better environment for walking and biking improves the quality of life of a community. Safe and accommodating walking and biking facilities within the community create more opportunities for social interactions. A walkable and bike-able community has positive economic advantages over other communities, such as having higher property values, being more attractive to new businesses, being more inviting for new home buyers, and having more to offer tourists. By planning for future bicycle and pedestrian facilities and accommodations, Corbin can additionally benefit and become an even more thriving community within the region.

VISION AND GOALS OF THE PLAN

The overall goals of the Bicycle and Pedestrian Master Plan will guide the city as it moves forward with plan implementation. A summary of the goals is provided below:

Bicycle and Pedestrian Network and Support Facilities – Develop a network that allows for safe and convenient movement throughout the city and to the regional network.

Safety, Security, and Equity - Provide safe and accommodating connections between neighborhoods, business centers, parks, recreation facilities and schools. Modal considerations should be made for all residents, especially those who do not have access to private motorized vehicles.

Transportation and Land Use – Consider all uses for adjacent land within the right-of-way of roadways, near commercial areas, and government owned properties. These areas have valuable potential for providing non-motorized travel accommodations where walking and cycling improvements are most needed.

Education and Awareness – Open the lines of communication so that all users of the transportation network have improved awareness of the need to share the roadways and trails, and recognize and observe traffic safety laws.

Maintenance and Operations – Ensure that biking and walking facilities are kept in good condition and work well for the intended users.

SOCIOECONOMIC ANALYSIS OF CITY OF CORBIN

The city of Corbin, Kentucky, is located in Whitley and Knox Counties in southeastern Kentucky. It is located directly off I-75 near the Kentucky-Tennessee State line. In the 2017 American Community Survey by the US Census Bureau, there were 7,315 residents in Corbin and 21,132 living in the “urban cluster” that includes Corbin and North Corbin. North Corbin is not incorporated into the city limits due to state law prohibiting cities from being in more than two counties and this section is in Laurel County. The city was founded in 1885 and was originally named Cummins but then changed to Corbin due to another town named Cummings. The city has a total area of 7.9 square miles, in which only 0.004 square miles is water.

Of the population in 2017, 98.3% of residents are white, 0.1% are African American, and less than 1.1% each are other races. There is 1.8% of the population that are considered Hispanic or Latino.

The total median household income is \$31,361 for residents of Corbin in 2017. The percentage of residents in Corbin below the poverty level is 26.0% in 2017.

In 2017, the American Community Survey provided estimates of how workers aged 16 and over got to work. Below are those estimates. The ACS also determined that the mean travel time to work in minutes for 2017 was 15 minutes.

Method of Transportation	Number	Percentage of Working Population
Drove alone in car, truck, or van	2,032	83.3%
Carpooled in car, truck, or van	268	11.0%
Public transportation	38	1.6%
Walked	35	1.4%
Other (taxi, motorcycle, bike, etc)	8	0.3%
Worked at home	57	2.3%

Source: U.S. Census Bureau, Table B08141 2013-2017 American Community Survey 5-Year Estimates

POLICY FRAMEWORK AND PREVIOUS WORK

It is hoped that by adopting this Master Plan, momentum can be developed which could lead into adoption of complimentary municipal policies and ordinances, to finally require consideration, planning, and implementation of adequate bicycle and pedestrian facilities with all new development and major reconstructions.

City of Corbin Comprehensive Plan

The City of Corbin completed a Comprehensive Plan in 2006 with revisions in 2008 and 2015. Several goals and objectives are mentioned that could be supported with bicycle and pedestrian facilities:

- To encourage expansion of local economy by planning for retention, attraction, diversification, and quality of businesses and industries.
- To provide a safe, efficient, expanded transportation system to meet the needs of citizens and the economy.
- To expand and improve upon public facilities and levels of service to all residents of the community as future growth and development takes place.

Downtown Complete Street Scoping & Wayfinding Study

The CARMAN group completed a study in February 2018 that looked into improvements specifically along Main Street and Kentucky Avenue. The plan laid out suggestions for sidewalk improvements and bicycling accommodations. It also included wayfinding signage needs that the city of Corbin is currently updating.

Cumberland Valley Area Development District

The Cumberland Valley Area Development District, which includes both the City of Corbin and Whitley County, does not have an active Pedestrian/Bicycle Master Plan, but has published their Goals and Objectives. One goal is to “Maintain and improve existing infrastructure within the region while including all appropriate modes of transportation.” This goal includes two objectives which relate to Pedestrian/Bicycle Facilities:

- Pursue the incorporation of providing greenways, bicycle, pedestrian, and multi-purpose trails into project planning.
- Encourage participation from individuals representing these modes of transportation on the CVADD’s Regional Transportation Committee.

Kentucky Transportation Cabinet Bicycle and Pedestrian Plan

The state of Kentucky adopted a Pedestrian and Bicycle Policy in 2002, in response to a US Department of Transportation publication encouraging the accommodation and/or consideration of bicycle and pedestrian facilities in roadway projects. KYTC will consider bicycle accommodations if the roadway project meets one or more of the following criteria:

- A bicycle facility already exists on the current roadway.
- The recommended roadway cross section is urban (curb and gutter). In urban roadway cross sections (curb and gutter), accommodations to assist bicyclists include a range of measures from signage, bicycle-friendly grates, and wide curb lanes, to bicycle lanes.
- Project limits are adjacent to an existing residential, commercial, office, industrial, institutional, public or semi-public use area or adjacent to an area planned to develop into one of these uses within the next 20 years. Planned development may be determined by a local comprehensive plan or the public-involvement process.
- A state, locally, or regionally adopted bicycle plan has designated bicycle improvements or a bikeway in the area of the specific roadway project or for that classification of roadway.
- A KYTC Small Urban Transportation Study has specific bicycle improvements recommended for the roadway project.
- Bicycle traffic exists along the current roadway: This may be determined by the observation of bicycle traffic or by the public-involvement process.
- Public interest in and demand for bicycle accommodations are determined at the planning and preliminary engineering public-involvement stages.

The City of Corbin Bike and Pedestrian Master Plan is intended to strengthen the consideration and inclusion of bicycle and pedestrian facilities in KYTC plans and to provide guidance for making those considerations as early in the transportation project development process as possible. A copy of this plan will be provided to KYTC Central Office, KYTC Highway District Office 11, and to local officials to ensure that this analysis can be used to help develop projects in the area.

FACTORS THAT INFLUENCE WALKING AND BICYCLING IN CORBIN

Destinations

Some places within the community are major attractors for walking and cycling. These include retail clusters, schools, parks, medical facilities, and places of employment. It is important to provide safe and accommodating options for all modes of transportation, other than just for motorized travel.

Time and Distance

It is easier and more accommodating to walk and bike to destinations within the urbanized downtown area than in the rural portions of the County. Research shows that the average walking trip is less than a mile and bike trips are less than five, with some “recreational” or “exercise” emphasis trips tending to be longer for each. People are more likely to choose walking or bicycling if it is safe and accommodating to do so.

Demographics

Those who are too young old to drive, unable to drive due to medical or economic reasons, or don't have a drivers' license due to traffic violations rely on walking and cycling for transportation. It is important to plan for the needs of all residents of Corbin. Furthermore, the city should be sure to include residents of all abilities.

Environment

Weather and traffic play an important role in how frequently people within the community walk or bike for transportation. Hot and humid summer conditions and cold and wet winter conditions as well as narrow, curvy roads with fast moving traffic can create significant barriers to walking and biking throughout the County.

Community Attitudes

The perception of what is the socially acceptable norm can play a vital role in how frequently people choose walking or cycling for transportation or recreation. As more people choose walking and biking for recreation and transportation, perceptions toward those activities change in a positive manner.



DESIGN STANDARDS AND GUIDELINES

The Kentucky Transportation Cabinet (KYTC) has published Statewide Pedestrian & Bicycle Travel Policy which provides guidance on planning for and accommodating pedestrians and cyclists in our state's transportation system. It is available at <http://transportation.ky.gov/bike-walk/Pages/Laws-and-Policies.aspx>

In conjunction with KYTC District 11, the City of Corbin Road Department planning activities should always include sidewalks and bicycle facilities (where feasible) within city limits. Rural area roadways should consider including wide paved should (5 feet or wider) when and where feasible to further accommodated non-motorized transportation.

Pedestrian facilities should always be constructed to be compliant with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) to accommodate all people who live in or visit Corbin. They are available at https://www.ada.gov/2010ADAstandards_index.htm

Paved roadway shoulders should include bicycle gaps within the rumble strips/stripes (10' gaps space every 50') to allow cyclists to exit either the shoulder or the roadway at reasonable interval. The should rumbles should not extend continuously onto side roads. Shoulder rumbles that are deemed necessary within the urban boundaries should be the rolled type, as opposed to the more aggressive milled type.

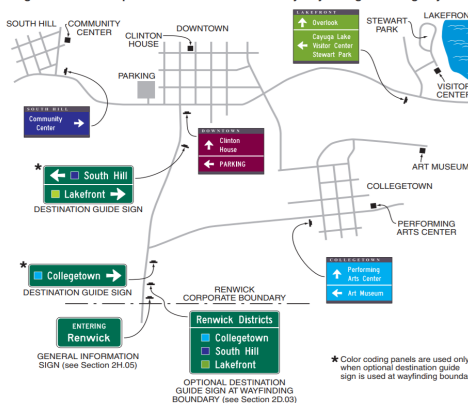
SIGNAGE AND MAPPING

Figure 2D-18. Examples of Community Wayfinding Guide Signs



Source: From MUTCD Manual 2009 Edition with 2012 Revisions

Figure 2D-20. Example of a Color-Coded Community Wayfinding Guide Sign System



Project planners should refer to the Manual of Uniform Traffic Control Devices (MUTCD) and consult with KYTC for all signage associated with roadways, bicycle, and pedestrian facilities before recommending or installing. The MUTCD Manual can be found here: https://mutcd.fhwa.dot.gov/kno_2009r1r2.htm.

It is recommended that a citywide bicycle and pedestrian travel and facility map be developed and produced for current and future facilities.

Appropriate bicycling and pedestrian facility wayfinding signage should be considered in conjunction with a citywide navigational map to aid non-motorized travelers with navigation around the city. Appropriate warning signs should be considered and placed in advance of all bicycling and pedestrian facilities when deemed necessary. These signs should be part of the consideration with all new transportation projects.

BICYCLE PARKING

The City of Corbin should seek to encourage and incentivize businesses and organizations that provide secure and accessible bike parking that is convenient for users. Currently there are bike racks at You and Me Coffee on Main Street and the Corbin Middle School.

In general, bicycle racks should be located in a highly visible area to prevent theft, be unobstructed, nor cause any obstruction to other traffic, and be mounted solidly to the ground or building in such a way that it cannot be easily removed. There should be a minimum clearance of 48” around the bike parking area and 72” should be allowed for a single bike lengthwise unless the rack allows vertical mounting. When feasible and possible bike parking should be covered to protect cyclists and their bikes from the weather.

Please refer to the *Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines* for more details at http://www.apbp.org/?page=Bike_Parking

DEFINITIONS

Bicycle Boulevard

Motorists and bicyclists share the roadway but it is modified to be desirable for bicycle travel via traffic calming and speed reduction techniques, signage and pavement markings, and intersection crossing treatments. Bicycle boulevards typically provide for the through movements of cyclists while discouraging through trips by motorists (except those directly accessing properties along the route). Bicycle boulevards are typically planned and installed on low-volume, low speed shared streets that run parallel to a major vehicular corridor that is less desirable for bicycling.

Bicycle Gap

A recurring short gap in continuous shoulder rumble strips designed to allow for ease of movement of bicyclists from one side of the rumble to the other. A typical pattern is gaps of 10 to 12 feet between groups of the milled-in elements at 40 to 60 feet.

Bike Lane

A portion of the roadway is designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists. Bike lanes can increase bicyclist comfort and safety, promote proper riding, discourage sidewalk riding, and increase awareness and visibility of cyclists to motorists. Bike lanes may also be paired with a painted buffer space to create a “**buffered bike lane**” which further separates the bicycle lane from adjacent motor vehicles lanes or parking lanes. Bike lanes may also be physically separated from motor vehicle traffic by grade or a barrier, such as a median, curb, or parking lane. These “**cycle tracks**” can increase the comfort of less skilled cyclists; however, they are currently classified as ‘experimental’ in the U.S. and require a detailed design/approval process.

Bicycle Rack

Bike racks are basic infrastructure for a bicycle-friendly community. Bicyclists need a secure location to park their bike just as motorists need a place to park their car.

Bicycle Route

“Bike Route” signage is installed along shared roadways to provide wayfinding and to connect facilities and destinations. For instance, a bike route might be signed along a residential street that connects two trails. It may also identify a preferred route to a destination or through an area of town. The signage also provides a visual clue to motorists that they are driving along a bicycle corridor and should use caution.

Bikeway

Any road, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Crosswalk

A marked lane for passage of pedestrians, bicycles, etc., traffic across a road.

Curb Cut

A solid (usually concrete) ramp graded down from the top surface of a sidewalk to the surface of an adjoining street. It is designed for pedestrian uses and commonly found in urban areas where pedestrian activity is expected.

Multi-Use Path

Shared use paths are designed for multiple users, including pedestrians, wheelchairs, bicyclists, and inline skaters. They are physically separated from motorized vehicular traffic by an open space or barrier. They are either within the roadway right-of-way, or within an independent right-of-way, often along stream corridors or abandoned rail lines.

Paved Shoulder

At least 4 feet of smooth riding surface, exclusive of rumble strips, is provided for use by cyclists and pedestrians and for disabled motor vehicles.

Rumble Strip

A *shoulder rumble strip* is a longitudinal safety feature installed on a paved roadway shoulder near the outside edge of the travel lane. It is made of a series of milled or raised elements intended to alert inattentive drivers (through vibration and sound) that their vehicles have left the travel lane. An *edge line rumble strip* is a special type of shoulder rumble strip placed directly at the edge of the travel lane with the edge line pavement marking placed through the line of rumble strips.

Sharrow

Bicyclists and motorists share the travel lane, but it is marked with Shared Lane Markings (SLM) or Sharrows to help position bicyclists within the shared lane and to encourage safe passing.

Share the Road

Share the Road warning signage may be installed along shared roadways to alert motorists of the presence of bicyclists along high-use bicycle corridors. For instance, signage might be installed along a popular bicycle commuter route through a neighborhood or along a recreational route regularly used by cyclists in a rural area.

Sidewalk

A walkway separated from the roadway with a curb, constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians.

EXISTING CONDITIONS AND ANALYSIS

Whitley County and the City of Corbin have strong outdoors recreational communities. There are competitive and non-competitive events, as well as local clubs actively encouraged by local officials for participation. Nearby Cumberland Falls, as well as Kentucky Fried Chicken help Corbin with tourism efforts from out of town visitors.

From observations during field investigations and interviews with local residents, few people commute to work without a car. Some non-motorized travel was observed, but it seemed to be concentrated in lower income communities and the downtown area.

EXISTING BICYCLE RESOURCES AND EVENTS

There is an organized citizen group that gathers for bicycle rides throughout the week (peak months being May-October). There are no bicycle shops in the area. There are a bike lane without signage beyond pavement markings on Depot Street, 4th Street, and 5th Street. There are 2 bicycle racks in Corbin.

There are several bike safety events held several times a year on lower congested roads in the city. These bicycle rides are sponsored by the Whitley County Health Department and City of Corbin to promote bicycle safety and healthy habits.



EXISTING PEDESTRIAN RESOURCES AND EVENTS

The majority of the current pedestrian activity within Corbin is mostly recreational and for school. There are several running tracks associated with the local high schools, but most of the running/walking activity in the area occurs in downtown area.

Corbin has one specialty sporting goods store (Hibbits Sporting Goods) that sells running shoes. Bicycles are not sold anywhere, except at Walmart. Walking and running shoes are available at B&H Shoes, Belk, JC Penney, and Rack Room Shoes.

Many of the running/walking events in the community are sponsored in conjunction with other community festivals, or are sponsored by local non-profits as a fundraiser. These events occur 3-5 times per year.

No designated walking tours exist of the downtown area. Interviews with residents and responses to the public survey also indicate a desire for enhanced marked pedestrian friendly crosswalks downtown.

Within Whitley County, outdoor enthusiasts can enjoy the Sheltolee Trace Trail and Cumberland Falls, both of which provide off-road walking facilities.

FACILITIES CURRENTLY AVAILABLE FOR BICYCLING AND PEDESTRIAN ACTIVITIES

Collection Methods

Data was obtained from the Cumberland Valley Area Development District database of bicycle and pedestrian facilities. This data was checked and updated as appropriate. Aerial photography, as well as a high precision handheld GPS unit was used to locate potential project alignments.

Results

The City of Corbin has a comprehensive network of sidewalks in the downtown area, although gaps in connectivity may occur due to deteriorated or missing sections. There are 33.97 miles of sidewalks within the City limits of Corbin. Marked crosswalks are placed inconsistently around the city. There are fewer sidewalks outside of the downtown area. A map of the facilities is included in Appendix E.

There are several dedicated bicycle facilities in Corbin with the bike lanes on Depot Street, 4th Street, and 5th Street in the downtown area. A map of the facilities is included in Appendix E.

There are no reliable counts of how many bicyclists, pedestrians, and recreational runners use the transportation system in Corbin. Anecdotal evidence suggests that there are regular walkers and runners and a smaller number of active cyclists while the number of visiting cyclists are equal to or greater than those who live within the city. Strava heat maps help indicate routes heavily used by bicyclists and/or pedestrians.

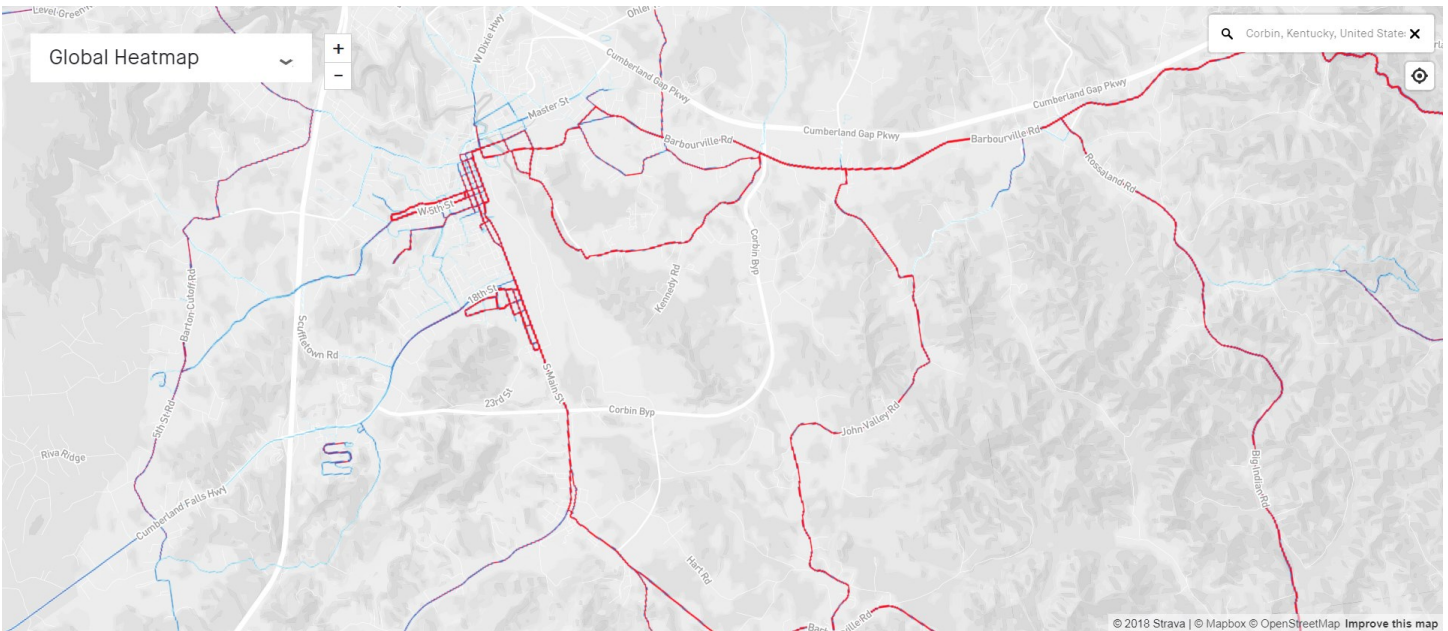
Highlights

The City of Corbin has been maintaining sidewalk surfaces with the use of specialized equipment. Corbin City Road Department has identified critical areas in need of repair and replacement of sidewalks.

STRAVA MAPS OF CURRENT USERS

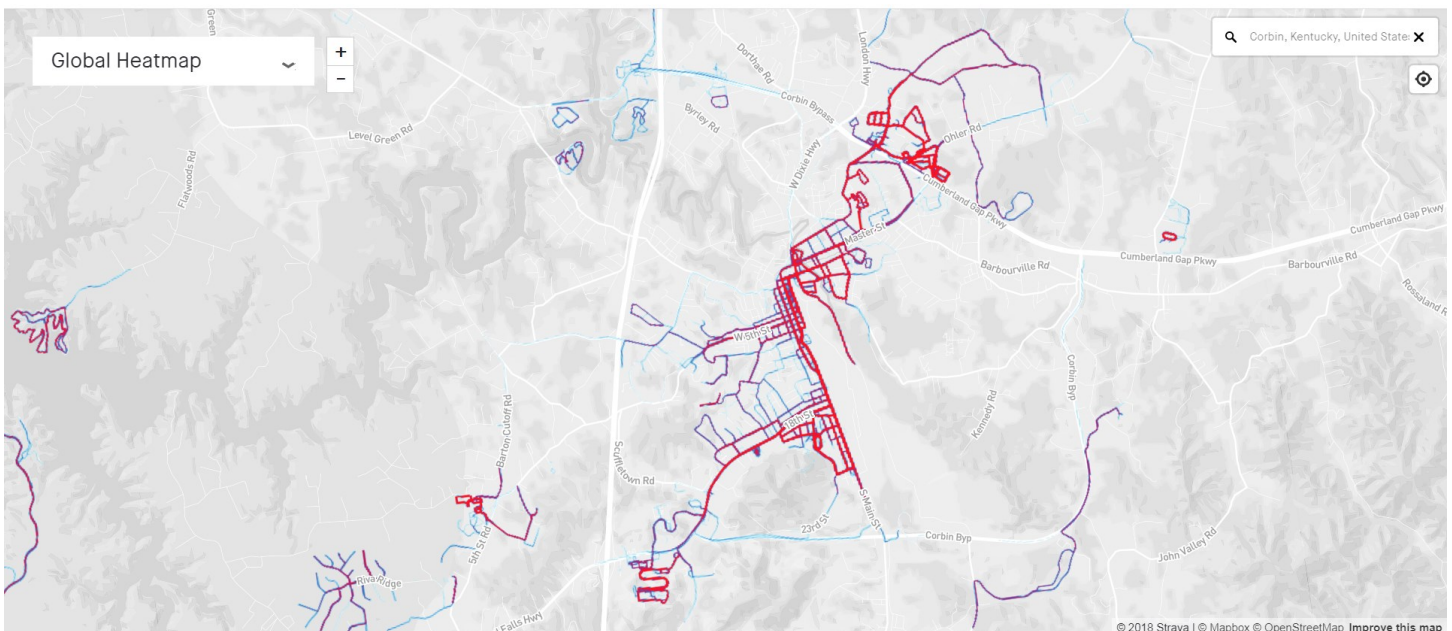
One resource that can be used in determining the popular areas for bicycling and walking is the use of the Strava Heat Map. Below are the areas for bicycling and walking in Corbin. For bicycling, the hot areas include utilizing the bike lanes on 4th Street, 5th Street, and Depot Street. Furthermore, South Main Street, Barbourville Road, John Valley Road, and Moore Hill Avenue are noted as being heavily used by bicyclists, as indicated by the red line. Areas that do not have a dedicated bicycle facility, but utilized by bicyclists should have proper signage for motor vehicle drivers can be aware of users. For walkers, they heavily utilize the downtown areas, but also the shopping centers throughout the city.

Strava Heat Map of Bicycle Facility Activity in Corbin, Kentucky



Strava Heat Map of Bicycle Facilities <https://www.strava.com/heatmap#13.25/-84.06138/36.92491/bluered/ride>

Strava Heat Map of Pedestrian Facility Activity in Corbin, Kentucky



Strava Heat Map of Pedestrian Facilities <https://www.strava.com/heatmap#13.25/-84.10649/36.94512/bluered/run>

RESOURCES AND PUBLIC INPUT

COMMUNITY AND CIVIC RESOURCES

The Whitley County School System has 9 elementary, middle, or high schools which are mostly scattered throughout Whitley County. The City of Corbin also has Corbin Independent Schools, which consist of over 3000 students in Kindergarten through 12th Grade. Corbin Middle School is off Master Street. Corbin High School is right off 18th Street. The Center of Innovation is off Kentucky Avenue.

The Corbin Bypass has several industrial businesses, as well as ECU Satellite Campus. There are several commercial business shopping centers throughout Corbin. They are on 18th Street/ Cumberland Falls Highway, and three others located off of US-25E and Master Street.

Corbin has a recreational facility with outdoor swimming pool and ballfields. Nearby is the Rotary Park that has accessible playground equipment. However, the sidewalks to access the playground are not currently built to meet ADA standards. Funds have been received by the state of Kentucky to repair the sidewalks to meet ADA standards.

The downtown Corbin area is a mixture of commercial and residential development. There are retail business areas, restaurants, as well as banking and government offices. There are also several churches in the downtown area.

Both Exit 25 and Exit 29 have commercial areas near I-75. There are several shopping centers in the city, as well as 2 truck stops, restaurants, and other retailers within 0.5 miles of each exit. Baptist Health Hospital is directly located off Exit 25. There is a walking trail at the hospital.

Cumberland Falls State Resort Park is located about 30 miles from I-75 at Exit 25.

There are 58 acres of park space that includes several recreational facilities and parks in the city limits. There is an Olympic size swimming pool, skate board park, Recreation Center with walking track and Senior Citizen Center, walking track along Lynn Camp Creek, and an outdoor walking track at Larry Stevens Memorial Playground.

The City has plans to develop a splash pad located across the road from Corbin City Hall. They also plan to improve existing parks. The Corbin Recreational Center has bicycle rentals available for citizens to use for \$1 a day with a lock.

PUBLIC INPUT AND PREFERENCES

Electronic Survey

The early stages of the plan development process included an electronic survey that has been post-

ed on the city's website. The survey included questions for Corbin citizens to provide input on their walking and biking habits and preferences. This information was used in the development of the proposed bicycle and pedestrian facility networks and also informed the development of goals and objectives. The following is a summary of some of the survey results. Results are in Appendix A.

- ◆ Parks, Shopping, Schools, Church, and Main Street Businesses are within 2 miles of home that residents could walk or bike to. However, 49.8% of the survey respondents said they used a motorized vehicle as their main source of transportation.
- ◆ The two main factors noted as reasons residents don't walk or bicycle around town were insufficient sidewalks/no sidewalks and no bike lanes. Traffic and insufficient sidewalks was reasoning for why parents are discouraged from allowing their children to walk to/from school in Corbin.
- ◆ 61.3% of residents would consider traveling more on foot or bike to work, shopping, or other trips if they had a safer and more accommodating way of doing so.
- ◆ Several indicated that there does not need to be additional bike lanes and that proper signage beyond yard markings would be beneficial.

Whitley County Healthy Community Coalition

A Bicycle and Pedestrian Advisory Committee was formed to assist staff with the development of draft goals and objectives, draft bicycle and pedestrian networks, and criteria to be used to prioritize projects represented by the proposed networks. The Coalition consists of 15 members with representatives from City Council, Planning Commission, social service agencies, and interested citizens. All meetings were open to the public and were often attended by additional interested citizens.

Bike/Walk Events

The Whitley County Health Department and City of Corbin combined efforts in planning and executing several events for bicycling and walking. Some of the most well attended events include the "Step It Up" and "Walk With the Mayor," where residents walked with the Mayor of Corbin for a one mile trip. The "Walk With the Mayor" event helped highlight areas that were safe and accommodating for walking, as well as identifying areas in need of improvement. There are also several running events throughout the year.

Several bicycling events were held throughout the year that promoted and educated citizen awareness of bicycling safety, as well as promotion and education for healthy/active transportation (non-motorized).



BIKEABILITY AND WALKABILITY AUDITS

BIKEABILITY AUDIT ANALYSIS

The Whitley County Health Department and Corbin Main Street Director conducted a Bikeability Audit on the existing bike lanes in the city of Corbin. Some of the questions they asked included the following:

- Location of Bike Ride
- Do you have a place to bicycle safely?
 - On the Road, sharing the road with motor vehicles?
 - On an off-road path or trail, where motor vehicles were not allowed?
- How was the surface that you rode on?
- How were the intersections you rode through?
- Did drivers behave well?
- Was it easy for you to use your bike?
- What did you do to make your ride safer?

A copy of the results are in Appendix B.

WALKABILITY AUDIT ANALYSIS

Representatives from the Whitley County Health Department, Corbin Main Street Program, Corbin Tourism, and Cumberland Valley Area Development District conducted a Walkability Audit of downtown Corbin. Inventory was taken as to where crosswalk signals were not working/not available, sidewalks that were broken or unlevel, and other issues for pedestrians. For the most part, drivers behaved pretty well, but for the most part, speeding was identified as the most dangerous behavior.

Some of the questions brought up during the Walkability Audit of Corbin included:

- Name of Street
- Did you have room to walk?
- Was it easy to cross streets?
- Did drivers behave well?
- Was it easy to follow safety rules? Could you and your child:
 - Cross at crosswalks or where you could see and be seen by drivers?
 - Stop and look left, right, and then left again before crossing streets?
 - Walk on sidewalks or shoulders facing traffic where there were no sidewalks?
 - No light available?
- Is there a curb ramp for the handicap (ramp going from sidewalk to the street)?
- Do the streets that you are surveying connect with the street adjacent with a sidewalk?
- Are there street lights?
- Are pets contained and fenced in?
- How does your neighborhood stack up? Add total rankings on this survey.

Crosswalk boxes were tested for functionality. Those that were loose from the pole or lagging in time were immediately identified to the KYTC Traffic Engineer at the Highway District Office. The Traffic Engineer followed up on those concerns and made necessary repairs.

For the most part, drivers behaved pretty well. However speeding was identified as the most dangerous behavior. Traffic calming solutions should be identified to help. One suggestion is building curb extensions (bump outs) that helps pedestrians see oncoming traffic, as well as help motorists on a side street enter onto the major arterial street in a safe matter.

It was also noted that there are several benches along Main Street in downtown Corbin. However, there are no benches along other streets to promote walking with areas to rest. There were a few trash cans in the downtown area. Large planters were identified along Main Street that blocked the path for handicapped accessibility. Corbin Tourism Director contacted businesses with the large planters to move them to provide a more welcoming downtown that is accessible to all.

One major improvement downtown was a creative space was made beside Sanders Park. The street has barriers to cut it off to vehicle traffic. The city created a space to sit and play in the area.

For those sidewalks that had a trip hazard, it is suggested that the city replaces the sidewalk or use special equipment to shave down the sidewalks to be even. As a result, the sidewalks would be restored to ADA compliance so that everyone can use them safely.

Furthermore, the team thought it would be valuable to team up with local historians to create a historical tour in Corbin with downtown merchants.

PROPOSED FACILITIES AND NETWORK

LIST OF PROPOSED PROJECTS

Every project identified and described in this section is intended to fill an existing need. These projects have been planned to take advantage of existing state or city owned property whenever possible. They have been planned to provide safe, accommodating, and the cost efficient non-motorized transportation solutions.

Project 1: Sidewalk Repairs

Continue to repair existing walks by edging, eliminating trip hazards, adding proper crossing signs and properly draining low places. Sidewalks should meet Americans with Disabilities Act (ADA) standards. The City of Corbin has worked on identifying and repairing trip hazards on existing sidewalks. They are working on repairing other sidewalks that need to be destroyed and rebuilt.

Below is a list of the sidewalks needing immediate repairs:

- Gordon Street between Depot Street and Main Street
- Gordon Street between Kentucky Street and Poplar Street
- 1st Street between Kentucky Street and Poplar Street
- 2nd Street between Depot Street and Main Street
- 3rd Street between Main Street and Kentucky Street
- 3rd Street between Kentucky Street and Poplar Street
- 4th Street between Main Street and Kentucky Street
- 4th Street between Kentucky Street and Poplar Street
- 5th Street between Main Street and Kentucky Street
- 6th Street between Depot Street and Main Street
- 6th Street between Main Street and Kentucky Street
- 6th Street between Kentucky Street and Poplar Street
- 7th Street between Depot Street and Main Street
- 7th Street between Main Street and Kentucky Street
- 7th Street between Kentucky Street and Poplar Street
- Depot Street from 1st Street to 3rd Street
- Depot Street from 3rd Street to Hardees
- Depot Street from 7th Street to Hardees
- Depot Street from 3rd Street to 2nd Street
- Poplar Street from Gordon Street to 8th Street
- Kentucky Street between Gordon Street and Monroe Street
- Kentucky Street from 9th Street to 11th Street
- Kentucky Street from 7th Street to 8th Street
- Kentucky Street from 8th Street to 9th Street
- Kentucky Street Bridge at 8th to 9th Street
- Kentucky Street between 9th Street and 11th Street
- Main Street at Recycling
- Main Street between 13th Street and 18th Street
- Ford Street from Master Street to Roy Kidd Street
- Ford Street from Roy Kidd Street to Barbourville Street
- Roy Kidd Street from Bridge Street to Ford Street
- Christian Street from Roy Kidd Street to Master Street
- Barbourville Street from Laurel Street to Hamlin Street
- Barbourville Street from Hamlin Street to Wilder Street
- Ball Street from Barbourville Street to Roy Kidd Street
- Roy Kidd Street from Laurel Avenue/Bridge
- Poplar Street from 9th Street to 10th Street

- 19th Street from Main Street to A&W
- 19th Street from Main Street to A&W
- 19th Street from Early Street to Main Street
- 21st Street from Main Street to Early Street

Project 2: Identify Places for New Sidewalks

There are several locations in Corbin that need new sidewalks installed, along with proper street lighting. By providing sidewalks, it will assist those walking to do so in a safe manner. There is a need for sidewalks and lighting along Master Street from Standard Avenue to the Trademark Shopping Center. This area is mixed use development with housing, shopping, and the Corbin Middle School within the vicinity. Proper lighting would also create a safer neighborhood so that pedestrians are more visible.

Project 3: Connectivity and Signage of Existing Bike Routes

To increase safety, “Share the Road” signs should be posted to remind drivers that other forms of transportation are in the area. Furthermore, shared lane markings, also called “sharrows,” should be used to indicate shared space for bicyclists and motorists on low volume streets that don’t have room for bike lanes. Bike lanes could be used as a marked space along a length of roadway designated with paint for the exclusive use by bicyclists. If there is space available, some bike lanes can be buffered with a wider (minimum 2 foot) pavement marking.

It is recommended that a bike lane or shared lane markings be used to connect the bike lanes on 4th Street and 5th Street to connect to Depot Street. It is also recommended to add bicycle racks for parking to visit businesses.

Project 4: Pedestrian Crossings

Cross walks are designed for large groups of people to congregate and cross a busy road or street at the same time and safely. Safe pedestrian crossings determine how many and how often walkers are in the area. Throughout Corbin, there are crossings that are either not marked, or not well marked. In high traffic areas, not all crossings have lights. Some crossings do not have long visibility, and some pedestrians, especially students, cross where there are no crosswalk, traffic light, or sign to slow the traffic down. Several areas were identified that need crossing protection, or proper markings. Upon doing the Walkability Audit, Kentucky Transportation Cabinet Highway District Office officials were notified immediately about non-working crosswalk buttons and signals. Those issues have been addressed and corrected.

It is recommended that existing crosswalks along Main Street and Kentucky Avenue should have the zebra or Abbey Road style striping. This will allow better visibility to know to watch for pedestrians crossing the street.

Project 5: Create Rest Areas for Bicyclists and Pedestrians

It is recommended that more bike racks are located near businesses throughout the city, as well as at all city schools and city parks. This would provide an option for bicyclists to park their bike and visit a store, go to work, or eat. Benches should also be placed throughout the city to provide a place to rest while walking.

Project 6: Create a History Tour of Corbin

The city of Corbin has got some historical features with its architecture and natural assets. Stakeholders such as local business owners, tourism, historical society, and economic development should put together a Walking History Tour. This tour should include historical events that have happened in the community, as well as the importance of Kentucky Fried Chicken’s homeplace. Brochures could be created that feature the tour, as well as information of each stop. Other possible walking tours would be “Walk it Off After Dinner” tour and a “Colonel Sanders Salute” walk from KFC to Sanders Park.

Project 7: Wayfinding Signage

The city of Corbin should indicate public parking areas in the community with wayfinding signs. They could also create a walking path with smaller mileage signs that indicate how far a pedestrian has walked along a corridor. With all of the business growth in the downtown area, having signs helping out of town visitors know where to park would be extremely helpful.

A map could also be created and placed at all of the area hotels for out of town visitors to know where businesses are located in the city.

Project 8: Provide Better ADA Accessibility

Upon doing the walkability audit, the team noticed that there is no handicapped parking along Main Street and on most side streets. The City of Corbin should strive to promote accessibility for all with additional dedicated handicapped parking spots on Main Street, Kentucky Avenue, side streets, and city owned parking lots. The city should strive to have spots that have ample room for someone with a wheelchair ramp to load and unload from the vehicle. Furthermore, the city should ensure that the end of sidewalk ramps are not too steep for wheelchair users. Brick pavers should be avoid due to becoming trip hazards.

Project 9: Multi-use Path on Corbin Bypass

Several residents have suggested having a multi-use path for walking and bicycling along the Corbin Bypass, but separated from the road itself. This would encourage employees at businesses along the route to walk for their health. Furthermore, it would provide a safe connection for those walking or bicycling to employment.



Example of a small sign in Pikeville, KY that could be adapted in Corbin to promote walking

Appendix A

Pedestrian and Bicycle Survey Results

In April 2019, the City of Corbin conducted a Pedestrian/Bicycle Survey. The survey was available online via Google Survey and was advertised online, as well as in local newspapers, Chamber of Commerce meetings, and city council meeting. Below are the questions that were asked:

1. How much do you currently travel to work, shopping, parks, or other destinations by foot or bike?

- a) Always (all the time)
- b) Sometimes (a few times a month)
- c) Rarely (once a month or less)
- d) Never

2. Which of the following destinations are within 2 miles of your home:

- a) Work
- b) Shopping/Grocery
- c) Restaurant
- d) School
- e) Medical Services
- f) Park
- g) Relative/Friend House
- h) Other (list)

3. What are your most frequent travel (three or more times per week) destinations? (Can select more than one)

- a) Work
- b) Shopping/Grocery
- c) Restaurant
- d) School
- e) Medical Services
- f) Park
- g) Relative/Friend House
- h) Other (list)

4. Would you consider traveling more on foot or bike to work, shopping or other trips (compared to driving a car) if you had a better path?

- a) Yes
- b) No

5. Rank factors on a scale of 1 (least worry) to 5 (most worry) that discourage you from making more trips on foot or bike in the city of Corbin.

- ___ No Sidewalk
- ___ No Bike Lane
- ___ There is too much traffic
- ___ Sidewalk is in poor condition
- ___ Not enough pedestrian/bicycling safety signage
- ___ I'm not physically able to walk/bike
- ___ Places I want to go to are too far from home
- ___ Other _____

6. Do you like to walk or bike for recreation or exercise?

- a) Yes – Walk for Recreation/Exercise
- b) Yes – Bike for Recreation/Exercise
- c) No

7. If Corbin had more user friendly pedestrian and bicycling routes would you use them regularly (three or more times per week)?

- a) Yes – To walk more regularly
- b) Yes – To bike more regularly
- c) No – I don't plan to use them regularly

8. Where are pedestrian facilities (sidewalks/crosswalks/signage) needed or improvement?

- a) Suggested Location Needed:
- b) Suggested Location for Improvement:

9. Do you use the existing bicycle lanes on 4th Street, 5th Street, and Depot Street in Corbin?

- a) Yes
- b) No

10. Where do you think additional bike lanes need to be added?

- a) Suggested Location:
- b) Suggested Location:
- c) We don't need anymore.

11. How do your children get to and from school most often?

- a) Bus
- b) Car
- c) Bike
- d) Walk
- e) I don't have kids that attend school.

12. What factors discourage you from letting your children either walk or bike to and from school?
(Can select more than one)

- a) Traffic
- b) Lack of safety signage
- c) Insufficient sidewalks or bike lanes
- d) Don't trust your children
- e) Insufficient storage facility at school site

Where are pedestrian facilities (sidewalks/crosswalks/signage) needed or in need of improvement? (Please include locations needed or locations in need of improvement)?

Street	Comment
16th Street	16th Street
17th Street	17th street is very unsafe the road is very unlevel and car get jerked onto the
18th Street	18th st where students have to cross to and from the high school. There is some students who walk due to parents working and (my boys do not like riding the school bus) but crossing 18th st to head towards town is a dangerous crosswalk. A student cross bridge would be perfect. I know the corners have crosswalk signs but kids seem to like crossing right at the root beer stand. Also several track and field students utilize the city sidewalks for running and training. 18th st does not have sidewalks on both side of the road so the students again have to cross the busy road to gain access to the sidewalks.
18th Street	18th Street, Master Street, 5th Street (all the way past Primary School)
3rd Street	3rd Street
4th Street	4th Street
5th Street	5th Street (all the way past Primary School)
5th Street	Fifth Street beyond McFadden
5th Street	Bike lanes on 5th street road are way too narrow- cars don't have enough space on the shoulder of the road to get over and often drive in the bike lanes. Bike lanes are not clearly marked downtown and in other areas. There are no trails for walking in town. You can drive to Cumberland Falls, but it's quite a drive if you live in the city of Corbin. I would like to see wooded areas to walk in. Parks don't have long walking paths and are often occupied by homeless people camping or
7th Street	7th Street from 25W to W 7th Street
8th Street	8th Street
Barbourville Street	Barbourville Street
Barton Mill Road	Sidewalks are needed on Barton Mill Rd and either on Stamper St or extending the sidewalks from Blair Park on Gordon Hill all the way up to Barton Mill for safe
Beatty Avenue	Beatty Ave. No sidewalk on the KFC side! It's very dangerous when walking or
Beatty Avenue	Betty Avenue by KFC, definitely by exit 25 by speedway and around that area people including myself have a hard time crossing the road to get to town/work. Including the bypass thats a horrible place to cross and extremely dangerous if you don't know what your doing.
Beatty Avenue	Crossing from Beatty Avenue to McBurney Apartments
Center Street	Center Street
Cobblestone	Hwy. 1629 and Cobblestone have no sidewalks. Several people walk 1629 at
Cumberland Falls Highway	Cumberland Falls Highway
Depot Street	Depot Street
Elm Street	Elm Street
Engineer Street	Engineer Street
Gordon Street/Gordon Hill	Sidewalks on Gordon are in bad shape after Chestnut Street then absent as you head toward Walden and the Circle K. I do see people walking on Gordon/312 to
Gordon Street/Gordon Hill	Gordon Hill from Kentucky Street to Barton Mill needs sidewalks.
Gordon Street/Gordon Hill	Sidewalk on Gordon Hill are awful especially at the steps

Appendix B

Bikeability Survey Audit Results

Kathy Lay (Whitley County Health Department) and Aaron Sturgill (Main Street Manager) conducted a Bikeability Audit with several routes in the area. Below are comments in regards to each bike ride.

Starting at Depot Street on 4th Street and 5th Street

There are several grates in the bike lanes, none that were of major issue. There needs to be some sort of signage and perhaps even an established and advertised route. There could certainly be more connectivity within the routes, joining them together better and making sure there was an actual path on Depot Street that leads back into the others, or even one that continues to other great community assets. These assets would include the Recreational Center and the Rotary Park. There was an uncomfortable stop sign on Fifth Street that was set back from clear visibility to the side roads that were intersection Fifth Street where you basically had to bike up beyond the stop sign and accompanying painted line on the pavement to view whether or not it was safe to cross. We were lucky in terms of little traffic during the time of our commute, which began around 9:30 a.m. Traffic behaved fine with plenty of room for passing and what-not.

There was a place to bicycle safely on the road, sharing the road with motor vehicles. However, the surface was cracked/broken with the pavement and grates.

On 5th Street, there was heavy and/or fast moving traffic with some passing too close. The pavement was cracked or broken in places. The route was also too hilly.

Once the official lanes end on 4th Street and 5th Street, it becomes a two way road and the dynamic definitely changes. It is a much more difficult path. There are several blind hills and curves, and traffic definitely flies. There is actually a sign or two on this road saying that bikes may use the full lane. There are also stamps on the road here and there alluding to bicyclists, but they are definitely faded to a point where non-alert drivers may fail to notice or consider potential cyclists sharing the road ahead.

Appendix C

Walkability Audit Results

In 2019, the Whitley County Health Department developed a survey to identify each street's walkability throughout the city limits of Corbin. The survey was completed by the Whitley County Health Department, City of Corbin, Corbin Tourism, and Cumberland Valley ADD. The focus area was Main Street and Kentucky Avenue. This is to focus on the downtown business district.

There are several cracks in the concrete on the sidewalks on Main Street that are needed to be repaired. There is no pole with crosswalk button at Main Street and 7th Street on the side where Eu-bank Lighting Center is located.

It was noted that there were was a need for handicap parking spots on Main Street. Otherwise, disabled citizens have to park behind a building. The sidewalk ramp on Main Street and 1st Street intersection is not ADA compliant on the side by the bank.

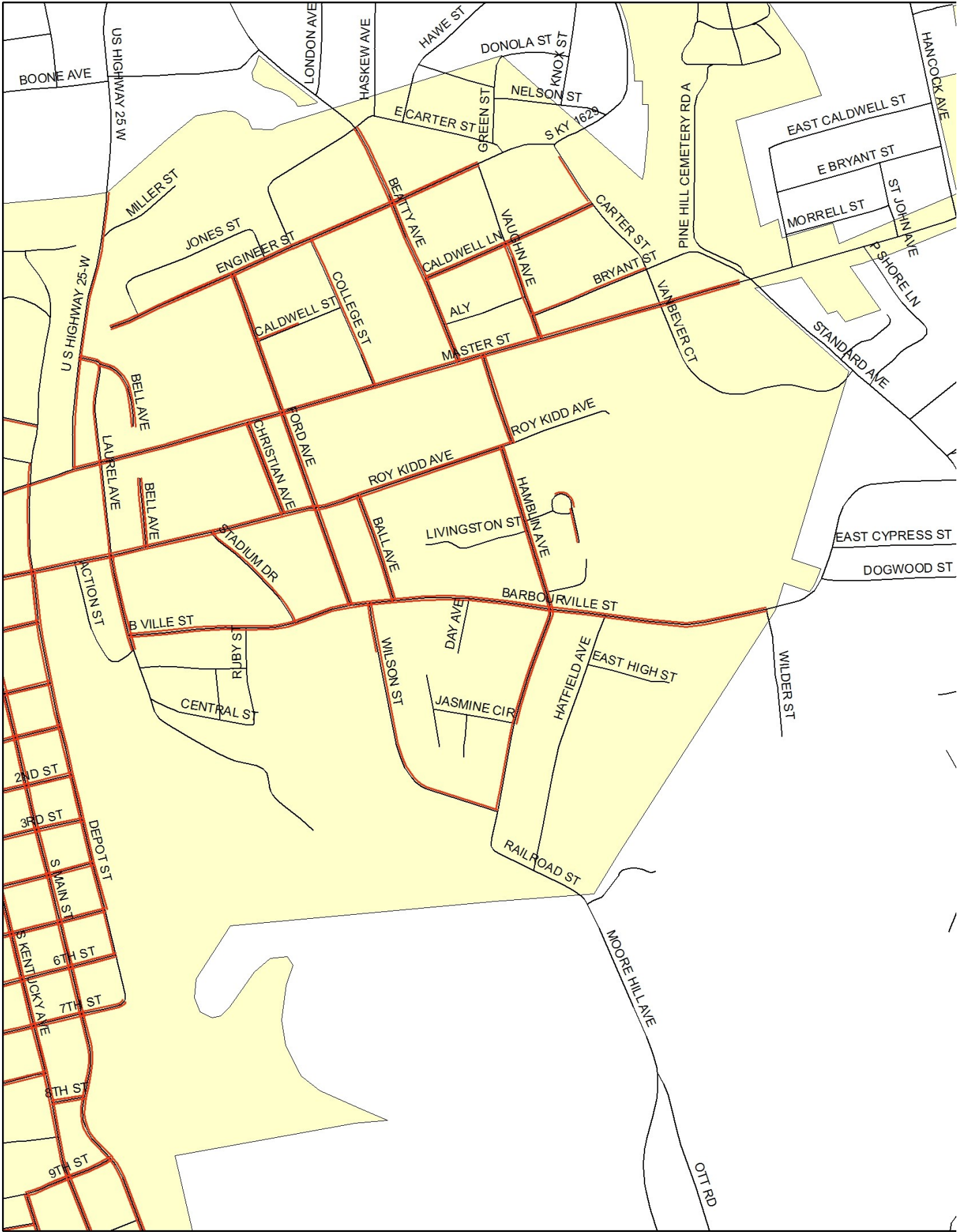
There are several benches throughout Main Street, but some of them are privately owned by the business owner. There are no benches along Kentucky Avenue.

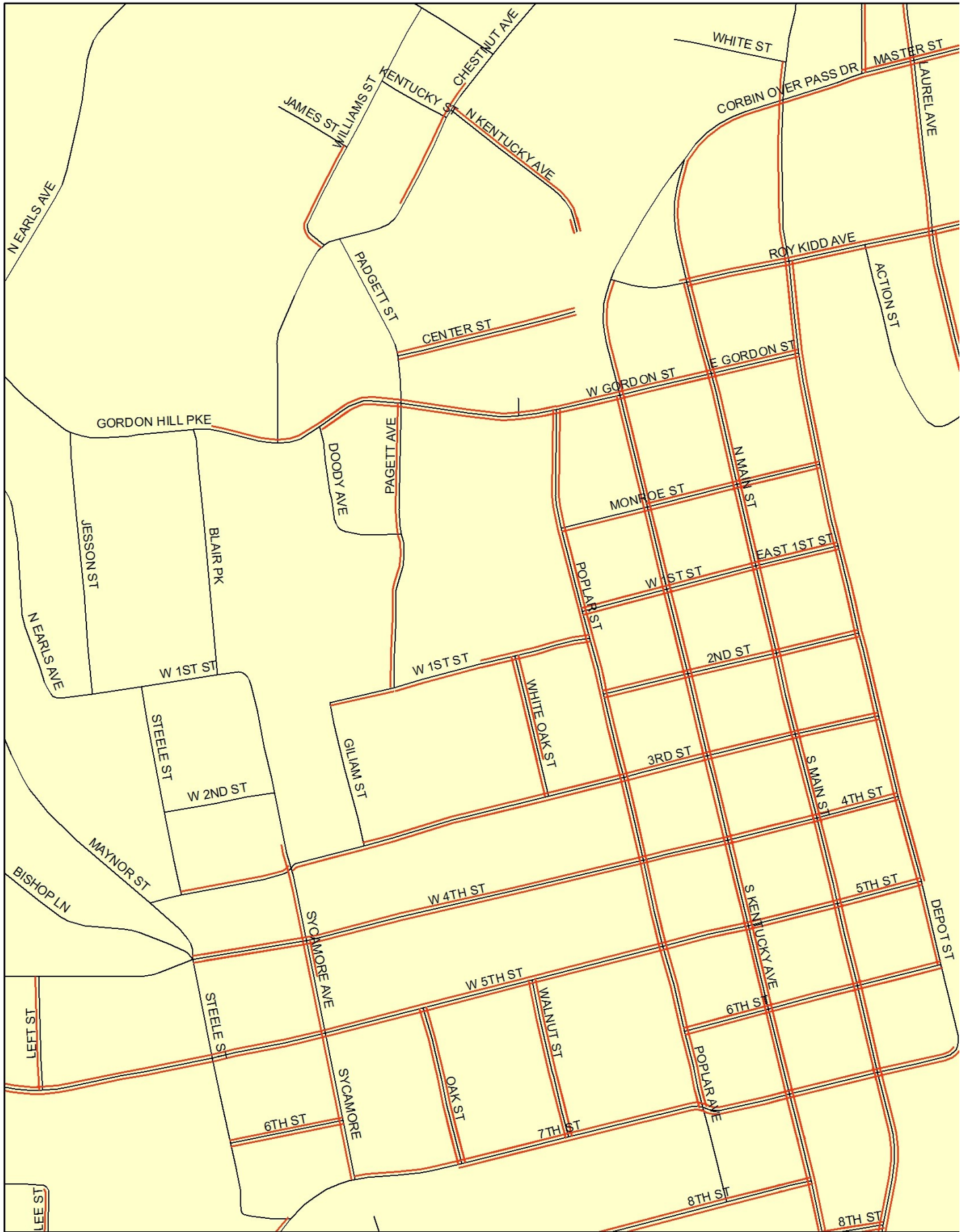
There is a need for more visible crosswalks throughout the city, especially near the city schools. One recommendation would be to have signage that blinks indicating to watch for pedestrians in a school zone.

Appendix D

Sidewalk/Crosswalk Inventory Map











- Gordon Street between Depot Street and Main Street
- Gordon Street between Kentucky Street and Poplar Street
- 1st Street between Kentucky Street and Poplar Street
- 2nd Street between Depot Street and Main Street
- 3rd Street between Main Street and Poplar Street
- 4th Street between Main Street and Poplar Street
- 5th Street between Main Street and Kentucky Street
- 6th Street between Depot Street and Poplar Street
- 7th Street between Depot Street and Poplar Street
- Depot Street from 1st Street to 7th Street
- Poplar Street from Gordon Street to 8th Street
- Kentucky Street between Gordon Street and Monroe Street
- Kentucky Street from 9th Street to 11th Street
- Main Street at Recycling
- Main Street between 13th Street and 18th Street
- Ford Street from Master Street to Barbourville Street
- Poplar Street from 9th Street to 10th Street

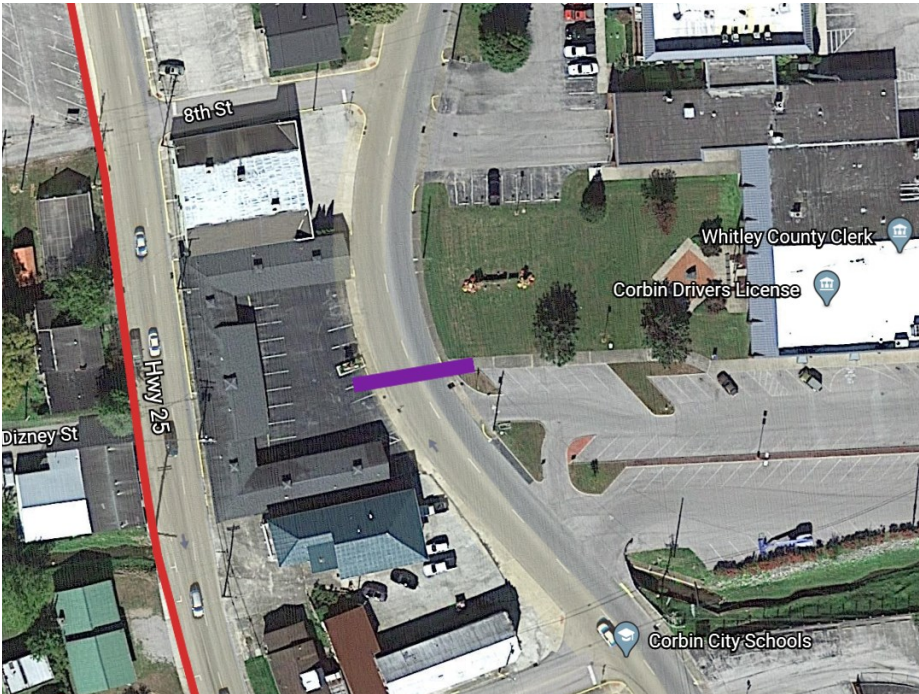


- Sidewalk from Master Street from Standard Avenue to McDonalds/Trademark Shopping Center

Appendix F

High Visible Crosswalks Needed

Below are maps showing the locations of crosswalks (in purple) in the Corbin City limits that have been identified as needing more visibility features, such as warning flashing lights, better striping, and signage



The city of Corbin is building a splash pad downtown across from the City Hall building. There needs to be visible crosswalk markings with signage to alert motorists of pedestrians crossing.



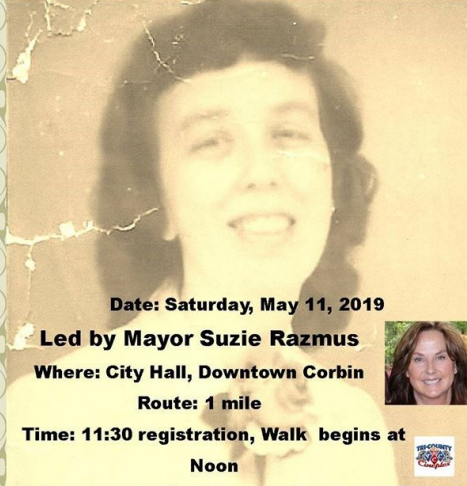
Near Corbin High School on US-25/18th Street, there is a crosswalk across US-25. It is recommended to add flashing signage and better visibility road markings, such as the Abbey Road style crosswalk.

Appendix E

Promoting Bicycle and Walking Events in Corbin

Throughout the year, the Whitley County Health Department and the City of Corbin team up to put on numerous bicycle rides and pedestrian events. Enclosed are the promotional items that are used to promote the events.

Step it up Kentucky and Walk 1 mile for Mom in Honor & Memory




Date: Saturday, May 11, 2019
Led by Mayor Suzie Razmus
Where: City Hall, Downtown Corbin
Route: 1 mile
Time: 11:30 registration, Walk begins at Noon

In honor or memory of mothers, or one that takes on the role of mom in a child's life.

FREE EVENT: RAIN OR SHINE


FOR MORE INFORMATION CALL: KATHARINE LAY, KATHLEEN CROLEY, 549-3350




Corbin FORWARD


Join us for a
PUBLIC MEETING

Participate in a Discussion and Provide Input about the Future of Downtown Corbin



Downtown Streets / Biking and Pedestrian Mobility / Wayfinding

June 30, 2016
City Hall - Downtown Corbin
6:00pm



NIBROC
Saturday Only!



CORBIN ROTARY PRESENTS A BICYCLE RODEO

Obstacle Course by:
Whitley County Spokespeople Bicycle Club

August 10, 2019
12:00 pm – 3:00 pm

Bicycle Safety Education, Helmet Giveaway, and Fun Obstacle Course!

Come to the corner of Depot and Gordon Streets for a fun afternoon! Bring your bike or ride one of ours. Everyone receives a helmet. Must be with a parent or guardian to participate.



Corner of Gordon & Depot Streets

Free Helmets!

Bicycle Safety Instruction

Bring Your Bike or Ride Our Bikes

Must Be Accompanied By a Parent or Guardian

CORBIN ROTARY THANKS OUR PARTNERS:

WHITLEY COUNTY SPOKESPEOPLE BICYCLE CLUB

WHITLEY COUNTY EXTENSION OFFICE

WHITLEY COUNTY HEALTH DEPARTMENT

BAPTIST HEALTH CORBIN

The City of Corbin, Kentucky, Bicycle and Pedestrian Plan was completed in partnership of the following entities:

Whitley County Health Department
368 Penny Lane
Williamsburg, KY 40769
Phone: 606-549-3380

www.whitleycountyhealthdepartment.com

City of Corbin
805 South Main Street
Corbin, KY 40701
Phone: 606-523-6522

www.corbin-ky.gov

Cumberland Valley Area Development District
342 Old Whitley Road
P.O. Box 1740
London, KY 40743
Phone: 606-864-7391

www.cvadd.org

