Active Living (Non-motorized travel) Pedestrian Travel Assessment

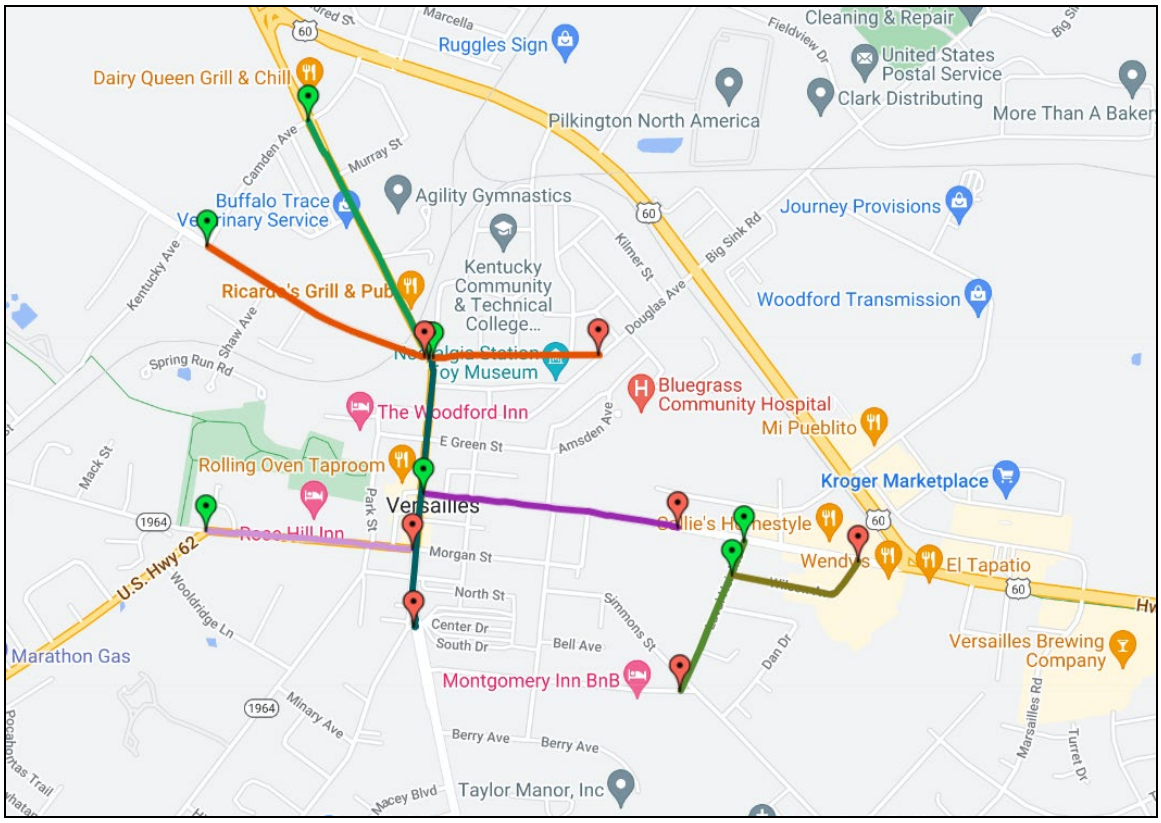
Versailles, KY
Main Street, Frankfort Road (US-60X), Rose Hill Ave, Lexington Road (US-60 X), Broadway Street, Laval Heights, Elm Street, and Wilson Ave

Prepared for:
City of Versailles

Prepared by:

Kentucky Public Health
Prevent. Promote. Protect.

Troy Hearn
Division of Prevention & Quality Improvement
State Physical Activity & Nutrition Program
Kentucky Department for Public Health
January 9, 2024



Project study area with street sections (colors do not represent anything other than different areas) / Google map https://www.google.com/maps/d/edit?mid=1JQf1GXVxAEX-7udpjzyf6ULyFdL3o08&usp=sharing

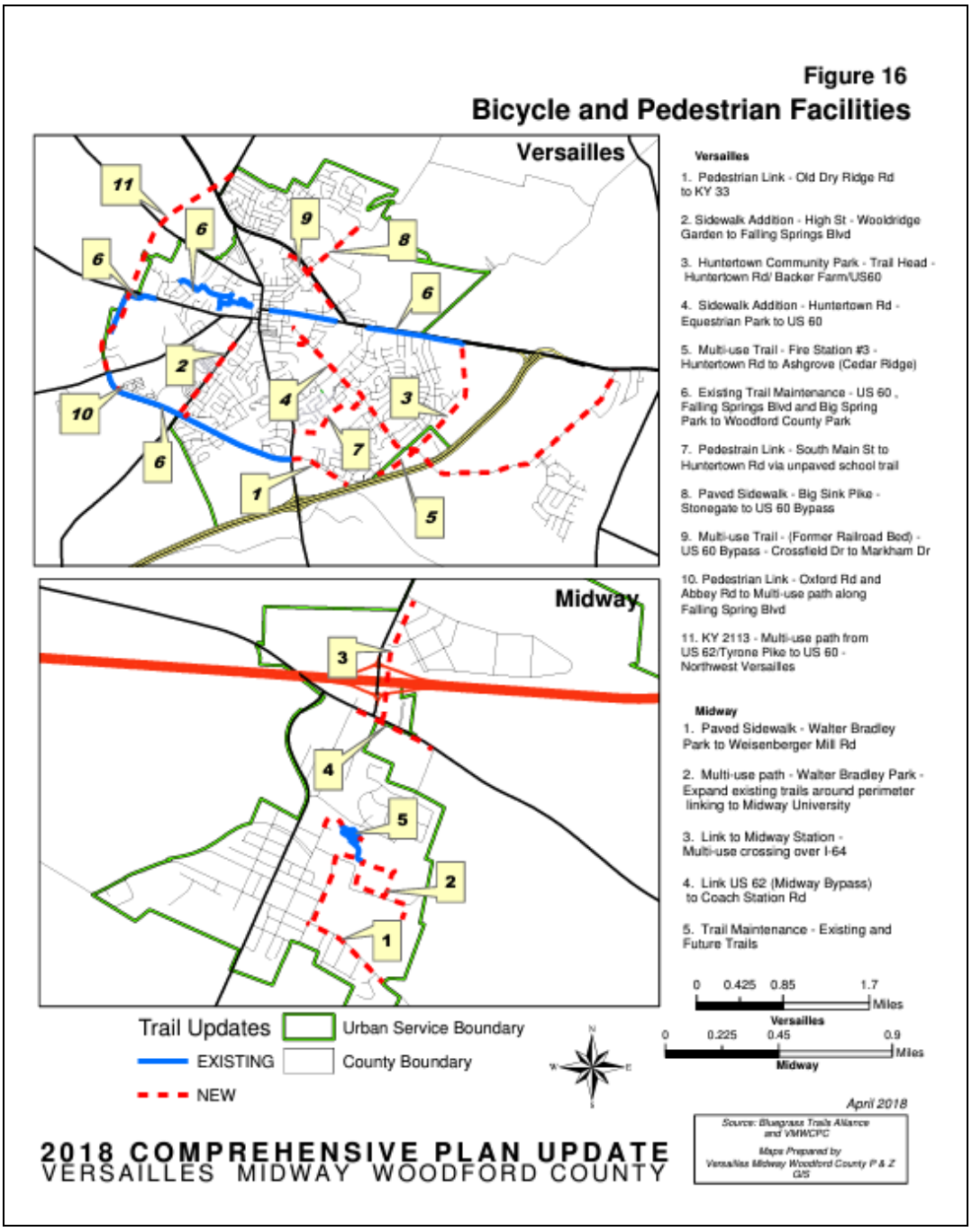
Project Overview:

The evaluation (audit) of pedestrian travel conditions along Main Street, Frankfort Street (US-60X), Rose Hill Ave, Lexington Street (US-60 X), Broadway Street, Laval Heights, Elm Street, and Wilson Ave in Versailles, KY (other streets were reviewed during the duration of the study and suggestions for improvements for issues are noted). This project uses resource tools of evaluation from the Office of Federal Highways (Safe Routes to Destinations). Conditions for pedestrian travel (including ADA/Americans with Disabilities Act issues and references) along selected state and locally owned roadways shall be viewed and documented. Proposed options for improvements and changes to increase the comfort, safety, and accommodation for pedestrian travel along these roadways will be provided and documented. All recommendations are options and best practices from the Office of Federal Highways (FHWA), the American Association of State Highway Transportation Officials (AASHTO), The KY Transportation Cabinet, and the Manual of Uniform Traffic Control Devices (MUTCD).

Local/Regional Planning & Current Activities:

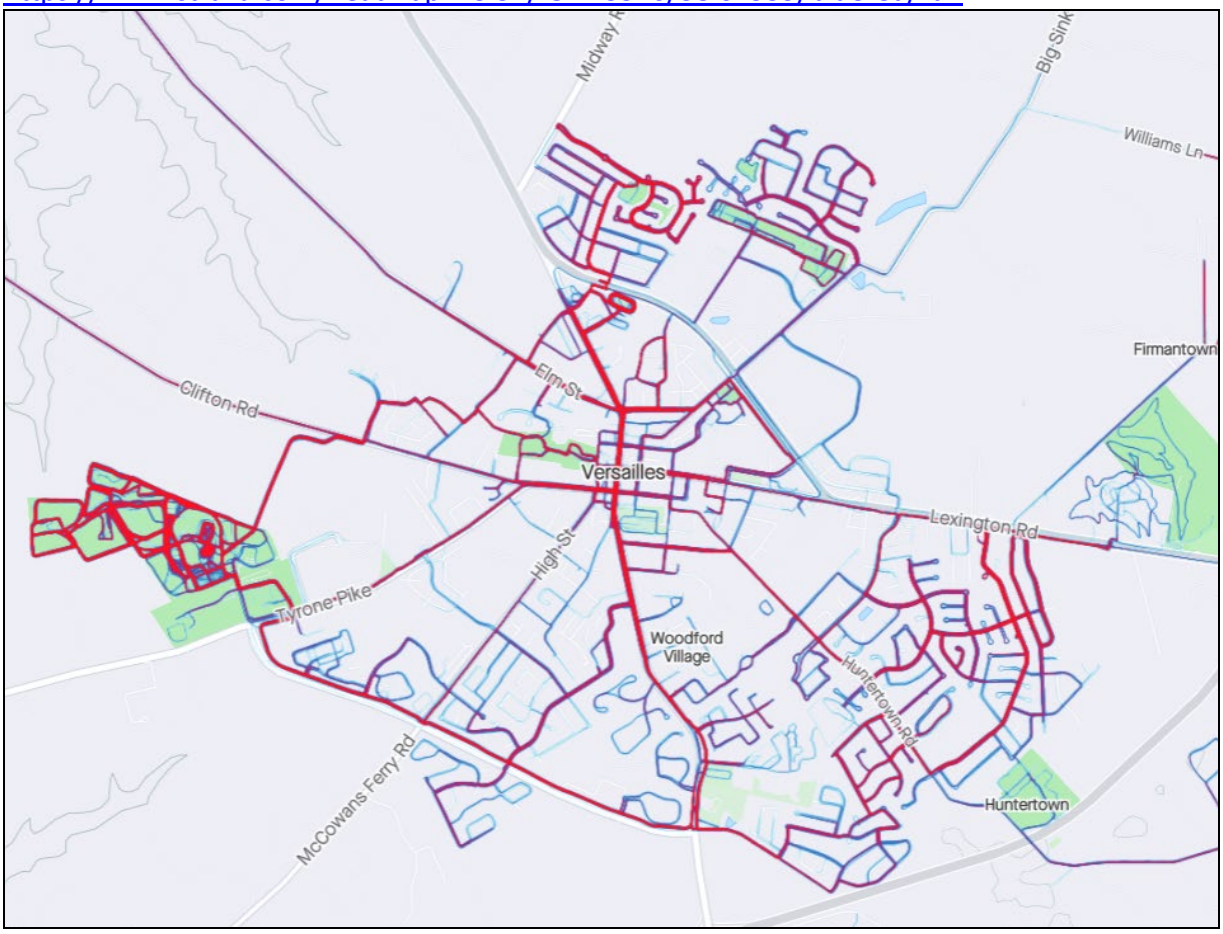
- The Woodford County / City of Versailles 2018 Comprehensive Plan

[Bicycle and Pedestrian Facilities - Versailles Midway]



Existing Conditions for Project Area / Active Living Conditions

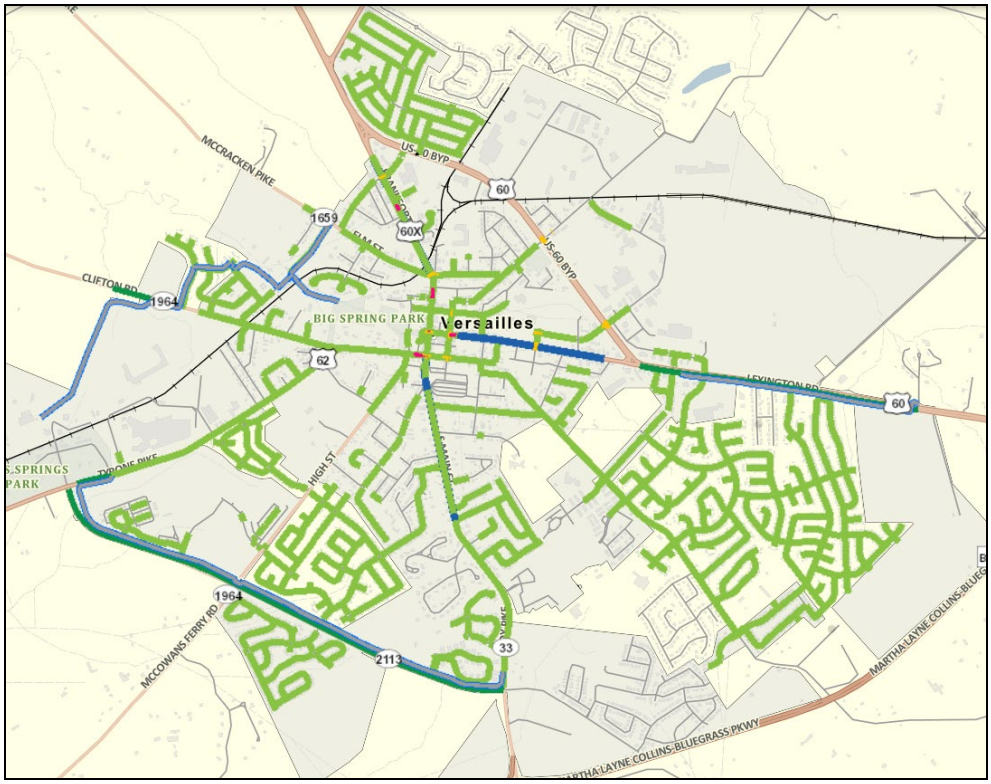
- Strava Heat Map for pedestrian activity within project area (Figure 1) / https://www.strava.com/heatmap#13.54/-84.73516/38.04959/bluered/run



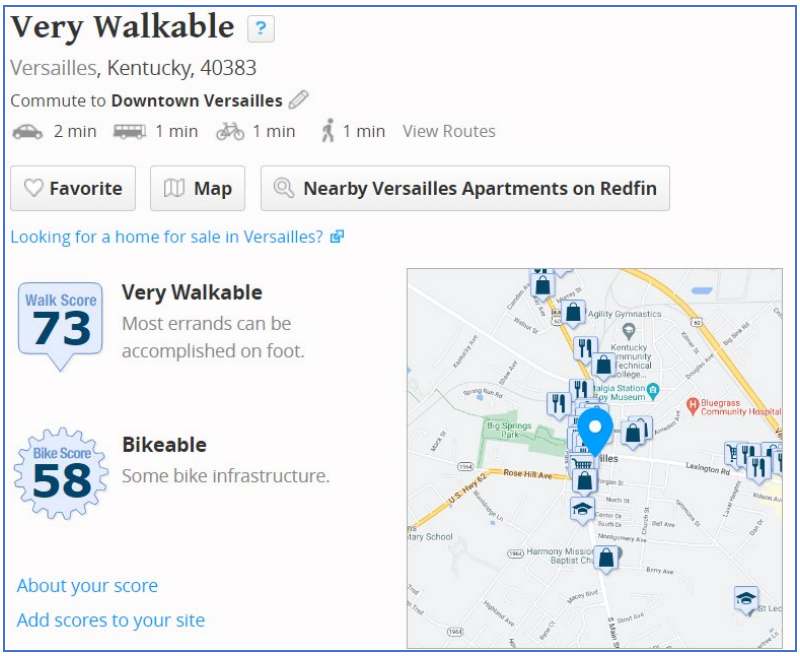
- Pedestrian route termini / generators (everyday destinations people may walk to/from)

1. Residential areas
2. Churches
3. School
4. Parks
5. Restaurants
6. City Hall /Tourism
7. Post Office
8. Banks
9. Court House
10. Other commercial businesses

- Existing pedestrian and bicycle facility network (according to state GIS data collection)



- Walk Score via Walkscore.com (created by the National Realtors Association)



https://www.walkscore.com/score/versailles-ky

Street Sections for Study Area:

Main Street / 120-US-0060X -000 & 120-US-0062 -000

- Mile Points 0.703-.0940 / 6.875-7.048
- Average daily traffic (ADT) is 8,900-10,698 (2022)
- Heavy Truck ADT is 979-1,176 (11%)
- Sidewalks on both sides of roadway
- Posted speed limit is 25 MPH
- The Pedestrian Comfort Index is a level C

Frankfort Street / 120-US-0060X -000

- Miles Points 0.25-0.7
- Average daily traffic (ADT) is 6671 (2020)
- Heavy Truck ADT is 9% (600)
- Sidewalks on both sides of the roadway (with railroad crossing)
- Posted speed limit is 45 MPH
- The Pedestrian Comfort Index is a level C

Rose Hill Ave/ 120-US-0062 -000

- Mile Points 6.6-6.9
- Average daily traffic (ADT) is 10,698 (2020)
- Heavy Truck ADT is 7% (785)
- Sidewalks on both sides of roadway
- Posted speed limit is 35 MPH
- The Pedestrian Comfort Index is a level C

Lexington Street/ 120-US-0060X -000

- Mile Points 0.94-1.38
- Average daily traffic (ADT) is 11,000 (2020)
- Heavy Truck ADT is 5.5% (605)
- Sidewalk on one side of roadway
- Posted speed limit is 35 MPH
- The Pedestrian Comfort Index is a level C

Broadway Street / 120-CS-1027 -000

- Mile Points 0.008-0.298
- Average daily traffic (ADT) is 2097 (2020)
- Heavy Truck ADT is 150 or less
- Sidewalk on eastbound side (cardinal) of roadway and disconnected sidewalk on westbound side (non-cardinal)
- Posted speed limit is 25 MPH
- The Pedestrian Comfort Index is a level C

Laval Heights / 120-CS-1100 -000

- Mile Points 0.0 – 0.282
- Average daily traffic (ADT) is estimated to be less than 3,000
- Heavy Truck ADT is 150 or less
- Sidewalk disconnected on east side, no sidewalk on west side
- Posted speed limit is 25 MPH
- The Pedestrian Comfort Index is a level D

Elm Street / 120-KY-1659 -000

- Mile Points 0.0-0.415
- Average daily traffic (ADT) is 1400
- Heavy Truck ADT is 5% (70)
- Sidewalk on the westbound side (cardinal) from Main to Old Hickory and on the eastbound side from Camden to Margaret Hall Manor with railroad crossing
- Posted speed limit is 25 MPH
- The Pedestrian Comfort Index is a level C

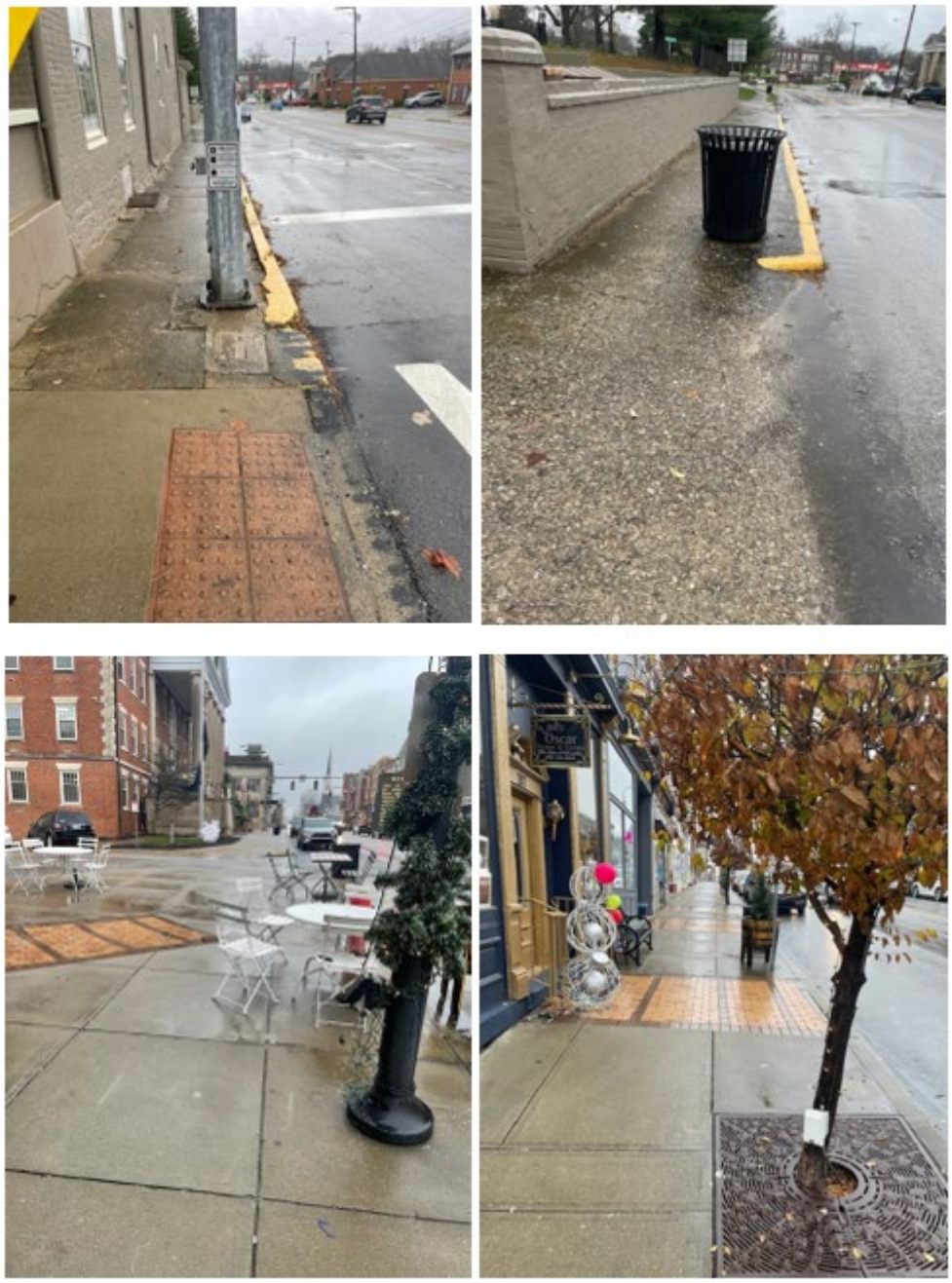
Wilson Ave / 120-CS-1099 -000

- Mile Points 0.0-0.26
- Average daily traffic (ADT) is estimated to be less than 2,000
- Heavy Truck ADT is 150 or less
- Sidewalk on the south side of roadway with disconnected sections. No curbs (rural cross section)
- Posted speed limit is 20 MPH
- The Pedestrian Comfort Index is a level C

Photo documentation of existing conditions and recommendations for improvements:

Main Street:

Cross streets with Main Street without marked crosswalks. Suggest marking these cross street pedestrian crossings with high viz piano key style crosswalks.



Examples of street furniture and other obstacles on the sidewalk. Street furnature and other moveable objects should not block a 4’ minimum width. Trees should be trimmed to allow a 84” of height clearance per local ordinaces.

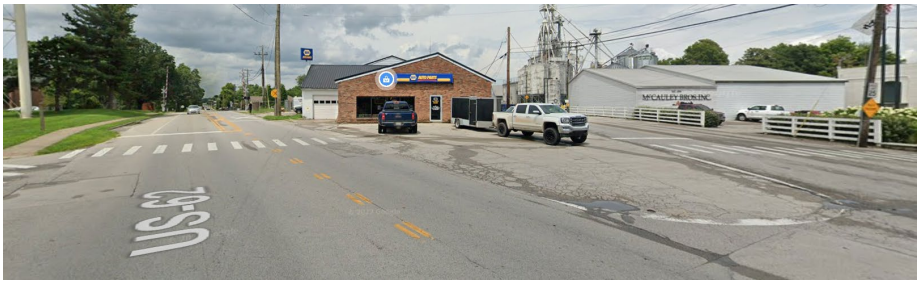
Intersection of Main and Broadway; access to the pedestrian crossing button is limitted and a large blind spot for driver and pedestrian created by utility box and roadway signs. Suggest moving the pedestrian crossing button (should be ADA compliant).

Location: N Main St in front of Ace Hardware
Challenges: sidewalk abruptly is merged with parking lot where there are many cars obviously turning in and backing out directly onto the sidewalk with nowhere for pedestrians to safely escape

Location: Pedestrian corner of S Main St and Rose Hill Ave
Challenges: tight corner with little space for pedestrians especially with frequency of drivers cutting the right turn corner and coming up onto the already narrow sidewalk area. Many black tire marks on sidewalk corner illustrate the frequency of possible vehicle/pedestrian impact

The sidewalk and roadway at Rose Hill and Main are the same grade (flush). This combined with the large turning lane space causes auto driver to use the sidewalk space when turning. Suggest constructing a 4" minimum curb and possibly construct other treatment to keep auto traffic from driving on the sidewalk. The pedestrian signage and utility pole has been struct by a motor vehicle (located 2' or more from the edge of the roadway).

Frankfort Street:



Intersection of Main, Broadway, Elm, and Frankfort. Suggest marking a more vizual crosswalk marking with the next resurfacing to the wide lines with piano keys (extreem high viz). Also suggest constructing a pedestrian island in the space between Elm and Broadway; this seems to be part of the auto parts store front parking lot.

Some sections of sidewalk are in very poor condition and have become very narrow from debris and vegetation over growth. These sections should be re-constructed to a 5' minimum width (or match existing sections in good condition).

Cross streets along Frankfort Street do not have marked corss walks. Suggest marking these crossings with piano style crosswalks.

Rose Hill Ave:

Intersection of Rose Hill, Park, and High. There are blind spots between drivers and pedestrians. Driver left turn movement creates a dangerous condition for pedestrians (they didn't seem to look for pedestrians). New high school, farmers market, and recreational pavillion will likely increase pedestrian activity. Suggest installing pedestrian crossing signage and other midblock pedestrian treatments.

Construction along Rose Hill that impacts pedestrian access. Highly suggest following the guide form the Office of Federal Highways to better accommodate pedestrians in work zones (https://workzonesafety-media.s3.amazonaws.com/workzonesafety/files/documents/training/fhwa_wz_grant/artb

a_pedestrian_accommodation_wz.pdf

Location: Rose Hill Ave, Tyrone Pike and Clifton Rd intersection
Challenges: 1) vehicles don't signal whether going straight or turning so pedestrians never know when safety cross wide intersection; 2) no sidewalk connection point when arriving onto far side of road; 3) no zebra stripes to help draw attention to pedestrian crossing point; Some people (sorry for second blurry photo) will continue to walk along road without sidewalk to avoid having to cross
Future implications: potential increased pedestrian usage after high school is built
Idea: roundabout with protected pedestrian crossing point

Several sections of the sidewalk along Rose Hill are flush with the roadway surface. Suggest constructing a 4" minimum curb to discouage auto drivers from intering the pedestrian space.

Lexington Street:



Some sidewalk sections of Lexington Street are old or damaged and in need of re-construction.


Several locations along Lexington Street have wide opening on the storm drains. This may create a tripping hazard, debris collection, or other issues. Suggest replacing with something that has smaller grates or mesh.



Areas with active construction (roadway and or building) can impact pedestrian and ADA accommodation. Suggest following the FHWA standards for accomodation.


The intersection of Lexington Street and Daisy Hill Drive may be in need of a pedestrian warning/crossing signage and or other additional safety treatments. This is considered a mid-block crossing, and can be a saefty issue with pedestrians crossing at this location (straight road, no stop controls, and good sight distance creates a situation of higher motor vehicle speeds).




Several areas along Lexington Street have driveway entrances that negeatively impact the sidewalks (gravel or steep cross section). Suggest working with the land/home owners to repave or re-

construct these locations. These issues create tripping hazards and issues with ADA compliance.

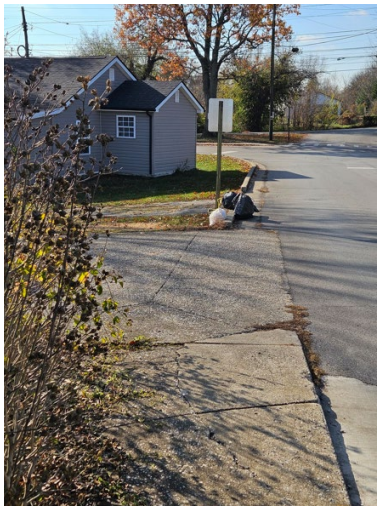

The sidewalk at the intersection of Lexington and Daisy Hill on the inbound side stops. Suggest constructing a new sidewalk for better connectivity and accommodation.

<u>Broadway Street:</u>

sidewalk on one side of the roadway and disconnected sections on the other side. Suggest constructing a sidewalk and connecting to existing pedestrian infrastructure.

Cross streets should have marked crosswalks installed (exsiting and new construction)

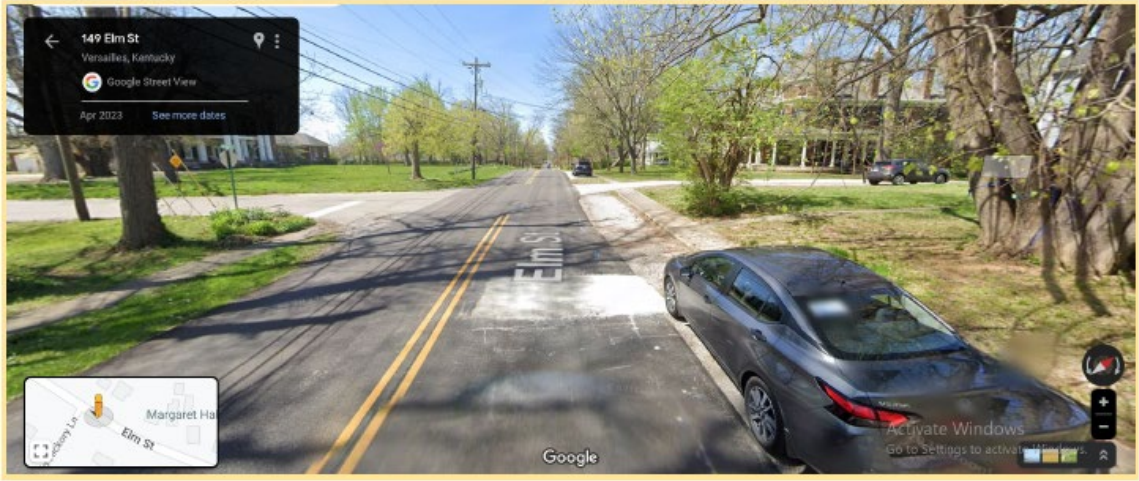
Laval Heights:


Some areas have no, or disconnected sections of sidewalk.

Recommend constructing new sidewalk to connect to existing sections; at least one side of the roadway should have a completed section of sidewalk.

Elm Street:

Location: Elm St and Old Hickory Ln intersection
Challenges: 1) sidewalk on L side of the street walking away from downtown ends causing pedestrians to cross to the other side of road at blind hill (see in Maps screenshot below); 2) despite being a residential street, cars still drive too fast and are not well lit. Many walkers and bikers use route to downtown



Some sections of sidewalk appear to have become onstreet parking. Suggest installing signage ("no parking on sidewalks" or " no onstreet parking"). Might also work with local law enforcement to help educate local home owners.

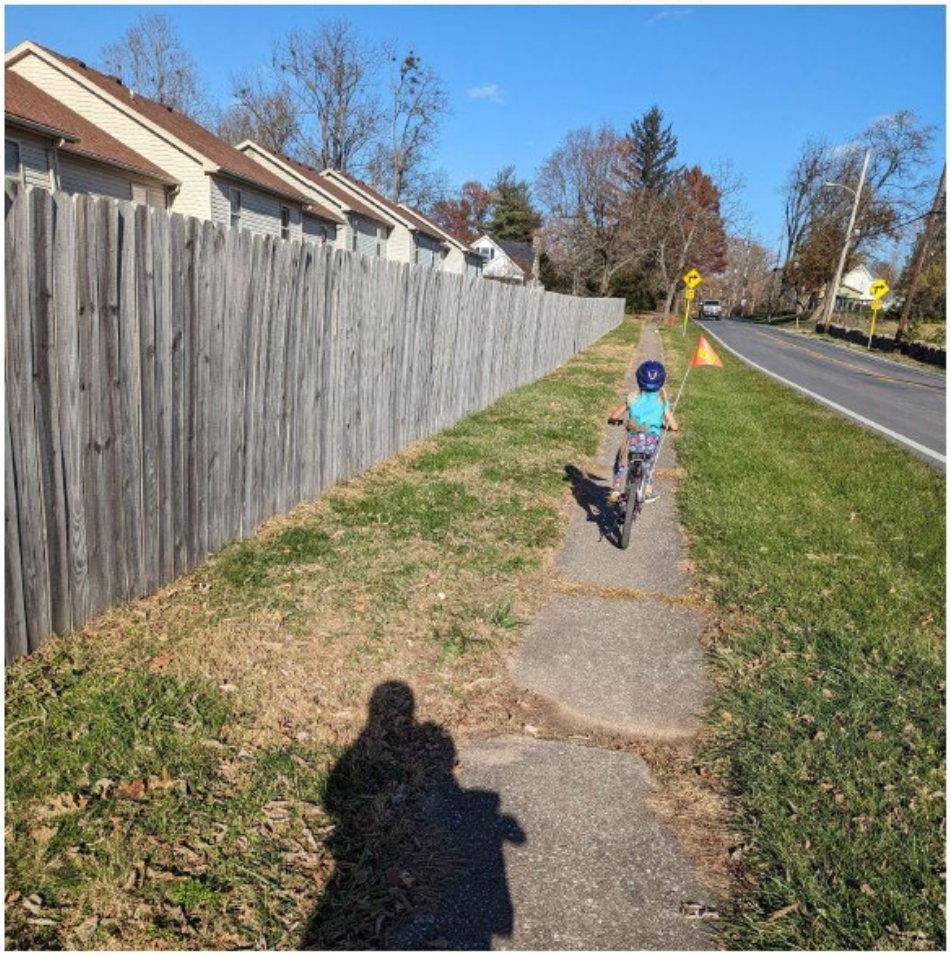
Wilson Ave:

Small sections of roadway with no, or disconnected sidewalks.

Some sections of existing sidewalks are in need of maintenance. There may be a bigger issue of where storm drainage flows and settles.

Other Street Sections with Issues:

Location: Tyrone Pike just past Wooldridge Ln
Challenges: 1) large sunken section of sidewalk creates a significant tripping hazard; 2) narrow sidewalks don't allow for passing of pedestrians or cyclist
Future challenges: one of the main roads leading away from new high school which will likely have even larger numbers of students utilizing to commute to and from school



Location: Intersection of Tyrone Pike (US-62) and Rutter Road.
Issue: The shared use path and sidewalk converge at this location. Although a trail crossing sign exist, we suggest more. Additional pedestrian and bicycle crossing safety treatment should be installed. These treatments include flashing beacons or signs, raised crosswalk, and additional lighting. This location is near the future highschool, so non-motorized travel is likely to increase.

Location: Montgomery Ave: Montgomery from Main to Huntertown Road. Western section is much better than the eastern section.
Issue: Sidewalk networks stops/end without connectivity to Huntertown Road. Recommend constructing new sidewalks to connect to Huntertown Road on at least one side of the roadway.

Overall Project Recommendations:

- We have provided additional documentation for proposed project details for each street section/location. These details include specific treatment, design, and or construction options.

- All sidewalks should have a clear unobstructed path with a 4' minimum width (per ADA requirements). Potted plants and other planting containers should not be placed on or near the sidewalk within the 4' minimum width spaced for ADA requirements. Street furniture (restaurant seating and sidewalk benches) should not obstruct the 4' minimum width space. Utilities are one of the few obstructions that may be allowed as a technical infeasibility (KYTC Technical Infeasibility information / https://transportation.ky.gov/Construction/Spring%20Meeting%20Presentations/2018%20Section%20Engineers'%20Meeting%20ADA%20Statement%20of%20Technical%20Infeasibility.pdf). All streets documented locations in need of vegetation clearing/cutting on or above the sidewalks to accommodate ADA compliance and local ordinances for clearance.

- All sidewalk space at roadway intersections should have curb cut ramps and tactile/truncated domes to meet ADA requirements. The ramp should be placed/installed to recommend direction of travel, should be smooth, no more than .5% cross slope, and minimal lip edge to/from street surface (all ADA requirements apply). Mitigate water ponding at the bottom of ramps as this becomes ice in sub-freezing temps. Tactile/truncated domes should be placed to show direction of travel per ADA requirements (KYTC Design Guide / https://transportation.ky.gov/Highway-Design/Standard%20Drawings%20DGNS%202020/rpm170.pdf)

- All sidewalk space impacted by construction (both street and building construction) should be signed to alert pedestrians or closure, obstructions, and or detours (FHWA Pedestrian Checklist / https://www.fhwa.dot.gov/indiv/docs/atssa_pedestrian_checklist.pdf).

- Raised sidewalk edges & panels, along with broken/cracked sections can create a tripping or fall hazard. These areas can be mitigated/repaired with diamond grinding, patch filling, and other techniques.

- Handrailing that is installed (currently and in the future) along the sidewalk network should be inspected for stability and proper design specs. From the Access Board PROWAG: *The top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above walking surfaces,* ramp *surfaces, and* stair *nosing's. Handrails shall be at a consistent height above walking surfaces,* ramp *surfaces, and* stair *nosing's.* Additional studies for specific locations and treatments to address the handrail issues is recommended.

- Gaps in the existing sidewalk network should be completed or improved. Some locations appear to have old/non-maintained sidewalks, while other areas have no sidewalks; most of these locations seem to have amble space within the roadway right-of-way for the installation of a standard sidewalk. All new construction shall follow current KYTC design standards (included ADA elements).

- Deciding which street locations to complete the sidewalk network (with new construction) should be decided and prioritized through community engagement and usage data (like the Strava Heat Map data). The City of Versailles is 100% responsible for the planning and construction of sidewalks within the right-of-way of locally owned roadways. The planning, design, and construction of all streets/roadways in KY should follow guidance of (but not limited to) the KY Transportation Cabinet and the Office of Federal Highways. Sidewalk construction for state owned should be identified and details coordinated with the KYTC Highway District 7 office. Appropriate documentation, such as encroachment permits and plan specifications, should be provided.

- Additional studies should be conducted to determine specific treatments, retrofits, improvements, and new construction details for certain streets within the city. These additional studies can determine engineering and NEPA (National Environmental and Protection Act) challenges, along with basic construction cost estimates.

These recommendations follow the guidance from both the Kentucky Transportation Cabinet's Pedestrian and Bicycle Program and Federal Highways current non-motorized travel policies (see references below).

Walkability Scores/Evaluation (average score per street location):

These results are for the average evaluation score of the street section reviewed within this study. The evaluation resourced used is from the Office of Federal Highways (https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/walkingchecklist.pdf). The scale is from 1-6 (1 being the lowest or less favorable, and 6 being the highest or more favorable) for each factor/question, and a scale of 5-30 for the overall street evaluation/score.

- Main Street:
  1. Did you have room to walk? 5 out of 6
  2. Was it easy to cross the street? 4.75 out of 6
  3. Did drivers behave well? 5 out of 6
  4. Was it easy to follow safety rules (for you and children)? 4.5 out of 6
  5. Was your walk pleasant? 5.5 out of 6
  6. The results of the overall evaluation? 24.75 out of 30 /

     Celebrate a little, your street is pretty good
- Frankfort Street:
  1. Did you have room to walk? 5 out of 6
  2. Was it easy to cross the street? 4 out of 6
  3. Did drivers behave well? 4 out of 6
  4. Was it easy to follow safety rules (for you and children)? 4 out of 6
  5. Was your walk pleasant? 4 out of 6
  6. The results of the overall evaluation? 21 out of 30 /

     Celebrate a little, your neighborhood is pretty good
- Rose Hill Ave:
  1. Did you have room to walk? 3.5 out of 6
  2. Was it easy to cross the street? 3.5 out of 6
  3. Did drivers behave well? 3 out of 6
  4. Was it easy to follow safety rules (for you and children)? 3 out of 6
  5. Was your walk pleasant? 4 out of 6
  6. The results of the overall evaluation? 17 out of 30 /

     Okay, but it needs work
- Lexington Street:
  1. Did you have room to walk? 4 out of 6
  2. Was it easy to cross the street? 4 out of 6
  3. Did drivers behave well? 4 out of 6
  4. Was it easy to follow safety rules (for you and children)? 3 out of 6
  5. Was your walk pleasant? 4 out of 6
  6. The results of the overall evaluation? 19 out of 30 /

     Okay, but it needs work

- Broadway Street:
  1. Did you have room to walk? 5 out of 6
  2. Was it easy to cross the street? 3 out of 6
  3. Did drivers behave well? 4 out of 6
  4. Was it easy to follow safety rules (for you and children)? 4 out of 6
  5. Was your walk pleasant? 5 out of 6
  6. The results of the overall evaluation? 21 out of 30 /

Celebrate a little, your neighborhood is pretty good

- Laval Heights:
  1. Did you have room to walk? 2.5 out of 6
  2. Was it easy to cross the street? 2.5 out of 6
  3. Did drivers behave well? 4 out of 6
  4. Was it easy to follow safety rules (for you and children)? 3 out of 6
  5. Was your walk pleasant? 3 out of 6
  6. The results of the overall evaluation? 15 out of 30 /

It needs work, you deserve better

- Elm Street:
  1. Did you have room to walk? 4 out of 6
  2. Was it easy to cross the street? 4 out of 6
  3. Did drivers behave well? 4 out of 6
  4. Was it easy to follow safety rules (for you and children)? 3 out of 6
  5. Was your walk pleasant? 4 out of 6
  6. The results of the overall evaluation? 19 out of 30 /

Okay, but it needs work

Wilson Ave:

1. Did you have room to walk? 2 out of 6
2. Was it easy to cross the street? 2.5 out of 6
3. Did drivers behave well? 3 out of 6
4. Was it easy to follow safety rules (for you and children)? 2.5 out of 6
5. Was your walk pleasant? 2.5 out of 6
6. The results of the overall evaluation? 12.5 out of 30 /

It needs work, you deserve better

Project comments:

- The SPAN Active Living team would like to thank the City of Versailles for the opportunity to manage the pedestrian/walking audit. There were 12 people that participated in the 1st in-person portion of this study (physical inspections), and 8 people that participated I the 2nd portion: including several city council members and public works personnel.

  The KY Department for Public Health desires the consideration of and improvements to non-motorized facilities within the project area as detailed in the "The KY Complete Streets, Roads, and Highway Policy". The State Physical Activity and Nutrition (SPAN)

Program works with communities to create, improve, or update local level walk/bike/roll travel master plans through funding received by the U.S. Centers for Disease Control and Prevention (CDC). The consideration and inclusion of non-motorized travel elements included in these plans is the goal of the Active Living program with the SPAN program: *Collaboration with partners to improve or build non-motorized facilities that connect to everyday destinations; thus, providing accommodation safe places/spaces for physical activity*.

The data needed and used for evaluation:

- KY Transportation Cabinet Pedestrian and Bicycle Travel policy: https://transportation.ky.gov/BikeWalk/Documents/KYTC%20Pedestrian%20and%20Bicycle%20Travel%20Policy%20%202002.pdf
- KY Transportation Cabinet active highway map: https://maps.kytc.ky.gov/activehighwayplan/
- KYTC Highway Design Guide (section 701-704): https://transportation.ky.gov/Highway-Design/Highway%20Design%20Manual/Geometric%20Design%20Guidelines.pdf
- CDC website for recommended daily physical activity: https://www.cdc.gov/physicalactivity/walking/index.htm & https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm
- American with Disabilities Act / https://www.ada.gov/
- Access Board rulemaking for pedestrian access along Public Rights-of-Way Accessibility Guidance: https://www.access-board.gov/prowag/
- Federal Highways Manual on Uniform Traffic Control Devices: https://mutcd.fhwa.dot.gov/
- KYTC Pedestrian Comfort Index: https://transportation.ky.gov/BikeWalk/Documents/Pedestrian%20Comfort%20Index%20(PCI).pdf
- KYTC Bicycle Comfort Index: https://transportation.ky.gov/BikeWalk/Documents/Bicycle%20Comfort%20Index%20(BCI).pdf
- FHWA / Safe Routes Walkability Checklist: https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/walkingchecklist.pdf
- Walk Score: https://www.walkscore.com/score/midway-ky