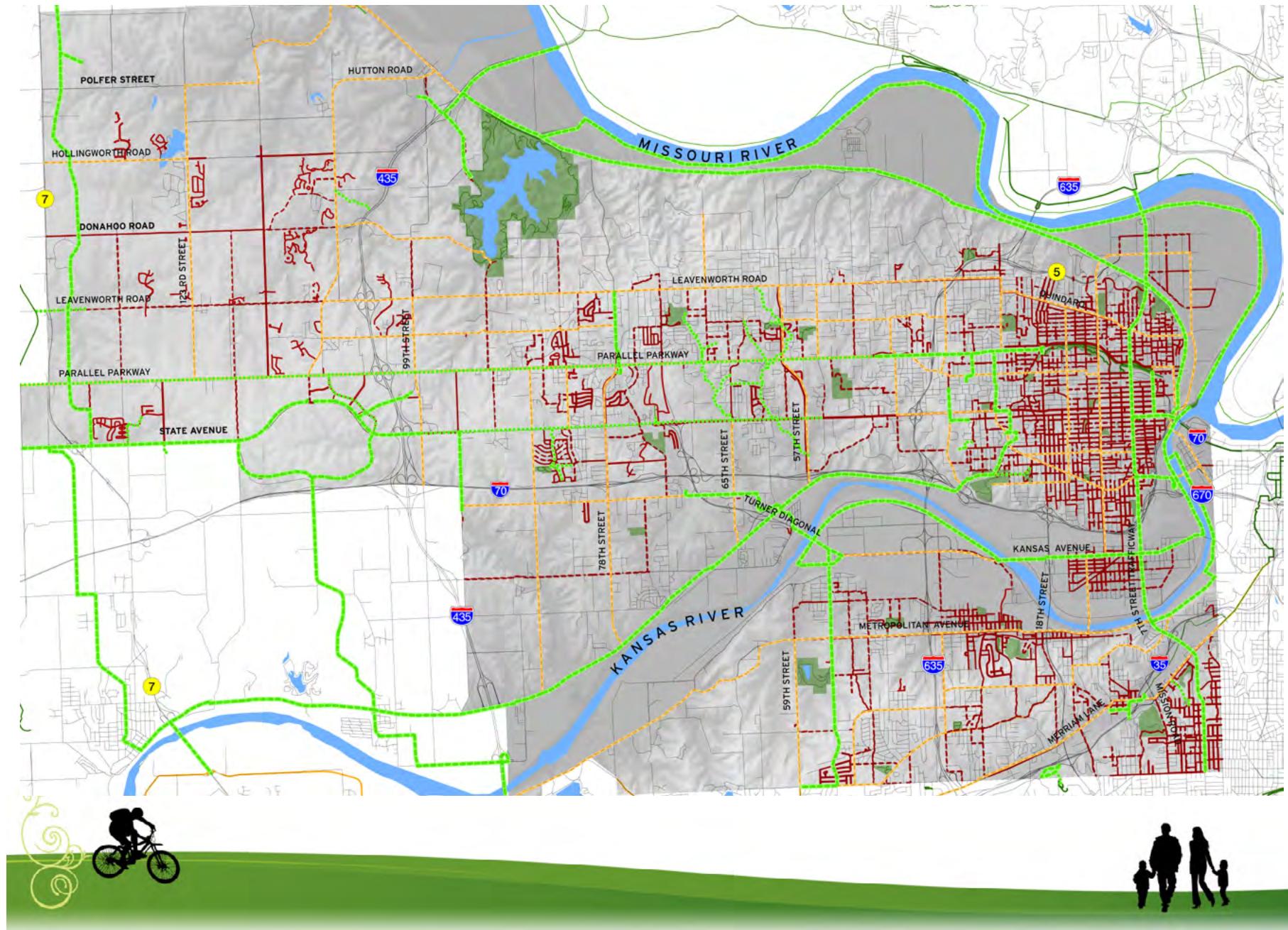


Sidewalk and Trail Master Plan for Unified Government/Kansas City, Kansas



Health Care Foundation
OF GREATER KANSAS CITY

July 26, 2012



Acknowledgements



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Sidewalk and Trail Master Plan



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1. Introduction

Plan Purpose

The Unified Government/Kansas City-Wide Master Plan, the community's Comprehensive Plan, identified the need for a true multi-modal transportation network that balances the needs of motorists, transit, pedestrians and cyclists. Today, many Wyandotte residents depend on walking and biking as their primary transportation mode. Unfortunately, in many parts of the County, there are not adequate sidewalk and trail facilities. Within older urban areas, existing sidewalk infrastructure is deteriorating or non-existent. In many post World War II suburban neighborhoods, sidewalks do not exist because they were not required as part of the development review process at that time. Sidewalks are now required on at least one side of the street for new development, however, newer neighborhoods are often disconnected from surrounding destinations and amenities. Throughout the City, trails are limited to a few small locations, mostly within parks. Unfortunately, there are often no pedestrian accommodations to these parks from surrounding areas. Sidewalks, trails, and bicycle facilities are more than a transportation mode or recreational outlet. These facilities are an important part of a healthy and vibrant community. According to the 2012 County Health Ranking by the University of Wisconsin Population Health Institute, the Wyandotte County obesity rate is 38 percent, well above the state average of 30 percent and the national benchmark of 25 percent. Because of the lack of pedestrian and bicycle facilities, residents have few opportunities to safely walk, jog, run or ride their bikes. For these reasons, the Unified Government submitted and received a grant from the Health Care Foundation of Greater Kansas City to commission a sidewalk and trail master plan to address these needs.

Plan Goals

The Unified Government/Kansas City, Kansas Sidewalk and Trail Master Plan (Plan) provides a blueprint for the implementation of a sidewalk and trail network that meets the needs of residents, workers and visitors. As such, the Plan is intended to:

- improve the health and well-being of residents;
- provide a safe, convenient and attractive transportation alternative to the automobile;
- provide a sidewalk and trail network that meets the needs of all skill levels and physical abilities;
- connect major activity centers and destinations throughout the County; and
- connect to surrounding local and regional pedestrian and bicycle networks.



86 percent of survey respondents indicated that sidewalk and trail improvements were very important or somewhat important even when compared to other infrastructure needs. See Chapter 4 for complete survey results.

Plan Use



Plan Process

The Plan's recommendations and priorities are the result of an inclusive public process that included eight public workshops held throughout the County and two surveys. Each workshop was designed to promote an open dialogue between the project team and participants. In addition to these workshops, the project team developed two surveys that were available electronically via the internet. The first survey asked participants about their priorities for the local network and destinations within the County, while the second survey focused on priorities for regional connections. A full summary of the public process and survey results is included in Chapter 4, Public Engagement.

Plan Organization

The Plan is organized into the following chapters:

- [Chapter 1 Introduction](#): Plan purpose, goals, process and organization.
- [Chapter 2 Plan Coordination](#): Summary of pertinent plans, studies and initiatives.
- [Chapter 3 Sidewalk Inventory and Assessment](#): Methodology for the sidewalk and trail inventory and the results of the assessment of existing conditions.
- [Chapter 4: Public Engagement](#): Summary of public workshop outcomes and survey results.
- [Chapter 5: Pedestrian Demand](#): Priorities for pedestrian and bicycle facilities.
- [Chapter 6 Future Sidewalk Network and Priorities](#): Future sidewalk network with priorities for connecting existing gaps where sidewalks do not exist as well as deteriorating sidewalks in need of repair or replacement.
- [Chapter 7 Future Trail and Bicycle Network and Priorities](#): Future trail and bicycle network and associated standards and recommendations.
- [Chapter 8 Implementation](#): Guide for Plan implementation including key actions and policies.



2. Plan Coordination

Overview

Planning does not occur in a vacuum and the Sidewalk and Trail Master Plan process is no exception. There are a number of past, present, and ongoing plans, projects, and initiatives intended to make Kansas City, Kansas a more pedestrian and bicycle friendly community. As part of this process, these planning efforts were carefully reviewed and evaluated within the present physical, environmental, and political context. In the case of past plans, assumptions were analyzed to see if changing conditions warranted refinements. For initiatives, recent policy changes were reviewed. For current and ongoing projects, specific improvements were noted and incorporated into the analysis of existing sidewalk and trail conditions. Part of this review process is intended to avoid duplication of effort and inconsistencies in policies and recommendations. However, to a greater extent, this review and coordination allows the Plan to build on the momentum of these efforts, and work synergistically toward common goals. The following is a list of summarized plans, projects, and initiatives that were consulted during the process¹:

- Walk Friendly Communities Assessment and Report Card
- Unified Government/Kansas City, Kansas City-Wide Master Plan
- Johnson and Wyandotte County Bicycle Transportation Plan
- Southwest Boulevard/Merriam Lane Corridor Master Plan
- Parks and Boulevards Plan "Kessler Plan"
- MetroGreen Plan and MetroGreen Action Plan
- Safe Routes to Schools Program and Recent Projects



¹Note: This is not an intended to be an exhaustive list of all projects that were considered during the Plan process. Many individual improvement/construction projects were used in the analysis and are too numerous to list within this document.

Walk Friendly Communities Assessment and Report Card

Walk Friendly Communities was created to encourage communities across the country to make supporting safer walking a high priority. The program recognizes communities that are working to improve walking conditions. The conditions include a range of issues related to walking including everything from safety to mobility. In early 2012, Walk Friendly Communities conducted an independent assessment of walkability in Kansas City, Kansas. Unfortunately, Walk Friendly Communities was not able to designate Kansas City, Kansas as a walk friendly community. However, through this assessment, constructive feedback was provided to improve walkability throughout the community. The graphic below provides a summary of the areas that Kansas City, Kansas is doing well, and the areas that need attention.

Walk Friendly

Community Profile

Strong political leadership
Complete Streets
Resolution
Let's Move Campaign
Staff dedicated to walking & traffic safety

On the Right Track

Enforcement

Dedicated Community Policing Unit with advanced training in pedestrian education
Enforcement targets high-crash locations every week

Community does not exhibit the characteristics to be truly walk friendly, but there are good existing programs or new programs that could be expanded.

Needs Attention

Status of Walking

Low rate of walking in reported in census

Planning

Lack comprehensive approach
No community goals set

Education

Need to work with existing groups to develop system of maps and way-finding
Need school-based pedestrian safety education

Engineering

Review current standards & minimum criteria
Sidewalk only required on one side of residential streets
Sidewalk not built into bridges
Should use pedestrian signals with countdown timers that meet ADA guidelines

Evaluation

Need system to evaluate policies and status of walking

Community does not yet demonstrate strong programs, policies, and results, characteristic of a Walk Friendly Community. Create positive change with short- and long-term objectives.

Applicability

The Walk Communities Report Card identifies specific areas that should be addressed to improve walkability in Kansas City, Kansas. This assessment was completed early in the Plan process and helped guide the development of the Plan recommendations, policies, and actions. As noted, this was an independent assessment, however, the need for a more walkable City was clearly articulated by the public during the Plan workshops and through feedback from surveys.



2008 City-Wide Master Plan

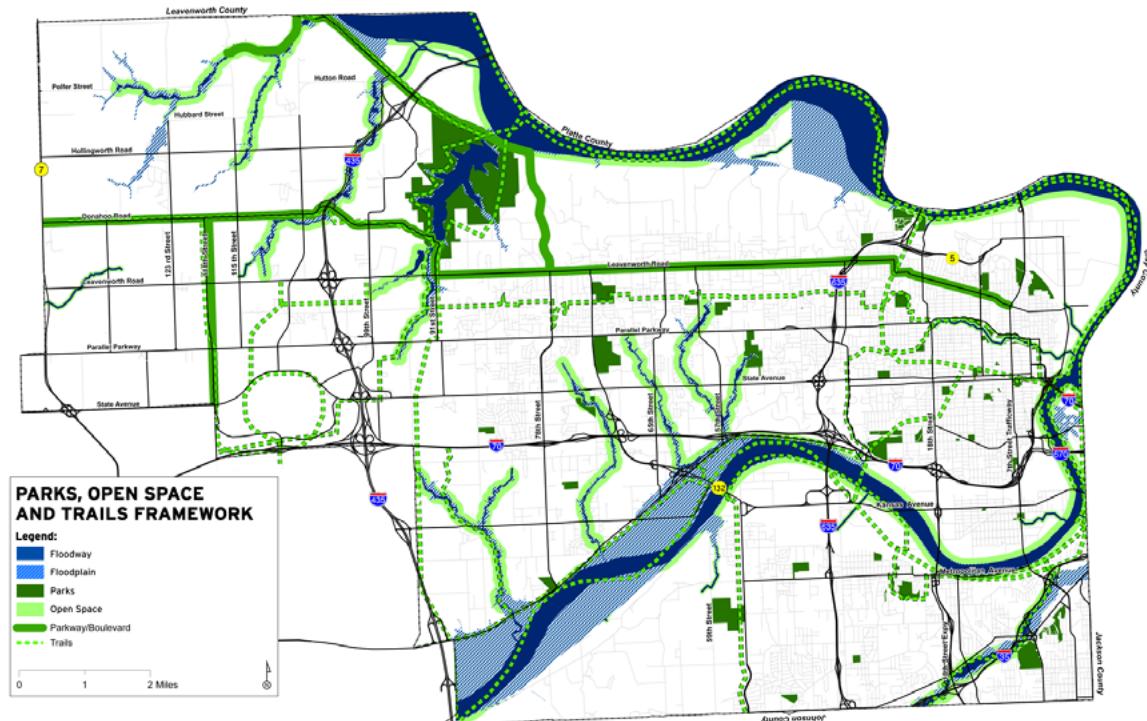
The City-Wide Master Plan, Unified Government/Kansas City, Kansas's Comprehensive Plan, provided a vision for a connected system of parks, trails and opens space based on MetroGreen, as well as input from the public throughout the plan process. The Master Plan recommends a comprehensive greenway and trail system to connect all parks, schools, and other community cultural amenities.

Key Recommendations

- Implement the MetroGreen vision.
- Develop greenways and trails along naturally sensitive areas, such as streams, as part of the overall trail network
- Celebrate the City's special cultural and historic resources through the development of the greenway system
- Acquire greenway connections as development occurs. Ensure that neighborhood-level connections are included as part of the platting process
- Provide information to developers and real estate investors, including homeowners, about the value added from proximity to open space and trails

Applicability

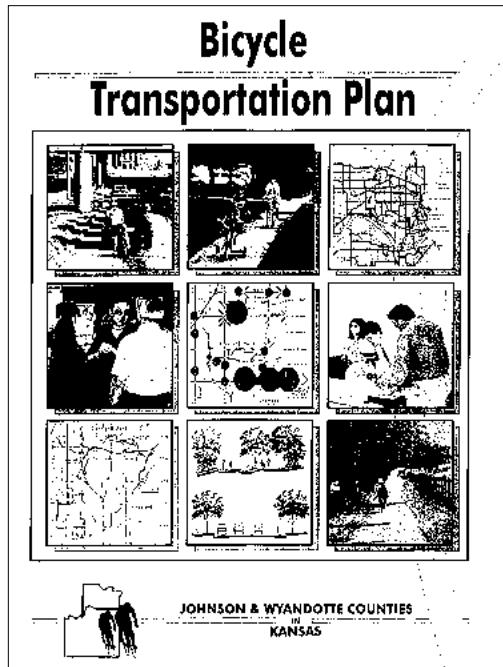
The Sidewalk and Trail Master Plan is part of the overall implementation of the City-Wide Master Plan which identified the need and the desire for a connected system of trails throughout the City. The City-Wide Master Plan provides the directive and the foundation for the development of the Sidewalk and Trail Plan's recommendations.



Sidewalk and Trail Master Plan



1993 Johnson and Wyandotte County Bicycle Transportation Plan



This plan was a joint effort between Johnson and Wyandotte Counties to develop recommendations to ensure a safe and desirable environment for bicycling. The plan is intended to serve as a big picture guide for the development of more specific individual plans for future bicycle facilities. However, one of the most significant components of this plan is the initial groundwork for inter-jurisdictional planning and cooperation necessary for the development of the comprehensive regional bicycle network. The Bicycle Network identified in this plan includes 670 miles in Johnson County and 230 miles in Wyandotte County. Of the total 900 mile Bicycle Network, approximately 70 percent are on-road facilities.

Key Recommendations

- The Bicycle Network should provide regional linkages to the entire Kansas City metropolitan area.
- The Bicycle Network should incorporate, whenever possible, existing, committed and potential off-road bicycle corridors including MetroGreen.
- The Bicycle Network should provide allowances for bicycles to safely cross barriers, such as the Kansas River, I-435, I-635, railroads, streams and rivers.
- Local agencies should coordinate the proposed Bicycle Network with other planned transportation improvements.
- Streamway parks should accommodate a linear, off-road trail system.

Applicability

The 1993 Bicycle Transportation Plan served as a major catalyst for inter-jurisdictional cooperation and the development of many existing bicycle routes and facilities, especially within Johnson County. Through the present Sidewalk and Trail Master Plan process, the public has articulated the desire to connect to existing regional bicycle facilities outside of Wyandotte County, especially within Johnson County where these routes are well established. Within Wyandotte County, the 1993 Plan served as a starting point for bicycle route recommendations in Chapter 7.

Southwest Boulevard/Merriam Lane Corridor Master Plan

The Corridor Master Plan establishes long-range goals and objectives for development and stabilization of area neighborhoods and businesses along Southwest Boulevard and Merriam Lane between State Line Road and I-635/U.S. 69. The Corridor Master Plan was developed to help implement the City-Wide Master Plan and is intended as a companion document to the Rosedale Master Plan.

Key Recommendations

- Implement dedicated on-street bike lanes on both sides of Merriam Lane.
- Incorporate the Complete Streets policy with redevelopment and improve pedestrian and bicycle connections.
- Provide directional signage, lighting, landscaping and intersection bulb-outs to help pedestrians at cross walks.
- As identified in past plans, including MetroGreen, investigate the potential for a multi-use trail along the Turkey Creek corridor

Applicability

The Corridor Master Plan is important because it is one of the first plans in Wyandotte County to provide recommendations to implement the Complete Streets Policy, adopted in 2011, on a specific corridor. Complete Streets are designed to enable safe access for pedestrians, cyclists, motorists, and public transportation users of all ages and abilities to safely use a transportation corridor. In this case, new sidewalks and dedicated bike lanes along Southwest Boulevard and Merriam Lane will provide safe and convenient accommodations for pedestrians and cyclists. These recommendations are now in the process of moving from concept to reality with the construction of new sidewalks and dedicated bike lanes along the corridor. Construction of the eastern segment, Strasser Hardware to the Boulevard Drive-In, is under construction and is scheduled to be complete by early 2013. The central segment, Boulevard Drive-In to 20th Street, is scheduled for construction in 2014. Timing for the western segment is yet to be determined.



Kansas City Parks and Boulevards Plan “Kessler Plan”

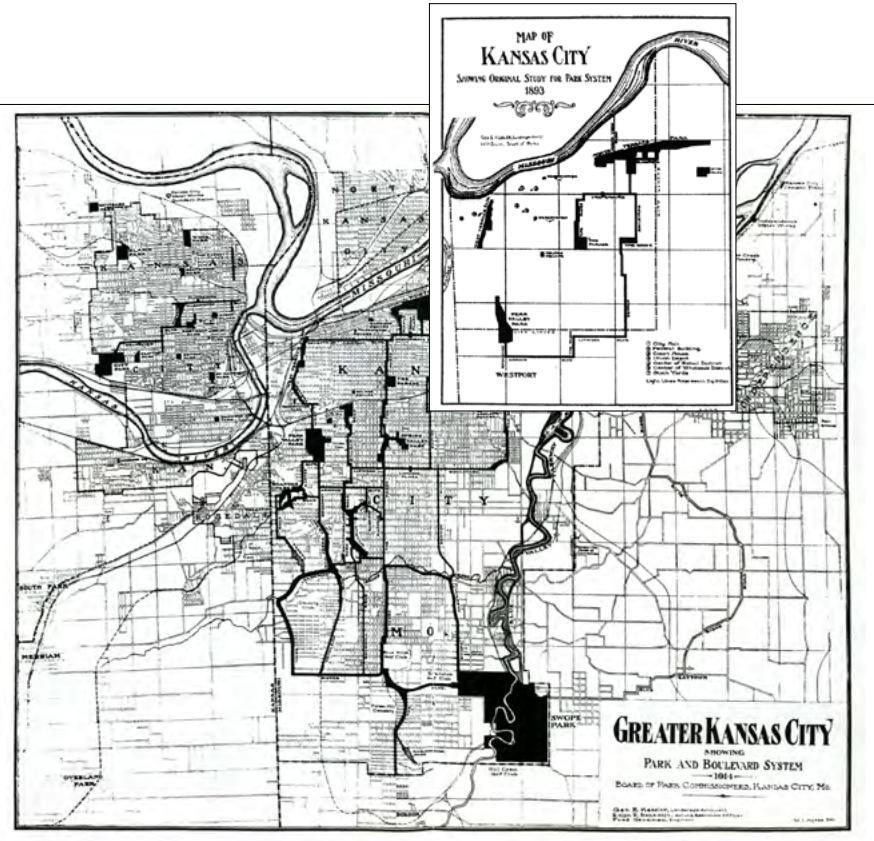
Between 1892 and 1893, George Kessler, a German-born landscape architect who briefly worked under Fredrick Law Olmstead, authored a plan for a system of interconnected parks and boulevards throughout Kansas City, Missouri in the spirit of the City Beautiful movement that was sweeping the nation at that time. This plan, commonly known as the “Kessler Plan” was formally adopted in 1893 by the city’s department of parks and boulevards and would be implemented over the next 100 years.

Key Elements

- Recommended an interconnected system of parks and boulevards.
- Considered topography, traffic patterns, demographics and emerging land use patterns.

Applicability

The ideas and concepts identified in the Kessler Plan were expanded over the years within Kansas City, Missouri as well as surrounding communities including Kansas City, Kansas. The map to the left shows a system of Parks and Boulevards for the Greater Kansas City metropolitan area in 1915. This early plan provided the foundation for the development of parks and boulevards in Kansas City, Kansas as well as regionally that would help lay the groundwork for later efforts including the MetroGreen Plan. The 1914 Plan identifies a number of greenway connections between major parks in Kansas City, Kansas. Unfortunately, most of these greenway connections do not exist today. However, the spirit and intent of this concept is carried forward in the trail recommendations in Chapter 7.



1991 MetroGreen Plan and 2002 MetroGreen Action Plan

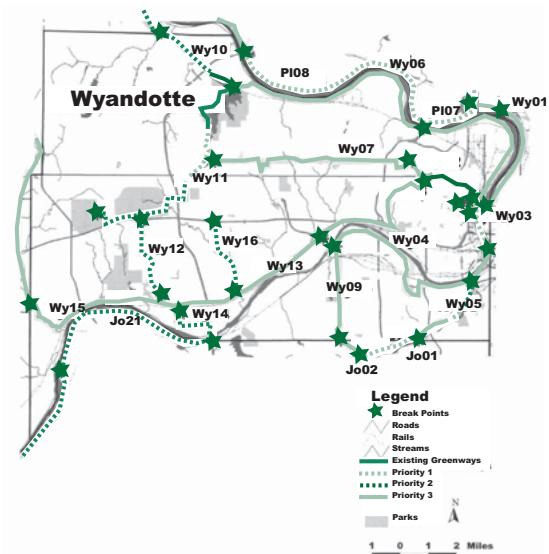
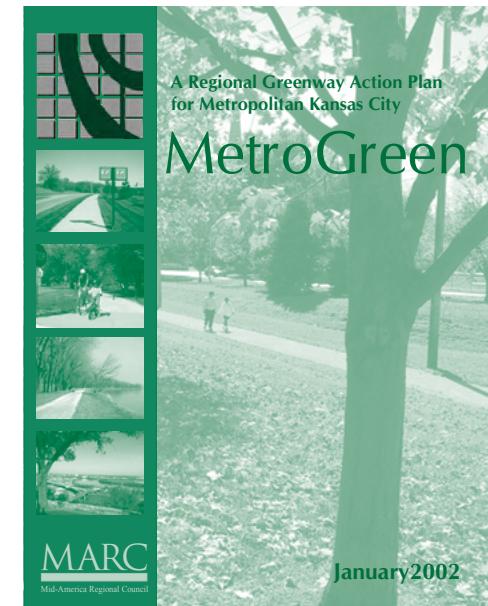
MetroGreen is an interconnected system of greenways and trails linking communities throughout the Kansas City metropolitan area. The 1,144-mile greenway plan covers Wyandotte, Leavenworth, and Johnson counties in Kansas and Cass, Clay, Jackson, and Platte counties in Missouri. The genesis of MetroGreen was the 1991 American Society of Landscape Architects (ASLA) annual meeting in Kansas City, Missouri, where the Community Assistance Team Project developed a vision for a regional trail network. From 1991 to 2001, the Prairie Gateway Chapter of ASLA, the society's local chapter, refined this vision which would become the MetroGreen Plan. In 2001, the Mid-America Regional Council (MARC) facilitated an effort to expand this vision. The 2002 MetroGreen Action Plan builds on George Kessler's "Greenprint" and the 1991 ASLA Plan to provide recommendations for greenways, trails, and open space as well as environmental stewardship, urban growth management, and a future development strategy. To date, over 200 miles of the system has been built.

Key Recommendations

- Preserve and protect stream corridors.
- Green corridors for walking and biking to link destinations.
- Form an alternative transportation network of off-road non-motorized corridors.
- Provide venues and outlets for environmental education through outdoor classrooms.
- Protect and restore native habitats.
- Encourage public/private partnerships for implementation of future greenways.

Applicability

The MetroGreen Action Plan identified future greenway and trail corridors throughout the Kansas City, metropolitan area, including Kansas City, Kansas. These corridors were used as a baseline for the development of the trail recommendations outlined in Chapter 7. Throughout the Plan process, the public identified connections to the regional trail network as a high priority for implementation. Many participants specifically cited the MetroGreen Plan by name.





Safe Routes to Schools

Safe Routes to Schools (SRTS) is a federally funded program of the U.S. Department of Transportation's Federal Highway Administration. It was established by Section 1404 of SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Act. The funds provided by the program are administered by state departments of transportation. The funds are used to improve the ability of elementary and middle school students to safely walk and bike to school. As part of the Plan process, the following SRTS applications, plans, and projects were reviewed:

- Midland Trail Elementary School SRTS Application
- Junction Elementary School SRTS Application
- Douglas Elementary School SRTS Plan, Phase I Report
- TA Edison SRTS Application
- M.E. Pearson Elementary School SRTS Plan, Phase I Report
- Benjamin Banneker Elementary School SRTS Plan, Phase I Report
- Quindarao Elementary School, SRTS Plan, Phase I Report
- Caruthers Elementary School, SRTS Plan, Phase I Report
- New Chelsea Elementary School, SRTS Plan, Phase I Report
- William Allen White Elementary School, SRTS Plan, Phase I Report
- White Church Elementary School, SRTS Plan, Phase I Report
- Stoney Point North Elementary School, SRTS Plan, Phase I Report

Applicability

Information from these SRTS applications, plans and projects were used to help inform the sidewalk inventory and analysis within these areas and to set priorities for future improvements. At the onset of the process, it was agreed that the SRTS improvement areas would be a logical starting point for future sidewalk priorities. This assumption was confirmed through the Plan process as the public identified schools as their top priority for local pedestrian and bicycle connections. Please refer to Chapter 4 for a summary of the public engagement process, Chapter 5 for the methodology for the pedestrian demand analysis, and Chapter 6 for the Future Sidewalk Network and priorities.



3. Inventory and Assessment

Introduction

In the fall of 2011, as part of the Plan process, the Unified Government commissioned a comprehensive sidewalk assessment. The purpose of this assessment was to develop a detailed sidewalk inventory and review of existing conditions. Interns from the University of Kansas and University of Missouri-Kansas City assisted with the data collection and analysis. After the field observations were completed, the project team and interns began to further analyze the data to seek a better understanding of which areas are in acceptable condition and which need attention.

Initial Review of Sidewalks

Prior to the field analysis, a cursory review of sidewalks was completed through a review of recent aerial photography. Through this process, areas were eliminated that did not have sidewalks. This process was completed using Geographic Information Systems (GIS) software designed to analyze, manage, store, and present all types of geographically referenced data. Areas that were not easily determined through the use of the aerial photos were identified to be examined during the field assessment.

Field Assessment

Upon completion of the initial review of the sidewalks, the project team began the detailed field assessment. To ensure accuracy and consistency, the project team conducted a trial run before starting field work. This trial run was completed on a four block area with a variety of sidewalk conditions to ensure an adequate cross section of evaluation. After the test run, the project team began the county-wide assessment. The assessment was conducted by using teams of two interns working together in the field. The teams entered the sidewalk data into a Global Positioning System (GPS) enabled laptop equipped with ArcPad software. ArcPad is a mobile version of GIS which allowed the project team and interns to create and modify sidewalk data in the field.

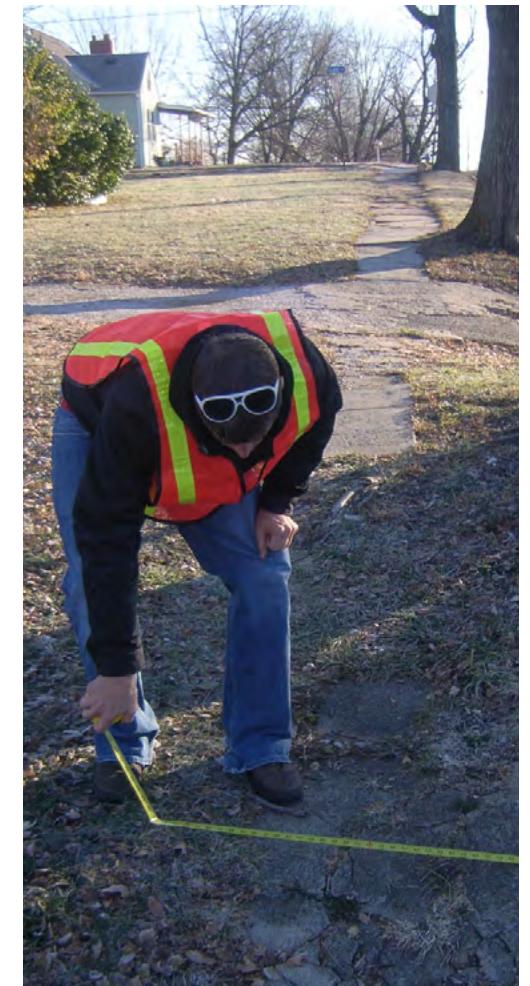
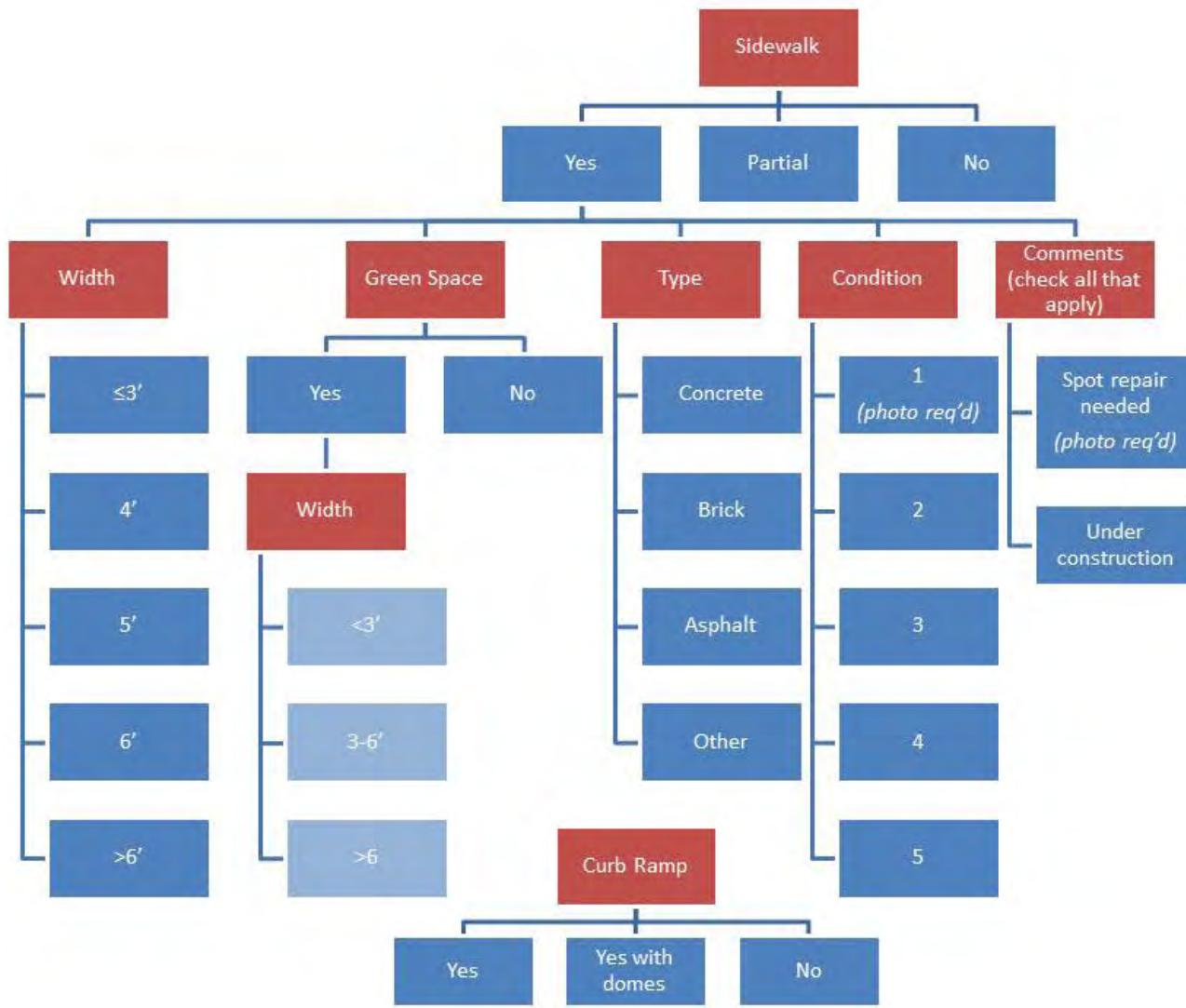


Figure 3.1 Sidewalk Assessment Matrix



As illustrated in Figure 3.1 (left), each block segment was identified as yes, partial, or no. Block segments with a continuous sidewalk were noted as a yes. Blocks with intermittent segments of sidewalk coverage were noted as partial. Block segments without any sidewalks were noted as a no. Upon indicating the presence of a sidewalk, the width, green space, sidewalk type, and condition was noted. If the sidewalk needed a spot repair, it was noted in the data collection under additional comments and a corresponding photo was taken. The project team used a camera that was equipped with GPS to document where the spot repair photo was taken. This enabled the project team and interns to efficiently locate the area if further analysis was needed.

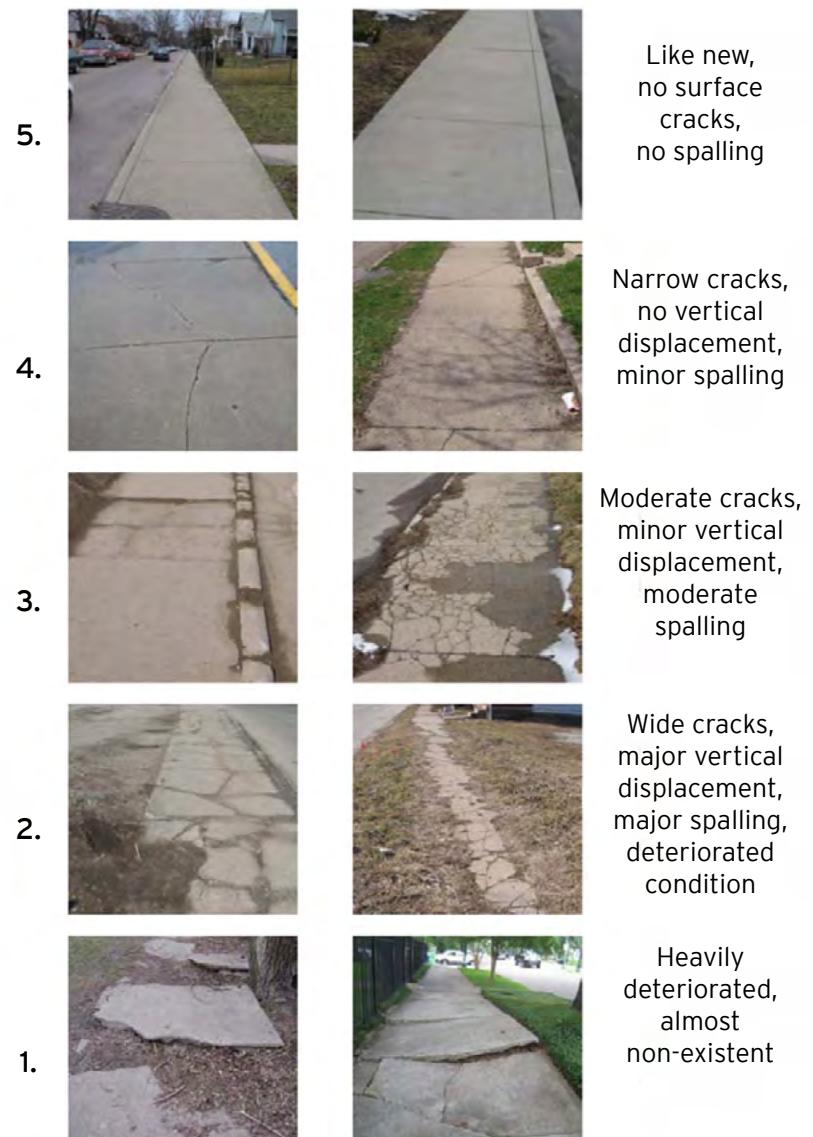


For the field condition assessment, a Sidewalk Assessment Rating Matrix, Figure 3.2 (right) was developed by the project team with input from City staff. This matrix was developed and included photo examples to ensure that there were minimal subjective decisions about sidewalk conditions and to provide uniform results from each team.

The Sidewalk Assessment Rating Matrix consists of a 5 to 1 scale for determining sidewalk conditions:

- A sidewalk with a rating of 5 was considered to be like new with no visible cracks or vertical displacement. This type of sidewalk was prevalent in newer neighborhoods, especially west of I-435.
- A sidewalk with a rating of 4 was considered in fair condition. Sidewalks with this rating had minor cracks, minor spalling, and no vertical displacement. The majority of the existing sidewalks in the county were rated a 4.
- Sidewalks with a rating of 3 contained moderate cracks, moderate spalling, and minor vertical displacement. This type of sidewalk was prevalent in many Post World War II neighborhoods between I-635 and I-435.
- Sidewalks with a rating of 2 contained wide cracks, major vertical displacement, major spalling, and overall deterioration. Often, sidewalks with this rating would be heavily covered with vegetation, missing pieces of concrete, or deteriorated into a narrow strip of sidewalk. This type of sidewalk was prevalent in older urban areas and neighborhoods east of I-635.
- Sidewalks with a rating of 1 were heavily deteriorated and almost non-existent. Any sidewalk that was indicated as a 1 in the field was also documented with a photo and corresponding GPS coordinate. These sidewalks were prevalent in the oldest parts of the County, particularly in the northeast, downtown and southeast neighborhoods.

Figure 3.2 Sidewalk Assessment Matrix



The photo on the top right illustrates an example of a sidewalk in need of spot repair. Many of these sidewalks were in fair condition overall, but had a specific portion that required attention. Sometimes vegetation from the adjacent property grew over the sidewalk making it inaccessible. Often, sidewalks located adjacent to a mature tree would be displaced because the roots had spread underneath the sidewalk. The tree's roots can cause vertical displacement which may result in trip hazards, or in severe cases, limit accessibility.

Sidewalks were identified as concrete, asphalt or brick. The current Public Works standard for new sidewalks is concrete. A majority of sidewalks are concrete. A very small portion of sidewalks were asphalt. However, some sidewalks within the urban core and older neighborhoods are brick. Brick sidewalks contribute to the unique historic character and should be retained. In most cases, the brick sidewalk was noted to be in good condition, but had become overgrown with weeds or covered with debris as shown in the photo in the middle right. Bricks that are broken can be easily replaced. In areas that have become completely overgrown, the City could partner with neighborhood groups to reclaim these areas through coordinated clean-up and maintenance efforts.

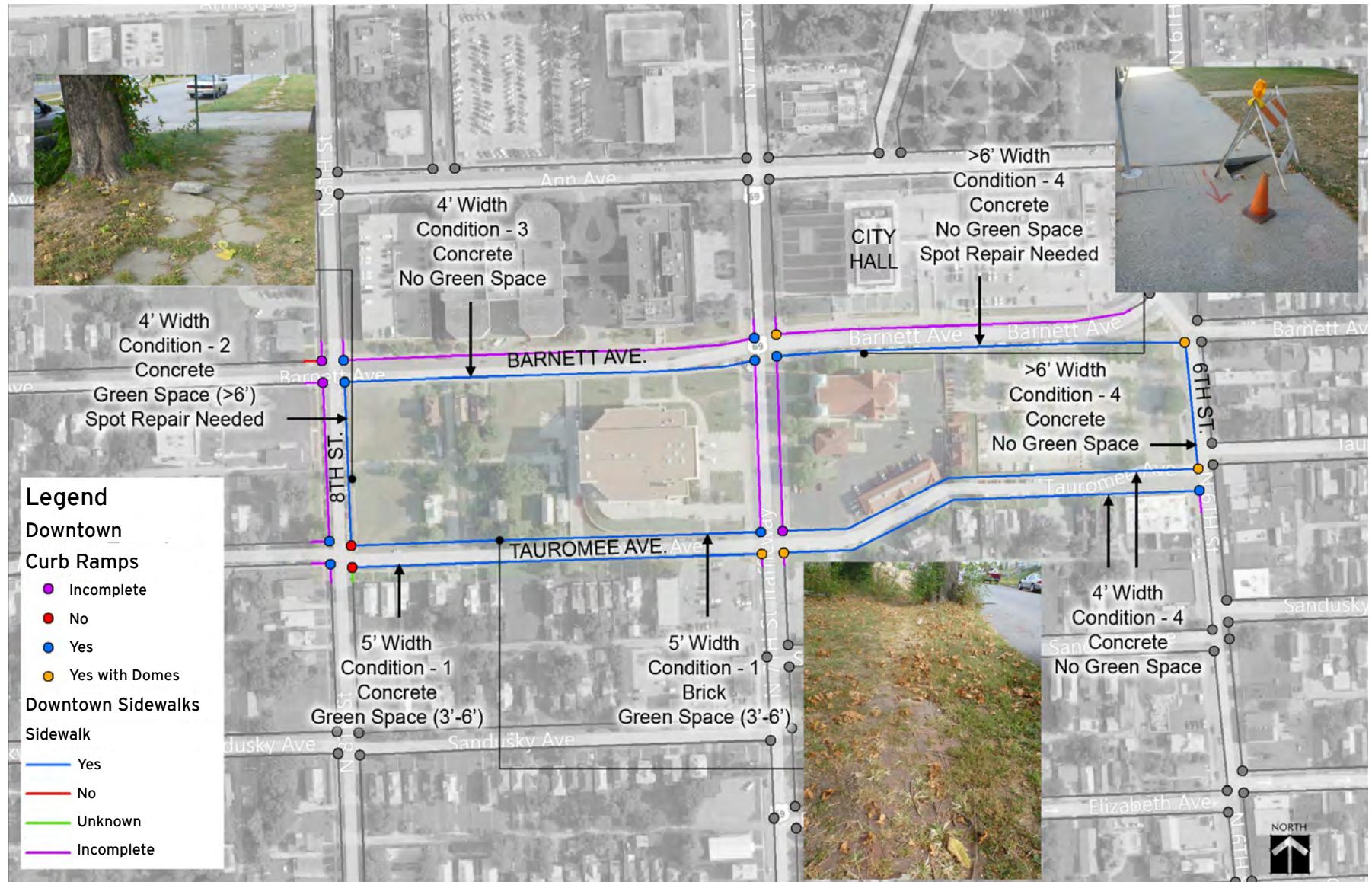
Sidewalk width was noted along with the condition and type. A majority of sidewalks were at least five-feet wide, which is the current standard minimum width. Wider sidewalks are important because they allow pedestrians to walk comfortably side-by-side. In addition to width, green space between the back of curb and the sidewalk was also noted. Green space provides a buffer between pedestrian and vehicular traffic and improves aesthetics.

Information about sidewalk ramps was collected to help determine ease of accessibility. Ramps with truncated domes were noted. Truncated domes alert the visually impaired that they are approaching the street. An example of a truncated dome is shown in the photo on the lower right.

At the end of each day, the project team and interns saved the data within the mobile ArcPad unit and later transferred to the main database in the office to be reviewed and analyzed.



Figure 3.3 Sidewalk Assessment Example

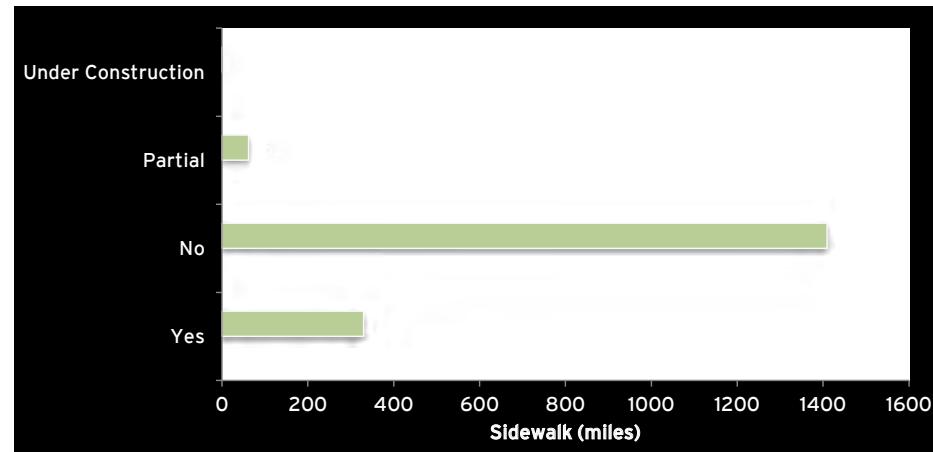




County-Wide and Policy Area Analysis Summary

The sidewalk field analysis was completed for the entire County in early December of 2011. A summary of this analysis is included on the following pages. The first set of tables, maps and exhibits describe county-wide sidewalk coverage, types and conditions. The second part of the analysis summarizes sidewalk coverage and conditions by the Plan Policy Areas established in the 2008 City-Wide Master Plan. It was recognized early on that development patterns, densities, neighborhood character, environmental conditions and infrastructure needs vary greatly throughout the County. For example, developed urban areas have different needs than rural areas.

Figure 3.4 County-Wide Sidewalk Coverage



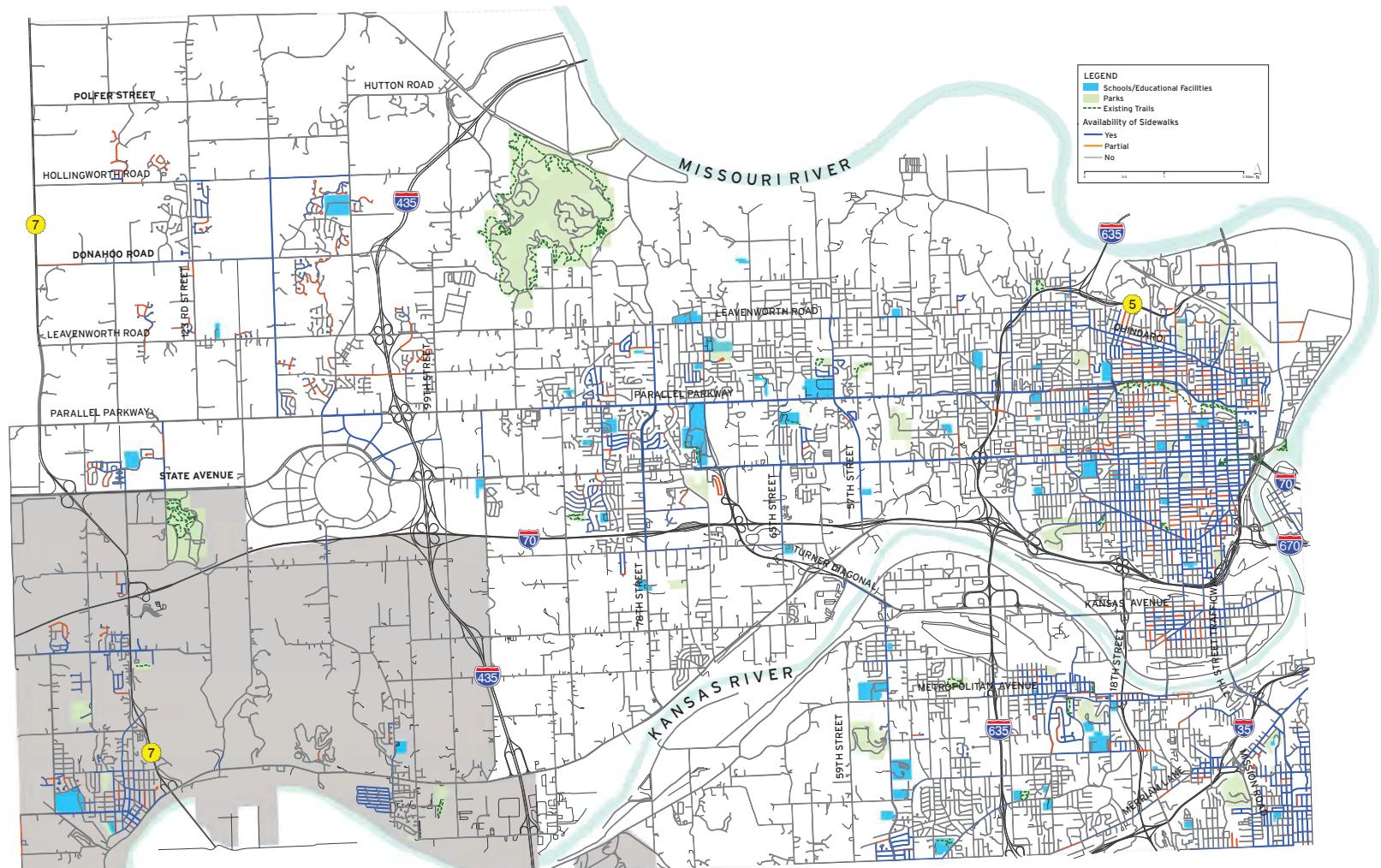
At first glance, it appears that the County has very limited sidewalk coverage. However, coverage should be carefully analyzed within the context of the each area. For example, older urbanized areas tend to have more sidewalk coverage than rural areas. Additionally, local roads are only required to have a sidewalk on one side of the road. As noted in Figure 3.4 above, some segments were under construction at the time of the analysis and some streets only had partial segments with sidewalks. The partial segments were considered a sidewalk gap in the network.



Existing Sidewalks

The sidewalk field analysis was completed in early December of 2011. Approximately 1,801 miles of public sidewalks were inventoried during the field analysis. The exhibit below shows existing and partial sidewalks.

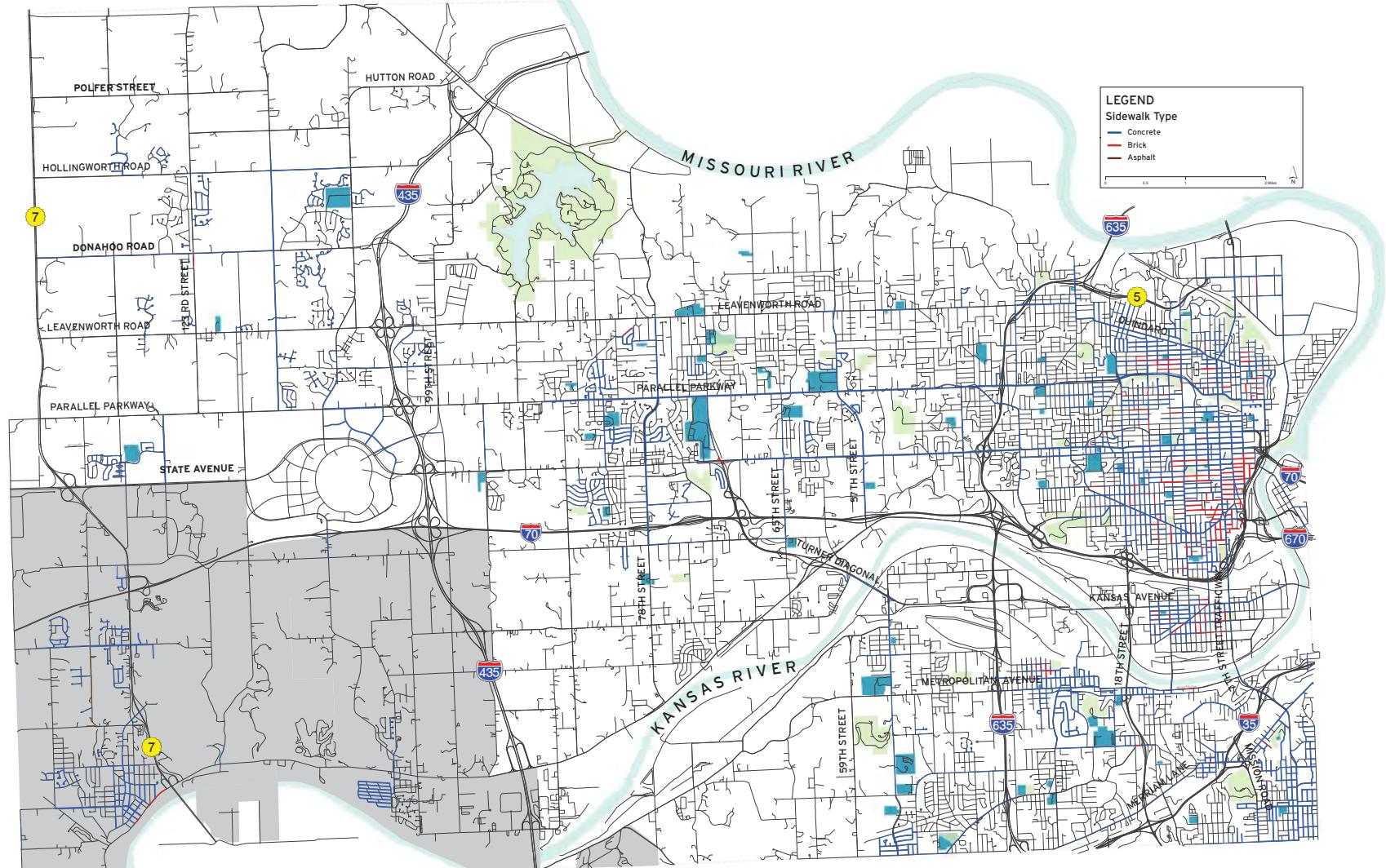
Figure 3.5



Existing Sidewalk Types

The exhibit below shows existing sidewalk types by category: concrete, brick and asphalt.

Figure 3.6



Existing Sidewalk Conditions

This exhibit shows existing sidewalk conditions on a scale of 5 to 1, with 5 the best condition (like new) and 1 the worst (almost non-existent). See page 13 and Figure 3.2, for a full description of each category. Detailed area maps are provided in Appendix A.

Figure 3.7

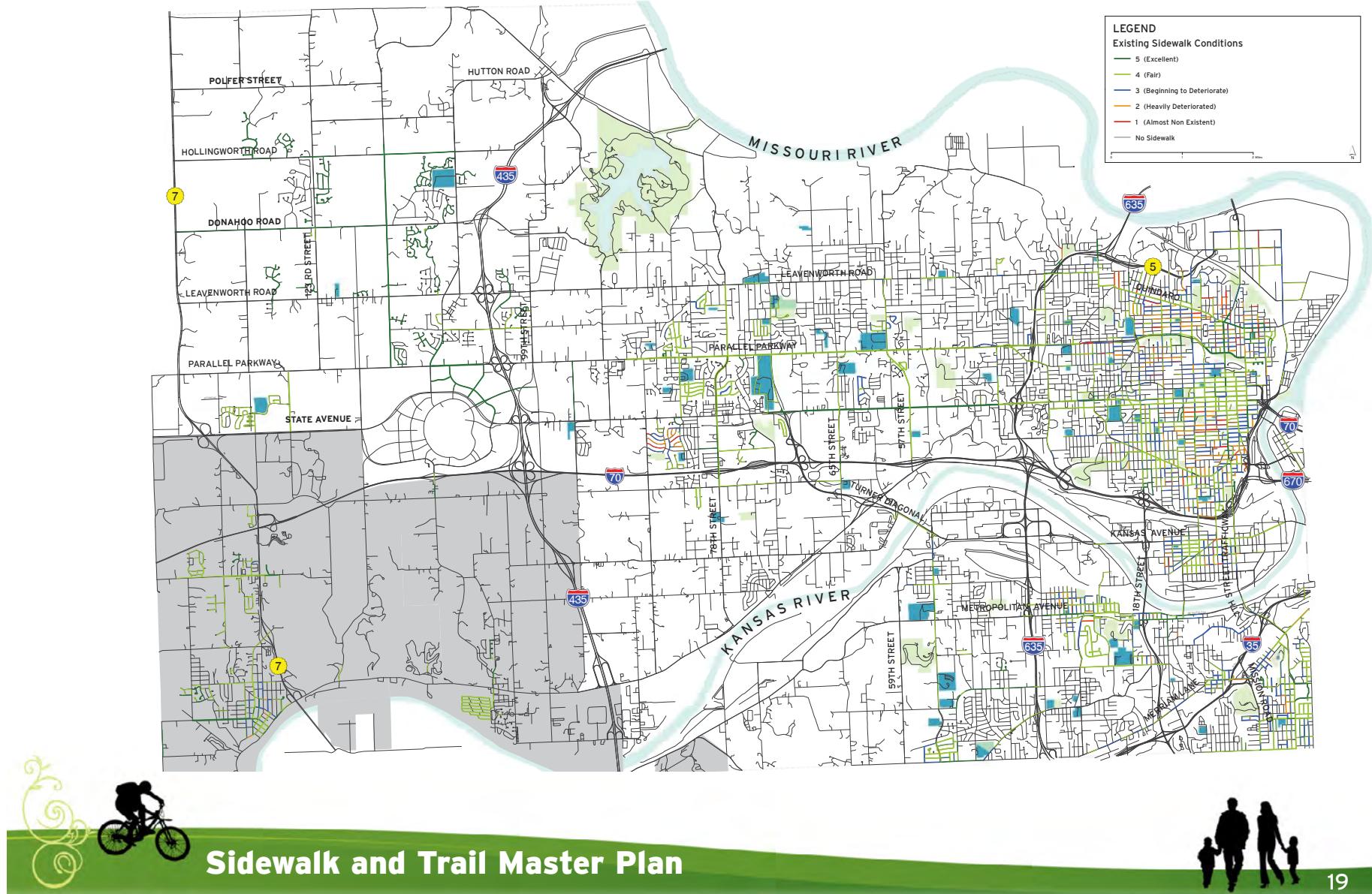


Table 3.1 County-Wide Sidewalk Conditions

Sidewalk Conditions	Yes	Partial
5	56.9	13.4
4	176.0	23.4
3	69.7	17.3
2	18.7	6.4
1	8.0	1.4

Figures represented in miles.

County-wide sidewalk conditions were rated on a scale of 5 to 1 with 5 being the best condition (like new) and 1 being the worst condition (almost non-existent). This rating scale is described in detail with photo examples in Figure 3.2 on page 13. The condition of the overall sidewalk network was found to be in generally fair to excellent condition with approximately 70 percent of sidewalks registering a 4 or 5.

Table 3.2: County-Wide Sidewalk Width

Sidewalk Width	Yes	Partial
3' or less	4.1	2.4
4'	91.5	26.7
5'	199.0	29.0
6'	16.1	3.1
>6'	18.5	0.8

Figures represented in miles.

61 percent of sidewalks are five-feet wide, which is the minimum width allowed under current Public Works standards. 10 percent of sidewalks are greater than five-feet. Only three percent of sidewalks are less than five-feet wide. Narrower sidewalks tend to be in the older urban areas east of I-635 that developed before specific standards were in place. The wider sidewalks tend to be in newer areas along major arterials such as the recently improved sections of State Avenue.



Table 3.3: County-Wide Sidewalk Type

Sidewalk Type	Yes	Partial
Concrete	310.6	52.8
Brick	18.0	9.1
Asphalt	0.7	0.1

Figures represented in miles.

94 percent of sidewalks within the County are concrete. Only five percent are brick. Brick sidewalks were built in many older neighborhoods in the County, particularly east of I-635. Generally, most of the brick sidewalks are in fair condition but are in need maintenance including clearing and trimming of plant overgrowth.

Table 3.4: County-Wide Sidewalk Green Space

Green Space	Yes	Partial
Yes	82%	87%
No	18%	13%

Figures represented as percentage of total sidewalks.

Most of the sidewalks in the County have some green space between the sidewalk and the back of curb. This green space provides a buffer between pedestrians and traffic in the adjacent street.

Table 3.5: County-Wide Sidewalk Green Space Width

Green Space	Yes	Partial
Yes	82%	87%
No	18%	13%

Figures represented as percentage of total sidewalks.

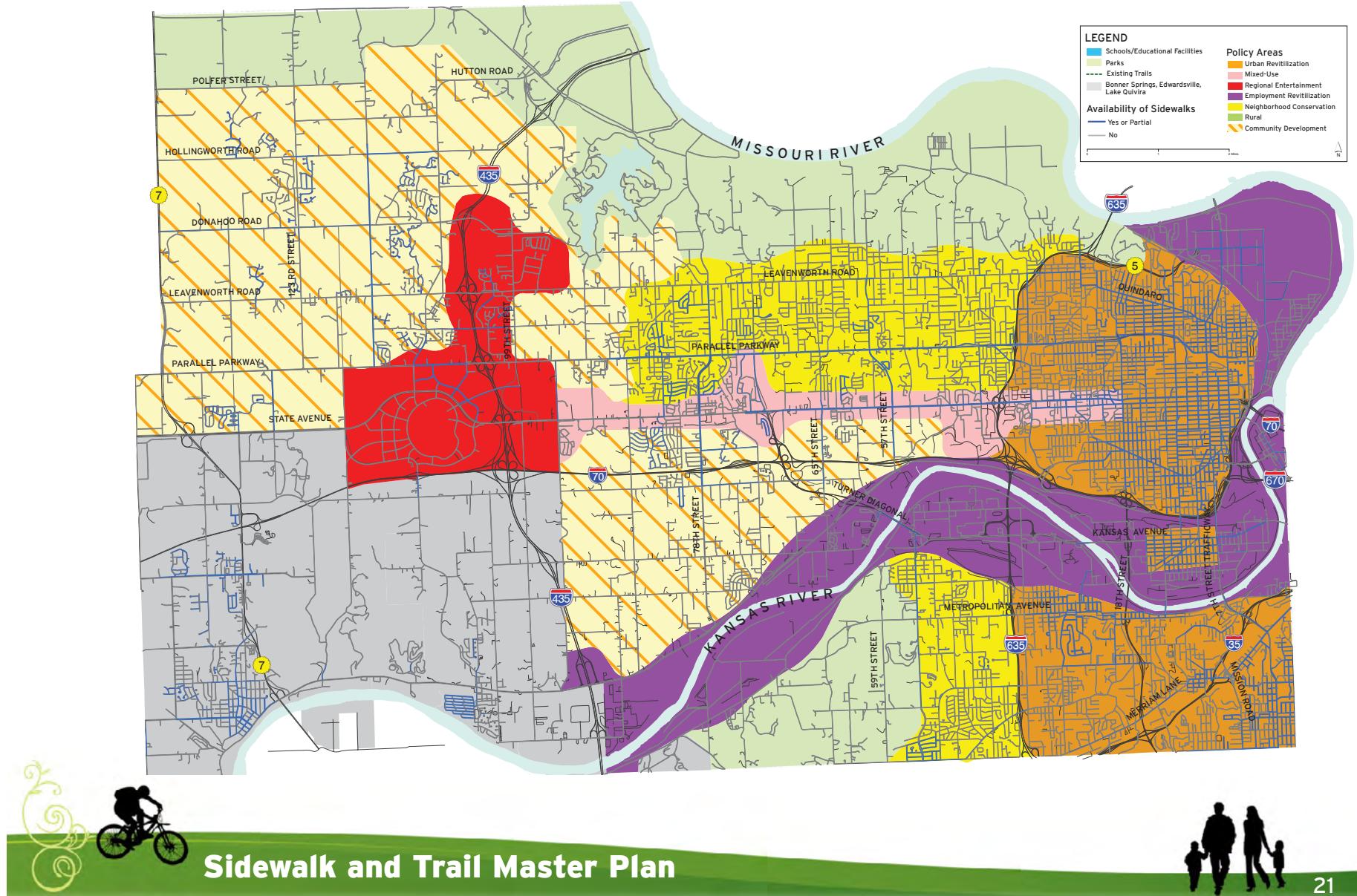
The average green space width is three to six-feet. It is ideal to have at least a four-foot green strip for a buffer which may include trees or shrubs.



Policy Area Sidewalk Analysis

The Policy Area Framework from the City-Wide Master Plan provides a guide for future land use as well as transportation and infrastructure investments based upon each individual area's existing and future needs.

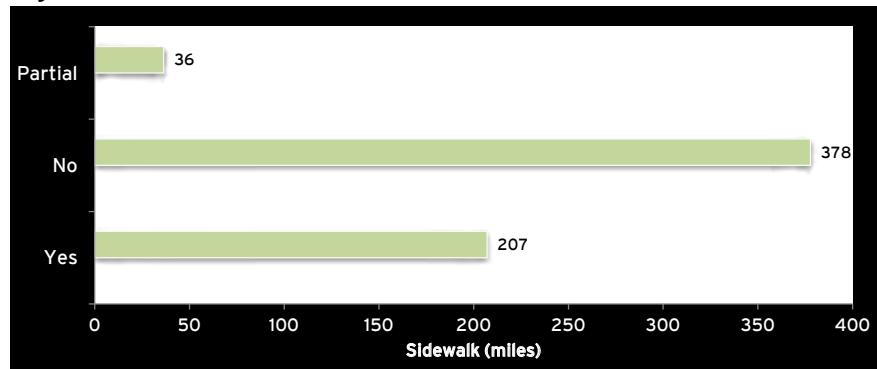
Figure 3.8



Urban Revitalization Policy Area Analysis

The Urban Policy Area is comprised of downtown and older neighborhoods within the I-635 loop as well as areas south of I-70, including Rosedale, Armourdale, and Argentine. These areas are urban in character with smaller lots and older infrastructure.

Figure 3.9: Urban Revitalization Sidewalk Network



Compared to other policy areas, Urban Revitalization has the most sidewalk coverage of any area in the County. Most of the sidewalk coverage within these areas are within the I-635 loop and Armourdale. The Rosedale and Argentine neighborhoods to the south have a more sporadic sidewalk network. Some of these areas have significant topography constraints that make convenient and safe pedestrian and bicycle improvements challenging.

Table 3.6: Urban Revitalization Sidewalk Type

Sidewalk Type	Yes	Partial
Concrete	189.3	27.4
Brick	17.3	8.9
Asphalt	0.4	0.1

Figures represented in miles.

Eight percent of sidewalks within these areas are brick.



Table 3.7: Urban Revitalization Sidewalk Conditions

Sidewalk Conditions	Yes	Partial
5	17.1	1.7
4	106.2	11.5
3	59.4	15.4
2	17.2	6.4
1	7.2	1.4

Figures represented in miles.

County-wide sidewalk conditions were rated on a scale of 5 to 1 with 5 being the best condition (like new) and 1 being the worst condition (almost non-existent). This rating scale is described in detail with photo examples in Figure 3.2 on page 13. Because these areas have the oldest neighborhoods in the County, there are significant portions (approximately 12 percent) of sidewalks in need of repair or replacement (Conditions 1 or 2). However, despite their age, a majority of sidewalks are in fair condition.

Table 3.8: Urban Revitalization Sidewalk Width

Sidewalk Width	Yes	Partial
3' or less	1.6	0.6
4'	52.1	13.1
5'	126.5	21.0
6'	11.7	1.2
>6'	15.2	0.5

Figures represented in miles.

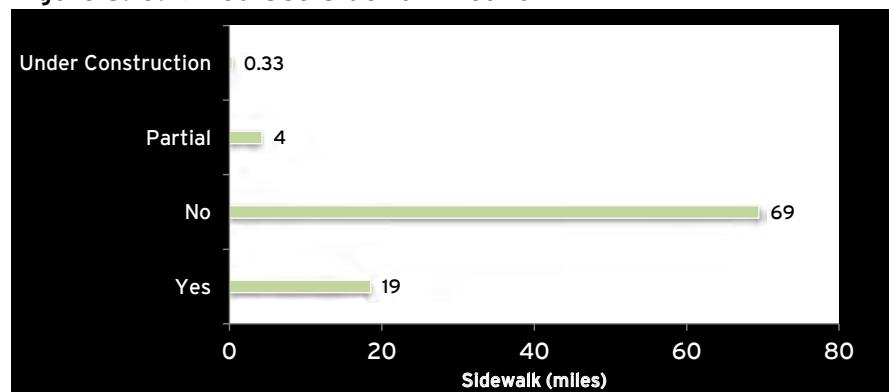
The majority of sidewalks are five-feet wide, although these areas have a higher percentage of narrower sidewalks than other areas of the County.



Mixed-Use Policy Area Analysis

These areas are intended to accommodate a mix of business and residential uses within a cohesive development. One of the guiding principles of mixed-use areas is to provide enhanced pedestrian connections. The master plan recommends that these areas be connected to adjacent neighborhoods and surrounding areas through the construction of wide sidewalks and/or trails.

Figure 3.10: Mixed Use Sidewalk Network



According to the City-Wide Master Plan, mixed-use areas are intended to be among the most walkable areas of the County. Currently, most of this area does not have access to sidewalks. However, as development and redevelopment occurs, sidewalk improvements and/or trails need to be integrated within this area and connected to adjacent neighborhoods, schools, parks and activity centers.

Table 3.9: Mixed Use Sidewalk Type

Sidewalk Type	Yes	Partial
Concrete	18.0	4.2
Brick	0.2	0
Asphalt	0	0

Figures represented in miles.

99 percent of sidewalks within this area are concrete.



Sidewalk and Trail Master Plan

Table 3.10: Mixed-Use Sidewalk Conditions

Sidewalk Conditions	Yes	Partial
5	6.9	0.3
4	10.6	3.2
3	0.6	0.7
2	0	0
1	0	0

Figures represented in miles.

Sidewalk conditions were rated on a scale of 5 to 1 with 5 being the best condition (like new) and 1 being the worst condition (almost non-existent). This rating scale is described in detail with photo examples in Figure 3.2 on page 13. Approximately 58 percent of existing sidewalks within this area are in excellent condition (Condition 5) and 38 percent are in fair condition (Condition 4).

Table 3.11: Mixed Use Sidewalk Width

Sidewalk Width	Yes	Partial
3' or less	0.5	1.0
4'	2.1	1.1
5'	14.3	2.1
6'	0.8	0.1
>6'	0.6	0.1

Figures represented in miles.

79 percent of sidewalks within this area are five-feet wide. Ideally, mixed-use areas would have wider sidewalks to accommodate active retail street activities and better connections to future rapid transit modes.



Regional Entertainment Policy Area Analysis

This area is adjacent to I-70 and I-435 and supports large-scale regional entertainment uses. This area includes the Kansas Speedway, Livestrong Sporting Park, Community America Ballpark, the Legends Outlets and Schlitterbahn Waterpark. The City-Wide Master Plan recommends that this area be connected to adjacent neighborhoods and surrounding areas through wide sidewalks and/or trails.

Figure 3.11: Regional Entertainment Sidewalk Network



The City-Wide Master Plan states that this area should be "bicycle and pedestrian friendly," and "connected to all areas of the City through new or enhanced trails." Unfortunately, there are few sidewalks or trails within this area. Most existing sidewalks are designed for internal circulation with few safe or convenient pedestrian connections to surrounding neighborhoods.

Table 3.12: Regional Entertainment Sidewalk Type

Sidewalk Type	Yes	Partial
Concrete	7.25	2.42
Brick	0	0
Asphalt	0	0

Figures represented in miles.

All sidewalks observed within this area are concrete.



Table 3.13: Regional Entertainment Conditions

Sidewalk Conditions	Yes	Partial
5	6.89	1.31
4	0.36	1.12
3	0	0
2	0	0
1	0	0

Figures represented in miles.

Sidewalk conditions were rated on a scale of 5 to 1 with 5 being the best condition (like new) and 1 being the worst condition (almost non-existent). This rating scale is described in detail with photo examples in Figure 3.2 on page 13. Approximately 95 percent of existing sidewalks within this area are in excellent condition (Condition 5) which is not surprising since most of these sidewalks have been built within the past 15 years.

Table 3.14: Regional Entertainment Sidewalk Width

Sidewalk Width	Yes	Partial
3' or less	0	0
4'	0.40	0.32
5'	4.84	1.05
6'	0.73	0.76
>6'	1.28	0.29

Figures represented in miles.

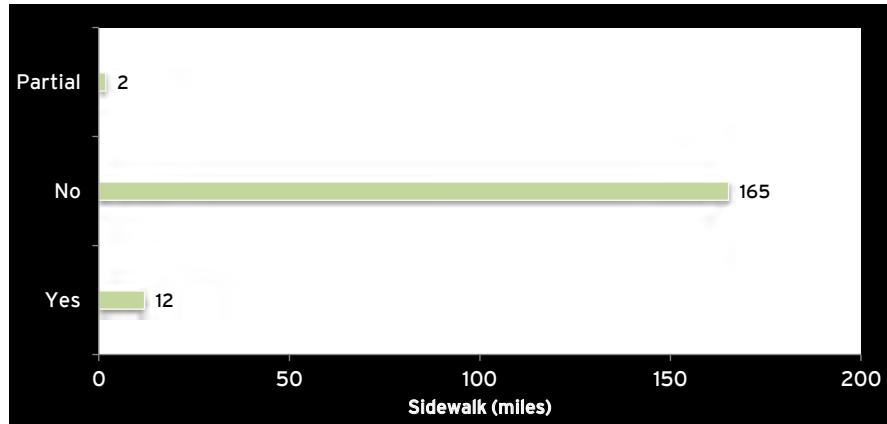
67 percent of sidewalks are five-feet wide while 28 percent are greater than five-feet. Wider sidewalks or a multi-purpose trail is desirable within this area.



Employment Revitalization Policy Area Analysis

These areas will support existing and future employment opportunities.

Table 3.12: Employment Revitalization Sidewalk Network



Outside of rural areas, this area has the lowest sidewalk coverage of any policy area. At first glance, this is understandable given the industrial nature of some of this area. However, during the Master Plan process, participants noted a desire to connect employment areas to adjacent neighborhoods through trails and greenways. The City-Wide Master Plan envisions transforming this area by attracting new “green” industries and business parks with enhanced amenities including recreational trails.

Table 3.15: Employment Revitalization Sidewalk Type

Sidewalk Type	Yes	Partial
Concrete	11.71	1.78
Brick	0.24	0
Asphalt	0	0

Figures represented in miles.

98 percent of sidewalks within this area are concrete.



Sidewalk and Trail Master Plan

Table 3.16: Employment Revitalization Sidewalk Conditions

Sidewalk Conditions	Yes	Partial
5	0.31	0
4	8.63	1.20
3	2.50	0.58
2	0.27	0
1	0.24	0

Figures represented in miles.

Sidewalk conditions were rated on a scale of 5 to 1 with 5 being the best condition (like new) and 1 being the worst condition (almost non-existent). This rating scale is described in detail with photo examples in Figure 3.2 on page 13. Approximately 72 percent of existing sidewalks within this area are in fair condition (Category 4) and 20 percent are in fair to deteriorating condition (Category 3). If Category 3 sidewalks are not properly maintained and/or repaired, they are likely to deteriorate to a Category 2 or 1 within the next 15 to 20 years and would require complete replacement.

Table 3.17: Employment Revitalization Sidewalk Width

Sidewalk Width	Yes	Partial
3' or less	0	0
4'	1.00	0.10
5'	6.97	1.29
6'	2.68	0.38
>6'	1.32	0

Figures represented in miles.

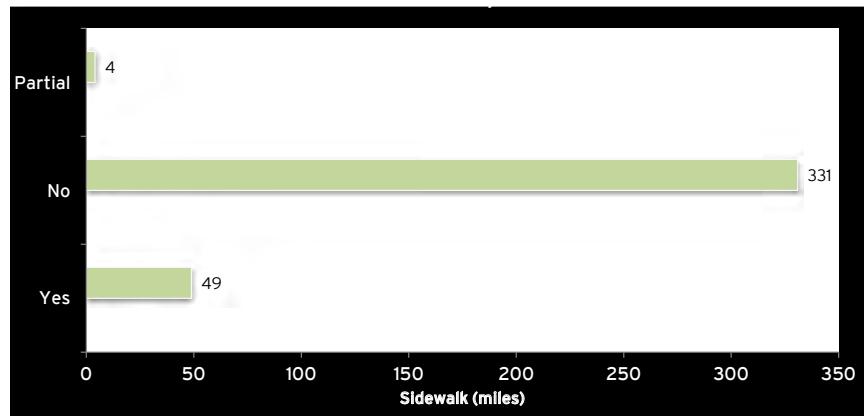
58 percent of sidewalks within this area are five-feet wide with 33 percent greater than five-feet.



Neighborhood Conservation Policy Area Analysis

These areas are comprised of established neighborhoods, primarily in the southwest portion of the County, including the Turner and Shawnee Heights neighborhoods. These areas are diverse and have suburban and rural characteristics.

Figure 3.13: Neighborhood Conservation Sidewalk Network



Many of these neighborhoods were built between World War II and 1980. Unfortunately, many of these neighborhoods were built before sidewalks were required as part of the development review process. Fortunately, where sidewalks do exist, they are in fair condition (see Table 3.18 below). The City-Wide Master Plan recommends trail and sidewalks to connect neighborhoods to institutional uses (schools, community centers, churches, etc.) and parks.

Table 3.18: Neighborhood Conservation Sidewalk Type

Sidewalk Type	Yes	Partial
Concrete	48.76	4.10
Brick	0.20	0
Asphalt	0	0

Figures represented in miles.

99 percent of sidewalks within this area are concrete.



Table 3.19: Neighborhood Conservation Sidewalk Conditions

Sidewalk Conditions	Yes	Partial
5	4.28	0.42
4	38.67	3.06
3	5.78	0.61
2	0.18	0
1	0.05	0

Figures represented in miles.

Sidewalk conditions were rated on a scale of 5 to 1 with 5 being the best condition (like new) and 1 being the worst condition (almost non-existent). This rating scale is described in detail with photo examples in Figure 3.2 on page 13. Approximately 78 percent of existing sidewalks within this area are in fair condition (Category 4) and 12 percent are in fair to deteriorating condition (Category 3). If Category 3 sidewalks are not properly maintained and/or repaired, they are likely to deteriorate to a Category 2 or 1 within the next 15 to 20 years and would require complete replacement.

Table 3.20: Neighborhood Conservation Sidewalk Width

Sidewalk Width	Yes	Partial
3' or less	1.52	0.28
4'	20.23	2.73
5'	27.00	1.09
6'	0.06	0
>6'	0.15	0

Figures represented in miles.

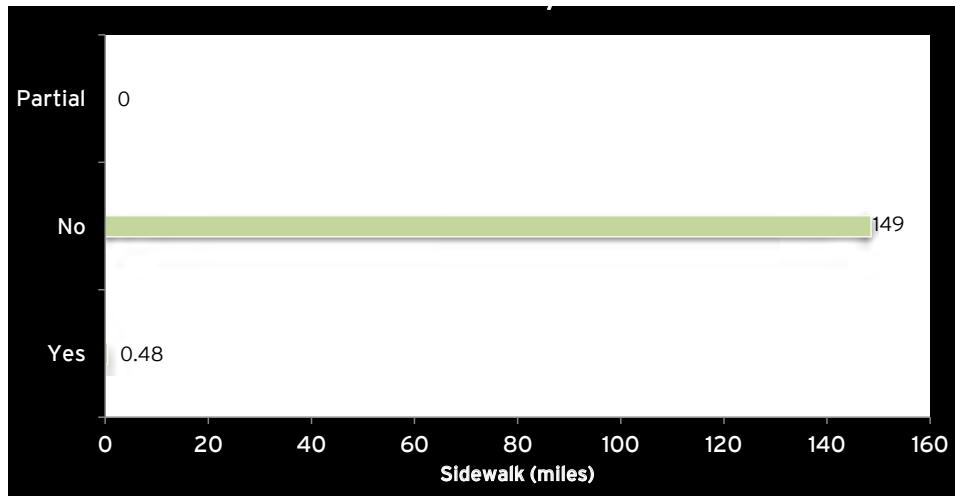
55 percent of sidewalks within this area are five-feet wide while 44 percent are less than five-feet. As mentioned earlier, a majority of these neighborhoods developed before sidewalk standards were in place.



Rural Policy Area Analysis

For the purposes of this analysis, the Rural Development and Rural Conservation Policy Areas were combined. Both of these policy areas have significant environmental constraints such as steep slopes that limit the extension of infrastructure and the ability to provide a connected street grid. Therefore, these areas have basic services and limited access to urban infrastructure including sidewalks.

Figure 3.14: Rural Sidewalk Network



This area has almost no sidewalk coverage which is appropriate in most cases due to environmental constraints and extremely low population densities. In many cases, this area is comparable to unincorporated areas in surrounding counties with limited rural residential development. Most roads within this area have two vehicular lanes with no shoulder and open ditch drainage systems. However, even if sidewalks are not built within these areas, future pedestrian and bicycle connections could be provided through a system of trails along creeks/greenways or old rail corridors.



Sidewalk and Trail Master Plan

Table 3.21: Rural Sidewalk Type

Sidewalk Type	Yes	Partial
Concrete	0.48	0
Brick	0	0
Asphalt	0	0

Figures represented in miles.

All of the sidewalks within these areas are concrete.

Table 3.22: Rural Sidewalk Conditions

Sidewalk Conditions	Yes	Partial
5	0	0
4	0.48	0
3	0	0
2	0	0
1	0	0

Figures represented in miles.

Sidewalk conditions were rated on a scale of 5 to 1 with 5 being the best condition (like new) and 1 being the worst condition (almost non-existent). This rating scale is described in detail with photo examples in Figure 3.2 on page 13. The limited sidewalks that do exist within this area are all in fair condition (Category 4).

Table 3.23: Rural Sidewalk Width

Sidewalk Width	Yes	Partial
3' or less	0	0
4'	0.13	0
5'	0.35	0
6'	0	0
>6'	0	0

Figures represented in miles.

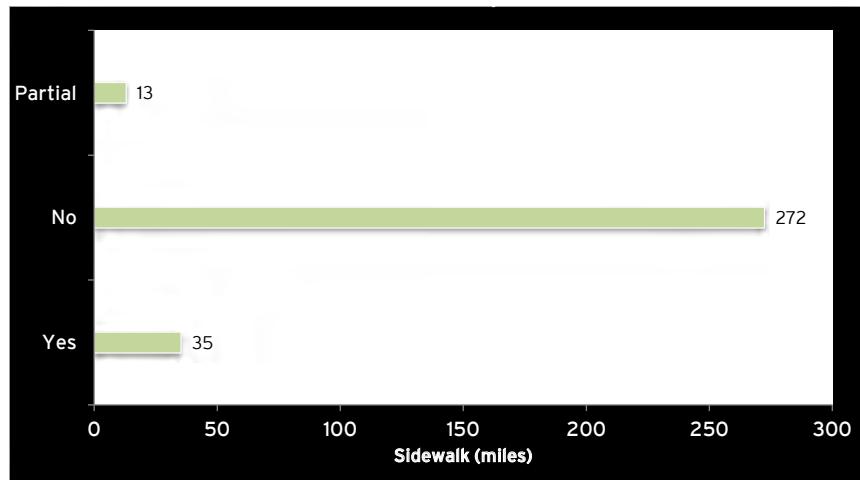
73 percent of sidewalks within these areas are five-feet wide, while 27 percent are less than five feet.



Community Development Policy Area Analysis

These areas are comprised primarily of low-density suburban development in the western portion of the County. This area experienced significant growth in the early 2000's with the development of the Kansas Speedway and Village West.

Figure 3.15: Community Development Sidewalk Network



The newer neighborhoods within these areas have sidewalks on at least one side of the street as required by the current subdivision regulations. However, with the economic downturn beginning in 2008, residential construction has significantly slowed leaving scattered residential developments that are not connected to one another. Although some of these developments are close to Village West, there are few sidewalks connections to this area.

Outside of Wyandotte County Lake Park, there are no trails within this portion of the County. Through the Plan process, residents noted that trails and associated amenities would help this area remain competitive with similar emerging neighborhoods in the Kansas City metropolitan area.



Table 3.24: Community Development Sidewalk Type

Sidewalk Type	Yes	Partial
Concrete	35.11	12.91
Brick	0	0.18
Asphalt	0.24	0
Other	0	0

Figures represented in miles.

99 percent of sidewalks within this area are concrete.

Table 3.25: Community Development Sidewalk Conditions

Sidewalk Conditions	Yes	Partial
5	21.42	9.71
4	11.02	3.33
5	21.42	9.71
2	1.07	0.05
1	0.49	0

Figures represented in miles.

Sidewalk conditions were rated on a scale of 5 to 1 with 5 being the best condition (like new) and 1 being the worst condition (almost non-existent). This rating scale is described in detail with photo examples in Figure 3.2 on page 13. Approximately 61 percent of existing sidewalks within this areas are in excellent condition (Category 5).

Table 3.26: Community Development Sidewalk Width

Sidewalk Width	Yes	Partial
3' or less	0.53	0.54
4'	15.65	9.37
5'	19.02	2.47
6'	0.16	0.72
>6'	0	0

Figures represented in miles.

54 percent of sidewalks within this area five-feet wide, while 44 percent are less than five feet.



4. Public Engagement

Introduction

This Plan's future sidewalk and trail network recommendations and priorities are a result of an inclusive hands-on public process that included multiple outlets and avenues to solicit issues, concerns, ideas, and feedback on preliminary and final concepts. This public process included two series of public workshops. Each workshop series included four public meetings held throughout the County. Public workshops were held at Donnelly College, Kansas City, Kansas Community College, Argentine Community Center and Cabella's in Village West. In addition to the multiple locations, workshops were held during the day over the lunch hour as well as the evening to maximize opportunities for public input. Each workshop was designed to promote an open dialogue between participants, the project team and City staff. Input from the workshops was collected through comment cards and on flip charts. Input was also solicited through two electronic surveys which were provided to workshop participants and widely distributed through County e-mail lists. A link to the surveys was also posted on the Unified Government website.

Public Workshop Series #1

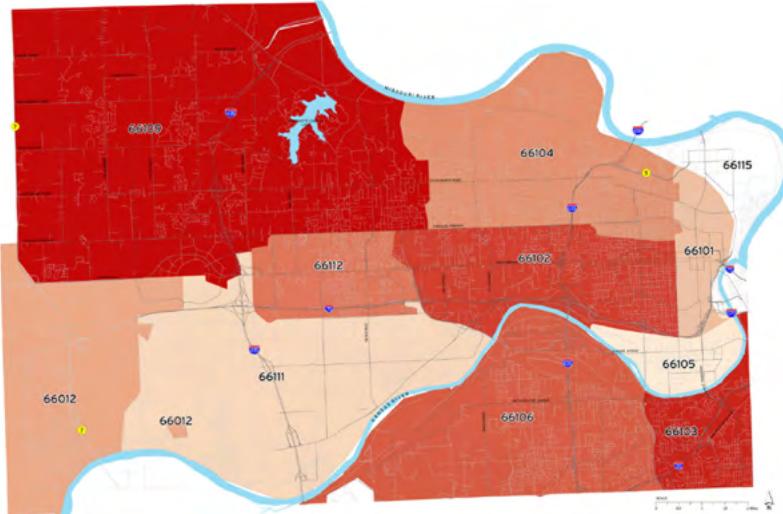
The first series of public workshops were held in the third week of March, 2012. During these workshops, the project team presented the results from the sidewalk analysis and solicited feedback on priorities for sidewalk and trail connections throughout the County. Participants were provided three dots to place on a County map to identify specific priority destinations. In addition to the map exercise, participants were asked to prioritize destinations by general type: educational facilities, transit corridors, parks, community resources, employment centers and entertainment/retail venues. These priorities were critical to the development of the Pedestrian Demand analysis in Chapter 5. This input and analysis provided the framework for prioritizing future sidewalk and trail improvements.

Public Workshop Series #2

The second series of public workshops were held in the fourth week of April, 2012. During these workshops, the project team presented a preliminary sidewalk and trail network and draft priorities based an analysis of existing conditions as well as feedback received during the March workshops. Based upon this input received at these workshops, as well as the electronic surveys, the project team refined the early concepts and developed the final sidewalk and trail recommendations outlined in Chapters 6 and 7.

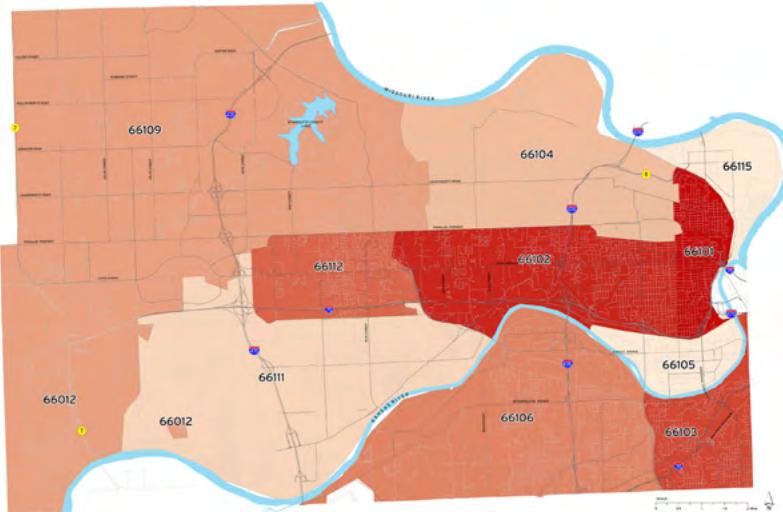


Question 1: In what ZIP code is your HOME located?



The areas with the darkest shade of red have the highest concentration of responses while the lightest shades have the least concentration of responses from a particular zip code.

Question 2: In what ZIP code is your WORK located?



The areas with the darkest shade of red have the highest concentration of responses while the lightest shades have the least concentration of responses from a particular zip code.

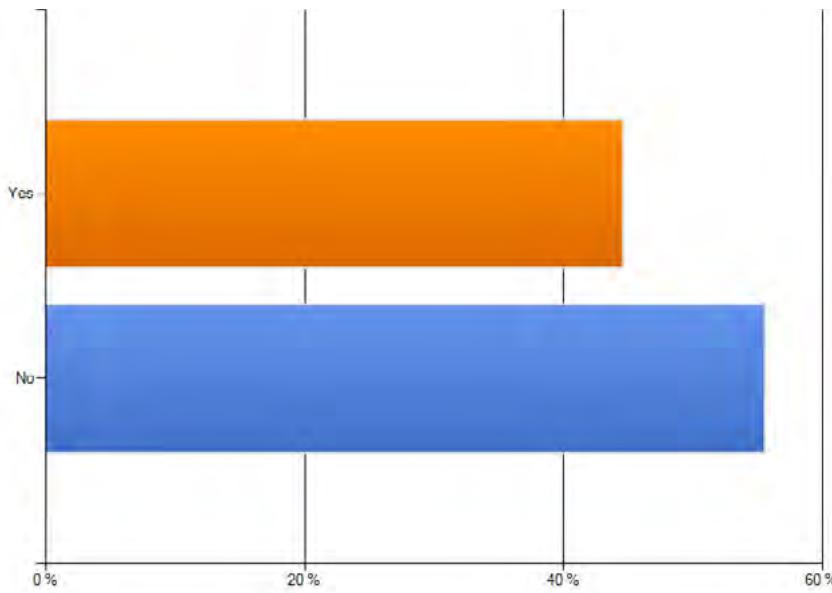
Survey #1

The first survey was designed to solicit public input concerning priority pedestrian destinations and to get a better understanding of local network needs. The survey was distributed to Public Workshop #1 attendees as well as a number of e-mail lists maintained by Unified Government staff. Participants were encouraged to forward the survey link to their friends, neighbors, and coworkers. In all, a total of 441 surveys were collected in the first round.

The first set of questions asked participants where they live and work. This provided the project team with an understanding of potential journey to work movements. On the maps to the left, the areas with the darkest shade of red have the highest concentration of responses, while the lightest shades have the least concentration of responses from a particular zip code. The highest concentration of respondents work in the eastern portion of County. Conversely, the highest concentration of respondents live in the western portions of the County. This suggests the potential need for cross-county sidewalks, trails and bicycle routes to connect home to work destinations. During the public workshops, many participants suggested that if these facilities were available, that they would consider biking, and in the case of shorter trips, walking to destinations as an alternative to the automobile. These survey populations for home and work are fairly consistent with the general population. Approximately eight percent of respondents live outside of Wyandotte County while approximately 23 percent work outside of Wyandotte County. Most of these respondents live in adjacent Johnson and Jackson Counties. Many participants noted that it would be desirable to connect to neighboring counties with well-established trail and bicycle networks.

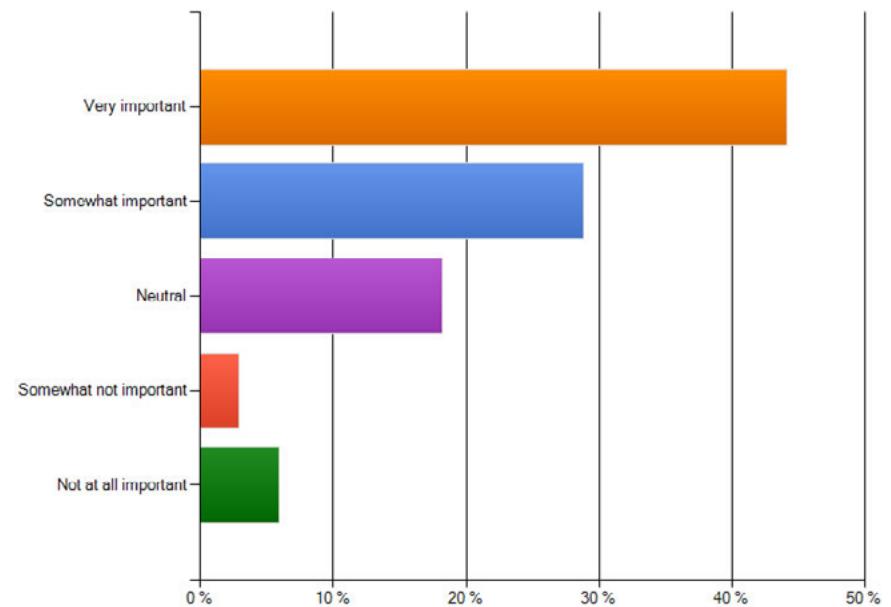


Question 3: Do you have access to sidewalks and/or trails in your neighborhood?



Just over 55 percent of respondents indicated that they did not have access to sidewalks or trails in their neighborhood. This percentage of sidewalk coverage is high compared to most areas of the County, especially outside of the older urban core.

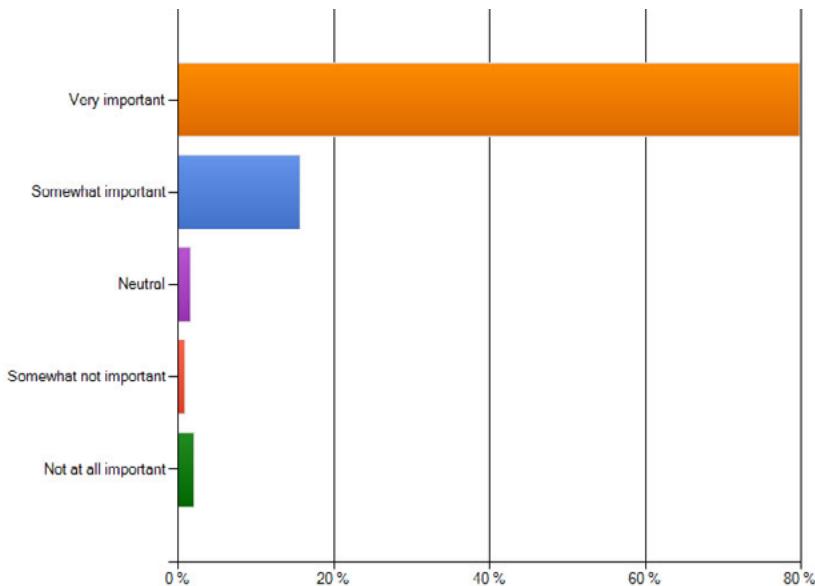
Question 4: How important were the availability of sidewalks and/or trails to you when selecting your home and neighborhood?



73 percent of respondents indicated that the availability of sidewalks and trails were a very important or somewhat important in selecting their home and neighborhood. Many participants noted that the lack of sidewalks and trails made it harder to be competitive with similar developments in surrounding communities where such amenities are common.

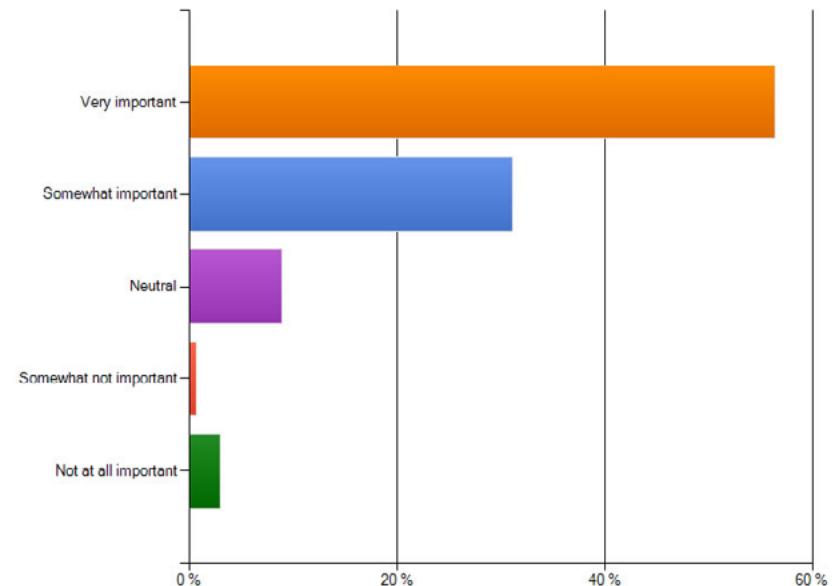


Question 5: How important are safe and accessible SIDEWALKS?



Just under 80 percent of respondents indicated that safe and accessible sidewalks were very important while just under 16 percent indicated they were somewhat important. Only two percent of respondents indicated that safe and accessible sidewalks were not at all important.

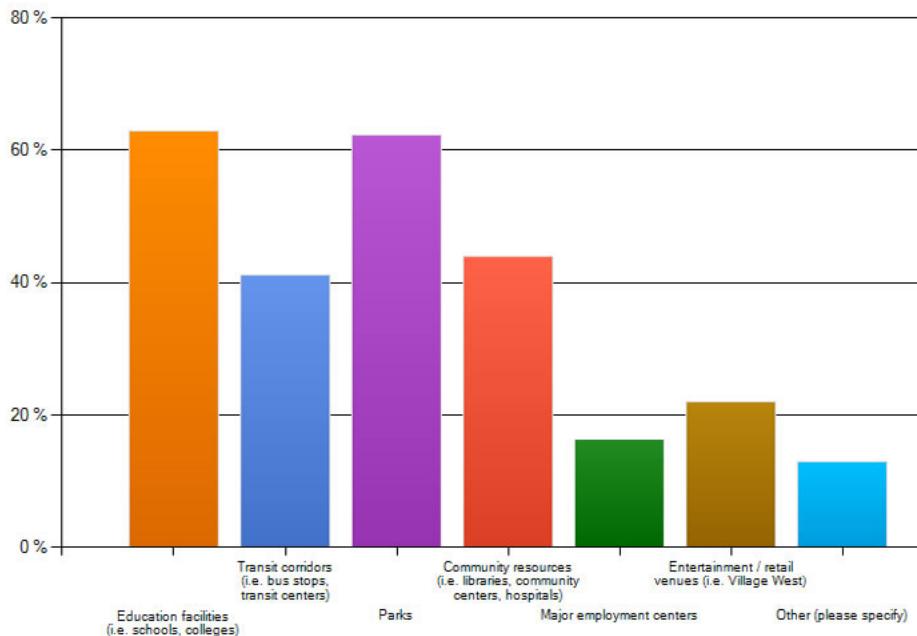
Question 6: How important are safe and accessible TRAILS?



Just over 56 percent of respondents indicated that safe and accessible trails were very important while just over 31 percent indicated that they were somewhat important. Only three percent of respondents indicated that safe and accessible trails were not at all important. This indicates that trails are important to the public, however, they do not rate as high as sidewalks. This is likely because of the lack of safe and accessible sidewalks throughout the County.

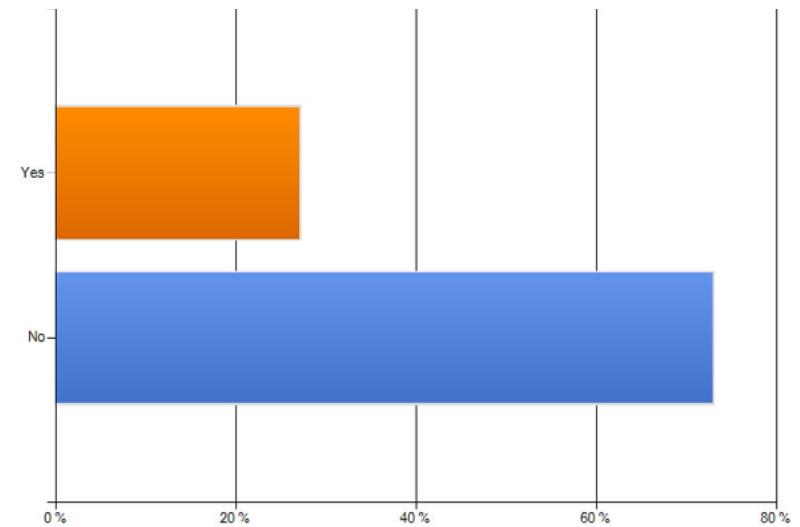


Question 7: What do you think is the most important connection for sidewalks and trails in Wyandotte County? (Choose top three)



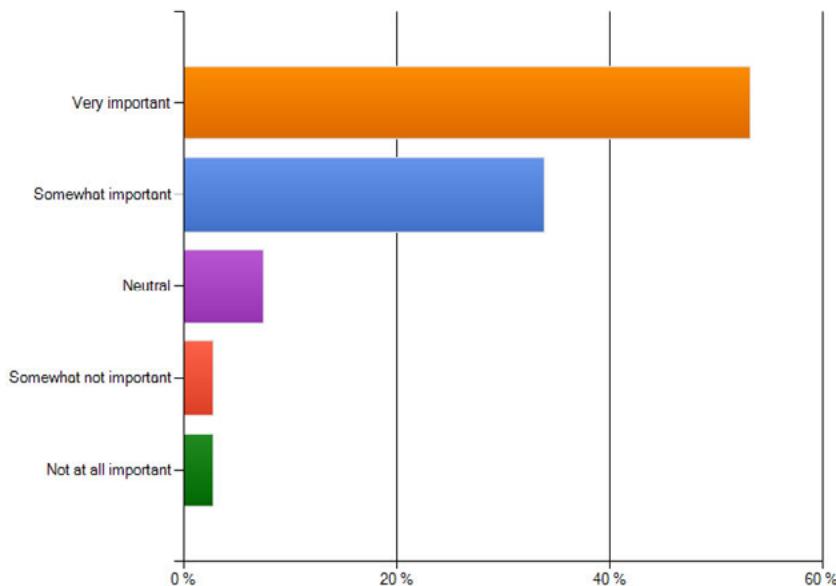
Overall, the top three connections for sidewalks and trails in Wyandotte County are in order: educational facilities, followed closely by parks, with community resources (libraries, hospitals, etc.) third. This is consistent with the feedback received from the dot map and priority destinations exercises at the first series of public workshops. This input was a critical to the development of the Pedestrian Demand analysis described in Chapter 5. As a result of this input and analysis, priorities were established for the sidewalk network recommendations and priorities in Chapter 6.

Question 8: Are you aware of the Unified Government's Sidewalk Incentive Policy that provides matching funds for sidewalks?



The Unified Government currently has a Sidewalk Incentive Policy, which has recently been modified, where a match (approximately 50 percent of the average cost for sidewalk removal and replacement for one house, 60 percent for two to five adjacent houses, and 75 percent for more than five houses in a row) will be provided for property owners willing to participate in the cost for construction of new sidewalks. To date, few have participated in the program. This could be because many people are not aware of the program. According to the survey, only 27 percent of respondents were aware of the program.

Question 9: How important are sidewalk and trail improvements to you when compared with other infrastructure needs of the community?



As noted earlier, just under 80 percent of respondents indicated that safe and accessible sidewalks were very important while only two percent of respondents indicated that they not at all important. However, many participants noted that many areas had significant infrastructure needs including aging sanitary sewer lines and inadequate stormwater infrastructure. With this in mind, a question was developed to gauge the relative importance of sidewalks and trails compared to other infrastructure needs. As shown in the graph to the left, just over 86 percent of respondents indicated that sidewalk and trail improvements were very important or somewhat important when compared to other infrastructure needs. Just under three percent (similar to the percentages in Questions 5 and 6) felt that sidewalks and trails were not important at all when compared to other needs.

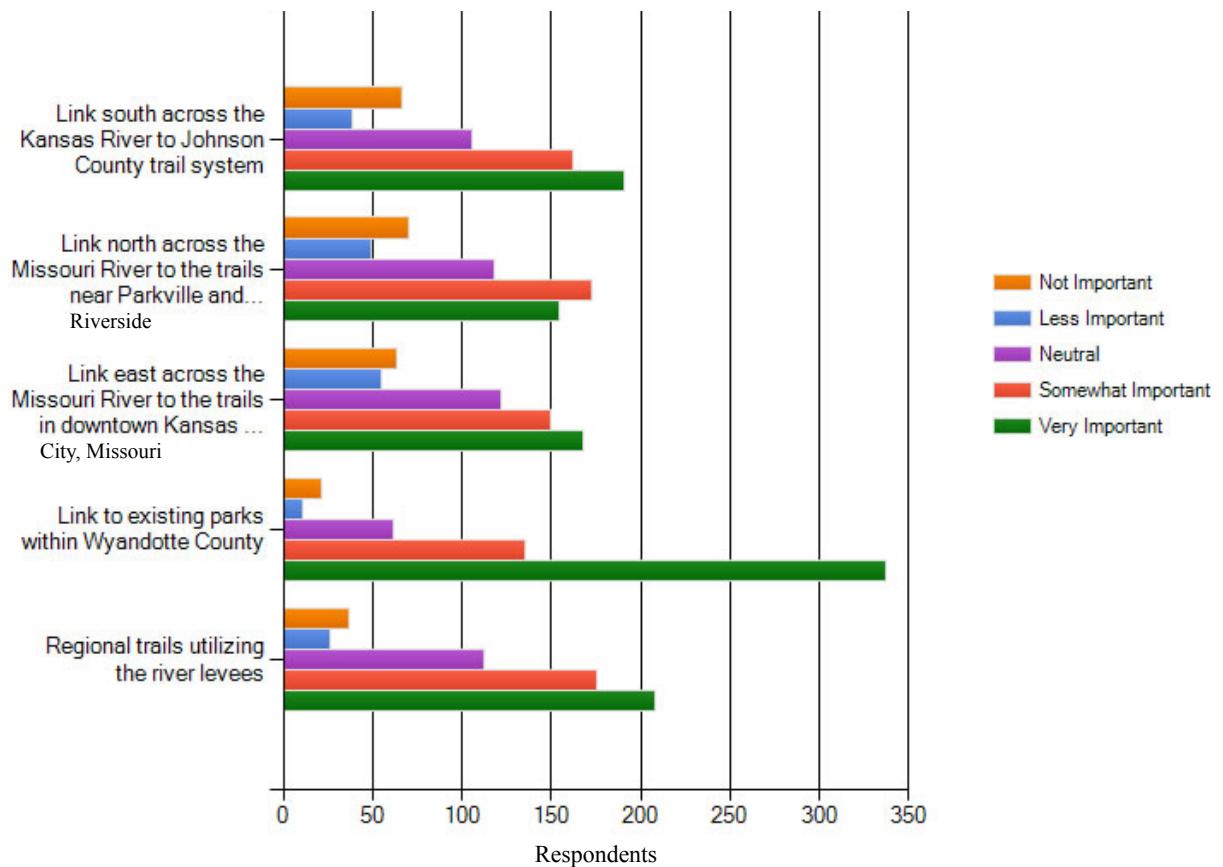
Question 10: Are there any specific areas that need consideration for sidewalks and trails?



Survey #2

While the first survey focused on priority destinations within the County, the second survey was designed to solicit input about preferences for regional connections outside of the County. The second survey also provided direction to the project team about individuals primary purpose for using sidewalks, trails, and bicycle facilities. This input provided insight into the purpose and need for pedestrian and bicycle improvements as well as a focus to the types of facilities that should be considered within the Plan. The survey was distributed to Public Workshop #1 and #2 attendees as well as a number of e-mail lists maintained by Unified Government staff. In all, a total of 576 surveys were collected in the second round.

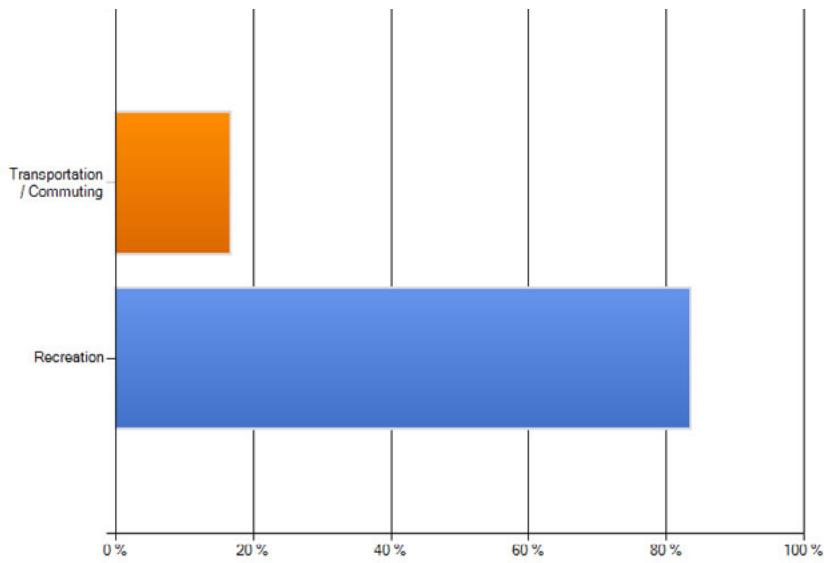
Question 1: Public feedback during this project has included suggestions to connect to other metro-wide trail systems. Concerning these regional trail connections, how important are the following?



As noted above, a vast majority of participants indicated that links to existing parks in Wyandotte County are very important. Other preferences for linkages in order are: trails utilizing levees, followed closely by linkages to Johnson County, Downtown Kansas City, Missouri and the Northland Trails in Parkville and Riverside.

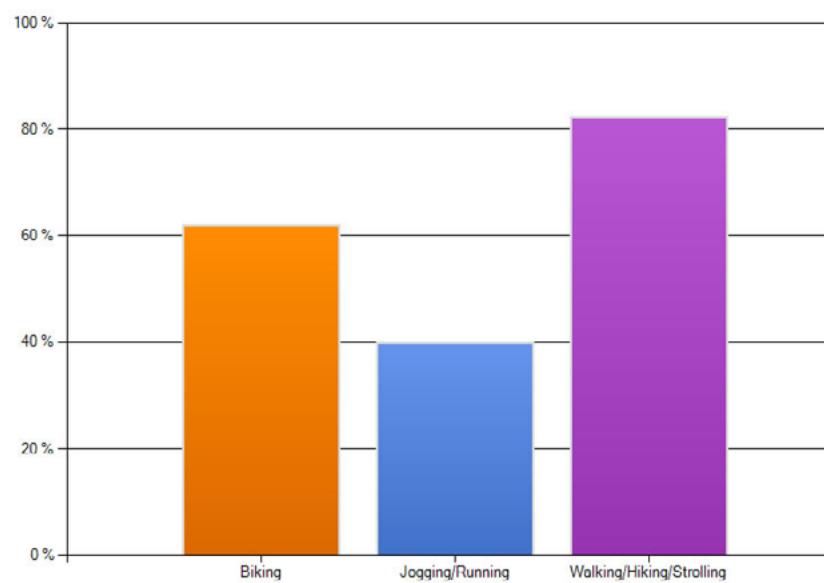


Question 2: If regional trail connections existed within Wyandotte County, what would be your PRIMARY purpose for using them?



Over 80 percent of respondents indicated that if regional trail connections existed, their primary purpose for using them would be for recreation. This is consistent with feedback gathered during the public workshops. The implication of this is to ensure that the design of the trail system and associated amenities include accommodations for a variety of uses.

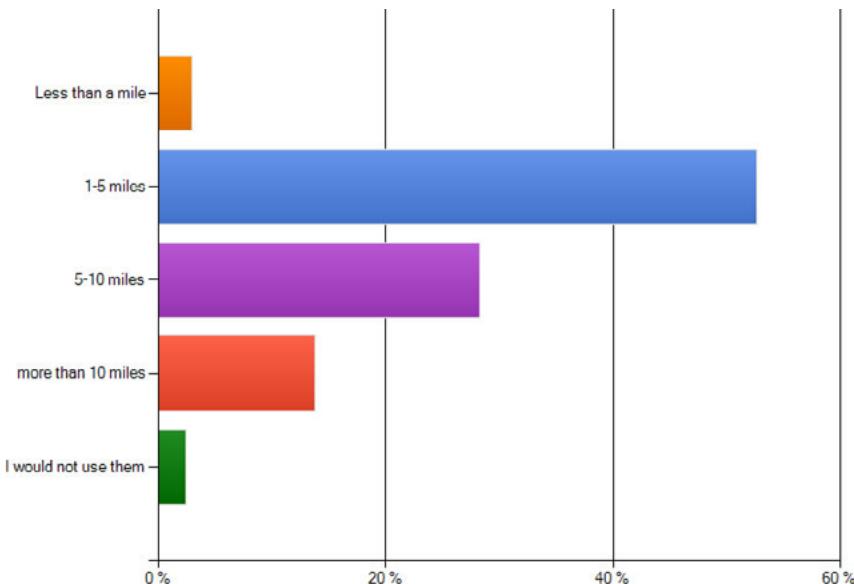
Question 3: If regional trail connections existed within Wyandotte County, how would you use them? (select all that apply)



A majority of respondents indicated that their primary use of potential regional trail connections would be walking/hiking/strolling followed by biking. It is clear from the public workshop comments and survey responses that any future system needs to accommodate a variety of users with different needs.

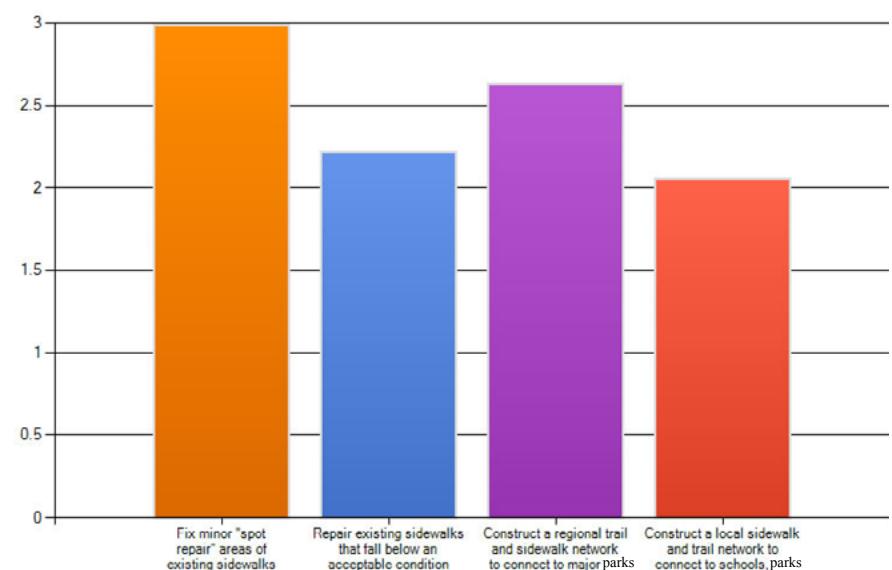


Question 4: If regional trail connections existed within Wyandotte County, on average how far would you travel (one-way) on a given trip?



Currently, most existing trails within the County are relatively short connections within parks. In order to develop any trail system, it is important to understand preferences for distances. Just over 53 percent of respondents indicated that they would travel on average 1 to 5 miles on a one-way trip. Approximately 28 percent indicated that they would travel between 5 to 10 miles while just under 14 percent indicated that they would travel more than 10 miles. Only three percent indicated that they would travel less than 1 mile.

Question 5: If funding became available, how would you prioritize the following improvements? Note: There is no dedicated funding for sidewalks outside of the current Sidewalk Incentive Policy. However, the Plan will serve as a resource to pursue future state and federal grant programs and other revenue sources. (1=highest, 4=lowest)



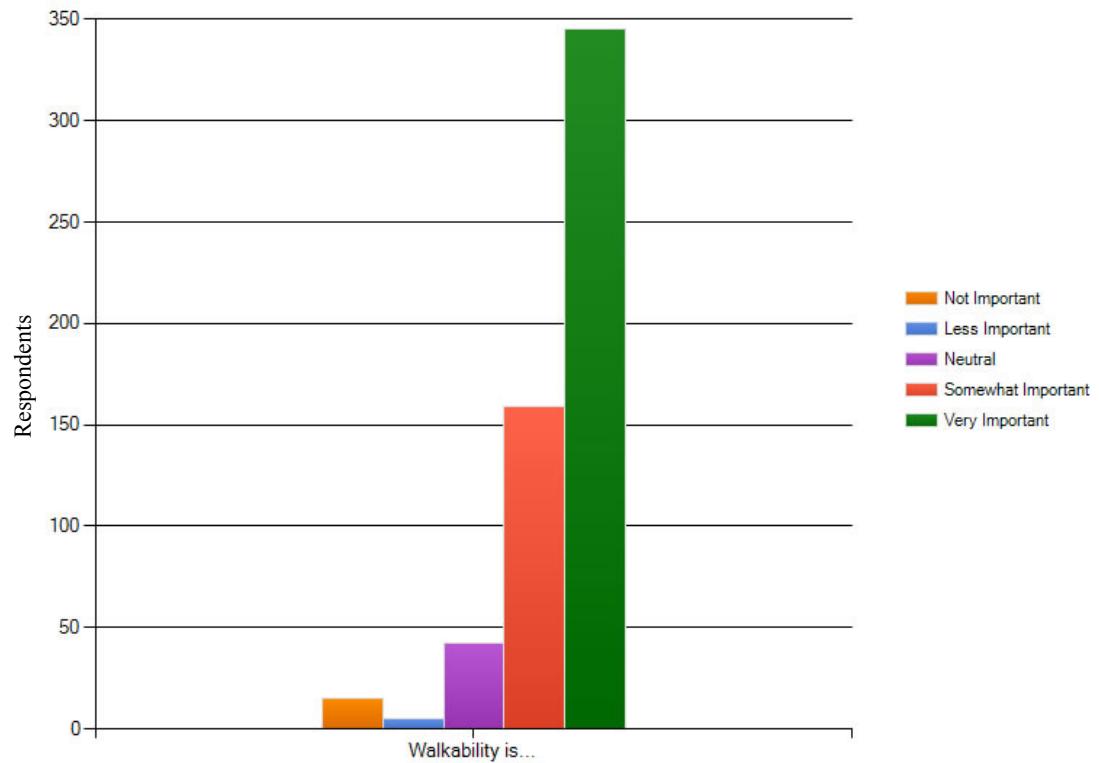
The inventory and assessment detailed in Chapter 3 identified existing sidewalks and conditions throughout the County. The sidewalk assessment identified many needs including areas without sidewalks (network gaps), existing segments in good condition but in need of spot repair, as well segments in need of replacement due to crumbling/deteriorating concrete. According to survey responses, the highest priority is to fix minor spot repair of existing sidewalks. Regional trail connections were next, followed closely by repair of existing sidewalks to an acceptable condition.

Question 6: What does the "walkability" mean to you?

420 responses were collected for this open-ended question that asked what "walkability" means to each individual. A sample of the responses are included in the bullets below:

- *A city where I have the option to walk or drive for daily activities (i.e. commuting, eating, socializing).*
- *In two words: alternative accessibility. For too long urban design has focused on providing and building spaces for the automobile when we need to be focused on providing and building places for people.*
- *Streets that service the pedestrian foremost.*
- *Combination of on-street parking, street trees, wide sidewalks and parkways.*
- *Safety, separation from vehicles, total grade separation at intersections, and personal pedestrian safety underwritten by effective community policing.*
- *Paths that are safe, well-lit for night walking, well-maintained, and attractive.*
- *Being pedestrian friendly -- with lots of sidewalks and crosswalks -- not having to walk in the street.*
- *One can safely walk in areas away from traffic, with logical, direct routes to bus stops, schools, and businesses.*
- *In urban areas "walkability" means basic transportation. However most of Wyandotte County is suburban where walkability means recreation and exercise.*
- *At a bare minimum, having a sidewalk to walk on, which many of our streets do not.*

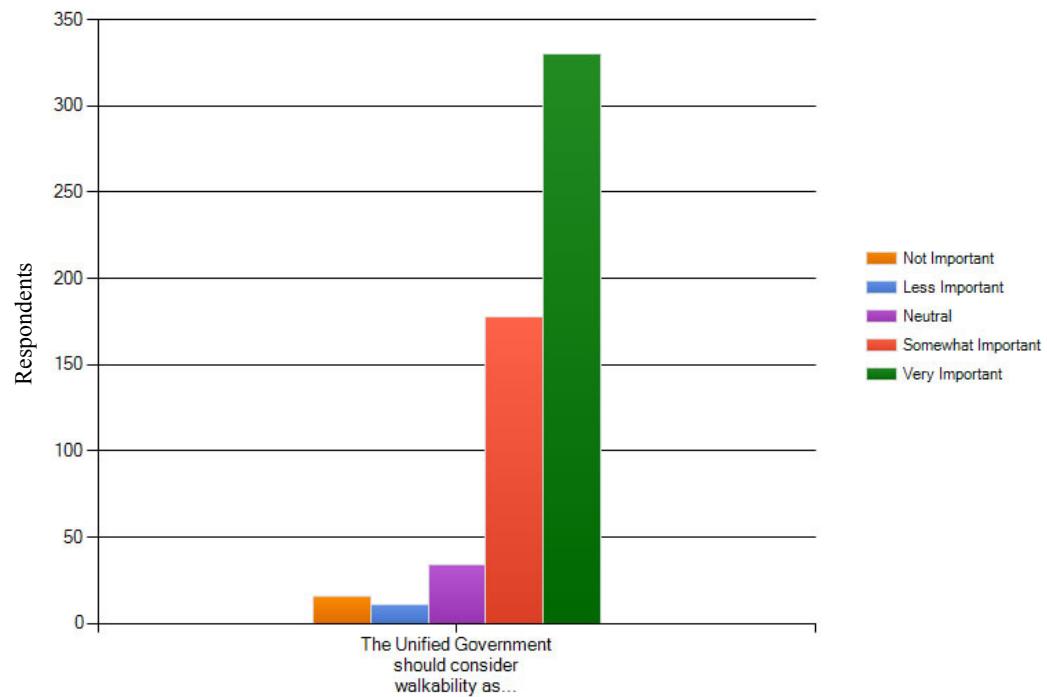
Question 7: How important is walkability to you?



Just over 89 percent of respondents indicated that walkability was very important or somewhat important. Only 3 percent indicated that walkability was not important.



Question 8: How high a priority should walkability be for the Unified Government?



Just over 89 percent of respondents indicated that walkability should be a priority for the Unified Government. This is consistent with the percentages for Question 7 and has major implications for implementation of this Plan and future Unified Government policies and initiatives. A few years ago, the Unified Government took an initial policy step in adopting a Complete Streets Policy that ensures that pedestrians (among other modes) be given equal considerations with future transportation improvement projects.

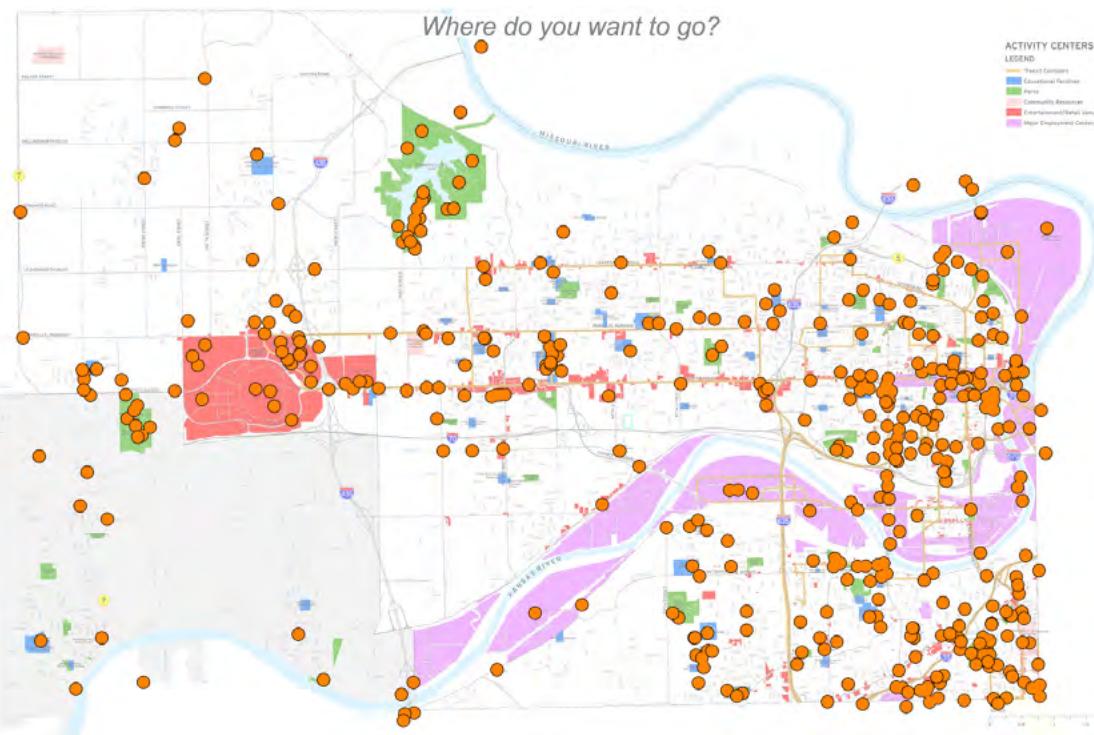


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5. Pedestrian Demand

Analysis Process and Results

During the first public workshop series, the project team led the public through an exercise to identify priority pedestrian destinations. During the first exercise, participants were given three dots to place anywhere on the map for specific priority destinations. The consolidated dot map is shown below. In addition to the map exercise, participants were asked to prioritize generalized destinations (shown right). Each participant was given three priority tickets to be placed in a box for each destination type. All destinations were mapped in ArcGIS Model Builder with an 1/8-, 1/4- and 1/2-mile buffer. These are typical distances most individuals are willing to walk. Each destination type was weighted based on input from the public workshops to produce the Pedestrian Demand Map. The analysis workflow is on the following page and the Pedestrian Demand Map is on page 42.



Sidewalk and Trail Master Plan

What Are Your Priority Destinations?

Educational Facilities (Schools, Colleges)



Transit Corridors (Bus Stops, Transit Centers)



Parks



Community Resources (Libraries, Community Centers, Hospitals)



Major Employment Centers

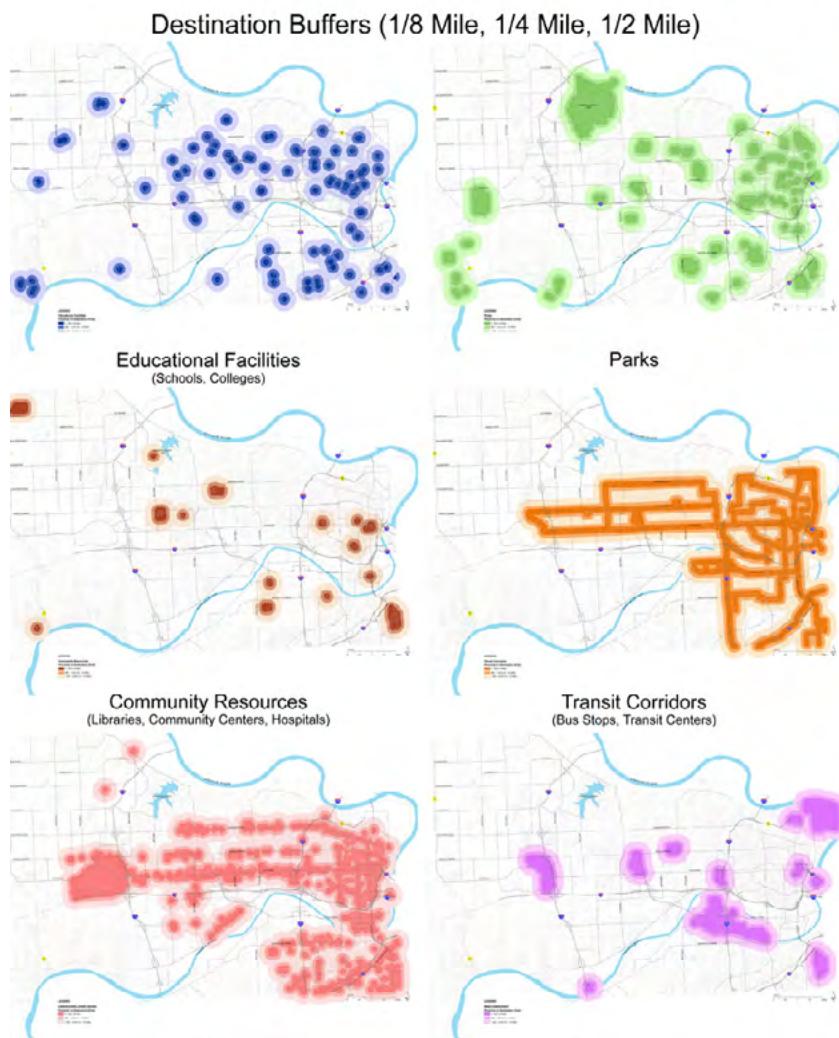


Entertainment / Retail Venues

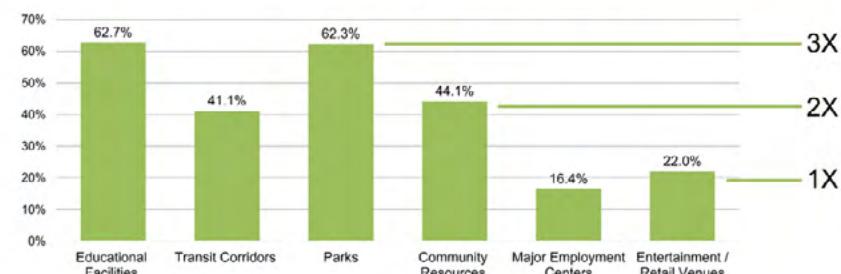


Figure 5.1 Pedestrian Demand Analysis Workflow

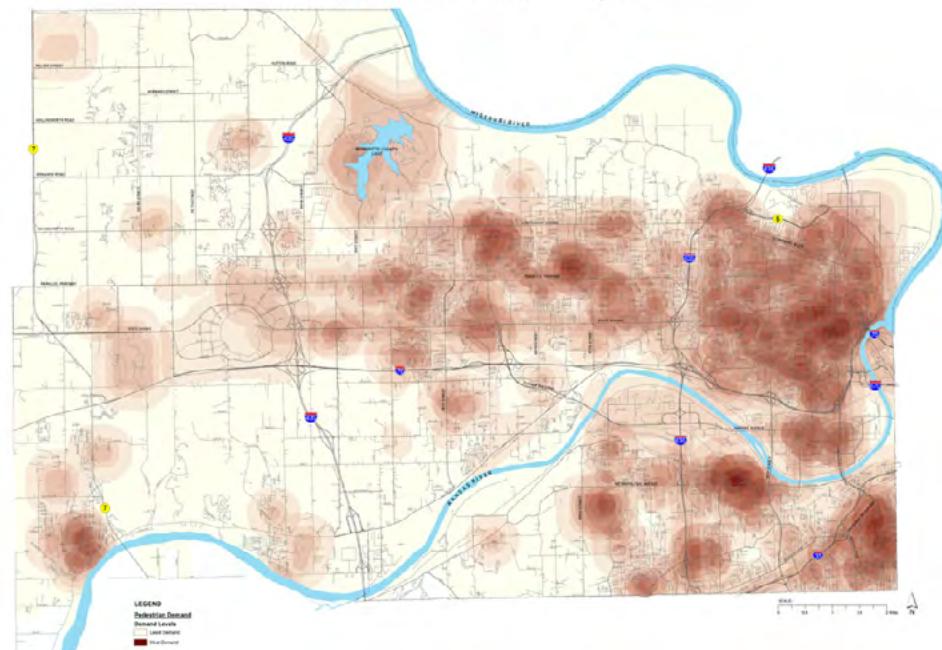
Where is the most demand for sidewalks and trails in Wyandotte County?



Priority Multiplier (Public Feedback)



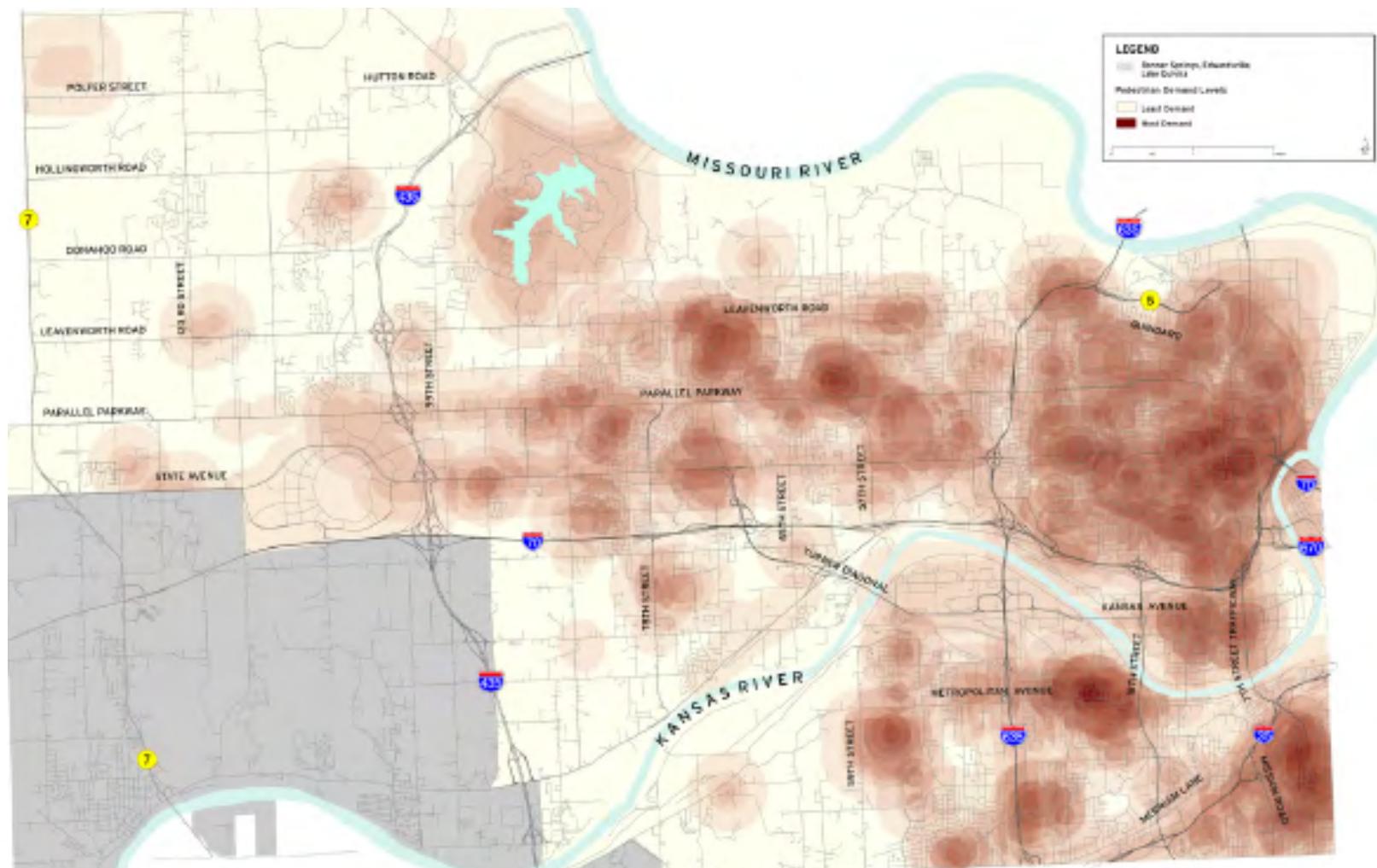
Pedestrian Demand Analysis



Pedestrian Demand

This map illustrates weighted priorities for pedestrian destinations based on input from public workshops and survey responses. The darkest red areas indicate the highest pedestrian demand. Sidewalk and trail improvements should be prioritized within these areas.

Figure 5.2



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6. Future Sidewalk Network and Priorities

Sidewalk Network Recommendations

The conclusion of the 2012 Walk Friendly Community Assessment and Report Card is that Kansas City, Kansas is not yet a walk friendly community. This conclusion was confirmed through the Sidewalk inventory and assessment as well as public input throughout the Plan process. This is due largely in part to the lack of sidewalks in significant portions of the County. Where sidewalks currently exist, there is a limited network with significant gaps between important destinations such schools, parks and transit lines. Typically, sidewalks are constructed concurrently with development. Unfortunately, large segments of the County developed prior to sidewalk requirements. Today, sidewalks are required to be constructed on at least one side of a local street and both sides of an arterial street. Where sidewalks exist, many are in poor condition, especially in older parts of the County. Figure 6.1 on the following page provides a prioritized sidewalk network intended to address basic pedestrian needs including, but not limited to, connecting neighborhoods to schools, parks, transit lines, and other important local destinations. This map is intended to serve as a big-picture guide for the prioritization of future sidewalk improvements based on a high-level analysis, and public input throughout the Plan process. Specific routes and priorities may be modified based on changing conditions, further public input, and a more detailed engineering analysis. This Sidewalk Network, along with the Future Trail Network presented in Chapter 7, is intended to provide a long-range guide for a pedestrian and bicycle network that meets the needs of all users.

Fiscal Considerations

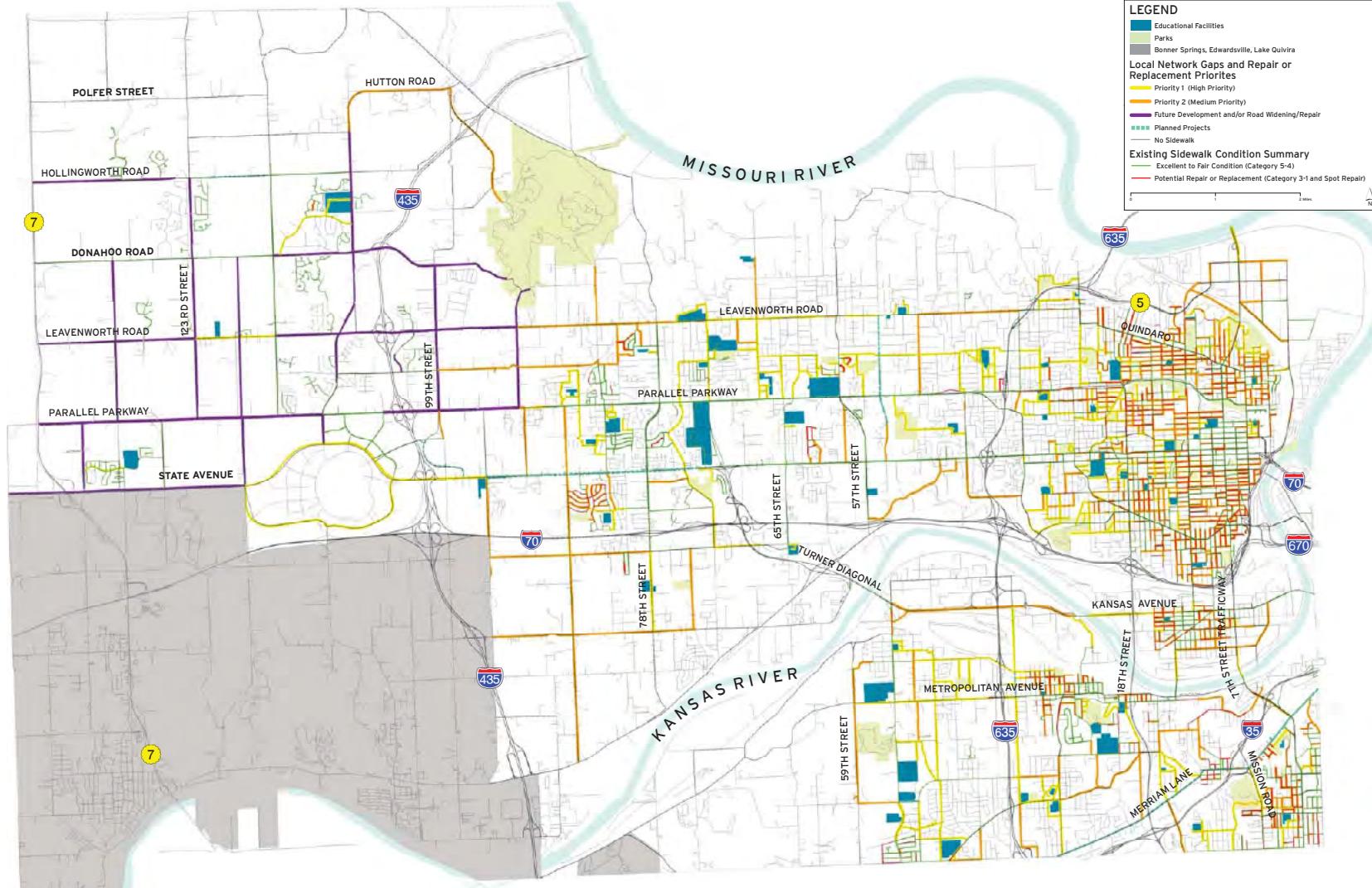
Sidewalk maintenance is a property owner's financial responsibility. Currently, there is no dedicated funding for sidewalks outside of the recently modified Sidewalk Incentive Policy. However, even if there were a dedicated funding source, it would be cost prohibitive and likely unnecessary to build sidewalks in every portion of the County. As illustrated in the analysis by Policy Area in Chapter 3, different areas of the County have different needs. Some areas have high population densities and are in proximity to multiple priority destinations, while other areas are very rural with low population densities and few close activity centers. Therefore, this Plan does not recommend sidewalks everywhere in the County. This is not to say that sidewalks should not be built or repaired within segments not identified within this plan. Rather, these areas are a lower priority based on preferred pedestrian destinations and needs identified through the Plan process.



Future Sidewalk Network

The Future Sidewalk Network (see below) provides recommended improvements and priorities for sidewalks. Detailed area maps are provided in Appendix B.

Figure 6.1



Note: This map is intended to serve as a big-picture guide for the prioritization of future sidewalk improvements based on a high-level analysis, and public input throughout the Plan process. Specific routes and priorities may be modified based on changing conditions, further public input, and a more detailed engineering analysis.



7. Future Trail Network and Priorities

Overview

Currently, there are few trail or bicycle facilities within the County. The few existing trails are located within existing parks including, but not limited to, Wyandotte County Lake Park, Wyandotte County Park, Jersey Creek Park and Kaw Point Park. Unfortunately, there are few safe and convenient pedestrian connections to these parks. Public workshop participants noted that they had to drive to these locations. In the case of Jersey Creek Park and Kaw Point Park, the gap in the trail network is relatively short. Meeting participants also noted that even though there are few trails within the County, there are numerous opportunities for connections to established trail and bicycle networks in adjacent counties. Examples of existing trail networks in adjacent jurisdictions include the extensive Johnson County, Kansas trail system, the Riverfront Heritage Trail in Kansas City, Missouri, and Northland trails in Riverside and Parkville, Missouri. Connections to these established trail networks could leverage a few miles of improvements into a true regional network and would help to further expand the MetroGreen system.



Planning Context

As detailed in Chapter 2, the Future Trail and Bicycle Network builds on a number of previous planning efforts, including, the Johnson and Wyandotte County Bicycle Plan, the MetroGreen Action Plan, the Southwest Boulevard/Merriam Lane Corridor Master Plan and the City-Wide Master Plan. These plans provide a vision and direction for the development of a comprehensive trail and bicycle network. Deviations, refinements, and new corridors were identified through the Plan process as a result of detailed input from the public workshops and surveys 1 and 2 described in Chapter 4. Other considerations included physical opportunities and constraints such as rivers, streamway corridors, topography, utility corridors, old road and rail rights-of-way, and levees described on the following pages.



Physical Opportunities and Constraints



Wyandotte County has significant natural and man-made opportunities and constraints that influenced the development of the Final Trail Network. Steep grades, rivers, and major creeks serve as natural barriers to safe and convenient pedestrian and bicycle connections. Other physical barriers include highways and rail lines. However, if planned and coordinated properly, many of these barriers can become opportunities.

Rivers

The Missouri and Kansas Rivers serve as a significant barrier to future trail connections, especially to established trail networks in neighboring jurisdictions. Currently, there are few pedestrian or bicycle accommodations on existing bridges. Notable examples of bridges without such connections include the north and southbound K-7 bridges connecting to Johnson County, Kansas and the Platte Purchase and Fairfax Bridges connecting to Platte County, Missouri. As these bridges are improved or replaced in the future, the Unified Government should work with the Kansas and Missouri Departments of Transportation (KDOT and MoDOT) to ensure that pedestrian and bicycle accommodations are provided. In some cases, existing bridges can be retrofitted with pedestrian and bicycle facilities like the Heart of America Bridge (shown left), the Highway 9 crossing of the Missouri River between Downtown Kansas City, Missouri and North Kansas City, Missouri.

Streamway Corridors

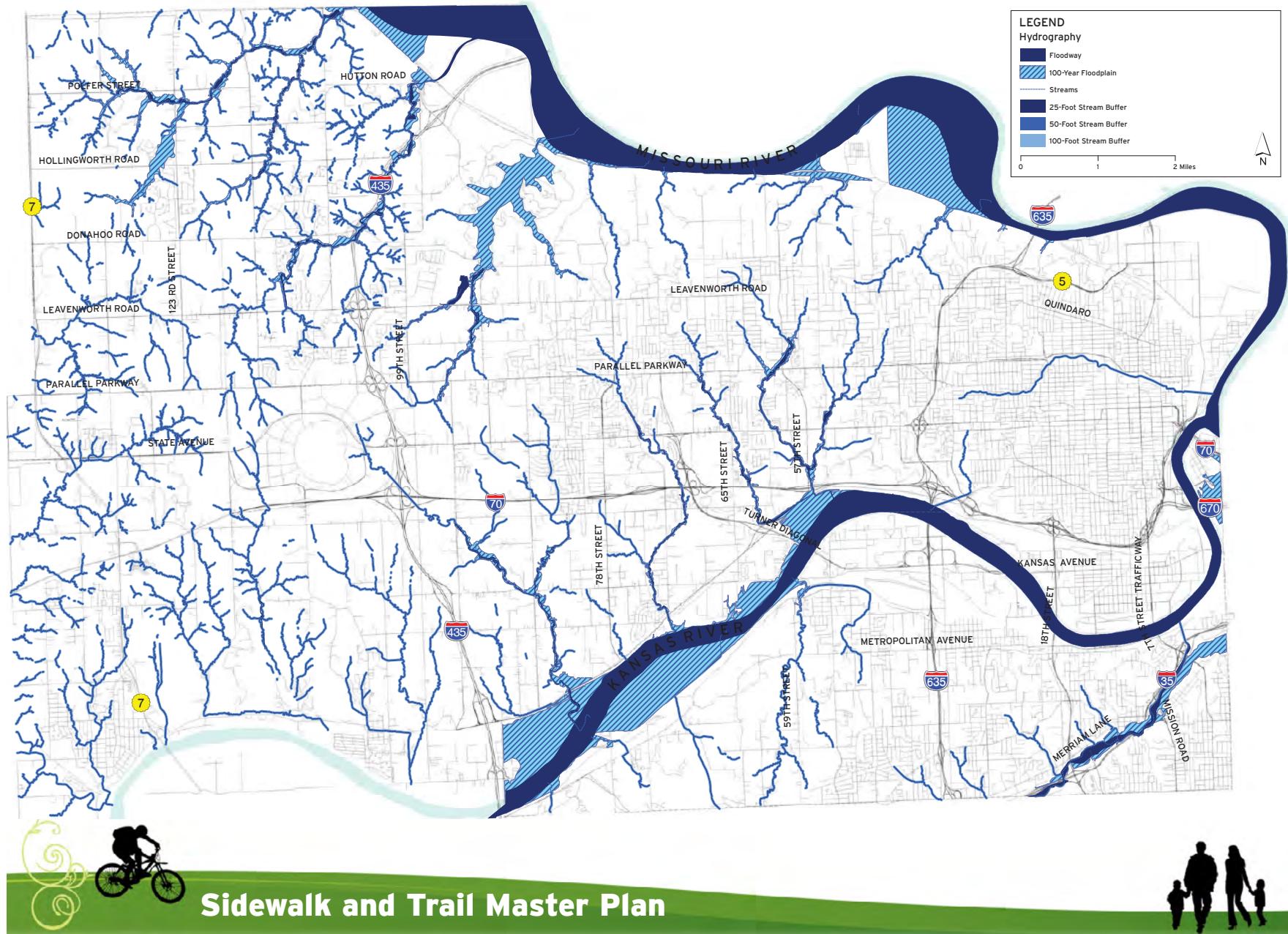
As a best practice, streamway corridors should be protected to limit erosion of stream banks, provide a water storage area for floods, and preserve water quality by filtering sediment from runoff before it enters rivers and streams. The City-Wide Master Plan recommends the protection of undeveloped stream corridors and identifies their potential use for greenway trails. These greenway trails are also a significant component of the MetroGreen vision. While not ideal for most types of developments, streamway corridors provide an excellent opportunity for trails, parks and open space. These trails offer an attractive recreational outlet. They also provide a benefit to adjacent developments by providing an important amenity for local residents. Plan participants noted throughout the process that trails can be a selling point for future business owners, home buyers, and renters.



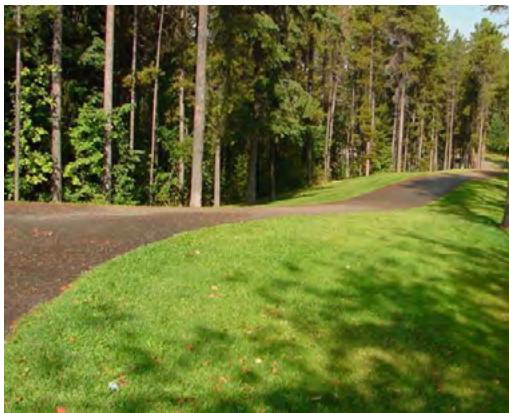
Streamway Corridors

Streamway corridors provide an excellent opportunity for trails.

Figure 7.1



Topography



Topography heavily influenced the physical development of Wyandotte County. The main topographic features within the county are the Kansas and Missouri River valleys and their tributaries. The uplands adjacent to these valleys are comprised of deeply dissected hills. The lowest level in Wyandotte County is about 740 feet above sea level at the junction of the Kansas and Missouri Rivers. The highest point is about 1,060 feet in the western part of the county. When considering cross-county trail connections, working with existing grade changes is essential.

Highways

The highway system serves as an important transportation artery for the County; however, it can serve as a significant barrier to cross-county trail connections. Safe crossings of these corridors involve physical separation (either under or over) from the highway. These networks can provide significant opportunities for trails if planned and coordinated properly. For example, K-7 on the western edge of the County is planned as a future limited access freeway. In coordination of these improvements, Wyandotte and Leavenworth Counties are working with KDOT to plan for future trails and bike routes on the parallel arterial road network. Additionally, KDOT is planning for future sidewalk and bike connections at I-70 and Riverview and I-70 and 118th Street. Any major highway improvements should consider future pedestrian and bicycle connections.



Arterial and Collector Roads

Trail opportunities for arterial roads include low-volume roads that are candidates for a "road-diet" where excess right-of-way could be used for a trail and/or bike lane. Additionally, safe integration of a trail on one side of the road should be considered for key north-south and east-west high-volume arterials such as 7th Street Trafficway and State Avenue. This strategy of identifying accommodations for trail connections will ensure a more balanced, complete street.

Rail Lines

Wyandotte County has a number of high-volume rail lines that serve as a major barrier to cross-county trail connections, especially within older industrial areas in the southeastern part of the County. These areas are comprised of large rail yards with significant activity. The Unified Government should continue to work with the railroads to ensure accommodations are provided for safe



Slope Analysis

Figure 7.2

The future trail corridors were heavily influenced by the County's topography.





pedestrian and bicycle crossings. In addition to the crossings, another opportunity includes a number of abandoned rail corridors that could serve as future trail connections, such as old streetcar corridors like the Kansas City Interurban line. The Unified Government should investigate the feasibility of using these abandoned corridors.

Utility Corridors

Similar to planning for road corridors, opportunities exist to take advantage of future planning for major sanitary sewer, water, natural gas, and power lines. These corridors could be candidates for trails if they make logical connections within the overall trail network. The Unified Government should work diligently with local service providers to consider utilizing a portion of future utility corridors, especially those underground, as an opportunity for future trails.



Levees

Levees are intended for flood protection and serve as physical barrier to the riverfront. However, levees have the potential to provide an excellent opportunity for walking and biking trails. Levees have successfully been used for trails throughout the country, including neighboring Riverside and Kansas City, Missouri. Levee trails can serve as an important regional transportation and recreational outlet and provide a visual and physical connection to the riverfront. Today, the riverfront is often taken for granted because it is not visible or accessible. Levee trails have the opportunity to raise overall awareness of the river and surrounding environment. Numerous regional trails plans, including MetroGreen and the Riverfront Heritage Trail, among others, have proposed a connected trail system along riverfront levees.

Levees are regulated by the U.S. Army Corps of Engineers (USACE) and local levee districts. Most levee districts have posted these areas "no trespassing". Although they have no direct authority or control over these levees, local communities and their residents contribute a significant amount of money for improvements and ongoing maintenance through tax dollars and/or special assessments. The Unified Government should consider a formal policy to request that the USACE and local levee districts provide trail access when local funding is requested or required for levee improvements. Public input advocating access to levees for trails is included in Appendix D.



Future Trail Network

The Future Trail Network, described below and illustrated in Figure 7.6 on page 57, is intended to serve as a long-term guide for a local and regional trails and bicycle routes to serve a variety of needs, ages, physical abilities, etc. This network was generated based upon a review and consideration of previous planning efforts, analysis of physical opportunities and constraints, as well as public input received through the public workshops and the two surveys. The Future Trail Network recommendations include three types of trails:

- Regional Trails
- Local Trails
- Greenway Trails

Design guidelines for all trail types are provided on the following page. Typical cross sections and descriptions for each trail type are provided on pages 54, 55 and 56.

Bike Routes

It is assumed that the majority of bike routes will be signed facilities where cyclists share a lane with vehicular traffic along designated routes. Legally, cyclists are allowed to share the road with vehicles on most routes, however, additional accommodations will be made for bicycles on designated bike routes through signage, shoulder improvements, relocation or re-configuration of utility grates, and other safety measures. Appropriate signage will be included on designated bike routes to alert motorists of the presence of bicycles. These could include metal signs placed on poles adjacent to the roadway or painted markings on the lane (as shown lower left). There may be opportunities in the future through road diets or other improvements to implement dedicated bike lanes within the roadway similar to Merriam Lane and Southwest Boulevard. However, each case will need to be thoroughly evaluated through detailed traffic and engineering studies to ensure that safe and efficient operations can be maintained for both the motorist and cyclist. For more information about these improvements, please refer to the Southwest Boulevard/Merriam Lane Corridor Master Plan.

Regional Sidewalk Connections

These sidewalks have the potential to supplement the regional trail network by providing additional cross-county connections and serving high-demand pedestrian destinations. For more detailed sidewalk recommendations and priorities, please refer to Chapter 6.



Trail Design Guidelines

The following guidelines apply for all recommended trails. Although there are several trail types, there are common minimum design standards necessary to ensure a safe and enjoyable experience for all users. These standards were developed based on input received through the Plan process and a review of the latest common practices, most notably the American Association of State Highway and Transportation Officials (AASHTO) Guide for Planning, Design and Operation of Pedestrian Facilities, AASHTO Guide for the Development of Bicycle Facilities, and KC-APWA standards.

1. For ease of maintenance, the preferred surface material for most regional and local trails is concrete. However, to accommodate different user needs and unique physical conditions, trails on unimproved levee roads, parks, greenways, or in other natural areas may utilize asphalt or "soft" surfaces such as limestone screenings, or other material approved by the County engineer.
2. Although the standard width is 10-feet, it is recognized that within the developed urban corridors and/or areas with significant physical and environmental constraints, narrower trail segments may be necessary. Within these areas, upon the recommendation of the County Engineer, a minimum of 8-feet may be accepted.
3. A three-foot minimum clear zone on each side of the trail is desirable. All vertical objects including signage, benches, etc. should be located outside of this zone.
4. Grades steeper than 8.33 percent (1:12 slope) should only be considered for very short segments; cross slopes should not exceed two percent.
5. Overhanging branches or obstructions should be higher than 10-feet.
6. For safety, large trees or tall shrubs should be at least 10-feet from the trail.
7. A buffer zone should be maintained to protect natural systems and ecologically sensitive areas.
8. Visual clutter should be limited in the green space between the road and sidewalk or trail.
9. Crossings on bridges should include a barrier and railing to separate traffic and the pedestrian or cyclist.
10. Trail heads provide places for rest, parking, water fountains, and maps of the trail system. Trail heads should be placed at the appropriate termini or junctions of a trail corridor and any place where a large concentration of users is anticipated. At a minimum, trail heads should include vehicular and bicycle parking as well as a system trail map with the specific location within the system. Other preferred features include but are not limited to benches, trash receptacles, lighting, appropriate cultural or historical interpretive signage, restrooms and drinking fountains. All facilities should be designed according to ADA accessibility guidelines.



Priorities

The following priorities for trails improvements are intended to be a general guide for future implementation of a county-wide network. It should be noted that a majority of trails will be built over time as development and re-development occurs, and ideally with a cost share by private development. However, there will be important trail connections that will not be financed by private development such as trails on bridges, levees and old rail corridors. These priorities are intended to guide the prioritization of local, state and federal funding. These general priorities were established based on input received at the public workshops as well as two surveys.

1. Trail segments that provide a direct connection to existing schools and parks

- Kaw Point Connector
- Wyandotte County Lake Park Connector
- Trails that connect schools and parks in rural or environmentally constrained areas that do not have access to sidewalks



2. Trail segments that provide a cross-county connection

- State Avenue Corridor
- Parallel Parkway Corridor
- North-South Greenway Corridors
- K-32/Kansas River Corridor
- Kansas and Missouri River Levees

3. Trail segments that provide a direct connection to the regional trail network

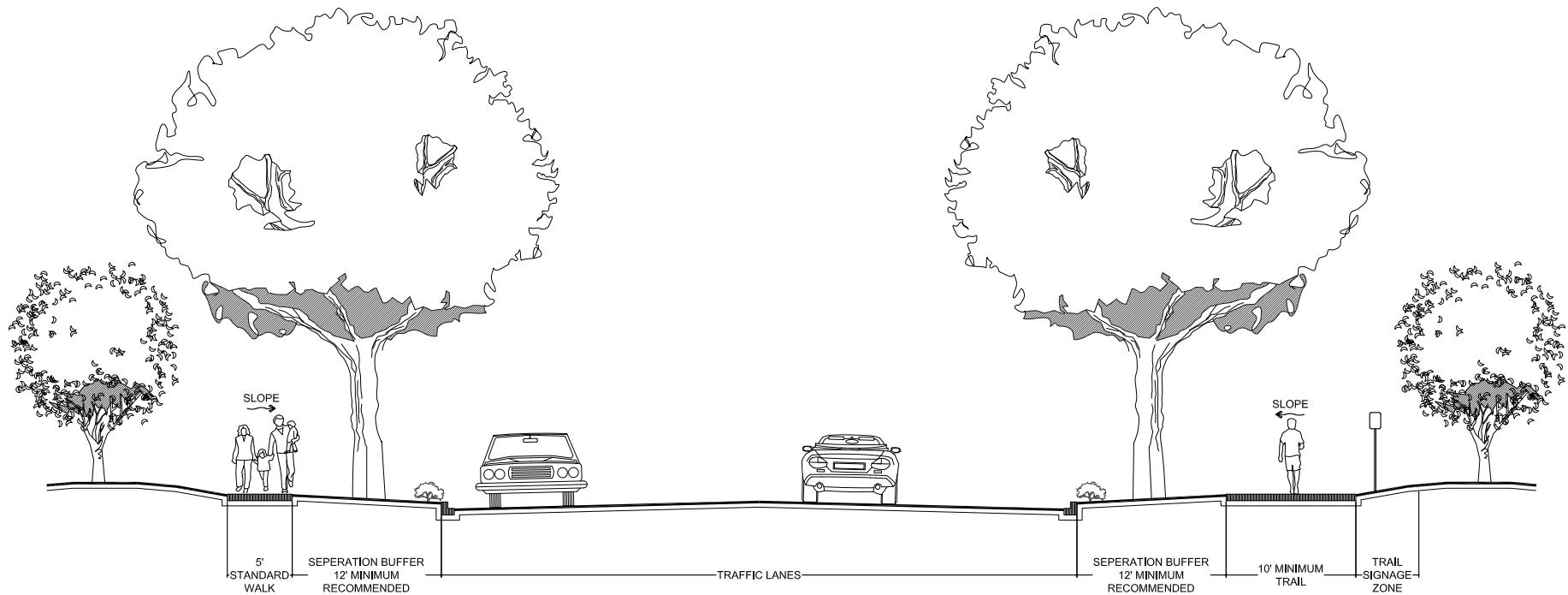
- Trails in northern Johnson County, Kansas
- Trails in Kansas City, Missouri, especially the Riverfront Heritage Trail
- Trails in Riverside and Parkville, Missouri



More often than not, a majority of trail projects are implemented based on opportunities that cannot always be foreseen in a long-range plan. Therefore, the Unified Government and trail advocates should remain flexible and take advantage of opportunities as they arise to meet the goals and intent of this Plan.

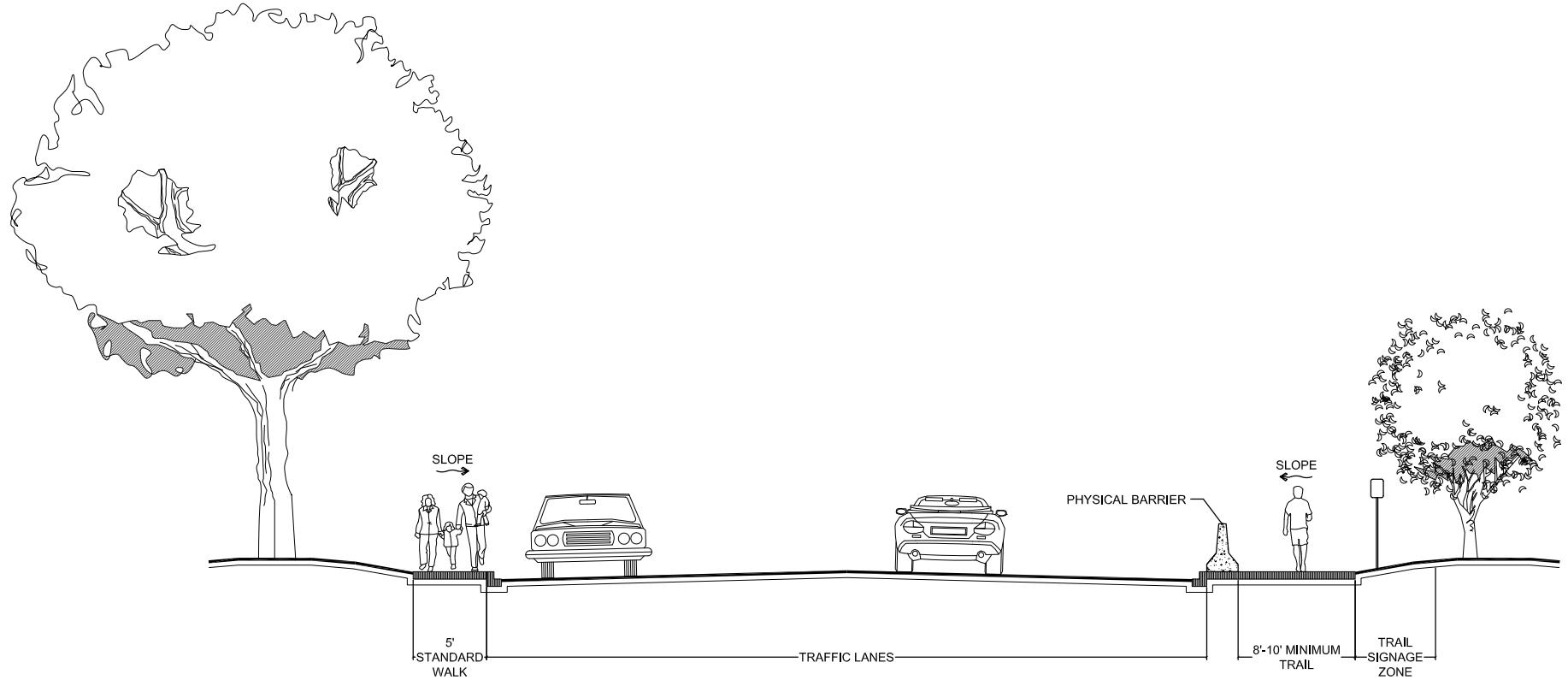


**Figure 7.3: Regional Trail
Typical Cross Section**



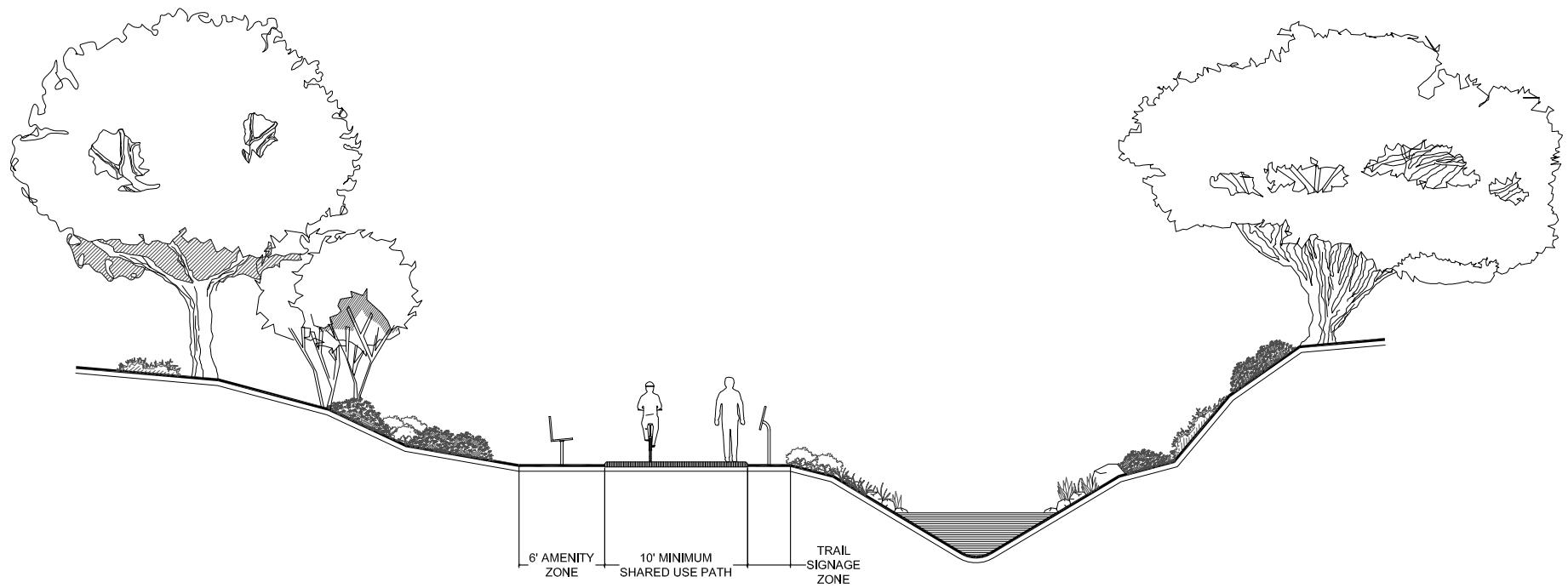
Regional trails provide cross-county connections and linkages to regional trails outside of Wyandotte County. These trails are recommended to be at least 10-feet wide to accommodate pedestrians and less-experienced cyclists who do not feel comfortable riding in the street. More experienced cyclists are likely to ride in the street with vehicular traffic along designated bike routes.

**Figure 7.4: Local Trail Adjacent to Existing Road
Typical Cross Section**



Local trails provide connections to neighborhoods and local destinations. For the most part, these trails are adjacent to existing roads in developed areas with limited right-of-way. Like regional trails, a width of 10-feet is preferred to accommodate pedestrians and less experienced cyclists. In sections with limited right-of-way, 8-feet may be accepted. A green space buffer is preferred between the roadway and trail, however, where space is limited, a physical barrier or railing should be considered.

**Figure 7.5: Greenway Trail
Typical Cross Section**



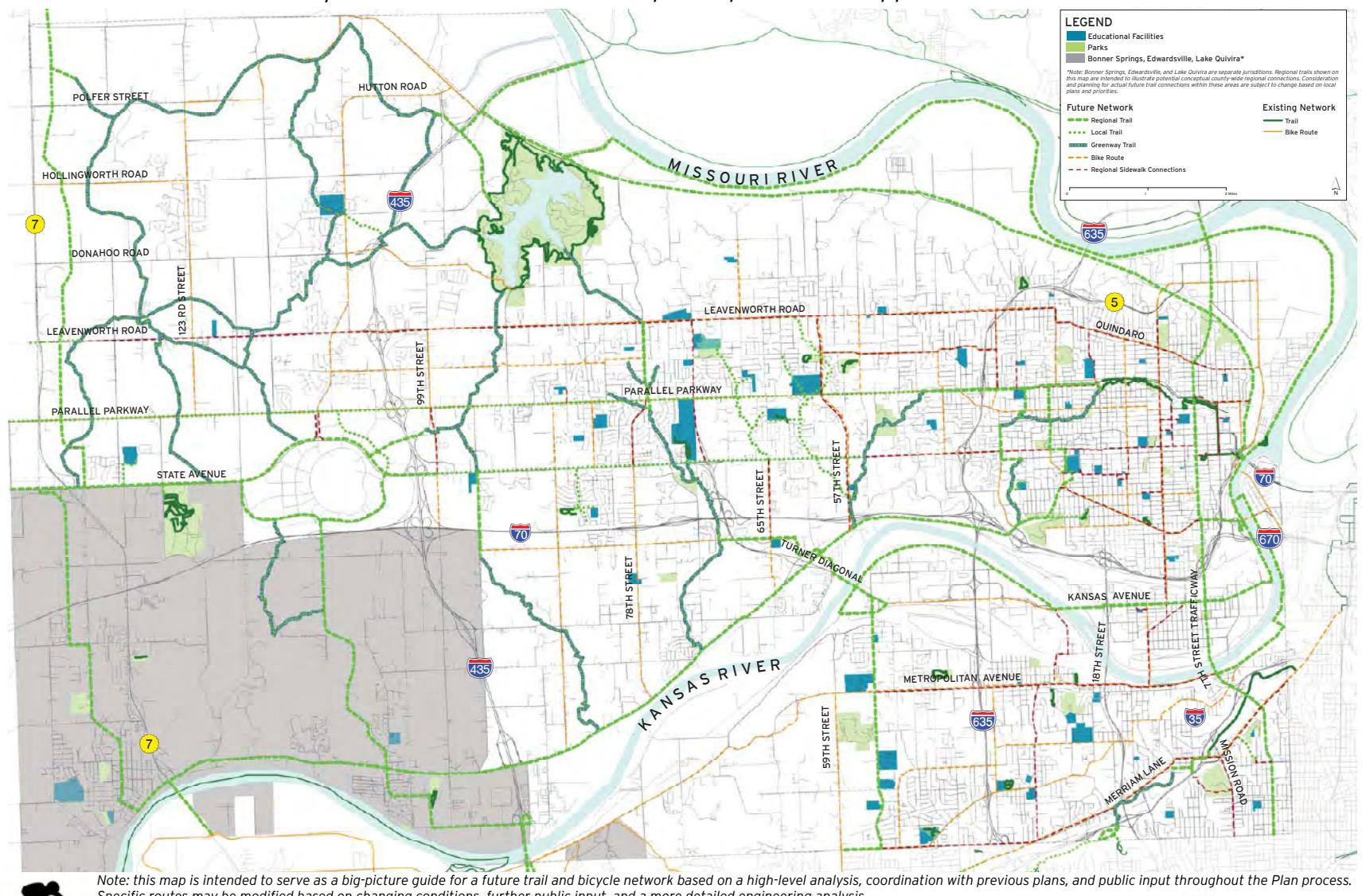
The primary setting for greenway trails is in undeveloped or sparsely populated areas; however, there are opportunities within urbanized areas as well. Greenway trails generally follow streams, providing a unique setting for trails and immersing the user in nature. In Wyandotte County, greenways provide a departure from the rigid grid pattern of streets and offer a more natural recreational setting. Care must be exercised to protect environmentally sensitive areas, yet, trails adjacent to these areas can provide educational opportunities and conservation.



Future Trail Network

The Future Trail Network (see below) is intended to serve as a guide for county-wide trails and bicycle routes. Detailed area maps are provided in Appendix C.

Figure 7.6



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8. Implementation

Overview

This Chapter provides a general guide and framework for Plan implementation. The Plan provides a long-term vision for a connected network of sidewalks, trails and bicycle routes. The public clearly articulated that safe and accessible sidewalks, trails and bicycle routes are important, even when compared to other pressing infrastructure needs. Due to limited funding options, implementation of this Plan will be a multi-step process that will occur over many years. This Chapter builds on the Plan recommendations outlined in Chapters 6 and 7 and provides key policies and action steps to implement the Plan goals developed through the extensive public engagement process. Additional policy direction was provided through recommendations outlined in the Walk Friendly Communities Assessment and Report Card. It is assumed that any policy change or action step will require direction, discussion and approval by the Planning Commission and the Board of Commissioners. Therefore, the actual approval, timing and implementation of any policy or action step identified within this Chapter is subject to change.



Implementation Matrix

The implementation matrix on the following pages outline recommended policy and actions. Key elements of this matrix include:

- A summary recommended policies and actions.
- Active partners responsible for initiation, oversight and monitoring.
- Anticipated time frames:
 - Short Term (1-5 Years)
 - Mid Term (5-10 Years)
 - Long Term (10+ Years)
 - Ongoing



Sidewalk Network Actions and Polices		Time Frame	Responsible Entities			
			Unified Government	Active Partners		
				Private Developers/Property Owners	Business Community	Residents
1.	Use the GIS Sidewalk Inventory and update as necessary to monitor progress toward creating a connected sidewalk network to priority pedestrian destinations including schools, parks, transit lines, and other community resources.	Ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Consider providing dedicated funding in the annual capital improvements budget to fund Priority 1 and 2 Sidewalk Gap improvements identified in Chapter 6. These funds would supplement other sources such as Safe Routes to Schools. One strategy could be to modify the Sidewalk Incentive Program to increase the Unified Government share for Priority 1 improvements.	Long-Term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Proactively work with local school districts to leverage this Plan to secure funding and resources through Safe Routes to Schools and other programs to address Priority 1 connections between schools and adjacent neighborhoods.	Short-Term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Consider updating the existing street standards to require construction of sidewalks on both sides of the street.	Short-Term	<input type="checkbox"/>			
5.	Work with volunteer groups and neighborhoods within the urban core to help proactively clean-up areas where existing brick sidewalks have become overgrown with grass, weeds, etc.	Ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Trail Network Actions and Policies		Time Frame	Responsible Entities			
			Unified Government	Active Partners		
				Private Developers/ Property Owners	Business Community	Residents
6.	Adopt the Sidewalk and Trail Master Plan as an amendment to the City-Wide Master Plan with specific updates to the Parks, Open Space and Trails Framework, and Major Street Plan.	Short-Term	<input type="checkbox"/>			
7.	Amend the County's land development regulations to require any development within 1/2-mile of a planned or existing trail to provide a direct connection at the owner/developer's expense. These trails will follow the design standards identified in Chapter 7.	Short-Term	<input type="checkbox"/>	<input type="checkbox"/>		
8.	Adopt a formalized policy that all infrastructure projects consider the need for safe and convenient pedestrian and bicycle access/accommodations. Proactively work with KDOT to ensure that this policy extends to state owned and maintained facilities.	Short-Term	<input type="checkbox"/>			
9.	The County should consider a formal policy to request trail access from the USACE and levee districts when local funding is used to help finance levee improvements.	Short-Term	<input type="checkbox"/>			
10.	Encourage developers through density bonuses and other incentives to dedicate an open space buffer and trail easement along identified streamway corridors.	Ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Develop and adopt a trails program where local companies or groups can sponsor trail segments. This sponsorship may include monetary contributions, volunteer assistance, or in-kind contributions such as donation of products, materials, labor, etc. to help implement the Plan vision.	Mid-Term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Trail Network Actions and Policies		Time Frame	Responsible Entities			
			Unified Government	Active Partners		
				Private Developers/ Property Owners	Business Community	Residents
12.	Consider participating in the National Bicycle and Pedestrian Documentation Project to collect reliable and accurate bicycle and pedestrian traffic counts for planning future needs and setting priorities.	Mid-Term	<input type="checkbox"/>			
13.	Work with Downtown business groups and neighborhoods to develop local walking maps highlighting the trail network (completed to date), major destinations, activity centers, historic areas, parks, transit stops, etc.	Long-Term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	For major public and private projects, consider requiring a health impact assessment to determine the health benefits or negative impacts for the proposed project.	Long-Term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	Actively partner and/or coordinate with neighboring jurisdictions to implement the MetroGreen vision.	Ongoing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	Actively support local pedestrian and bicycle advocacy groups such as Bike Walk KC through sponsorships, event participation and other resources to advance the Plan goals.	Mid-Term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Appendix: Levee Trail Public Comments

Levee Trail Proposal Fairfax Drainage District Levee

The Unified Government's proposed Sidewalk and Trails Master Plan should include pedestrian and bicycle access to the Fairfax Drainage District Levee north of Kaw Point Park.

Public Access Benefits:

- Serves the stated goals of the Sidewalk and Trails Master Plan by encouraging exercise in the community
- Is already existent, would possibly need only slight improvement and upkeep.
- Provides an open-air exercise environment for the underserved northeastern edge of the city.
- Adds economic value to local real estate, especially towards the development of the Strawberry Hill area.
- Provides a soft (non-concrete) surface for runners who may average 3+ miles of daily running.
- Links to the Missouri Riverfront Trail, potentially extending the trail by several miles.
- Provides a safe, automobile free, location for pedestrians and bikers.

General Suggestions for Levee Trail Plan:

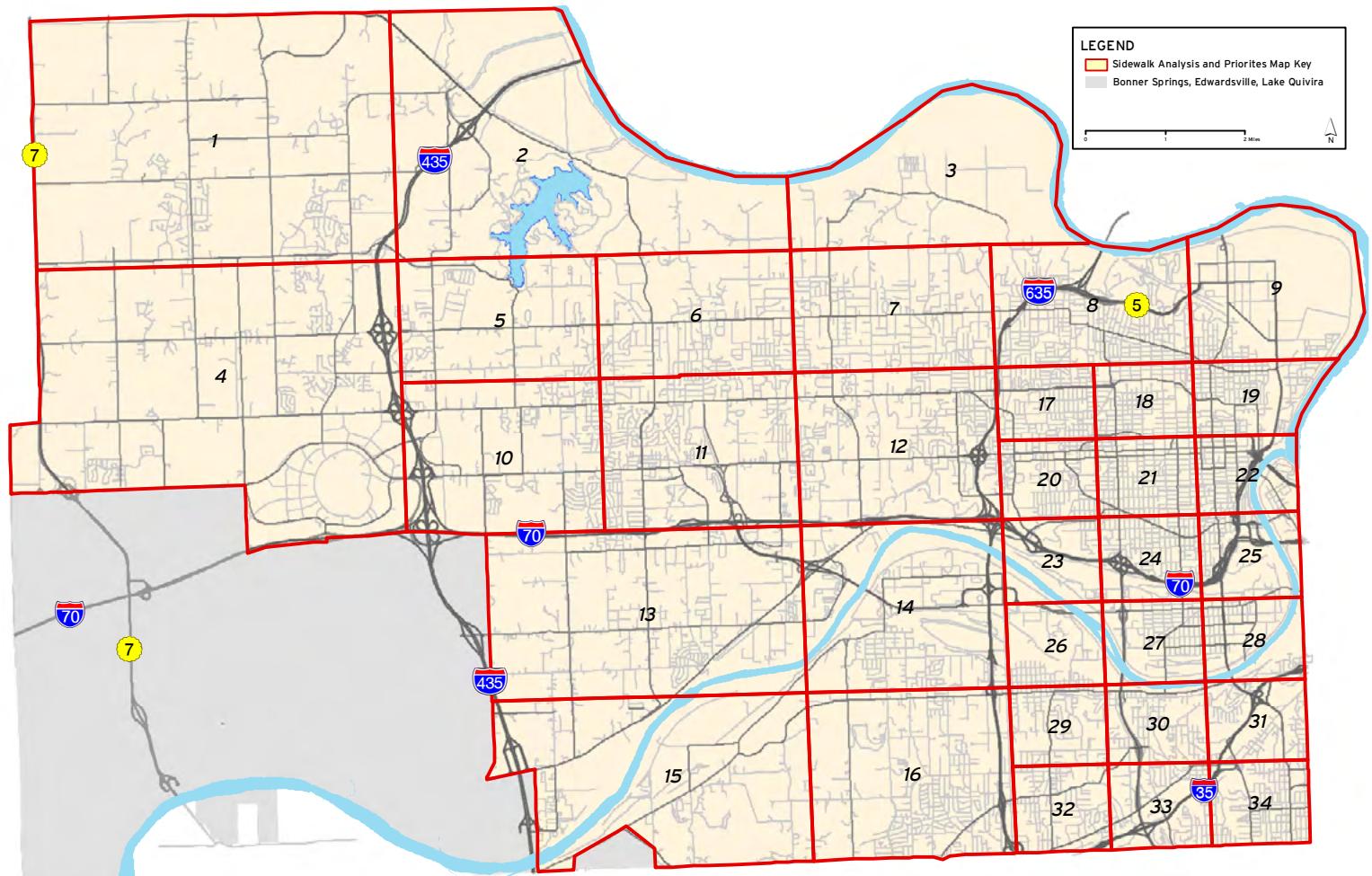
- Provides a safe, automobile free, location for pedestrians and bikers.
- Allow public access to the levee from dawn to dusk to accommodate the security needs of the Fairfax Drainage District and adjacent industry.
- Possible future plans for a pedestrian bridge at or near the 7th Street Bridge leading into Missouri. Such a bridge would provide access to several additional miles of levee trails in Missouri.
- Make use of the gravel road abutting the east side of the levee with some improvements to the surface - such as correcting for the angle of the road and providing a smoother surface.
- Provides a safe, automobile free, location for pedestrians and bikers. The possible future addition of a gravel trail either through the tree line abutting the river or along the west edge of the tree line. Trees provide important cover from the elements, especially sun and wind. Providing cover from the elements can significantly reduce the number of days in a year when excessive heat or wind would limit use of a trail.



Appendix: Detailed Area Maps

Map Key

This following key provides a reference guide for more detailed maps: Sidewalk Analysis (Appendix A), Future Sidewalk Network (Appendix B), and Future Sidewalk and Trail Network (Appendix C). Please refer to the appendix letter and map reference number to find the appropriate topic and specific location. The maps are provided on the following pages.



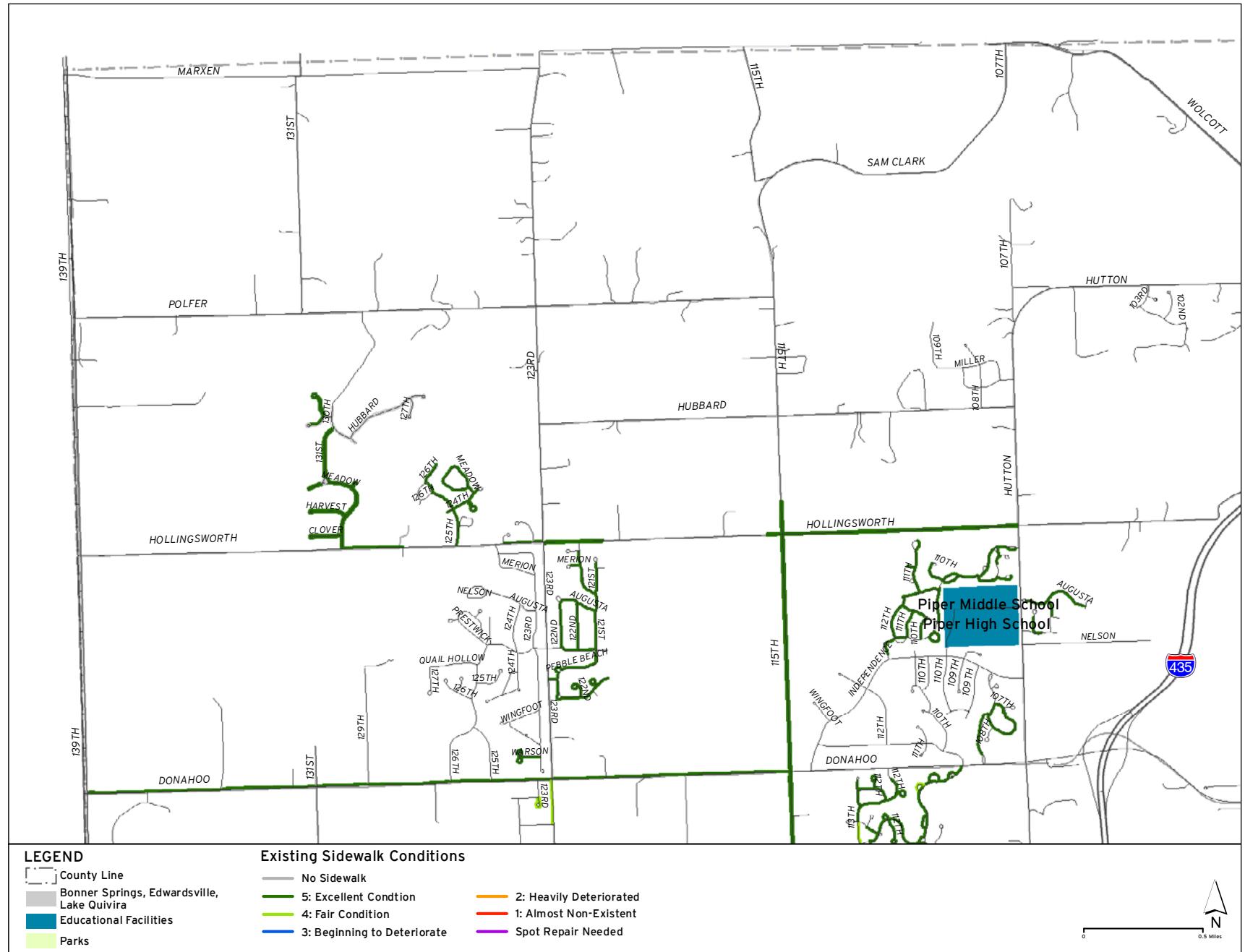
Appendix A:

Sidewalk Analysis Maps



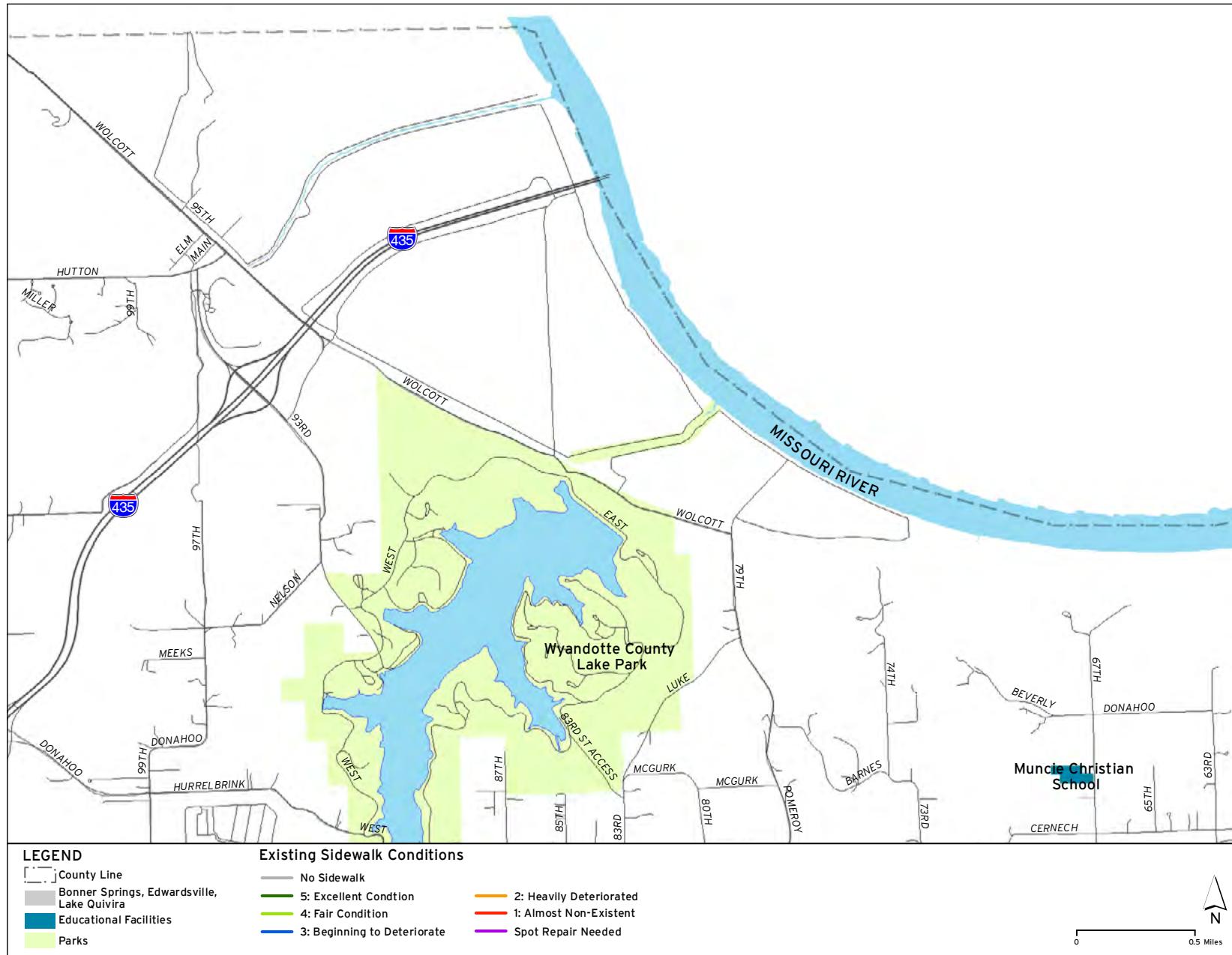
Sidewalk and Trail Master Plan

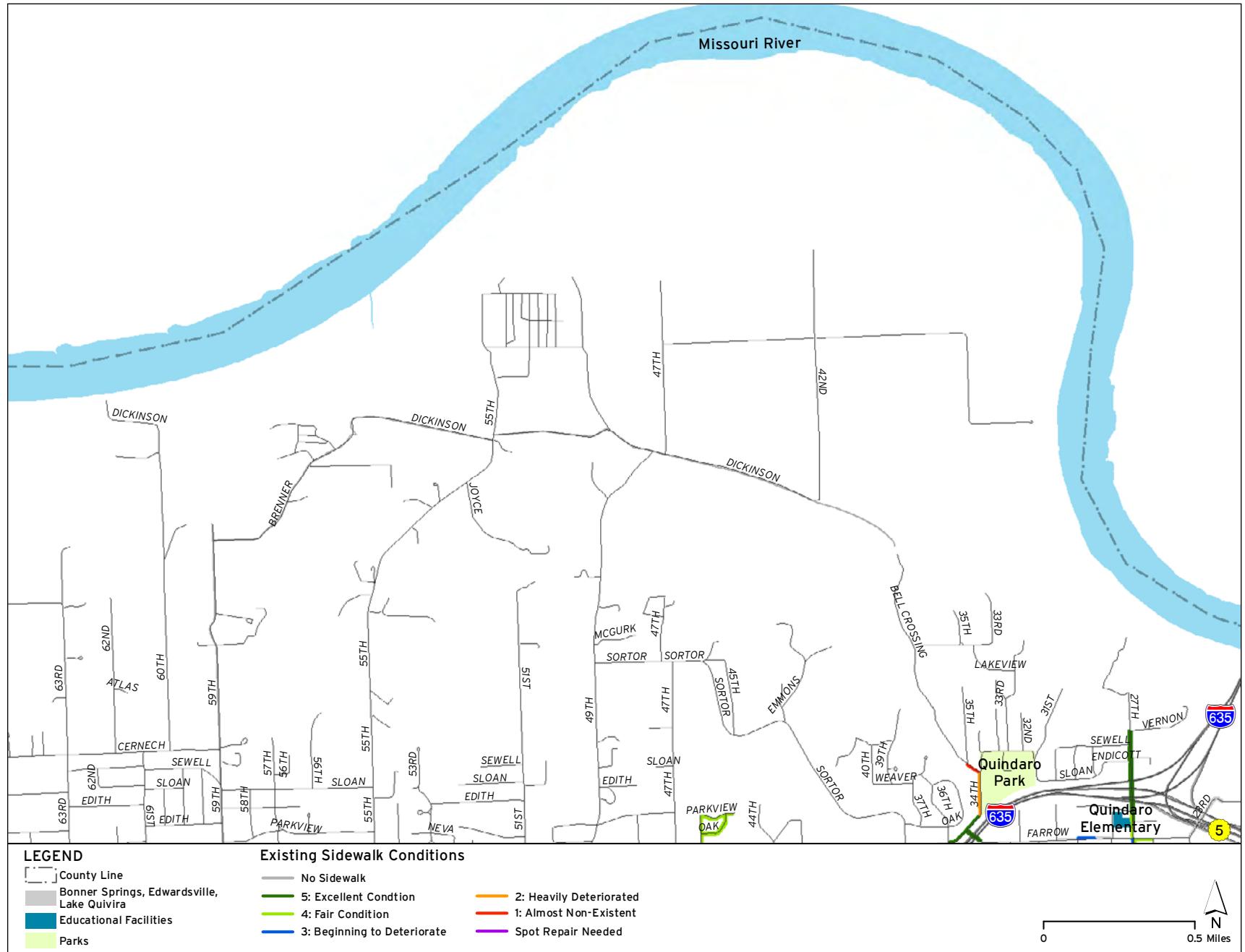




Sidewalk and Trail Master Plan

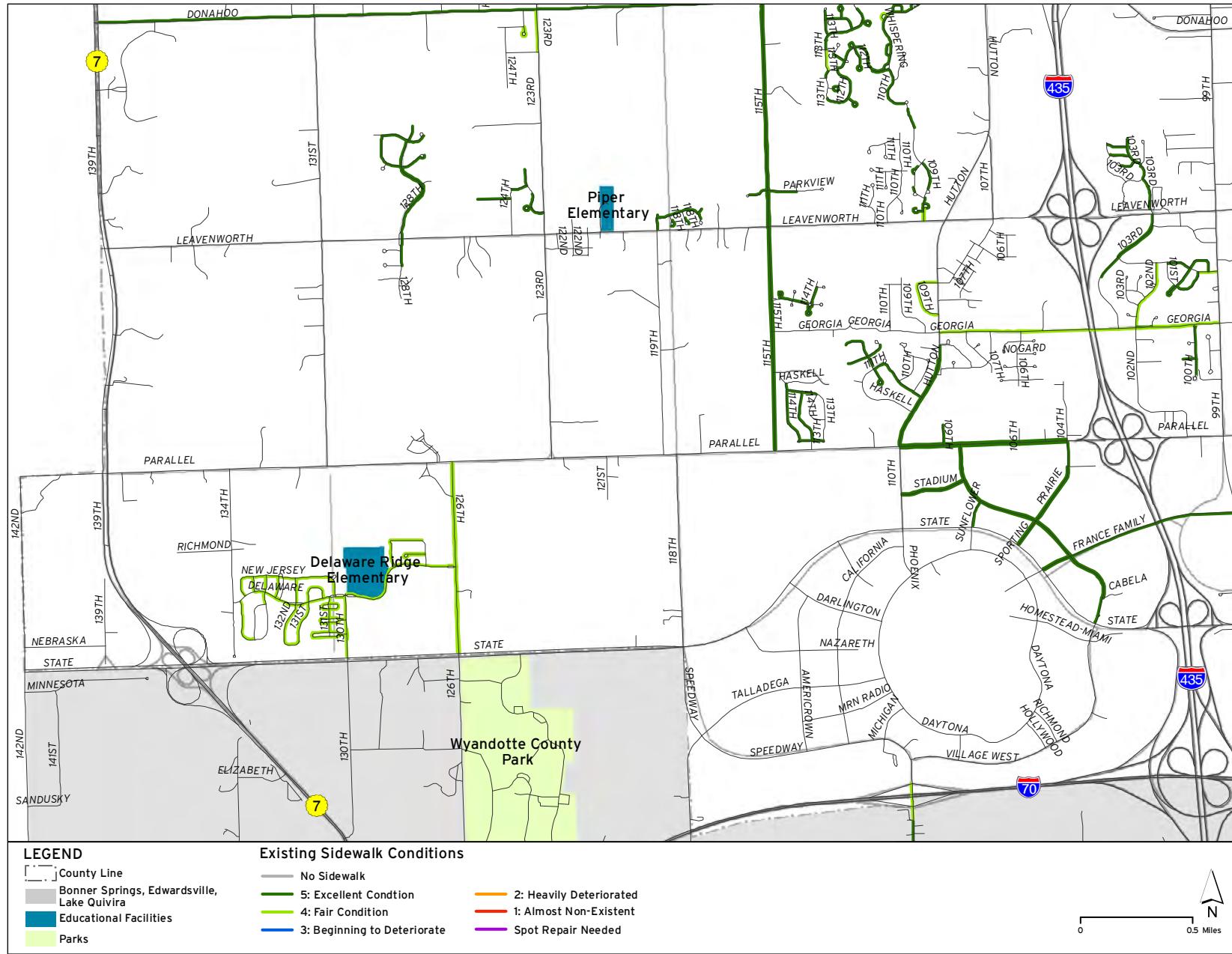


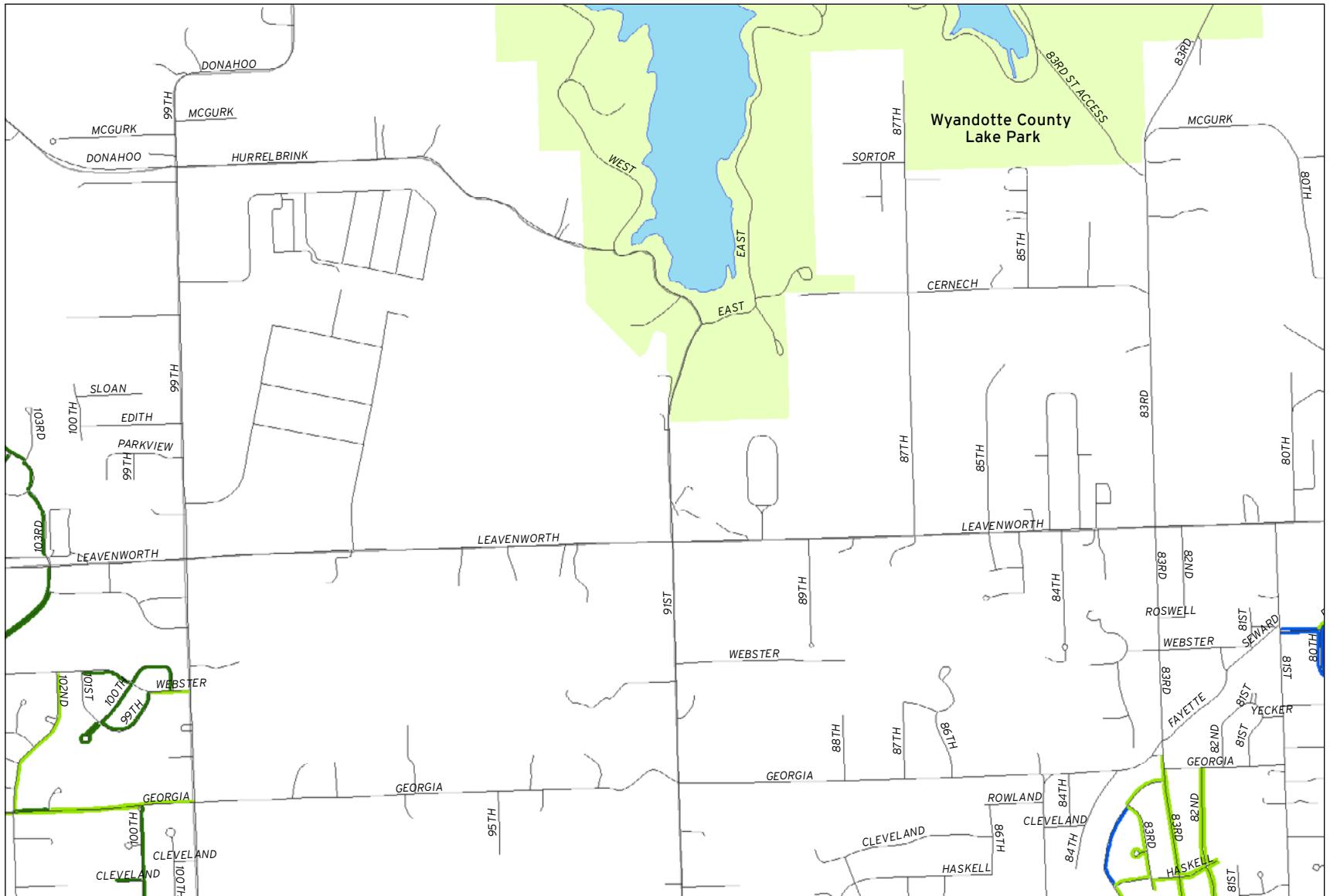




Sidewalk and Trail Master Plan







LEGEND

- County Line
- Bonner Springs, Edwardsville, Lake Quivira
- Educational Facilities
- Parks

Existing Sidewalk Conditions

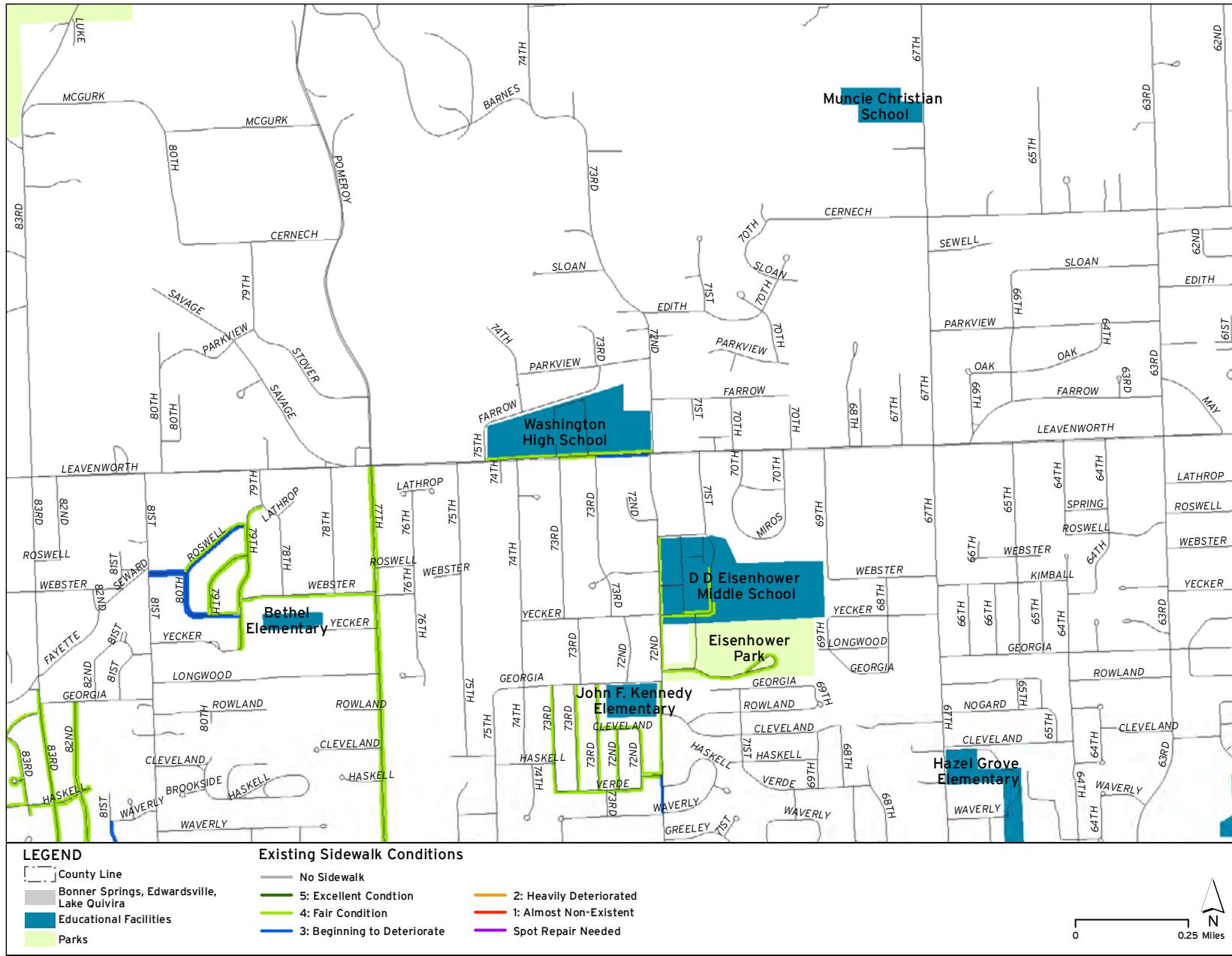
- | | | |
|-------------|-----------------------------|-------------------------|
| No Sidewalk | 5: Excellent Condition | 2: Heavily Deteriorated |
| | 4: Fair Condition | 1: Almost Non-Existent |
| | 3: Beginning to Deteriorate | Spot Repair Needed |

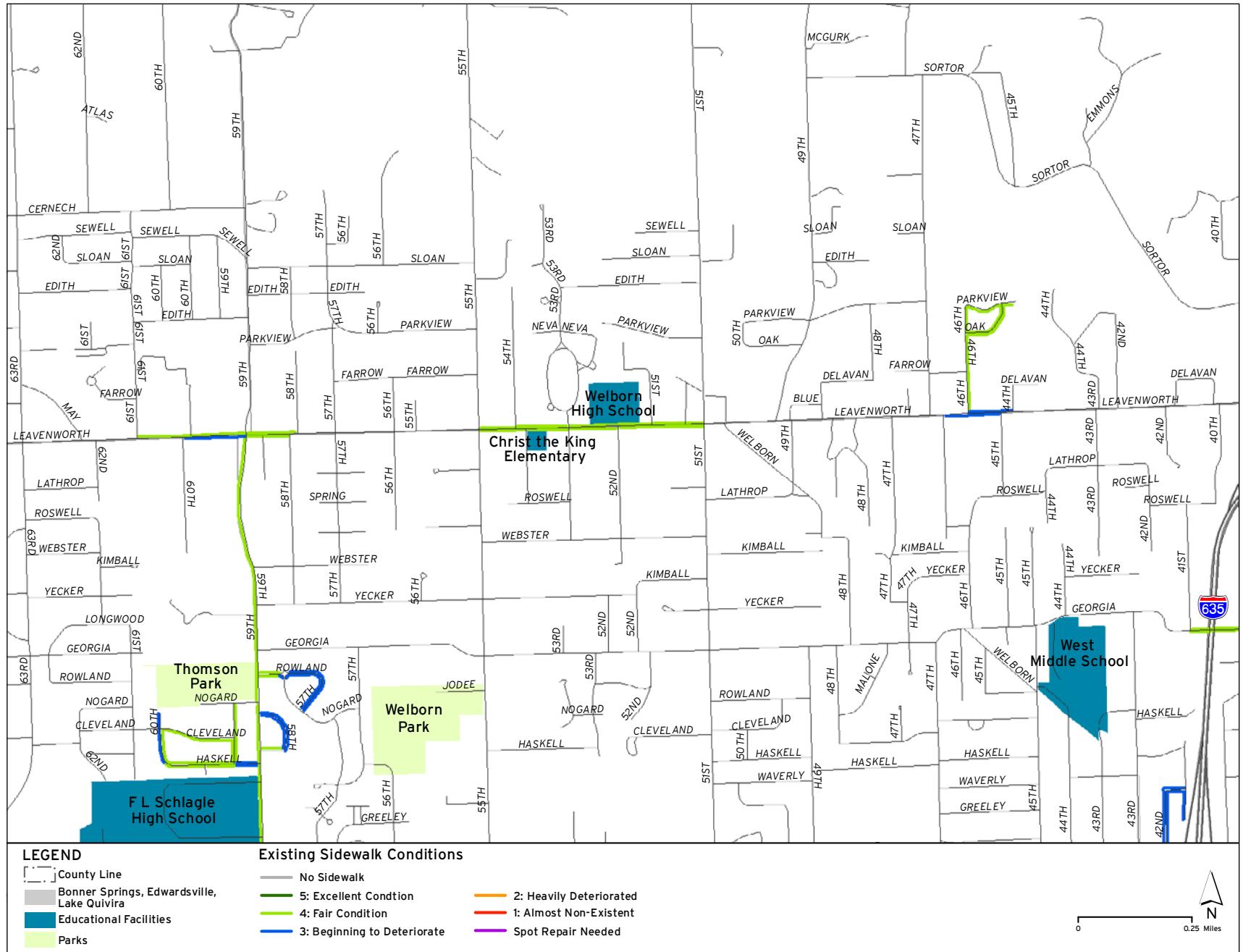
0 0.25 Miles



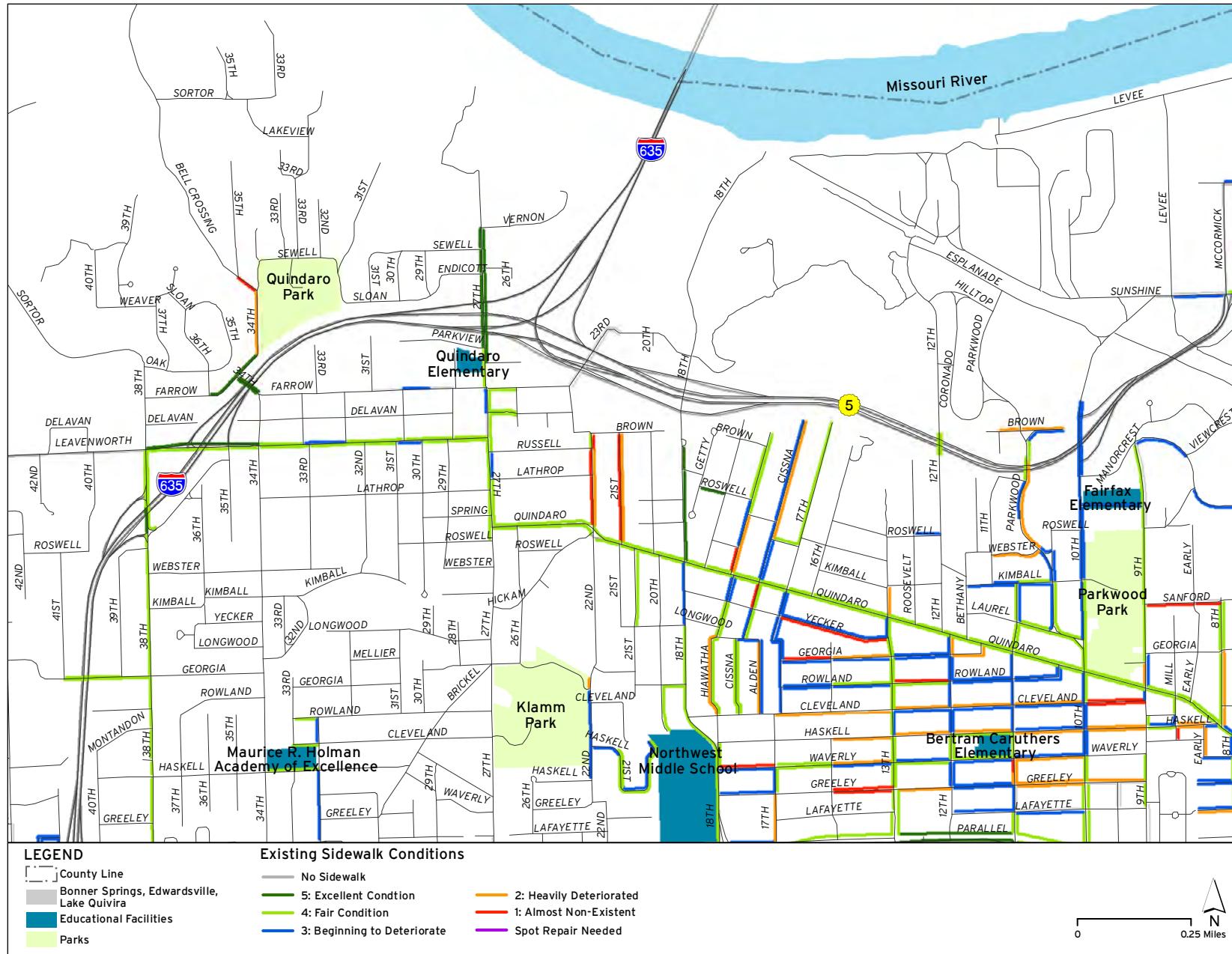
Sidewalk and Trail Master Plan

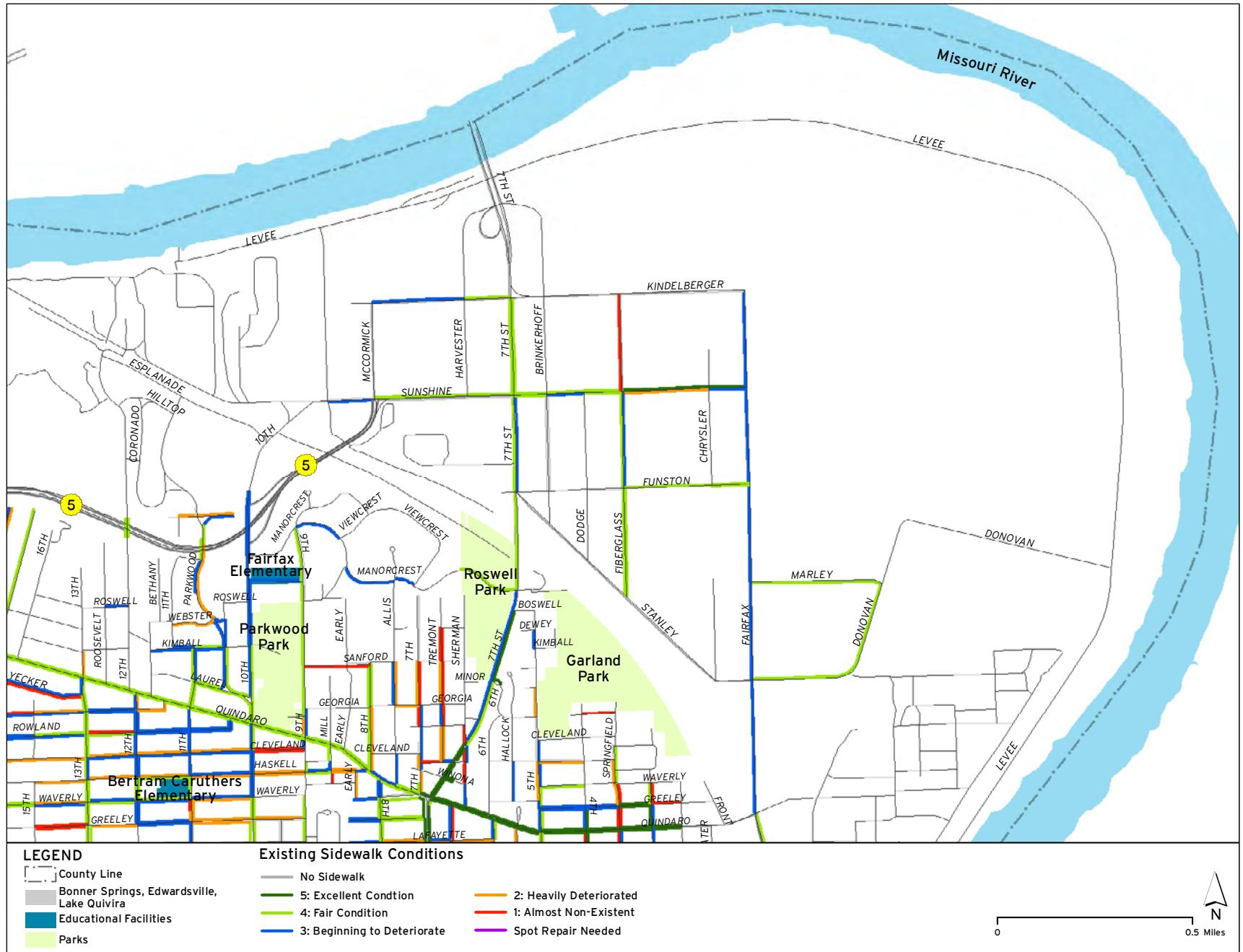






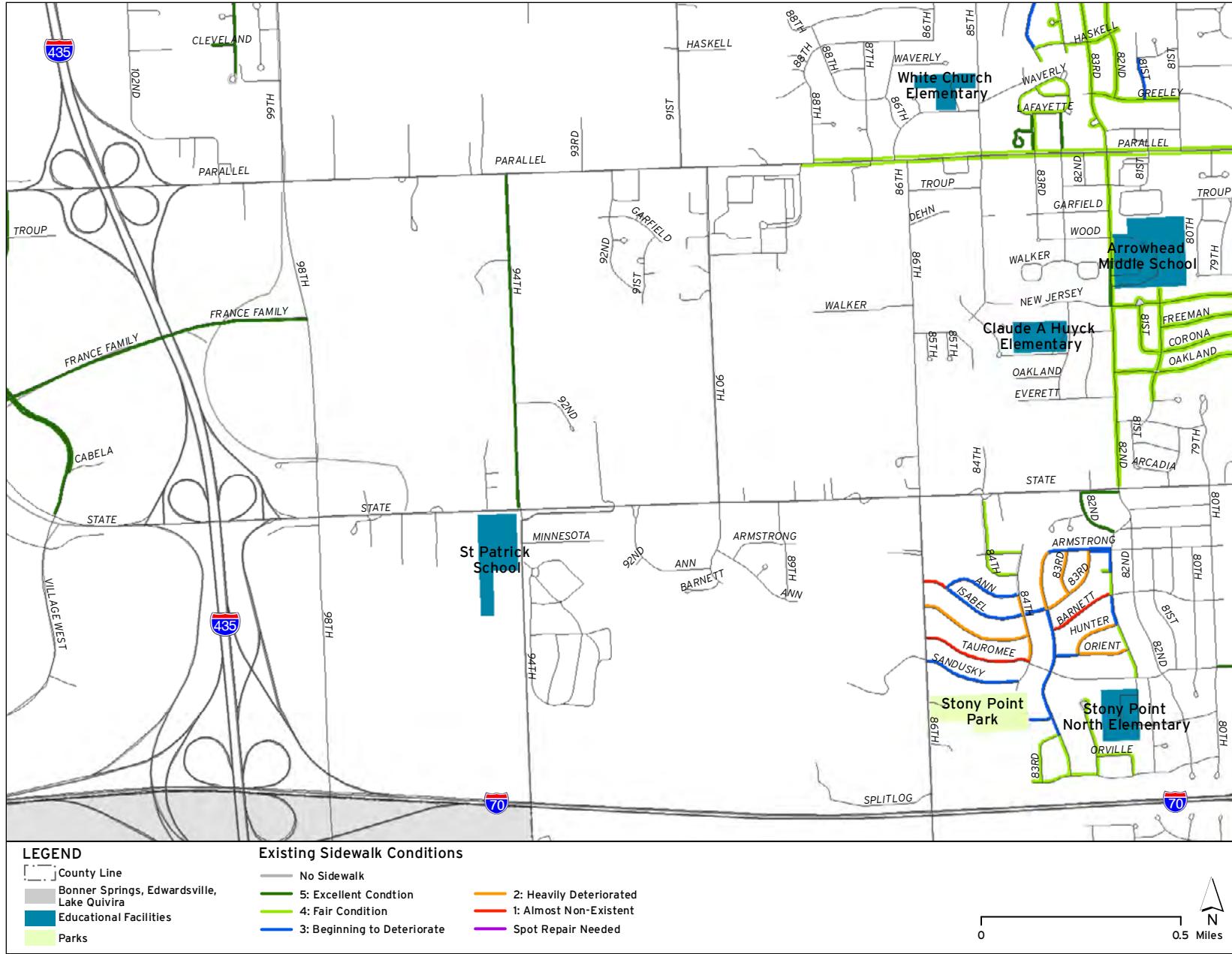
Sidewalk and Trail Master Plan

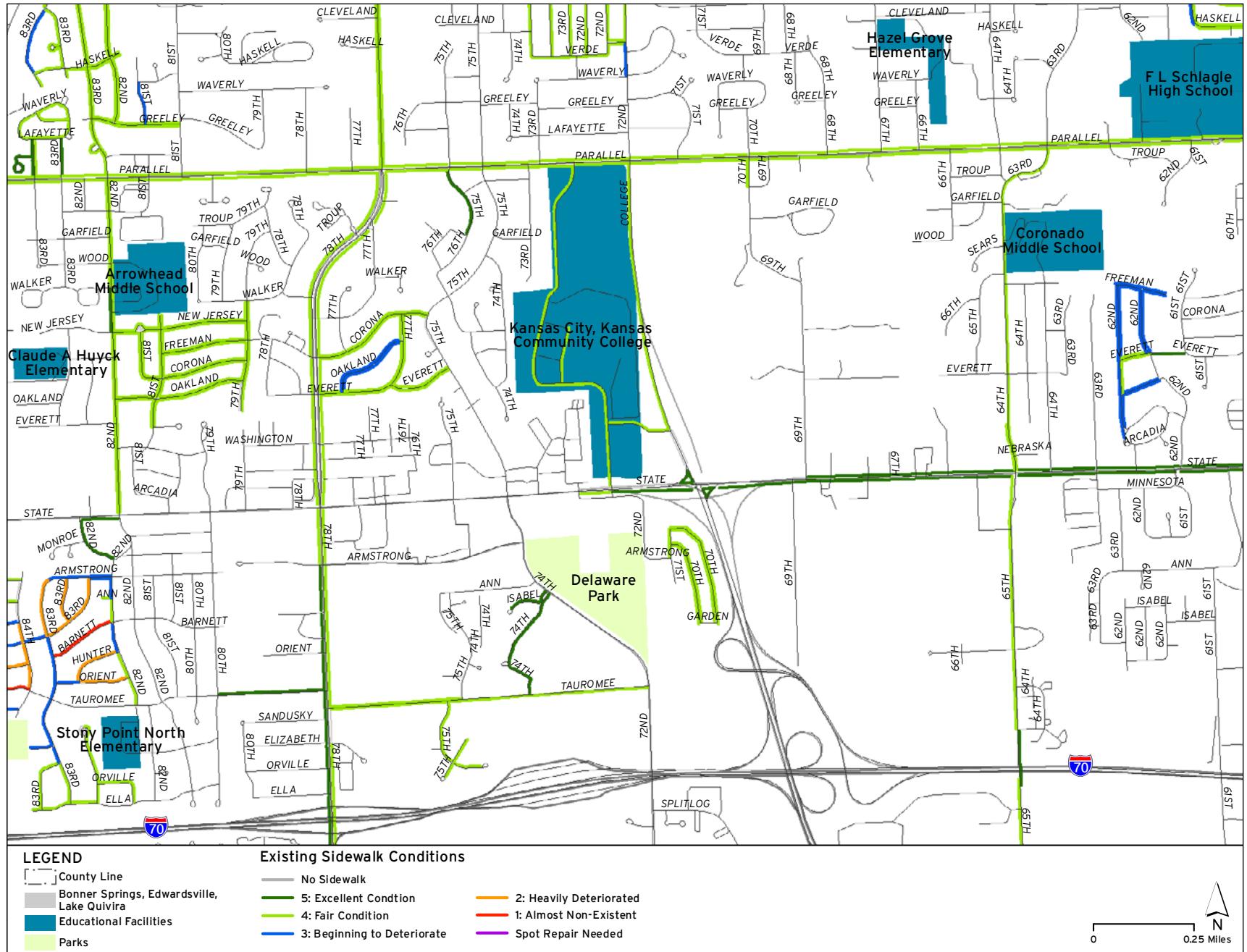




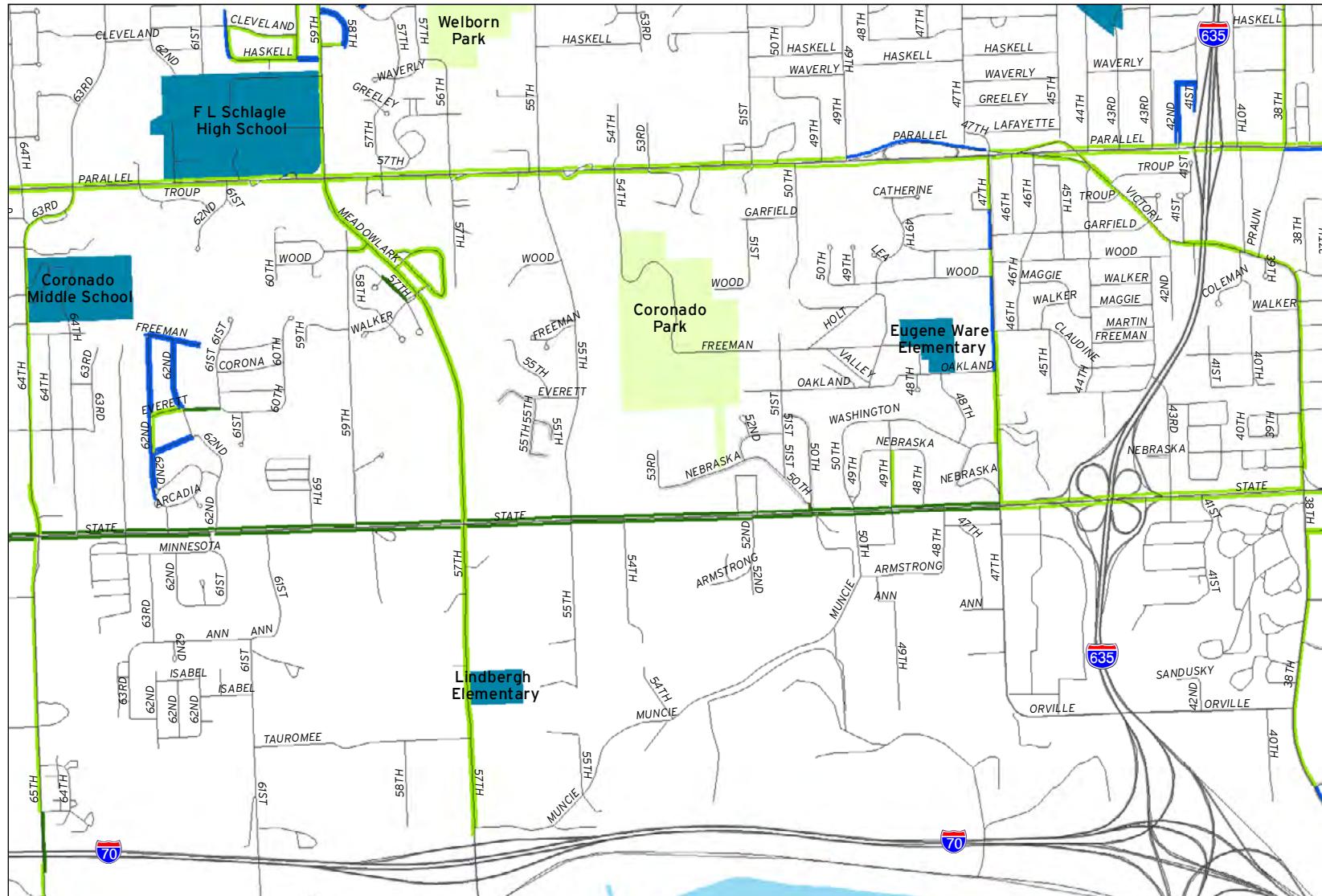
Sidewalk and Trail Master Plan







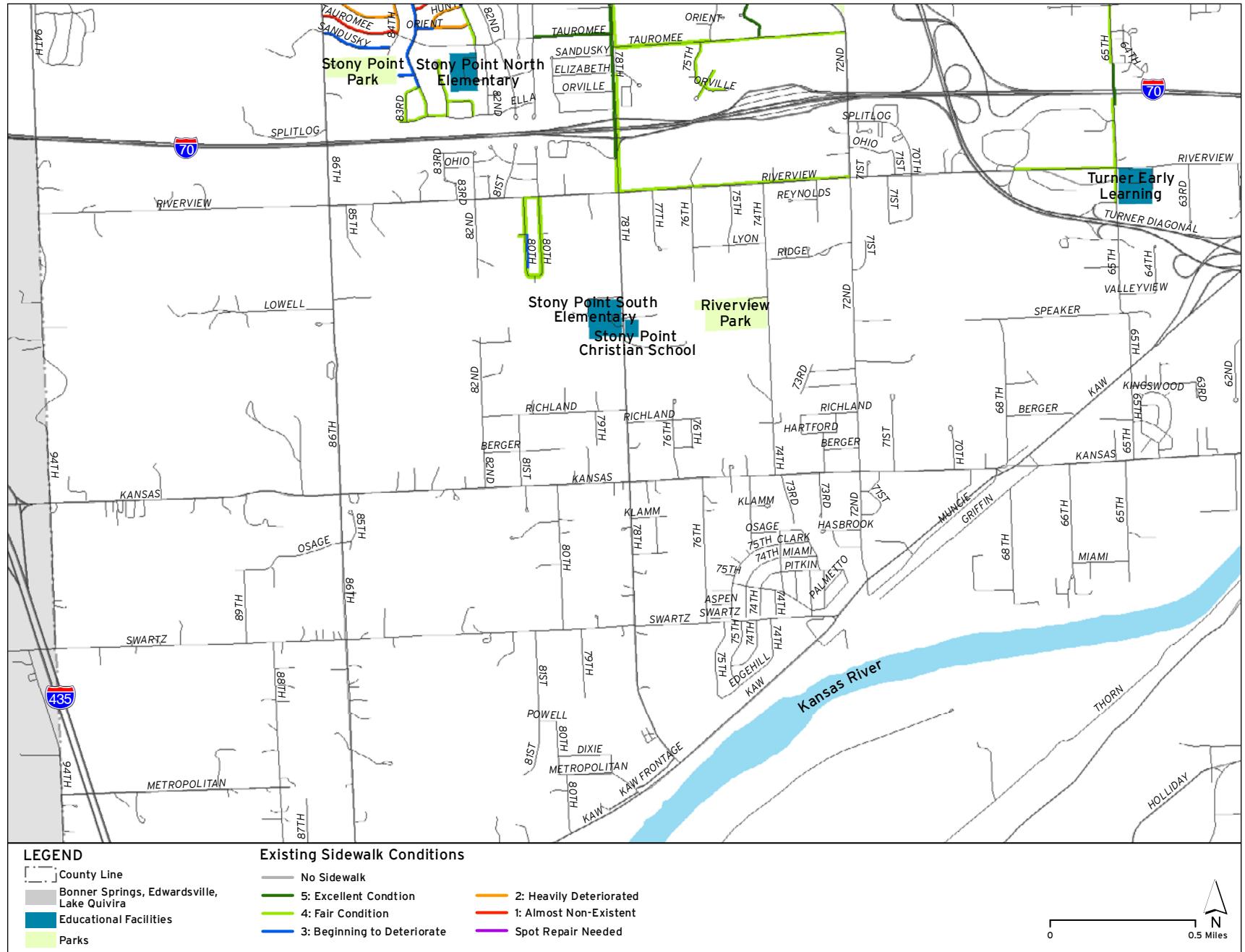
Sidewalk and Trail Master Plan



0 0.25 Miles

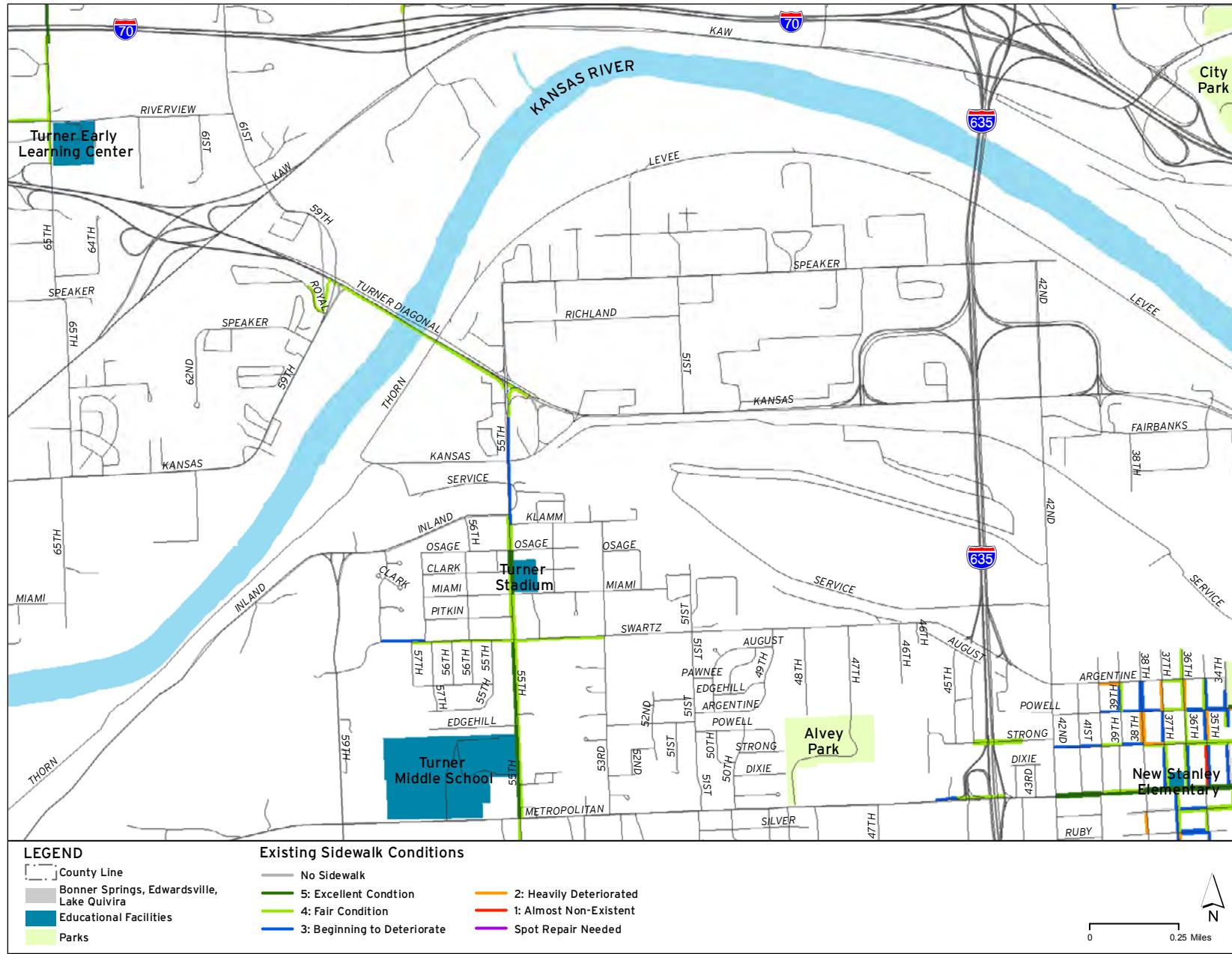
Sidewalk and Trail Master Plan

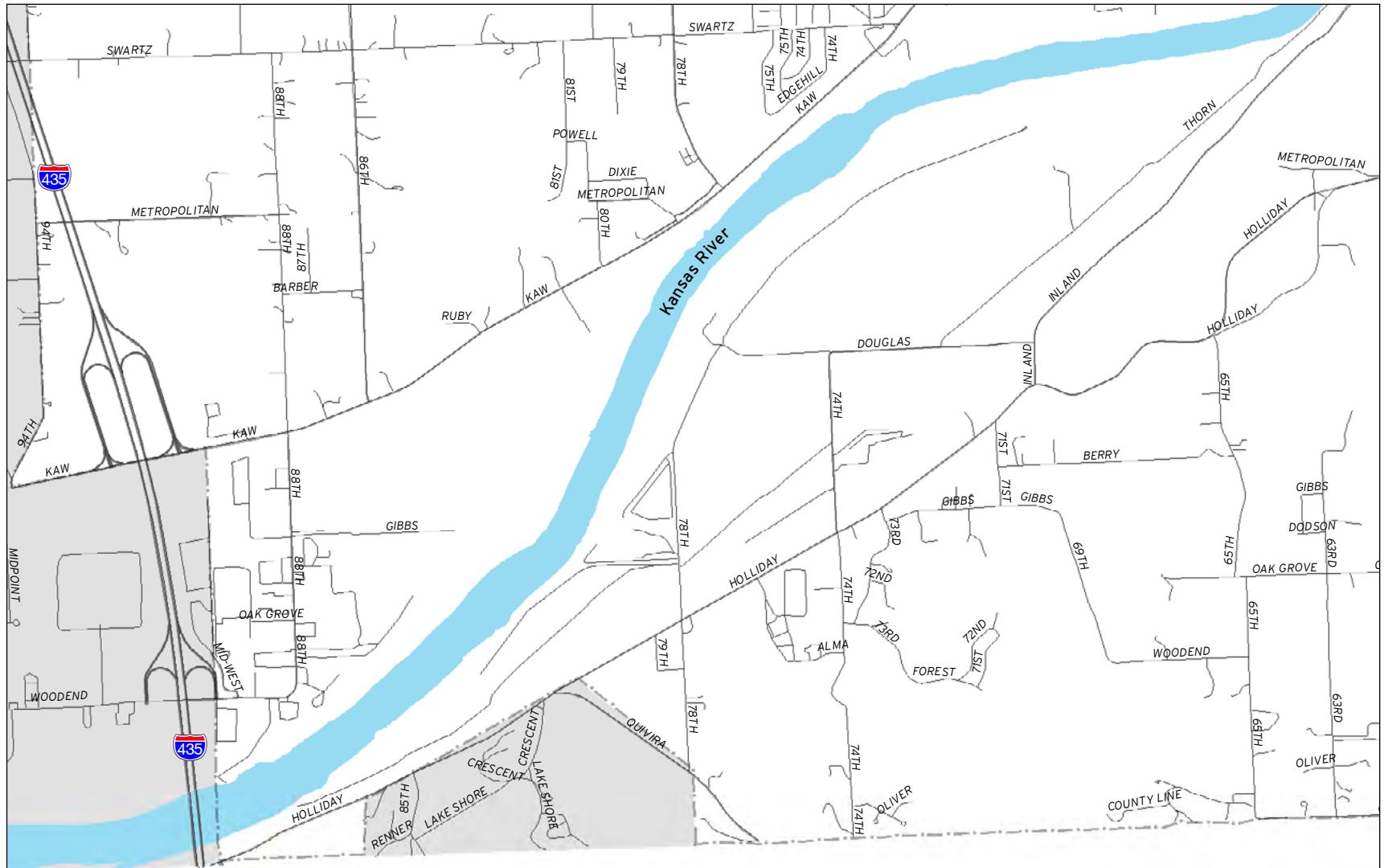




Sidewalk and Trail Master Plan





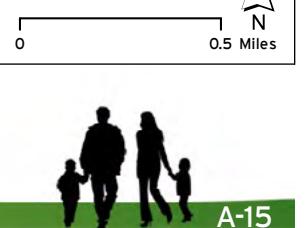


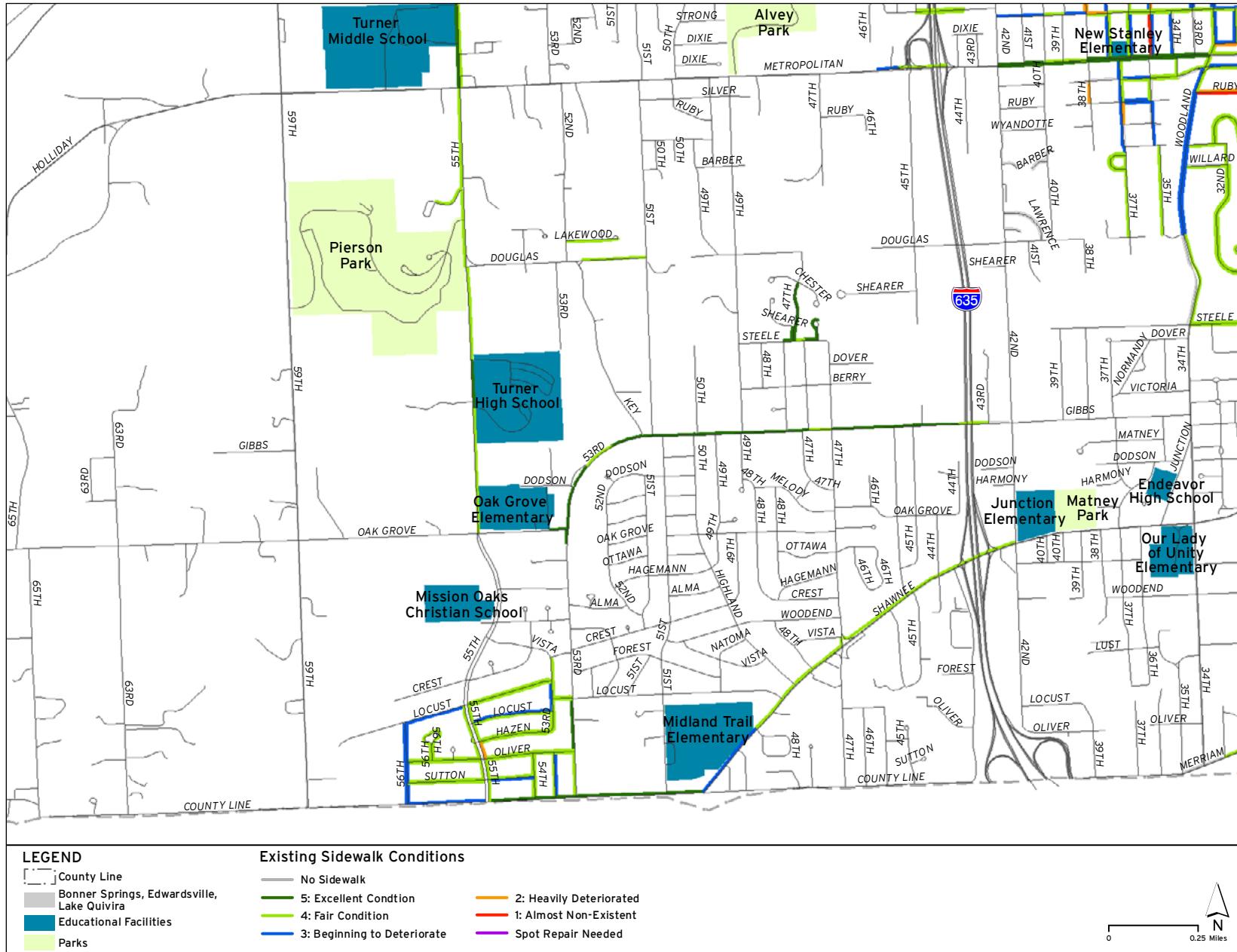
LEGEND

- County Line
- Bonner Springs, Edwardsville, Lake Quivira
- Educational Facilities
- Parks

Existing Sidewalk Conditions

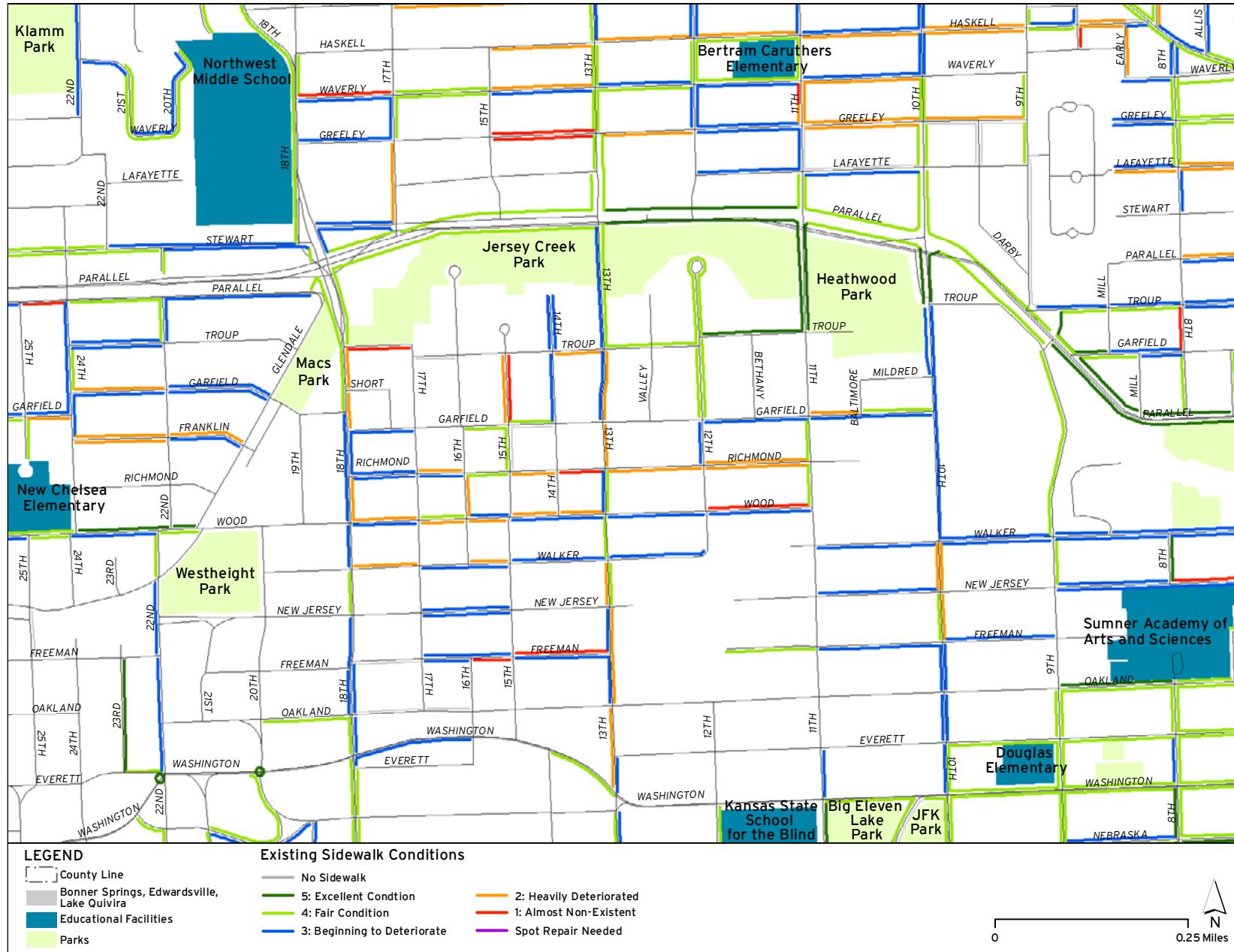
- No Sidewalk
- 5: Excellent Condition
- 4: Fair Condition
- 3: Beginning to Deteriorate
- 2: Heavily Deteriorated
- 1: Almost Non-Existent
- Spot Repair Needed





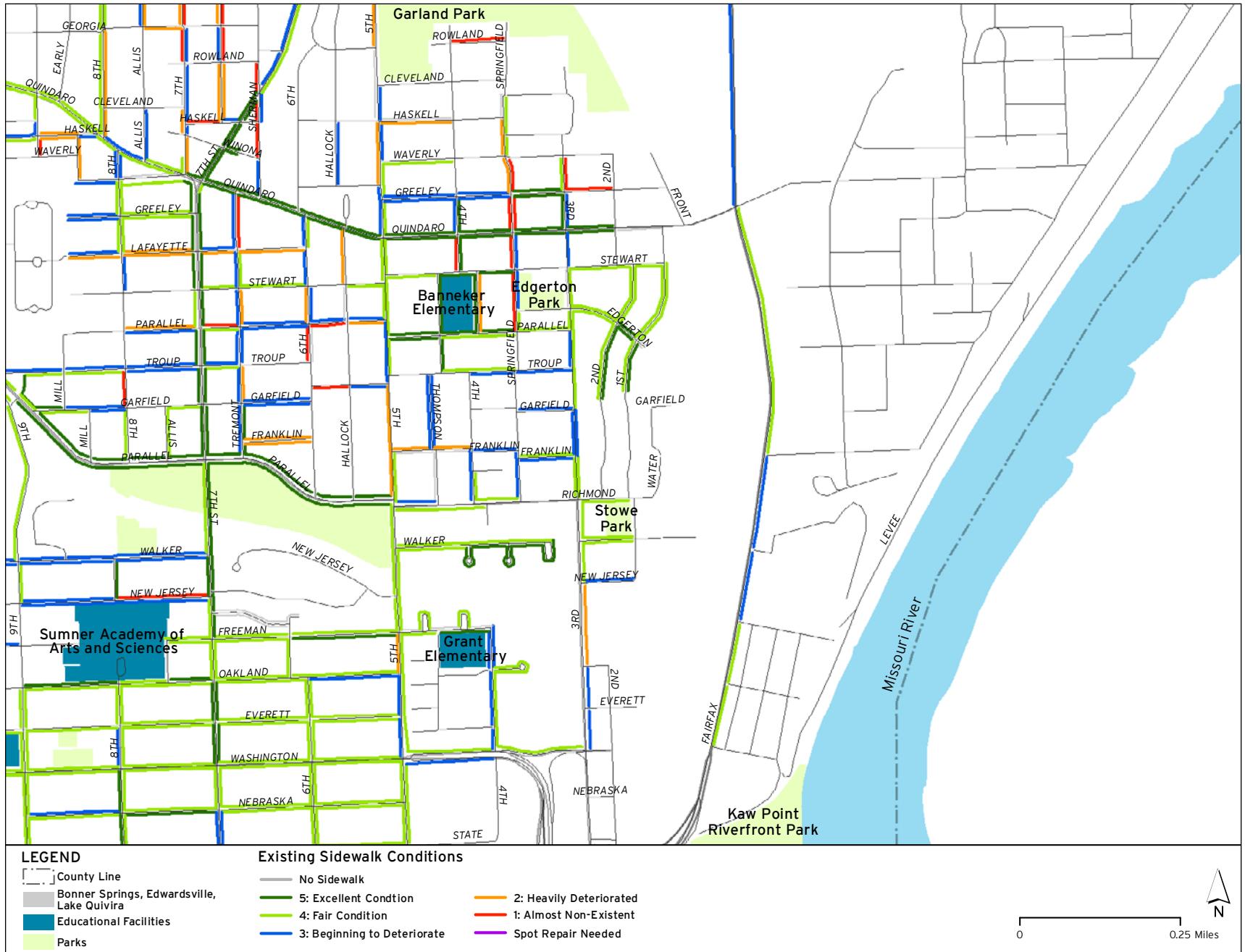


Sidewalk and Trail Master Plan

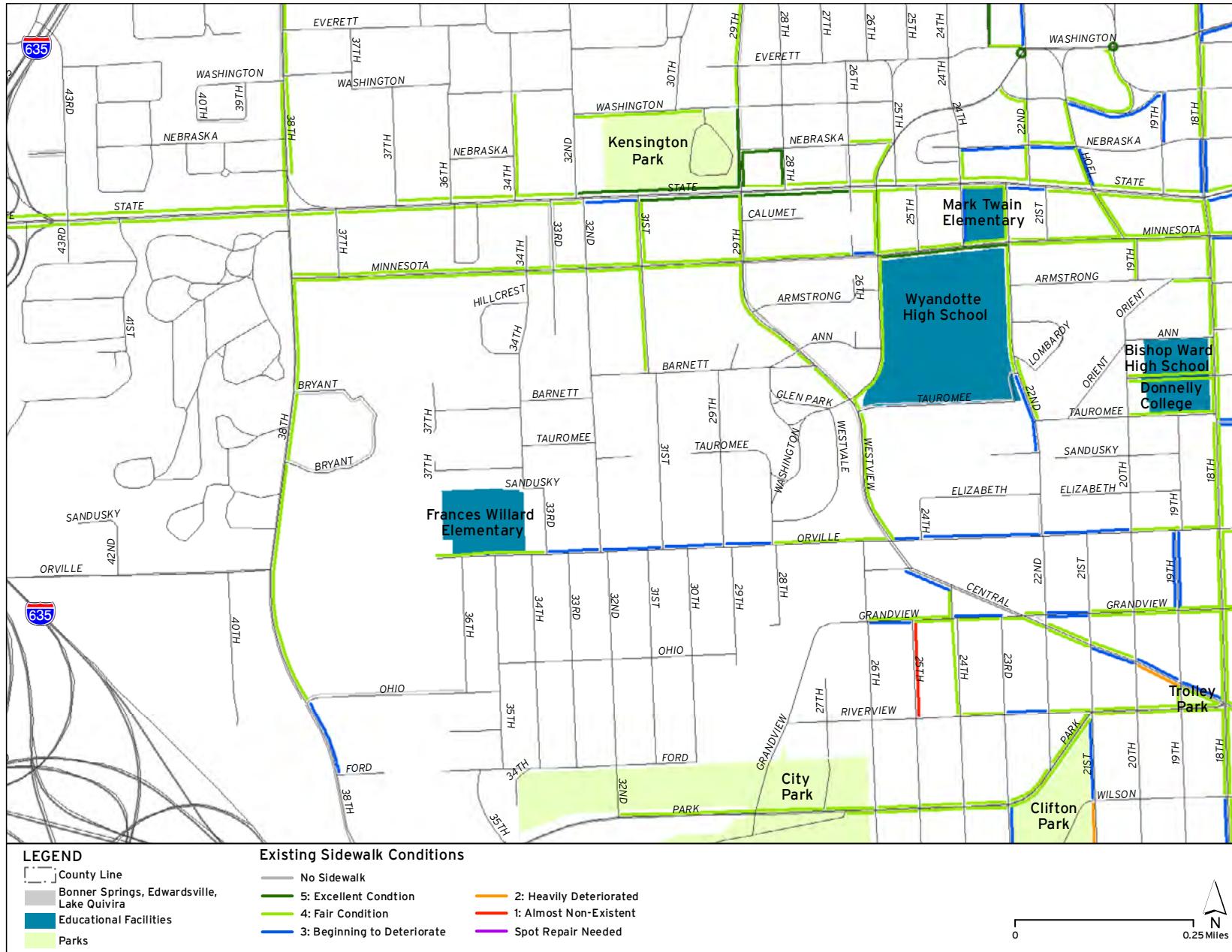


Sidewalk and Trail Master Plan



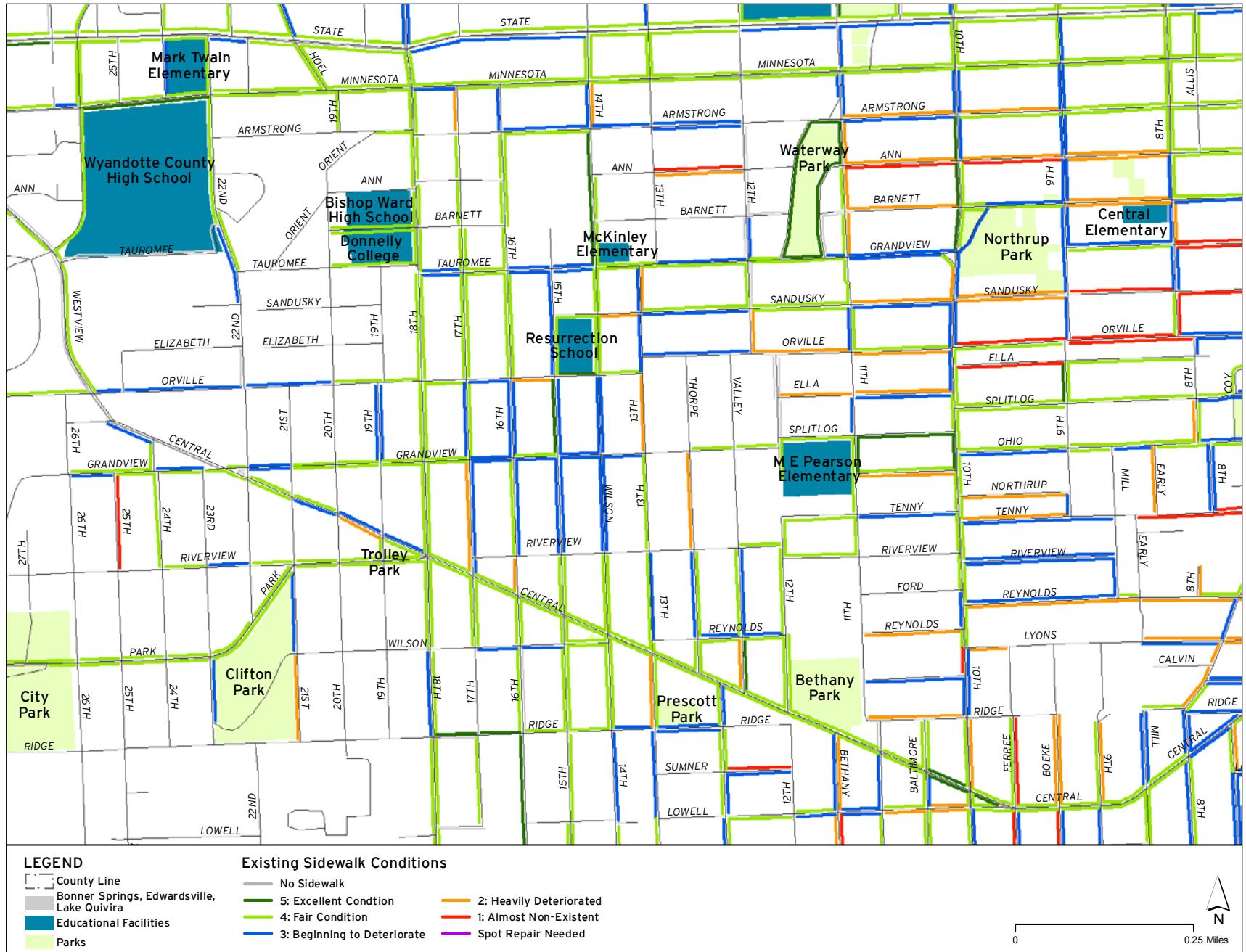


Sidewalk and Trail Master Plan

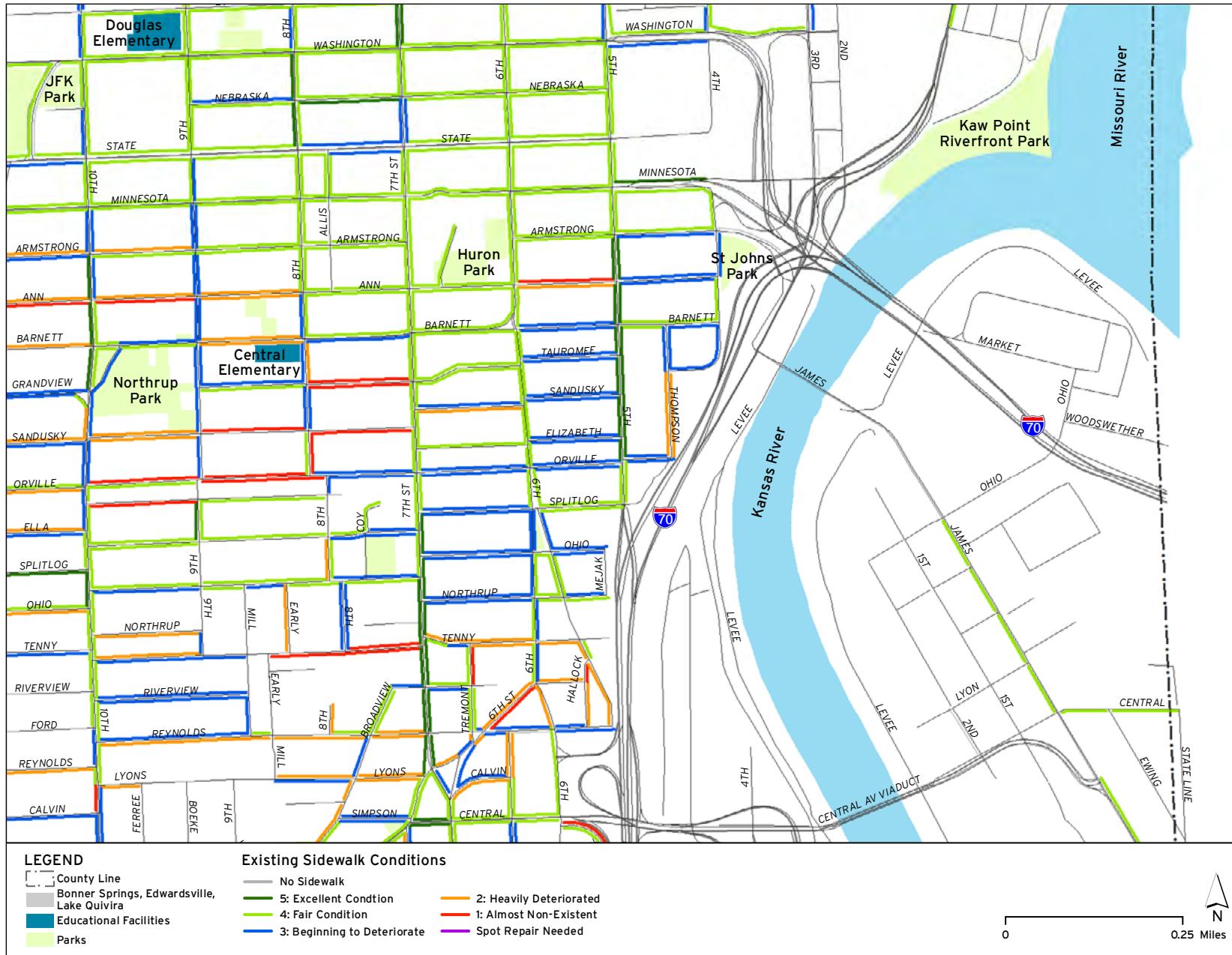


Sidewalk and Trail Master Plan



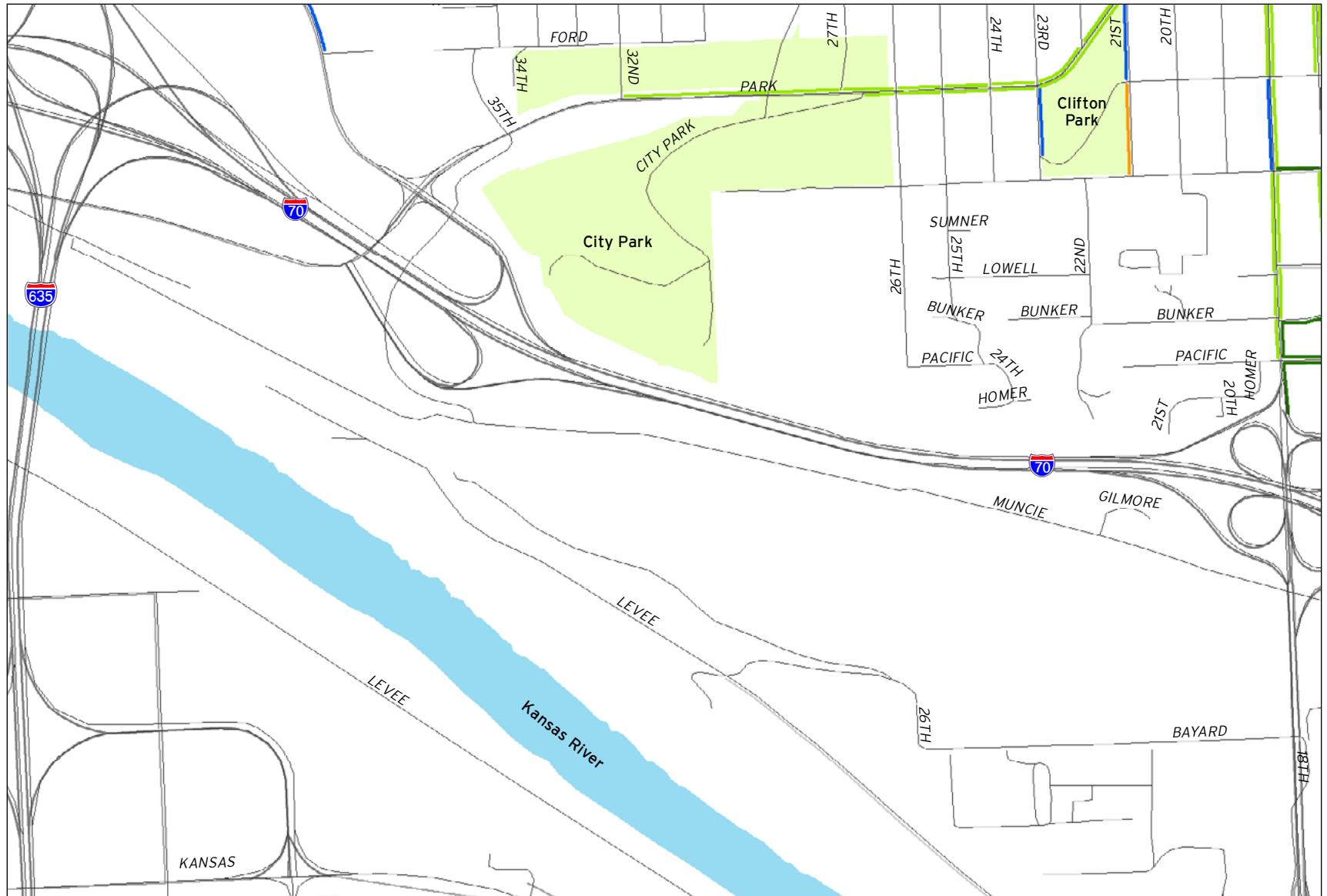


Sidewalk and Trail Master Plan



Sidewalk and Trail Master Plan





LEGEND

- County Line
- Bonner Springs, Edwardsville, Lake Quivira
- Educational Facilities
- Parks

Existing Sidewalk Conditions

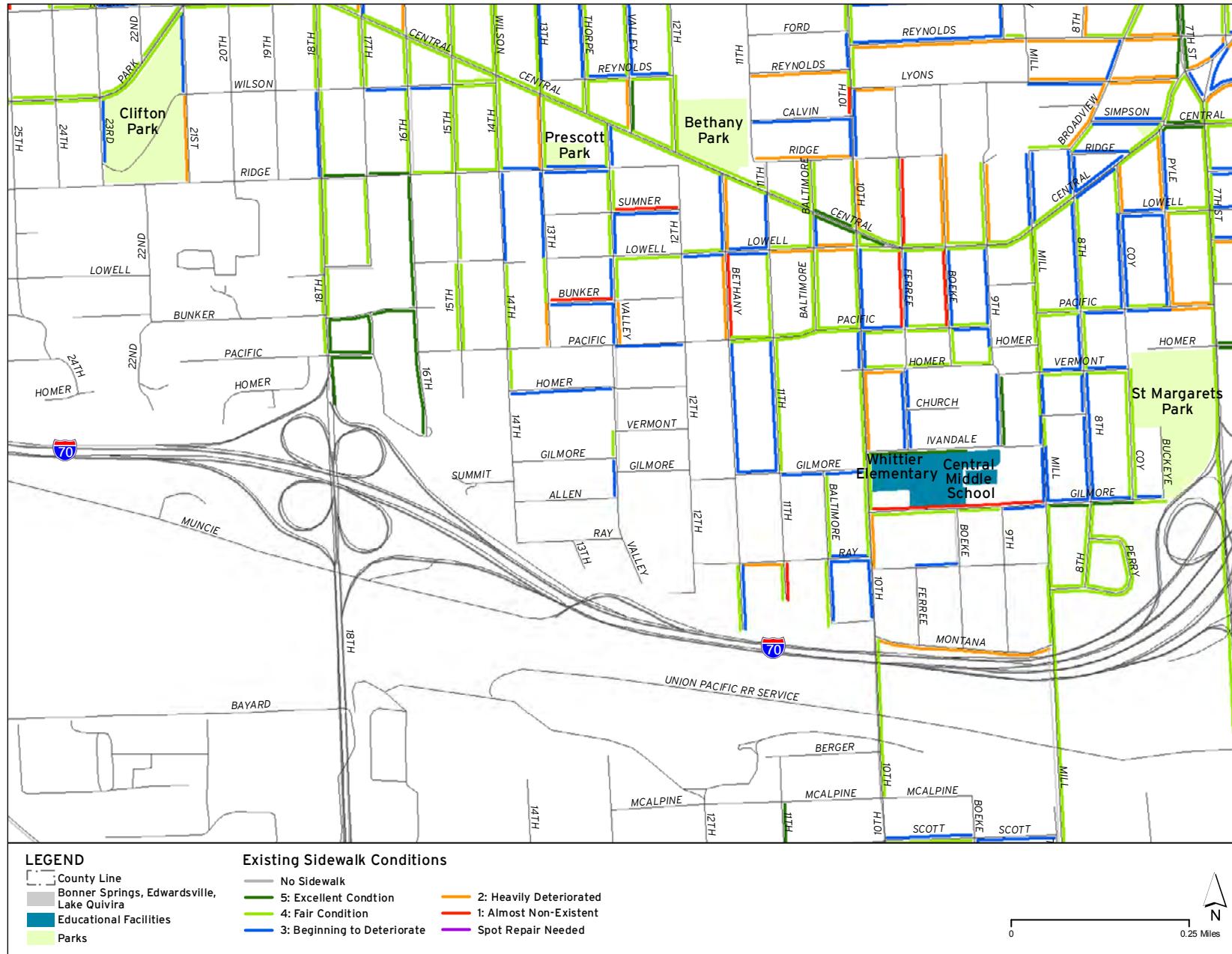
Condition	Description
No Sidewalk	Gray line
5: Excellent Condition	Dark Green
4: Fair Condition	Yellow-Green
3: Beginning to Deteriorate	Blue
2: Heavily Deteriorated	Orange
1: Almost Non-Existent	Red
Spot Repair Needed	Purple

0 0.25 Miles

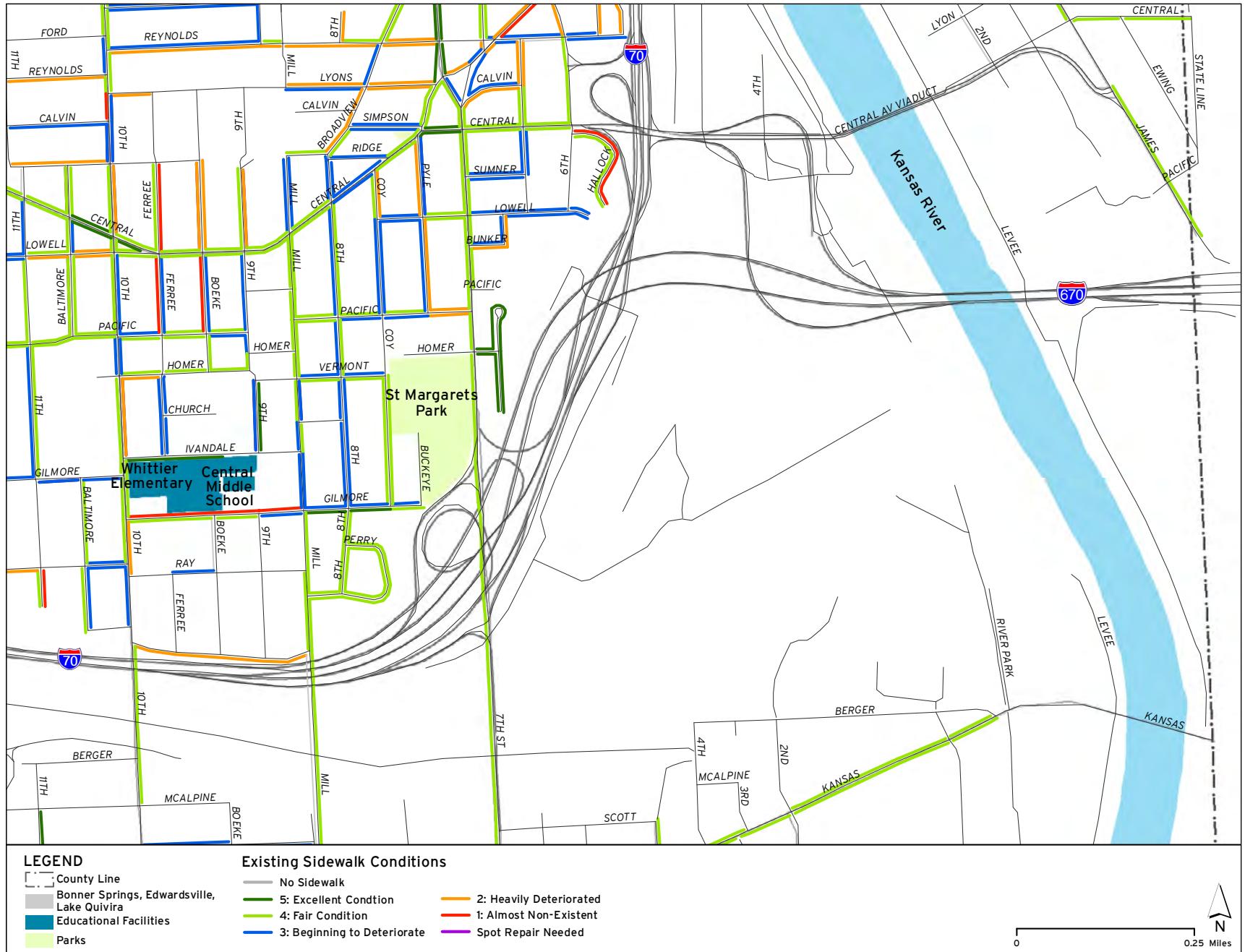


Sidewalk and Trail Master Plan

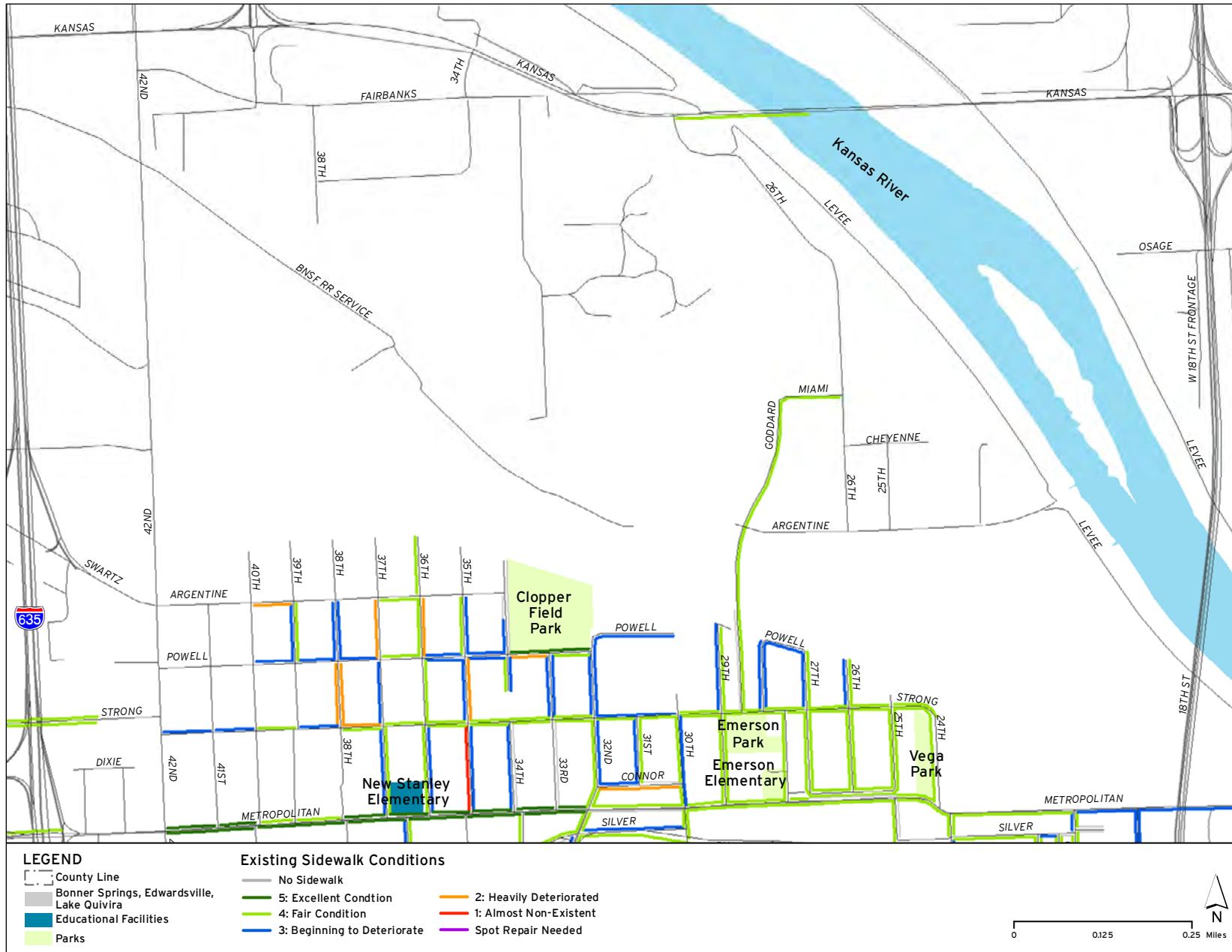


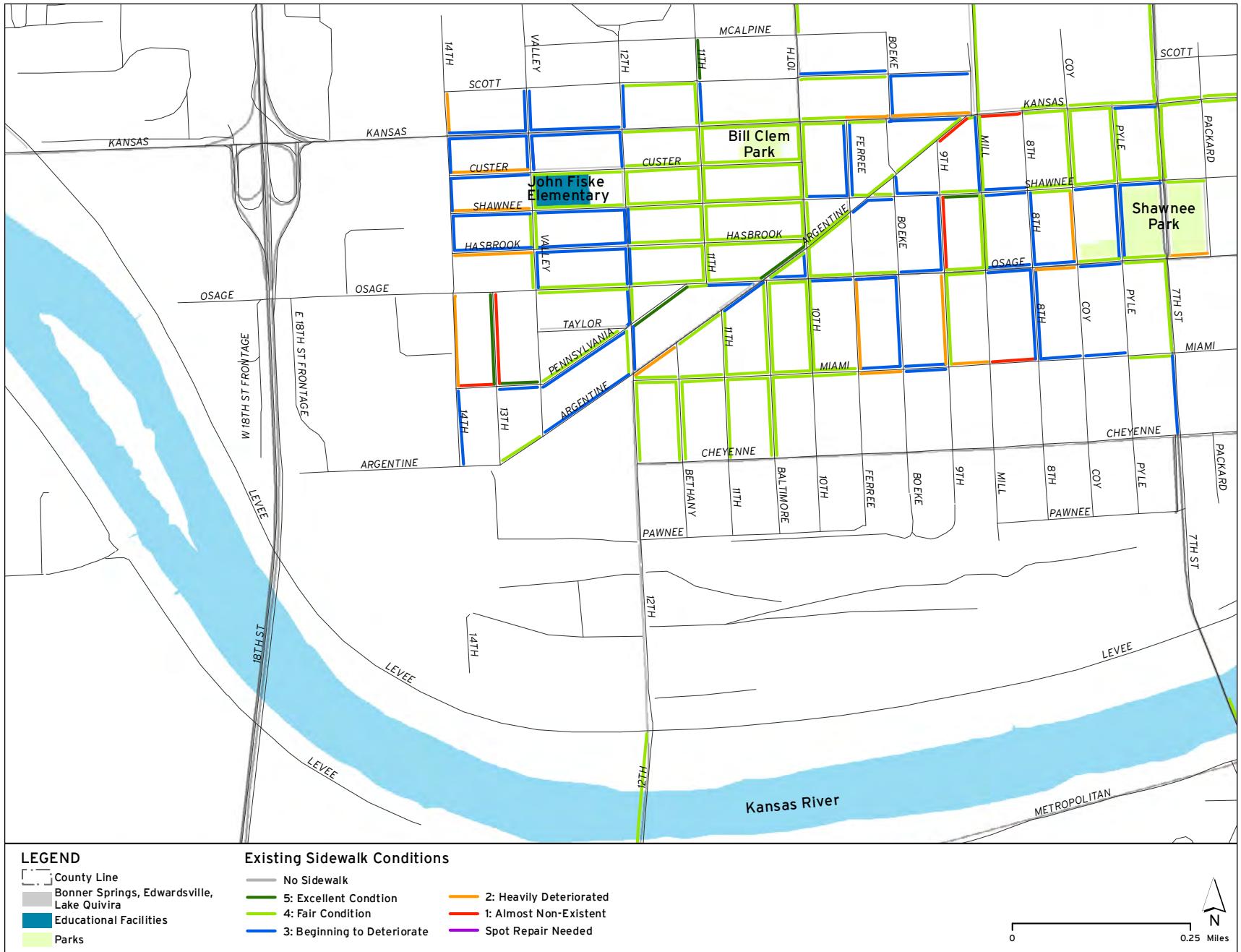


Sidewalk and Trail Master Plan

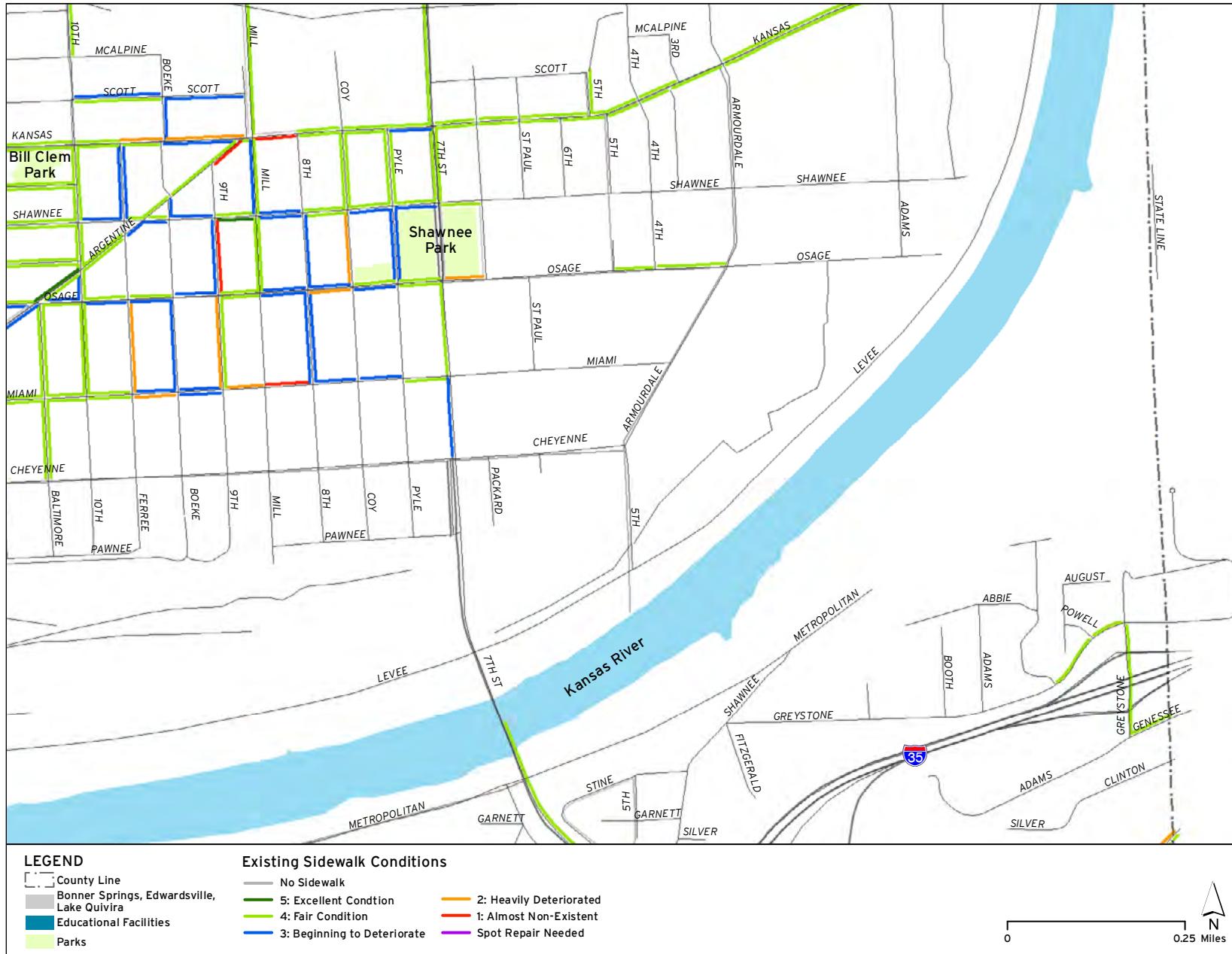


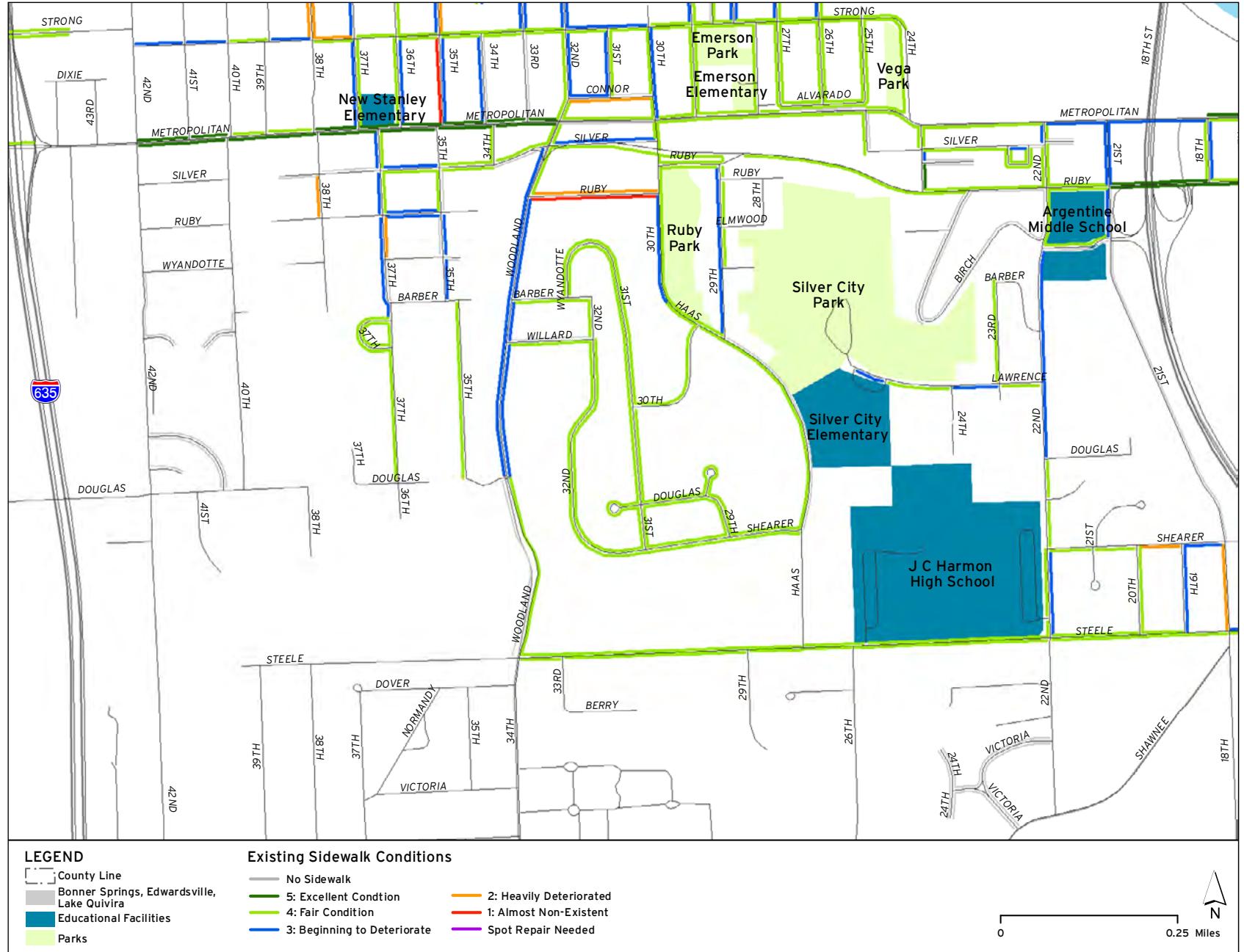
Sidewalk and Trail Master Plan



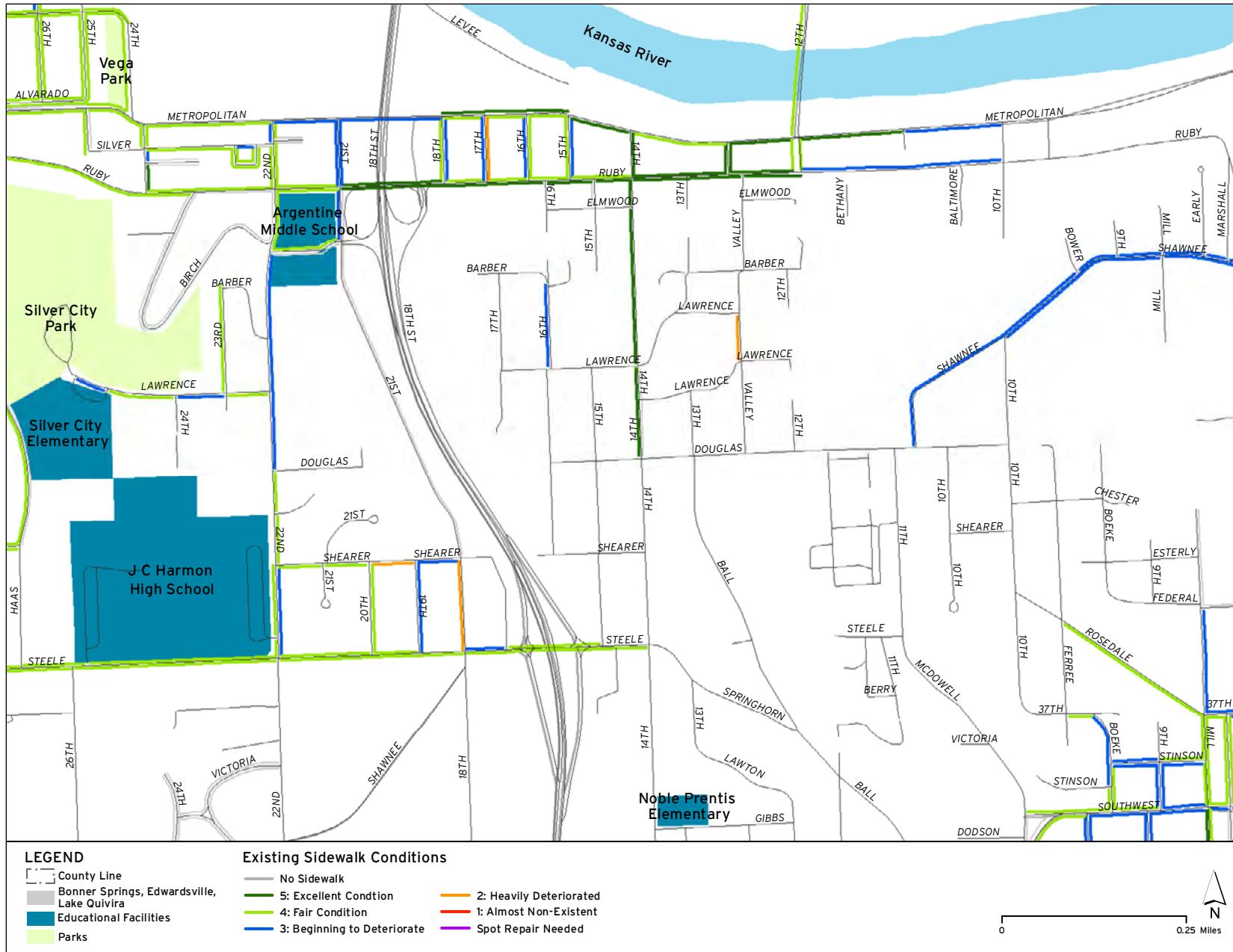


Sidewalk and Trail Master Plan

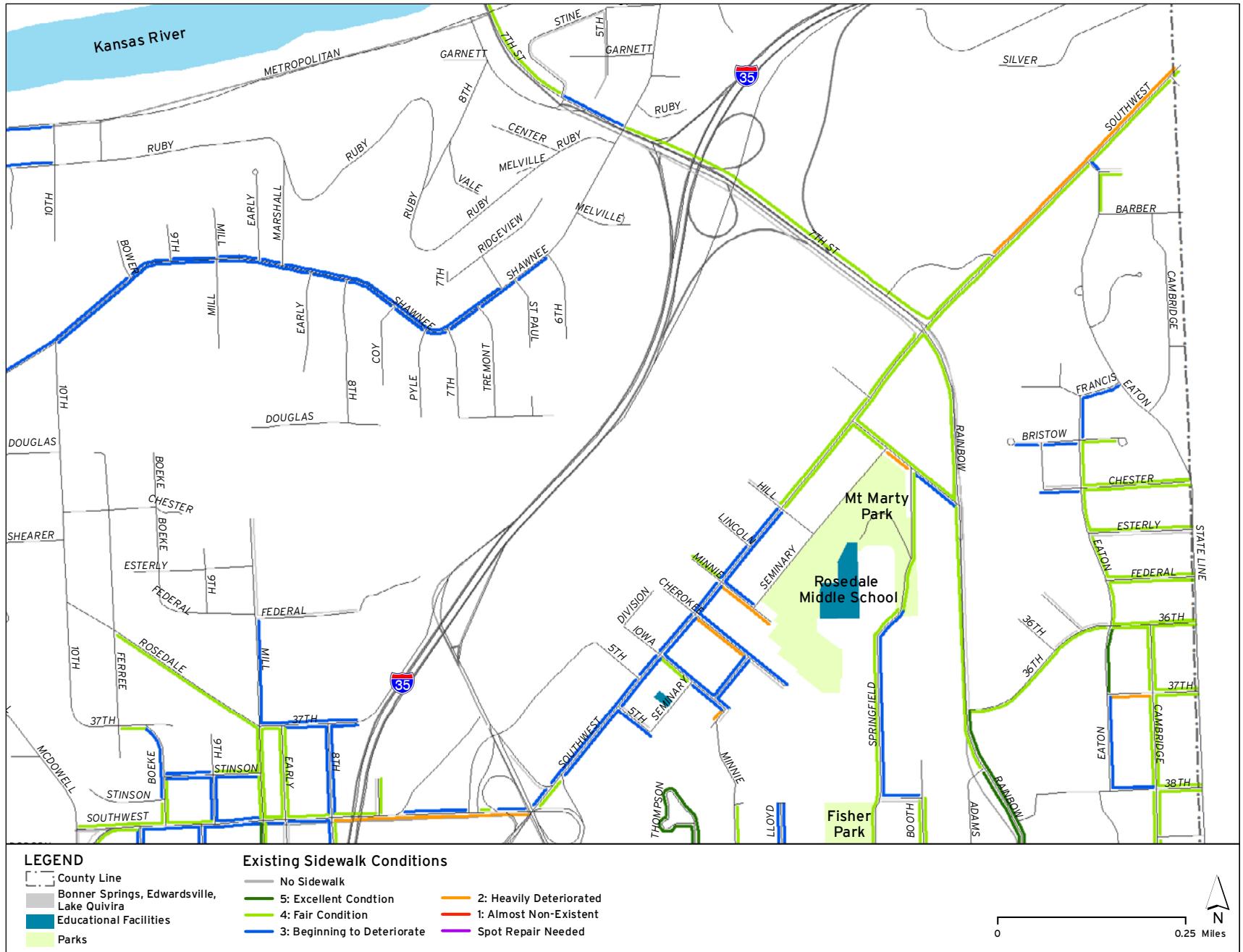




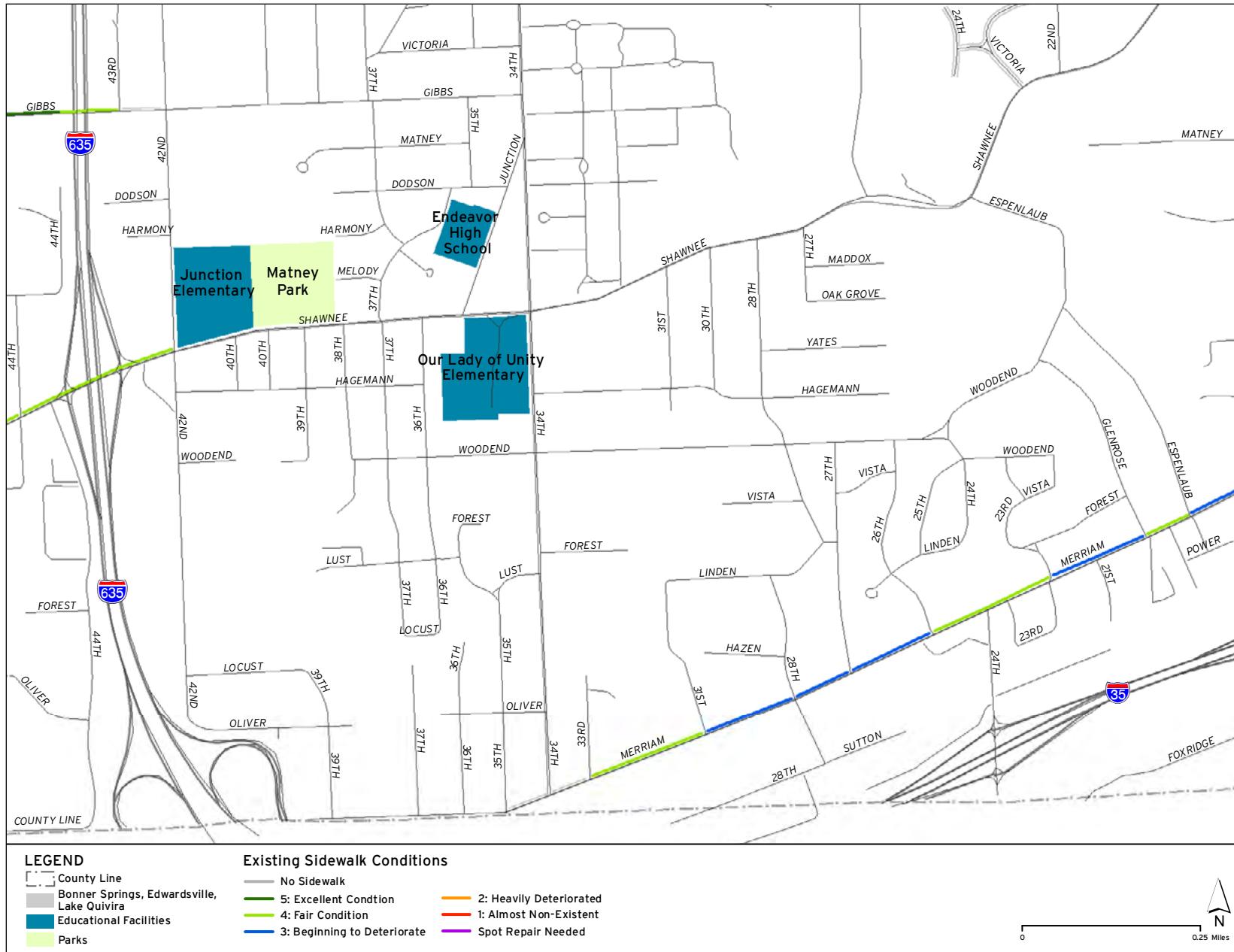
Sidewalk and Trail Master Plan

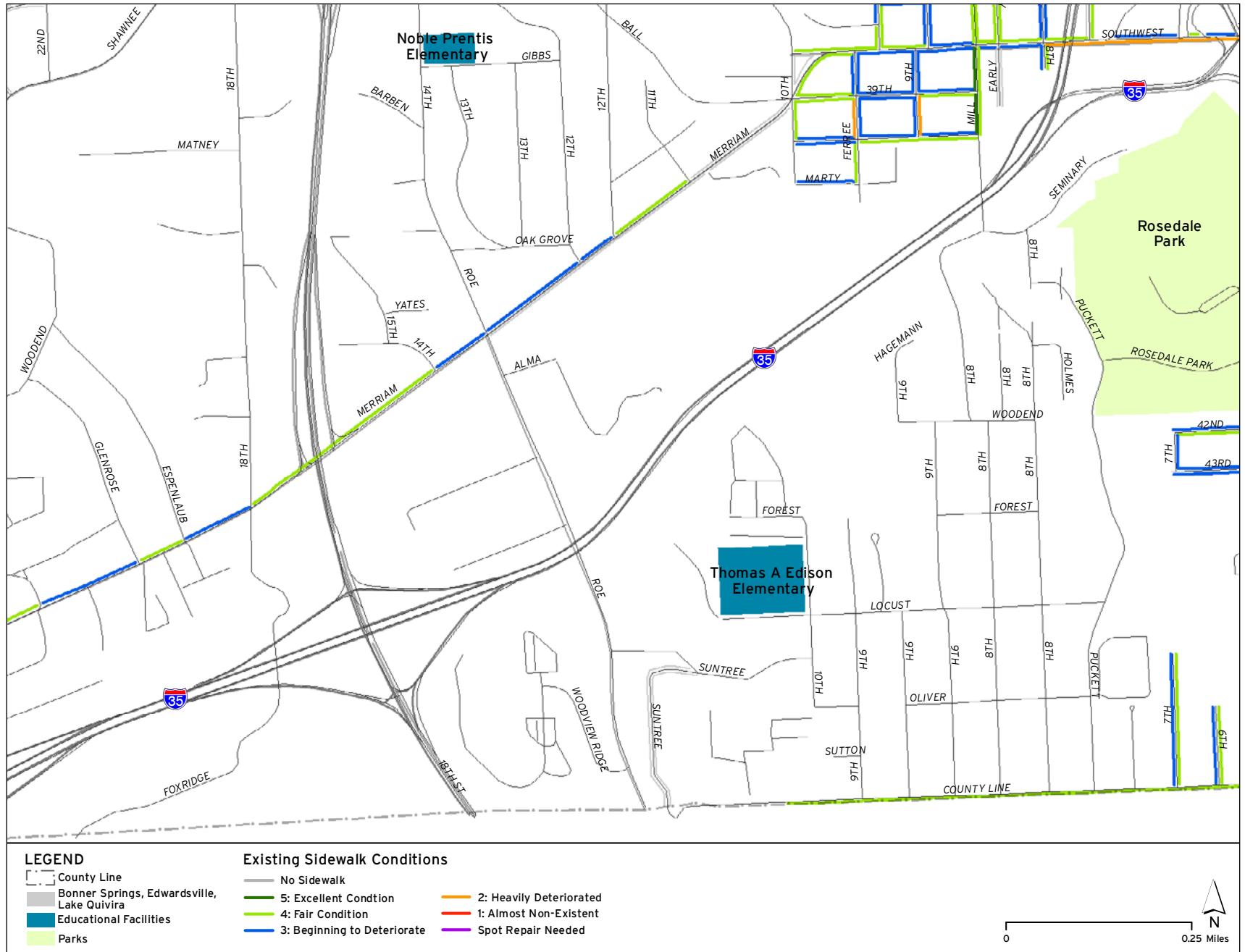


Sidewalk and Trail Master Plan

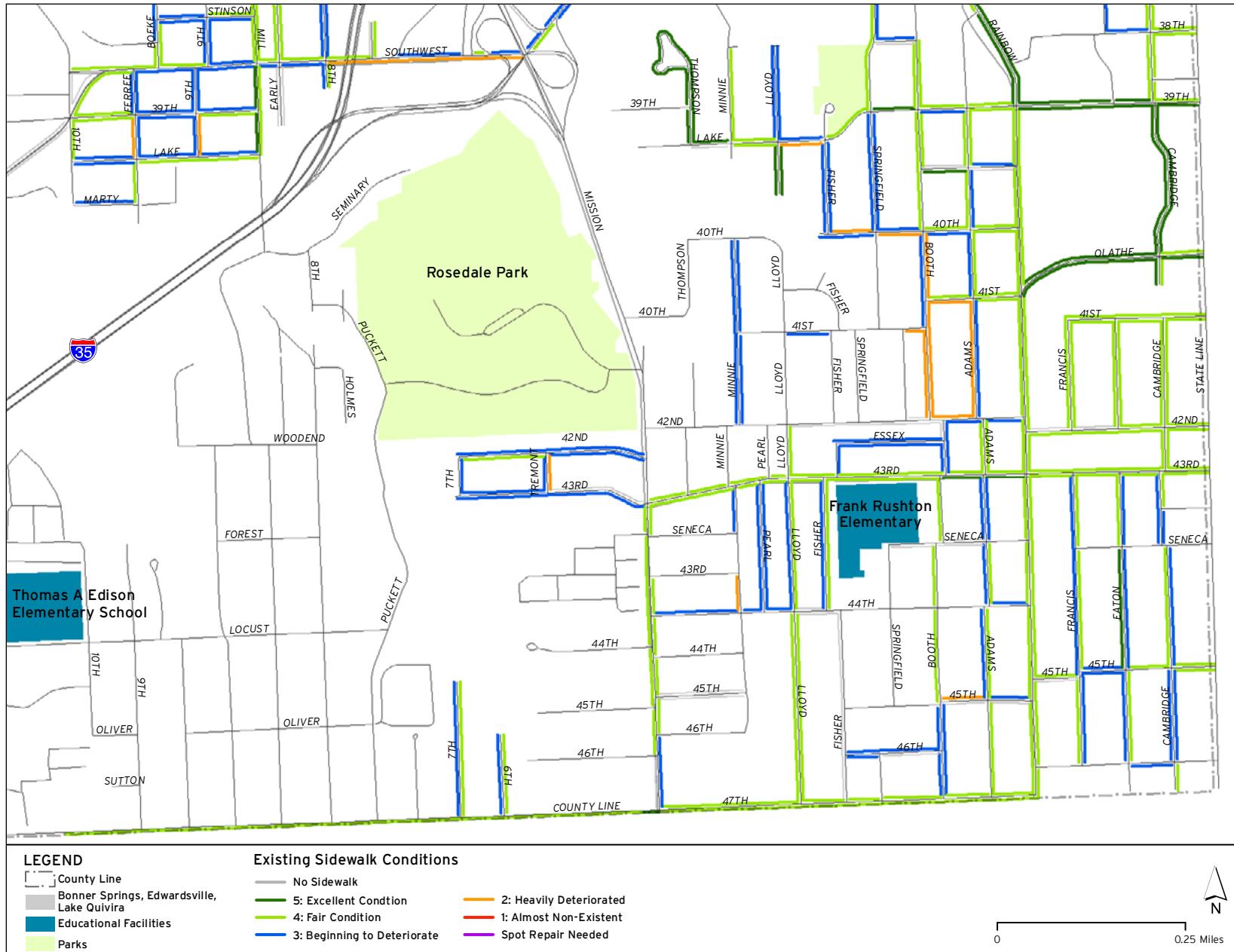


Sidewalk and Trail Master Plan





Sidewalk and Trail Master Plan

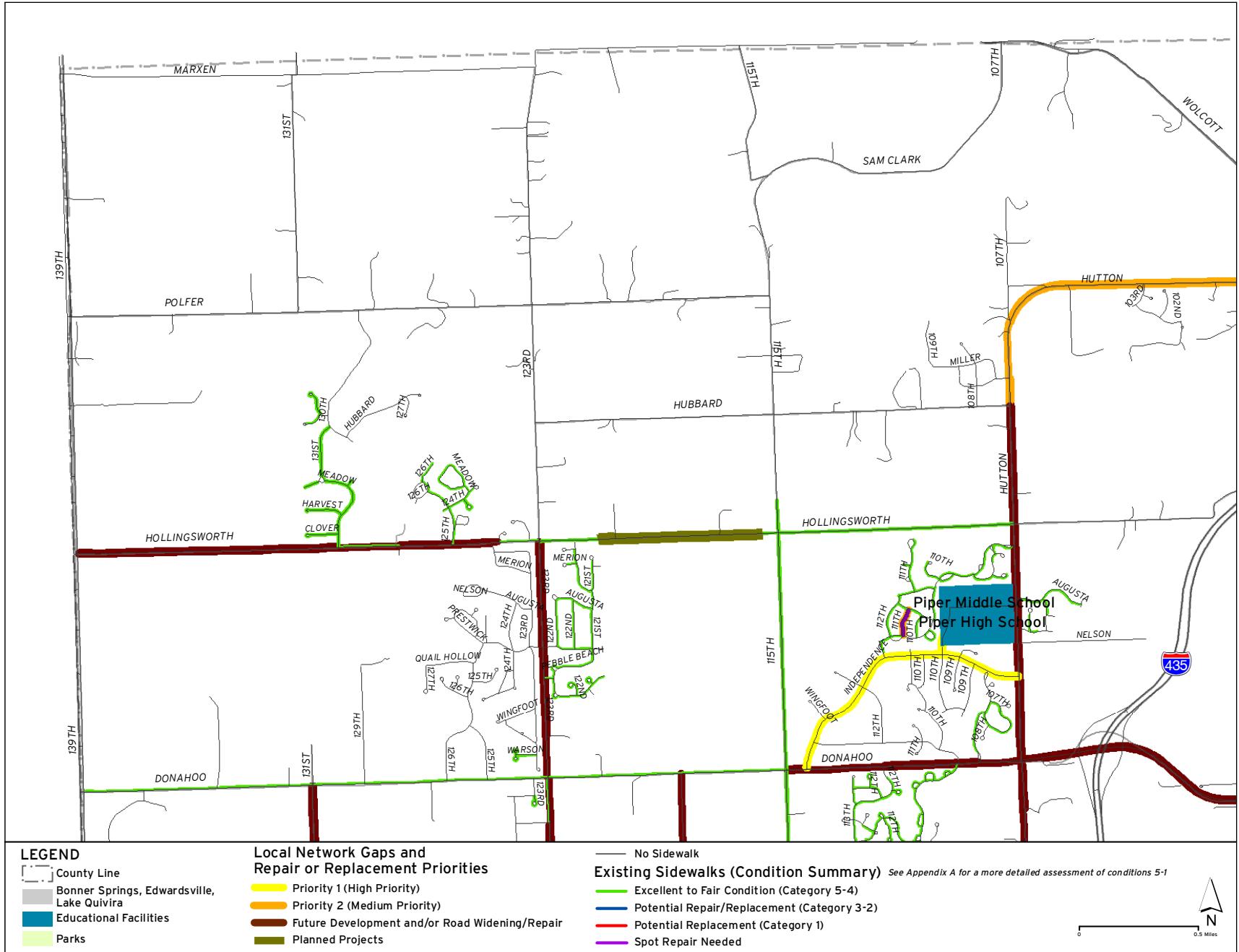


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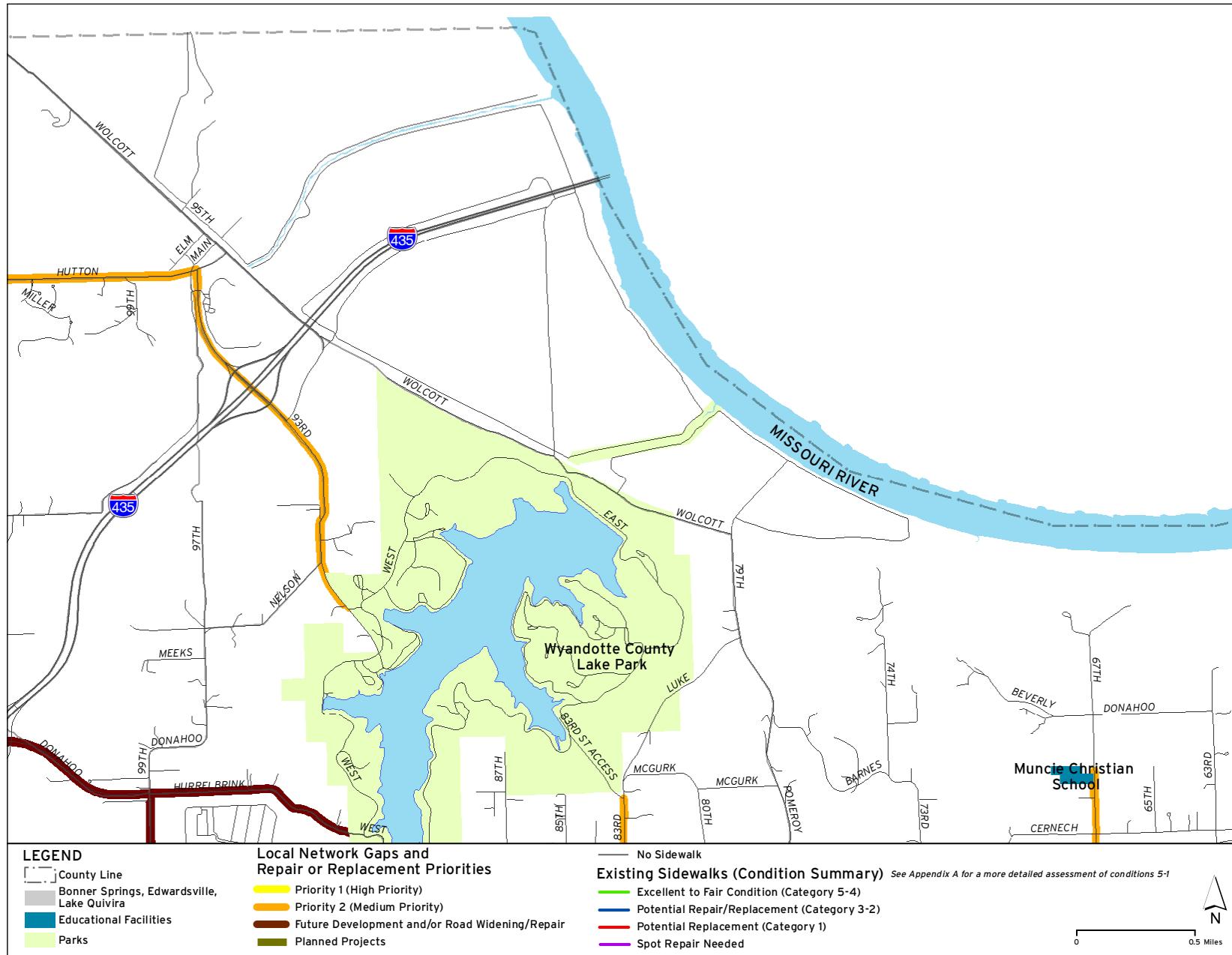
Appendix B:

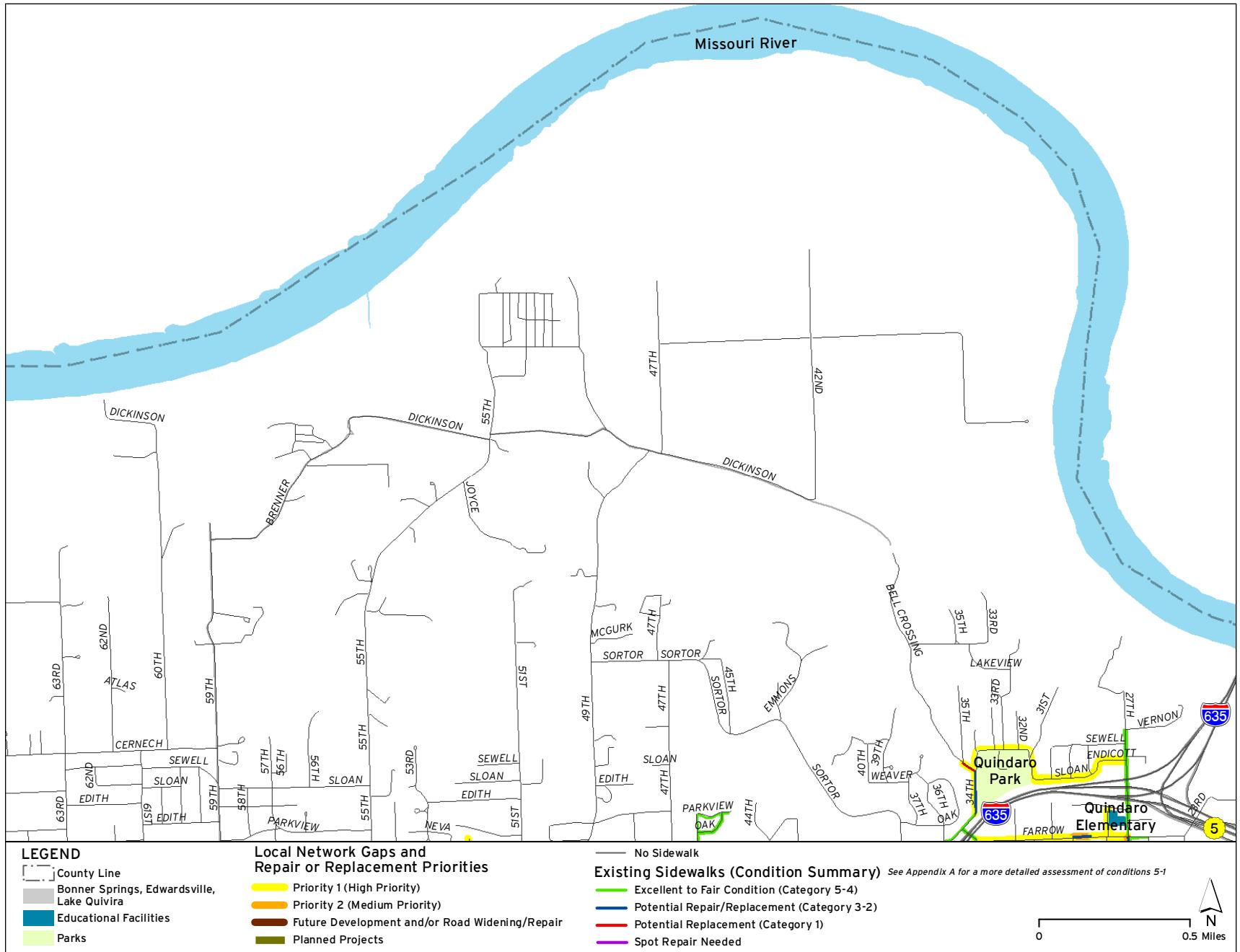
Future Sidewalk Network Maps



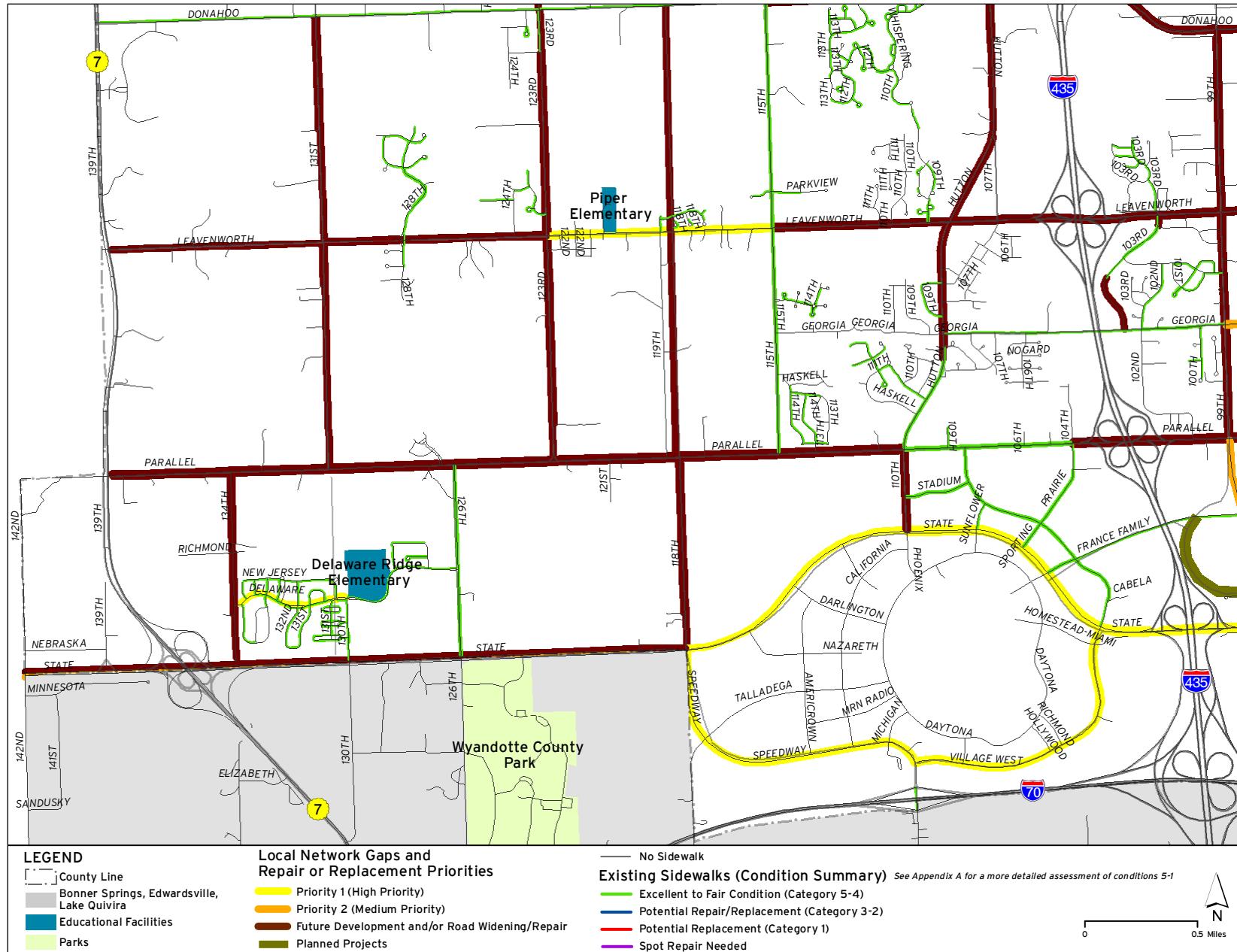


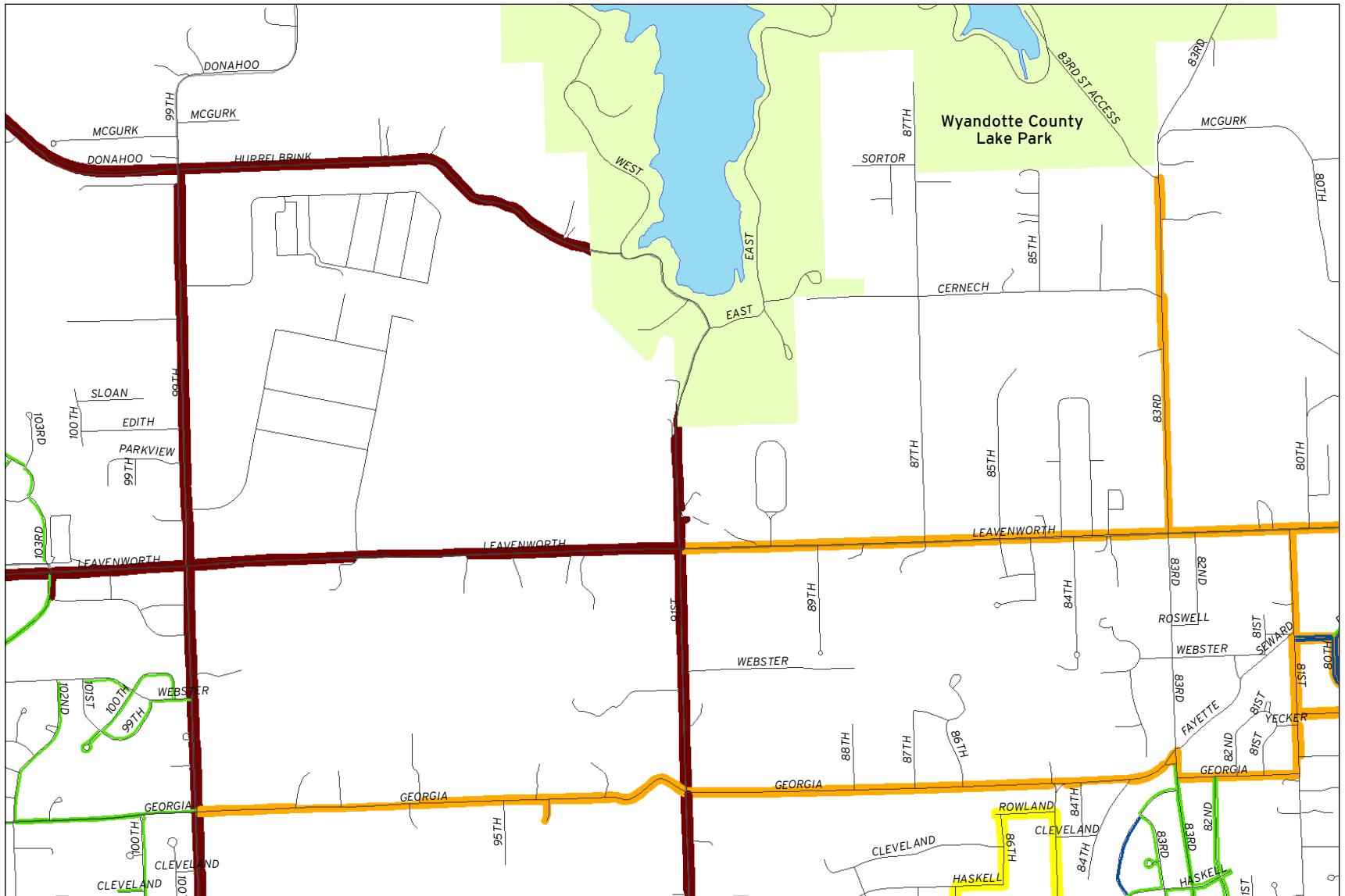
Sidewalk and Trail Master Plan





Sidewalk and Trail Master Plan





LEGEND

- County Line
- Bonner Springs, Edwardsville, Lake Quivira
- Educational Facilities
- Parks

Local Network Gaps and Repair or Replacement Priorities

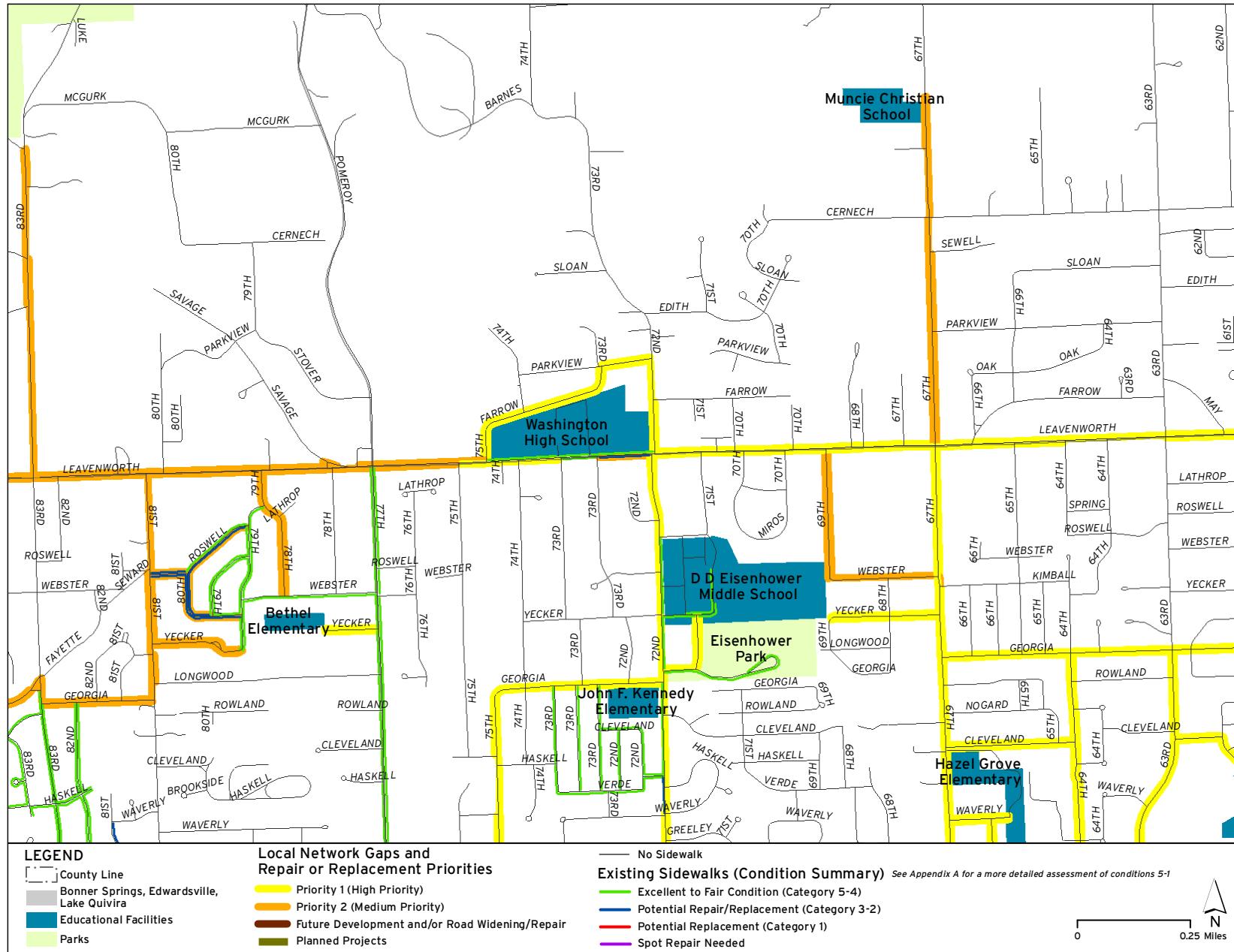
- Priority 1 (High Priority)
- Priority 2 (Medium Priority)
- Future Development and/or Road Widening/Repair
- Planned Projects

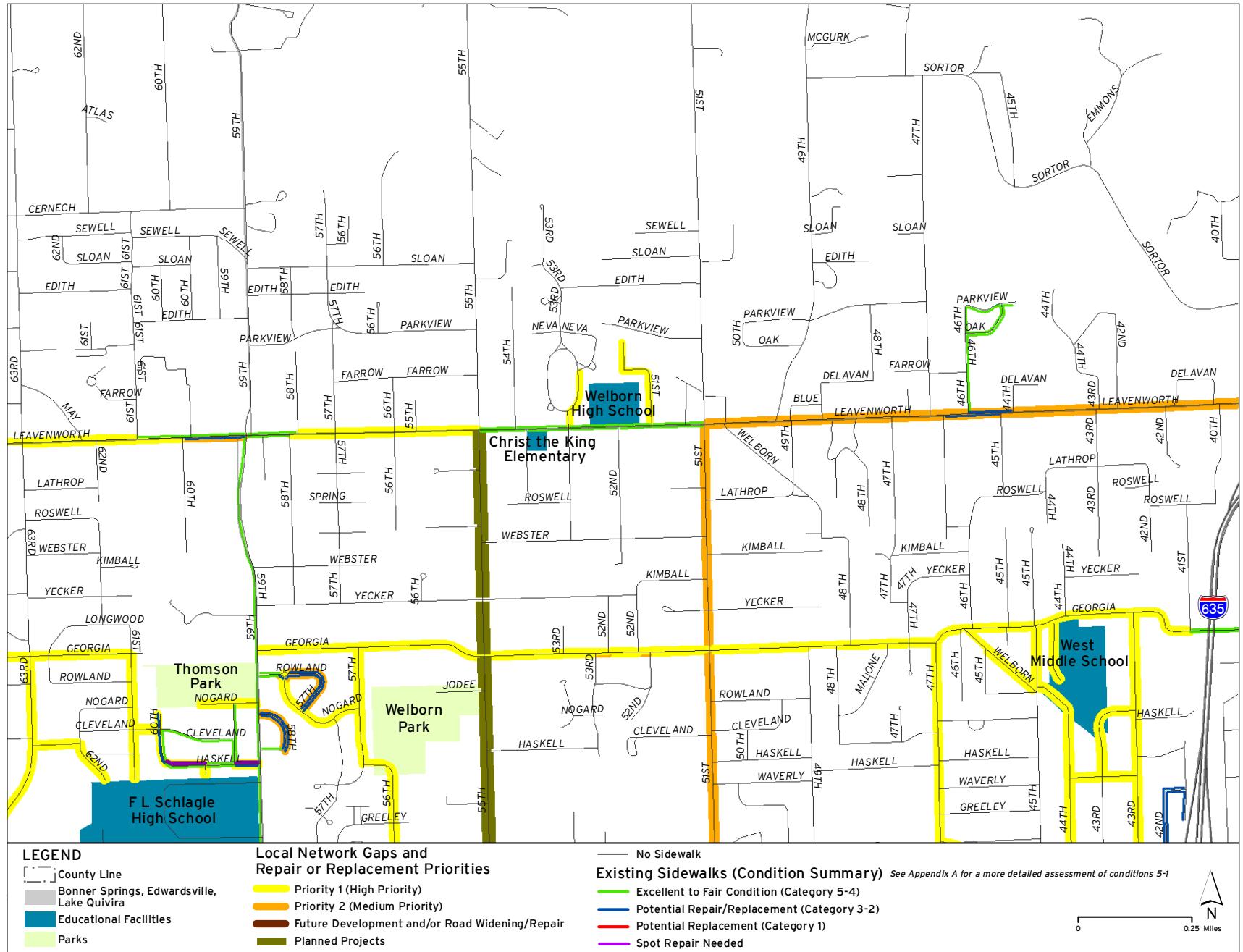
No Sidewalk

Existing Sidewalks (Condition Summary) See Appendix A for a more detailed assessment of conditions 5-1

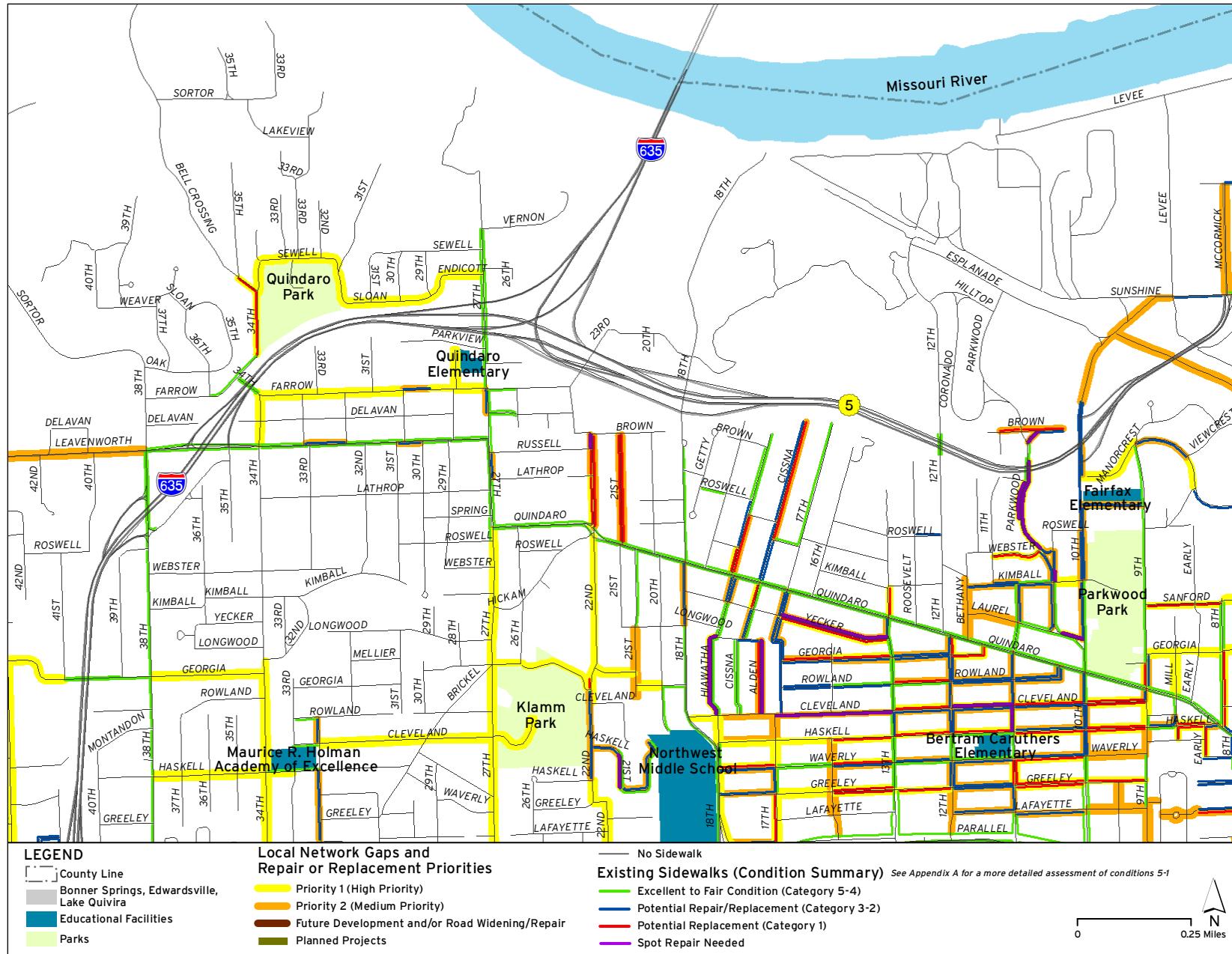
- Excellent to Fair Condition (Category 5-4)
- Potential Repair/Replacement (Category 3-2)
- Potential Replacement (Category 1)
- Spot Repair Needed

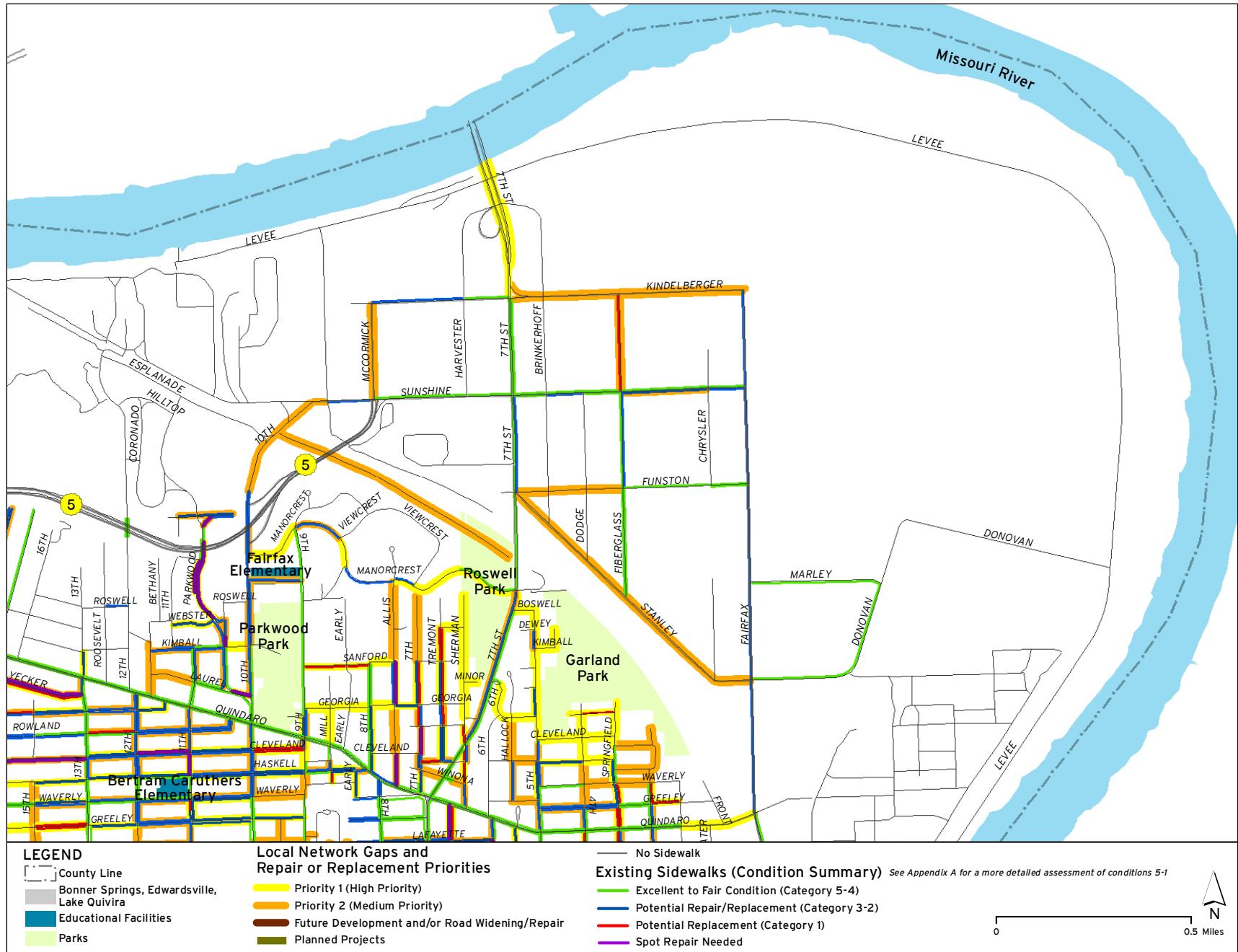
0 0.25 Miles



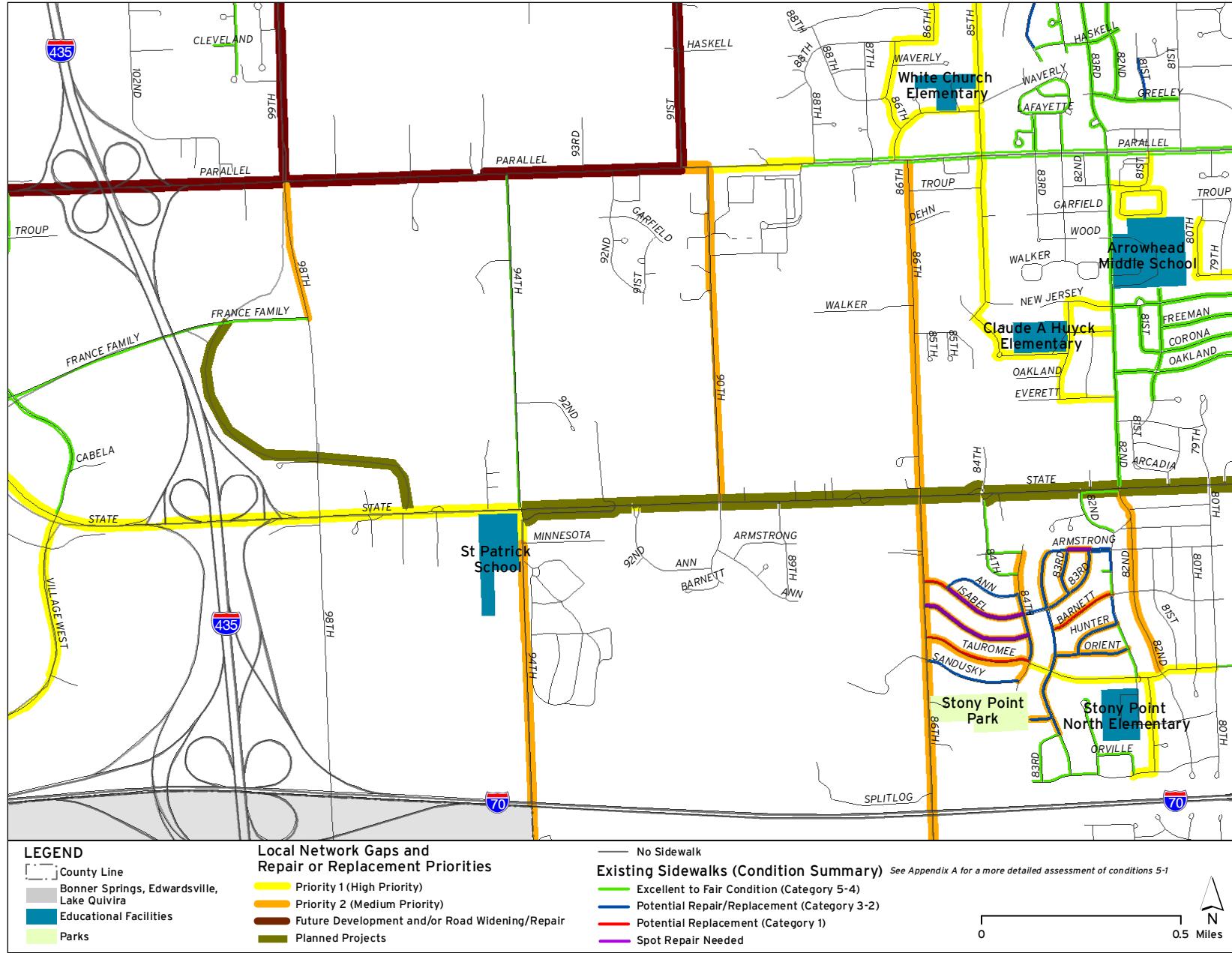


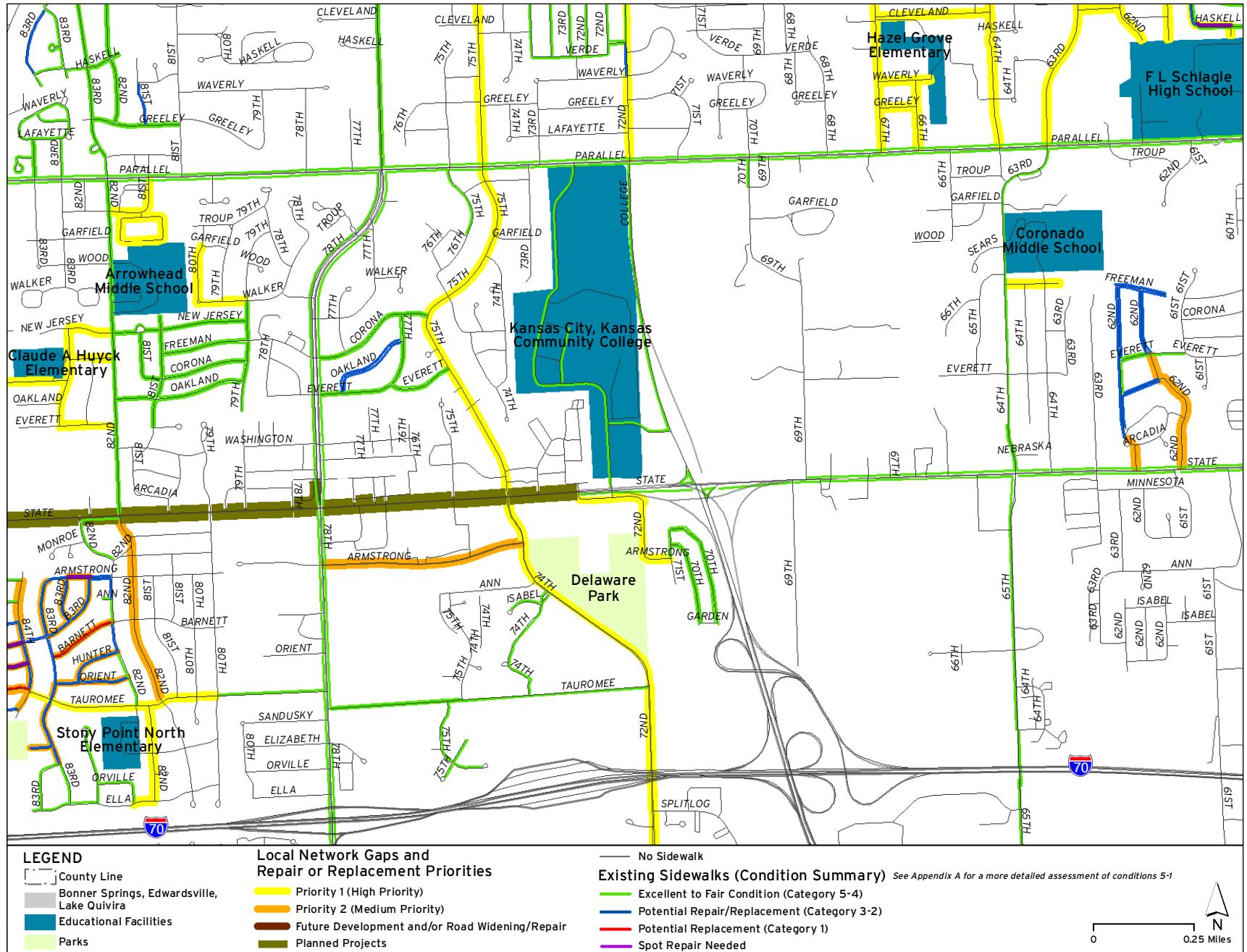
Sidewalk and Trail Master Plan



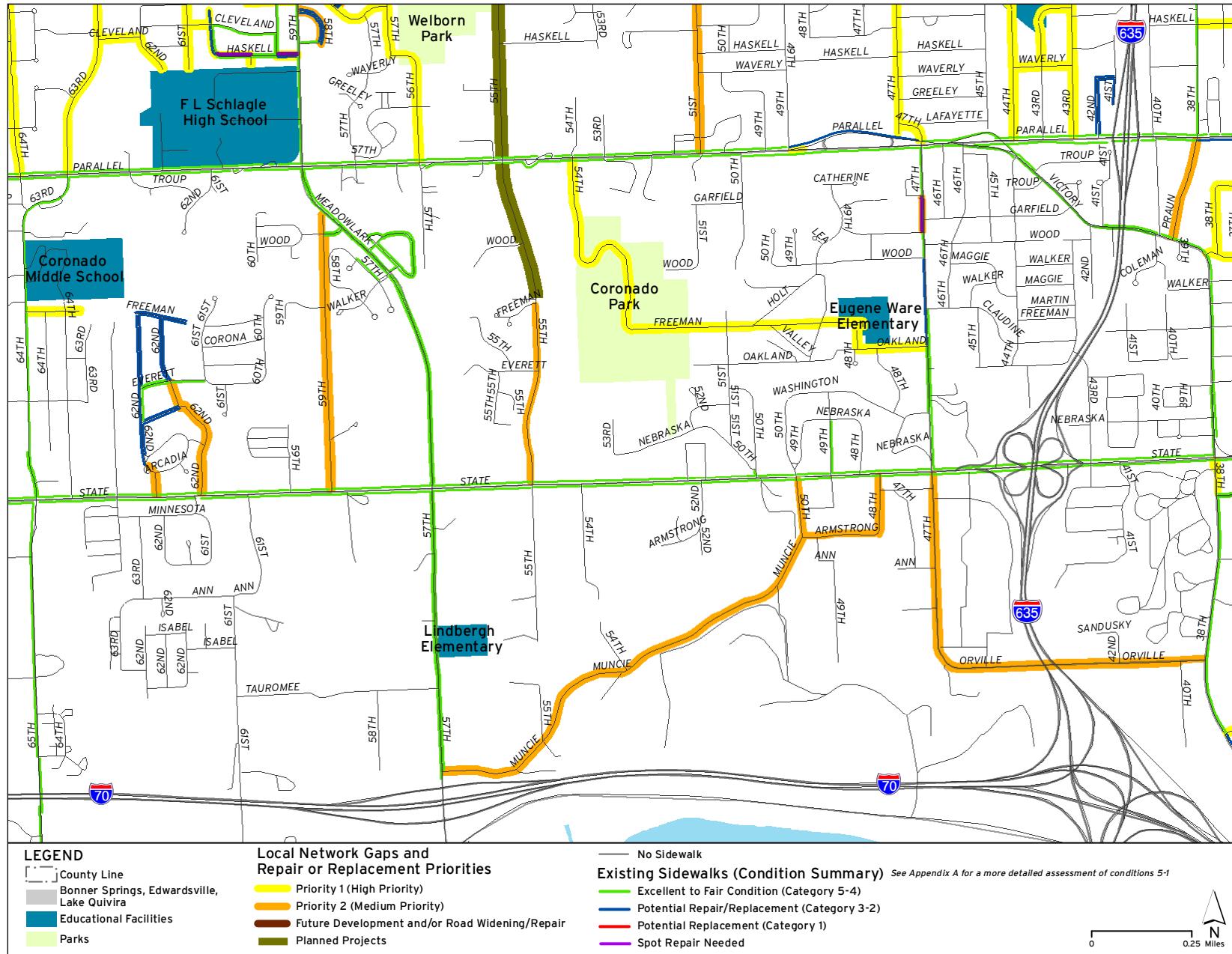


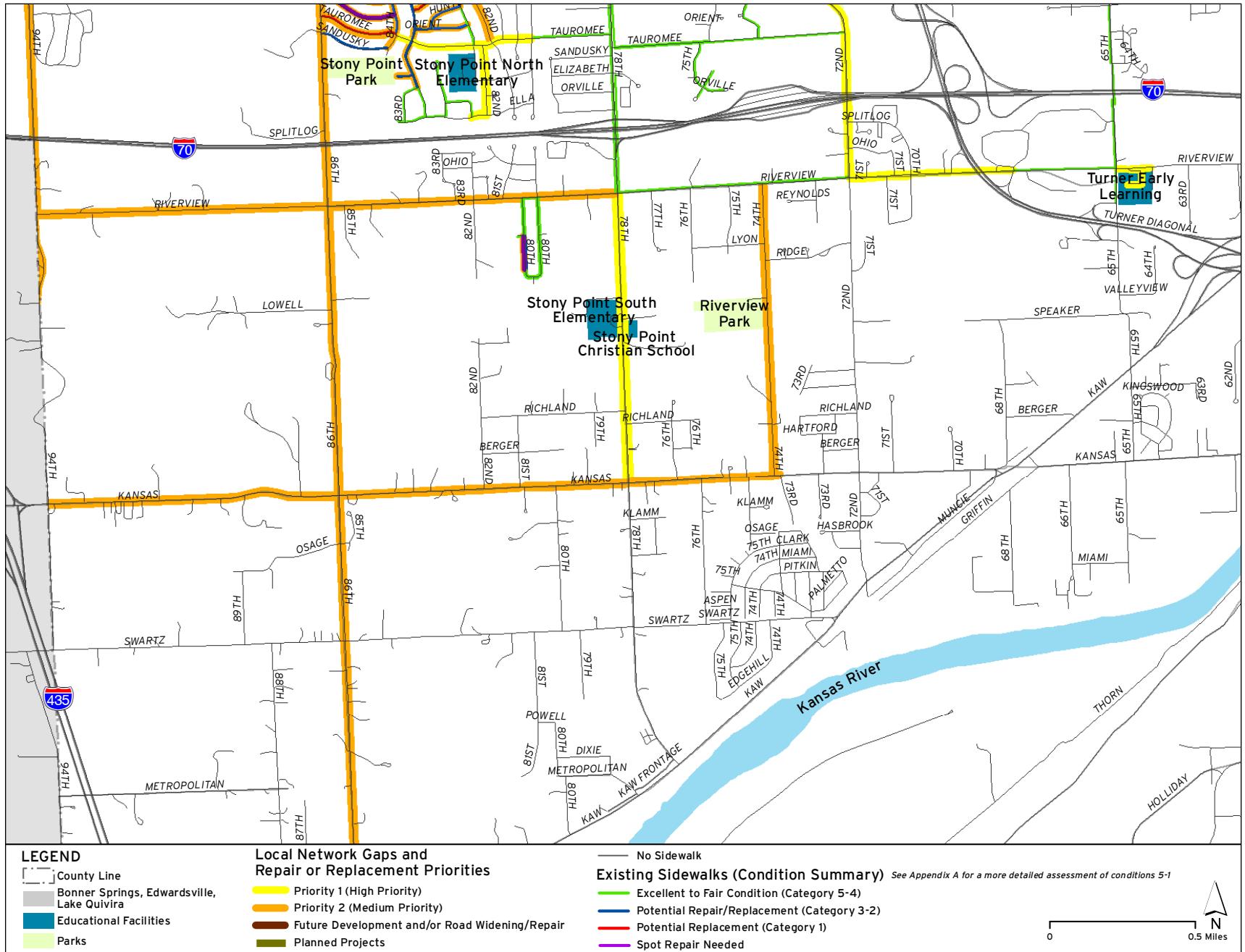
Sidewalk and Trail Master Plan



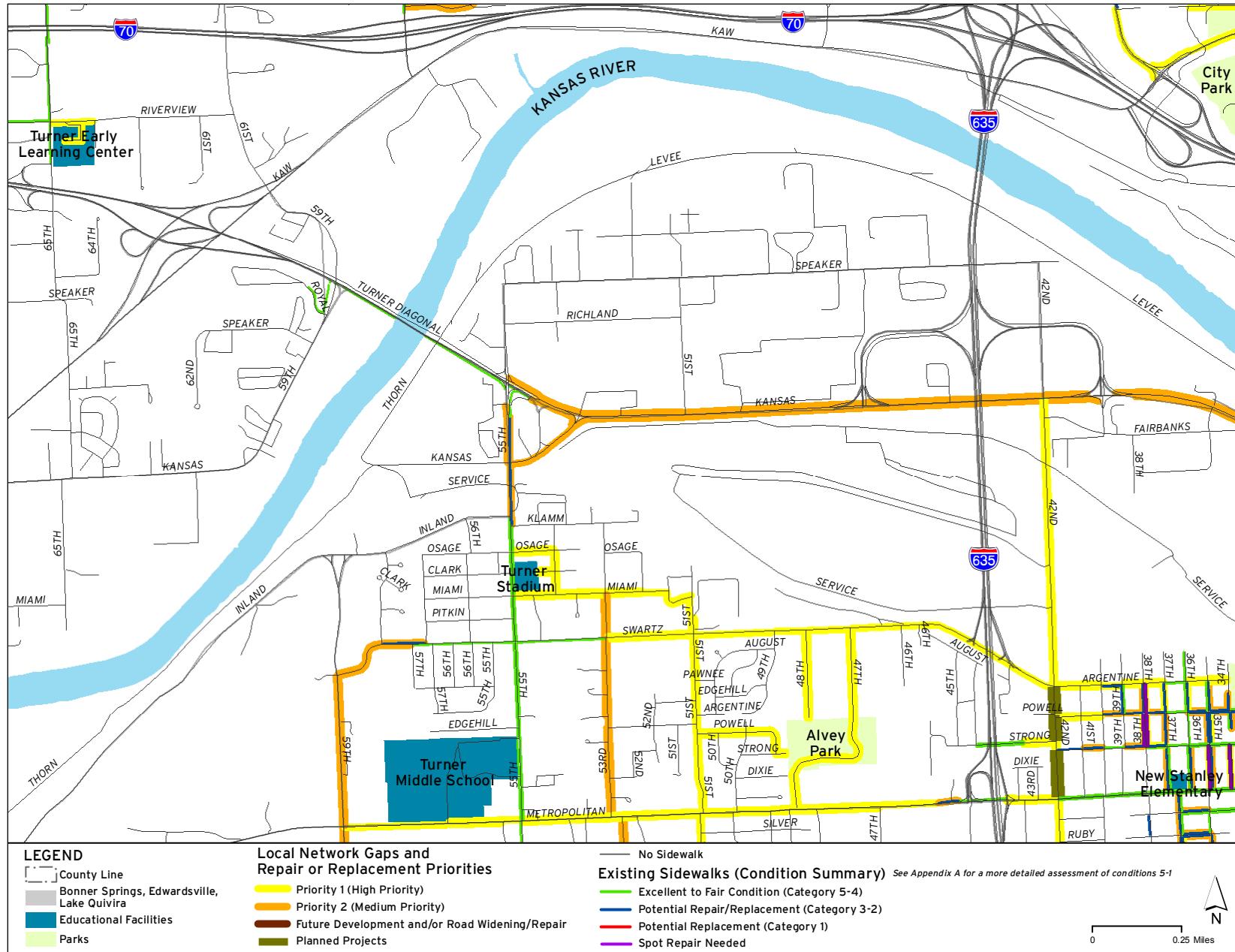


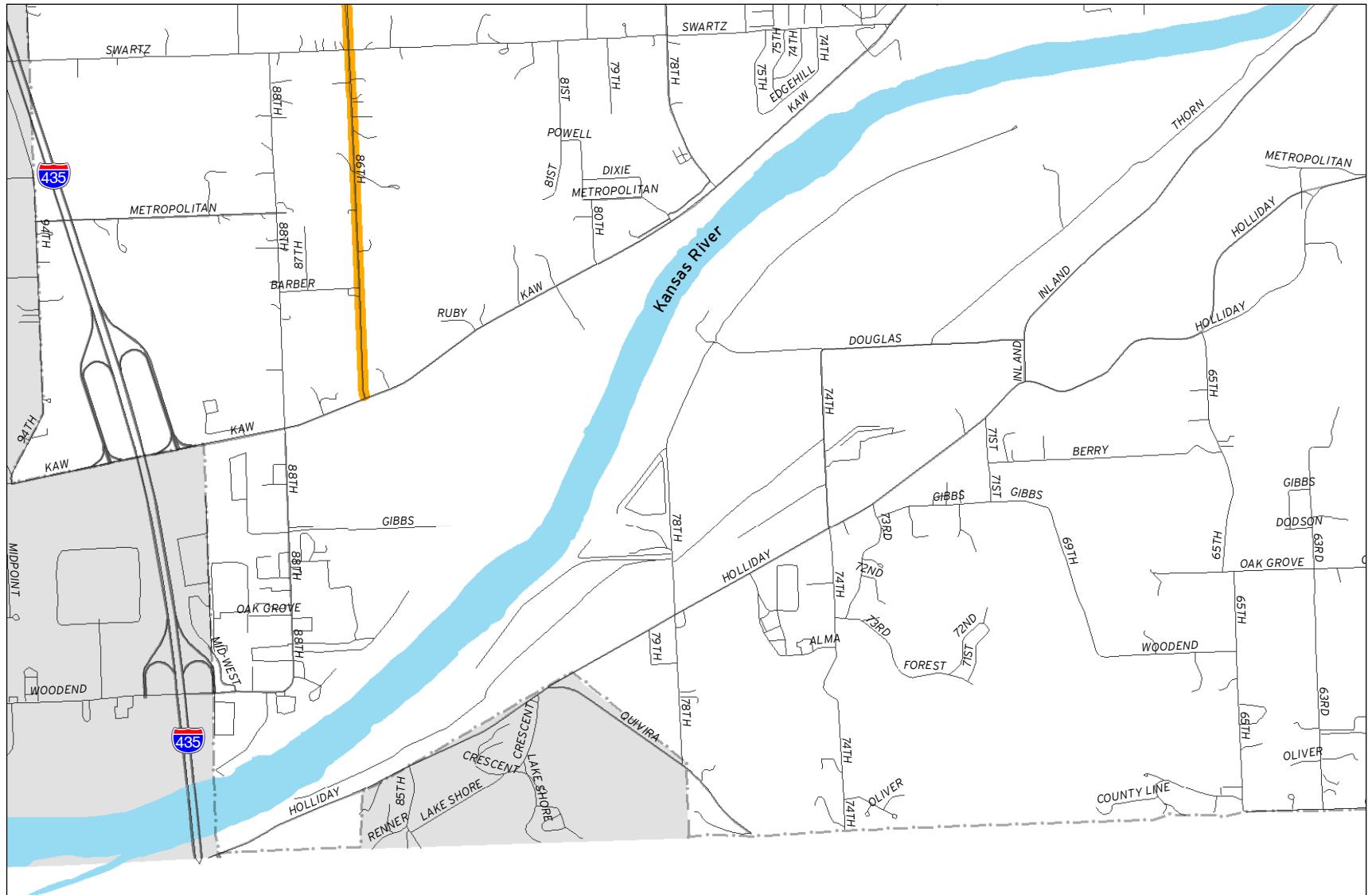
Sidewalk and Trail Master Plan





Sidewalk and Trail Master Plan





County Line

Bonner Springs, Edwardsville, Lake Quivira

Educational Facilities

Parks

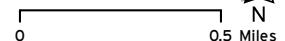
Local Network Gaps and
Repair or Replacement Priorities

- Priority 1 (High Priority)
- Priority 2 (Medium Priority)
- Future Development and/or Road Widening/Repair
- Planned Projects

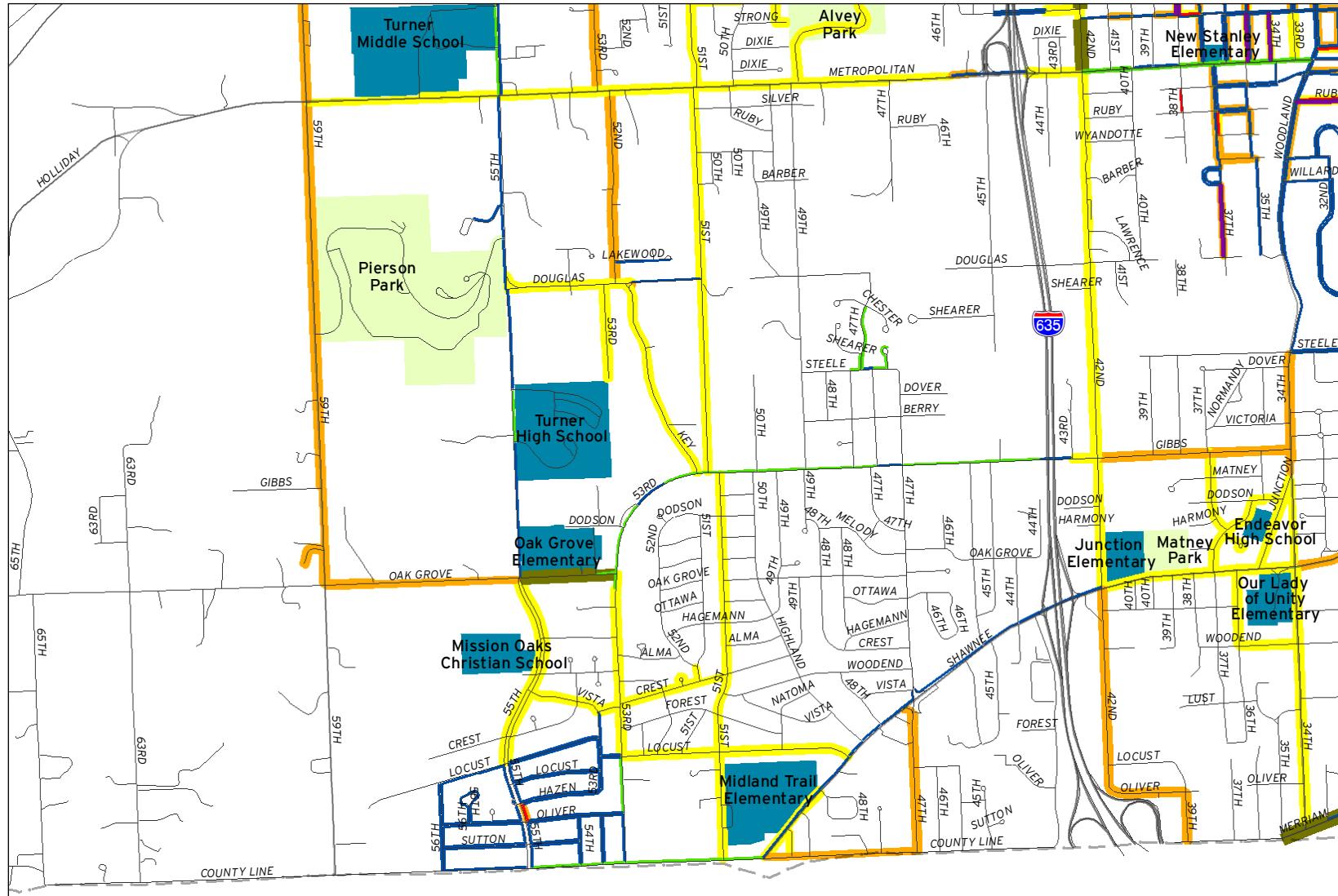
No Sidewalk

Existing Sidewalks (Condition Summary) See Appendix A for a more detailed assessment of conditions 5-1

- Excellent to Fair Condition (Category 5-4)
- Potential Repair/Replacement (Category 3-2)
- Potential Replacement (Category 1)
- Spot Repair Needed



Sidewalk and Trail Master Plan



LEGEND

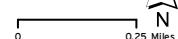
- County Line
- Bonner Springs, Edwardsville, Lake Quivira
- Educational Facilities
- Parks

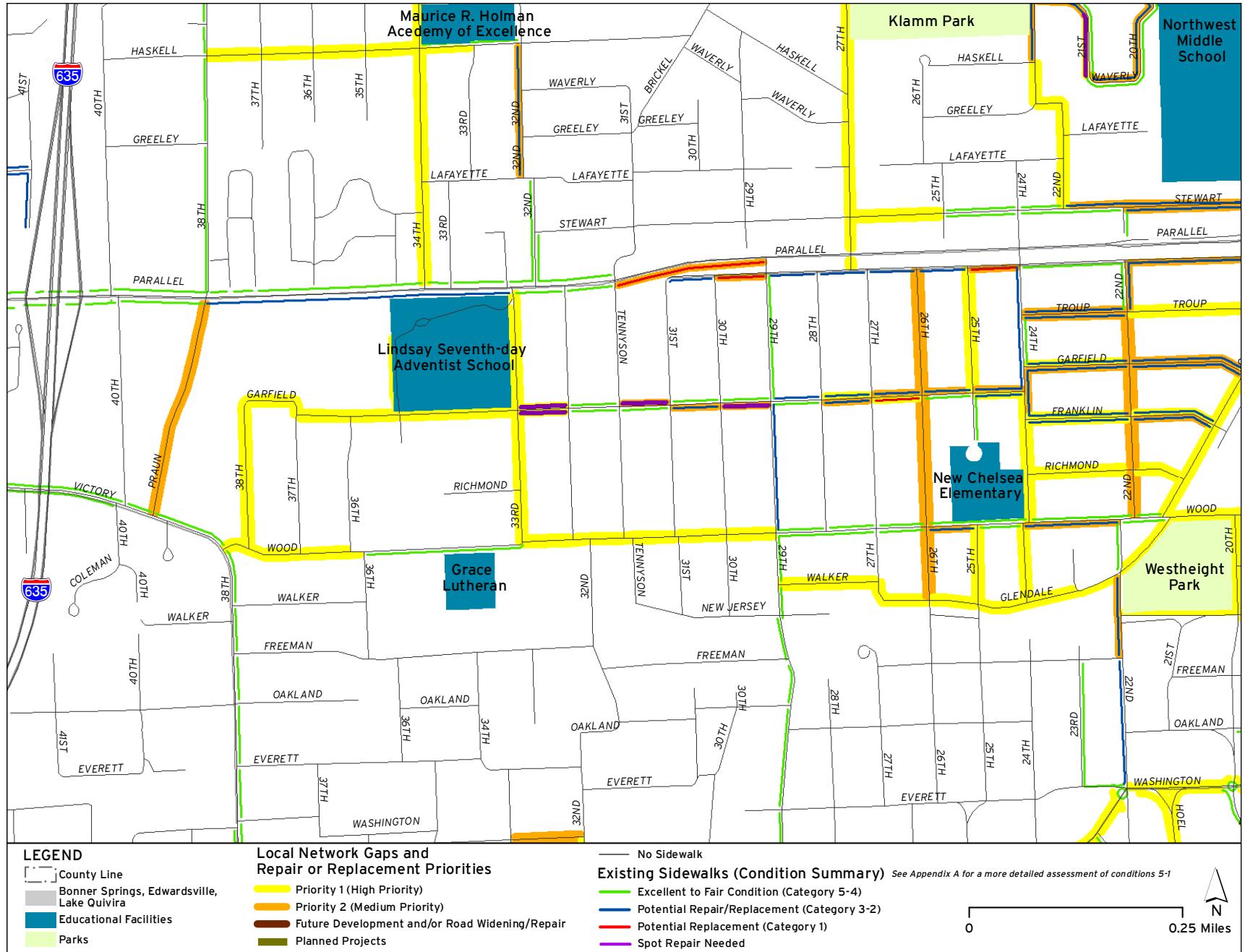
Local Network Gaps and Repair or Replacement Priorities

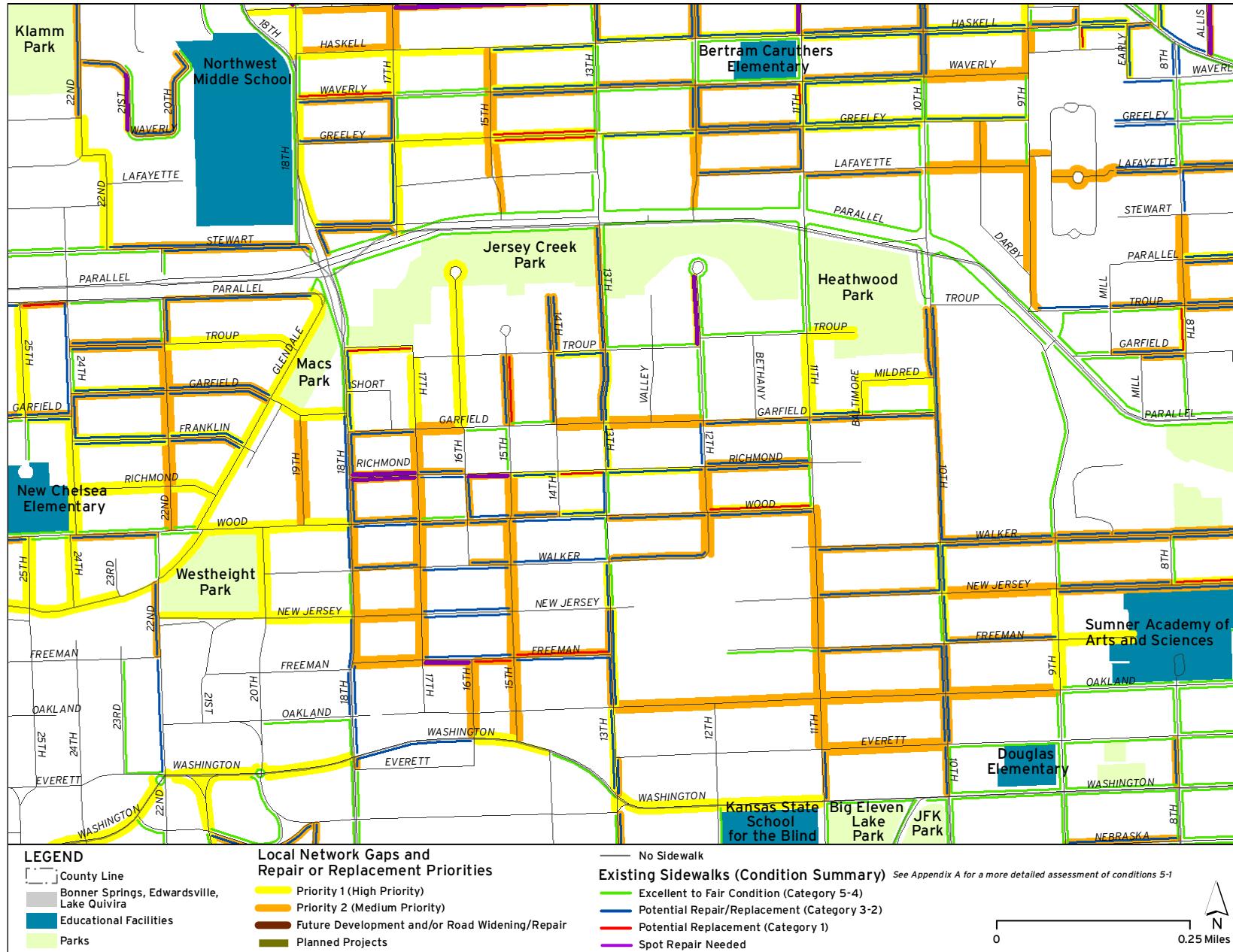
- Priority 1 (High Priority)
- Priority 2 (Medium Priority)
- Potential Repair/Replacement (Category 3-2)
- Potential Replacement (Category 1)
- Planned Projects

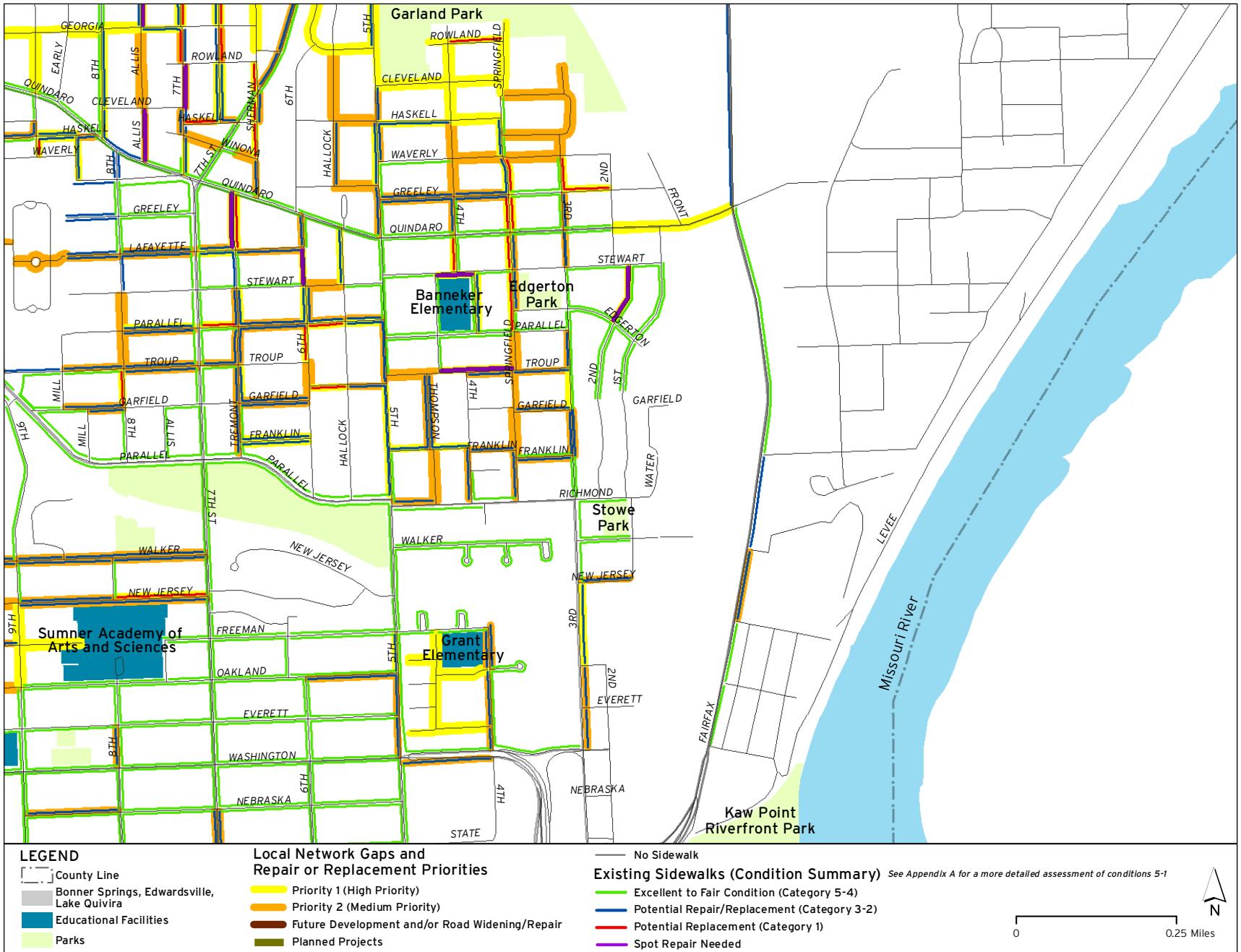
Existing Sidewalks (Condition Summary) See Appendix A for a more detailed assessment of conditions 5-1

- No Sidewalk
- Excellent to Fair Condition (Category 5-4)
- Potential Repair/Replacement (Category 3-2)
- Potential Replacement (Category 1)
- Spot Repair Needed

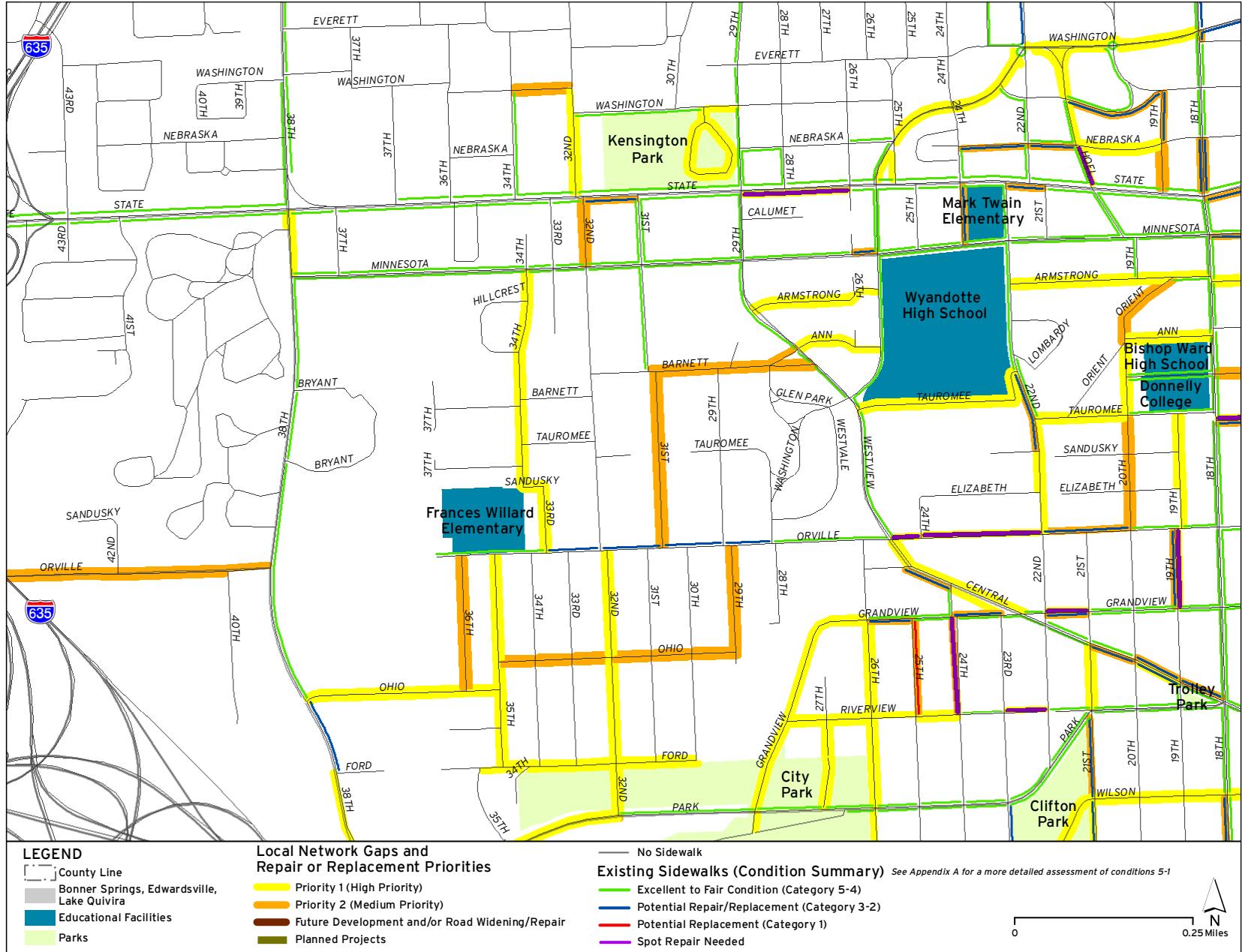


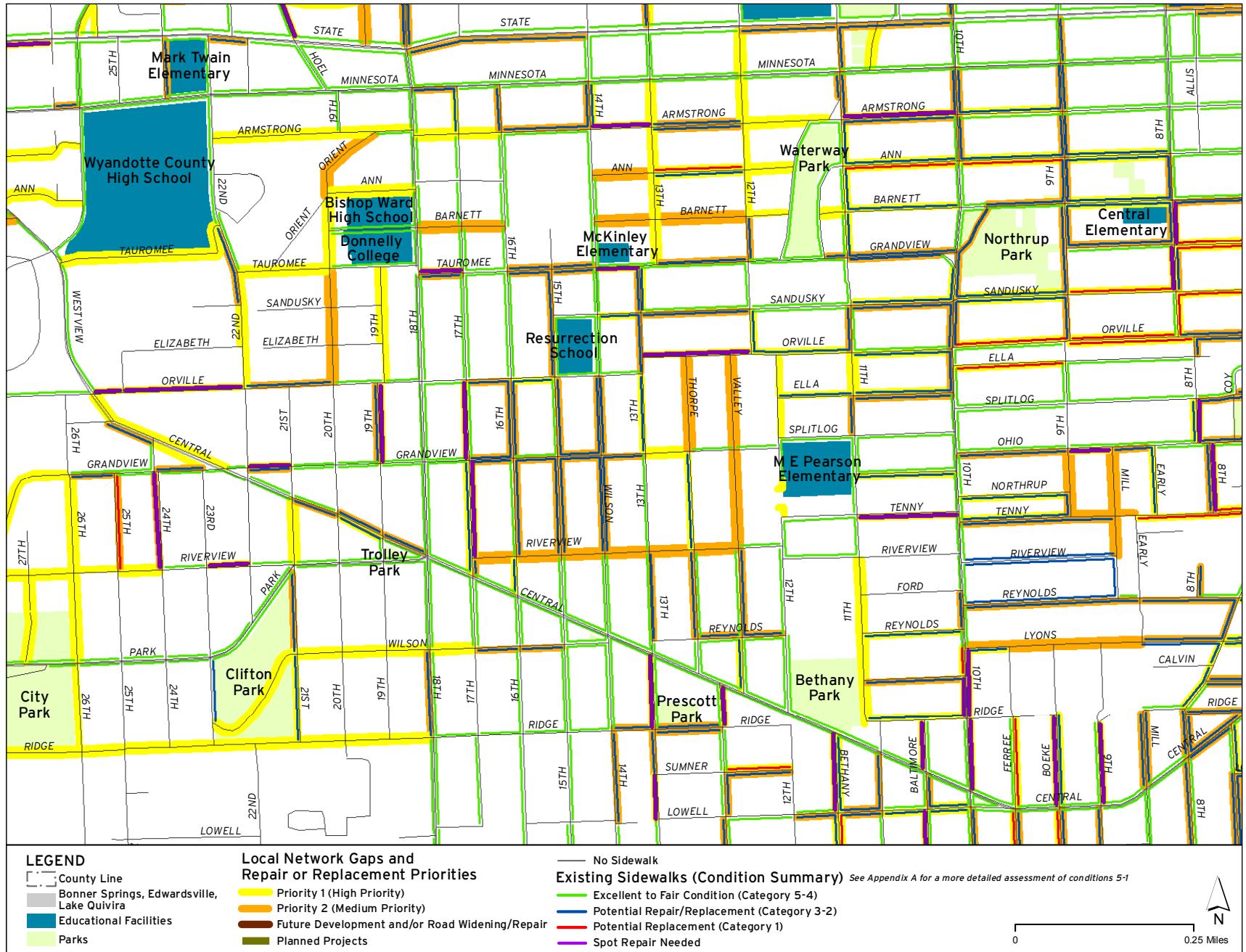




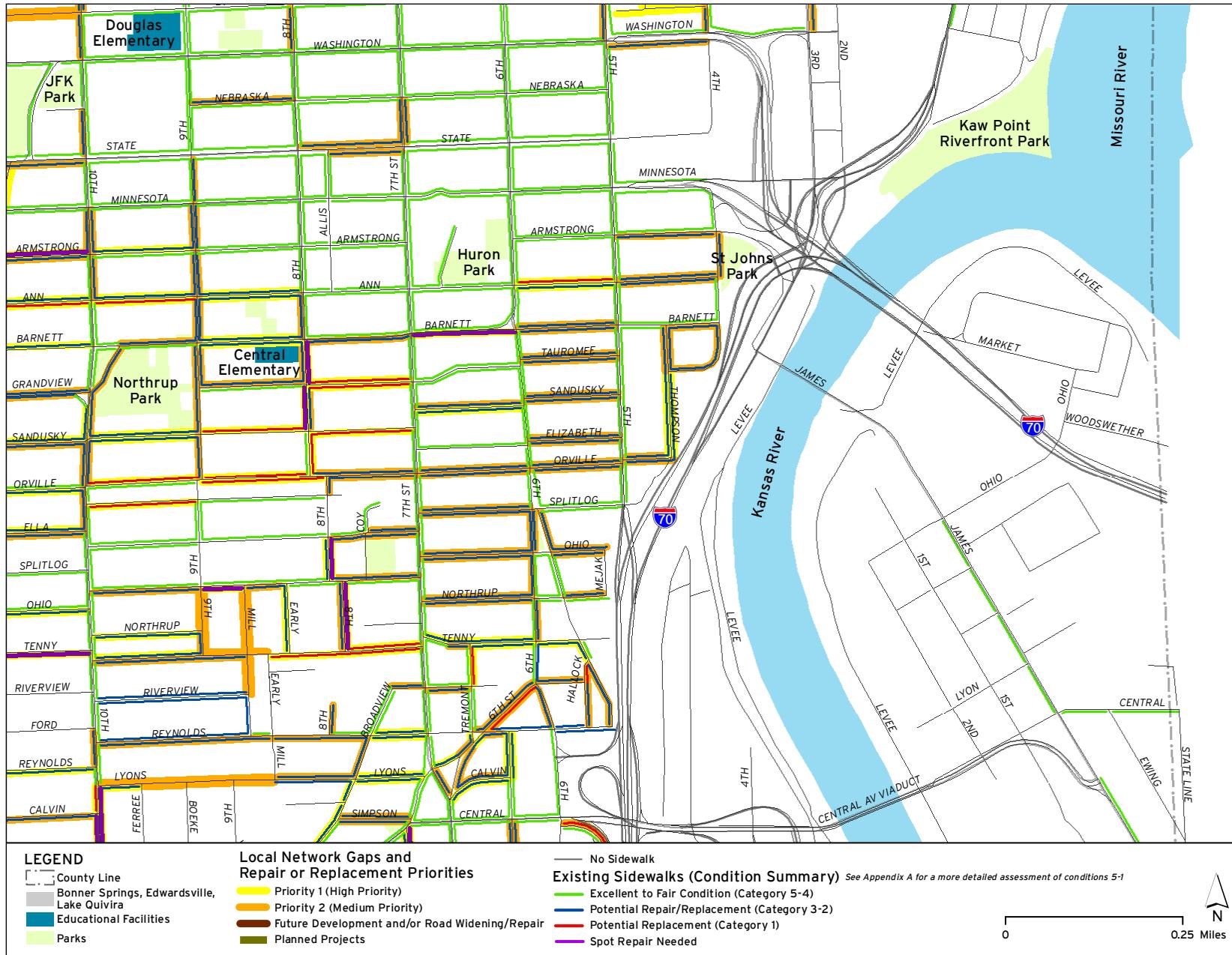


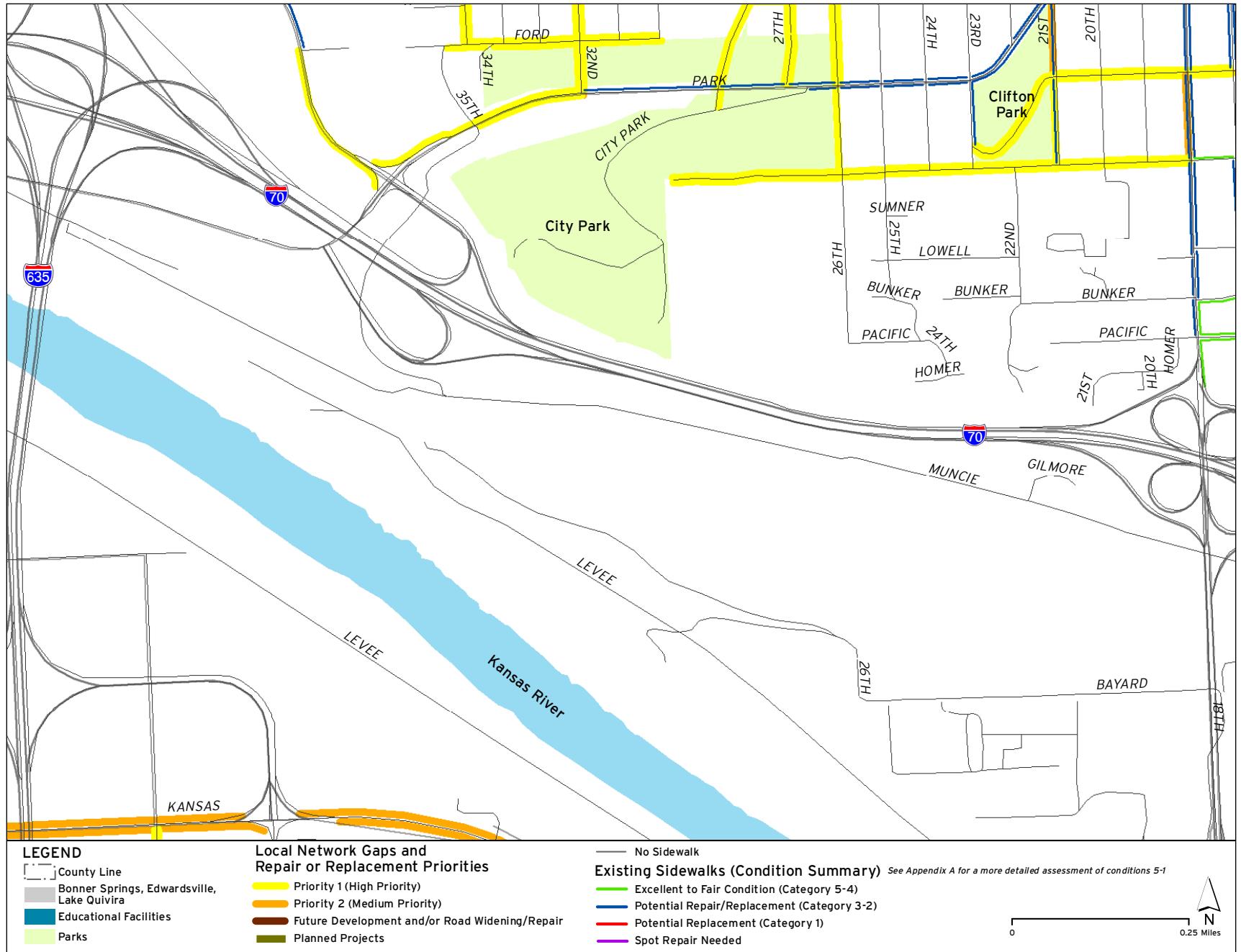
Sidewalk and Trail Master Plan



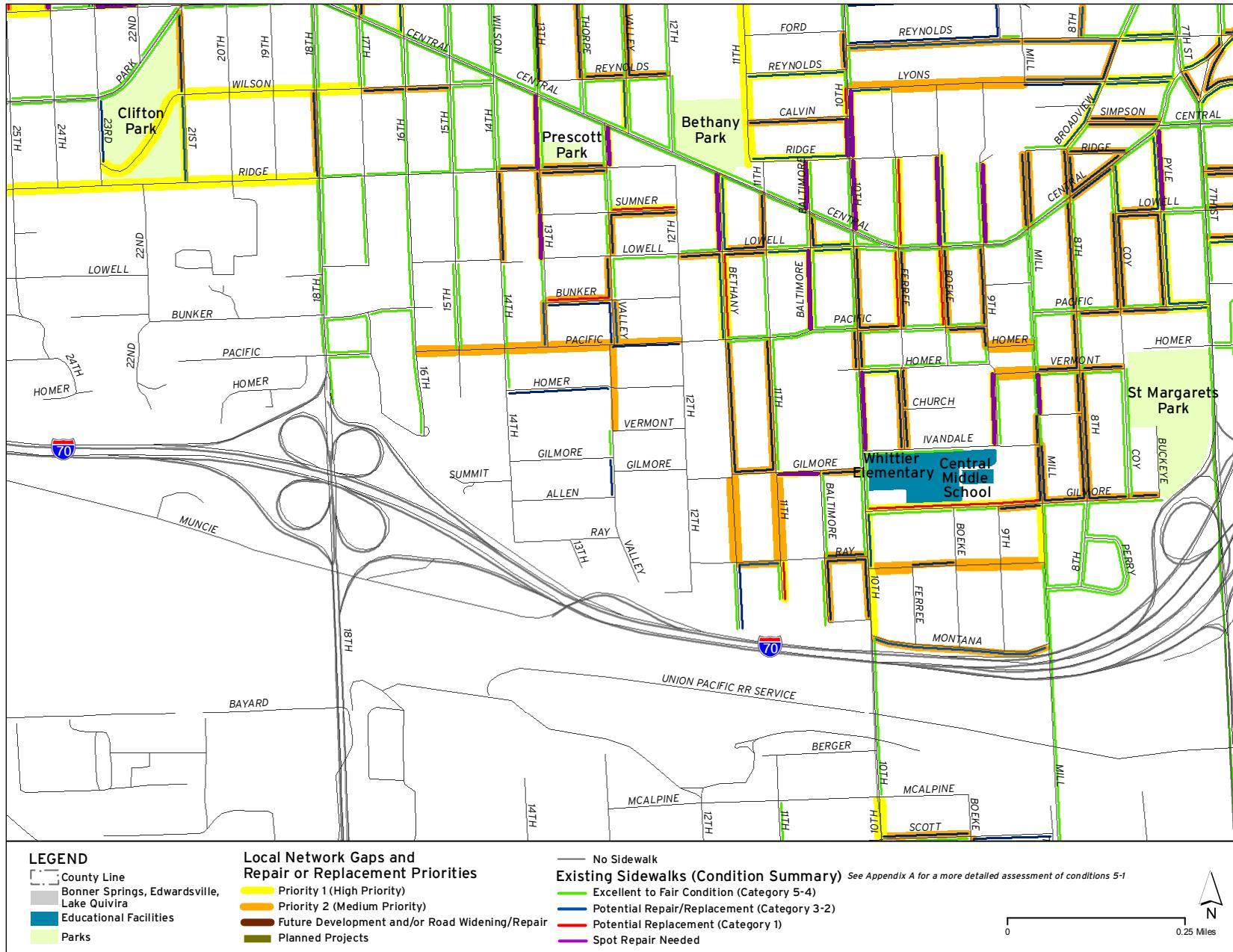


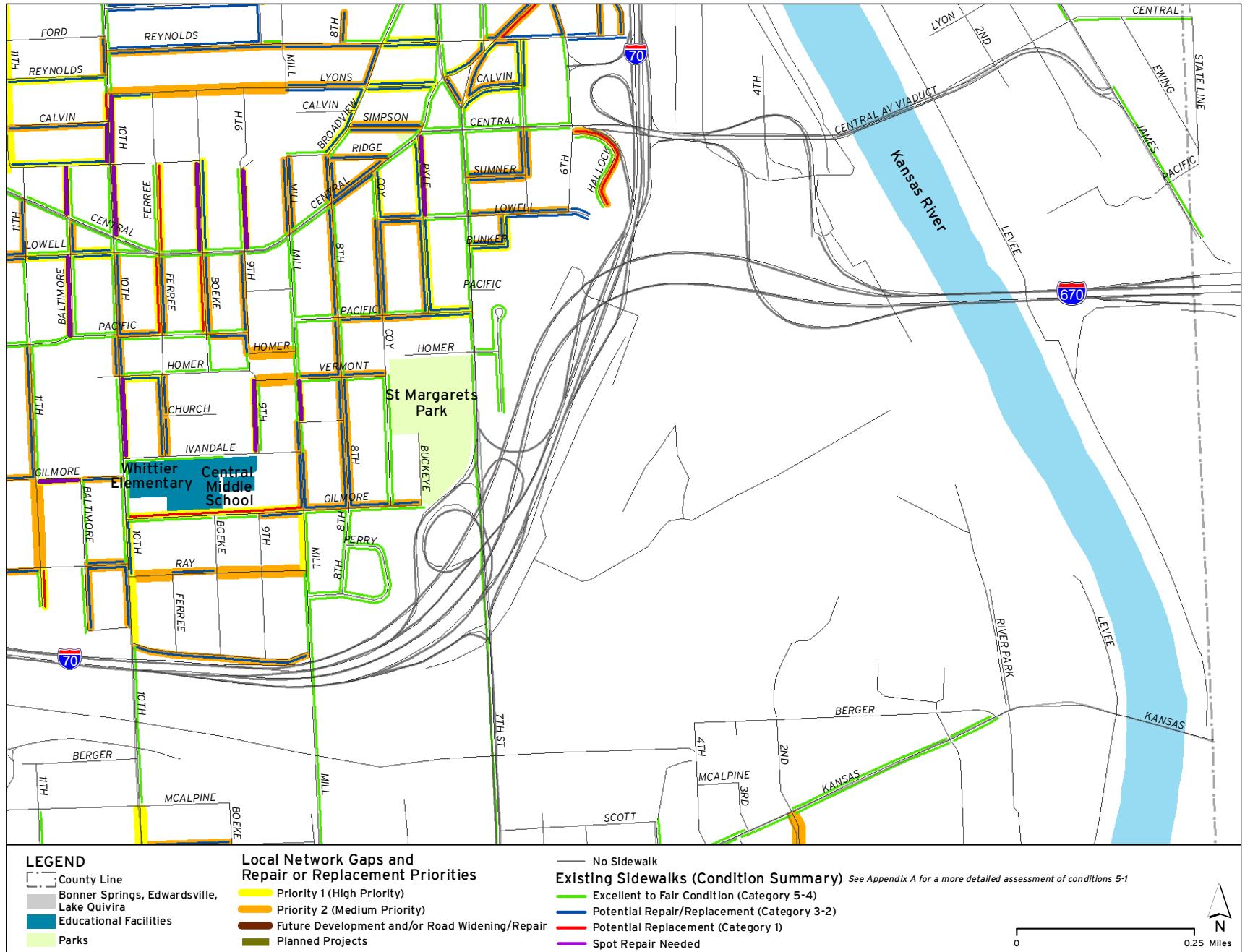
Sidewalk and Trail Master Plan



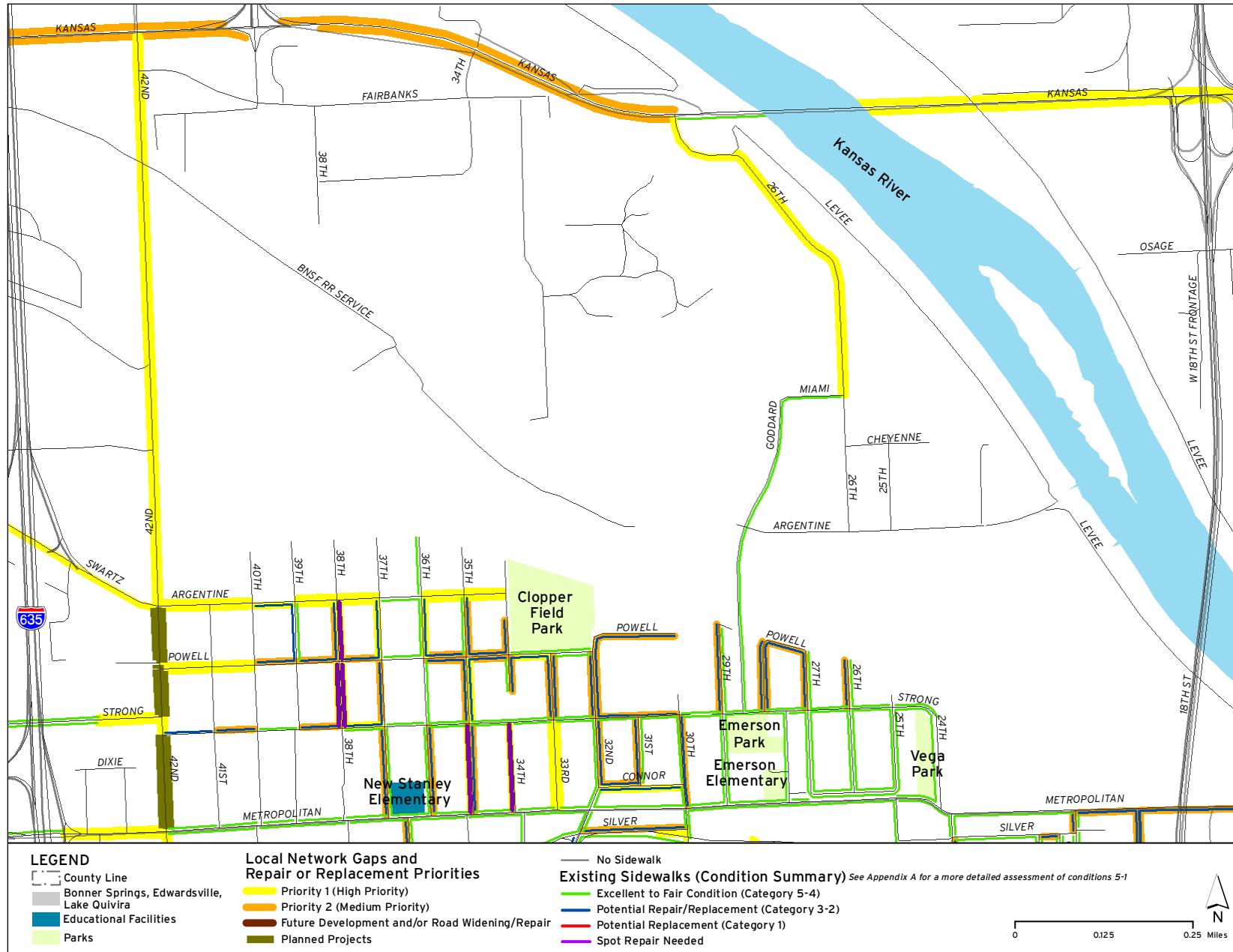


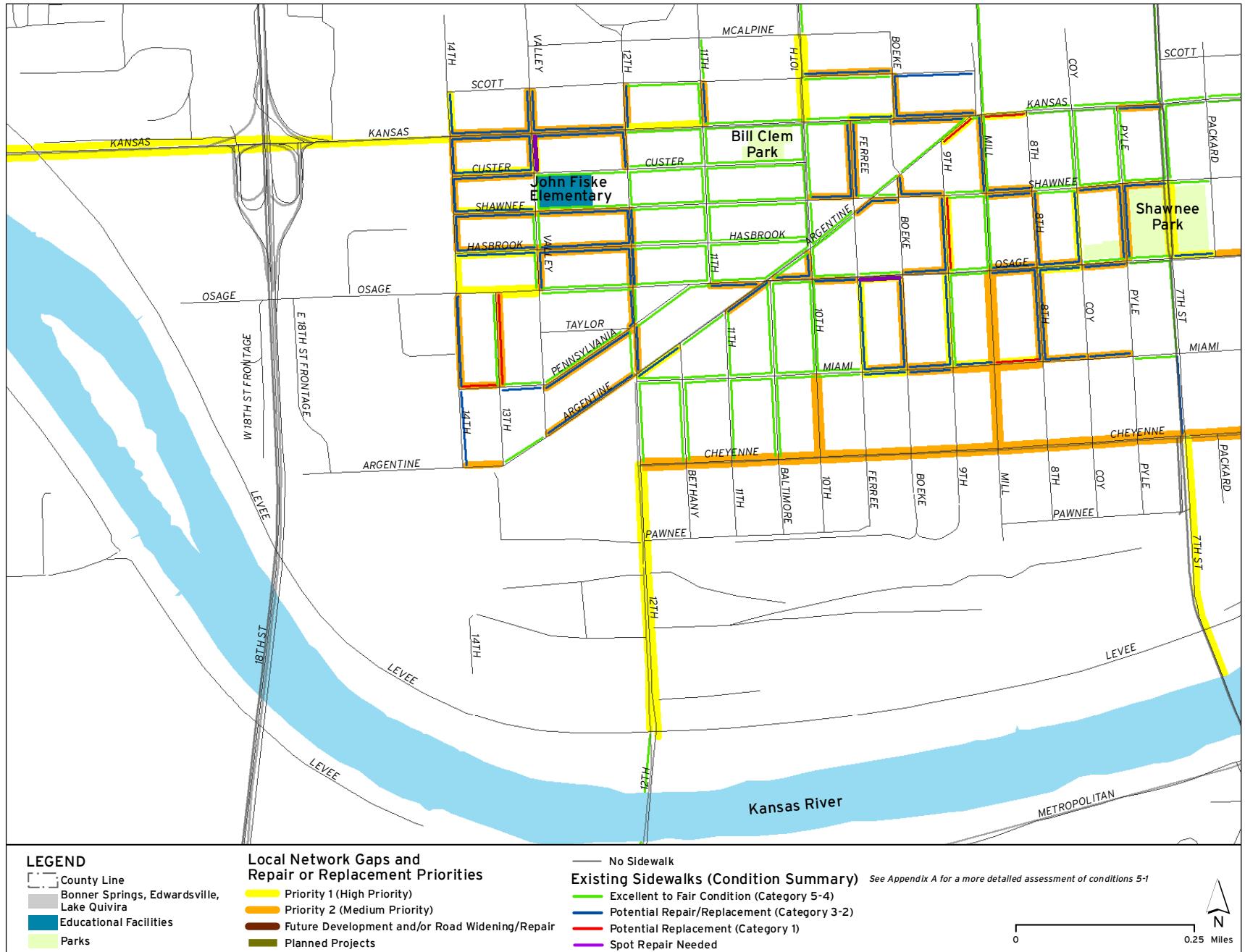
Sidewalk and Trail Master Plan





Sidewalk and Trail Master Plan

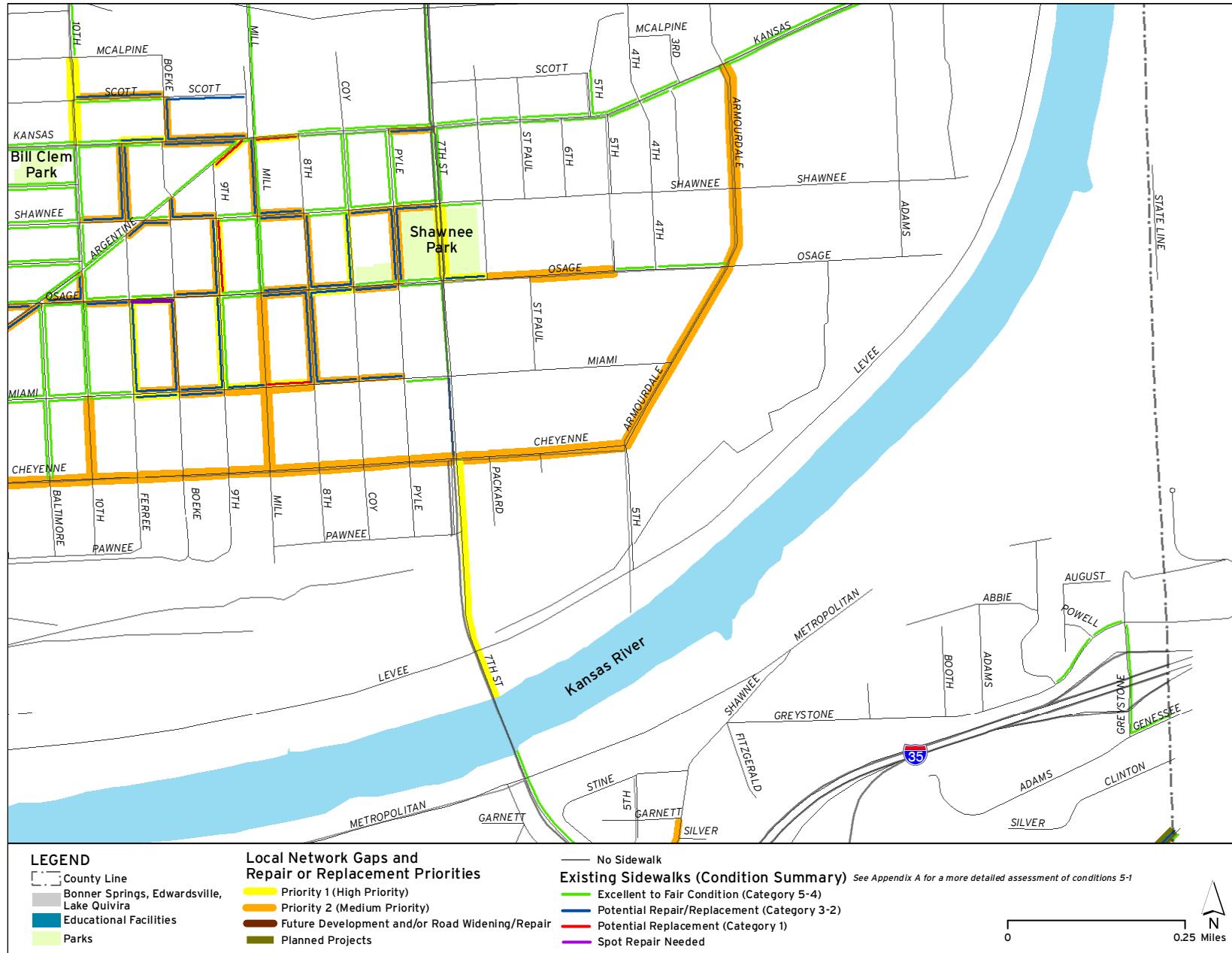


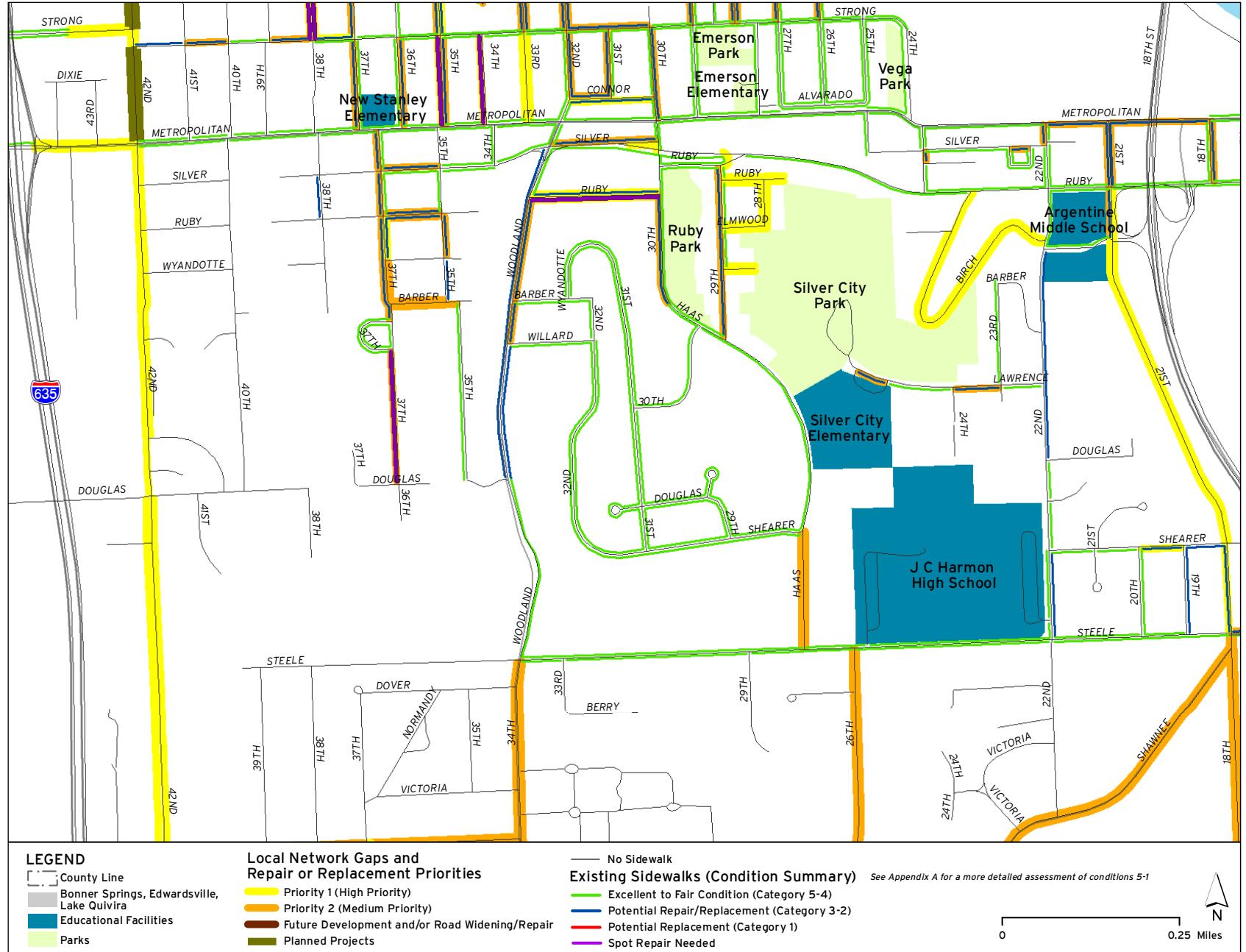


Sidewalk and Trail Master Plan

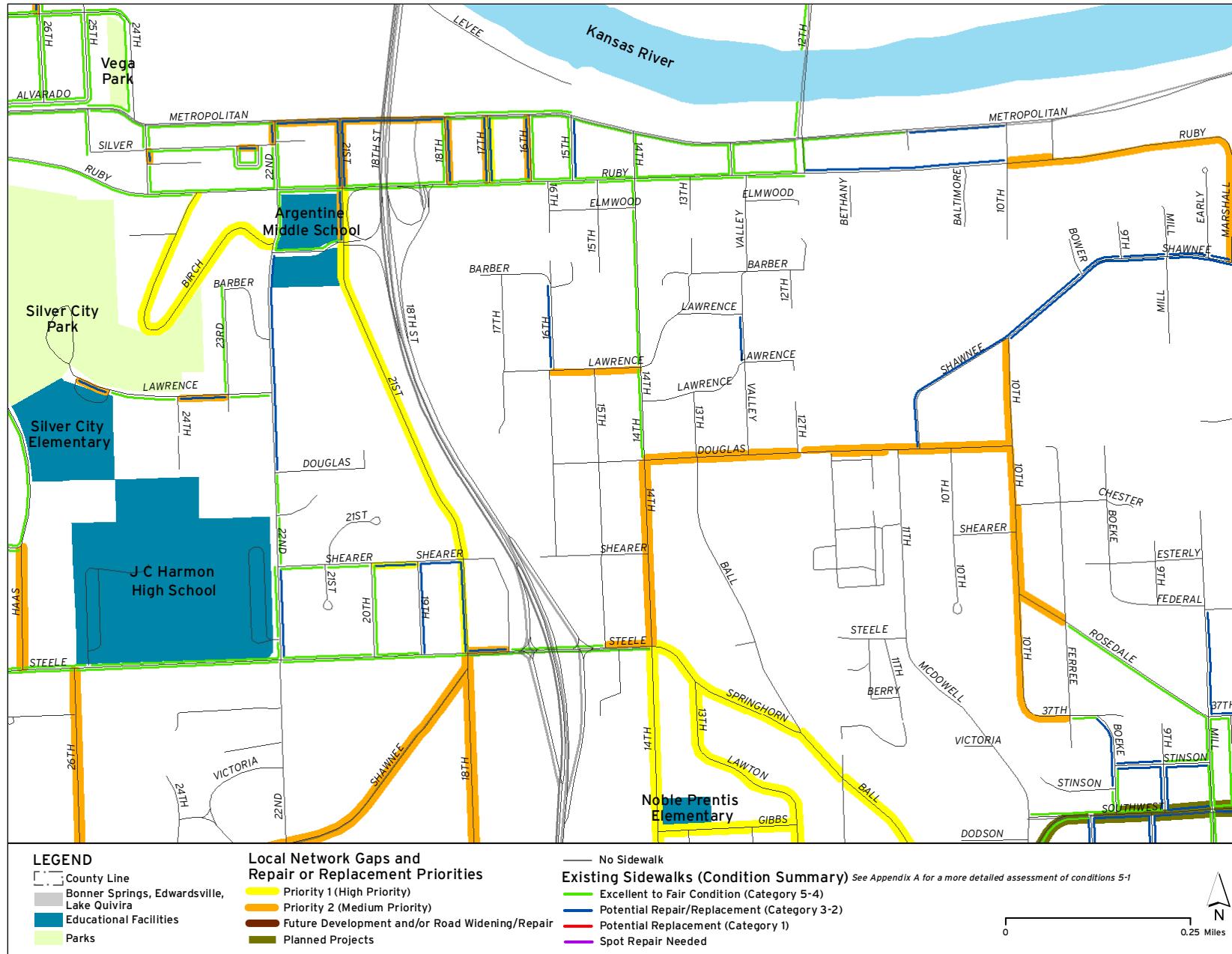


B-27



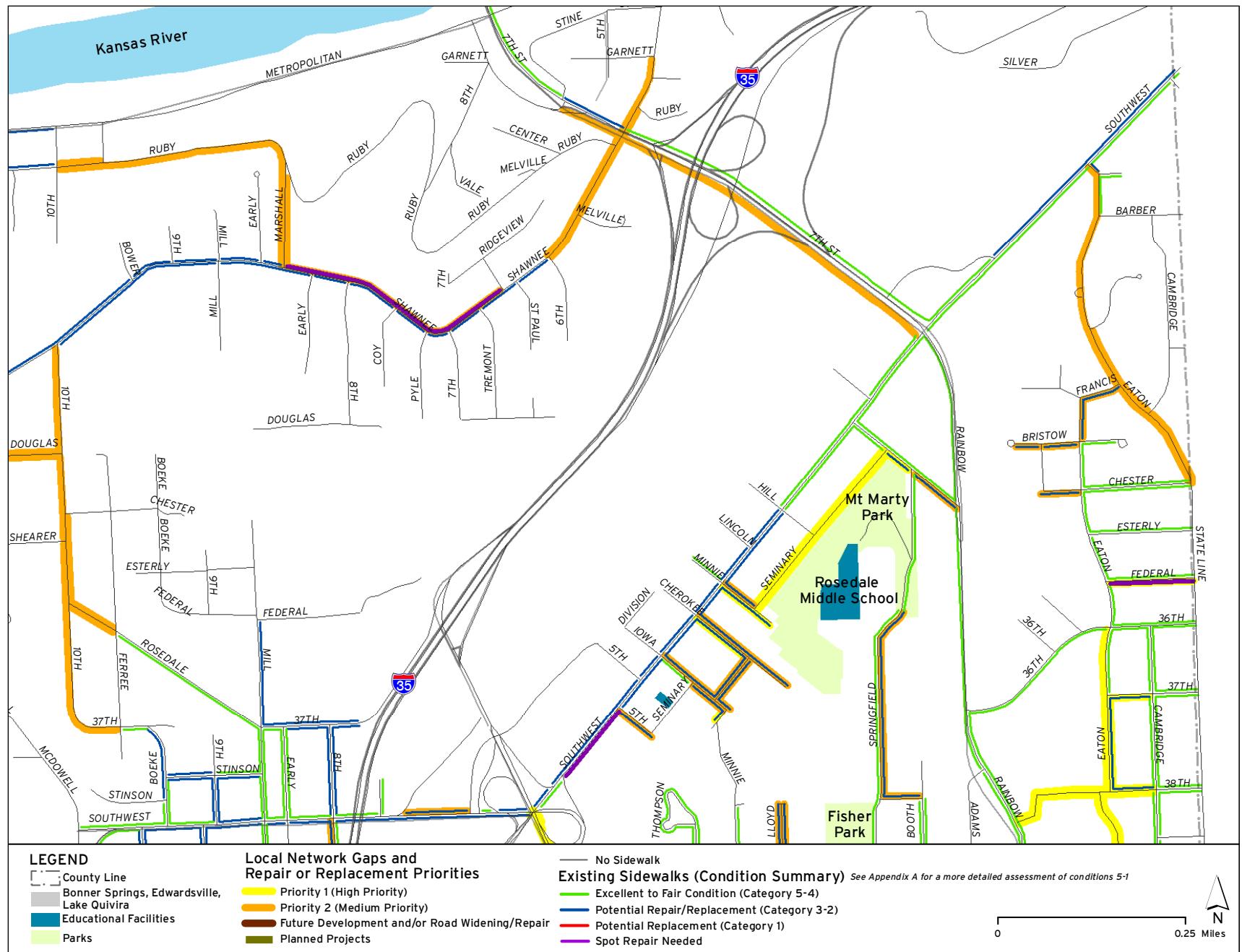


Sidewalk and Trail Master Plan



Sidewalk and Trail Master Plan

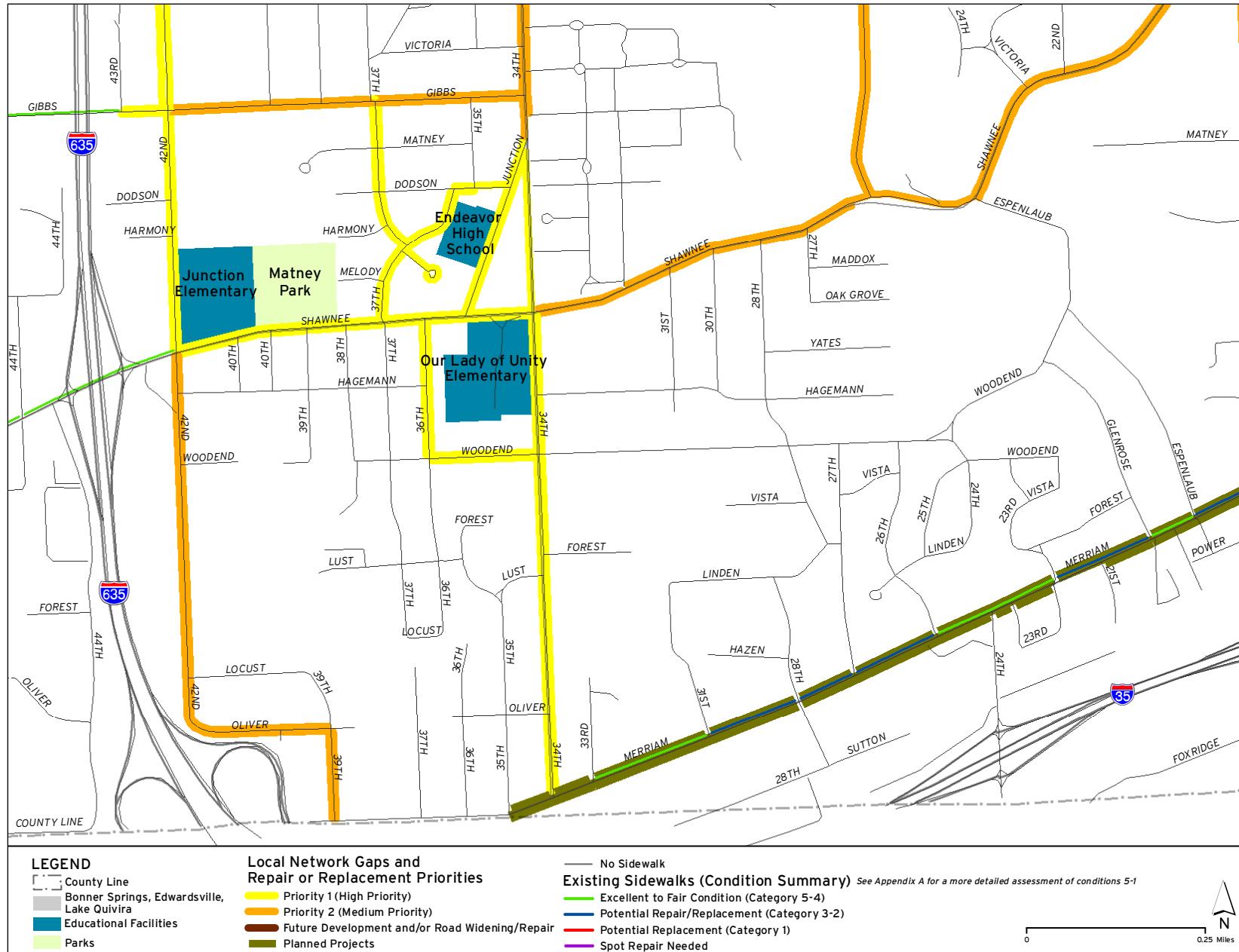


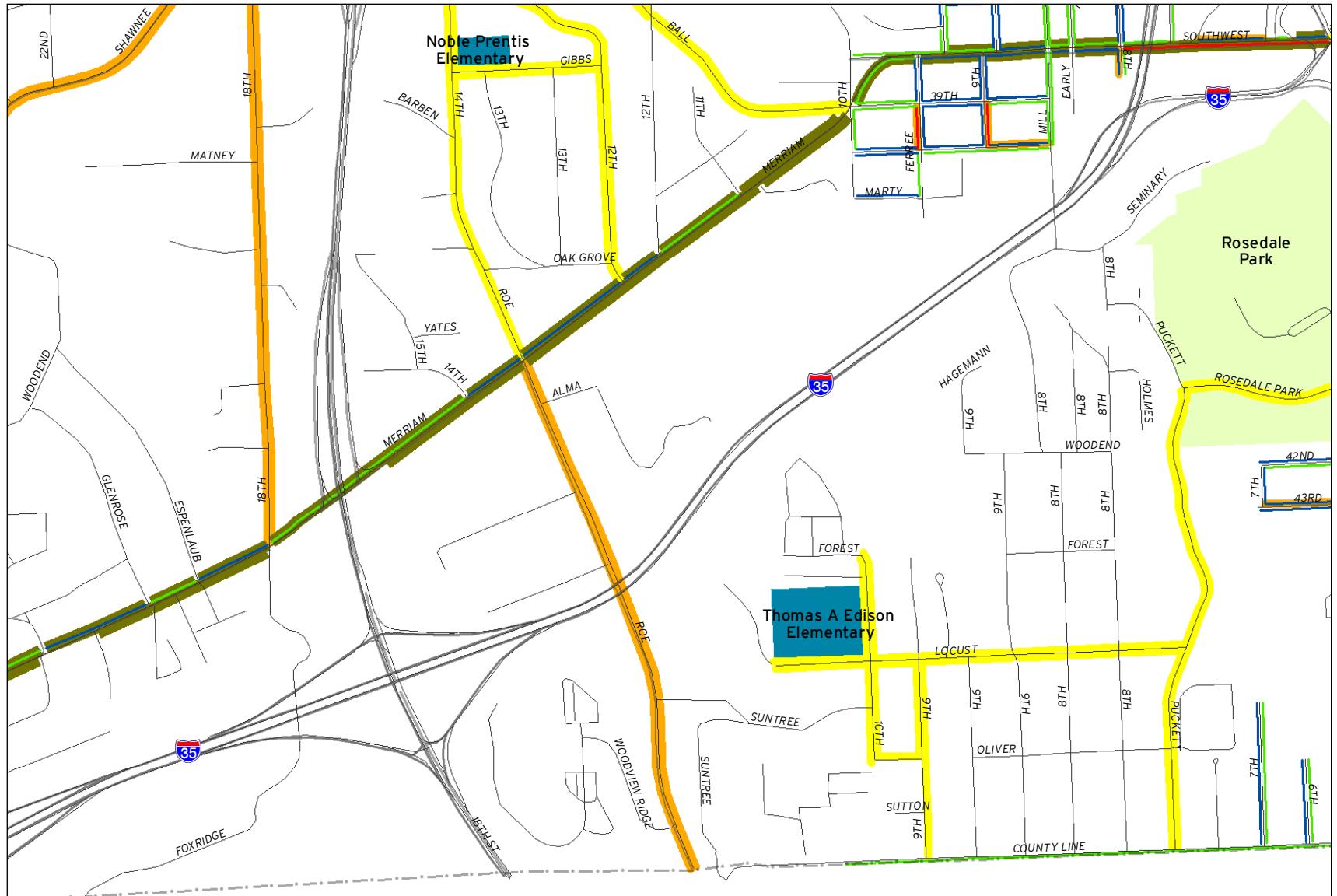


Sidewalk and Trail Master Plan



B-31





LEGEND

- County Line
- Bonner Springs, Edgewood, Lake Quivira
- Educational Facilities
- Parks

Local Network Gaps and Repair or Replacement Priorities

- No Sidewalk
- Priority 1 (High Priority)
- Priority 2 (Medium Priority)
- Potential Repair/Replacement (Category 3-2)
- Future Development and/or Road Widening/Repair
- Planned Projects

Existing Sidewalks (Condition Summary) See Appendix A for a more detailed assessment of conditions 5-1

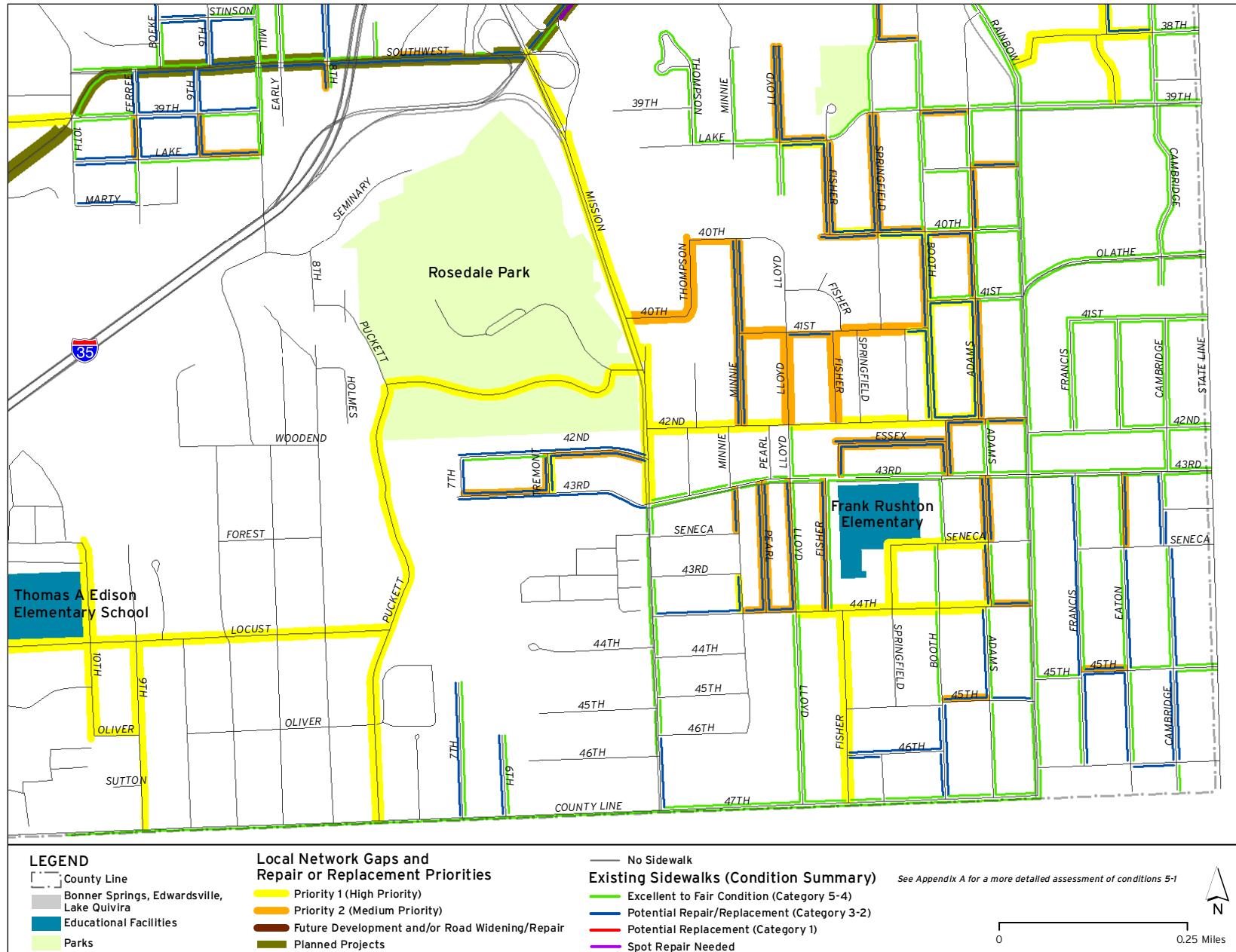
- Excellent to Fair Condition (Category 5-4)
- Potential Repair/Replacement (Category 3-2)
- Potential Replacement (Category 1)
- Planned Projects

0 0.25 Miles



Sidewalk and Trail Master Plan





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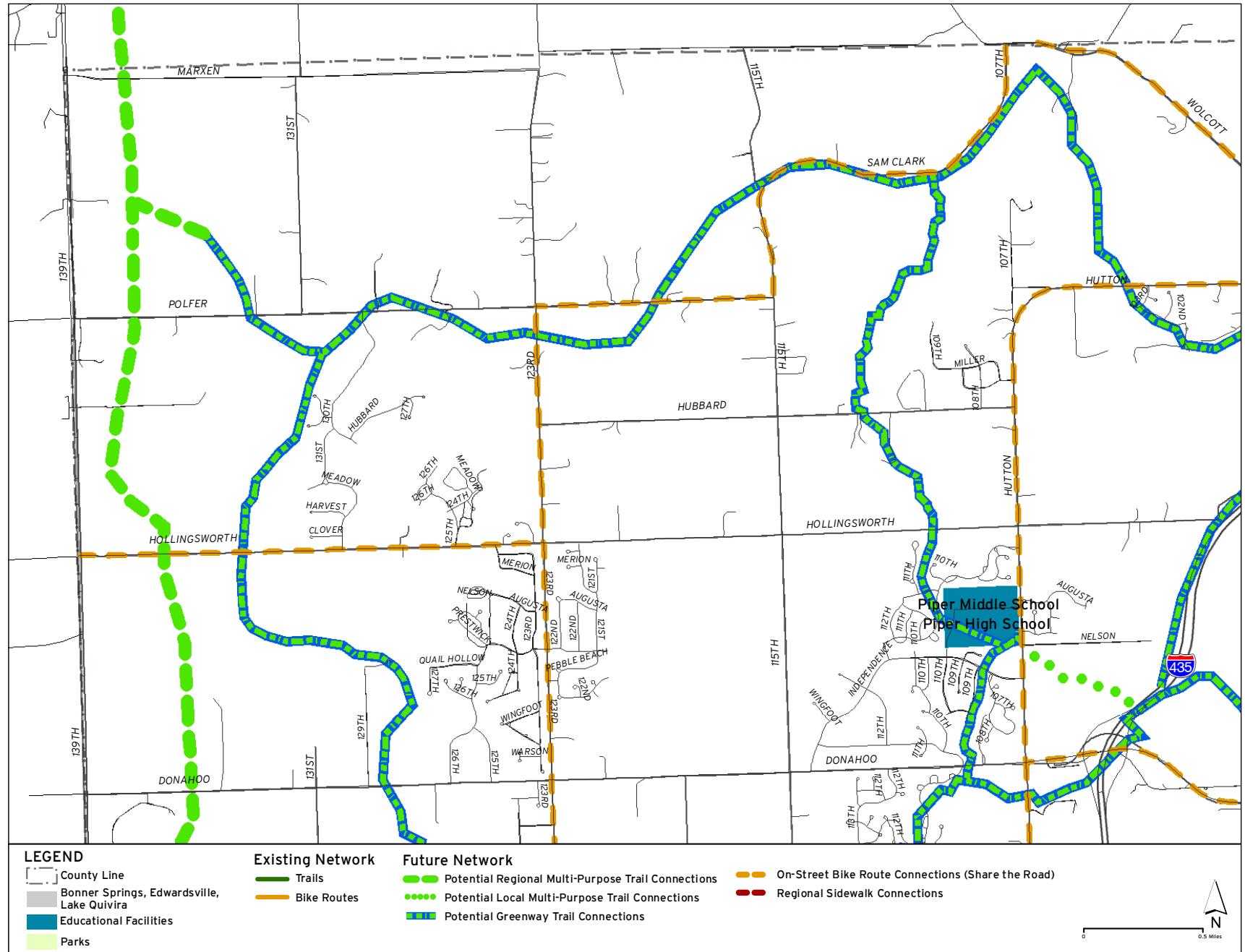
Appendix C:

Future Trail Network Maps



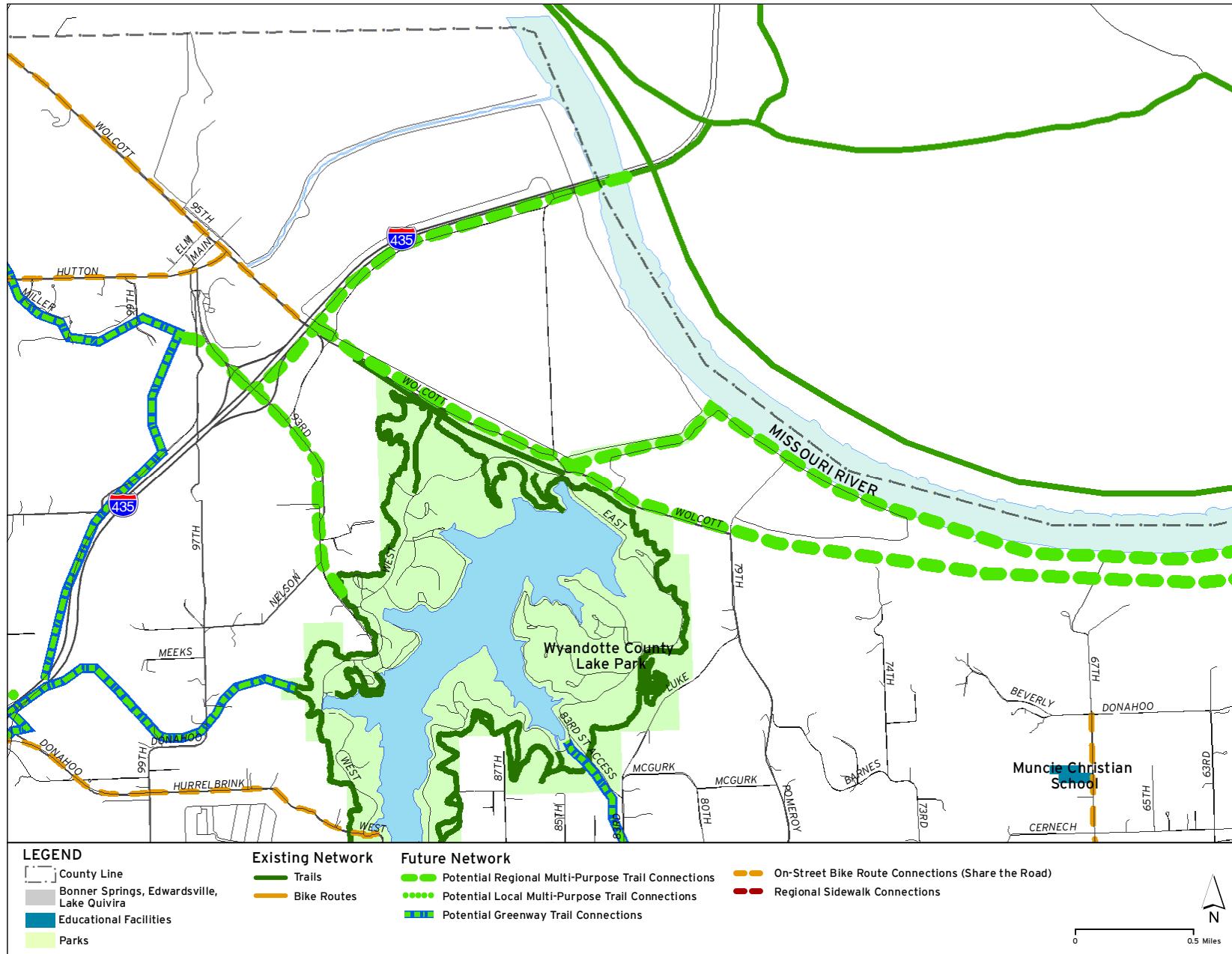
Sidewalk and Trail Master Plan





Sidewalk and Trail Master Plan

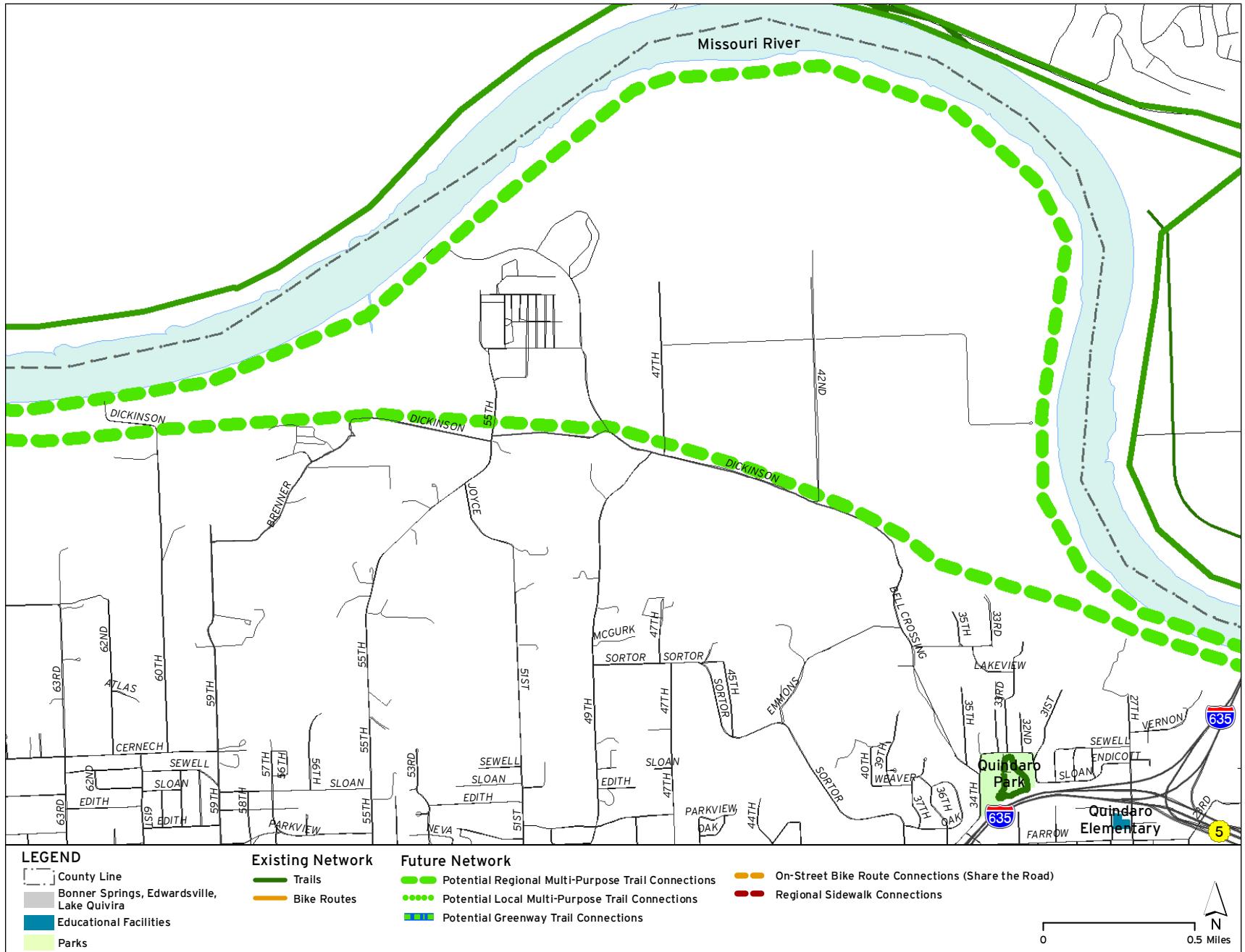




C-2

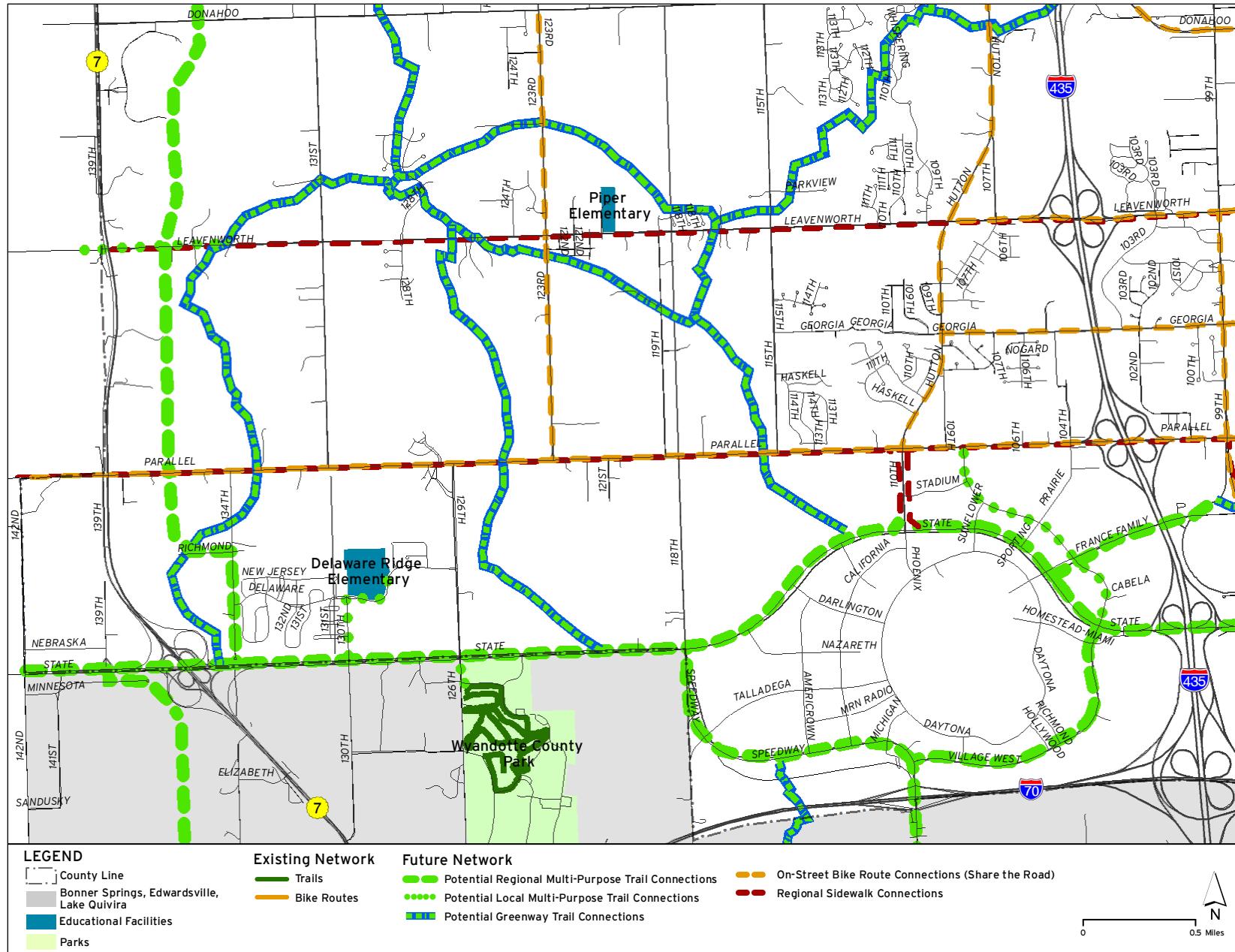
Sidewalk and Trail Master Plan





Sidewalk and Trail Master Plan







LEGEND

- County Line
- Bonner Springs, Edwardsville, Lake Quivira
- Educational Facilities
- Parks

Existing Network

- Trails
- Bike Routes

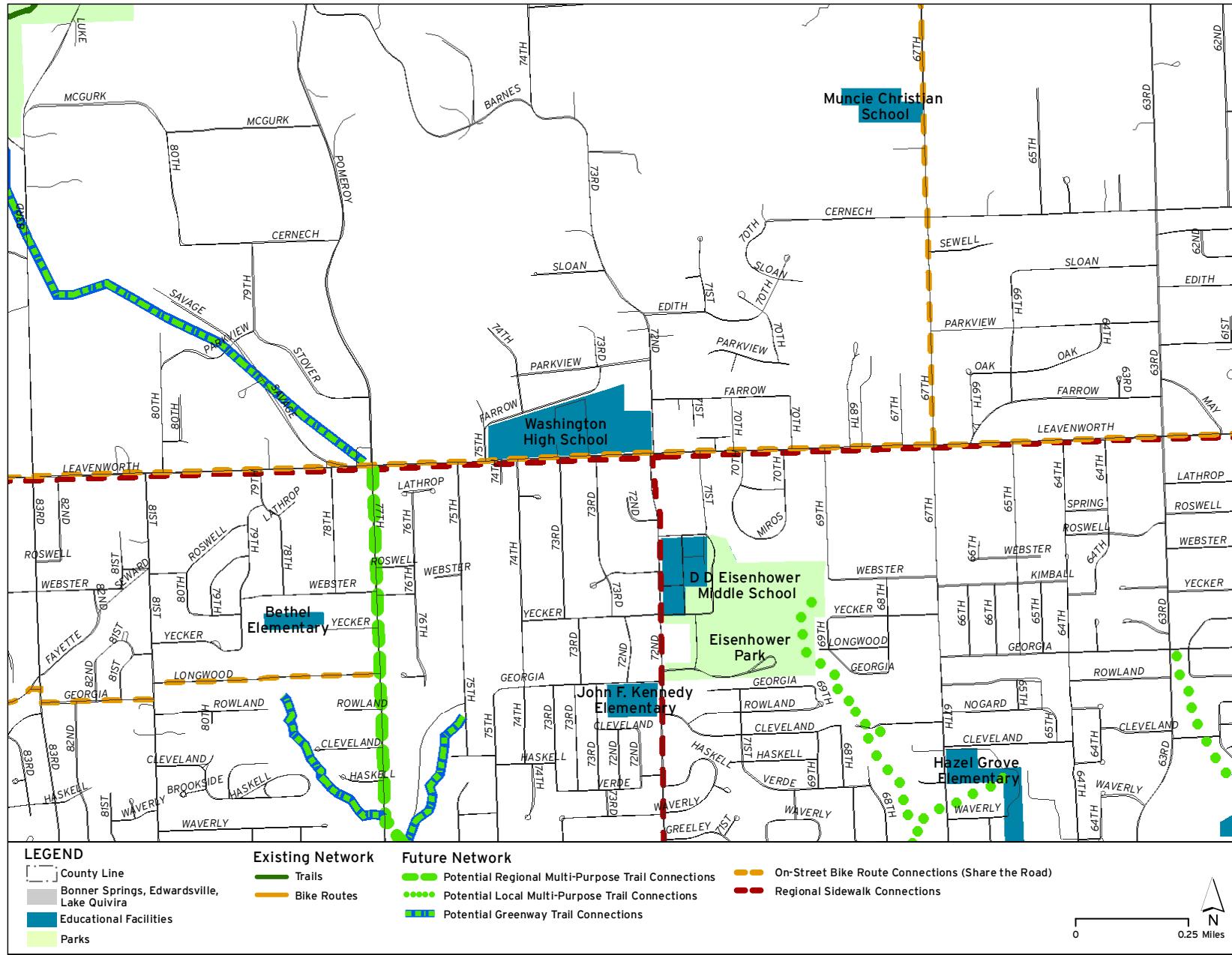
Future Network

- Potential Regional Multi-Purpose Trail Connections
- Potential Local Multi-Purpose Trail Connections
- Potential Greenway Trail Connections

- On-Street Bike Route Connections (Share the Road)
- Regional Sidewalk Connections

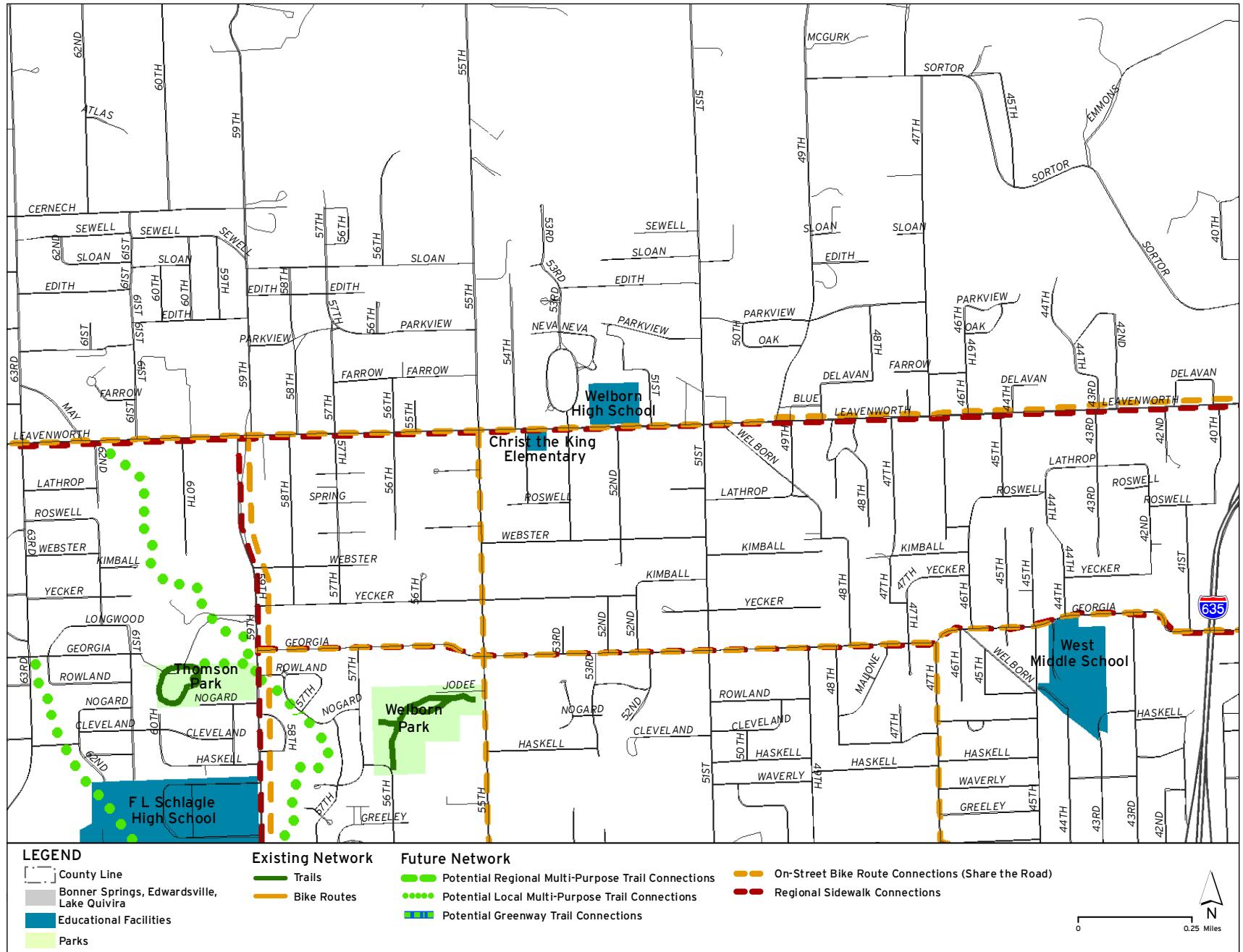
0 0.25 Miles



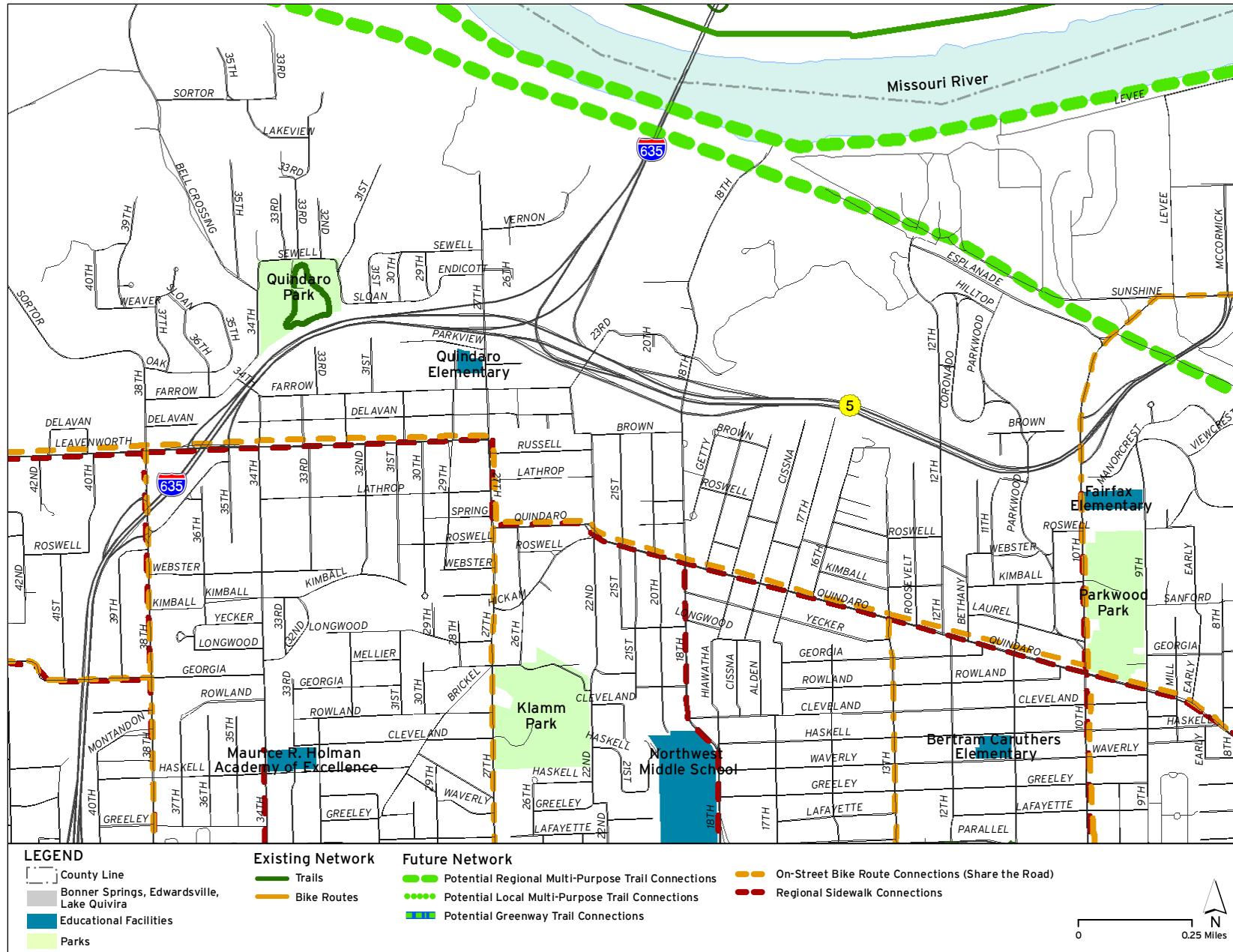


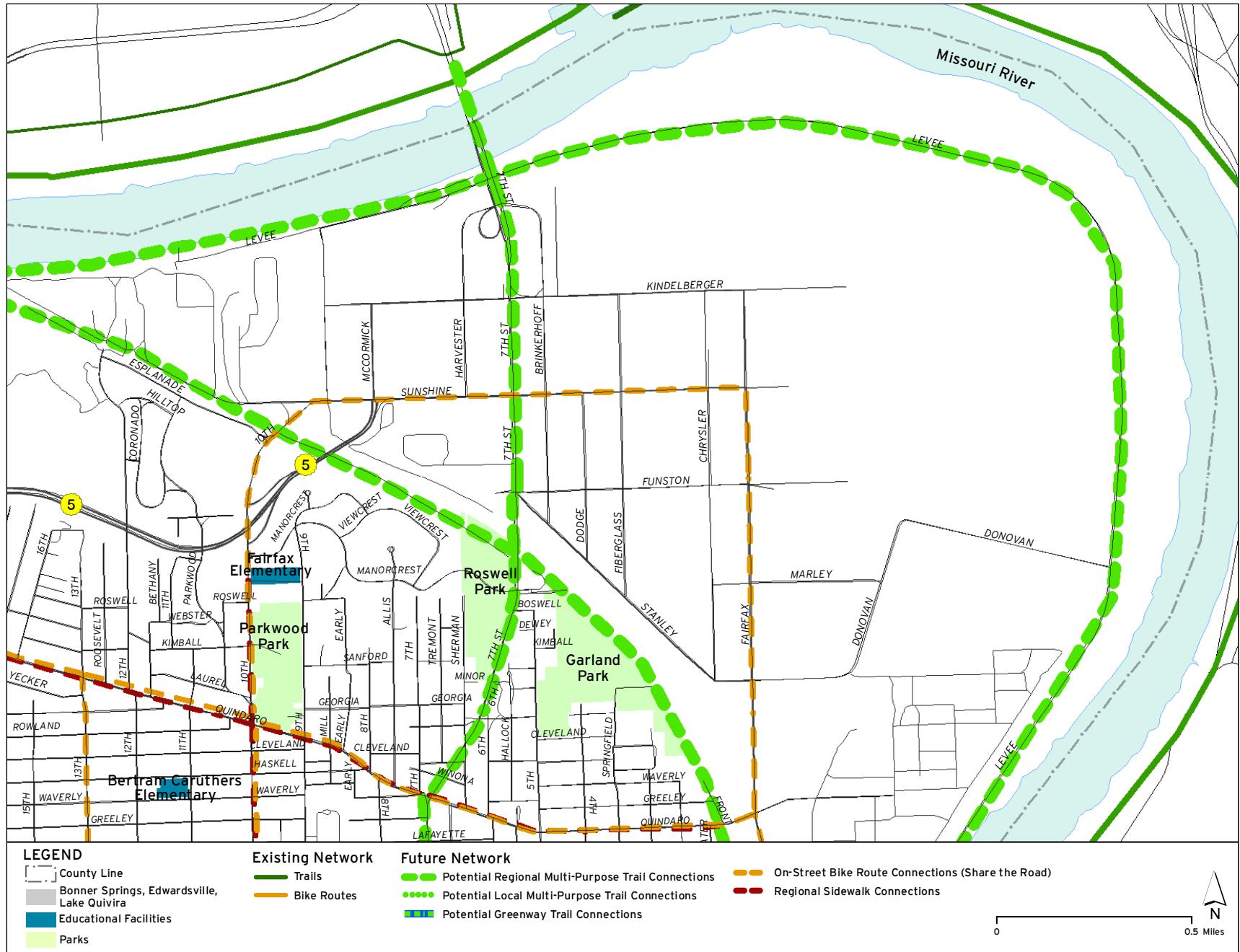
Sidewalk and Trail Master Plan



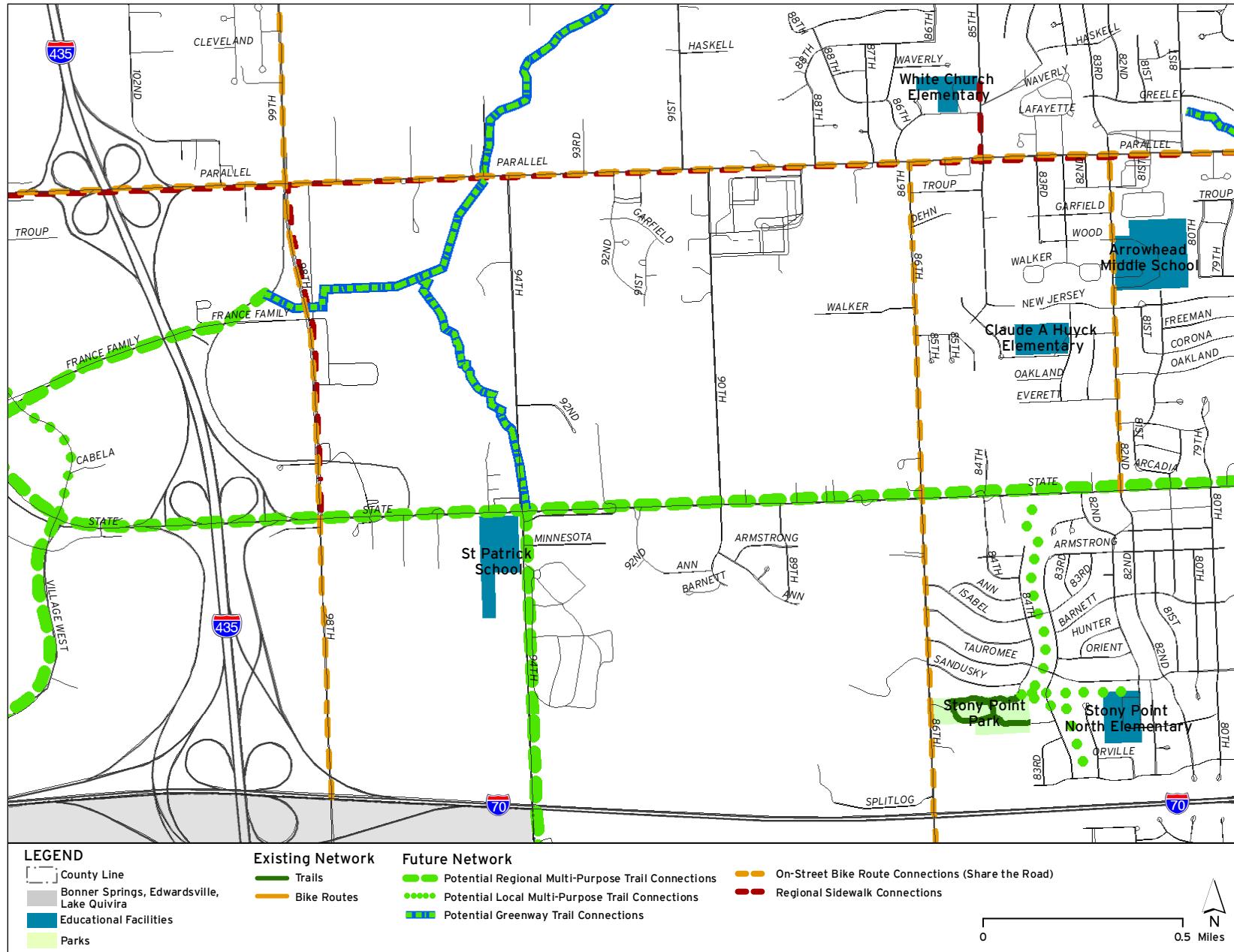


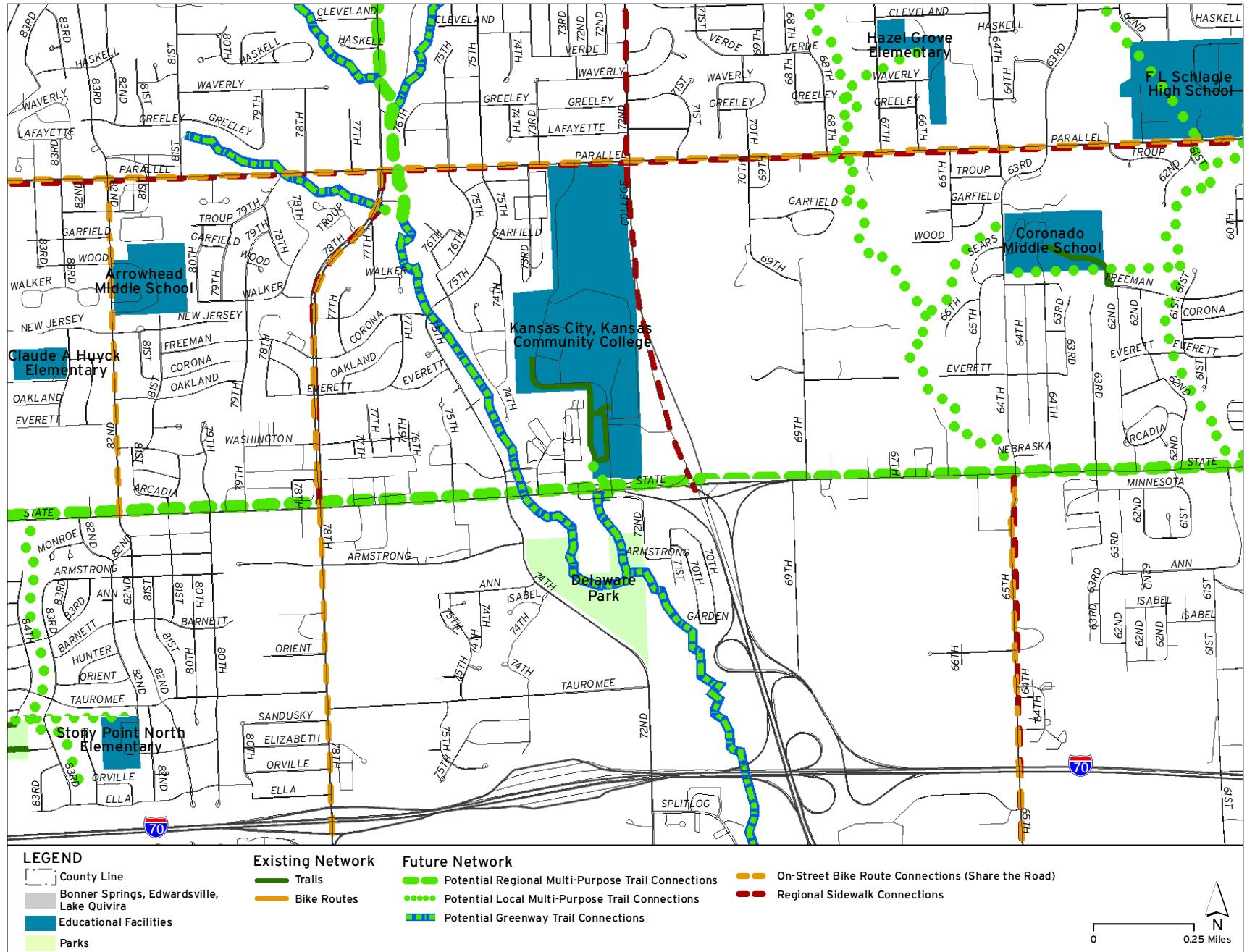
Sidewalk and Trail Master Plan



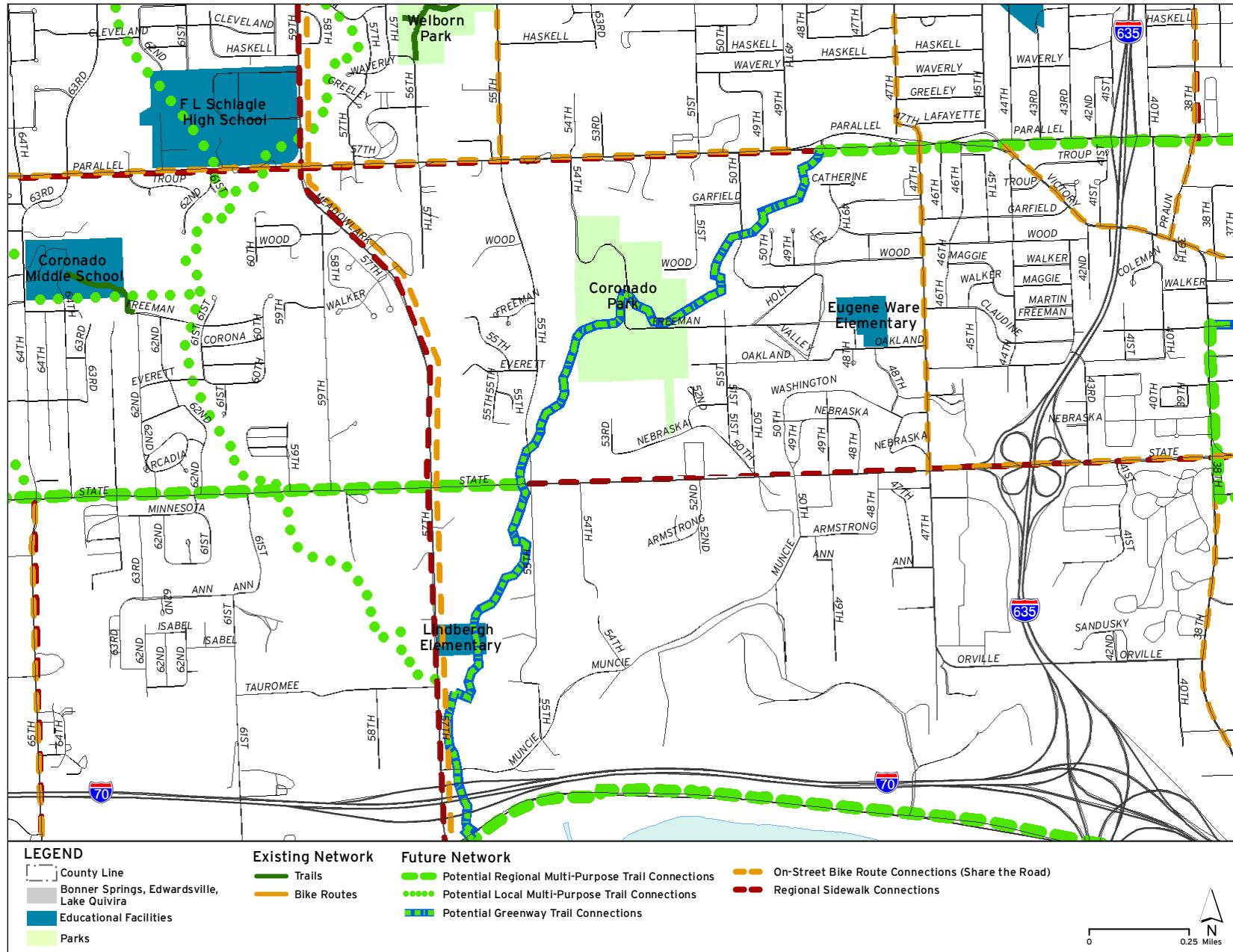


Sidewalk and Trail Master Plan



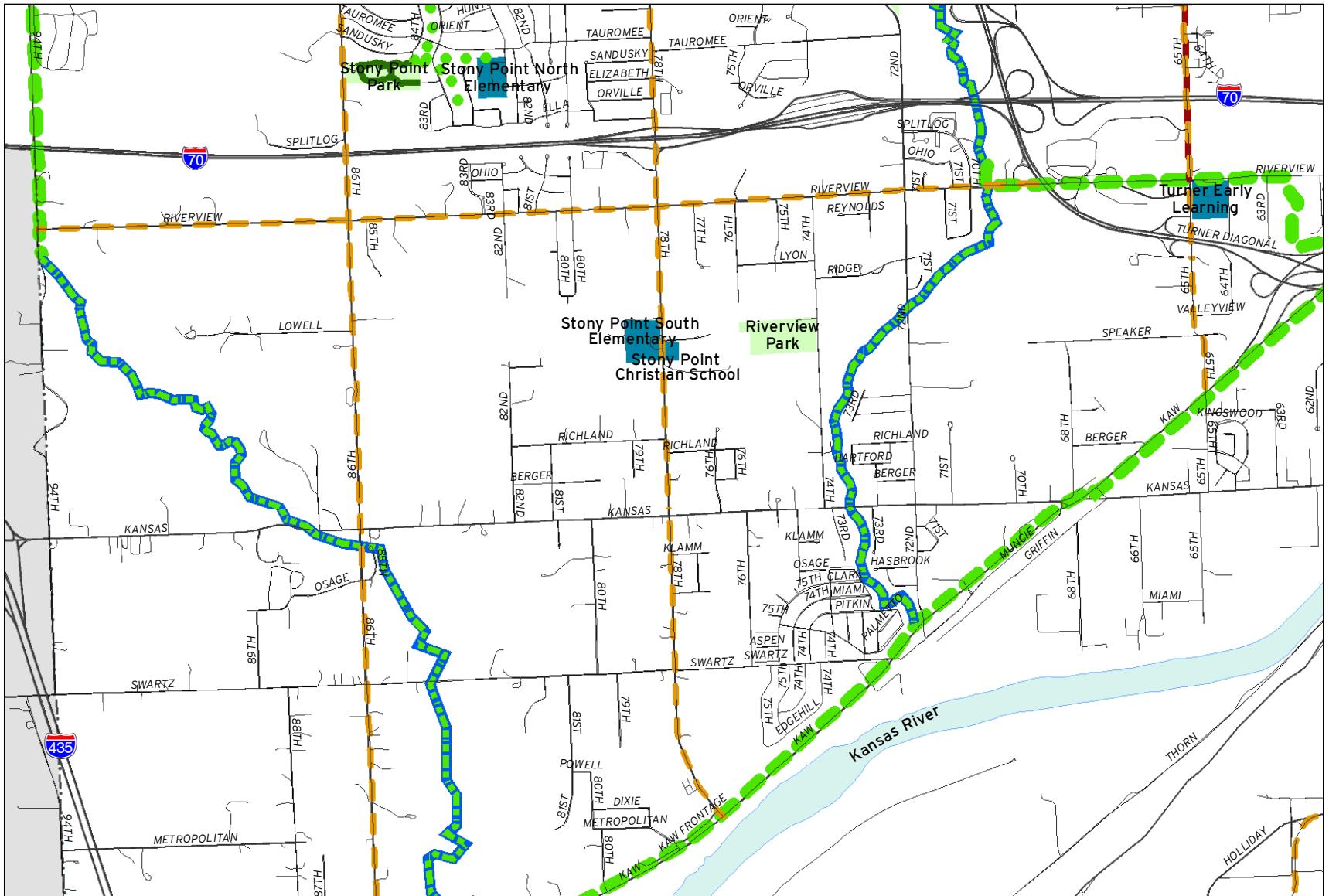


Sidewalk and Trail Master Plan



Sidewalk and Trail Master Plan




LEGEND

- County Line
- Bonner Springs, Edwardsville, Lake Quivira
- Educational Facilities
- Parks

Existing Network

- Trails
- Bike Routes

Future Network

- Potential Regional Multi-Purpose Trail Connections
- Potential Local Multi-Purpose Trail Connections
- Potential Greenway Trail Connections

- On-Street Bike Route Connections (Share the Road)
- Regional Sidewalk Connections

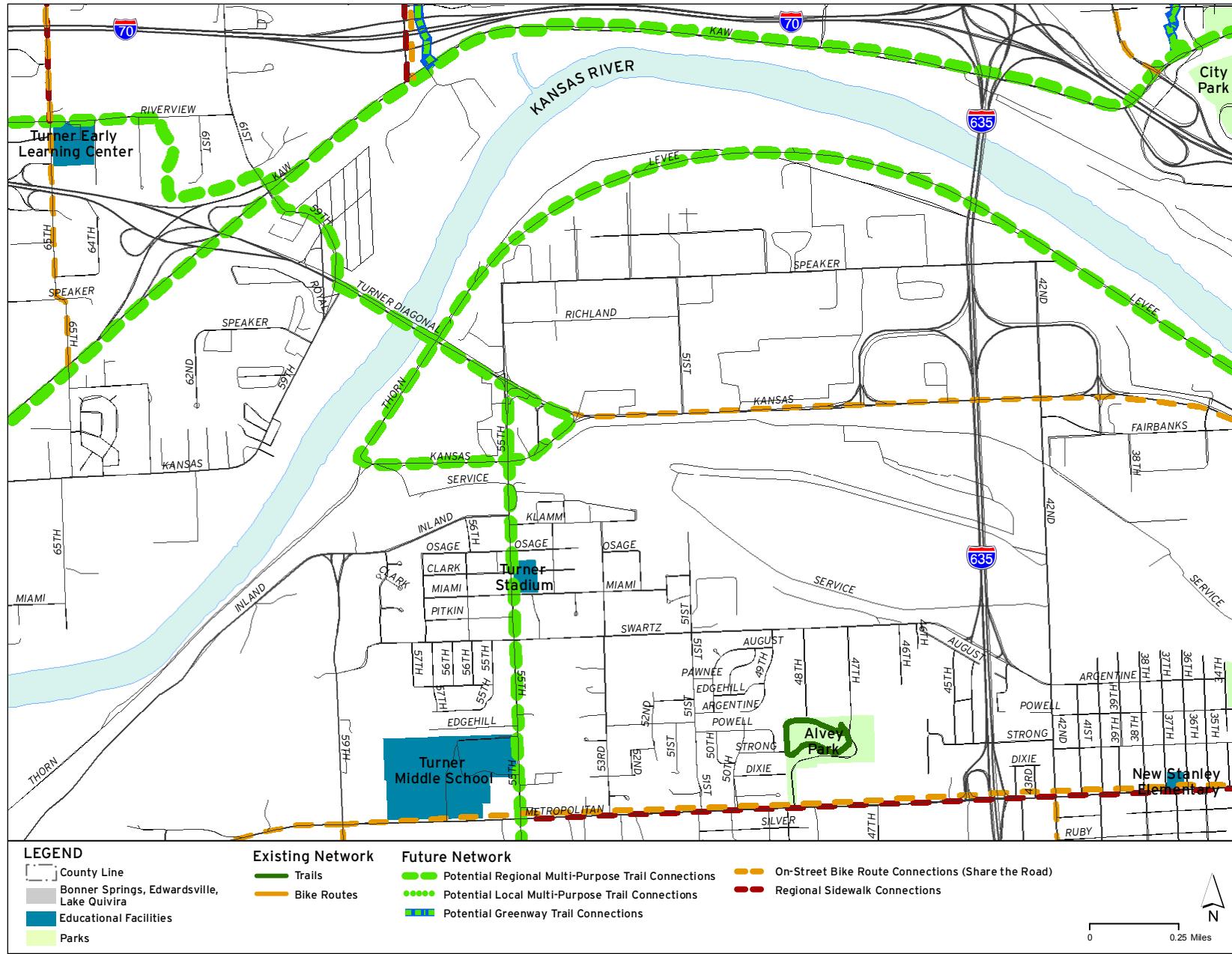
0 0.5 Miles



Sidewalk and Trail Master Plan

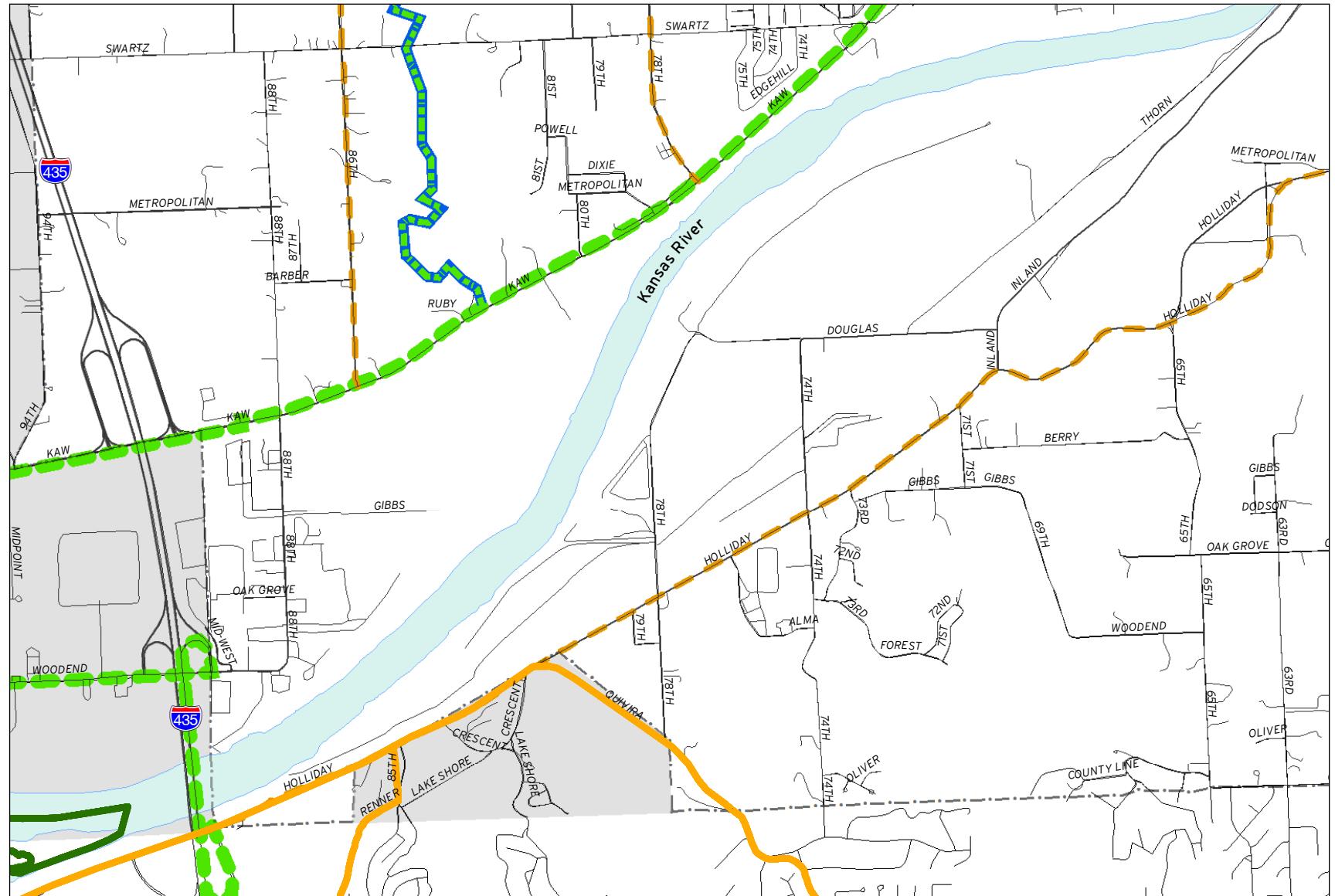


C-13



Sidewalk and Trail Master Plan

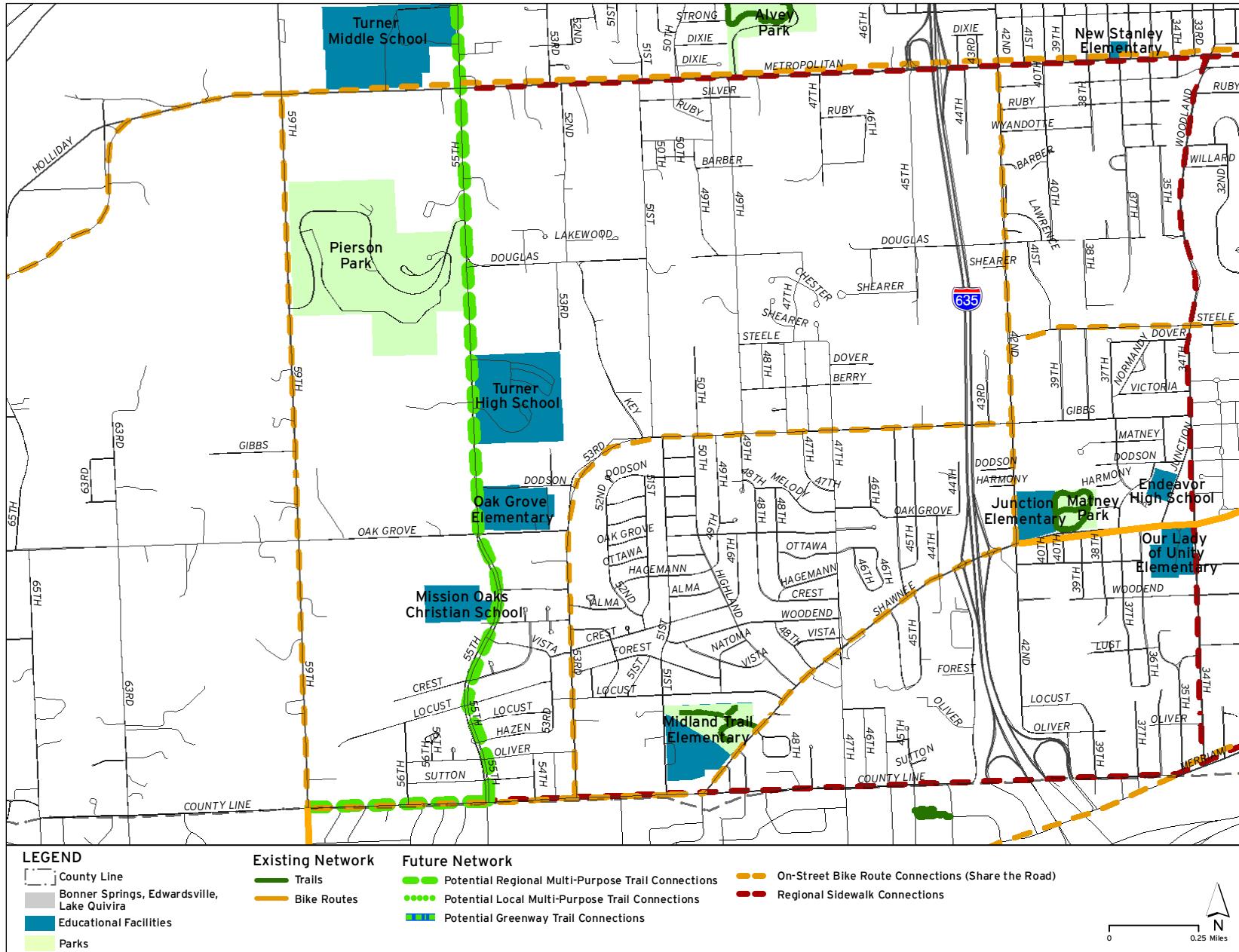


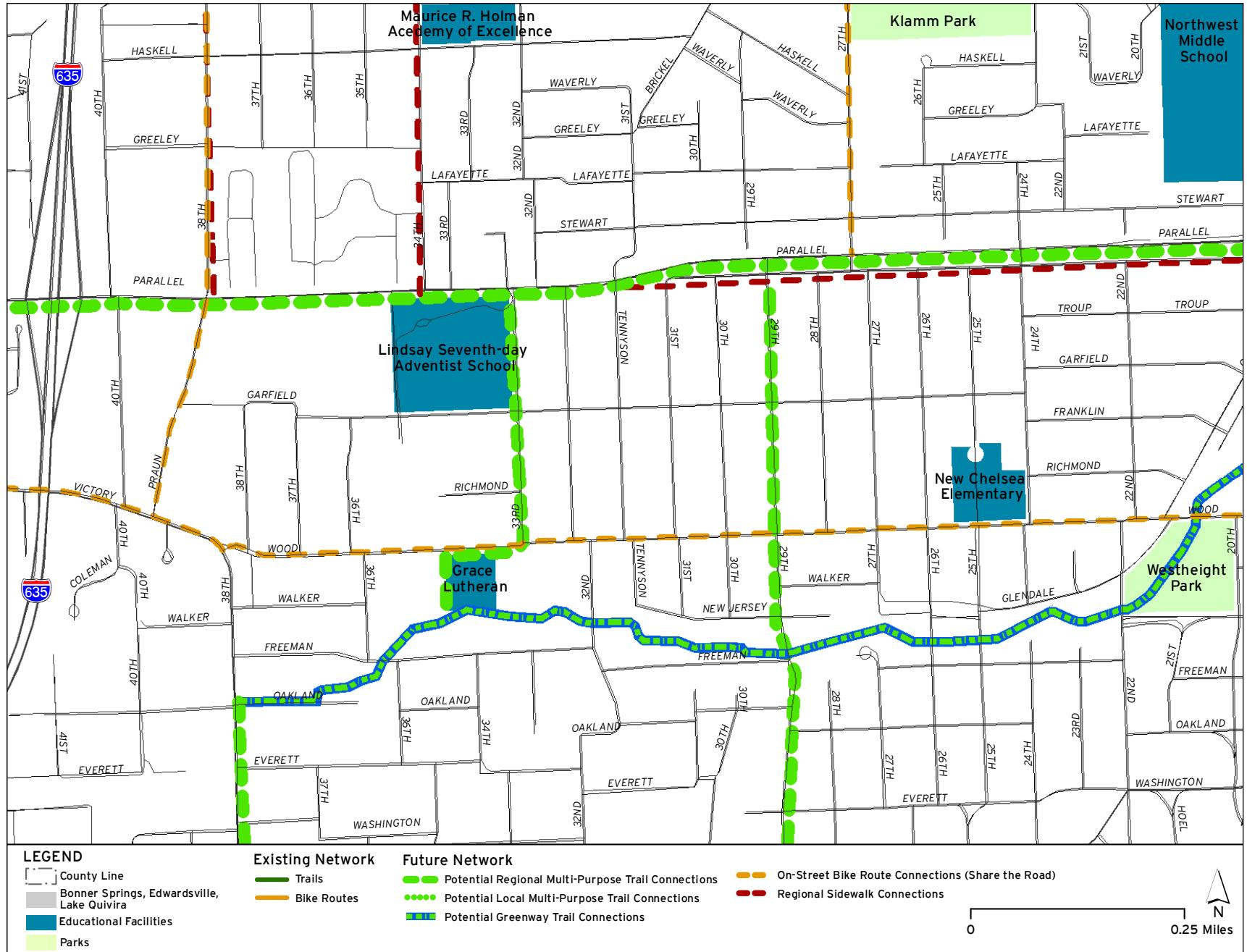


Sidewalk and Trail Master Plan



C-15

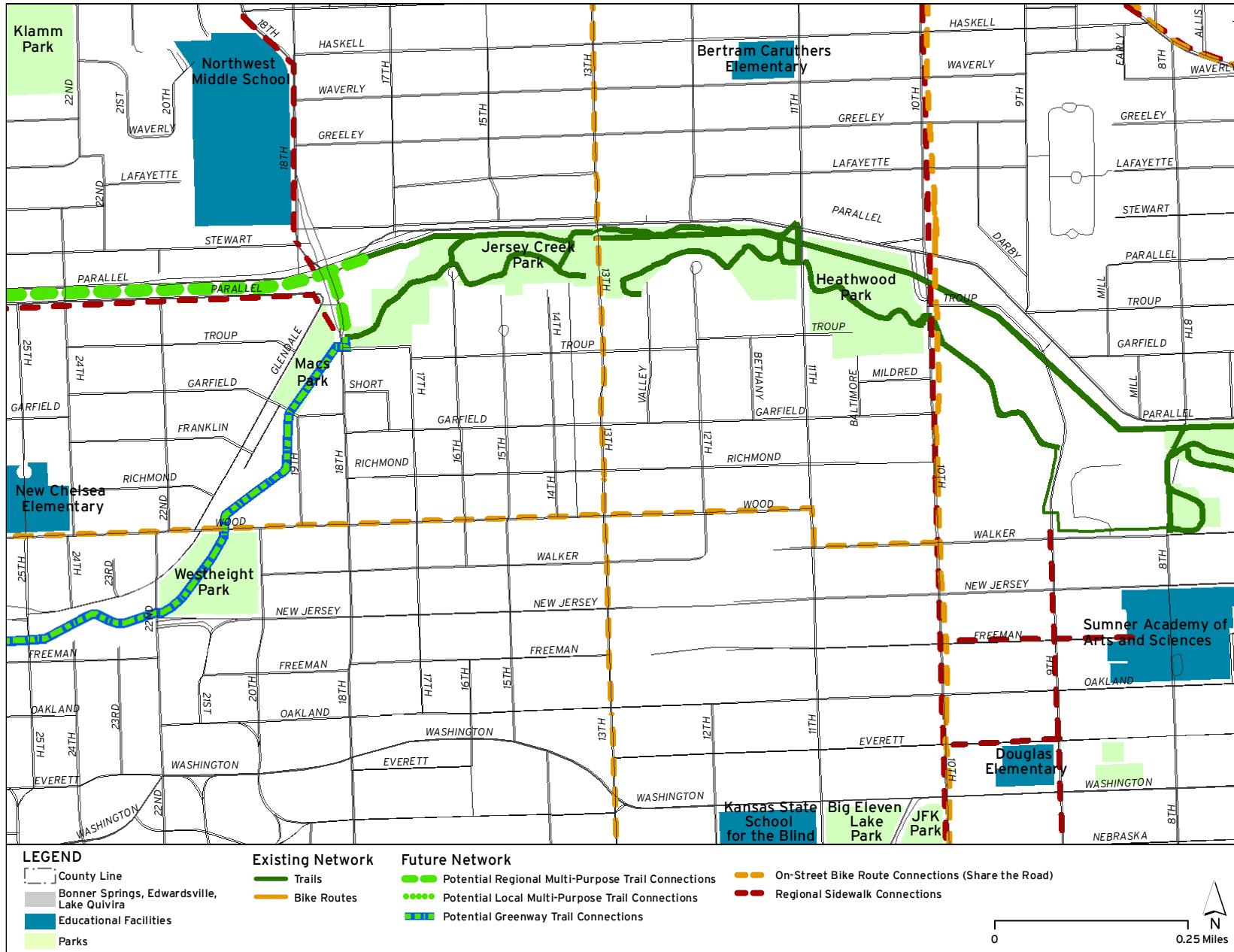




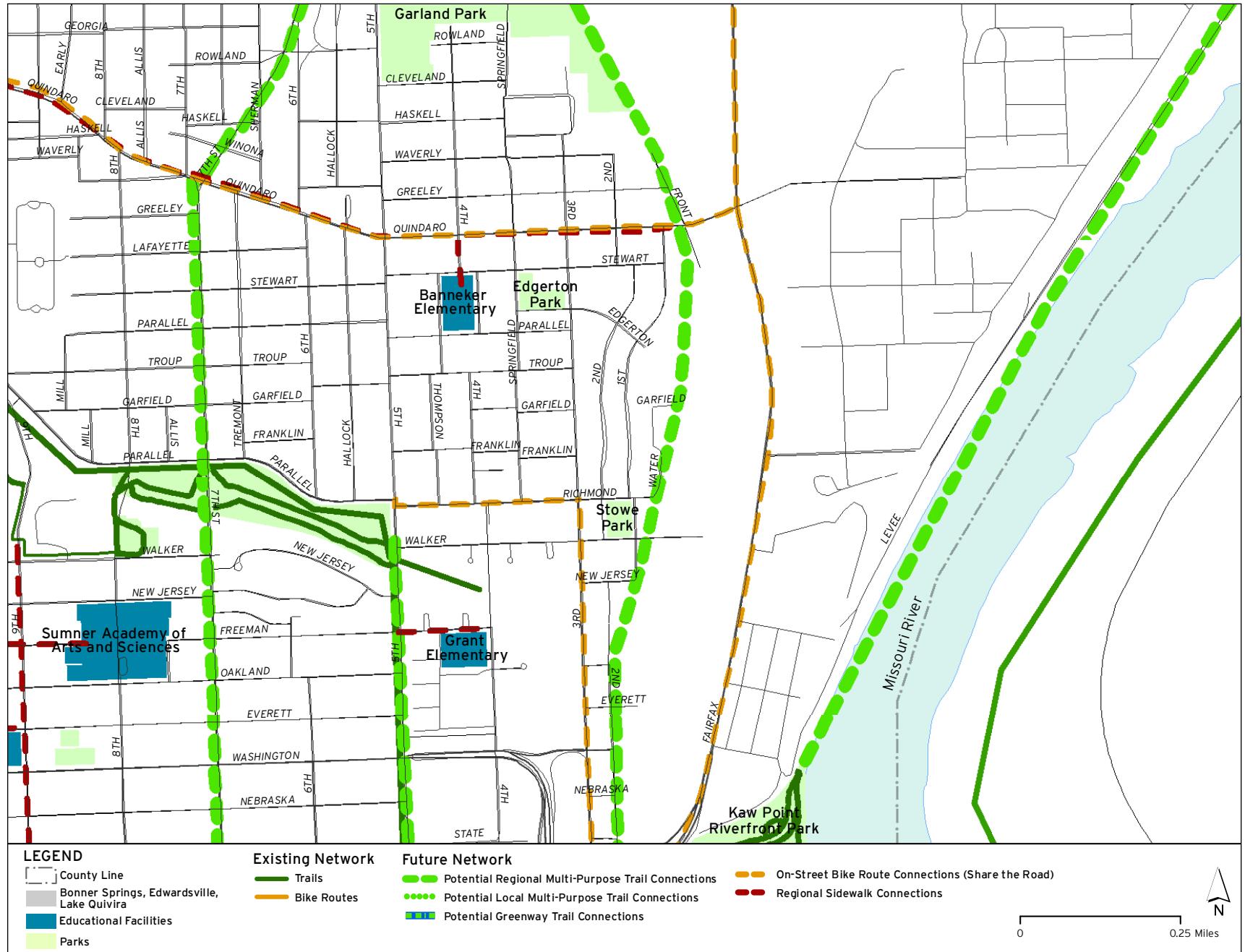
Sidewalk and Trail Master Plan



C-17

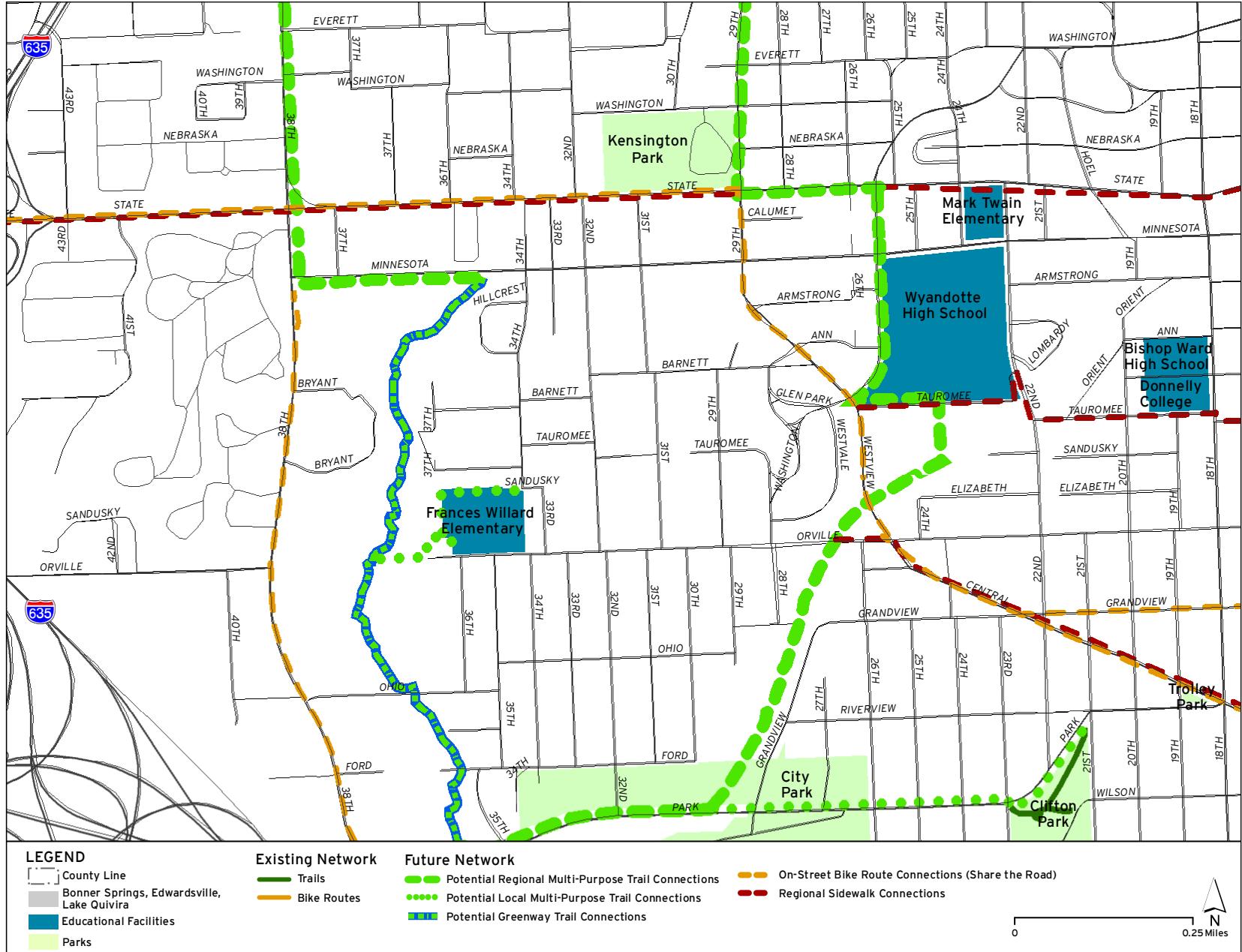


Sidewalk and Trail Master Plan



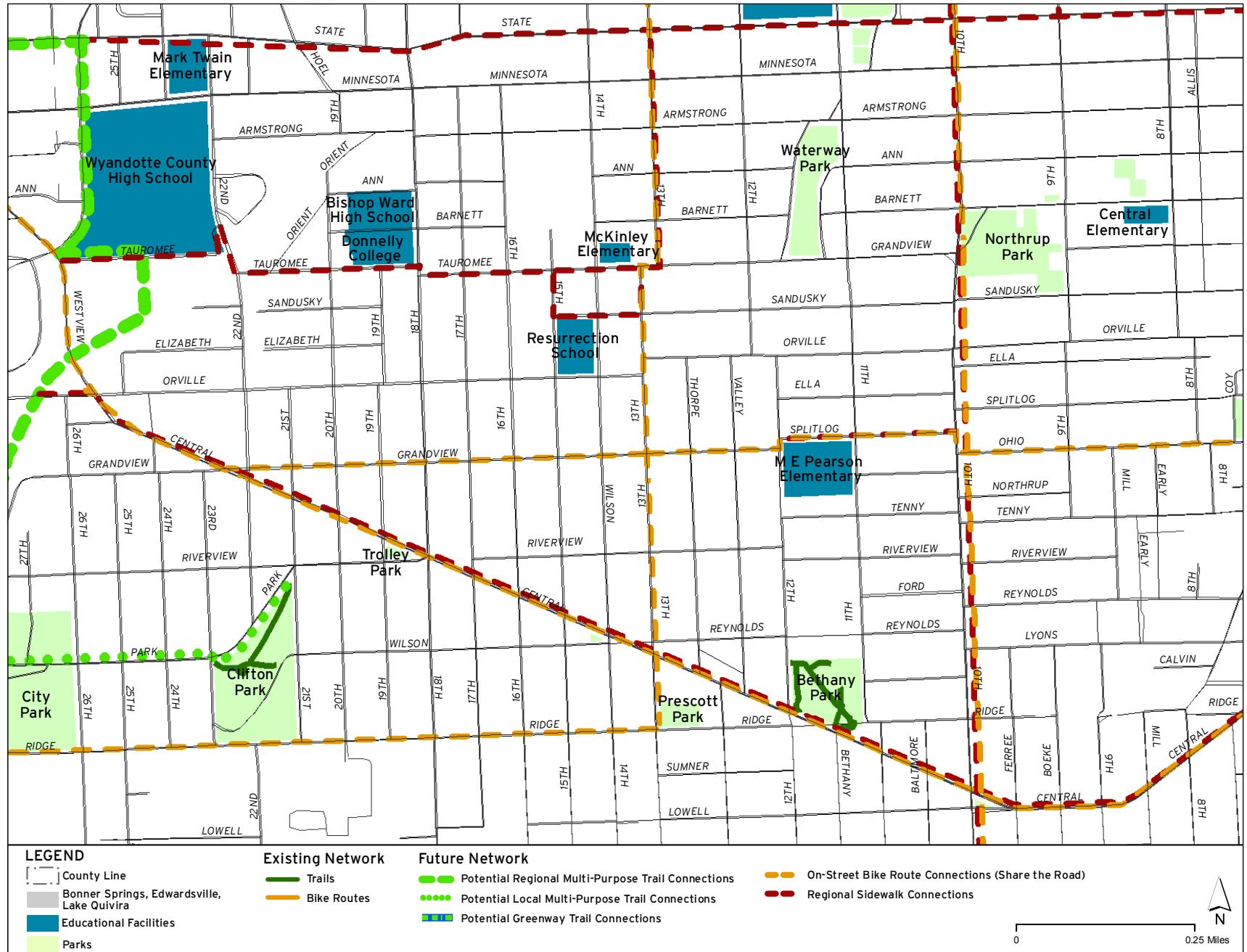
Sidewalk and Trail Master Plan



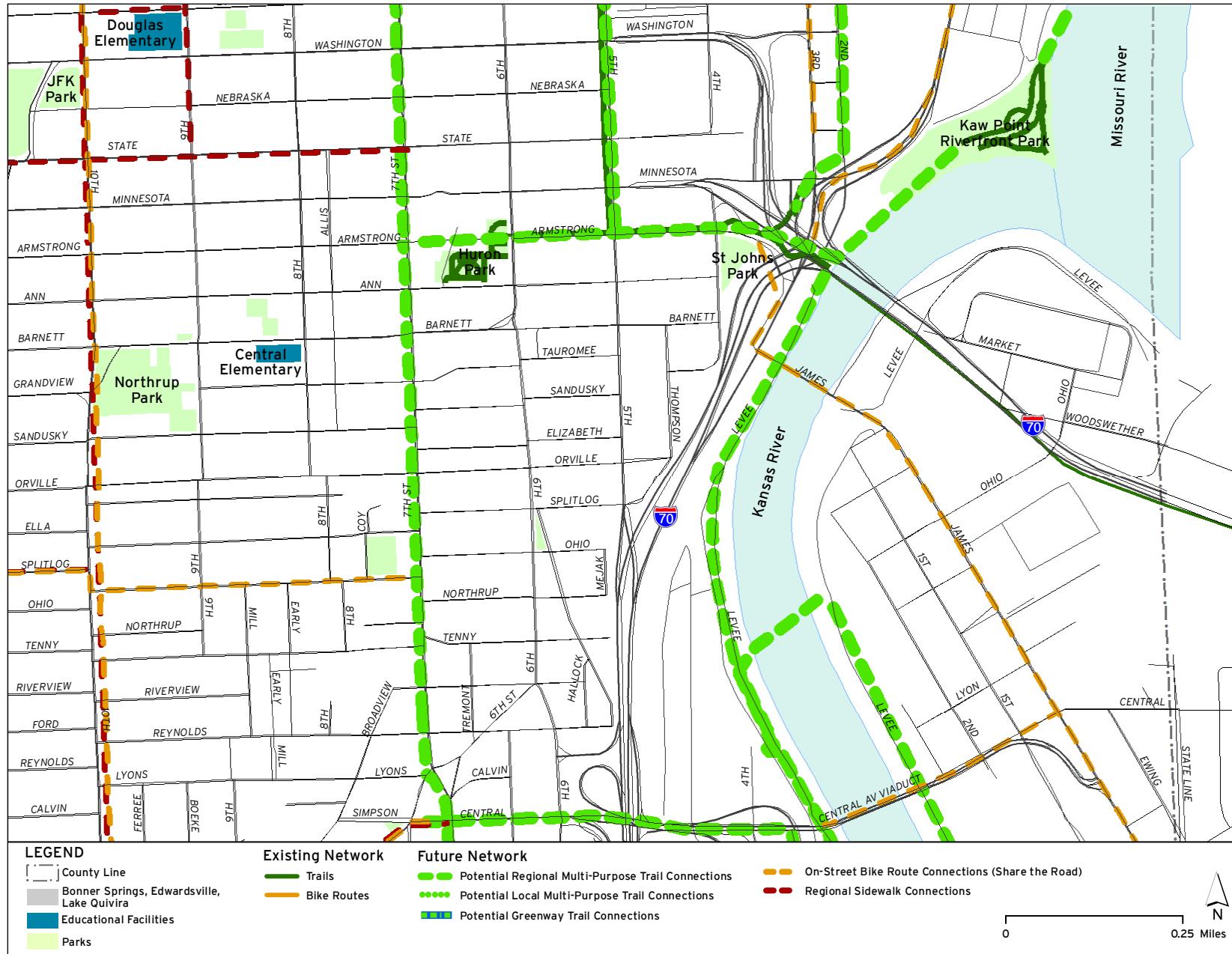


Sidewalk and Trail Master Plan



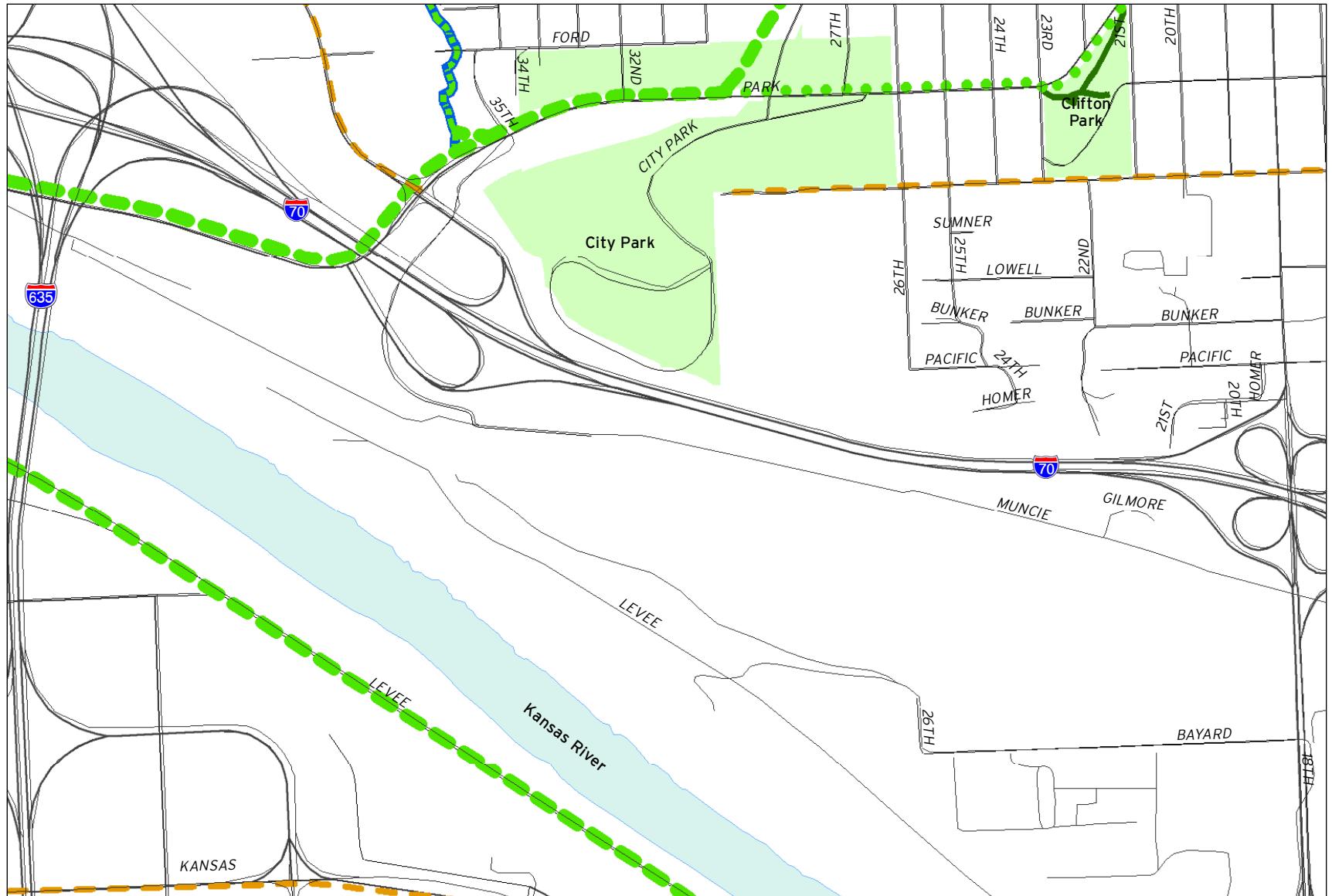


Sidewalk and Trail Master Plan



Sidewalk and Trail Master Plan





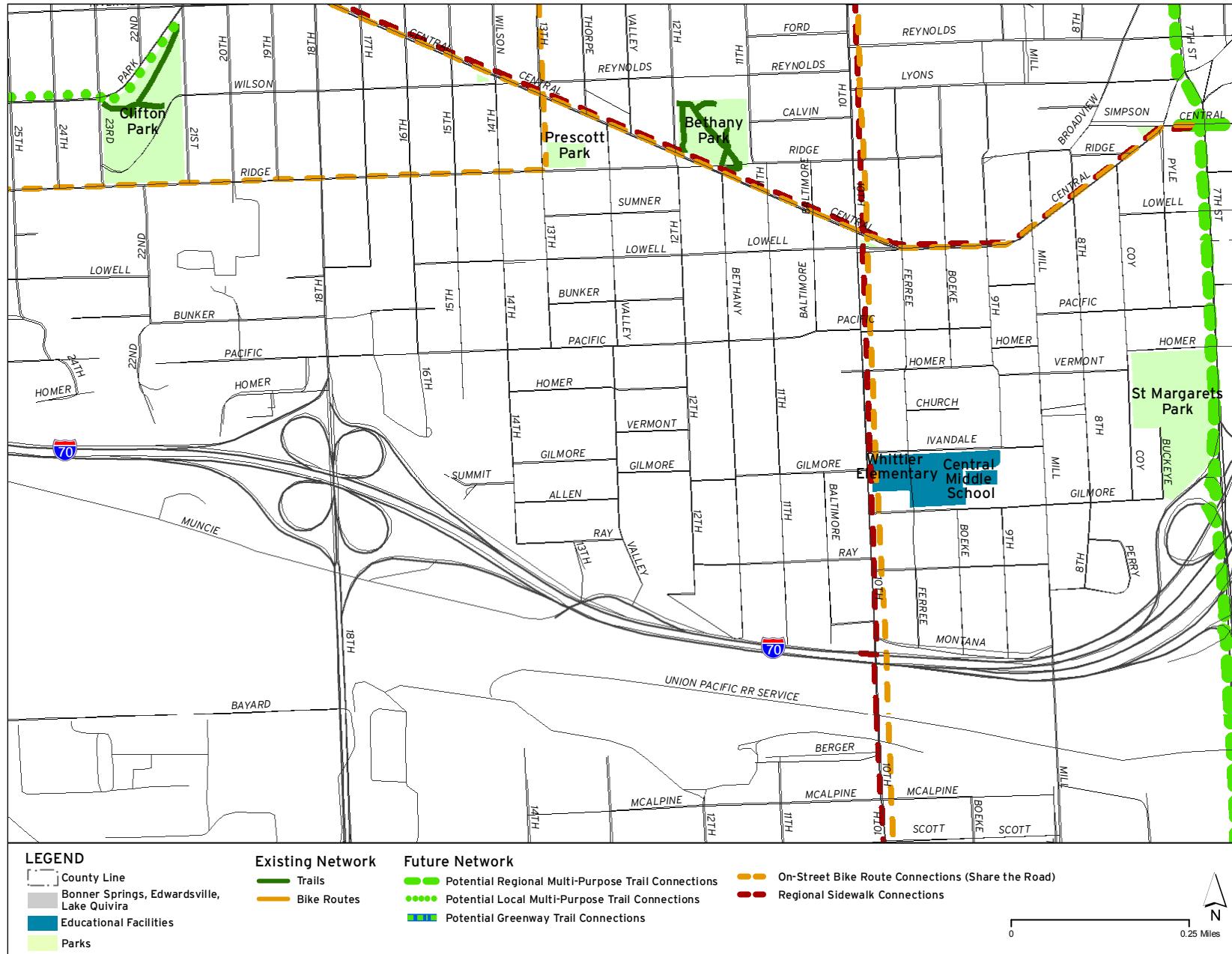
0 0.25 Miles



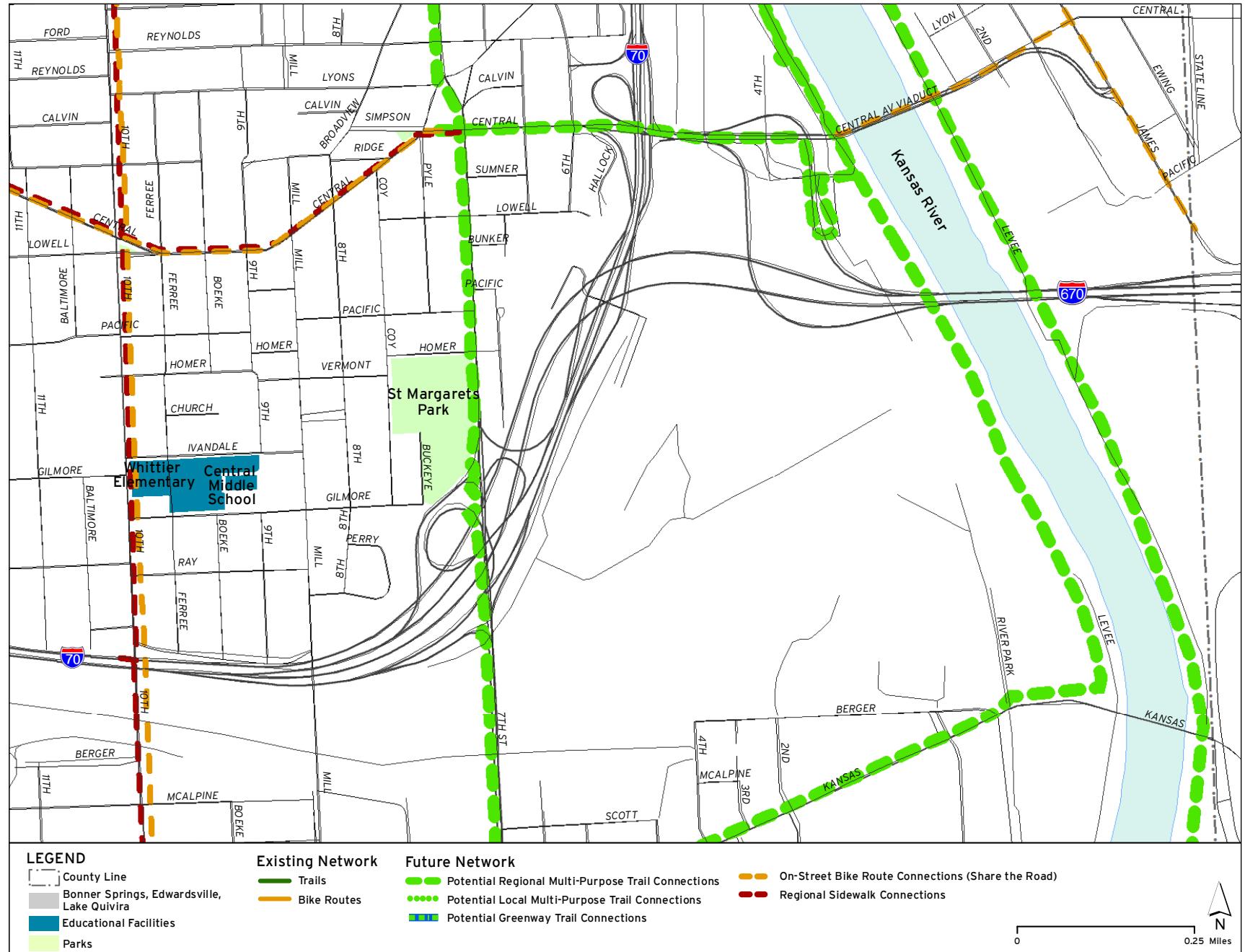
Sidewalk and Trail Master Plan



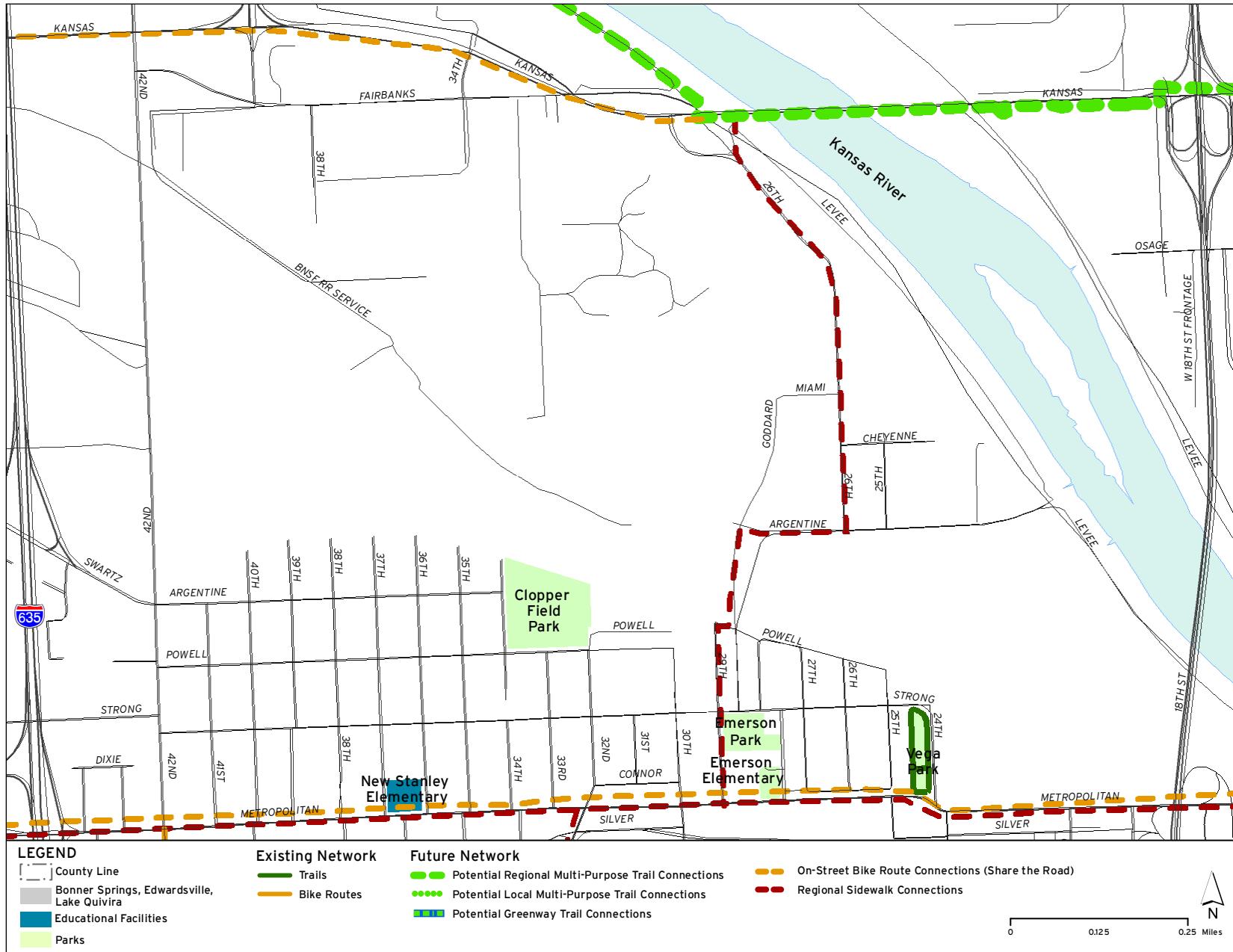
C-23



Sidewalk and Trail Master Plan

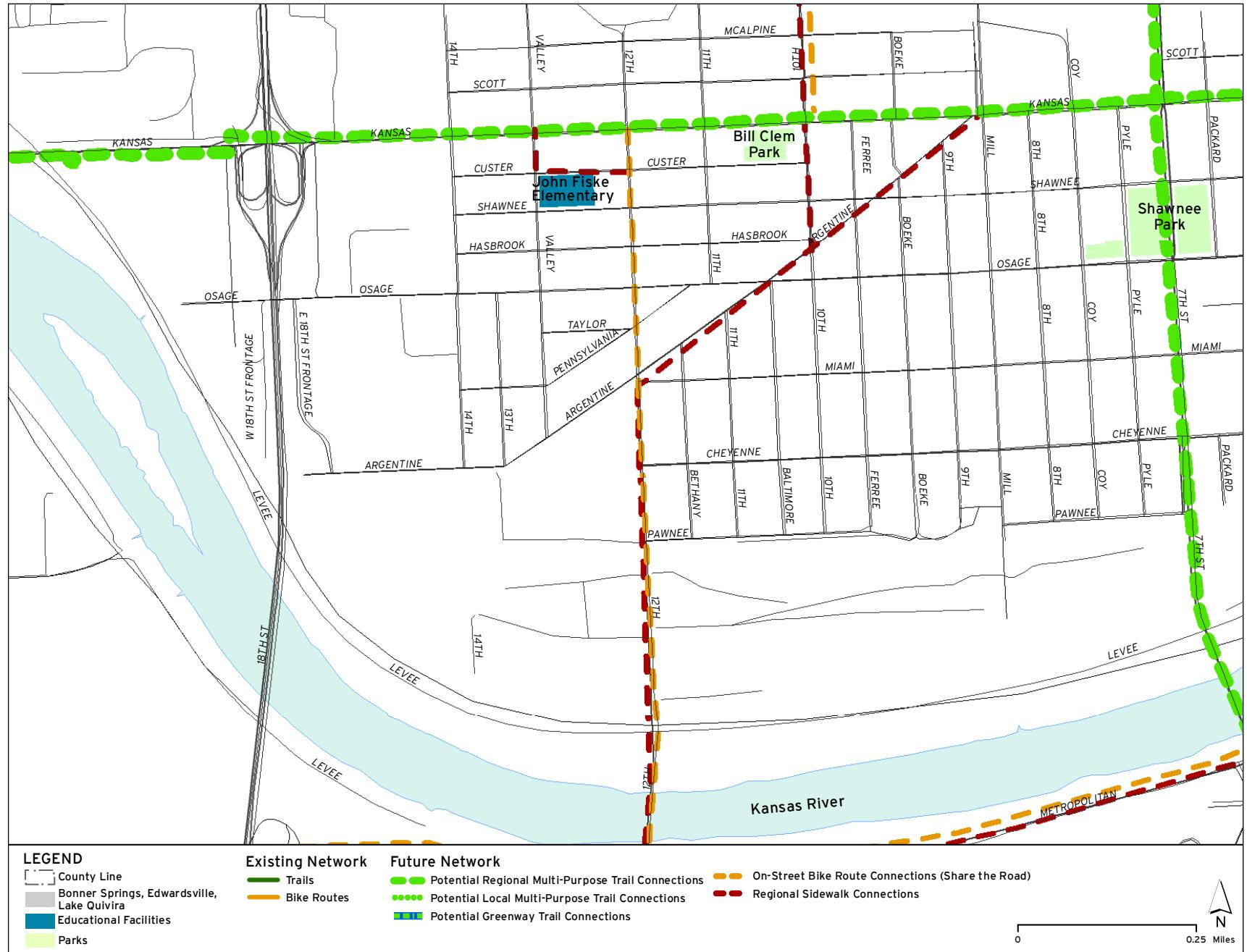


Sidewalk and Trail Master Plan

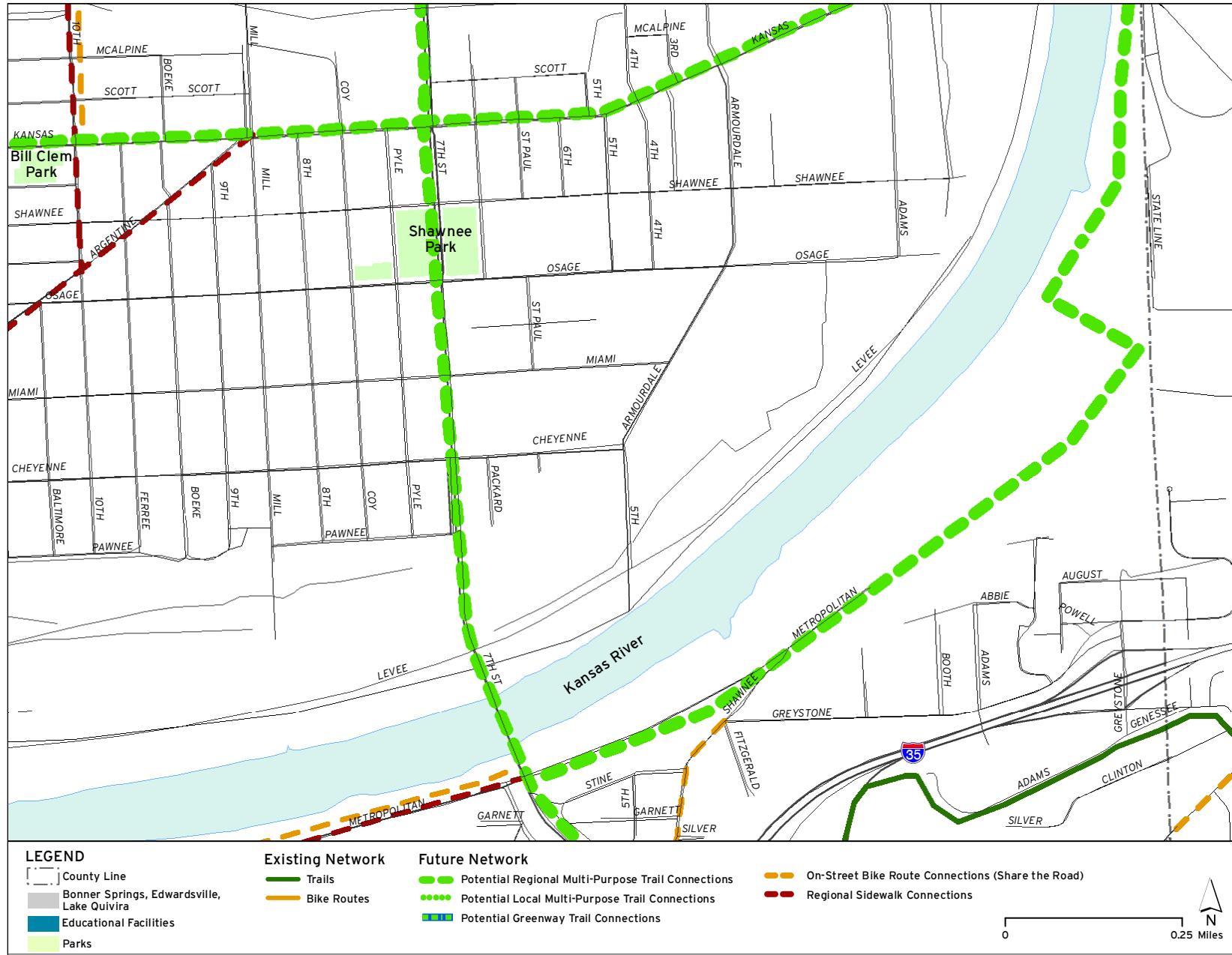


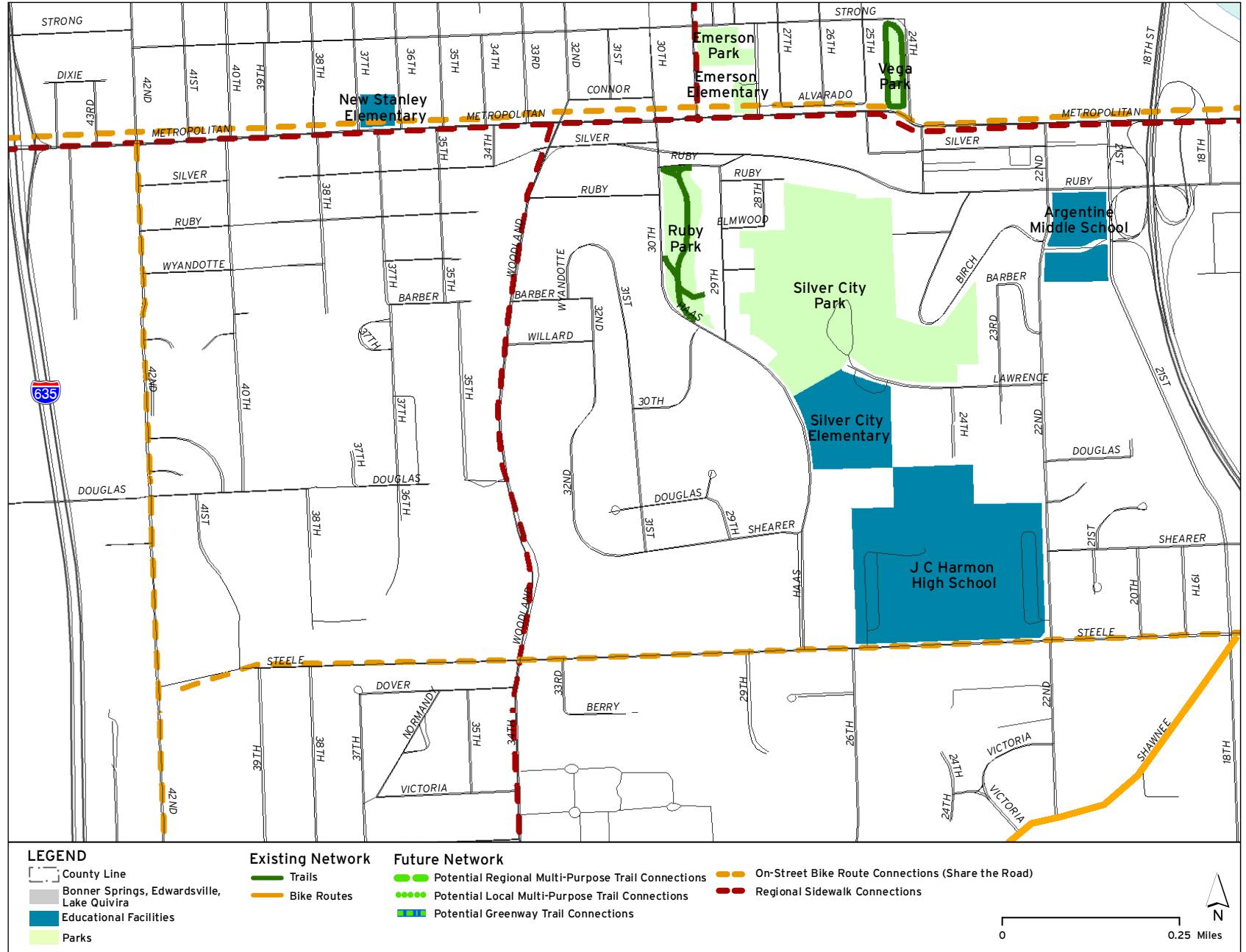
Sidewalk and Trail Master Plan



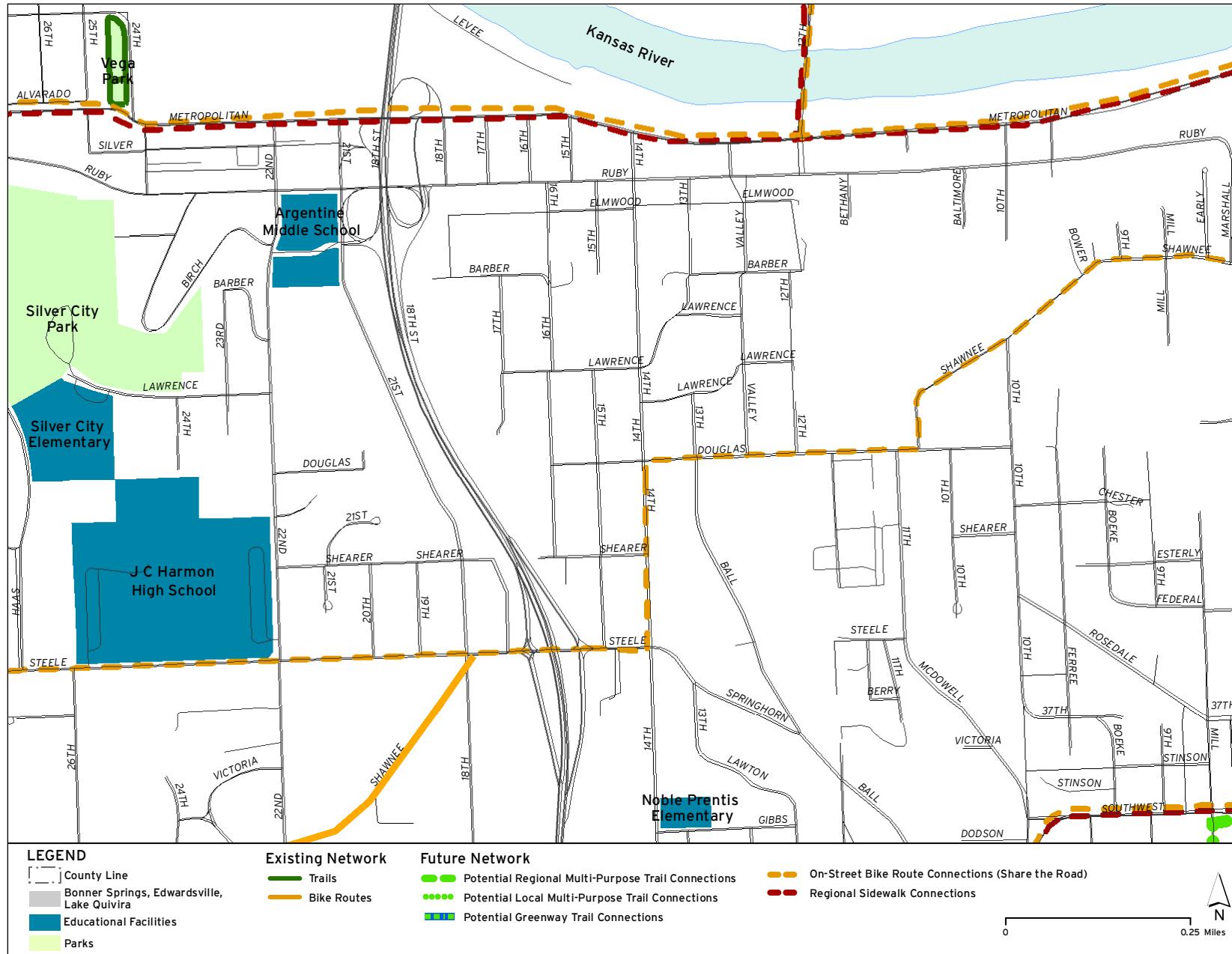


Sidewalk and Trail Master Plan



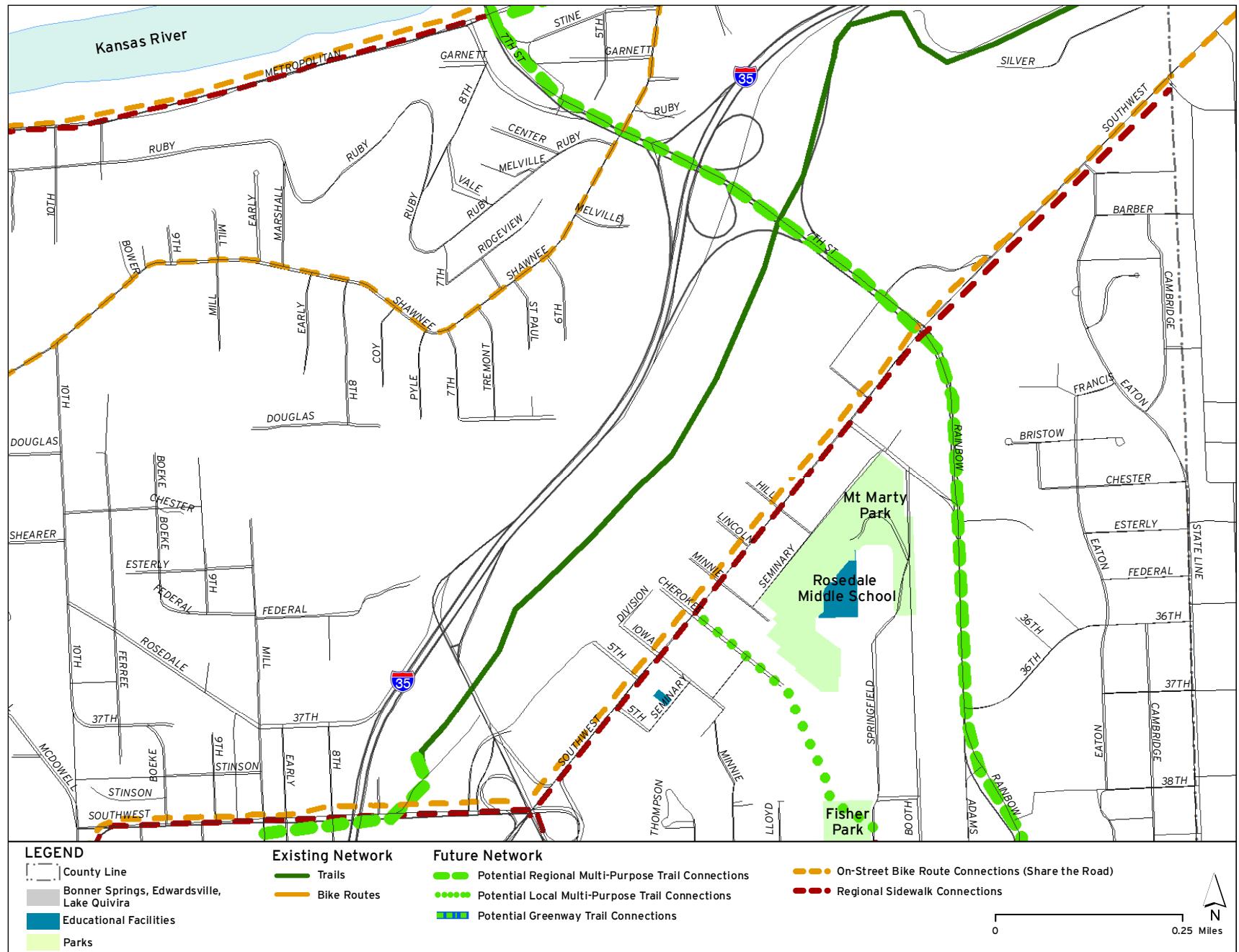


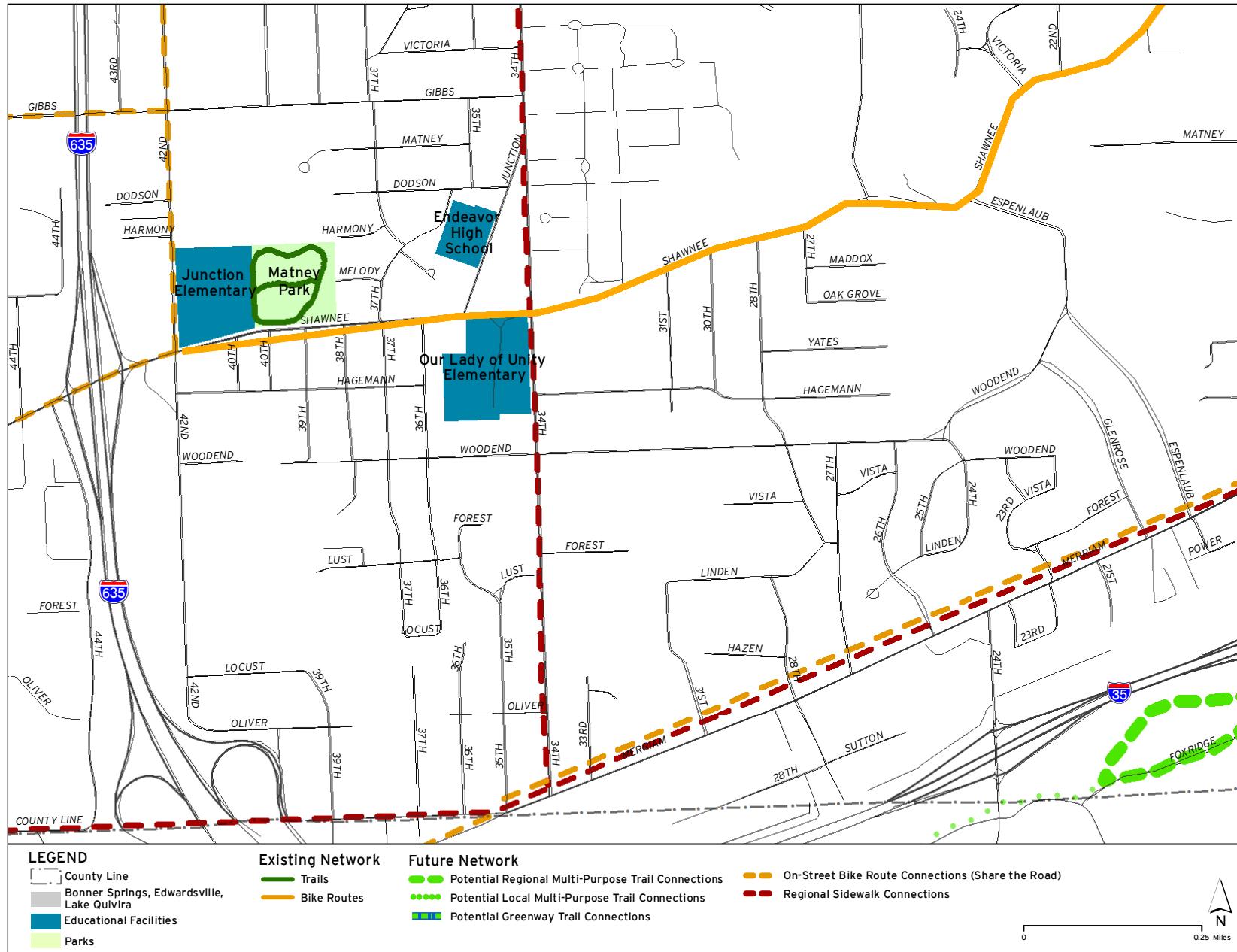
Sidewalk and Trail Master Plan



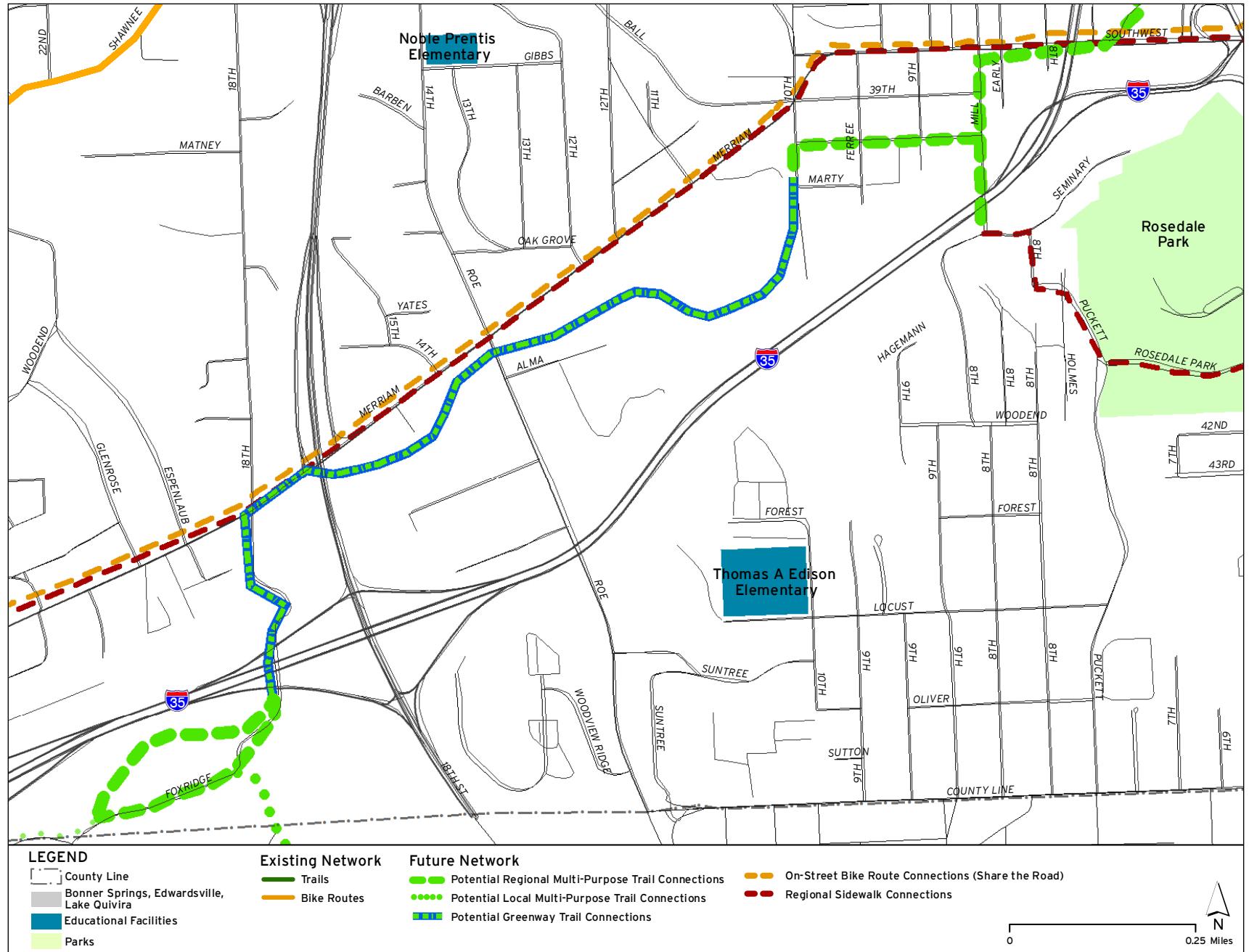
Sidewalk and Trail Master Plan







Sidewalk and Trail Master Plan



LEGEND
 County Line
 Bonner Springs, Edgewood,
 Lake Quivira
 Educational Facilities
 Parks

Existing Network
 Trails
 Bike Routes

Future Network
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 Potential Greenway Trail Connections

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 Regional Sidewalk Connections



0 0.25 Miles



