BASEHOR
ACTIVE TRANSPORTATION SUMMARY

FORWARD

This project represents an opportunity to explore design alternatives for improving the connectivity for the City of Basehor. Using new sidewalks, trails, and bicycling facilities as well as looking at greenways to connect the City, this project will allow for Basehor to strengthen the pedestrian access and infrastructure that are needed within the community.

ACKNOWLEDGMENTS

Thanks to a grant from the Mid-America Regional Council's (MARC) Planning Sustainable Places Initiative, this project benefited from the participation of numerous residents and stakeholders including the following:

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SECTION ONE /
INTRODUCTION

PURPOSE

The City of Basehor received a grant through the Mid-America Regional Council (MARC) to fund this planning effort. The resulting plan is intended to guide the City's efforts to improve connectivity through the eventual construction of a new network of sidewalks, trails, and bicycling facilities throughout the community. This will provide alternative means of transportation and mobility for community members of all ages, while also linking important community destinations.

The proposed sidewalks, trails, and bicycling facilities will be used to create a greenway system that connects to key areas of the city. These key areas consist of Regional Parks, Community Parks, Neighborhood Parks, and trailhead locations. While using the greenways as one means of connecting the city there are also proposed trails to additionally facilitate in connection throughout the city.

State Avenue is a major East/ West corridor that runs through the City of Basehor. This corridor can divide the city into two sections. This plan will look at how to reconnect those sections of Basehor to provide a better link for the city. In addition to State Avenue the plan will also be looking at the connections across 155th Street as this street runs North/South and can divide the city into an East and West section.

MARC PSP PROJECTS

The City of Basehor received a grant through the Mid-America Regional Council (MARC) to fund this planning effort. The resulting plan is intended to guide the City's effort to improve connectivity through the eventual construction of a new network of sidewalks, trails, and bicycling facilities throughout the community.

The Mid-America Regional Council is a nonprofit association of city and county governments and the metropolitan planning organization for the Kansas City region. MARC provides a forum for the region to work together to advance social, economic, and environmental progress.

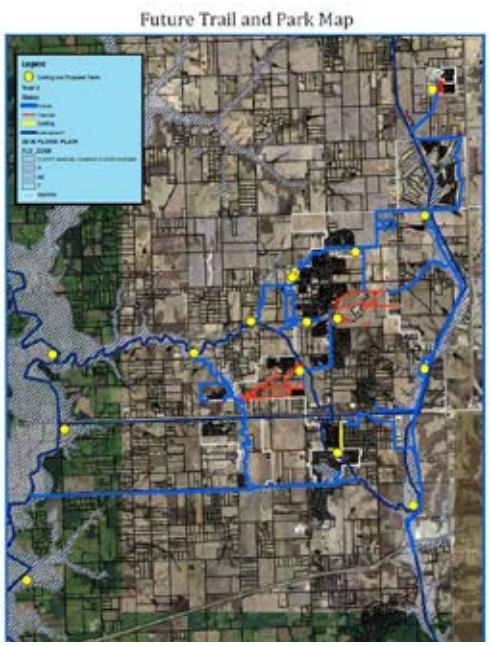
As a part of their efforts, MARC sponsors the Planning Sustainable Places program which works to:

- Promote detailed local planning project development activities that further the creation of vibrant places that offer a mix of options for housing, jobs, services, and recreation
- Connect places with a variety of transportation options
- Support healthy living and a healthy natural environment

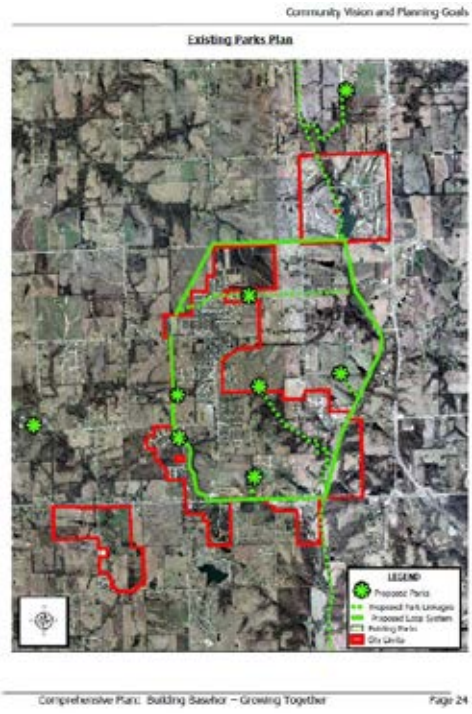
PREVIOUS EFFORTS

The City of Basehor through previous engagements with City Staff developed a Comprehensive Plan which outlined potential future park and trail opportunities in 2019. This document serves as a basis for development and direction of the Basehor Active Transportation Master Plan. In addition to the City's Comprehensive Plan, the MARC Metrogreen Regional Trails network plan identifies several corridor alignments for regional trail connectivity to the Kansas City metropolitan area.

BASEHOR COMPREHENSIVE PLAN 2019



BASEHOR COMPREHENSIVE PLAN 2013



EXISTING CONDITIONS / CONTEXT

The City of Basehor in Leavenworth County sits in the northwest corner of the Kansas City metropolitan area. Basehor is currently one of the fastest growing cities in the State of Kansas. As the rapid expansion of the city occurs, the demand from residents for greater pedestrian connectivity is being heard. Providing safe routes to effectively tie together important community destinations for residents of all ages is critical to achieving the vision of this Master Plan study.

In order to plan for future pedestrian connectivity, it is imperative to understand the opportunities and constraints associated with the community. Some of the biggest impacts to the City's circulation include the drainageways for the Stranger Creek and Wolf Creek watersheds and the north/south division of the City by State Avenue. In general, the City is relatively flat and easy to traverse from a pedestrian standpoint, however there are steeper areas closer to the creek floodways which will provide some challenge to make usable. In addition, the areas of steeper terrain generally occur under the bridges for State Avenue which provide two of the greatest opportunities for connecting north and south Basehor to each other with pedestrian connectivity. It is also noted that these creek way corridors include Sanitary Sewer easements and are previously railroad corridors which have been deeded back to the adjacent property owners. Although deeded back to the adjacent properties, their flatter slopes make ideal greenway pedestrian corridors for the City and should be considered for acquisitions by the City.

The largest single land use within the City of Basehor is single family residential. In order to provide safe routes for residents, it is important for the City to look at future roadway improvements allowing for the incorporation of pedestrian improvements to meet these needs. In most cases throughout the City of Basehor, the typical current roadway profile includes a curbless roadway section with ditch sections on either side to accommodate stormwater. In any future scenario for pedestrian connectivity, the various scenarios will require significant improvement in order to meet AASHTO standards for bicycle and pedestrian facilities.

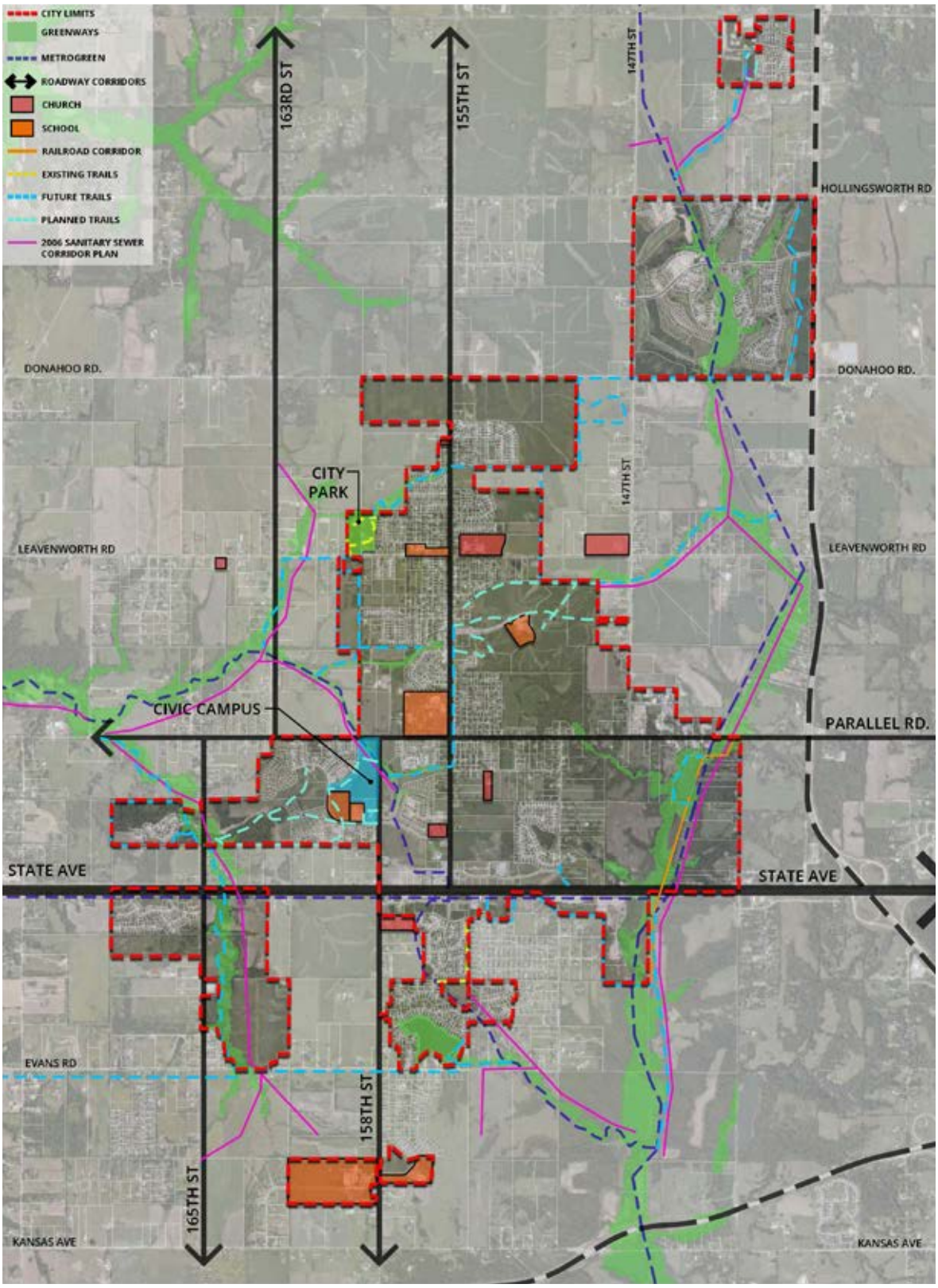
VIEW AT STATE AVENUE LOOKING NORTH WEST

APPROACH

To develop a successful strategy for the Basehor Active Transportation project, the design team facilitated a collaborative process including representatives from Basehor, the advisory committee and citizens of Basehor. The three-step process and the resulting design is summarized below.

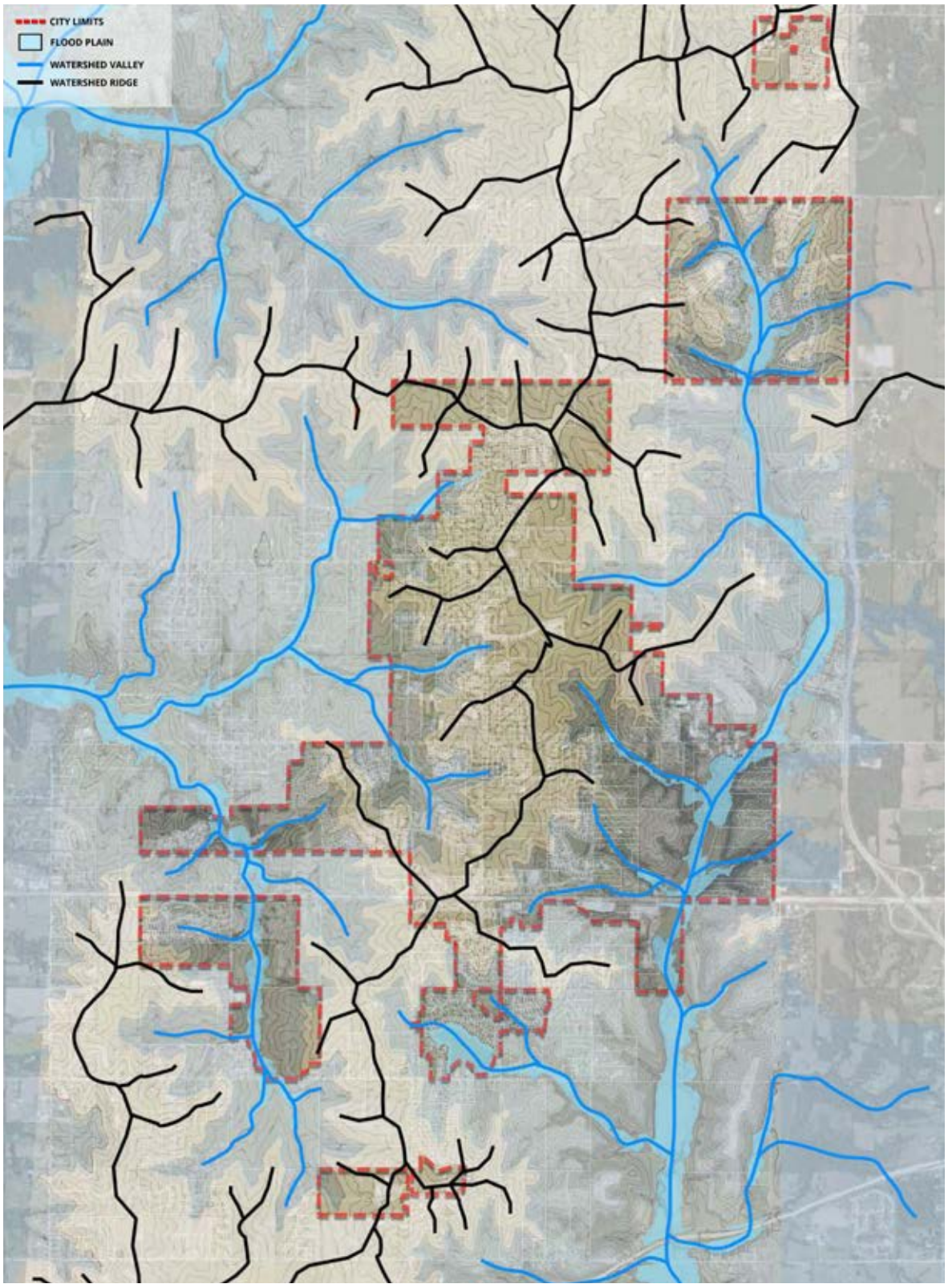
I. Analysis
II. Input
III. Recommendations

PRIMARY CORRIDOR MASTER PLAN

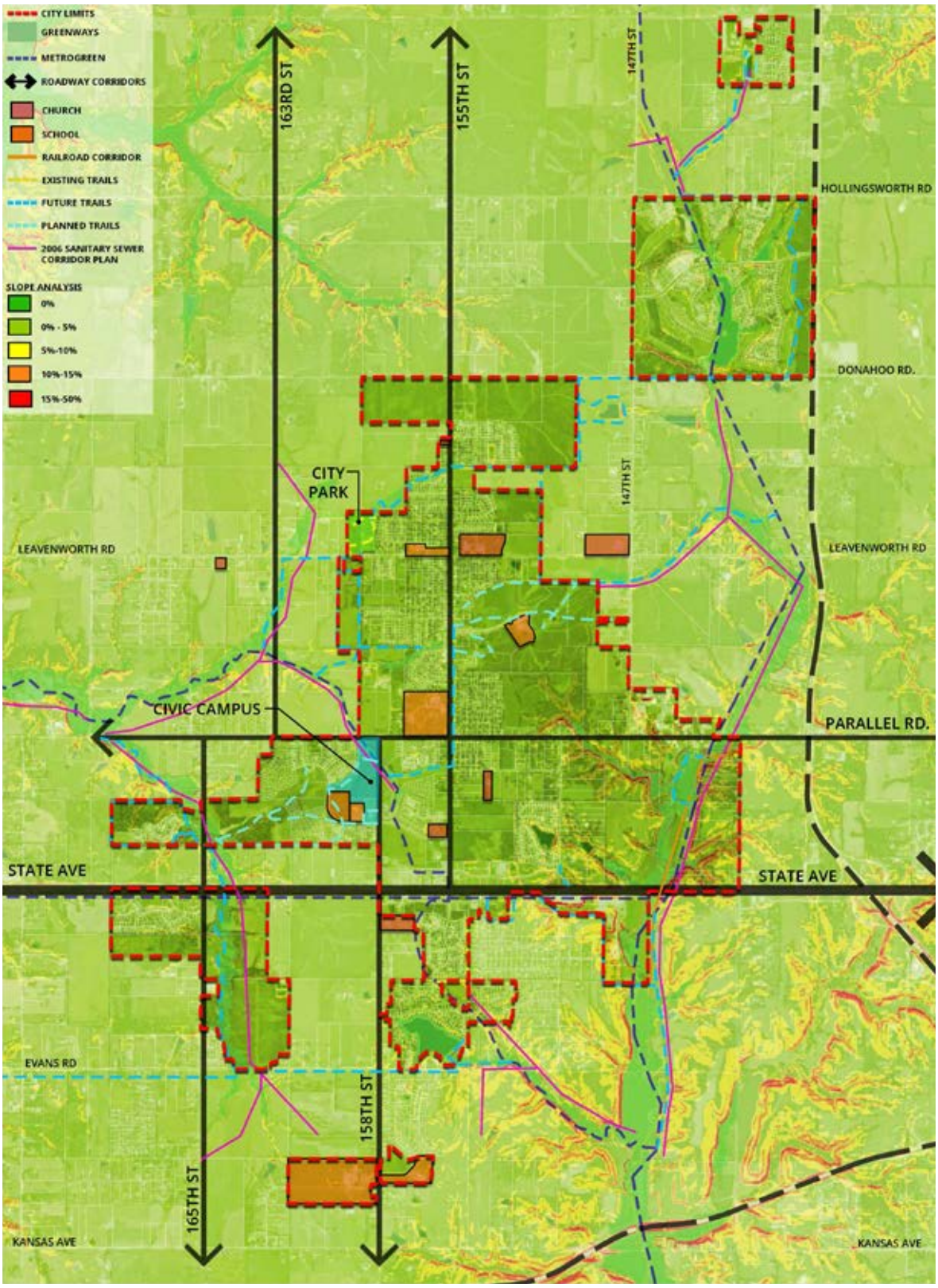


Graphic is based off of 2019 City of Basehor Comprehensive Plan

WATERSHED MAP

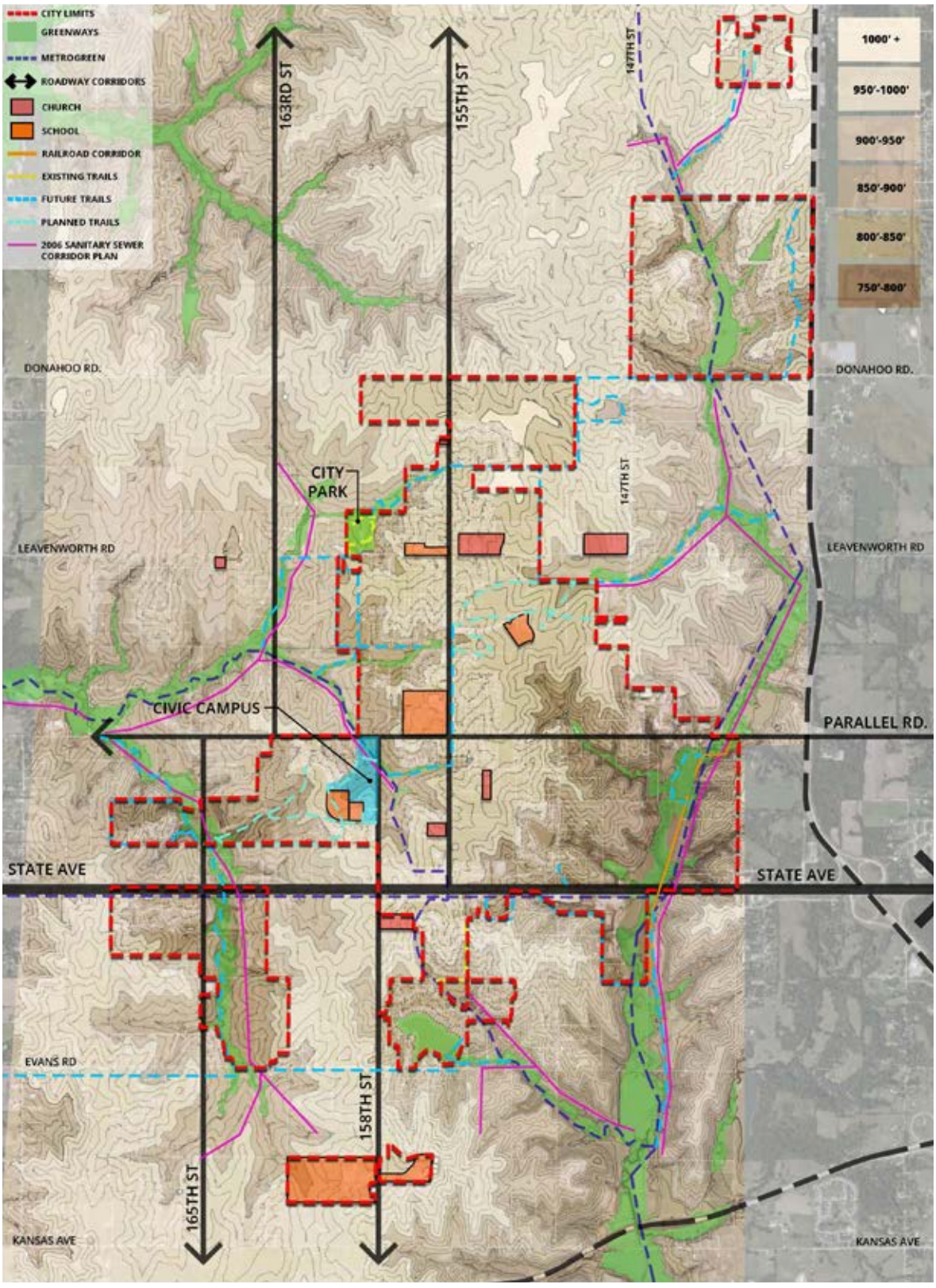


SLOPE ANALYSIS MAP



Graphic is based off of 2019 City of Basehor Comprehensive Plan

ELEVATION MAP



Graphic is based off of 2019 City of Basehor Comprehensive Plan

ANALYSIS

The first phase of development included information gathering and analysis. Additionally, GIS based information was gathered and analyzed to identify opportunities and constraints in the project area relating to right-of-way widths, property ownership, floodplain/watersheds, utilities, vegetation, and slopes.

EXISTING PARK ANALYSIS

Basehor Park Facility Standards

PARKS:		2021 Inventory - Developed Facilities											2021 Facility Standards		
Park Type	Units	Basehor Park Inventory	Schools	State Facilities	Leavenworth County Facilities	Total Inventory	Current Service Level based upon 2021 population			Recommended Service Levels; Revised for Local Service Area			Meet Standard/ Need Exists	Additional Facilities/ Amenities Needed	
Neighborhood Parks	Acre(s)	-				-	-	acres per	1,000	5.00	acres per	1,000	Need Exists	34	Acre(s)
Community Parks	Acre(s)	68.30				68.30	7.43	acres per	1,000	5.00	acres per	1,000	Meets Standard		Acre(s)
Regional Parks	Acre(s)					-	-	acres per	1,000	5.00	acres per	1,000	Need Exists	34	Acre(s)
Undeveloped Park Land	Acre(s)	42.00				42.00	6.09	acres per	1,000	0.00	acres per	1,000	Meets Standard		Acre(s)
Total Park Acres	Acre(s)	110.30	-	-	-	110.30		acres per	1,000	15.00	acres per	1,000	Meets Standard	-	Acre(s)

***2021 POPULATION ESTIMATES: 6,896**

FUTURE PARK ANALYSIS

Basehor Park Facility Standards

PARKS:		2030 Inventory - Developed Facilities											2030 Facility Standards		
Park Type	Units	Basehor Park Inventory	Schools	State Facilities	Leavenworth County Facilities	Total Inventory	Current Service Level based upon 2021 population			Recommended Service Levels; Revised for Local Service Area			Meet Standard/ Need Exists	Additional Facilities/ Amenities Needed	
Neighborhood Parks	Acre(s)	-				-	-	acres per	1,000	5.00	acres per	1,000	Need Exists	46	Acre(s)
Community Parks	Acre(s)	68.30				68.30	7.43	acres per	1,000	5.00	acres per	1,000	Meets Standard		Acre(s)
Regional Parks	Acre(s)					-	-	acres per	1,000	5.00	acres per	1,000	Need Exists	46	Acre(s)
Undeveloped Park Land	Acre(s)	42.00				42.00	4.57	acres per	1,000	0.00	acres per	1,000	Meets Standard		Acre(s)
Total Park Acres	Acre(s)	110.30	-	-	-	110.30	12.00	acres per	1,000	15.00	acres per	1,000	Need Exists	28	Acre(s)

***2030 POPULATION ESTIMATES: 9,193**

NEIGHBORHOOD PARKS: 5-10 ACRES
COMMUNITY PARKS 10-100 ACRES
REGIONAL PARKS 100+ ACRES

INPUT

During the next phase of work, the consultant team met with the advisory committee and public to review and gather input on potential alignments of both greenway and thoroughfare connections throughout the City of Basehor, identify key issues and goals, as well as review various approaches for bicycle and pedestrian integration options. These options were then presented to citizens in a public input meeting to gather feedback. Additionally, an online survey was developed to gather input from the broader community. Feedback from the various meetings was reviewed and synthesized into the overall connectivity plan. Options for integrating pedestrian and bicycle facilities was further studied in the context of the existing site conditions.

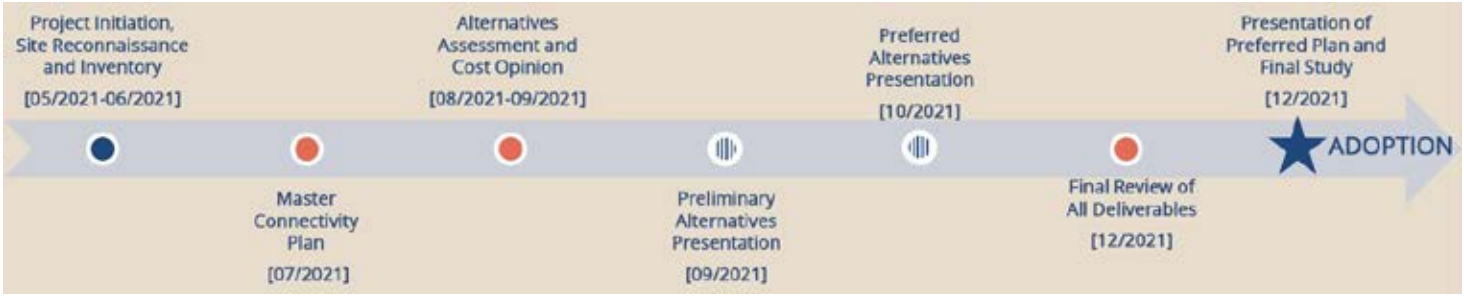
A second public outreach meeting was conducted to give residents the opportunity to provide the design team feedback on a preferred design and alignment approach. Information gathered in this meeting was utilized to guide further refinement of the design approach that would form the basis of the project recommendations.

RECOMMENDATIONS

During the final phase of work, the design team developed the master plan vision to define the future greenway and thoroughfare pedestrian network as development needs are addressed. This Master Plan provides flexibility to address roadways and utilities, and pedestrian connections. This serves as a reminder to future implementation committees, consultants, and community leaders of the vision of the original participants and the importance of implementing a consistent design approach across future City projects and park acquisition opportunities. This Master Plan also serve as an opportunity for the City to invest in Community improvements as roadways are widened.

SCHEDULE

The Basehor Active Transportation Master Plan project was started in May of 2021 with initial project inventory and reconnaissance. In July of 2021, the Comprehensive Plan and Parks Master Plan was initiated, and development of the plans ran congruently with the Active Transportation Master Plan wrapping up in February of 2022 with the Comprehensive Plan and Parks Master Plan continuing development through the middle of 2022.



SECTION TWO /
PROJECT DEVELOPMENT

PROJECT DEVELOPMENT

The Basehor Active Transportation Master Plan project was conducted simultaneously with the Basehor Comprehensive Master Plan and Parks Master Plan updates. It is anticipated that the recommendations put forth in this document are incorporated as part of the Parks Master Plan recommended direction. As the projects are being done simultaneously, it is important for the broader picture of the community parks and recreation facilities to be analyzed to make sure compatibility with the vision across Basehor's Park system.

To fully understand the extent of the system connections needed, it is important to understand how well served the community is now and into the future from its parks and trail offerings. Based on 2021 estimated population in Basehor of 6,896 residents it is anticipated that Basehor needs between 5-7 new neighborhood park facilities within the community and 1 new regional park. The anticipated facilities increase to 7-9 new neighborhood park facilities based on 2030 population projections of 9,193 residents with the 1 regional facility anticipated to be sufficient.

As future park facilities are distributed across the city, it is important to ensure equal distribution and opportunities for the community to add these facilities in strategic places that adequately serve the community. In doing this, connections between these facilities can be identified as well as safe connections to residential and school areas providing for safe pedestrian access to community residents.

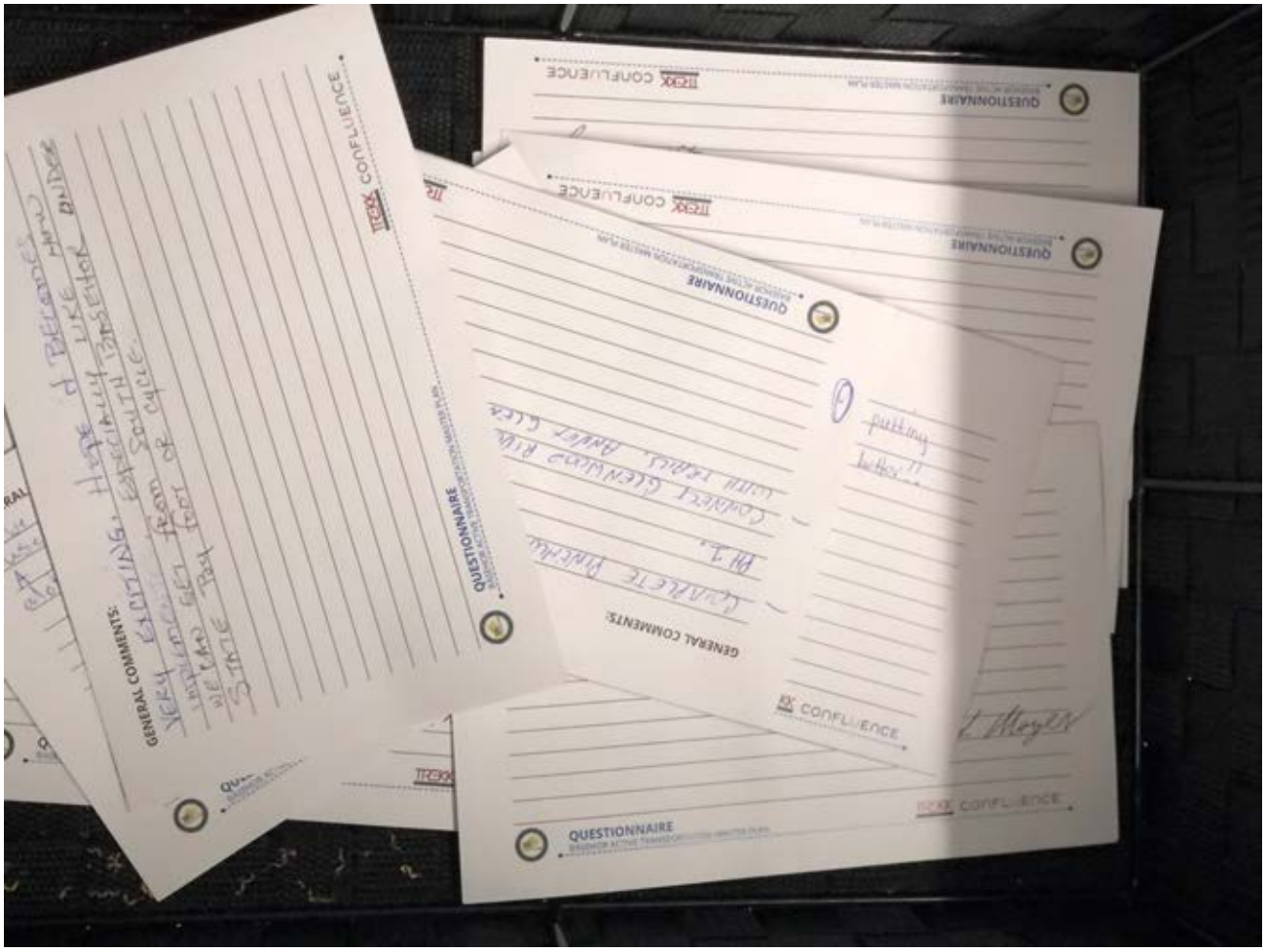
ADVISORY COMMITTEE

Public outreach efforts were coordinated with a City-appointed Advisory Committee. The Advisory Committee members were appointed from a wide spectrum of stakeholder groups, City Departments and Committees. Each committee member was asked to help promote the planning process to their respective networks and contacts as appropriate. This committee was tasked with providing meaningful direction and feedback complementing the public engagement process. Committee members were asked to identify key issues influencing the sites, provide assessments of potential pedestrian routes, consider initial aesthetics desired for the corridor and develop the goals to define a success project completion.

KEY ISSUES

During an initial meeting, the project's advisory committee was asked to identify various issues that affect the City's pedestrian infrastructure and movement. These issues were key to the committee as the team developed initial design concepts. Issues ranged from aesthetics to safety, planning, and costs to implement. The committee was asked to prioritize these issues in order to guide development of overall project goals. However, it remained important to keep all of these key issues in mind throughout the process.

- Slope, including cross slope
- Greenway and streamway impacts
- Stormwater management considerations – regional detention opportunities
- Utility relocation
- Connecting north and south Basehor over State Avenue
- Location – accessibility to most people
- Easement acquisitions – public versus private property
- Safety
- End destination – look at opportunities for connecting children and residents with schools, parks and critical nodes of activity


QUESTIONNAIRE
CONFLUENCE
GENERAL COMMENTS:

SECTION THREE /
GOALS / OBJECTIVES

GOALS / OBJECTIVES

A variety of physical site conditions, safety needs and cost concerns were identified by the Advisory Committee to guide the development of the study recommendations. Three primary goals were established, and all recommendations were analyzed as to their ability to achieve each of these goals as a measure of success for the project.

Connectivity

Initial consideration of preferred pathways alignments expressed by the Advisory Committee and citizens of Basehor. Developing a safe approach and connectivity to serve all residents on either side of State Avenue is critical to meeting the goals and objectives identified during the input process.

STATE AVE. TRANSPORTATION MULTI-MODAL BARREIRS

Consistency

As development of construction planning and implementation recommendations occurs, the approach should consider consistently integrating safe options for residents to traverse both greenways and adjacent to major thoroughfares while minimizing potential impacts to existing properties along these corridors. The final improvements should create a cohesive visual appearance while also complimenting the existing city character.

Cost Effective

In addition to making infrastructure recommendations that are economical for construction and long-term maintenance, it is also important to develop considerations for potential phased implementation. Consideration of a phased approach allows the City of Basehor to make incremental improvements over a period of time as needs arise and funding becomes available.

ALTERNATIVES

In an initial public open house, the community was given a number of different options for incorporating multi-modal pedestrian options into public Right of Way, knowing that these options would be reviewed to tie in seamlessly with a multi-use greenway path identified for various greenway corridors. Options provided to the public included a shared use path on one or both sides of the road, buffered bike lanes, protected bike lanes, separated bike lanes, a protected cycle track and a separated cycle track. Participants were asked to vote for their preferred method of transportation integration. At the same time, boards were provided along with comment cards requesting the top 5 corridors that these improvements were needed throughout the City of Basehor.

Additional development of various amenities that could be incorporated along the trails and at trailheads were provided to the community for voting as well. Understanding the type and aesthetic of these amenities is important to delivering the desired system desired by the community.

MULTI-MODAL OPTIONS


Shared Use Path (One or Both Sides of Road)


Separated Bike Lane (Both Sides of Road)

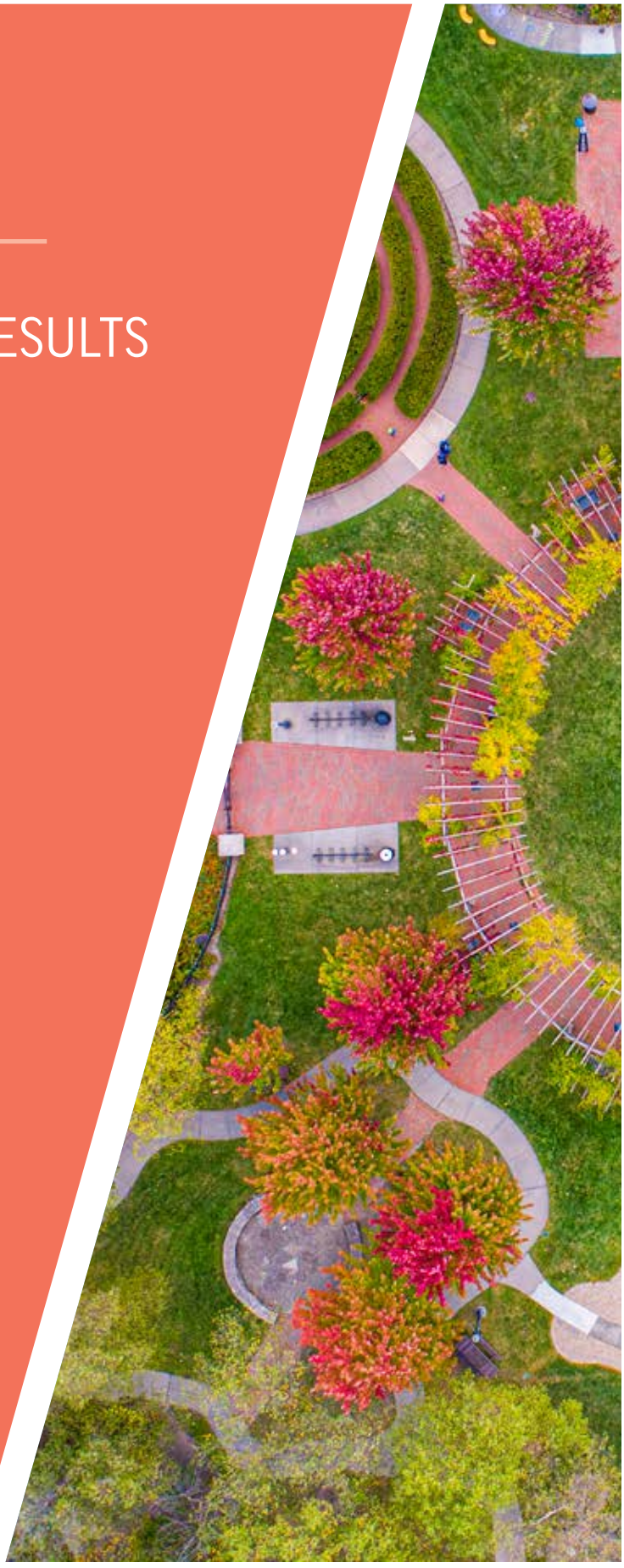

Buffered Bike Lane (Both Sides of Road)


Protected Cycle Track (One Side of Road)


Protected Bike Lane (Both Sides of Road)


Separated Cycle Track (One Side of Road)

SECTION FOUR /
PUBLIC MEETING RESULTS



PUBLIC MEETING RESULTS

In the initial meeting on July 22, 2021, the public was provided the various alternative approaches noted above for voting. Through this process, it was identified that the community overwhelmingly preferred the approach of a multi-use trail for incorporating pedestrian multi-modal connectivity throughout Basehor along roadway corridors whenever possible. As noted in the survey, improvements to 155th and 158th Streets were already underway and would take the voting into account to address how pedestrian connections should be made within these corridors. Additional corridors identified as the highest priority for integrating these measures included:

1ST PLACE VOTES
- Parallel (7)
- Leavenworth (2)
- Hidden Ridge
- Hollingsworth
- 153rd

2ND PLACE VOTES
- Parallel from 155th to 147th (3)
- 147th
- Leavenworth (2)

3RD PLACE VOTES
- Leavenworth Road (2)
- 163rd

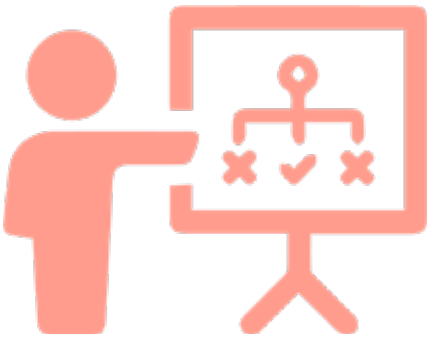
4TH PLACE VOTES
- Parallel
- State Avenue

Feedback related to amenities, primarily at trailheads reflected the community's desire for a more rustic aesthetic. Priorities for the amenities included lighting in key locations and rustic bridges where required. At trailheads and other destinations, nature playgrounds, shelters, restrooms and drinking fountains were all highly desired amenities for residents.

A follow up public open house was held on December 7, 2021 to unveil the recommendations developed for the Active Transportation Master Plan. In that meeting, the overall plan was shared with the community and recommended direction for profiles within greenways and along public thoroughfares. Additional information was shared in regards to potential future park locations and connections needed to these facilities.

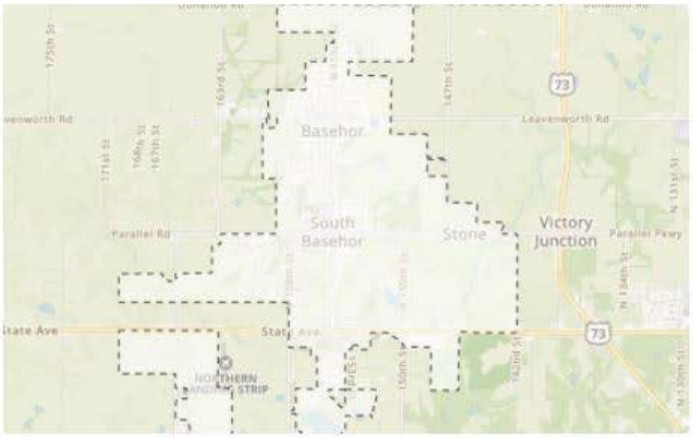
PUBLIC MEETING JULY 22, 2021
- 45 Attendees

PUBLIC MEETING DECEMBER 07, 2021
- 27 Attendees



Engagement Opportunities

Please complete each of the exercises below to share your thoughts about the future character, quality, location, and alignments of planned sidewalks, trails and bicycle facilities throughout the Basehor Community



Map Your Ideas

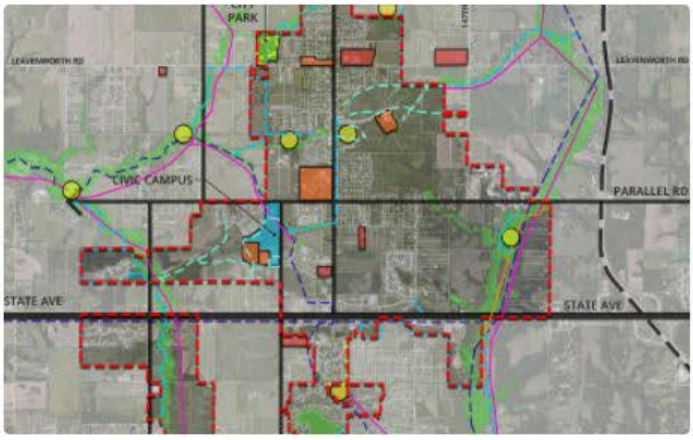
Place your ideas about transportation in Basehor on the interactive map!

Go to Map!

Visual Preference Exercise

Vote for images depicting facilities amenities for Basehor's active transportation network!

Take The Survey



Multi-Modal Preferences

Let us know your preference for the type of bicycle facilities you would like to see in Basehor!

Leave a comment

Top 5 corridors for Active Transportation

View the map and select your top 5 corridors for active transporation facilities.

Go to Map!

ONLINE SURVEY

SECTION FIVE /
RECOMMENDATIONS

APPROACH

Based on initial input related to a preferred multi-use trail approach, the planning team reviewed the preferred approaches to determine feasibility of implementing the desired approach in various greenway corridors and the preferred thoroughfares identified by the community. Additional greenway corridors were identified to make critical connections to destinations throughout the community including future proposed park locations and schools. Reviews of slopes, Right of Way acquisitions, and critical greenways and streams needing restoration were also reviewed and identified based on the proposed corridors.

Recommendations based on the final proposed improvements were further analyzed for cost of improvements based on 2022 budgetary numbers. Future budgeting should allow for additional costs for design, permitting and escalation from current construction dollars.

RECOMMENDATIONS

The proposed plan shown on page 31 includes both proposed trails along the roadway corridors as well as proposed greenway trails mostly through undeveloped/rural land. The typical proposed roadway corridor includes a 12' wide shared-use path on one side of the road and a 5' sidewalk on the other as shown on page 33. The proposed greenway trails include a 12' wide shared-use path with a buffer zone on each side as shown in page 33. The buffer provides increased visibility and clear zone width for the shared-use path. Slopes on the buffer should be 6:1 or flatter.

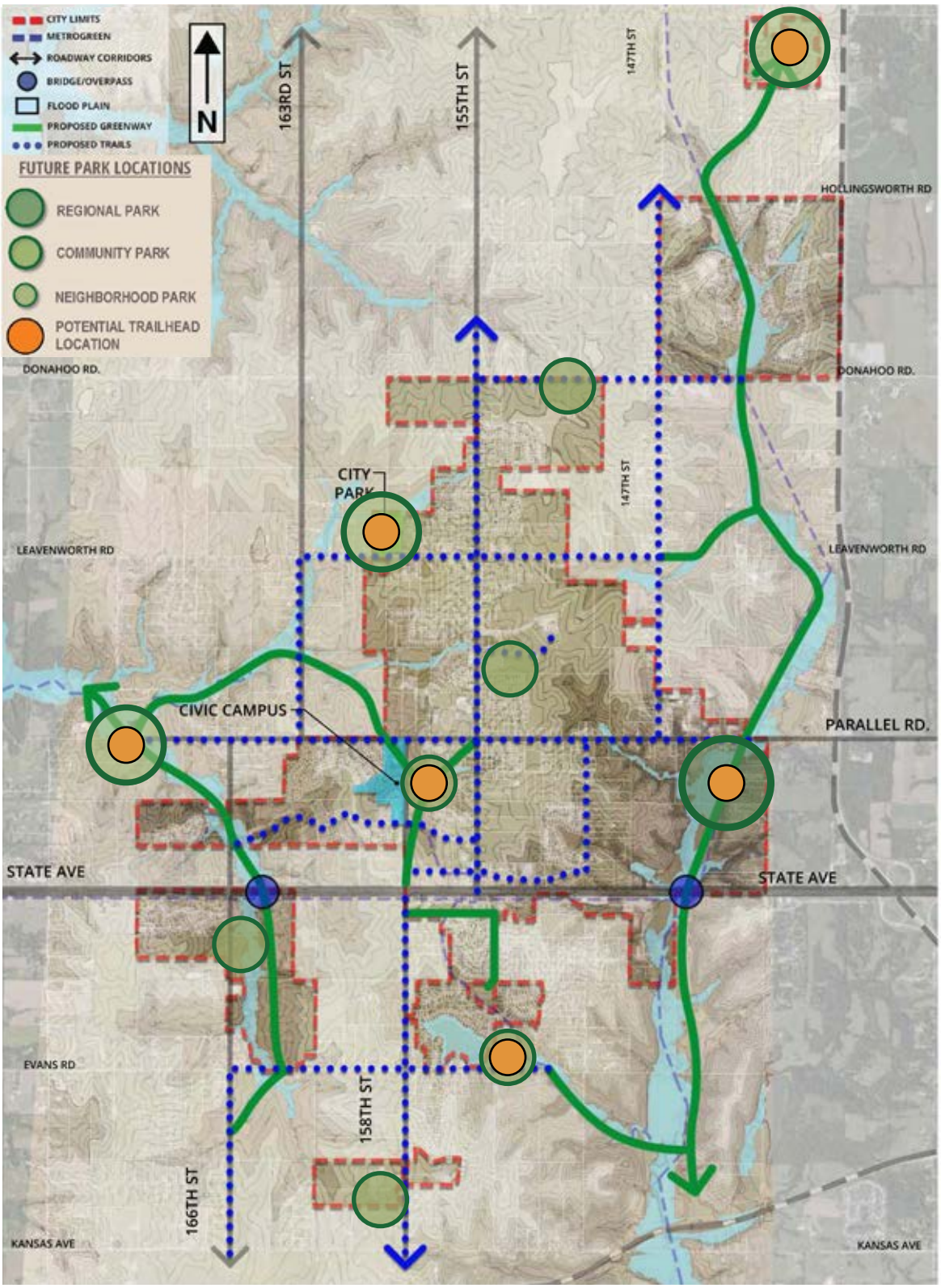
Page 39 shows information about existing right-of-way widths along each corridor as well as some engineering observations in key locations. Potential bridge/structure locations are also shown due to existing terrain and Federal Emergency Management Agency (FEMA) zones. Page 31 identifies potential trailhead locations. These locations are, in general, adjacent to future parks to promote connectivity between these facilities with the shared-use paths.

The shared-use path is intended to carry cyclists, skaters and pedestrians of all type. It should be designed in accordance with the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities 2012 – Fourth Edition. According to these design guidelines, it is desirable to provide a paved width of 10' for two-directional shared-use paths. The minimum width for a two-directional shared-use paths is 8' and may be used in low traffic situations. As such, the 12' shared-use path could be reduced to either 8' or 10' along some roadway corridors due to the existing right-of-way widths, driveways, utilities, storm sewer structures, adjacent ditch sections, and other existing constraints.

It is anticipated that corridors that have a right-of-way width of less than 60' may require right-of-way acquisition to install the proposed trail. This may vary depending on the roadway corridor and the existing terrain. Much of the proposed greenway trail system meanders through private property and right-of-way acquisition will be needed as seen on page 39. The alignment of the trail should be optimized to reduce necessary right-of-way acquisition.

It should also be noted that there are some challenges that will need to be addressed in regard to the proposed trail location as shown on page 39. While most of the terrain is relatively flat, there are steep slopes and challenging terrain near both bridge locations on State Avenue making it difficult to incorporate the typical greenway trail section at these locations. Much of the proposed greenway is located in and along the flood plain for Wolf Creek and is shown crossing the creek. Pedestrian bridges will likely need constructed at these locations as shown on page 39. In addition these areas may require coordination with FEMA as this is regulated floodway. Additional coordination and acquisition may be needed through the Falcon Lakes Golf Course. Between the lake, houses and the multiple paths and fairways, significant detailed study and coordination with the owners will be needed in this area to complete the MetroGreen trail alignment.

MASTER PLAN CONCEPT



SHARED-USE PATH

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It should be noted that there are some challenges along the Wolf Creek and Stranger Creek greenway trails that will make it difficult to incorporate the typical trail section. Steeper slopes and challenging terrain need both of the State Avenue bridge locations may require the incorporation of additional retaining walls and guardrail to mitigate for the slopes in this area. Additional pedestrian bridges may also be necessary to cross the creeks in the locations shown on page 31.

AMENITIES

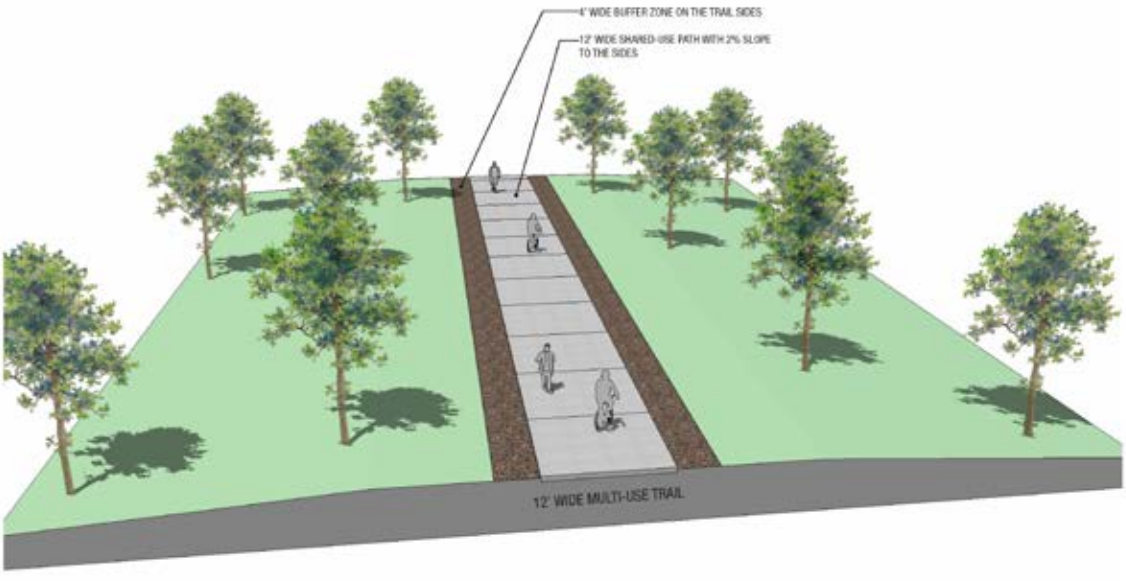
Additional amenities beyond the multi-use pathways should be considered along the various corridors and at trailheads. Basic amenities such as lighting in parking areas and throughfare pathways should be considered along with directional signage, drinking fountains and benches. Where trailheads occur, additional amenities that should be incorporated as possible include restrooms, nature based playgrounds and shelters. The incorporation of these elements create a better user experience and extend the timeframe that users are able to experience the trail system and park areas.

12' WIDE SHARED-USE PATH

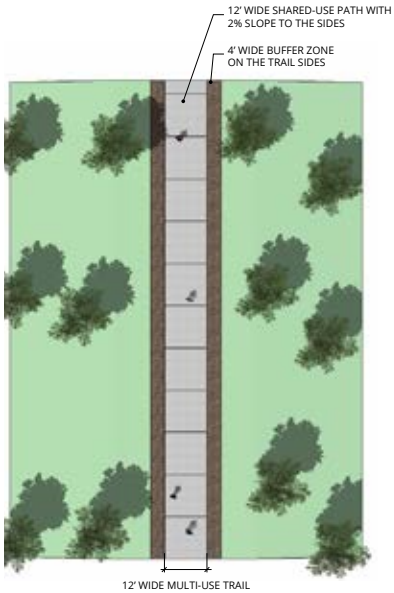
PERSPECTIVE VIEW

PLAN VIEW

12' WIDE MULTI-USE TRAIL



PERSPECTIVE VIEW



PLAN VIEW

GREENWAY AND STREAMWAY RESTORATION PLAN

Green infrastructure is an approach to storm water management that can provide cleaner air and water as well as provide significant value for the community with flood protection, diverse habitat, and beautiful green spaces. These solutions can vary from tree canopies, permeable pavements, bioswales, planter boxes, rain gardens, land conservation, detention/retention, and many others.

As mentioned previously, the Active Transportation Master Plan is being conducted simultaneously with the City's Comprehensive Plan and Parks Master Plan updates. As part of this process, reviews of level of service standards were reviewed to determine if acquisition of additional land was necessary for parks and where those facilities would be distributed throughout the City. Through this process it was determined that there are opportunities to place these facilities along major watershed areas to provide water-based amenities not currently available to residents while also serving as regional detention facilities. In doing this, the City of Basehor is able to take advantage of a reduced impact on the City's stormwater drainage infrastructure while providing residents with options for fishing, kayaking, canoeing and other water interactions.

The planned improvements traverse a variety of land use types, which may require conservation or restoration of natural areas. Page 35 identifies locations of ecological value as well as where green infrastructure may be needed according to the Natural Resource Inventory (NRI) as administered by MARC. It should also be noted that forest conservation and restoration areas are adjacent to the stream beds of Wolf Creek and Hog Creek. As such, with the proposed improvements green infrastructure solutions as well as trees and other planting should be considered.

Green infrastructure solutions should also be considered in areas not identified as the stormwater runoff outlets to the Wolf Creek and Stranger Creek watersheds. Each green infrastructure improvement made upstream can help reduce runoff downstream and reduce the likelihood of flooding. These solutions should be considered as part of each trail improvement to provide management of runoff and cleaner air and water for each watershed through storm water management.

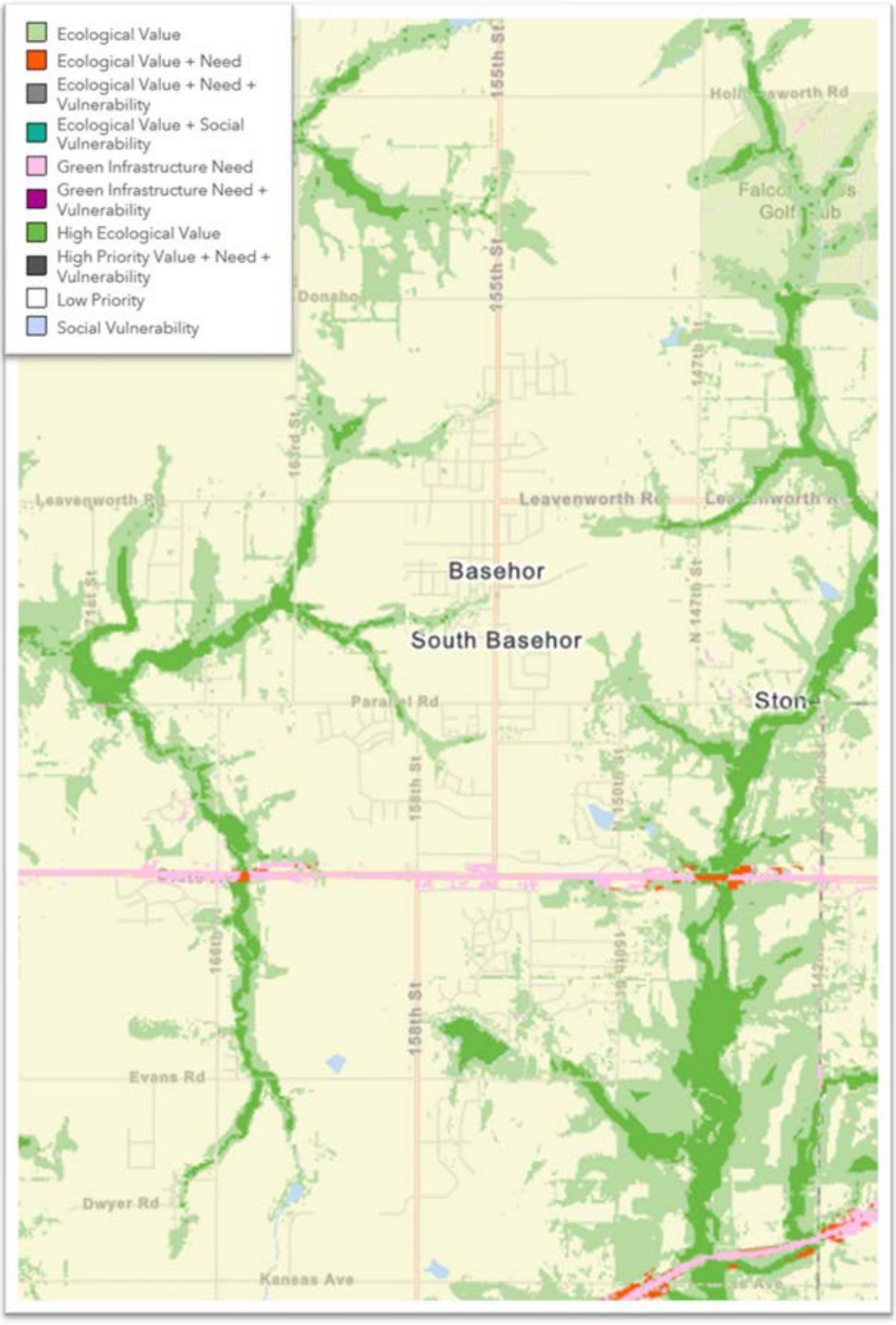
PROPOSED TRAIL ASSUMPTIONS

The proposed trail along roadway corridors assumes the addition of curb and gutter on each side of the roadway and no other roadway improvements. Due to the addition of curb, storm sewer inlets and a series of enclosed drainage pipes are anticipated to convey storm sewer runoff. Portions of driveways are anticipated to be reconstructed due to the addition of the 12' wide shared-use path. The estimate does not include any lighting improvements, or any costs associated with utility relocation or right-of-way acquisition. Likewise, costs for a center turn lane were also not included. Green infrastructure improvements are not included in the cost estimate.

GREENWAY TRAIL

The greenway trail assumes a 12' wide shared-use path through existing rural land-uses. Culvert improvements are anticipated to convey stormwater under the trail to maintain existing drainage paths, which is included in the estimate. The estimate does not include any lighting improvements, or any costs associated with utility relocation or right-of-way acquisition. Trailheads and green infrastructure improvements are not included in the cost estimate.

MARC NRI GREEN INFRASTRUCTURE PRIORITES



PHASING & IMPLEMENTATION PLAN

Phasing and costs are a critical component of seeing the vision of the master plan brought to life. Projects should be implemented in an order that complements the design process and the realities of construction. Project priorities may be based on stakeholder feedback based on preferred origins and destinations, such as the public survey done as part of this project, as well as the feasibility of sequencing.

As developments arise, this plan should be implemented to provide non-motorized improvements as part of other projects. In general, the proposed trail along the roadway corridors should be included as part of upcoming roadway projects. The 155th and 158th Street improvements, as planned in the near future, should include estimates for trail construction as well as any right-of-way acquisition on these corridors to fit the proposed typical section.

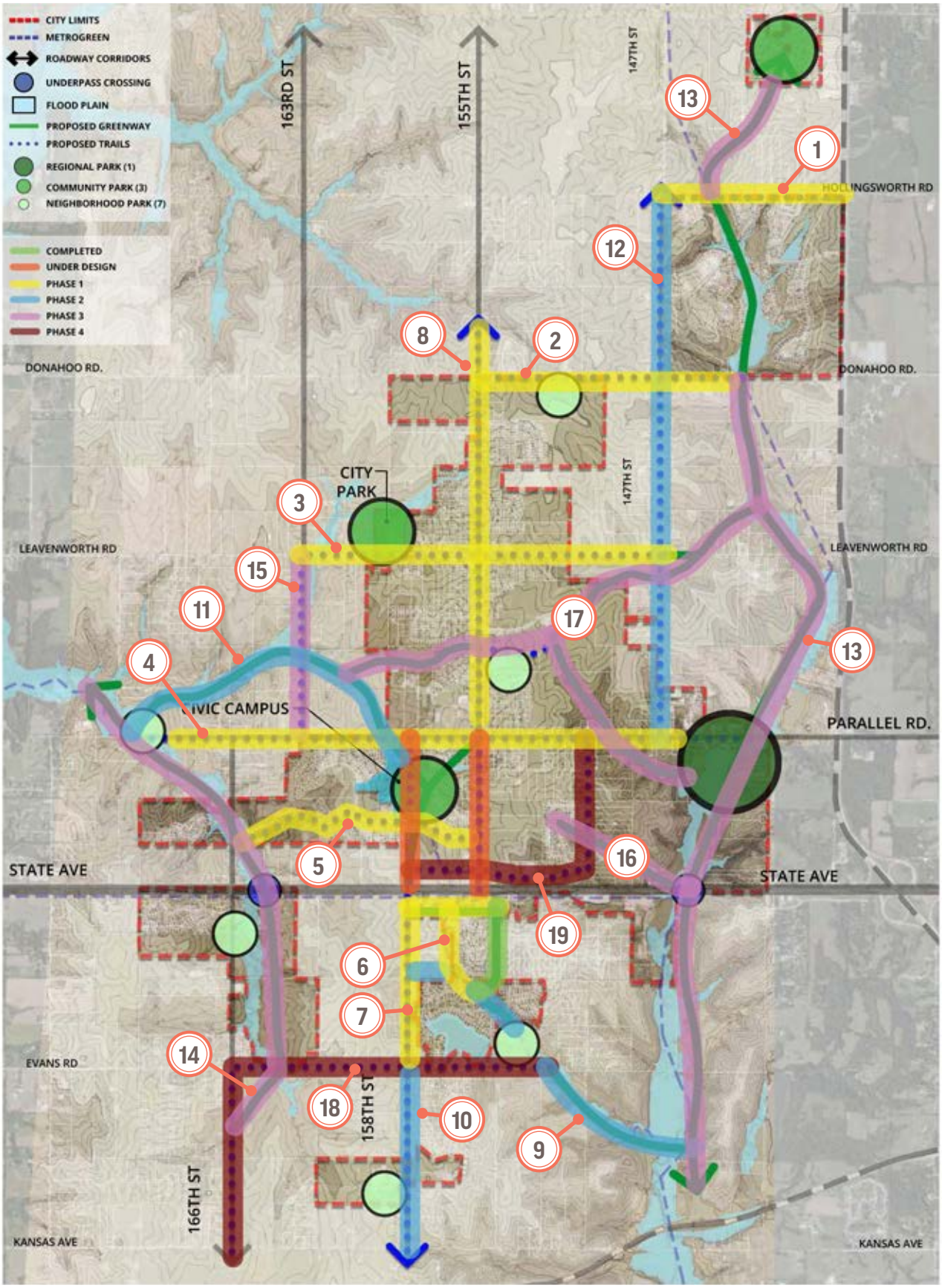
The network should be constructed outward to connect to the future greenway trail segments and should consider locations identified as future parks. The outer loop of the greenway trail could be implemented as funding allows to provide both an east-west connection as well as a north-south connection.

Green infrastructure will also need to be incorporated into future projects. As improvements are made, runoff and erosion should be minimized downstream. Best practices to mitigate impacts to natural resources should be factored into project costs.

	PHASE 1	START LOCATION	END LOCATION	LENGTH IN MILES	UNIT COST (PER MILE)	TOTAL
1 ⊛	HOLLINGSWORTH	NORTH 139TH STREET	147TH STREET	1.01	$3.3	$3,333,000
2	DONAHOO ROAD	147TH STREET	155TH STREET	1.46	$3.3	$4,818,000
3	LEAVENWORTH ROAD	147TH STREET	163RD STREET	1.96	$3.3	$6,468,000
4	PARALLEL ROAD	NORTH 147TH STREET	163RD STREET	2.63	$3.3	$8,679,000
5 ⊛	CORRALBERRY CROSSING	155TH STREET	STRANGE CREEK	1.43	$1.6	$2,288,000
6 ⊛	154TH TERRACE	STATE AVENUE	CRIMSON STREET	1.06	$3.3	$3,498,000
7	158TH (NORTH)	STATE AVENUE	EVANS ROAD	.93	$1.6	$4,950,000
8 ⊛	155TH (NORTH)	DONAHOO ROAD	PARALLEL ROAD	3.0	$3.3	$9,900,000
	PHASE 2	START LOCATION	END LOCATION	LENGTH IN MILES	UNIT COST (PER MILE)	TOTAL
9	WOLF CREEK SPUR	WOLF CREEK	EVANS ROAD	1.33	$1.6	$2,128,000
10	158TH (SOUTH)	EVANS ROAD	KANSAS AVENUE	.93	$1.6	$4,950,000
11	STRANGE CREEK II	STRANGE CREEK	NORTH 158TH STREET	2.06	$1.6	$3,296,000
12	147TH (NORTH)	HOLLINGSWORTH ROAD	PARELLEL ROAD	3.0	$3.3	$9,900,000
	PHASE 3	START LOCATION	END LOCATION	LENGTH IN MILES	UNIT COST (PER MILE)	TOTAL
13	METROGREEN (WOLF CREEK)	I-70 HOLLINGSWORTH ROAD	DONAHOO ROAD LEVEE 8	7.02	$1.6	$11,232,000
14	STRANGE CREEK	166TH STREET	PARALLEL ROAD	3.61	$1.6	$5,776,000
15	163RD	LEAVENWORTH ROAD	PARALLEL ROAD	1.0	$3.3	$3,300,000
16 ⊛	WOLF CREEK SPUR AT STATE	151ST TERRACE	STATE AVENUE	0.63	$1.6	$1,008,000
17	WOLF CREEK	WOLF CREEK	STRANGE CREEK	3.96	$1.6	$6,336,000
	PHASE 4			LENGTH IN MILES	UNIT COST (PER MILE)	TOTAL
18	166TH AND EVANS	150TH STREET	KANSAS AVENUE	1.75	$3.3	$5,775,000
19 ⊛	155TH AND WOLF CREEK PARKWAY	PARALLEL ROAD	NORTH 158TH STREET	2.9	$3.3	$9,768,000

⊛ Completely within City limits and doesn't need regional coordination

PHASING PLAN



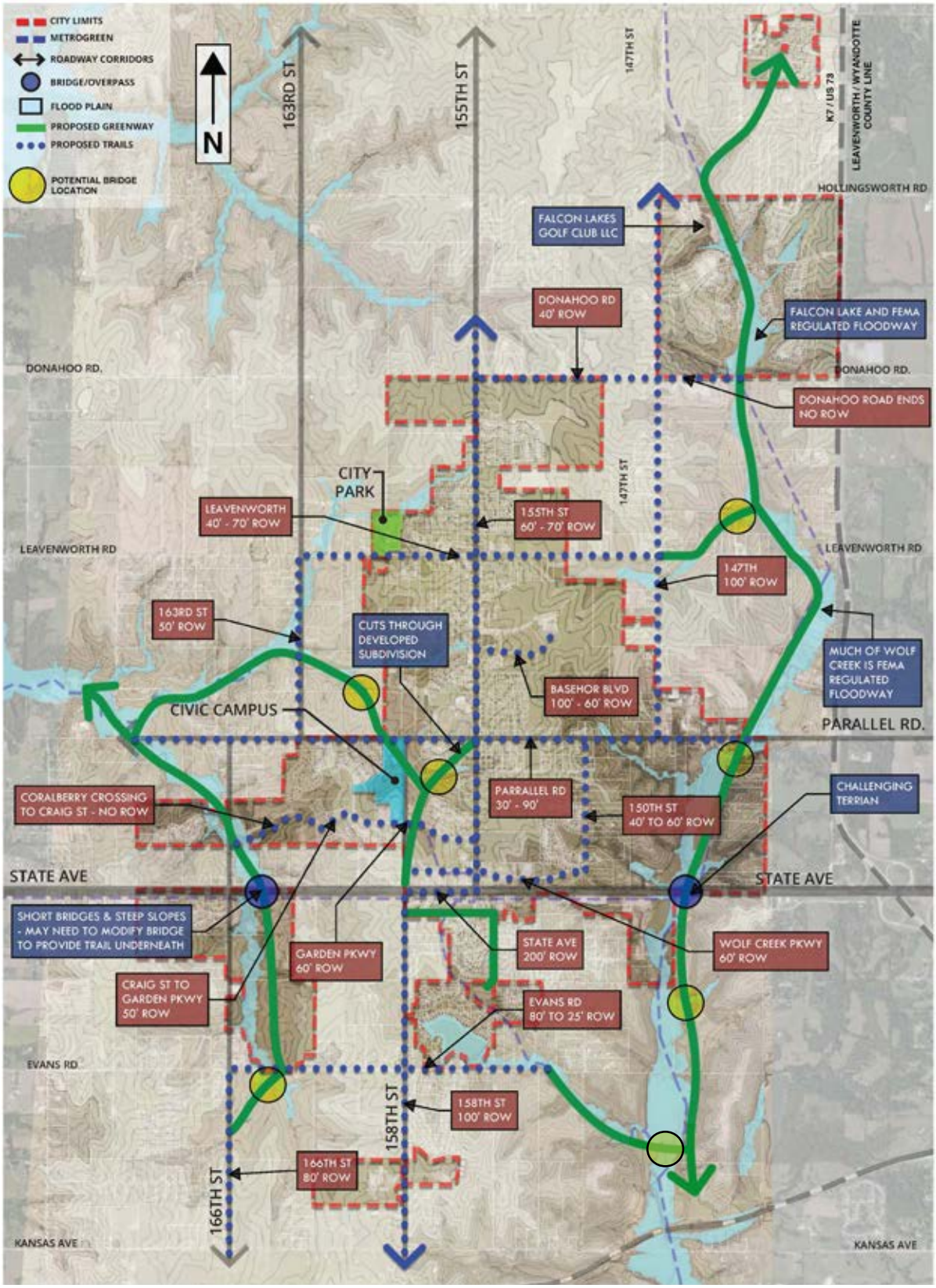
ENGINEERING COST ESTIMATES

Engineering cost estimates have been developed for each type of improvement. The assumptions made for each typical section is shown in the sections below. This estimate includes the materials, time, installation of the trail, and any bridges associated with these sections. It should be noted that these cost estimates are approximations in current 2021 dollars and does not include any factor of inflation.

- Proposed Trail- Roadway Corridors: $3.3 million/ mile ($630/foot)
- Greenway Trail: $1.6 million/ mile ($310/foot)
- Pedestrian Bridge - 7 locations: $1.8 million ($250,000/each)

Based on the estimated cost per mile and the proposed plan, the full trail system is estimated to cost $103 million.

RIGHT-OF WAY, CHALLENGES AND POTENTIAL BRIDGE LOCATIONS



CONCLUSION

The master planning process for the Basehor Active Transportation Plan project has evolved from the original vision created by the City of Basehor for identifying pedestrian pathway connectivity throughout the City of Basehor. This document represents the fluid, flexible and responsive nature of the City of Basehor and design team to create a document that addresses the needs and desires of the community. The master plan addresses the comments and concerns expressed throughout the project in a collaborative and interactive process. Opportunities were developed to create usable guidelines for greenway and street infrastructure as funding becomes available. These improvements provide much needed connectivity to the community, safe routes for residents and their children for both leisure and connections to the schools and economic development and investment by the City in the community.

EXISTING VIEW AT STATE AVENUE

PROPOSED VIEW AT STATE AVENUE

The views above showing the existing and future proposed greenway trail conditions under the State Avenue bridge along Wolf Creek providing residents a safe connection between north and south Basehor along a proposed metrogreen alignment. As noted in the proposed image above additional retaining all and bridge crossings are needed in this area due to the steep grades under State Avenue.

EXISTING VIEW CIVIC CAMPUS

PROPOSED VIEW CIVIC CAMPUS

The above views show future trails around a proposed detention facility in the Basehor Civil Campus providing residents access to an amenity (water) not found in other park facilities in the city.

EXISTING VIEW AT PARALLEL AND 171st STREET

PROPOSED VIEW AT PARALLEL AND 171st STREET

The proposed image above shows a combination multi-use trail along a roadway throughfare transitioning to a greenway trail along the Stranger Creek watershed. As the City of Basehor continues to grow there is likely a need for additional trail connections outside of the city limits to provide linkages to adjacent communities. This perspective is representative of one such connection.

SECTION SIX /
APPENDIX

GENERAL COMMENTS (IN PERSON)

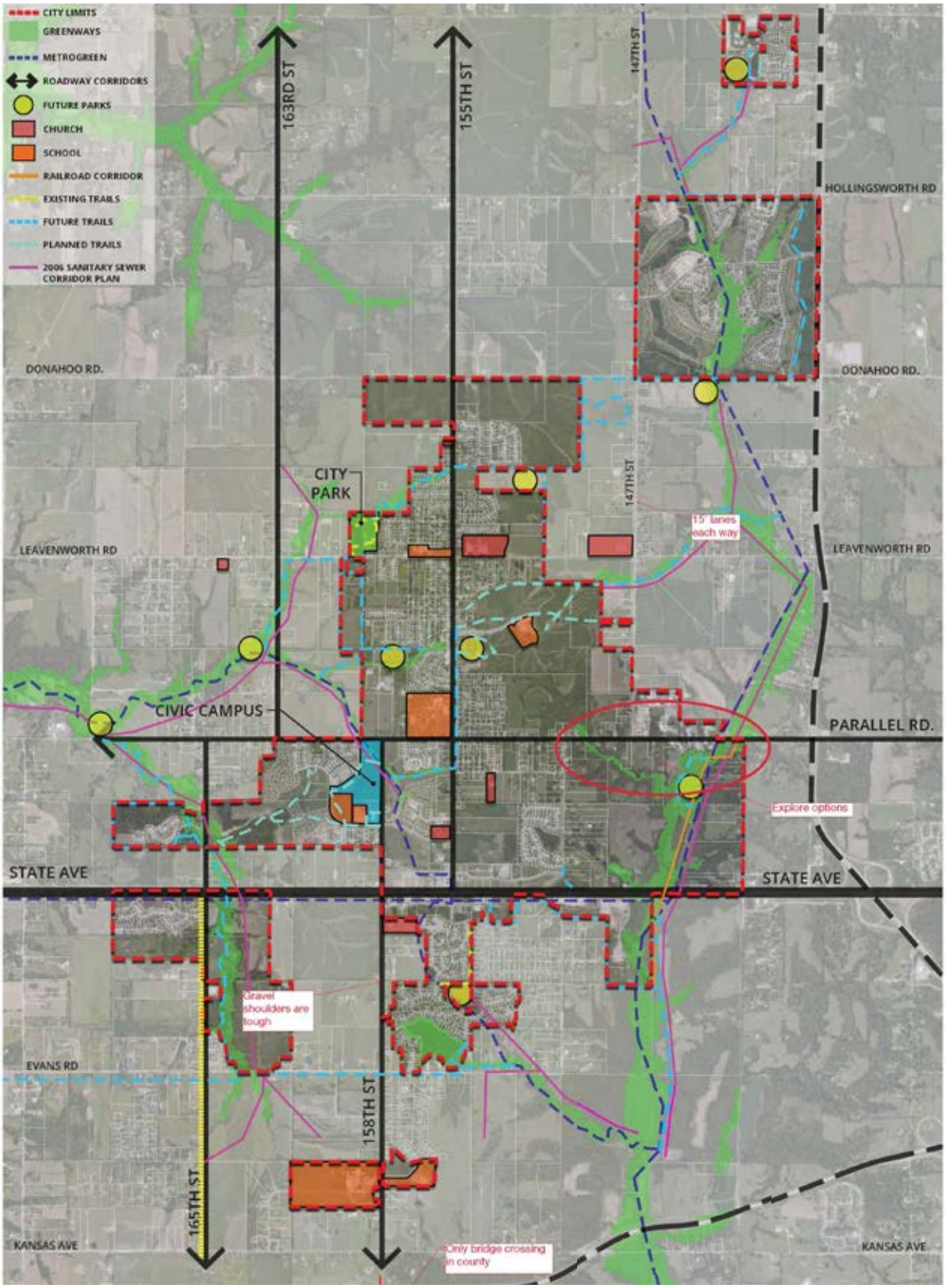
- I am looking forward for a trail so I can ride my scooter around town and seeing new people.
- Maybe add some more nature walks or dog parks near city park going northeast.
- Complete Pinehurst trail as part of Phase 1
- Connect Glenwood Ridge to Cedar Lake/ Pinehurst with trails
- Especially like how we can get from South Basehor under state by foot or cycle.
- We could use more bridges; I think shared use paths could make transportation easier.
- Will any of the trails be lit?
- We can't wait to enjoy the trails
- As of now, there is not many lighted places for safe early morning walks/ jogs. These would be such great things.
- Lights at the park especially lights around the basketball court, skate should be one of the additions and should be done.
- Hoops at the park (mentioned twice)
- Lights on the court (mentioned three times)
- No double rims on basketball courts (mentioned twice)
- A skate park would be nice because there aren't a lot nearby (mentioned four times)
- Great plans well thought out! Thank you for putting in all them time and work to make Basehor better!
- Very exciting. Hope it becomes implemented.
- Add water fountains (mentioned twice)
- Add community pools if enough people in the population of Basehor
- Annex Glenwood Estates
- How would yearly maintenance be funded when a park or trail goes though a neighborhood that was an HOA?

BOARD RESULTS

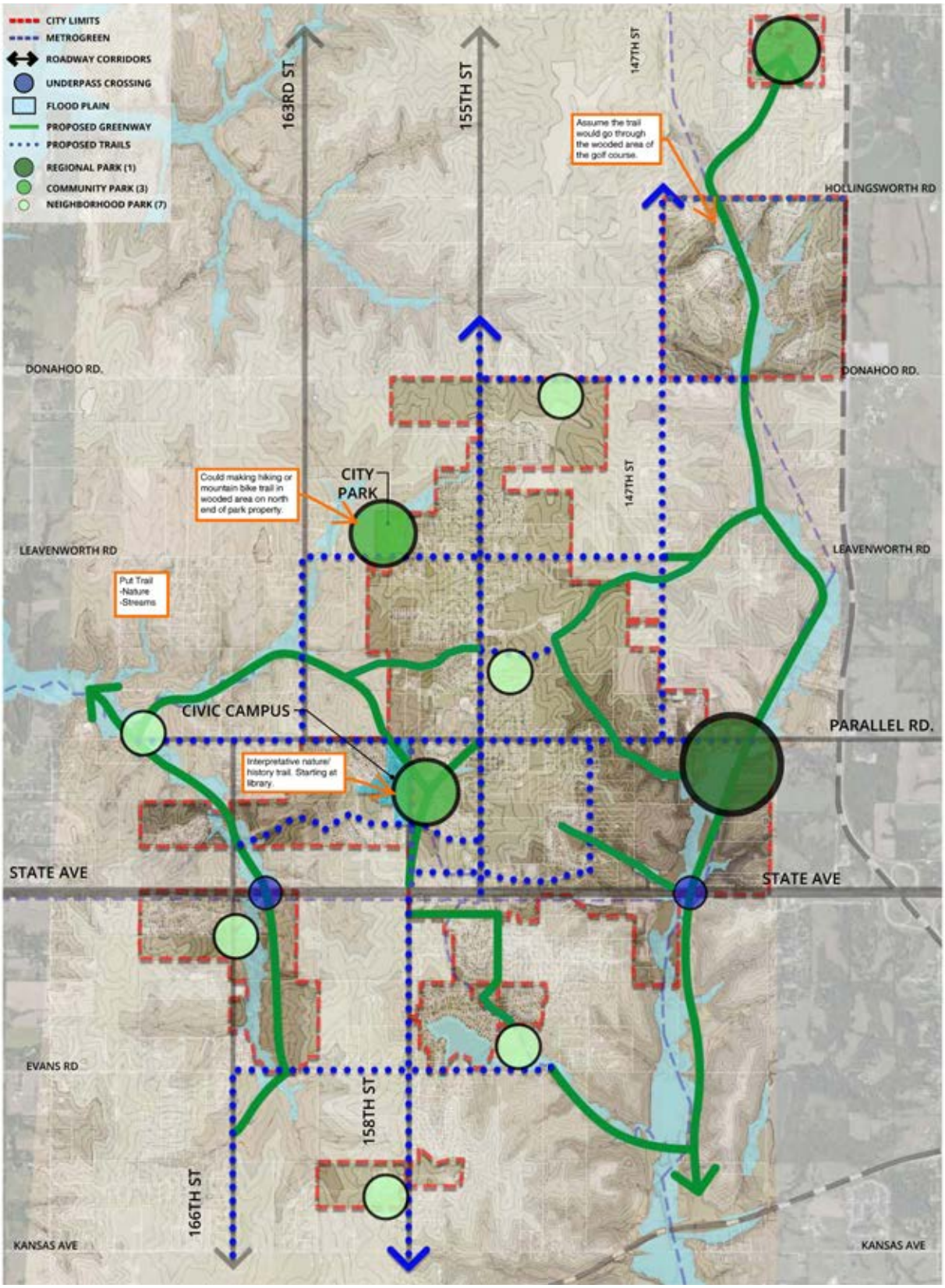
COMMENT CARD RESULTS

	1	2	3	4	5	6
 SHARED USE PATH (ONE SIDE OR BOTH SIDES OF ROAD)	9	2	3	2		
 BUFFERED BIKE LANE (BOTH SIDES OF ROAD)	5	6	2	1	1	
 PROTECTED BIKE LANE (BOTH SIDES OF ROAD)	2	3	3	1	3	1
 SEPARATED BIKE LANE (BOTH SIDES OF ROAD)	3	3	4	2		
 PROTECTED CYCLE TRACK (ONE SIDE OF ROAD)	1	4	4		2	1
 SEPARATED CYCLE TRACK (ONE SIDE OF ROAD)	3	5	4			3

MAP COMMENTS



MAP COMMENTS



CONFLUENCE

MEETING SIGN-IN SHEET

PROJECT: Basehor Active Transportation Master Plan PROJECT #: 20468

DATE / TIME: 07/22/2021 / 5:30 pm

RE: Public Input Meeting

NAME	PHONE	EMAIL
Melissa Love	254-449-6595	Mnlove789@gmail.com
Paige Adams	(409) 392-7922	alison.adams89@rocketmail.com
Linda Bush	816-835-2496	edlinbush@yahoo.com
Ed Bush	913-645-8004	"
Dick Orona	913 916-0200	dorona.richard@gmail.com
Shari D. Stuhlsatz	913-232-3165	sstuhlsatz@bacha.org
Bob Vervaecke	913 724 2389	BOB.VERVAECKE@GMAIL.COM
Angela Edwards	(913) 940 6432	medwards1216@gmail.com
Ken Weddle	513-226-7775	Kenweddle@gmail.com
Joshua Jacobs	785-250-8525	jkitzwabie@gmail.com
Kamden Tatkenhorst	913 205 0558	Kamdentat23@gmail.com

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CONFLUENCE

MEETING SIGN-IN SHEET

PROJECT: Basehor Active Transportation Master Plan PROJECT #: 20468

DATE / TIME: 07/22/2021 / 5:30 pm

RE: Public Input Meeting

NAME	PHONE	EMAIL
MIKE LINGENFELTER	913-306-0258	
Debra Snyder	913-669-9367	
J. Bryant Lee	254 723 3452	
Stacy Tatkenhorst	620-617-4399	
TOM CALLY	913 291 7534	tomcally kc @ gmail
Tina & Dan Torline	620 338-6490	tinatorline@gmail.com
Debbie Drennon	816-863-7182	
MELODY MILLER	913-724-2525	RUN2YOGA@GMAIL.COM
Diana Weaver	913-724-2828	dweaver@basehorlibrary.org
Kurt Torkelson	913-634-5052	
Bryan Blizzard	913-577-8206	bblizzard@gbatram.com
Kara Jacobs	785-250-8725	jkatjacobs@gmail.com
Kurtis Tatkenhorst	620-617-2341	kurtistatkenhorst@gmail.com

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CONFLUENCE

MEETING SIGN-IN SHEET

PROJECT: Basehor Active Transportation Master Plan PROJECT #: 20468

DATE / TIME: 07/22/2021 / 5:30 pm

RE: Public Input Meeting

NAME	PHONE	EMAIL
Kirwin Self		
Gene Myracle Jr		
Clifton Oelinger		
Ben Sims		
Jennifer Sims		
Chris Robinette		
Billie Fink		
Joan A. Sullivan		
Linda M. Pemberton		tenacious592003@yahoo
Kathy Kroh	9-961-0977	Kroh.Kathy0977@gmail.com
Doug Smith	913 653 5970	
Debra Fisher		debrafisher53@gmail.com
Darrell Fisher		
Tom Morey	785-550-9677	ThomasVMorey@Yahoo.com
Jon Collier		
Bob & Kathy Fernandez	512-460-0903	bobfernandez512@gmail.com
Blake Waters	816-803-6352	BlakeWaters@ATT.NET
Russ Battaglia		RJB565@GMAIL.COM
Jill & Mark Clifton	(816)401-2034	cliftonjill@hotmail.com
[illegible]	913 724 [illegible]	

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22

CONFLUENCE

MEETING SIGN-IN SHEET

PROJECT: Basehor Active Transportation MP PROJECT #: 20468

DATE / TIME: 12/07/2021 / 6:00 pm

RE: Public Input Meeting #2

NAME	REPRESENTING	EMAIL
Irie Schultz	Middle school	Irieschultz@gmail.com
Ophelia Schultz	middle school	ophie.schultz@gmail.com
Paige Metcalf	Middle School	paigemetcalf.71@gmail.com
Logan Auten	Middle school	Logan Auten4@gmail.com
Kian Napa	Middle School	kianarapa@usd458.org
Belle Gilkerson	middle School	IsabellajGilkerson@usd458.org
Milo Cooley	middle school	Milodcooley@usd458.org
Nicholas Auten	middle school	NicholasJAuten@usd458.org
Jeremiah Buie	middle school	JeremiahIBuie@usd458.org
Shakei Grogan	Citizen	sdr7304@gmail.com
MELODY MILLER	BASEHOR	RAD2YOGA@GMAIL.COM
Julian fleming	middle school	JulianJFleming@usd458.org
Shari Stanfil	City	ssmumpa@hotmail
LOWELL WILLIAMS		
Diana Weaver	Library	dweaver@basehorlibrary.org

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CONFLUENCE

MEETING SIGN-IN SHEET

PROJECT: Basehor Active Transportation MP PROJECT #: 20468

DATE / TIME: 12/07/2021 / 6:00 pm

RE: Public Input Meeting #2

NAME	REPRESENTING	EMAIL
Richard Madrigal	BLMS	Richardamadrigal@usd458.org
Ty Darting	BLMS	Tyldarting@gmail.com
Caleb Jasper	BLMS	
Ben Ketchum	BLMS	Benjaminmketcham@usd458.org
Colton Beck	BLMS	
Laney Smith	BLMS	LaneyRSmith@usd458.org
Ben Smith		Bjsmith1973@yahoo.com
Monica Cooley	BLMS	cooley7@sunflower.com
GAR AUTEN	BLMS	garauten@gmail.com
Dirk Olberson	City	
Bob Vervaecke	Basehor Velo	BOB.VERVAECKE@Gmail.com
Gene Saunders	City	Fredricksaunders7@gmail.com

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MAP INPUT RESULTS (ONLINE)

Bike Path Ideas

- "There is a bike club that rides between northern Basehor and all the way down to K32 so if we can keep them separated out between the cars, tractors and crazy truck drivers that are on both 155th street and 158th street that would be ideal since there are several blind hills that put their lives in danger."
- "Need simple bike lanes on this stretch as a priority. Very common connector between 147th and amp; 150th for cyclists. See many close calls here as cyclists are turning left. Strava shoes 3800+ riders on this segment."
- "Keep left turn lanes at Garden, Wolf Creek, Shopping Center & 155th. Re stripe rest of roadway to move traffic lanes to center, doing away with left turn lanes to nowhere. Free bike lanes..."
- "Not sure what the fascination is with shoulders. Cars don't break down like they used to. Smooth pave/repair the shoulders and re stripe as bike lanes. You WILL need to sweep them more than once a year though. (A shoulder is NOT a bike lane for those who think bikes should already be there. These are a mess with debris , rock, and glass and unsafe to ride) Most bikes on 158th are going south to either Loring or Golden. It's not a short trip / ride for recreation pathway."
- "Typical Basehor bike group weeknight route. Quieter roads, still narrow, still a few hills, but normal distance. Always ridden 1-2+ times per week, 12 - 20 people typically."
- "Most used eastbound bike route is Donahoo - best road to ride into Wyandotte county. Fairmount is busy, Hollingsworth is very narrow, Leavenworth road is busy and has terrible pavement issues along with a couple good hills west of K7. Parallel is 4-lane - OK EARLY AM, but not when it's busy. Nobody rides State."
- "147th was SO CLOSE to being done right... But 99.99% of people have NO idea of the significance of the 15' lane width and Share the Road signs. Odd that LVCO doesn't mark lane width on the 98% of roads that are too narrow for sharing. Instead of a 15' lane, should be striped as a standard lane and bike lanes. Would have cost nothing for bike lanes on a heavily ridden road. (4300+ Strava trips)"

Sidewalk Ideas

- "There needs to be a sidewalk on 15th between Craig and Wolf Creek. So it's all connected. Also a sidewalk from 150th parallel."

Trail Ideas

- "Has the railroad right of way gone back to the adjacent property owners? Makes this concept a whole lot more difficult."

Pedestrian Crossing Enhancement

- "There should be crosswalk signs for pedestrians crossing 158th. There are stripes on the road indicating to pedestrians that they may cross but nothing for vehicles to know that an intersection with crosswalks is approaching. Or, install something else to allow for safe crossing. It's a mess of an intersection with many drivers not understanding who has the right of way. With increased vehicle and pedestrian traffic it's only a matter of time until something awful happens here."

General Comment

- "Intersection needs either a stoplight or all-way stop sign. There is a blind spot when exiting Falcon Lakes Drive onto 147th, especially in vehicles that sit lower to the ground. Plus, vehicles regularly exceed the speed limit on this road, adding to the danger."
- "North of this point, the sidewalks are terrible. Many kids and adults walk them as they lead to BES and multiple subdivisions. Repair the existing and continue the sidewalk to Myer Drive."
- "This facility needs to be updated. Run power to the fields so we have the option for machine pitch. As you are walking to field #7 their is a sewage leak coming from the hill. Fix the grade of the lower fields. The sidewalks leading to the lower fields are covered in mud after a rain."
- "A community pool"

- "Saw the pool comment and wondered if the original commenter could explain why the various pools and water parks nearby are not sufficient for the community. We just did a high school upgrade with no requirement for a pool."
- "Evans Road is the only westbound route available to cyclists going any distance. Evans is narrow, hilly, and faster than it should be. Other choices would be going North to Fairmount Rd (horrible to ride) or Gilman (9 miles N), or South to Golden or into Desoto. I have an easier time envisioning an improved Evans than a 24-40 bicycle corridor."
- "The most urgent matter facing Basehor is getting the 65 mph speed limit on State Ave. reduced to 45 or 50 mph. This will create safer intersections on State at 150th St., 155th St. and 158th St. It will also make it easier for people to stop at businesses along State.
- "Lower speed limit. Through street in a subdivision with elementary school. Speed Limit should be under 25"
- "If students are expected to walk to school, where is the comprehensive city plan for sidewalks from all homes to all schools; example Hidden Ridge Estates to High School or Elementary Schools. The families have to pay for busing because of the mileage rule, but the city has no sidewalks to the schools. If the city cannot show a logical route of a city sidewalk path, then do not charge for busing"
- "We need to address the dangerous issue of kids walking to and from BES/Iron Creek. I live on this road and have kids at BES and it is a mad house when school lets out and parents/kids are walking home with no sidewalk."
- "This is a dangerous intersection. Primarily to blame are uneducated drivers who don't understand right-of-way. But, red light running is common too and creates serious danger for those crossing 24/40."

Park Amenity Idea

- "We need cross walks for 24/40 highway at 155th, 158th, and 166th. KDOT also should consider lowering the speed limit through Basehor similar to the 35 MPH through Tongonoxi"
- "A Scout House for Boy Scout and Girl Scout troops to reserve and use for meetings and small troop events. This could be a small building with two reservable rooms and possibly storage for troop equipment and supplies."
- " The Scout House seems like a good idea if you could make the project a scout project for there various badges. Fund raising through final landscaping would give all scouting organization pride in ownership."
- "Adding a pool would be great. In town so kids could ride their bikes vs having to be driven miles to the closest pool. Would allow for job opportunities for high school and college aged kids as well. A community rec center would be amazing and provide the same benefits"

Top 5 corridors for Active Transportation (ONLINE)

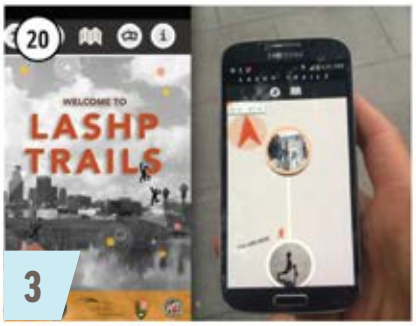
Based on your knowledge of Basehor, please list your top 5 streets / corridors needing active transportation (other than 155th & 158th which are already planned for improvements), with 1 being your most preferred.

1. Parallel - 147th to 158th. Desperately need simple bike lanes from 147th to 150th.
2. Donahoo - best connector to the East
3. Evans - best connector to the west

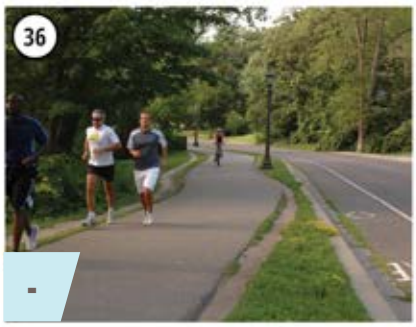
1. Parallel
2. 166th
3. 163rd
4. Leavenworth
5. State Avenue

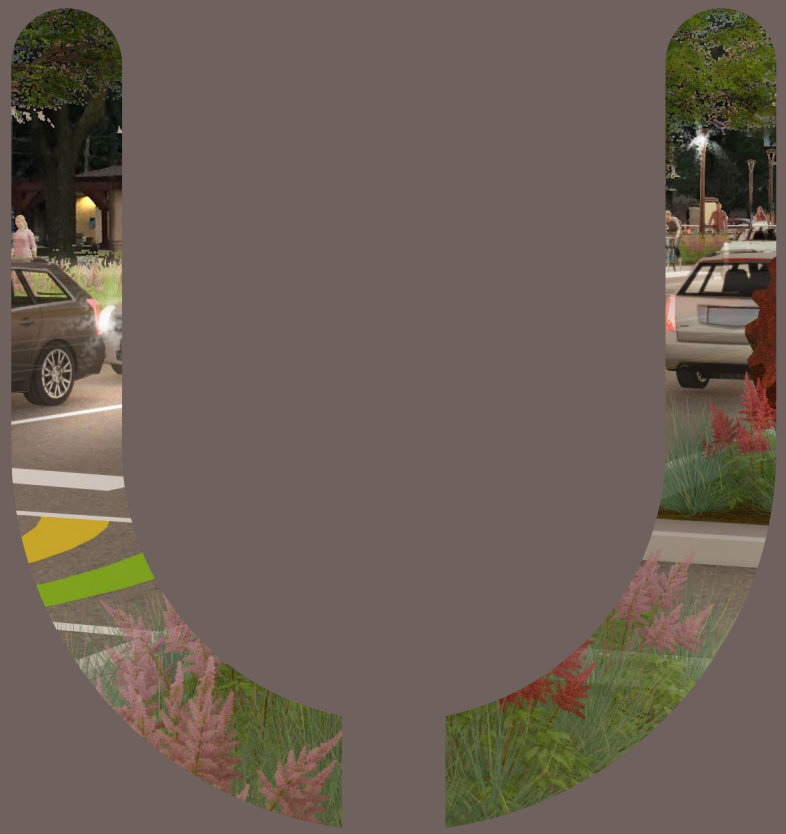
VISUAL PREFERENCE EXERCISE (ONLINE)

VISUAL PREFERENCE EXERCISE (ONLINE)



VISUAL PREFERENCE EXERCISE (ONLINE)



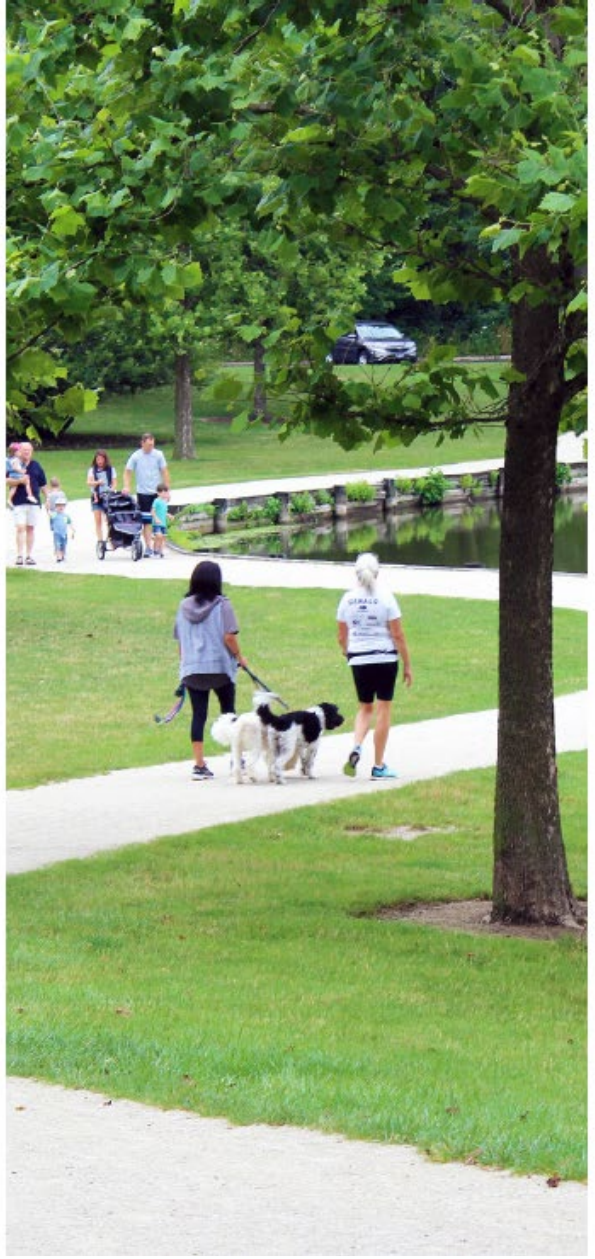


Basehor Active Transportation MP

April 29, 2021

AGENDA

- Process / Timeline
- Data Request
- Steering Committee
- Next Steps

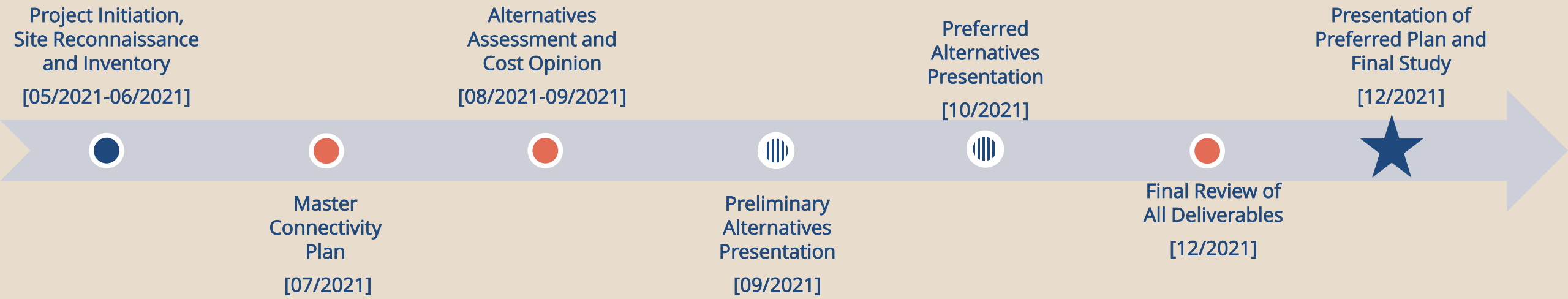


Communication

- All communication to be sent to Hank Moyers and copied to Chris Cline
- Verify all owner correspondence to go to Leslee and copy Amanda

PROCESS / TIMELINE

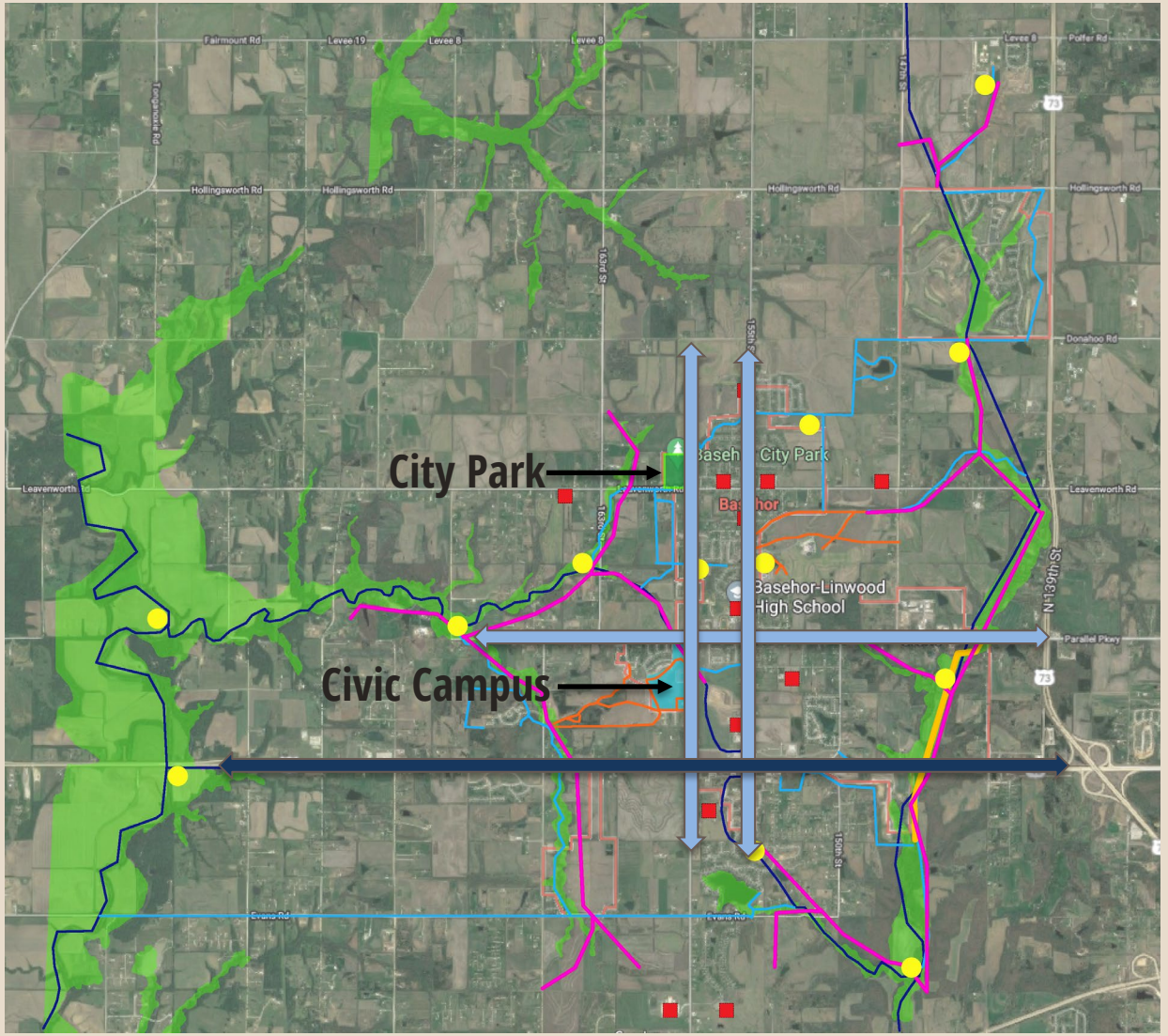
- TASK 1 – Community Outreach + Engagement
- TASK 2 – Data Collection + Analysis
- TASK 3 – Trail Design Alternatives



DATA REQUEST

GIS Base Mapping:

- Buildings
- Pavement
- Utilities – Sanitary/ Water /Electric
- Railroad Corridors
- Future Trails
- Vegetation
- Topography
- Parcels + City Limits



STAKEHOLDERS

- Parks and Recreation Staff
- Public Works
- City Council
- Parks and Rec. Board
- Stakeholders
- Public/Private Partners
- Community Members

* We anticipate 8-12 members

DISCUSSION

Next Steps:

Stakeholder / Public Engagement

CONFLUENCE

BASEHOR ACTIVE TRANSPORTATION MASTER PLAN

BASEHOR, KANSAS

June 9, 2021







CONFLUENCE

IN ASSOCIATION WITH

TREKK DESIGN GROUP, LLC.

AGENDA

Welcome + Introduction

Process + Project Overview

Connections Identification

Establish Goals + Priorities

Preference Survey

Next Steps + Questions

OUR TEAM

Confluence

Project Lead, Community Planning, Trail Network, Community Outreach

TREKK

Civil Engineering, Stormwater Review, Utility Coordination

BASEHOR KANSAS and still growing 1889

MARC Mid-America Regional Council

CONFLUENCE

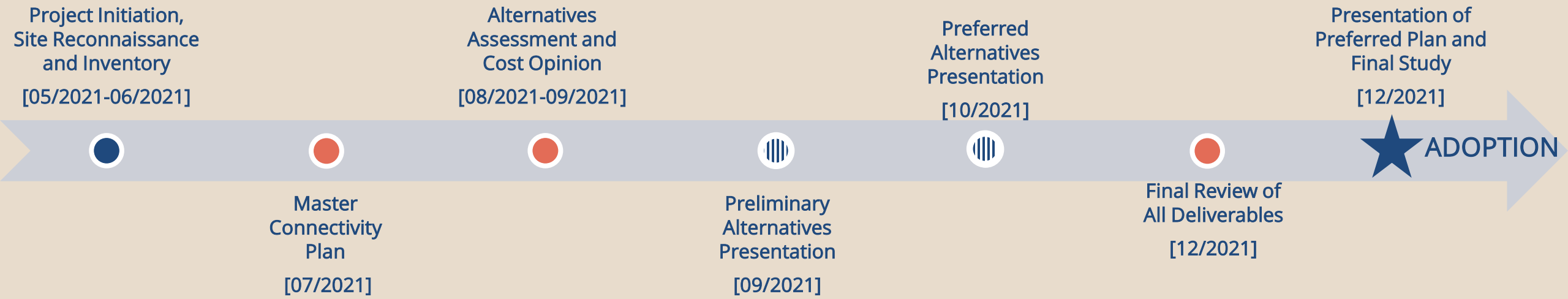
Wm. Christopher Cline, ASLA, PLA
Principal-in-Charge
Hank Moyers, ASLA, PLA
Project Manager
Michael Schmidt, ASLA, PLA
Landscape Architect

TREKK DESIGN GROUP, LLC

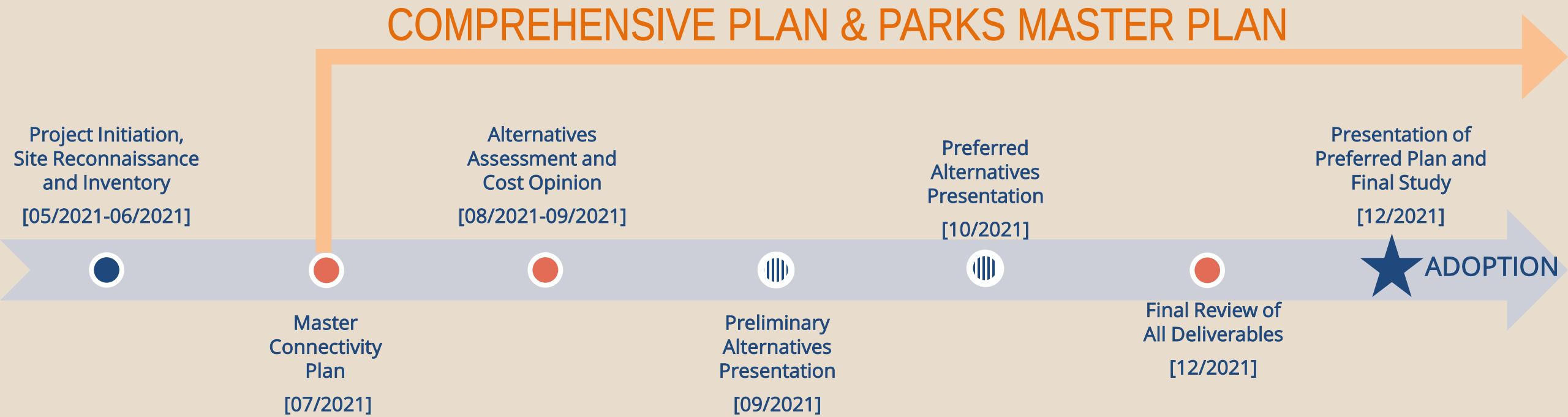
Tawn Nugent, PE, DBIA
Civil Engineer
Josh Tinkey, PE, ENV SP
Stormwater Engineer

PROJECT TIMELINE

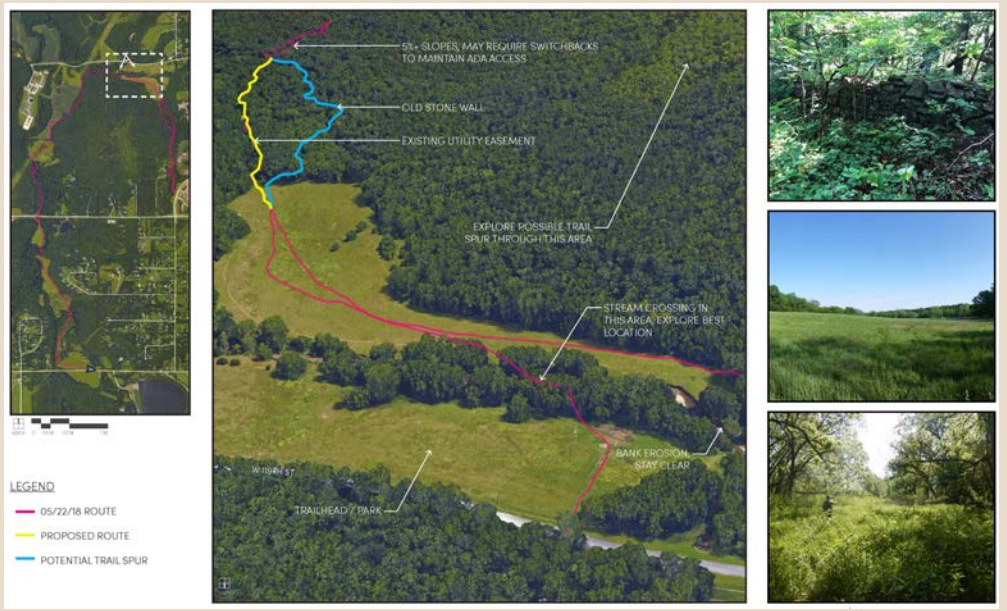
- TASK 1 – Community Outreach + Engagement
- TASK 2 – Data Collection + Analysis
- TASK 3 – Trail Design Alternatives



PROJECT TIMELINE



ROLES + RESPONSIBILITIES



STEERING COMMITTEE

- Provide historical context for consultant team
- Assist in development of survey instruments (formal and informal)
- Provide sounding board for consultant/staff team to test questions and recommendations
  - Plan on reading/reviewing the full document and providing comments
- Assist in soliciting public participation throughout the process
- Serve as liaisons to your respective Board or Commission to report progress
- Assist in developing final recommendations for Council consideration and adoption

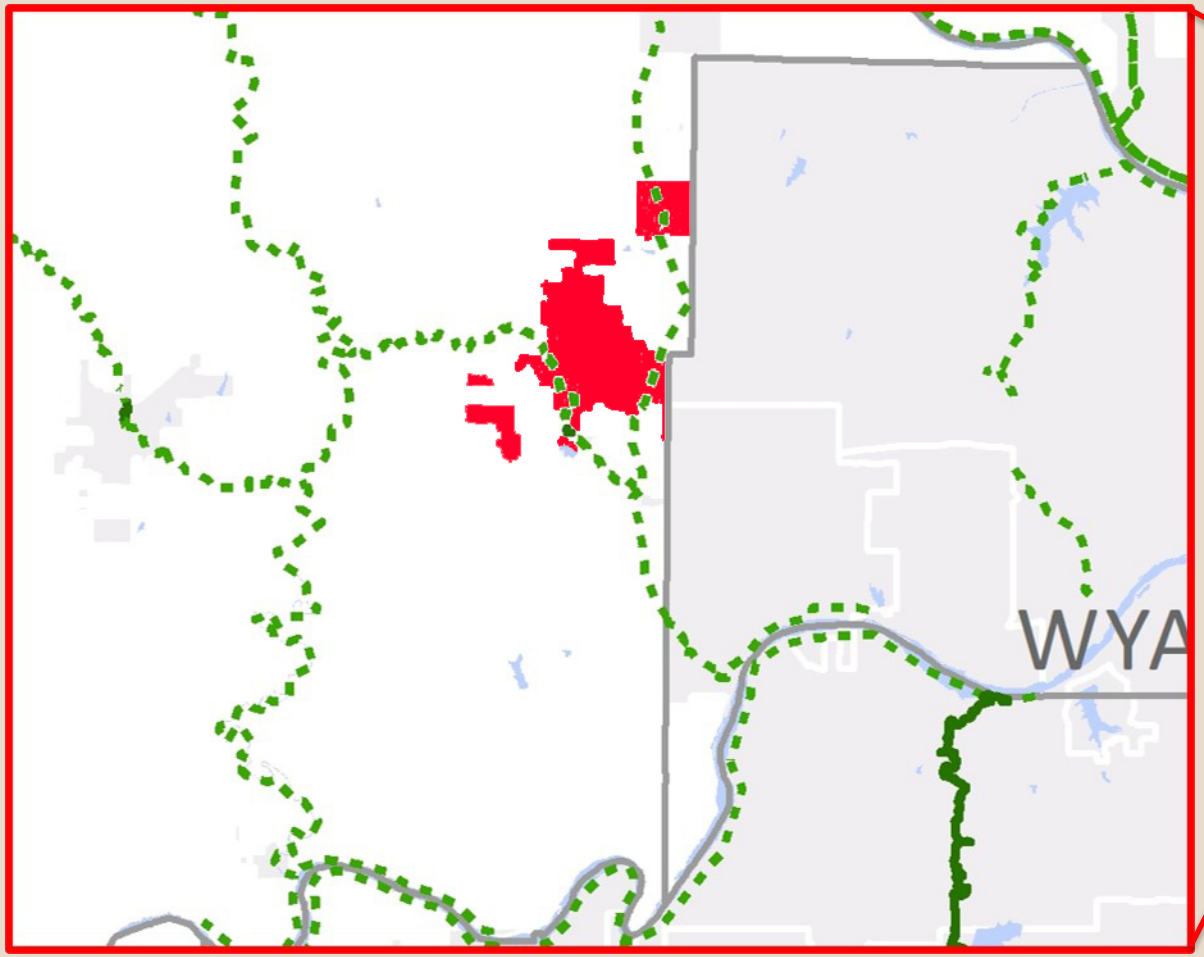
WHY PLAN?

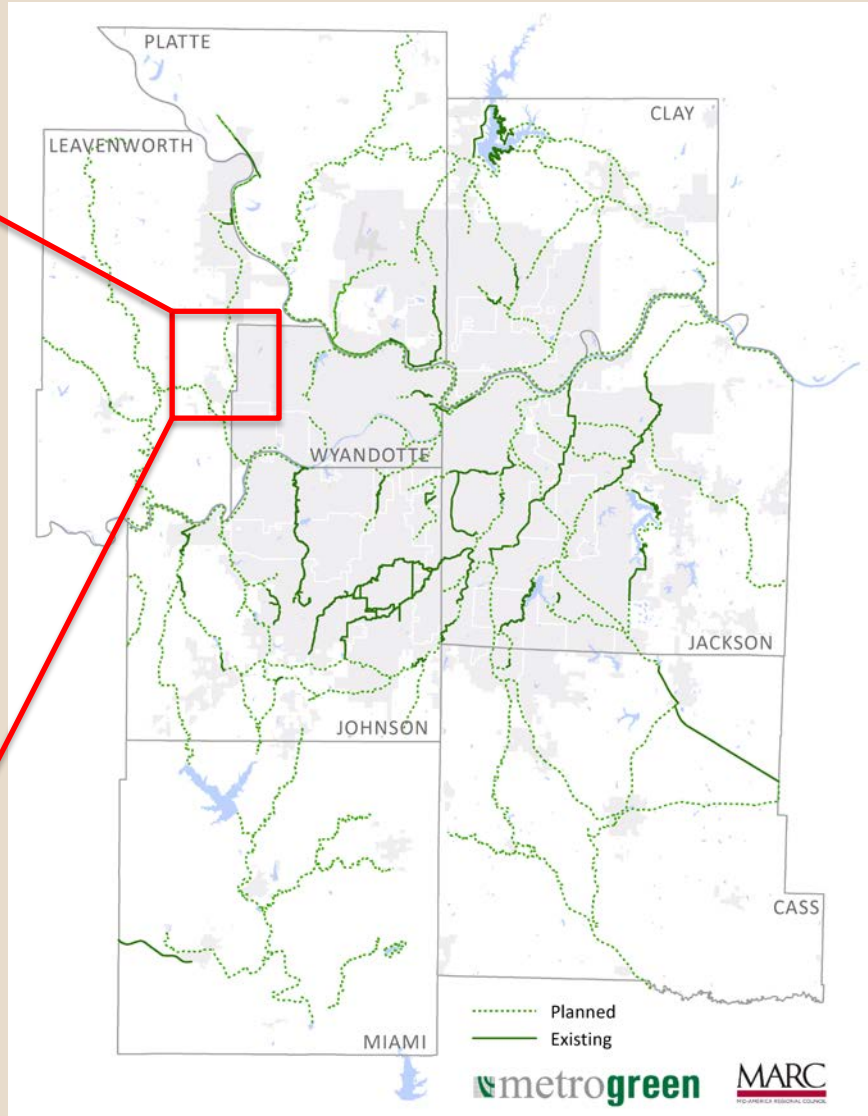
- Define Community Vision
- Plan to meet those needs.
    - Establish the road map of how to get there
    - Ensure the implementation meets the vision
- Strategic/Prioritized Funding and Implementation
    - Operations & infrastructure
    - Who is responsible for moving the plan forward?

PROJECT UNDERSTANDING

- Strengthen Community Connectivity - Master Planned Network
- Explore MetroGreen Corridors
- Existing 155th Street / 158th Street / Parallel Corridor Opportunities
- Streamway And Greenway Preservation + Trail Opportunities
- 2019 Direction Finder - Resident Priority

PROJECT UNDERSTANDING





TREKK DESIGN GROUP, LLC CONFLUENCE

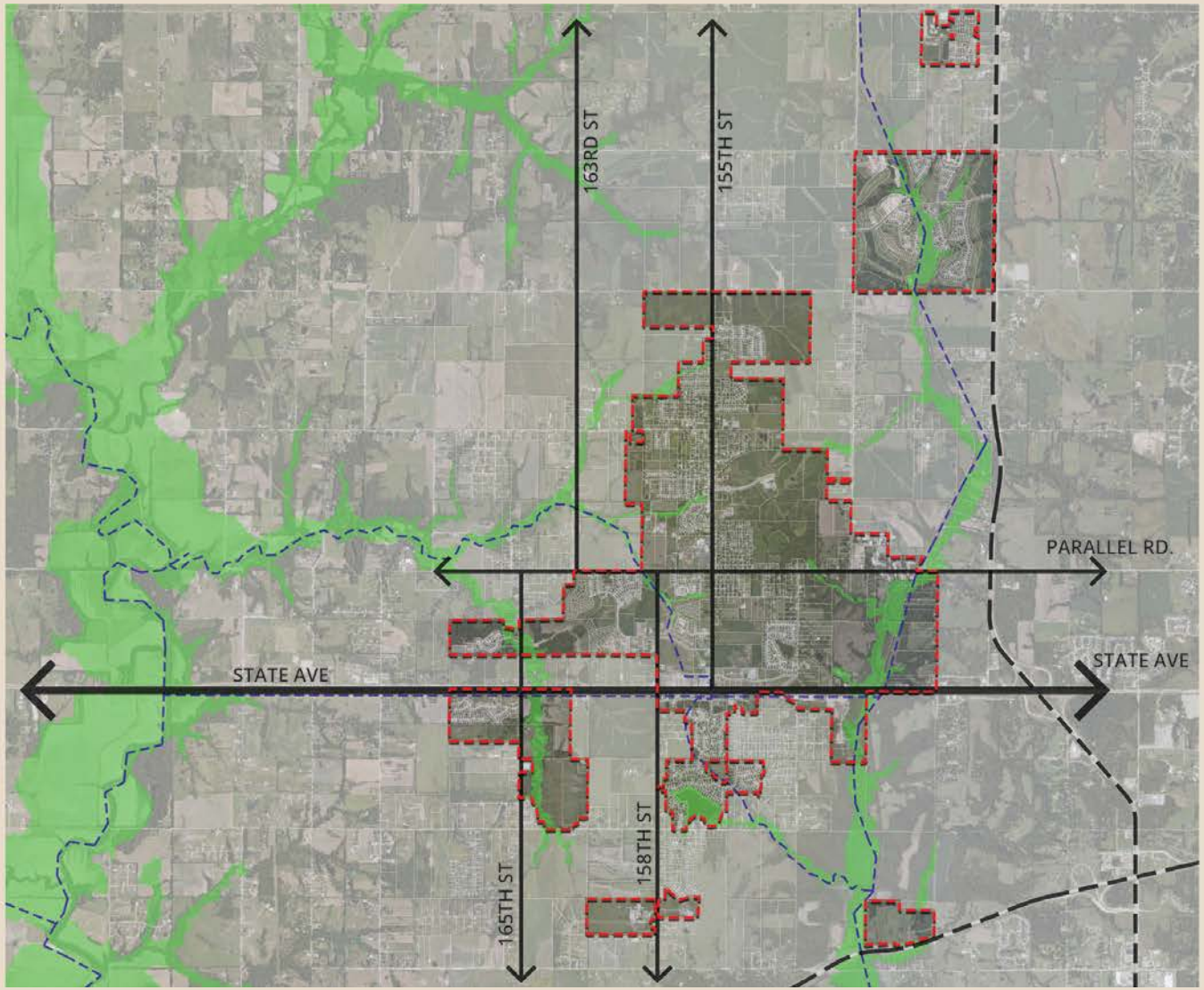
PROJECT UNDERSTANDING

CITY LIMITS

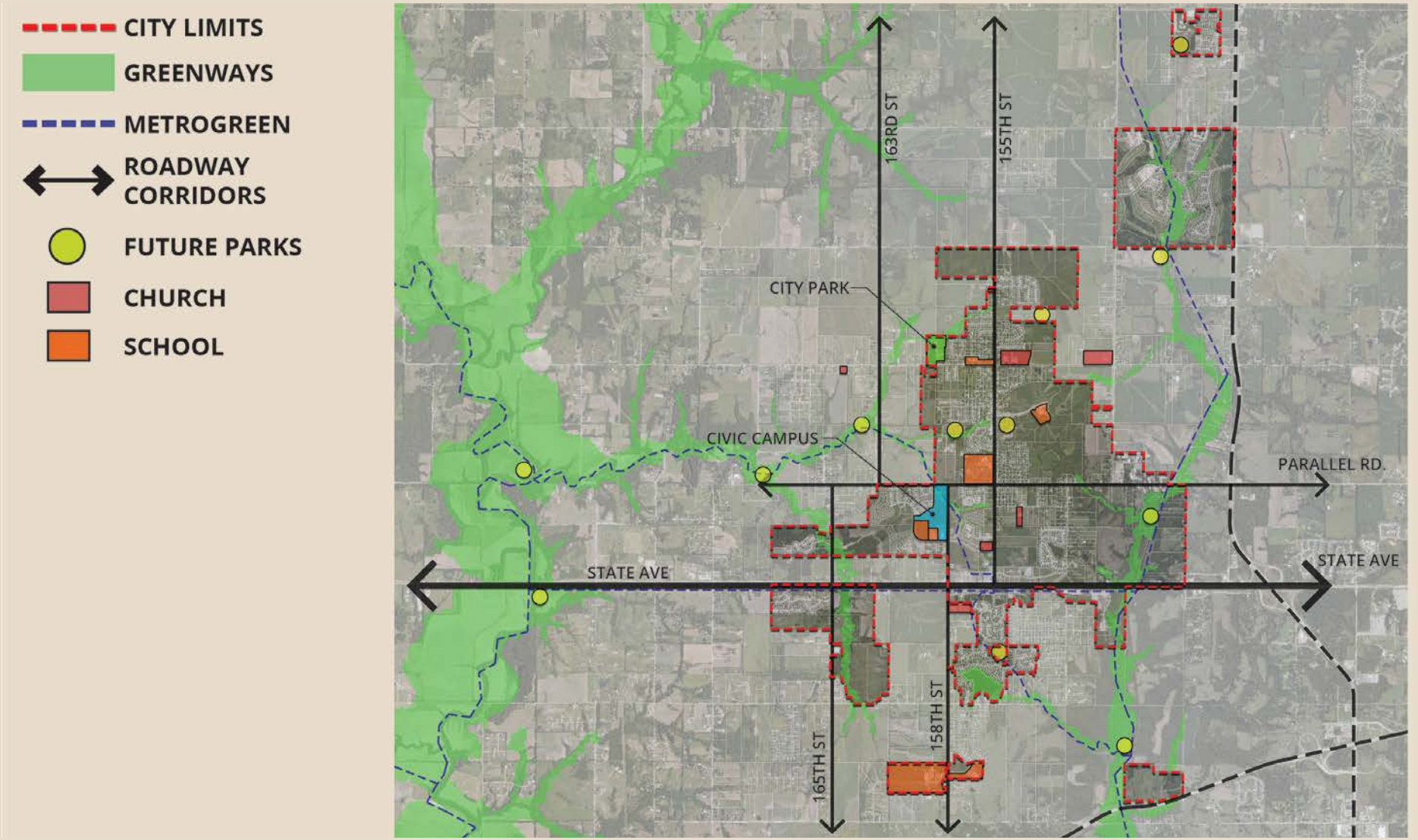
GREENWAYS

METROGREEN

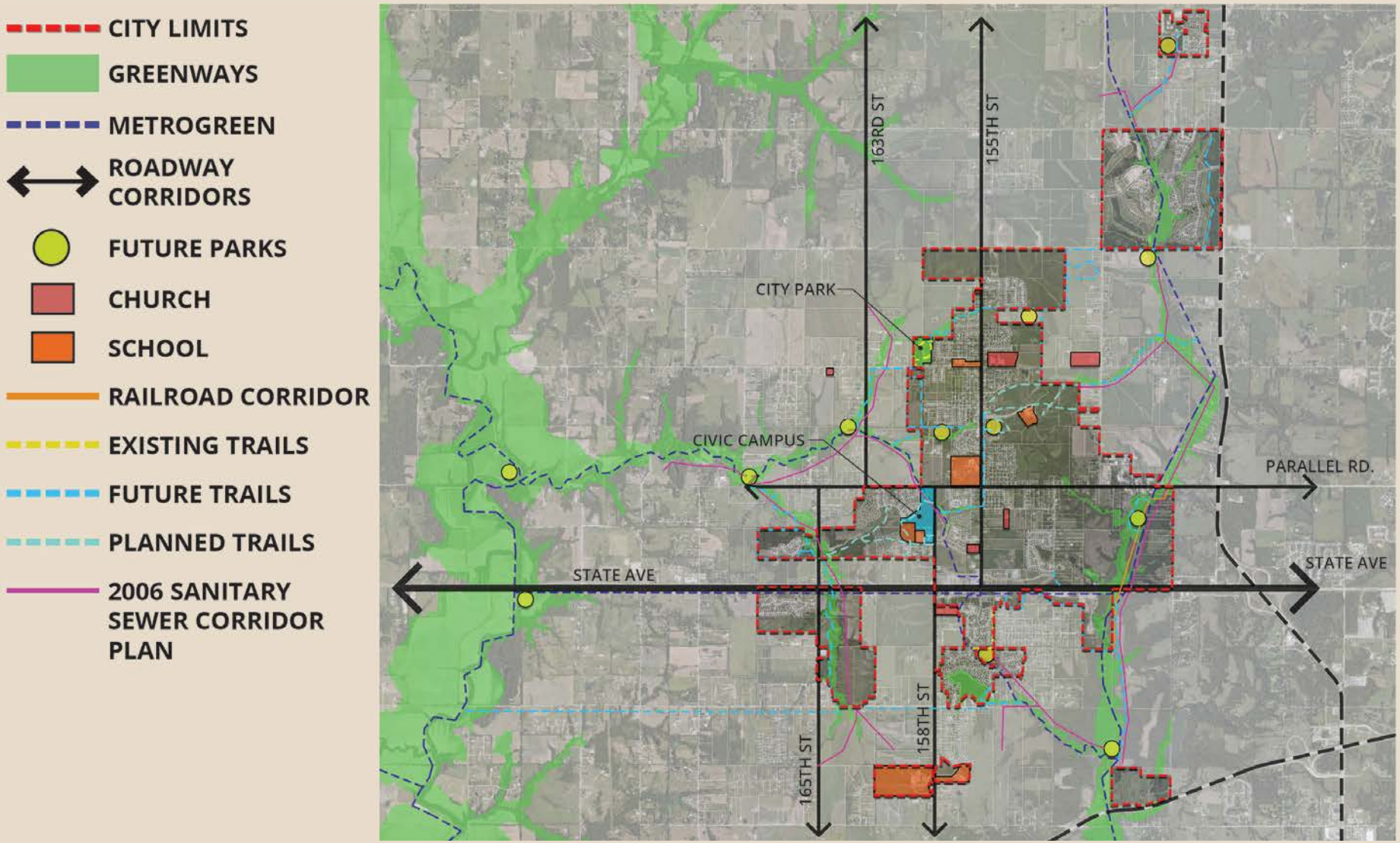
ROADWAY CORRIDORS



PROJECT UNDERSTANDING



PROJECT UNDERSTANDING

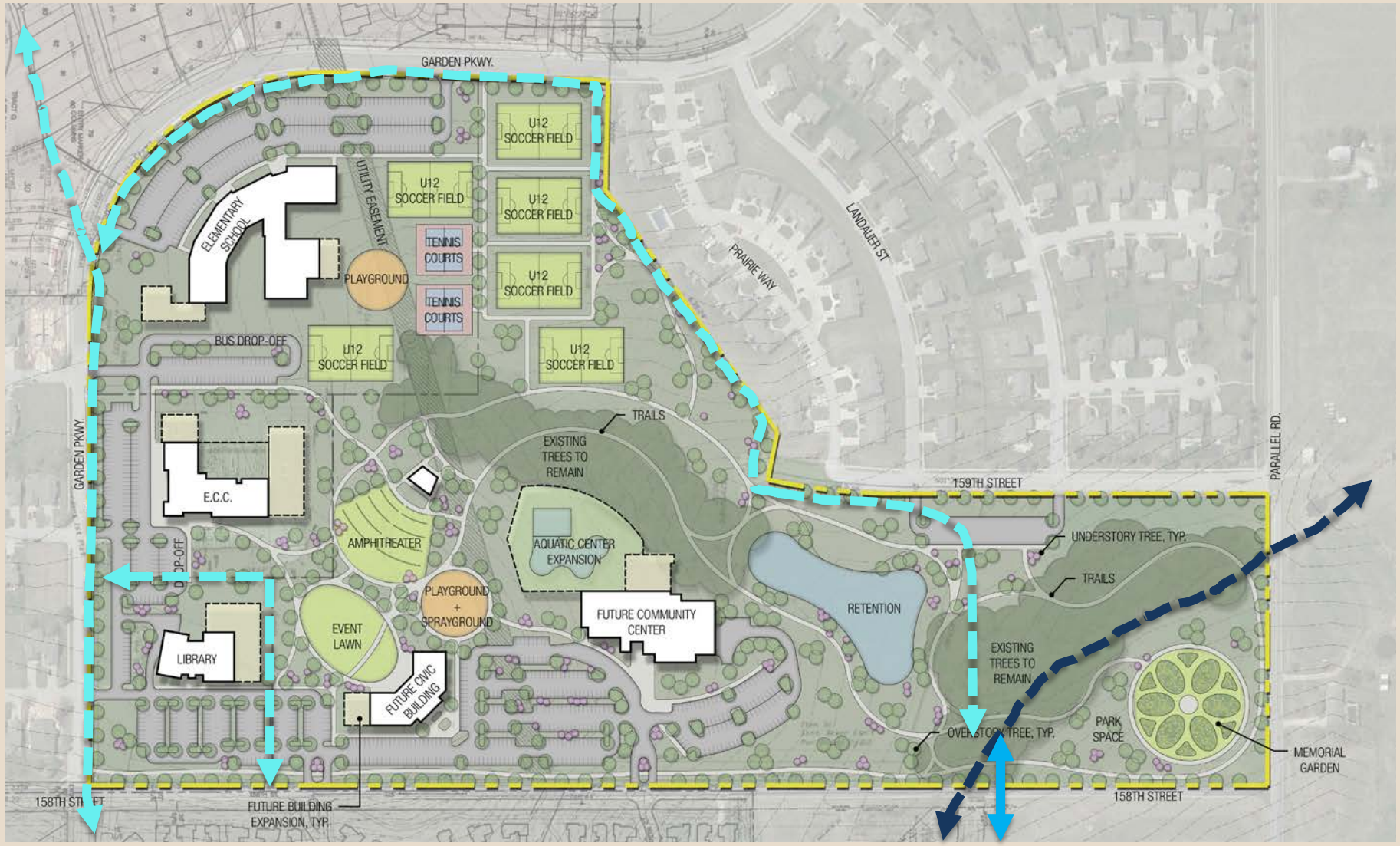


PROJECT UNDERSTANDING

MetroGreen

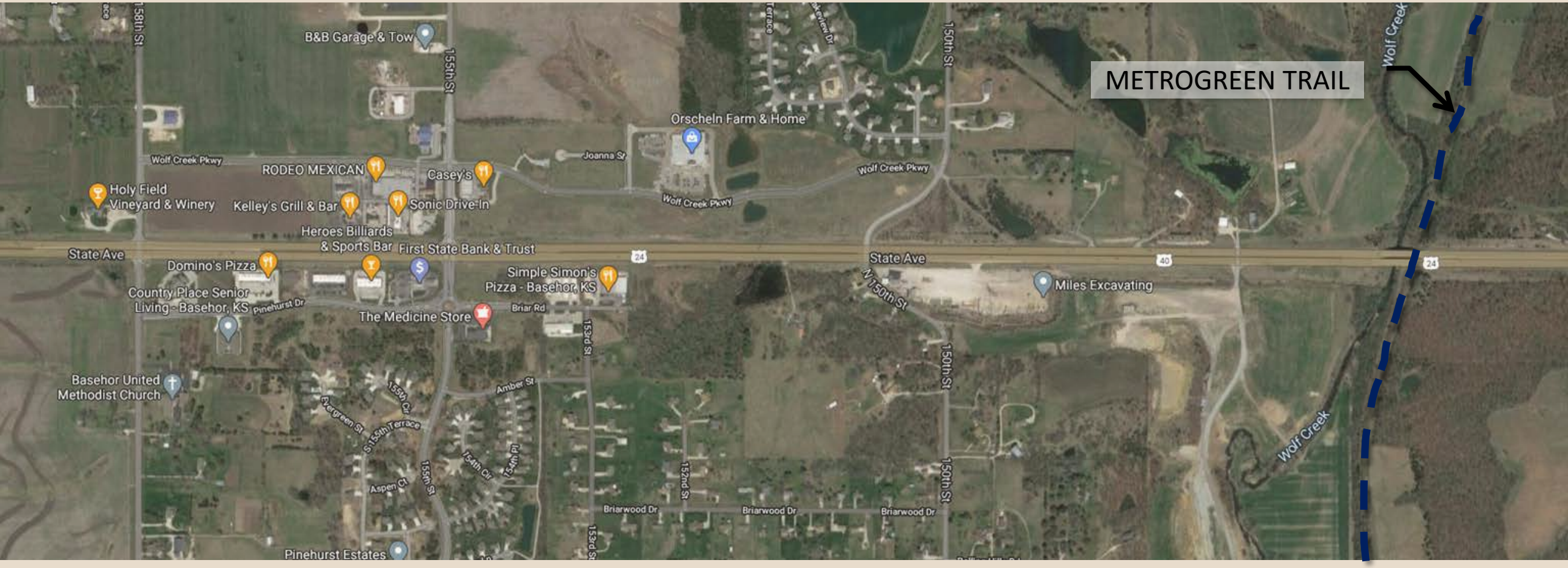
Planned Trails

Future Trails



TREKK DESIGN GROUP, LLC CONFLUENCE

MULTI-MODAL BARRIERS



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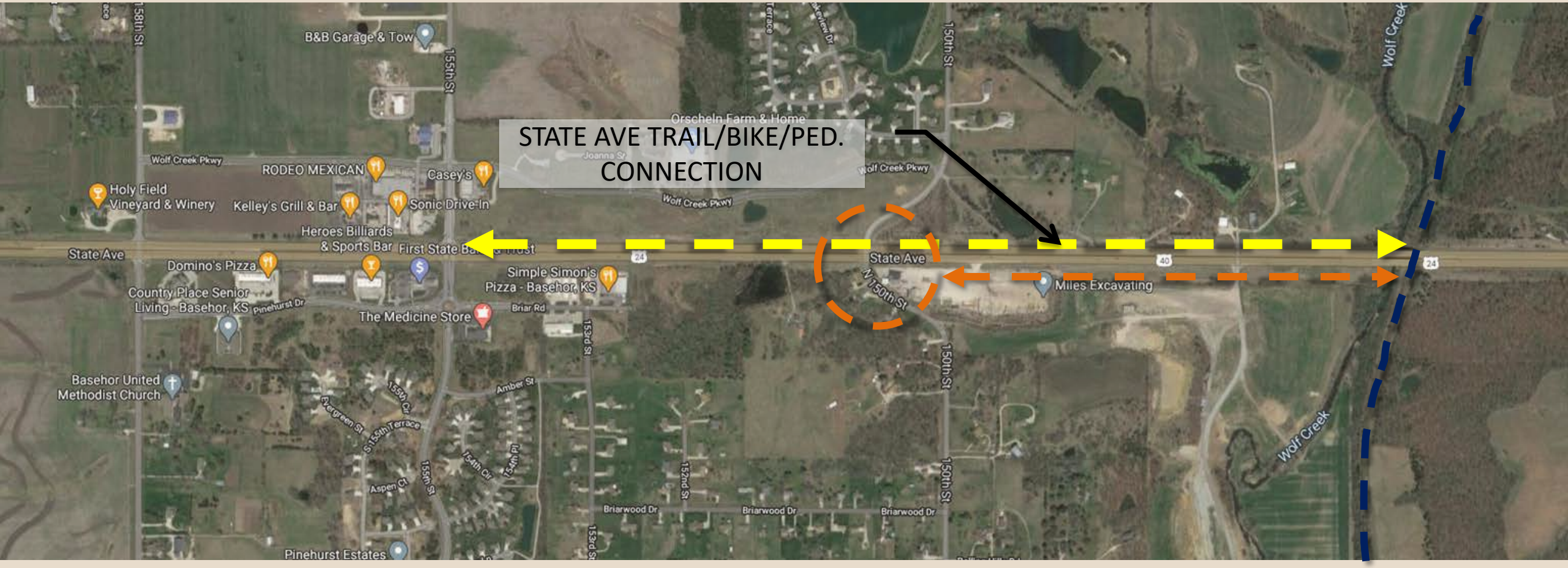
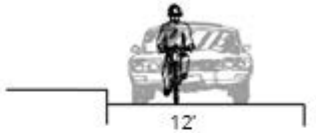


BICYCLE INTEGRATION

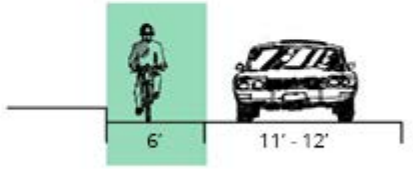
Share the Road

Share the road facilities (also known as sharrows) are the most widely implemented facility types in the United States, the appeal to municipalities is that they are very inexpensive and generally require no capital improvements to the road width. Share the road facilities require careful considerations in terms of streets in which they are incorporated. This treatment is typically reserved for streets with low traffic volumes and slower speeds as the travel lanes are shared by both vehicles and bicycles.



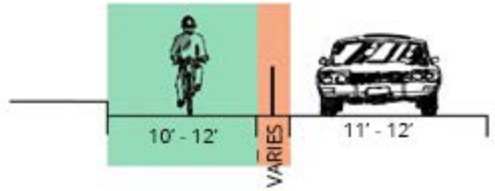
Bicycle Lane

Bicycle lanes are relatively inexpensive bicycle treatments that can go a long way in helping to increase safe and convenient cycling. Given roadway conditions, particularly geometry, roadway width, traffic volume, and number of travel lanes, bicycle lanes can be installed economically.



Cycle Track

Cycle tracks utilize similar applications as bicycle lanes but they include a physical buffer and can also facilitate two-way movement within the traveled area. Cycle tracks are often utilized for highly trafficked roads and facilitate inclusive use for riders of all comfort levels.



Bicycle Boulevard

Bicycle Boulevards function very similarly to a share the road facility but include traffic calming devices that help to lower the speed and increase safety for bicyclists. Candidate streets are typically low volume and low speed streets that have the potential for high bicycle ridership because of proximity to many destinations or adjacency to a corridor with high vehicular traffic volumes or speed.

Multi-use Path

Multi-use paths are off-street facilities reserved for the use of pedestrians and bicyclists exclusively. These paths are typically built for recreational riders and typically do not serve local trip options or experienced riders.

10 to 12 Feet Multi-use Path

GOALS AND PRINCIPLES

- What are the top 3 connections needed to establish a strong foundation to the City's bike-ped network?

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- List 3 challenges/obstacles facing establishment of the bike-ped network.

GOALS AND PRINCIPLES

- What are the top 3 connections needed to establish a strong foundation to the City's bike-ped network?
- List 3 challenges/obstacles facing establishment of the bike-ped network.
- List 5 critical criteria needed to drive this study to make the necessary connections in Basehor a success (safety, lighting, on-street/off-street, etc.)

PRIORITIES

- 10 years from today, looking back...what 3 things have occurred that indicate this planning effort was a success?

PRECEDENT BOARDS

NEXT STEPS + QUESTIONS

Next Steps:

Public Input Meeting #1 (June/Early July)

CONFLUENCE

BASEHOR ACTIVE TRANSPORTATION MASTER PLAN

BASEHOR, KANSAS

July 22, 2021







CONFLUENCE

IN ASSOCIATION WITH

TREKK DESIGN GROUP, LLC.

AGENDA

Welcome + Introduction

Process + Project Overview

Connections Identification

Establish Goals + Priorities

Preference Survey

Next Steps + Questions

OUR TEAM

Confluence

Project Lead, Community Planning, Trail Network, Community Outreach

TREKK

Civil Engineering, Stormwater Review, Utility Coordination

BASEHOR KANSAS and still growing 1889

MARC Mid-America Regional Council

CONFLUENCE

Wm. Christopher Cline, ASLA, PLA
Principal-in-Charge
Hank Moyers, ASLA, PLA
Project Manager
Michael Schmidt, ASLA, PLA
Landscape Architect

TREKK DESIGN GROUP, LLC

Tawn Nugent, PE, DBIA
Civil Engineer
Josh Tinkey, PE, ENV SP
Stormwater Engineer

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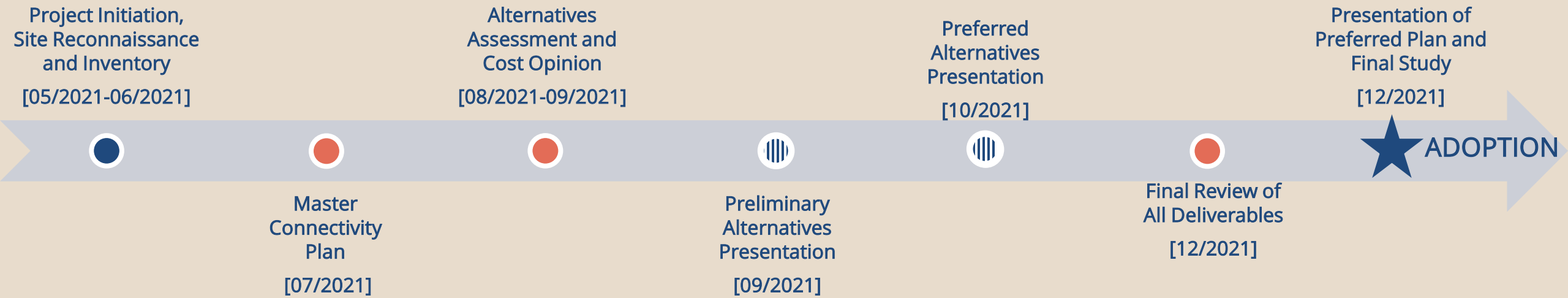
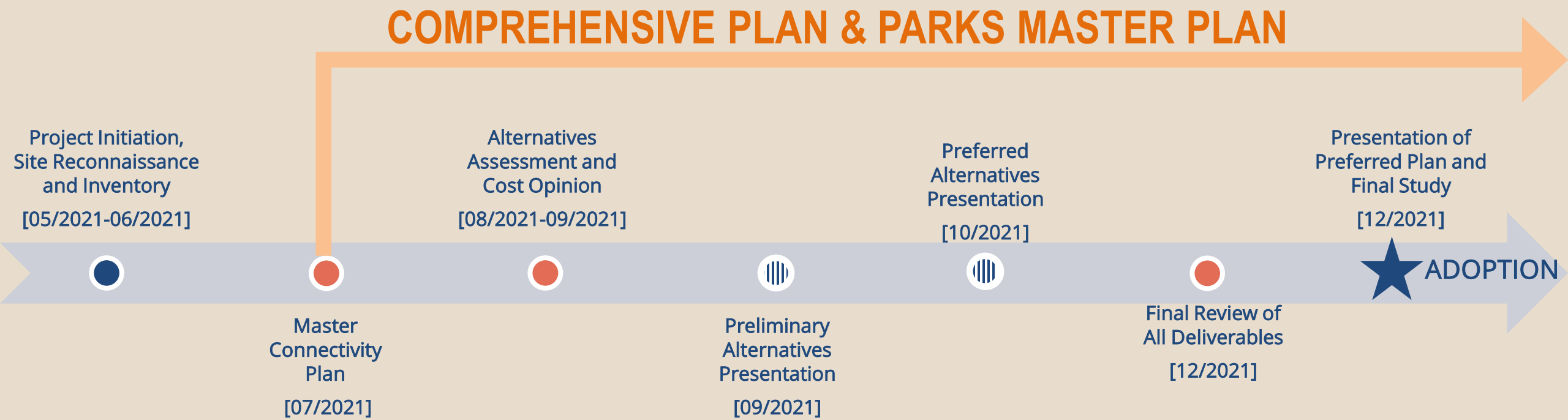


PROJECT TIMELINE



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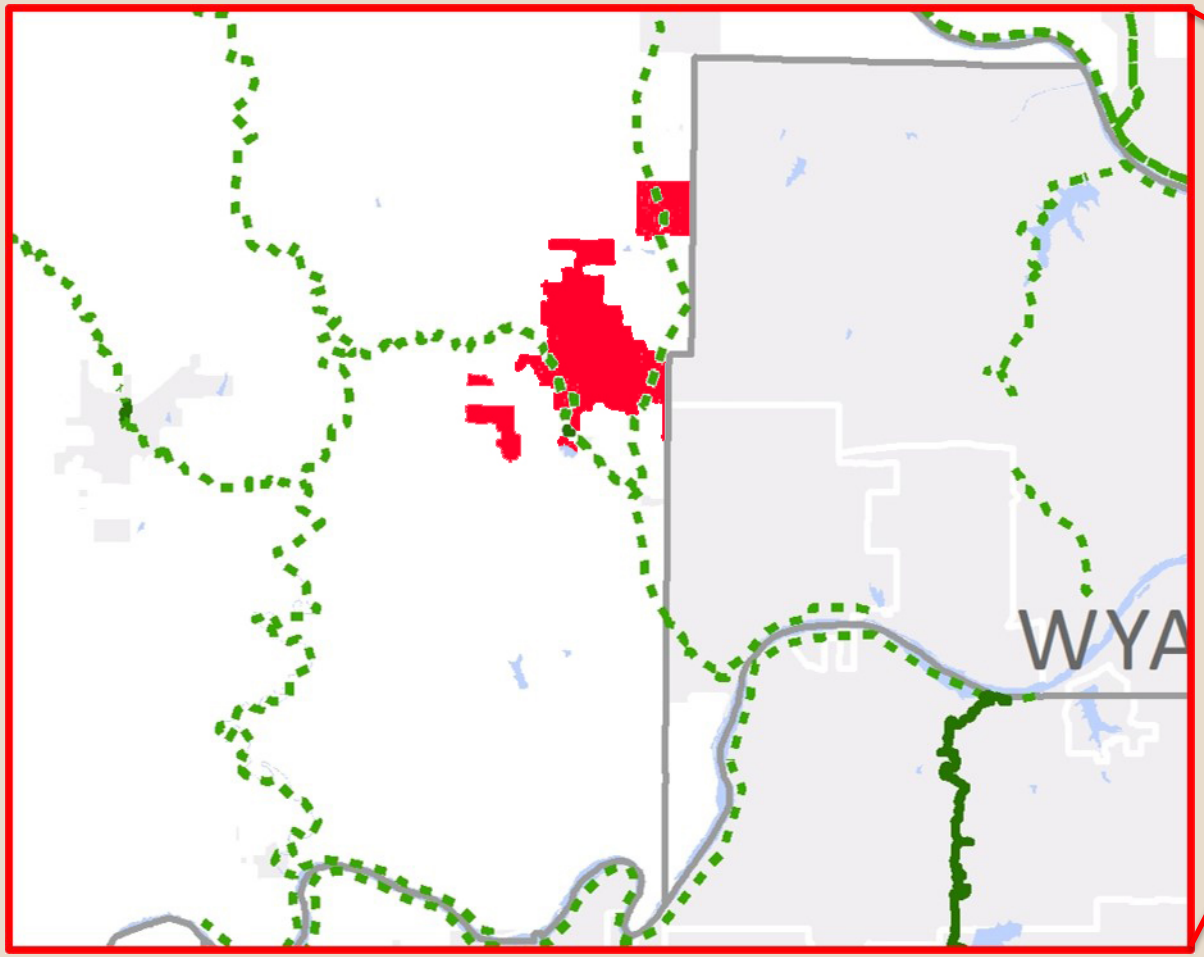
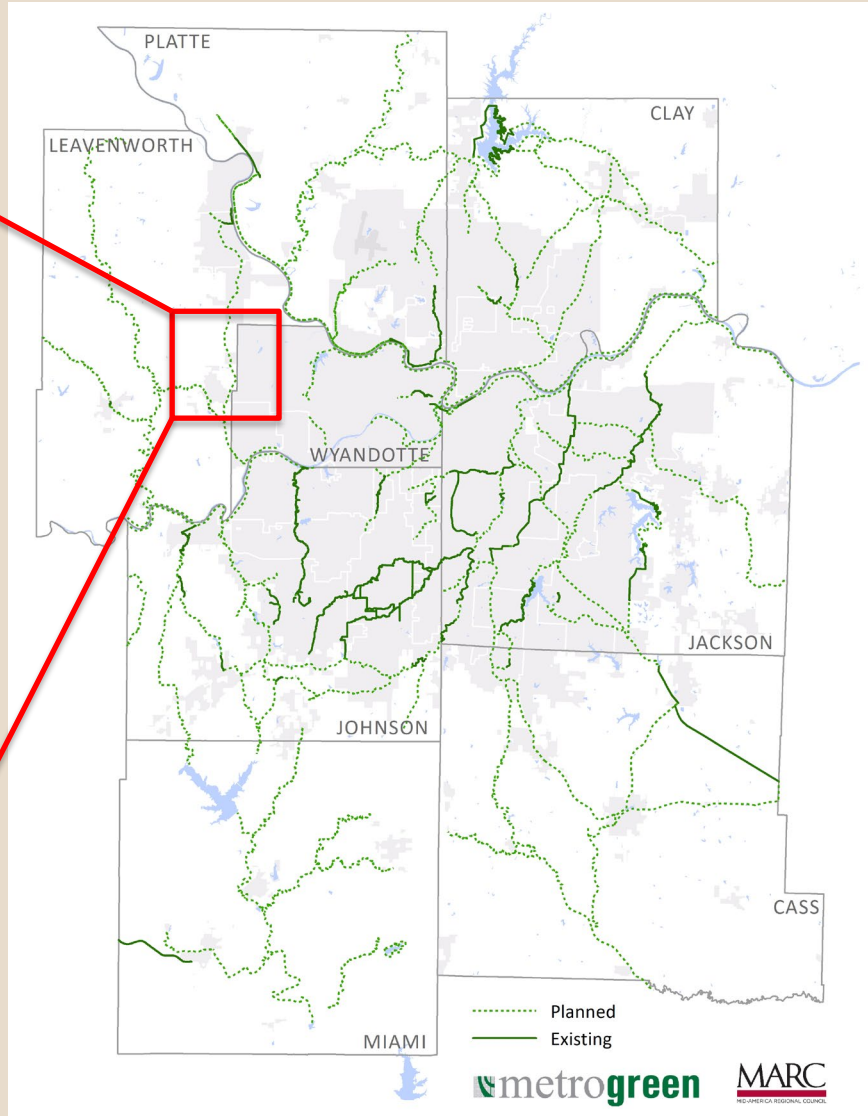




TREKK DESIGN GROUP, LLC CONFLUENCE

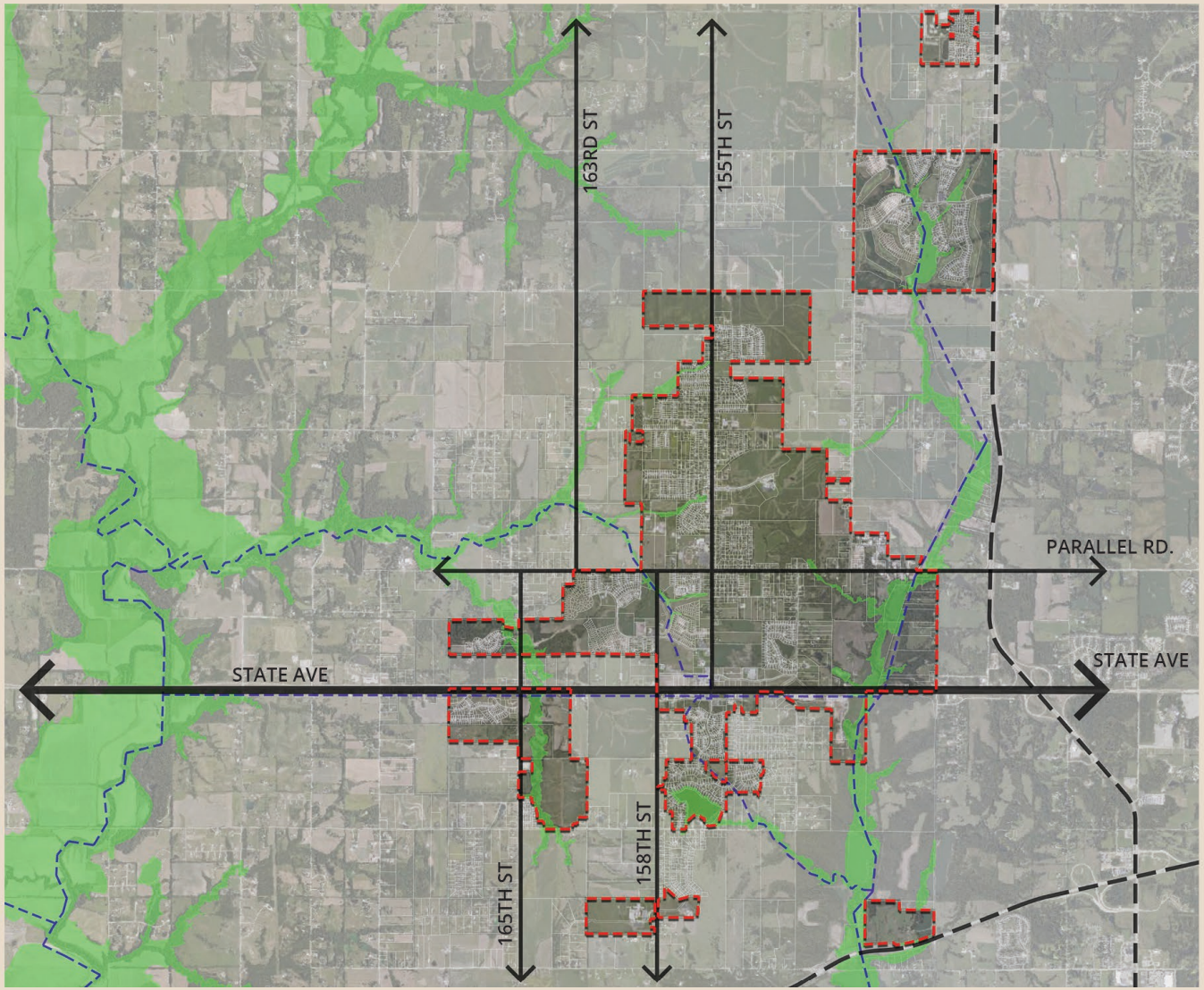
PROJECT UNDERSTANDING

CITY LIMITS

GREENWAYS

METROGREEN

ROADWAY CORRIDORS



PROJECT UNDERSTANDING

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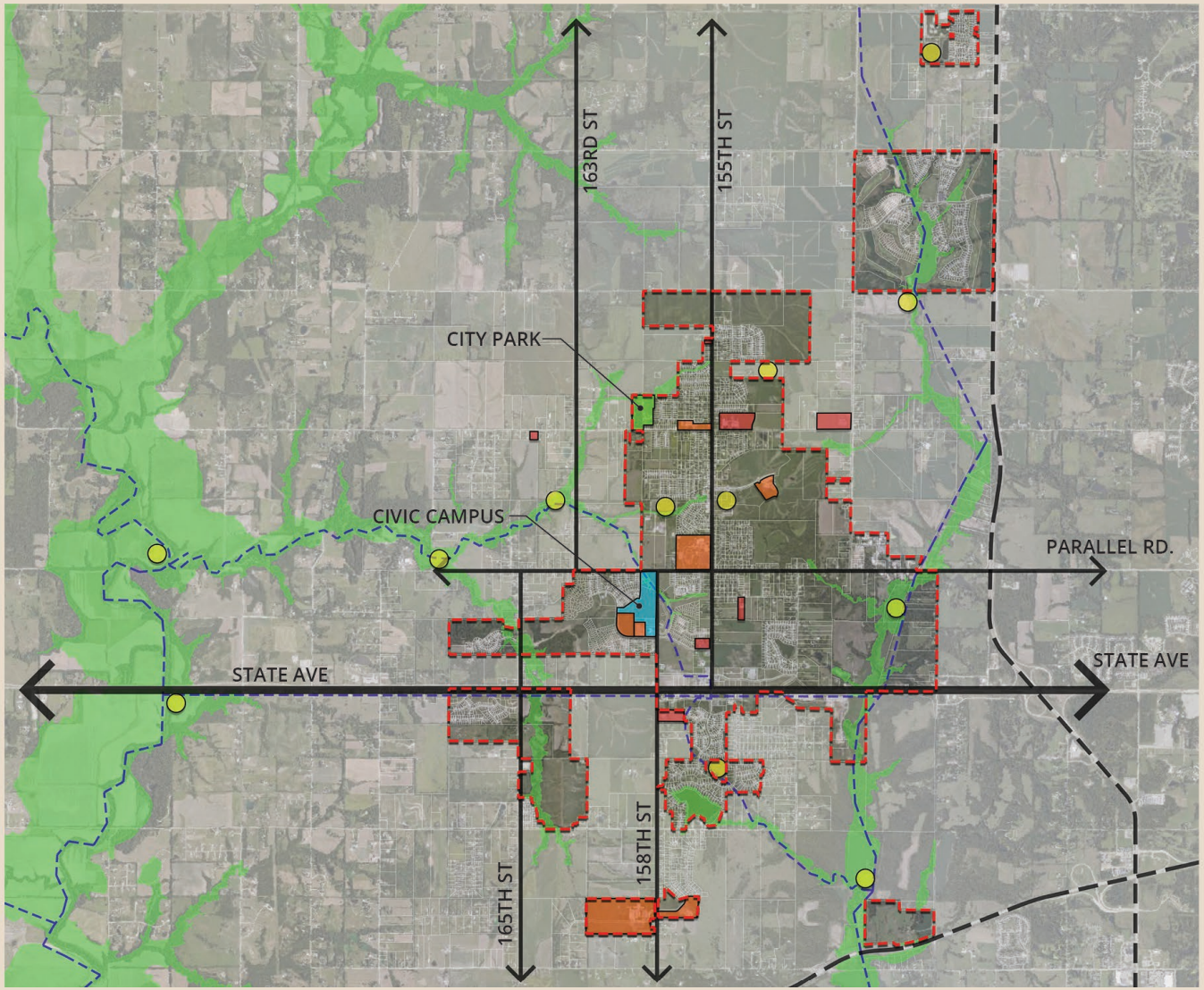
ROADWAY CORRIDORS

FUTURE PARKS

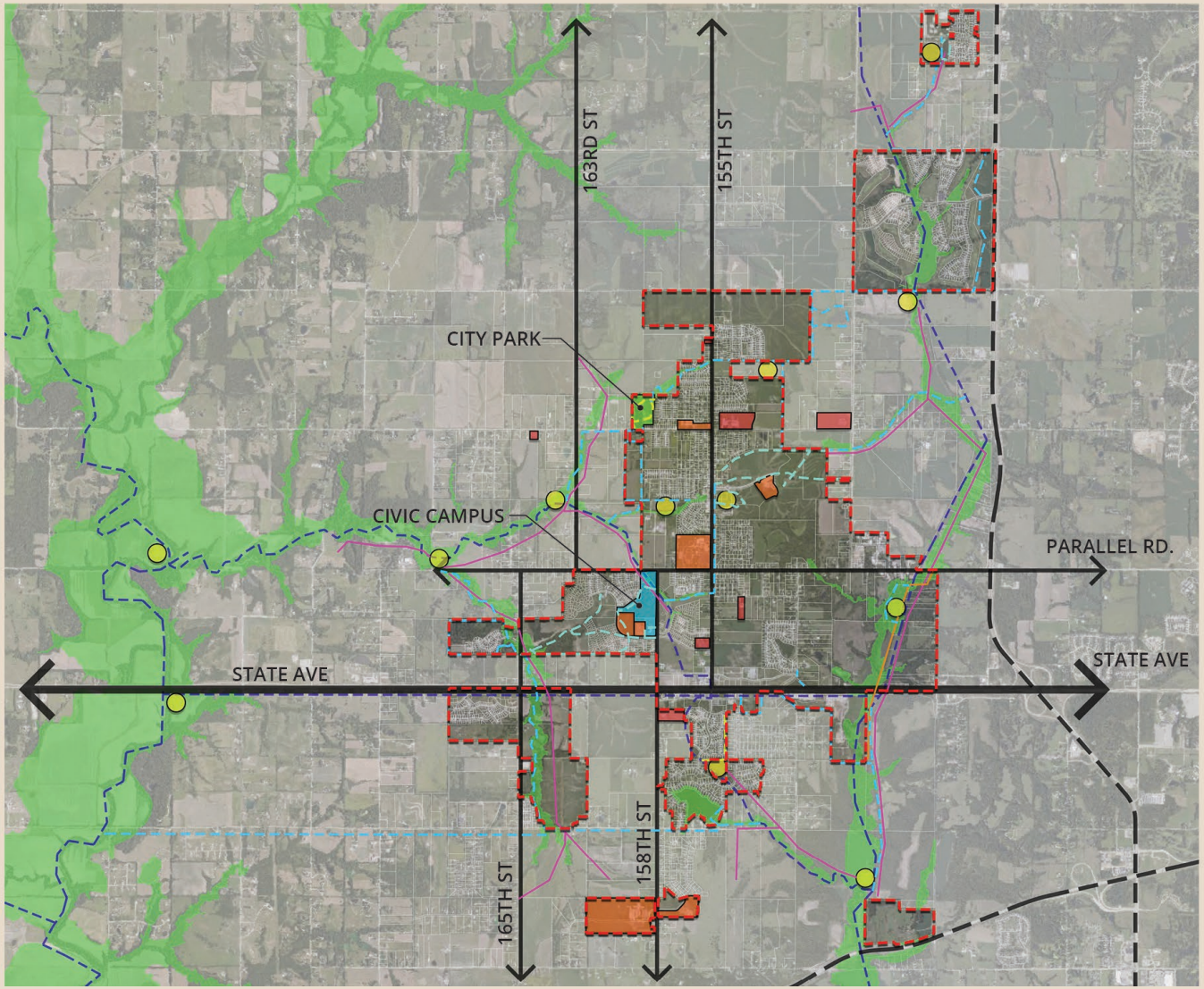
CHURCH

SCHOOL



PROJECT UNDERSTANDING

- CITY LIMITS
- GREENWAYS
- METROGREEN
- ROADWAY CORRIDORS
- FUTURE PARKS
- CHURCH
- SCHOOL
- RAILROAD CORRIDOR
- EXISTING TRAILS
- FUTURE TRAILS
- PLANNED TRAILS
- 2006 SANITARY SEWER CORRIDOR PLAN



PROJECT UNDERSTANDING

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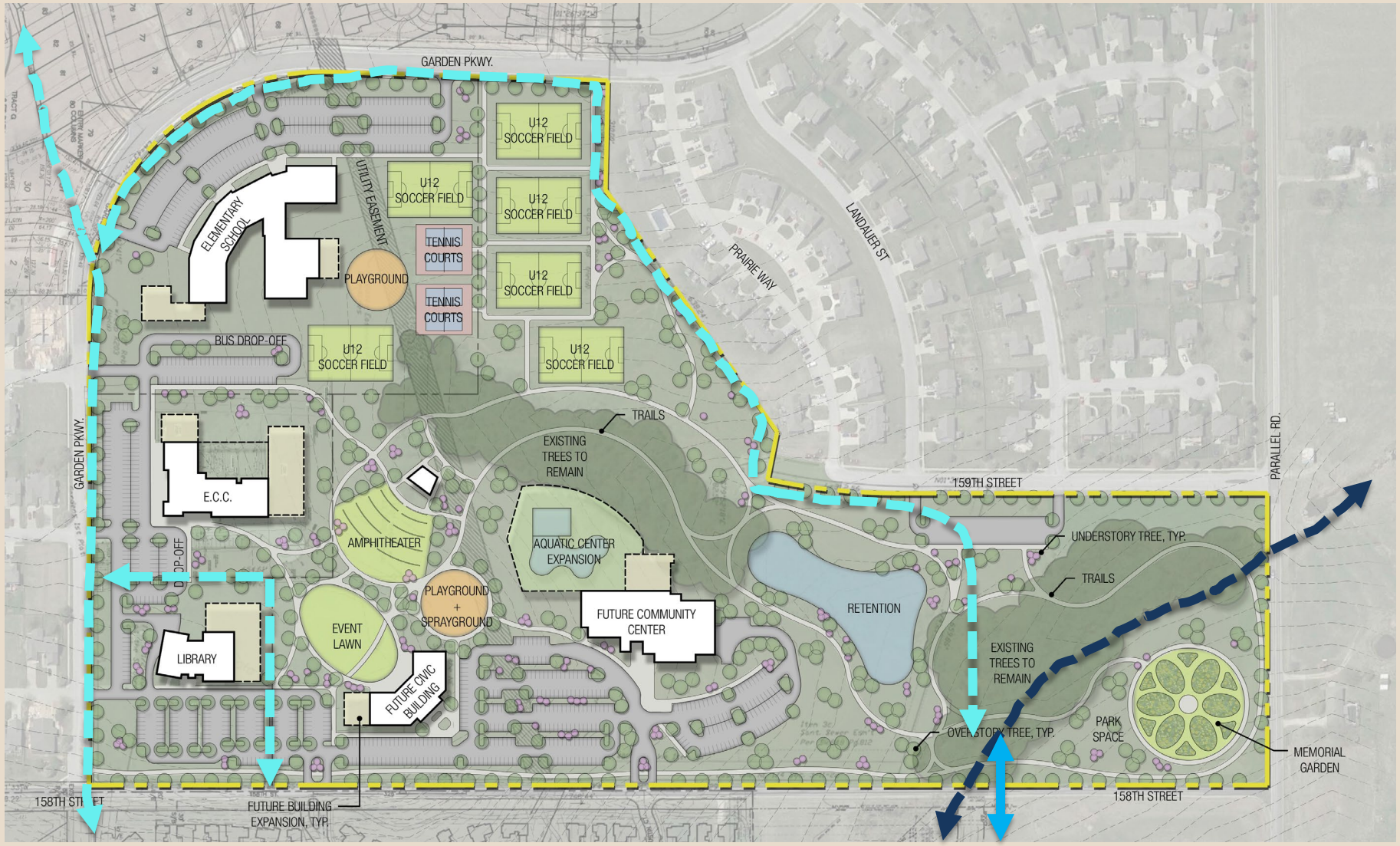

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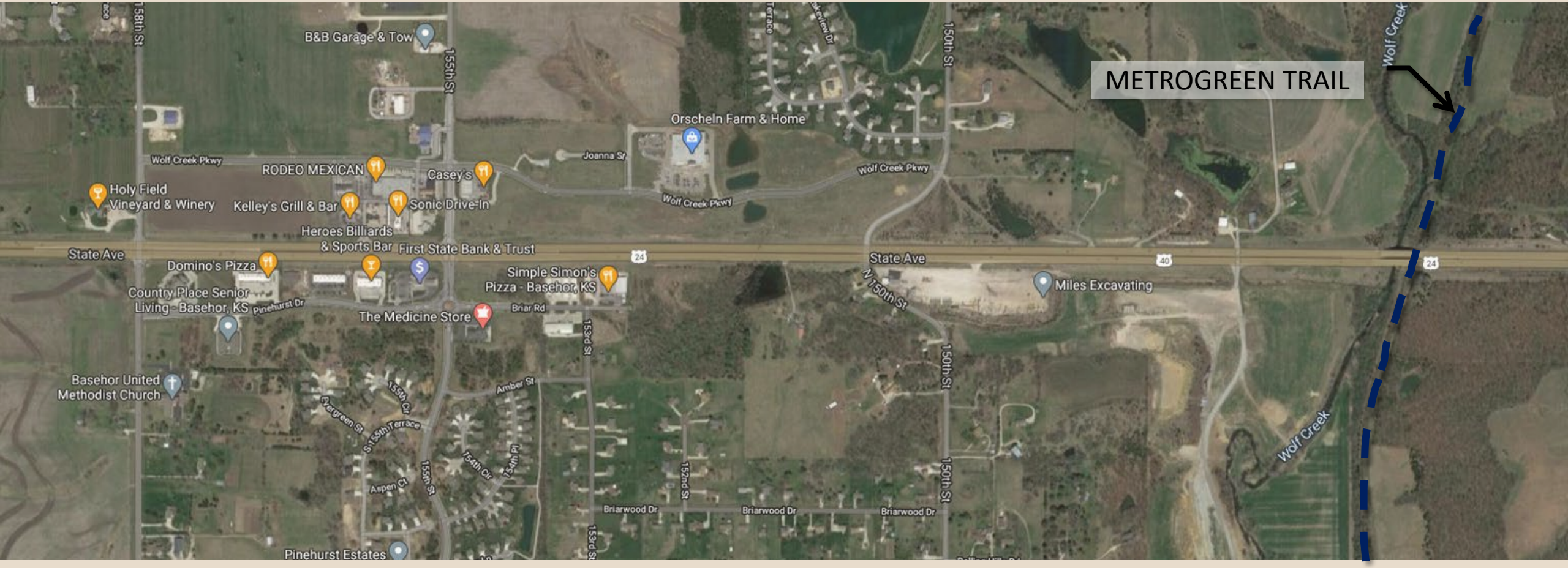

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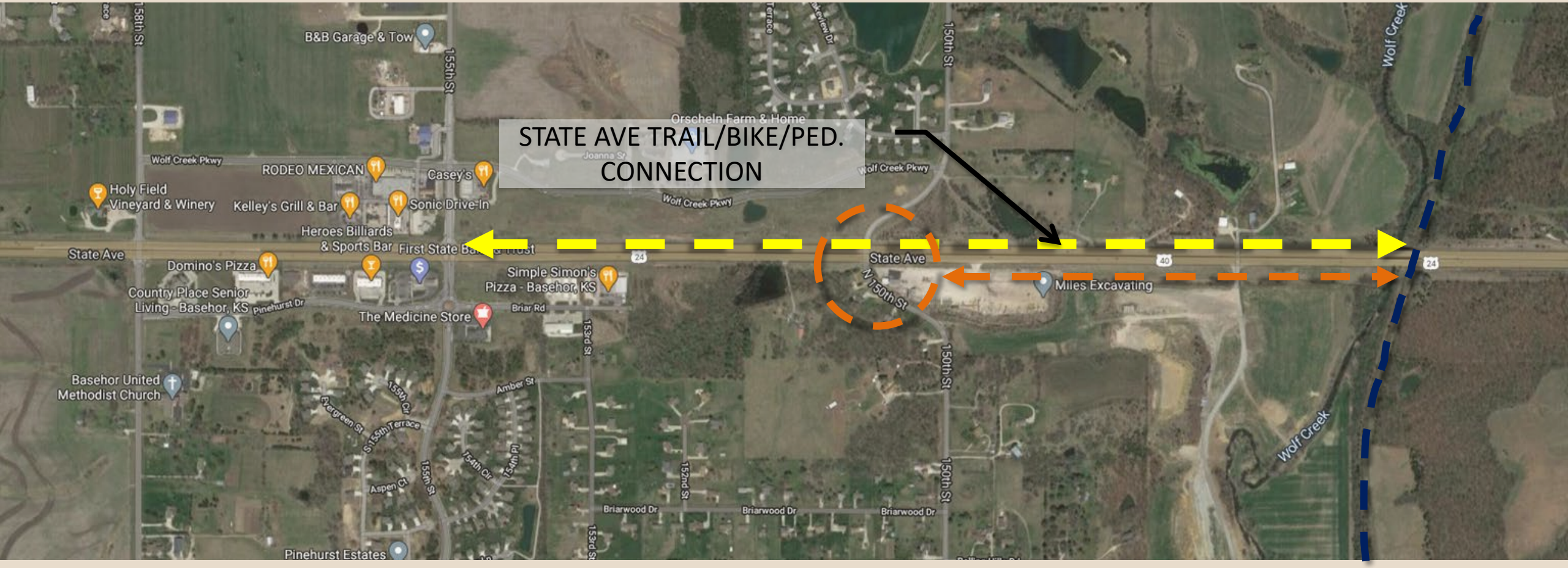
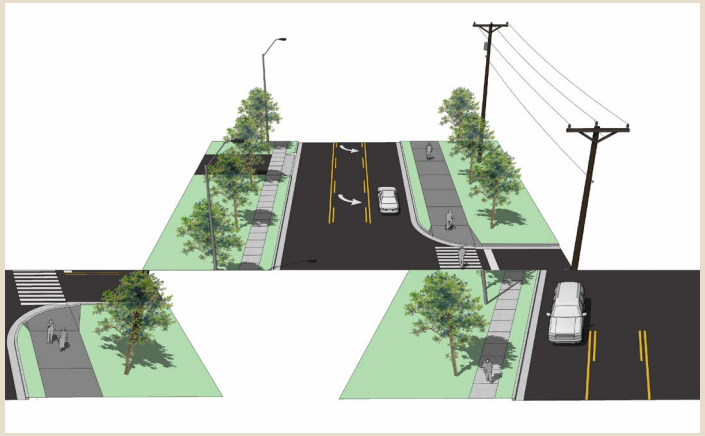
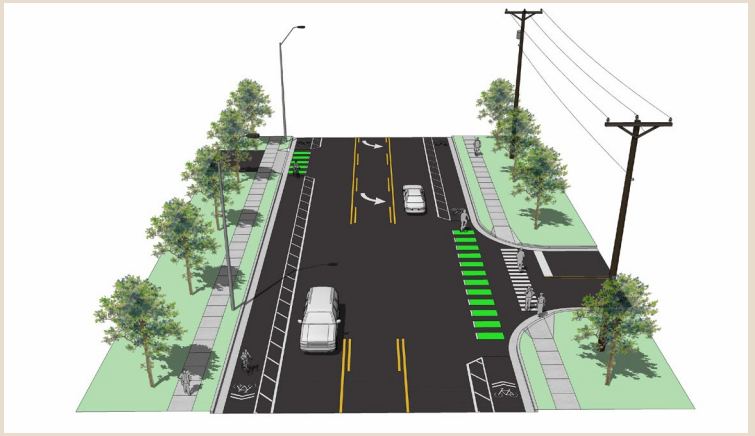
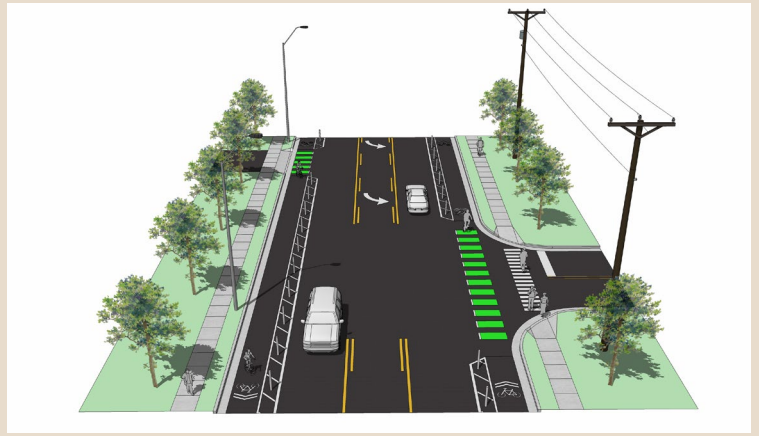


MULTI-MODAL OPTIONS







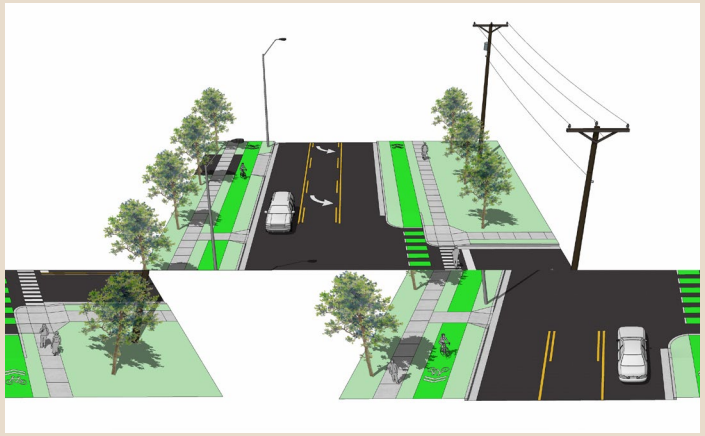
Shared Use Path
(One or Both Sides Of Road)

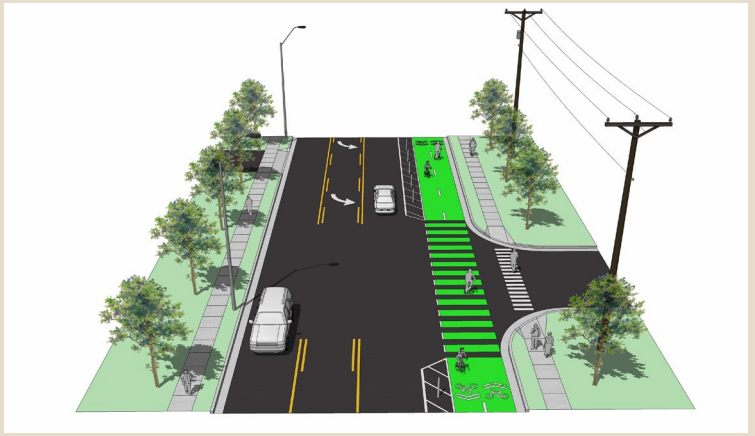
Buffered Bike Lane
(Both Sides Of Road)

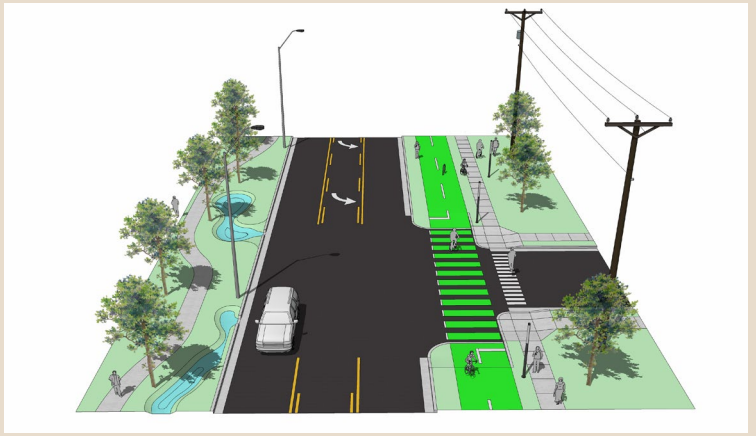
Protected Bike Lane
(Both Sides Of Road)

TREKK DESIGN GROUP, LLC CONFLUENCE

MULTI-MODAL OPTIONS







Separated Bike Lane
(Both Sides Of Road)

Protected Cycle Track
(One Side Of Road)

Separated Cycle Track
(One Side Of Road)

NEXT STEPS

Next Steps:

Public Input Meeting #2 (October – T.B.D.)
Draft Recommendations Meeting

CONFLUENCE

BASEHOR ACTIVE TRANSPORTATION MASTER PLAN

BASEHOR, KANSAS

October 8th, 2021







CONFLUENCE

IN ASSOCIATION WITH

TREKK DESIGN GROUP, LLC.

AGENDA

Timeline

Public Meeting Results

Parks Service Analysis

Watershed + Slope Analysis

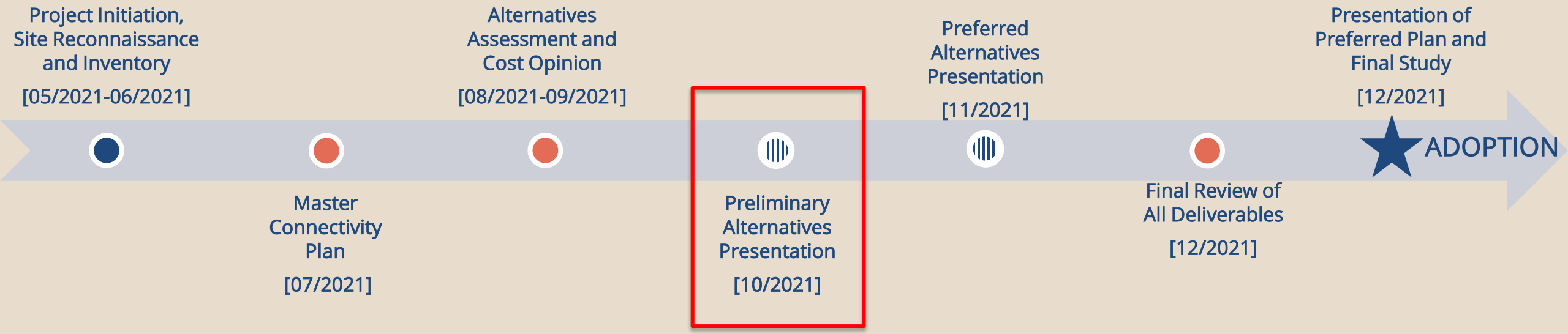
Trail Design Alternatives

Typical Trail Profiles

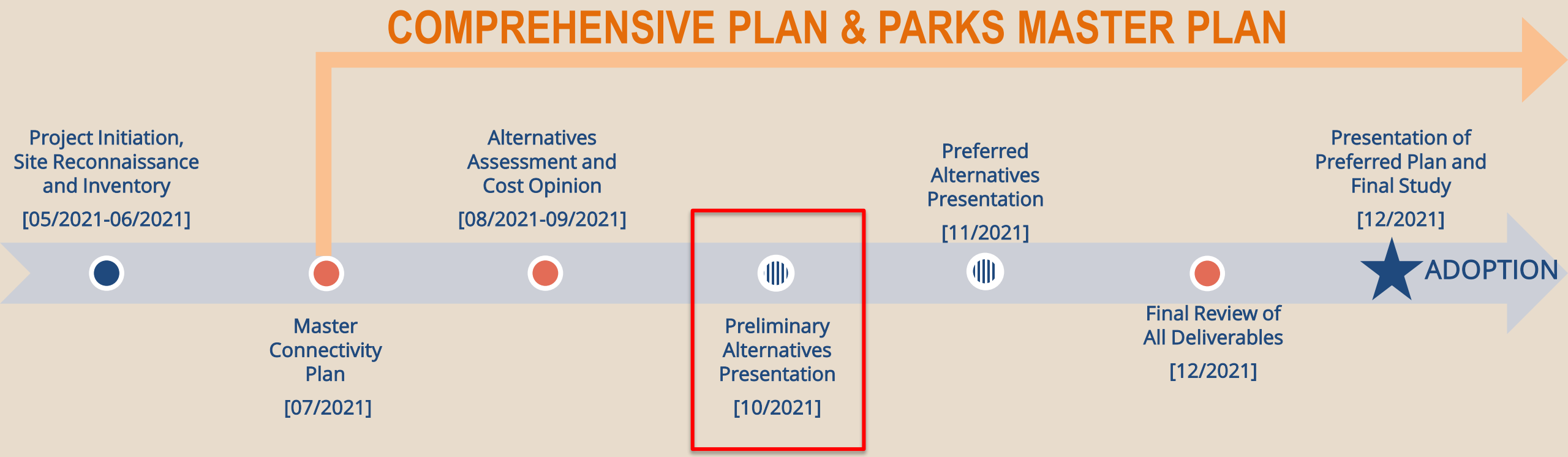
Next Steps + Questions

PROJECT TIMELINE

- TASK 1 – Community Outreach + Engagement
- TASK 2 – Data Collection + Analysis
- TASK 3 – Trail Design Alternatives



PROJECT TIMELINE



MEETING RESULTS

TOP 5 STREETS/CORRIDORS NEEDING ACTIVE TRANSPORTATION OTHER THAN 155TH AND 158TH WHICH ARE ALREADY PLANNED FOR IMPROVEMENTS:

1st Place Votes:
- Parallel (7)
- Leavenworth (2)
- Hidden Ridge
- Hollingsworth
- 153rd

2nd Place Votes:
- Parallel from 155th to 147th (3)
- 147th
- Leavenworth (2)
- Garden Parkway

3rd Place Votes:
- Leavenworth Road (2)
- 163rd

4th Place Votes:
- Parallel
- State Avenue

MEETING RESULTS

FACILITY VOTING:

SHARED USE PATH
(ONE SIDE OR BOTH SIDES OF ROAD)

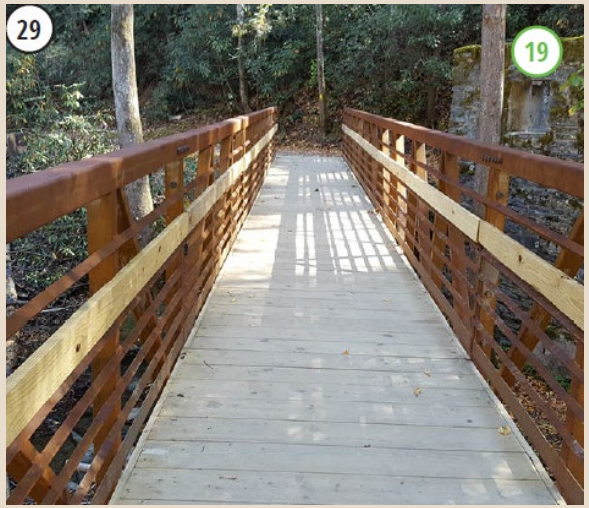
BUFFERED BIKE LANE
(BOTH SIDES OF ROAD)

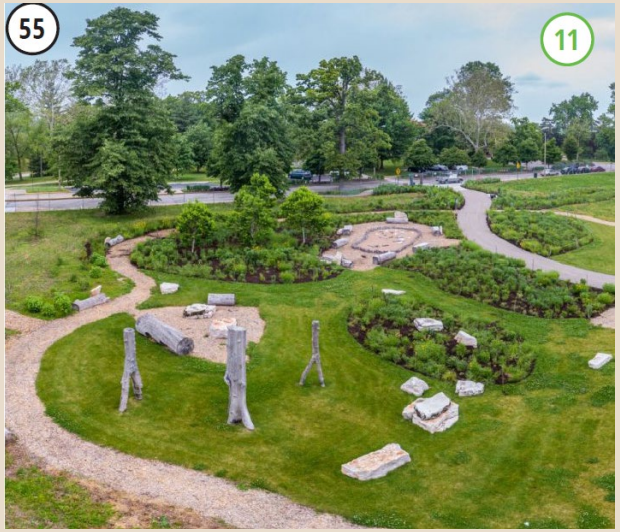
PROTECTED BIKE LANE
(BOTH SIDES OF ROAD)

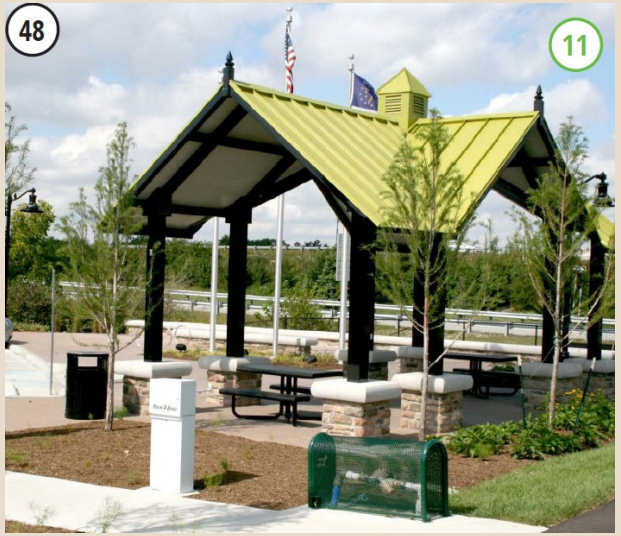
1	2	3	4	5	6
9	2	3	2		
5	6	2	1	1	
2	3	3	1	3	1

MEETING RESULTS

PRECEDENT IMAGES VOTING:







PARKS SERVICE ANALYSIS

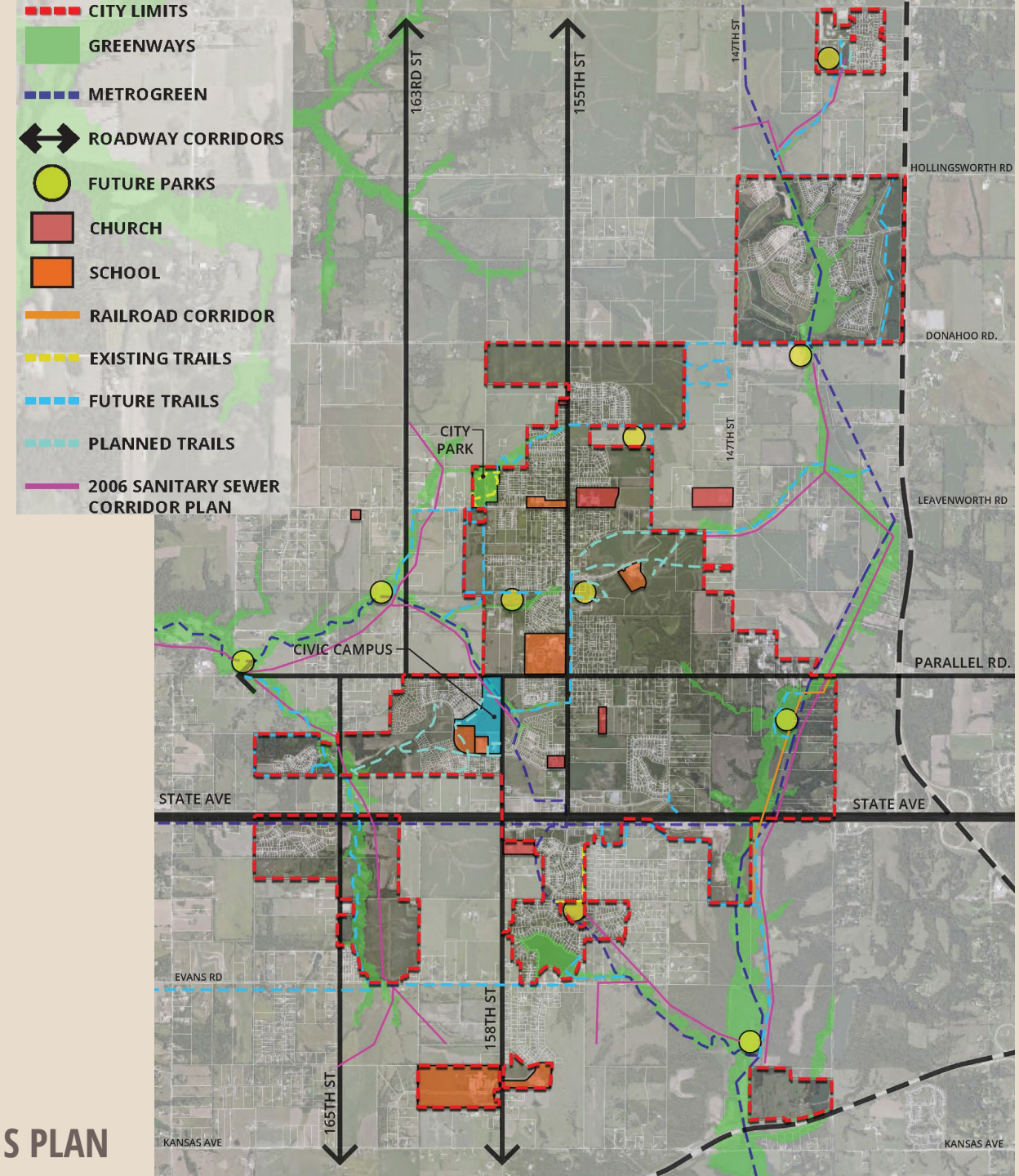
EXISTING PARKS ANALYSIS

Basehor Park Facility Standards																
PARKS:		2021 Inventory - Developed Facilities											2021 Facility Standards			
Park Type	Units	Basehor Park Inventory	Schools	State Facilities	Leavenworth County Facilities	Total Inventory	Current Service Level based upon 2021 population			Recommended Service Levels; Revised for Local Service Area			Meet Standard/ Need Exists	Additional Facilities/ Amenities Needed		
Neighborhood Parks	Acre(s)	-				-	-	acres per	1,000	5.00	acres per	1,000	Need Exists	34	Acre(s)	
Community Parks	Acre(s)	68.30				68.30	7.43	acres per	1,000	5.00	acres per	1,000	Meets Standard		Acre(s)	
Regional Parks	Acre(s)					-	-	acres per	1,000	5.00	acres per	1,000	Need Exists	34	Acre(s)	
Undeveloped Park Land	Acre(s)	42.00				42.00	6.09	acres per	1,000	0.00	acres per	1,000	Meets Standard		Acre(s)	
Total Park Acres	Acre(s)	110.30	-	-	-	110.30		acres per	1,000	15.00	acres per	1,000	Meets Standard	-	Acre(s)	

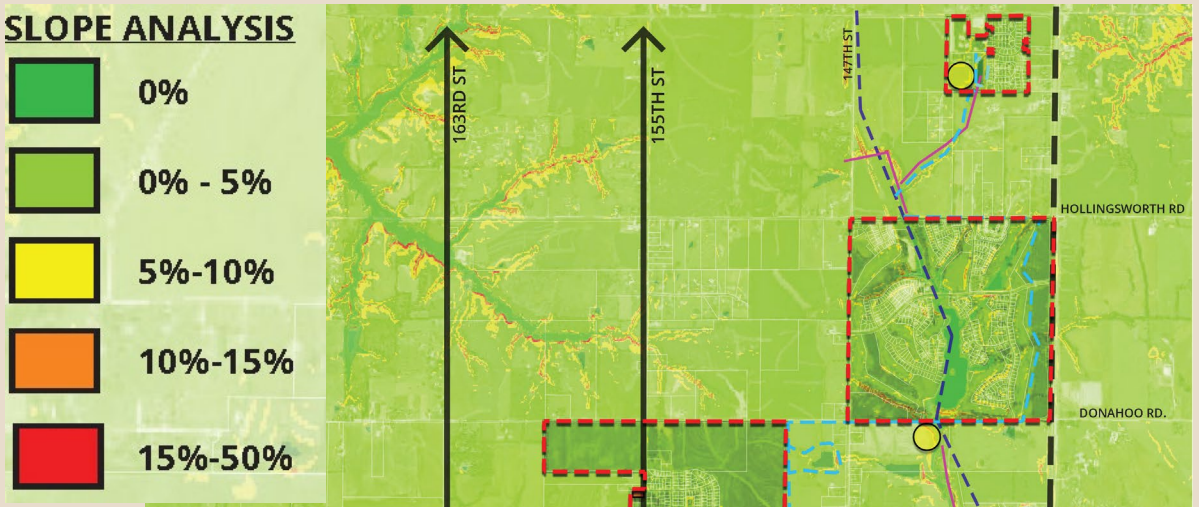
PARKS SERVICE ANALYSIS

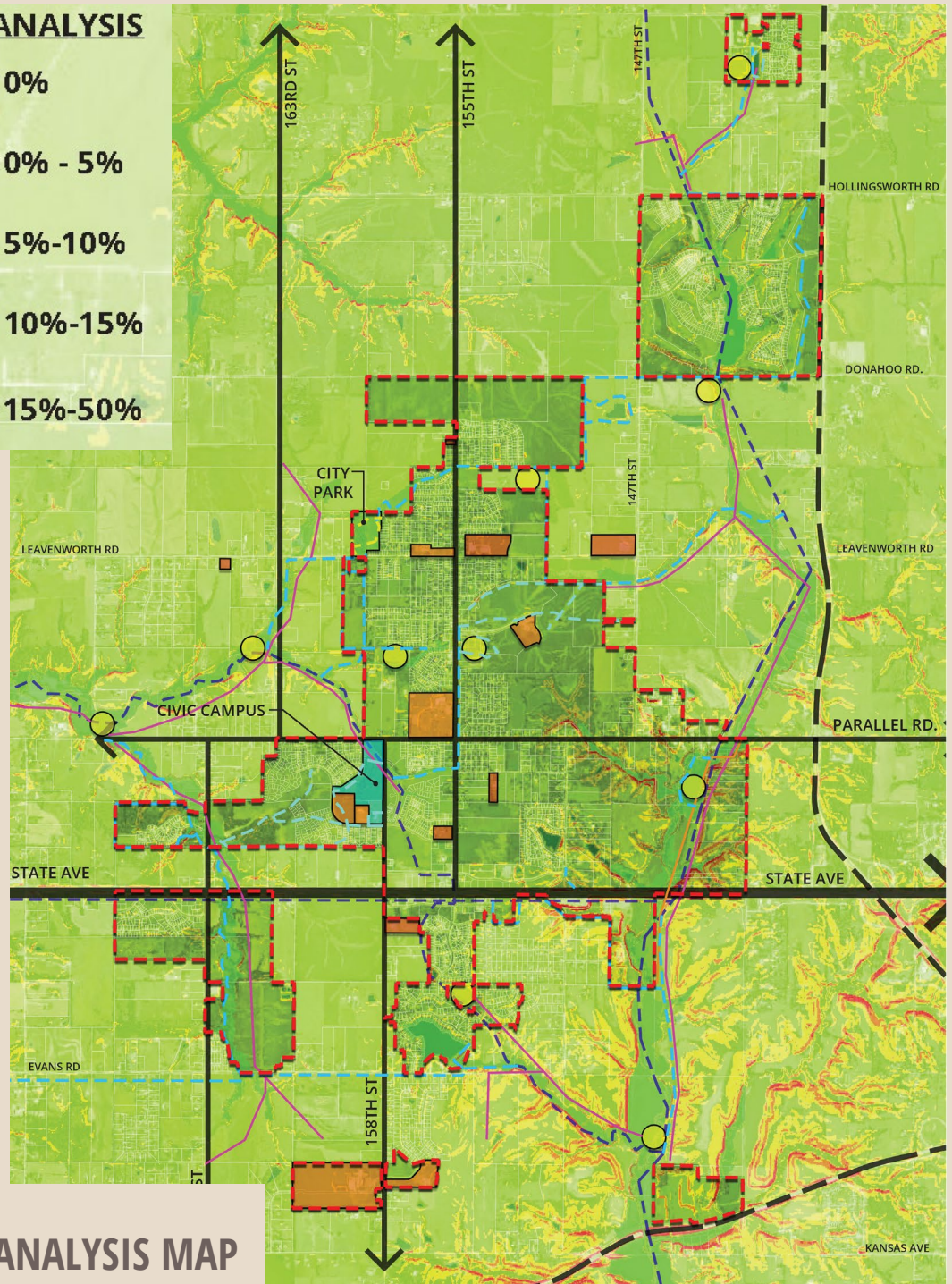
FUTURE PARKS ANALYSIS

Basehor Park Facility Standards																
PARKS:		2021 Inventory - Developed Facilities											2021 Facility Standards			
Park Type	Units	Basehor Park Inventory	Schools	State Facilities	Leavenworth County Facilities	Total Inventory	Current Service Level based upon 2021 population			Recommended Service Levels; Revised for Local Service Area			Meet Standard/ Need Exists	Additional Facilities/ Amenities Needed		
Neighborhood Parks	Acre(s)	-				-	-	acres per	1,000	5.00	acres per	1,000	Need Exists	46	Acre(s)	
Community Parks	Acre(s)	68.30				68.30	7.43	acres per	1,000	5.00	acres per	1,000	Meets Standard		Acre(s)	
Regional Parks	Acre(s)					-	-	acres per	1,000	5.00	acres per	1,000	Need Exists	46	Acre(s)	
Undeveloped Park Land	Acre(s)	42.00				42.00	4.57	acres per	1,000	0.00	acres per	1,000	Meets Standard		Acre(s)	
Total Park Acres	Acre(s)	110.30	-	-	-	110.30	12.00	acres per	1,000	15.00	acres per	1,000	Need Exists	28	Acre(s)	

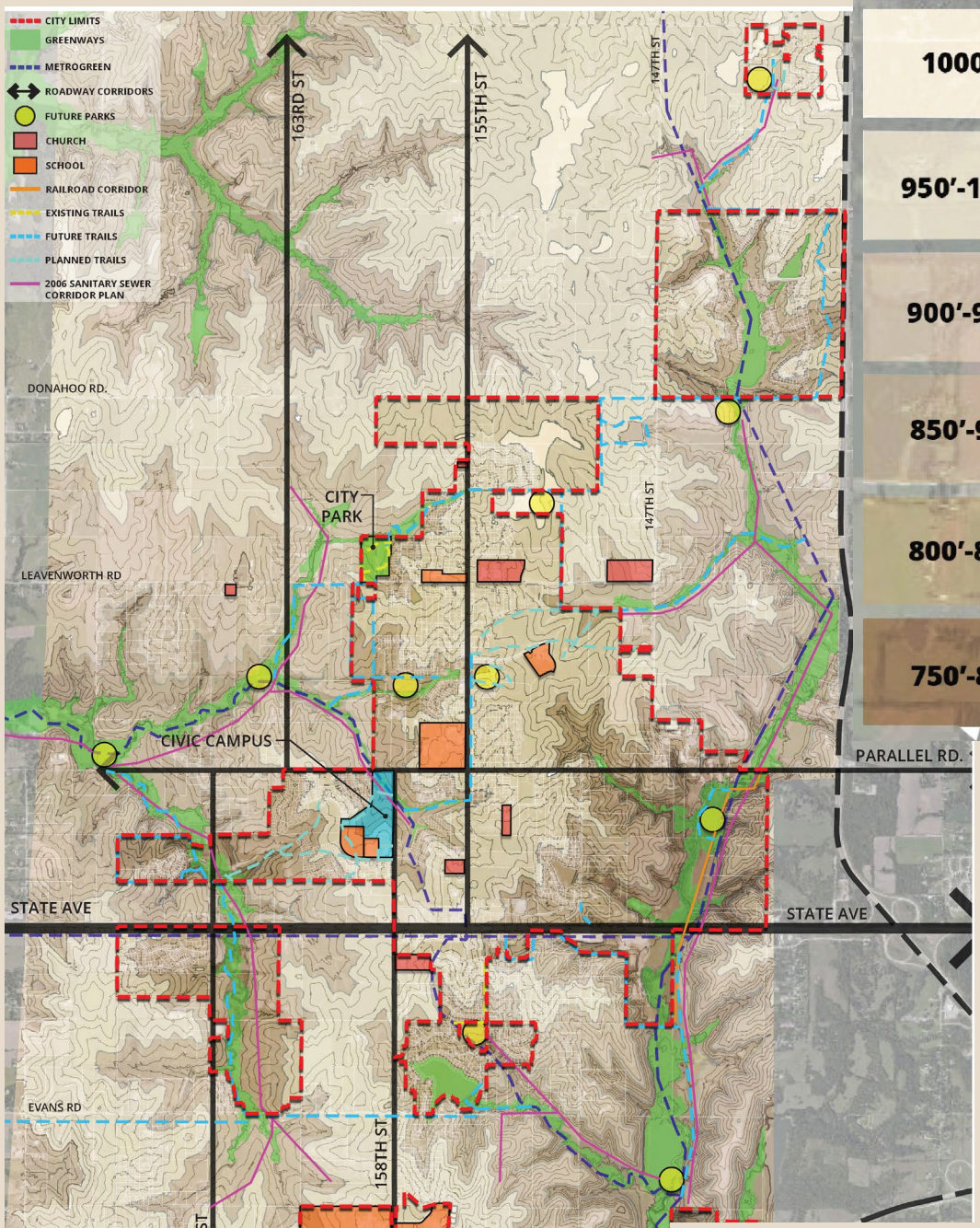


SITE ANALYSIS PLAN

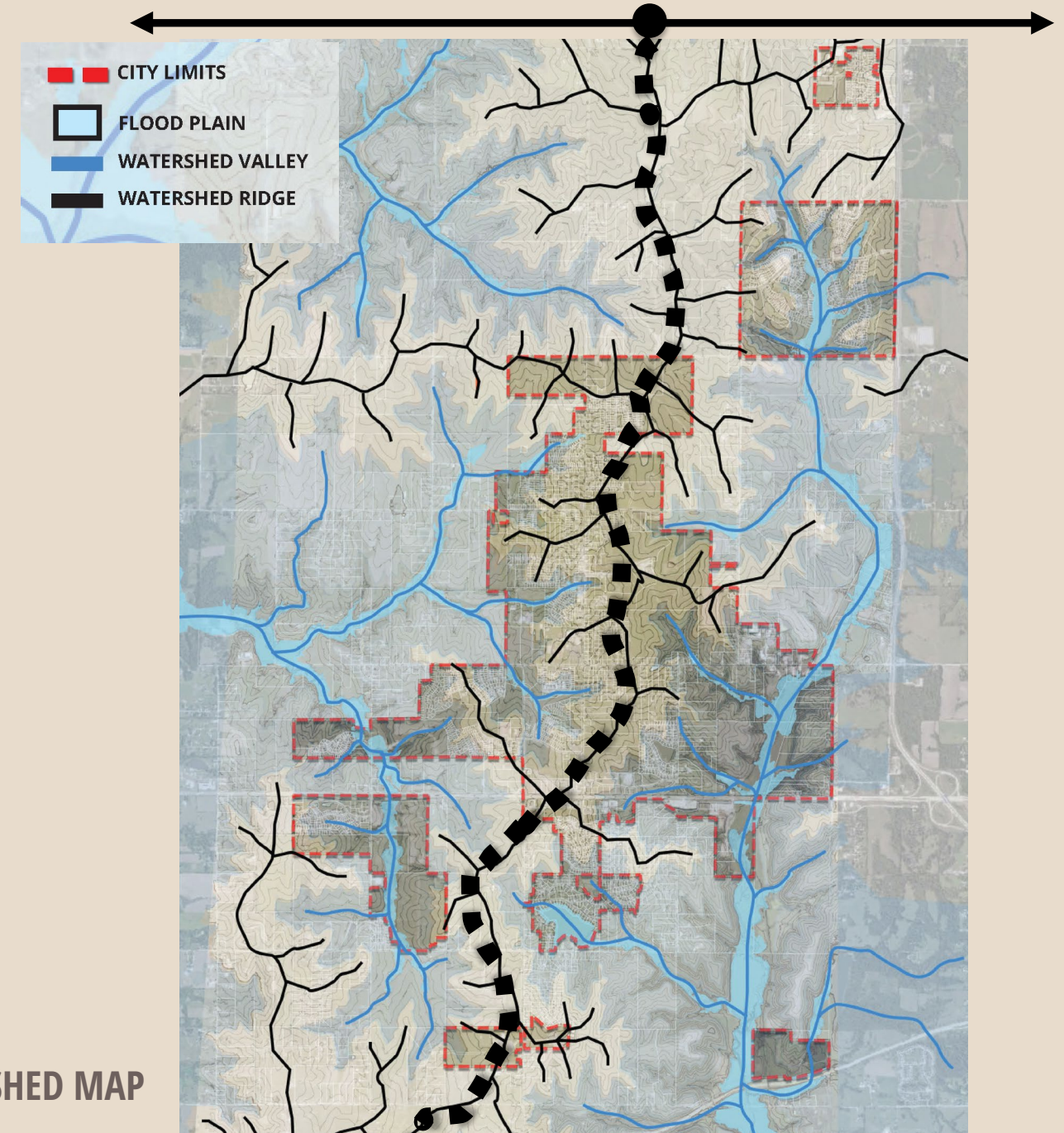




SLOPE ANALYSIS MAP

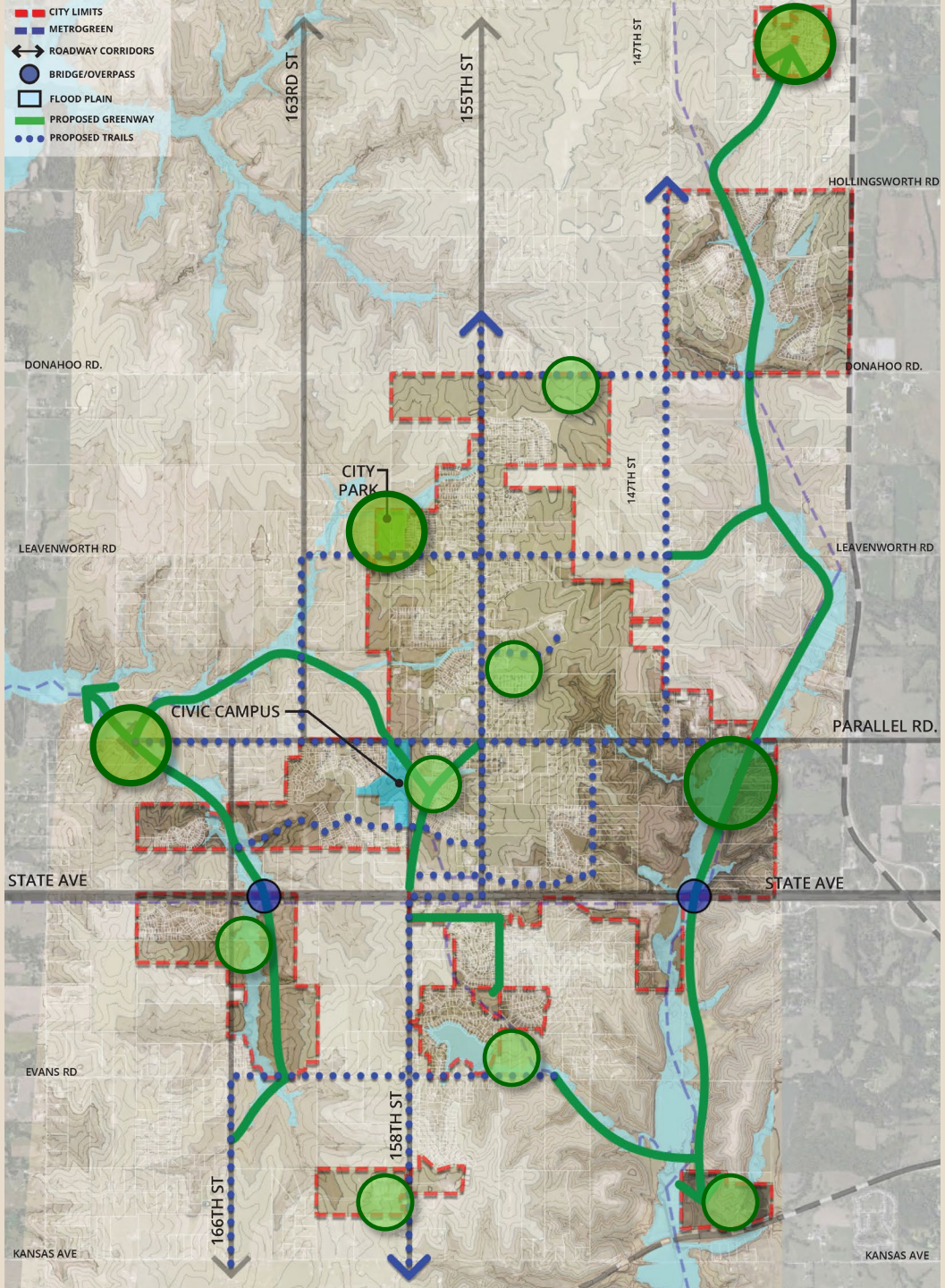


ELEVATION MAP



WATERSHED MAP

MASTER PLAN: CONCEPT



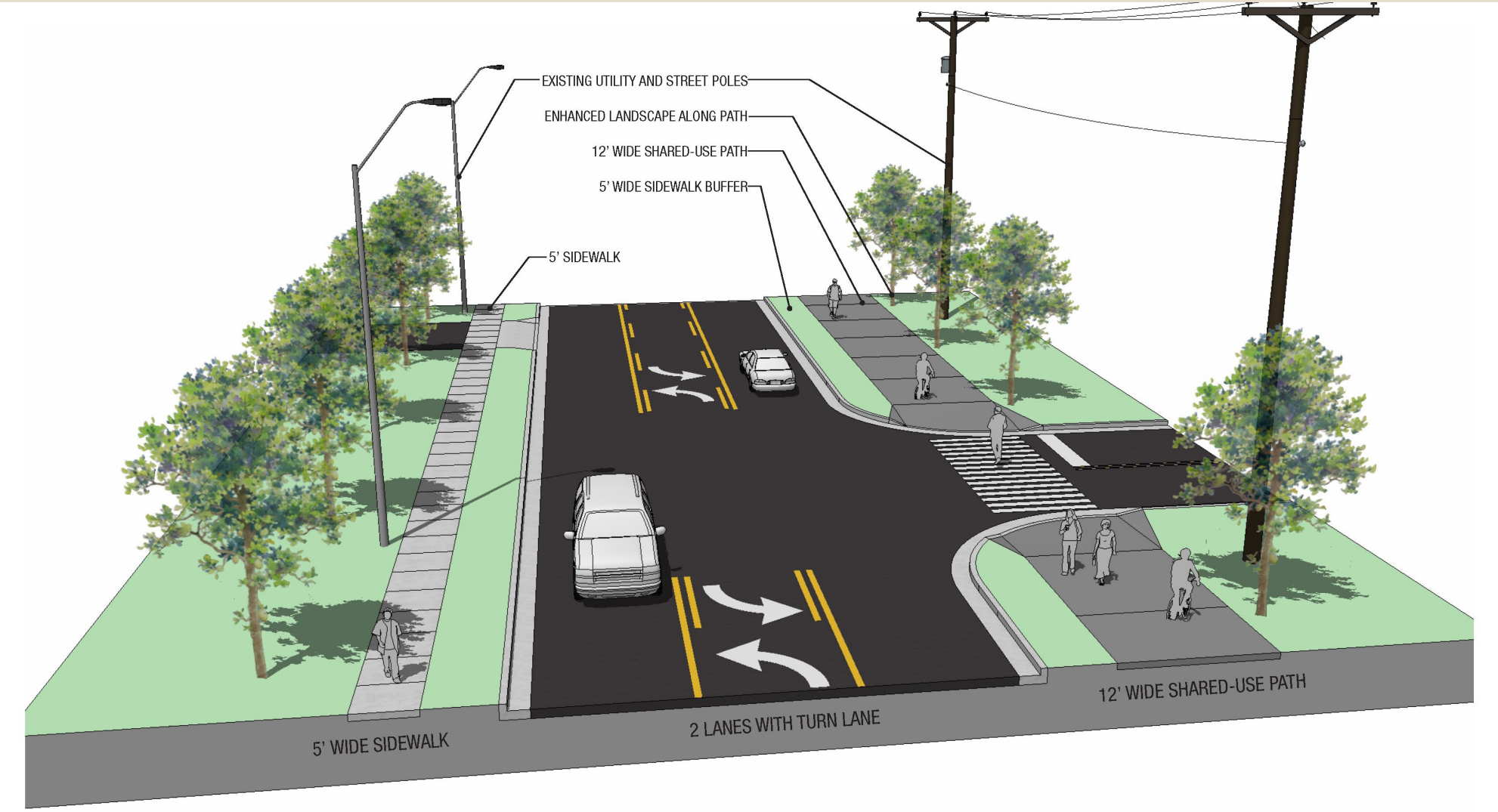
FUTURE PARK LOCATIONS

REGIONAL PARK

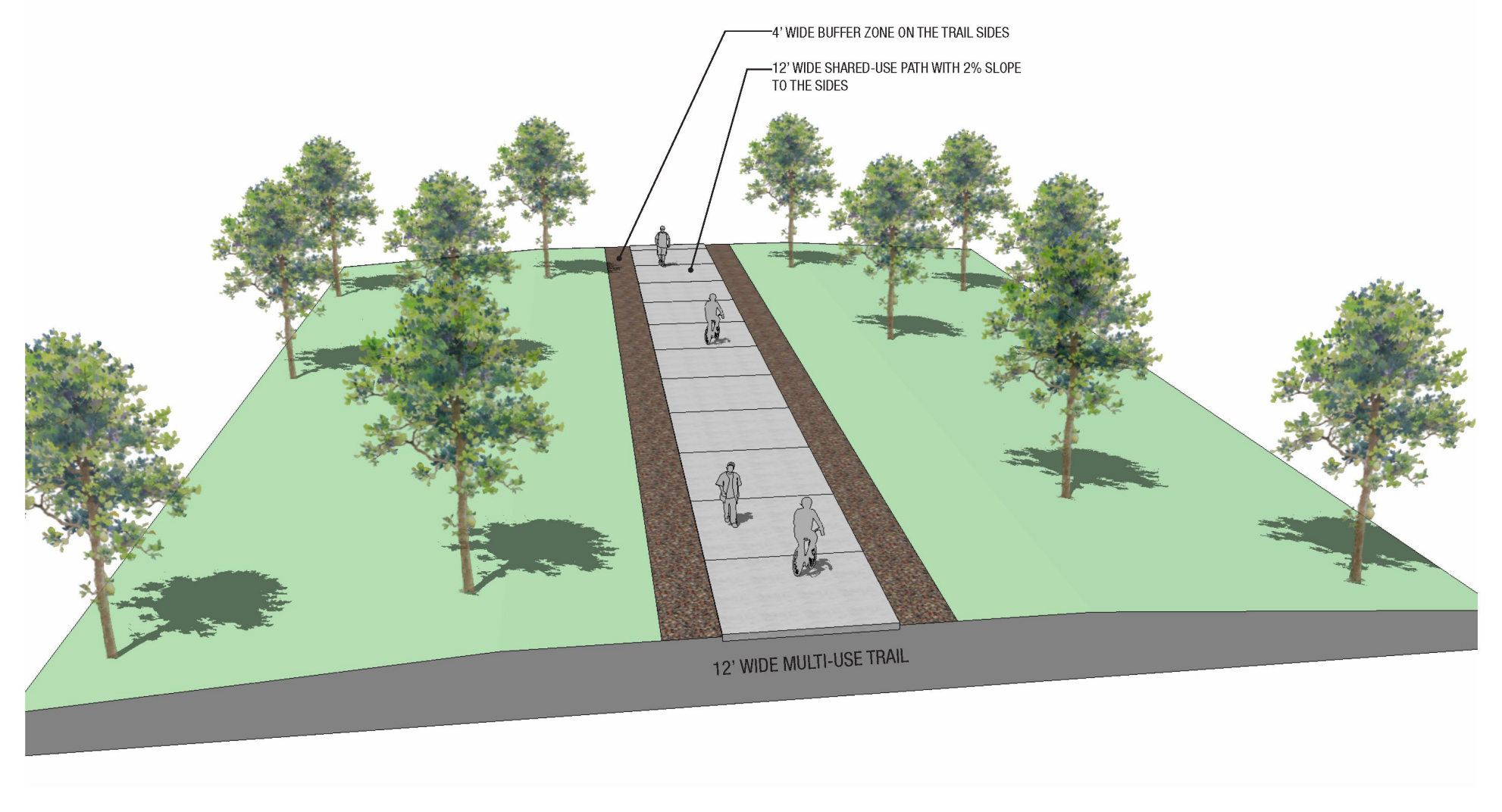
COMMUNITY PARK

NEIGHBORHOOD PARK

TYPICAL TRAIL PROFILES – ROADWAY CORRIDORS



TYPICAL TRAIL PROFILES - GREENWAY



NEXT STEPS

Next Steps:

Public Input Meeting #2 (October – T.B.D.)
Draft Recommendations Meeting