Rock Creek Corridor Improvements:

Downtown Center to East Gateway Plan

March 2024


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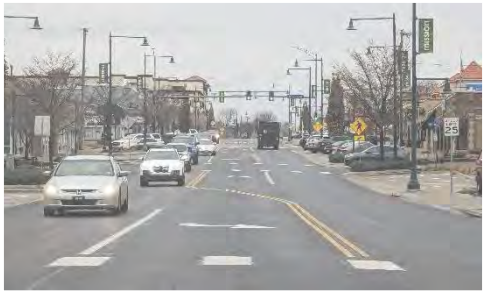

ACKNOWLEDGMENTS

City of Mission Council

Honorable Mayor Sollie Flora (Mayor)
Hillary Parker Thomas (Ward I Councilmember)
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Refer to **Appendix D for additional stakeholders and advisors*

Consultant Team

SWT Design — *Wilson & Company*
Bike Walk KC — *Hoxie Collective*
SingleWing Creative — *TJ Brown & Associates*

The listed phrases/words are based on public feedback gathered from one-on-one focus group meetings, stakeholder meetings, open-house dialogues, and the Walk and Roll event. For more information, please see the "COMMUNITY FEEDBACK" section of the report.

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BACKGROUND

Climate Action Plan

The Mid-America Regional Council (MARC) developed a Regional Climate Action Plan (CAP) to enhance the region's resilience, equity, and health by providing a voluntary framework for coordinated local efforts. The plan encompasses a range of strategies that can be customized to suit individual community priorities, with a strong emphasis on mitigating climate change and achieving net zero greenhouse gas emissions by 2050. It also addresses adapting to climate risks and promoting long-term well-being, with specific interim targets for various sectors like local government operations, energy generation, and buildings. The plan underscores the interconnectedness of its strategies for a comprehensive approach. The City of Mission adopted the plan and continues to work toward implementing climate action efforts within its jurisdictional context.

Planning Sustainable Places

This project is a Planning Sustainable Places (PSP) project. The PSP program strives to enhance local transportation and land use planning by supporting vibrant, connected, and green communities. Through funding from Surface Transportation Block Grants, the program encourages sustainable concepts and project-specific activities aligned with activity centers and corridor planning. The Sustainable Places Policy Committee evaluates projects in three planning phases, ensuring community engagement and collaboration. The program aims to create diverse, well-connected, and environmentally healthy places while utilizing various transportation options.

Part of the goal of this project is to understand how changes to the Rock Creek corridor could lessen climate change impacts in the KC region.

PROJECT APPROACH

This project explores an improvement plan for the eastern section of the Rock Creek corridor between Woodson Road and Roeland Drive, a 1.65-mile shared-use path that serves as an east-west connector in the City of Mission Kansas. The project approach outlines the existing conditions assessment and engagement process.

Plan Roadmap

The subject areas listed below constitute the framework of the Rock Creek Improvement Plan.

1. • Existing Conditions Assessment
2. • Public Engagement Activities
   - •City meetings, stakeholder meetings, online survey, focus group meetings, public meetings and Walk & Roll workshop
3. • Recommendations - Rock Creek Corridor
   - •General Martway Street Safety Improvements
   - •**Rock Creek Trail Design**
   - •**Martway Complete Streets Design**
4. • Funding and Implementation Opportunities

Figure 1 - Plan Roadmap

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Existing Conditions Assessment

An existing conditions assessment was conducted to evaluate the current conditions of the Rock Creek corridor and identify challenges and opportunities within the project area. A 300-foot project parameter along the trail was used to identify property owners and measure existing conditions.

The components of the existing conditions assessment were:

- Plan Review
- Demographic Profile
- Land Development Review
- Transportation Review
- Environmental Review
- Utility and Services Review

This assessment provides an understanding of the existing trail conditions, project area profile, potential opportunities and constraints, and traffic safety conditions. The existing conditions assessment addresses opportunities for stormwater, transportation, sustainability, and water protection and assists in guiding the development of recommendations. Refer to **Appendix A** for further details.

Engagement

The project team actively engaged with the City of Mission, stakeholders, business owners, residents, and interested individuals in the community. The design process centered on community engagement to address and consider community voices and priorities. Community engagement played a crucial role in guiding the project team to develop concepts for the Rock Creek trail that aligned with city and public goals that enhance the quality of life and functionality of the Rock Creek corridor. Refer to **Appendix B** for further engagement details.

Stakeholder Group

The stakeholder group consists of business owners, city staff, local organization leaders, representatives, and local property owners. The purpose of the stakeholder committee is to serve as a sounding board for the project team and help prioritize recommendations and methods that reach all area residents' voices and interests. The project team held two stakeholder meetings to discuss project goals, opportunities, engagement process, and design feedback.

- August 10th, 2023
- November 16th, 2023

Walk & Roll Workshop

The Walk & Roll workshop was the initial public engagement outreach where a walking tour was held for the residents of Mission to engage with the project process. The Walk & Roll consisted of two groups: walkers and bikers, who were able to experience the trail, discuss existing trail conditions, identify opportunities and challenges, and cultivate a shared understanding of the state of the Rock Creek corridor. The Walk and Roll event garnered positive community reception, drawing over **40 attendees**.

- September 16th, 2023

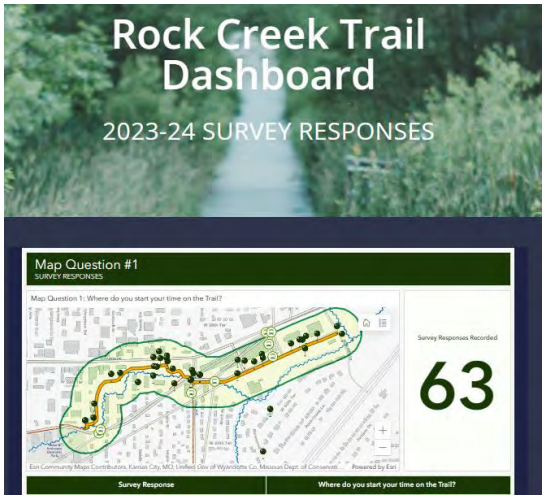
Focus Groups

Focus groups consists of business and residential groups. The purpose of the focus groups was to understand each group's personal interests, goals, priorities, and concerns about the Rock Creek trail. The project team held multiple one-on-one meetings on-site with individual businesses, and one residential focus group meeting.

- October 3rd, 2023 - Residential Focus Group
- September-October, 2023- Business Focus Groups

Rock Creek Improvement Online Survey

An online public survey was conducted for 8 weeks to gather public input regarding trail and street improvements, concerns, green infrastructure strategies, and new public amenities. The results of the survey guided the project team throughout the design process to address public interests in the resulting design concepts. Refer to **Appendix C** for survey results.



ROCK CREEK DESIGN CONCEPTS

Design concepts for the Rock Creek corridor have a unique opportunity to address multiple overlapping needs along the trail. The proposed concepts and recommendations address those needs along the corridor through transportation, public space and amenities, and sustainability strategies. These concepts were developed by synthesizing existing conditions analysis, public engagement, future growth and impacts, feasibility, and city interests. Design concepts aim to enhance multiple aspects regarding function and quality of life enhancements for people who utilize the Rock Creek corridor.

Proposed improvements are focused within the study corridor limits from Woodson Road to Roeland Drive. If opportunities arise, the City should consider acquiring flood-prone parcels to create additional open and interactive space for amenities and green infrastructure elements.

Needs and Priorities

Between engagement and survey results, needs and priorities were identified to help guide design recommendations. Below is a compiled list of opportunities as identified by each engagement group.

Stakeholders

- Beautify Martway/complete streets – landscaping, shade trees, a trail – not just a sidewalk.
- There needs to be a cohesive connection with the trail
- Activate Nall & Martway intersection – add connections
- Formalize a Maple Street connection

Residential Focus Group

- Improve safety (lighting, trail marking, Outlook Street parking activation behind businesses on Johnson Drive with trail crossing)
- Shorter and more visible crossings on Martway
- Resident cleanup groups, trail sponsors, etc.
- Nall and Martway intersection needs more bike-ped priority and seamlessness

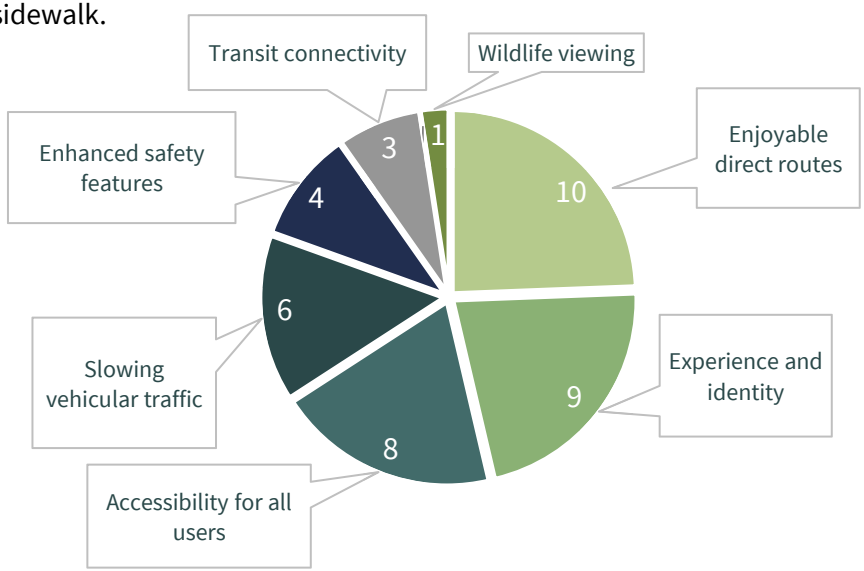


Table 1 - Survey Results: Key factors needed for enhanced experience

Business Focus Group

- The Market would benefit from more intentional design for shade and gathering spaces
- Increase in opportunities for community spaces – drives attraction and walkability
- The more walkable, the more livable
- Create more natural congregation spaces (Barcelona Plazas)
- Bike racks
- Safety technology at crossings
- More previous surfaces
- Make it cute!

Pedestrians & Bikers

- Wayfinding (design for directional signposts and information signs)
- More shade and tables, the umbrellas are not enough
- Benches and rest stops
- Traffic calming
- Dog waste stations
- More hydration hubs
- Enhancing connections
- Defining spaces better
- Adding beatification and experiences
- Signage, signage, signage!
- Automated pedestrian signals
- Dedicated bike infrastructure on Martway

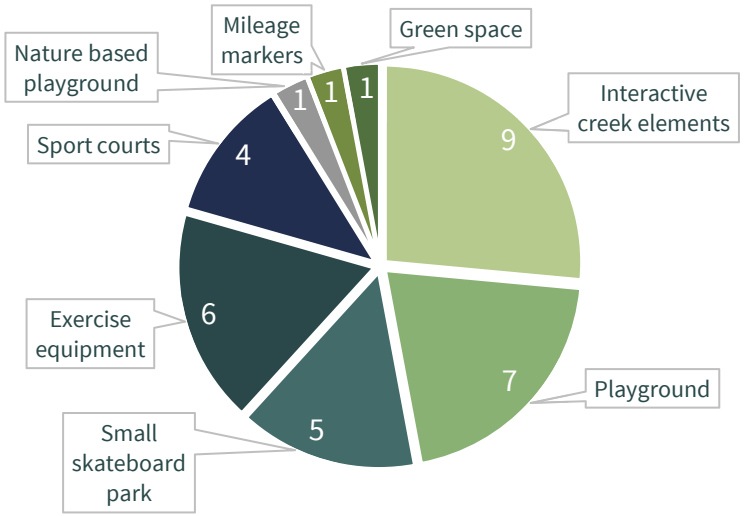


Table 2 - Survey Results: Active recreation elements wanted

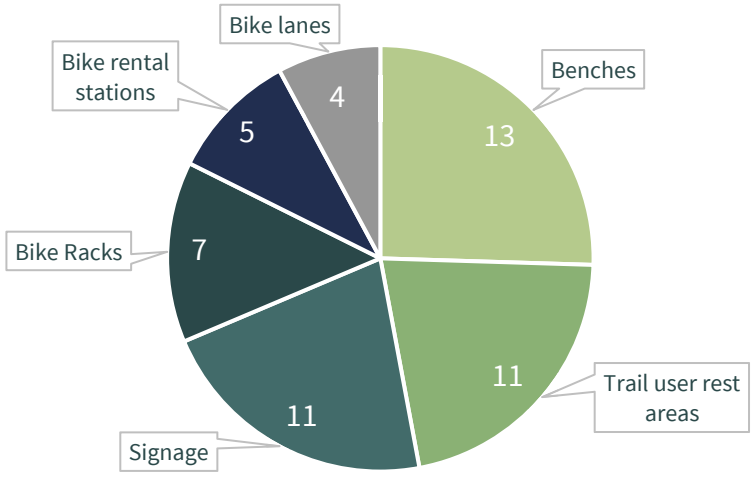


Table 3 - Survey Results: Infrastructure features wanted

Concept #1 – Rock Creek Park

The Rock Creek Park concept for downtown Mission emphasizes the maximization of open green space, incorporation of stone walls inspired by the region's historic use, and utilization of a water feature inspired by the adjacent creek. The design includes a fitness space, a permanent pavilion for the Farmers Market and events, and a restroom for market activities. Closing Reeds Road to vehicular traffic enhances open space and minimizes conflicts. Traffic tables and chicanes are proposed for improved trail user safety. The design also focuses on connecting existing and new park spaces, introducing a bioretention area, a pollinator landscape, and community spaces. Green infrastructure is a key element, and proposed improvements to the Rock Creek stream channel include enhanced natural fencing and guardrails.

Figure 2 - Concept 1: Rock Creek Park

Rock Creek Park Trail Section

Concept 1 introduces new and unique trailside features that enhance the experience on the trail and the surrounding environment. **Figure 3** illustrates elements such as rustic limestone walls and contemporary pedestrian-scale lighting along the trail path. Stone mile markers and guardrails placed along the trail path would create an interactive and safe space.

Potential Enhancements

- Stone Walls
- Contemporary Pedestrian Lighting
- Pollinator Gardens
- Pump Track
- Fitness Court
- Pavilion
- Splash Pad
- Creek Edge Guard Rail
- Trash and Recycling Receptacles
- Rock Creek Trail Markers
- Recirculating Water System
- Bioswales
- Bioretention Ponds
- EV Charging
- Green Curb Inlets
- Entry Node
- Street Closure
- Restroom
- Chicanes
- Speed Tables
- Wayfinding
- Dog-waste Stations

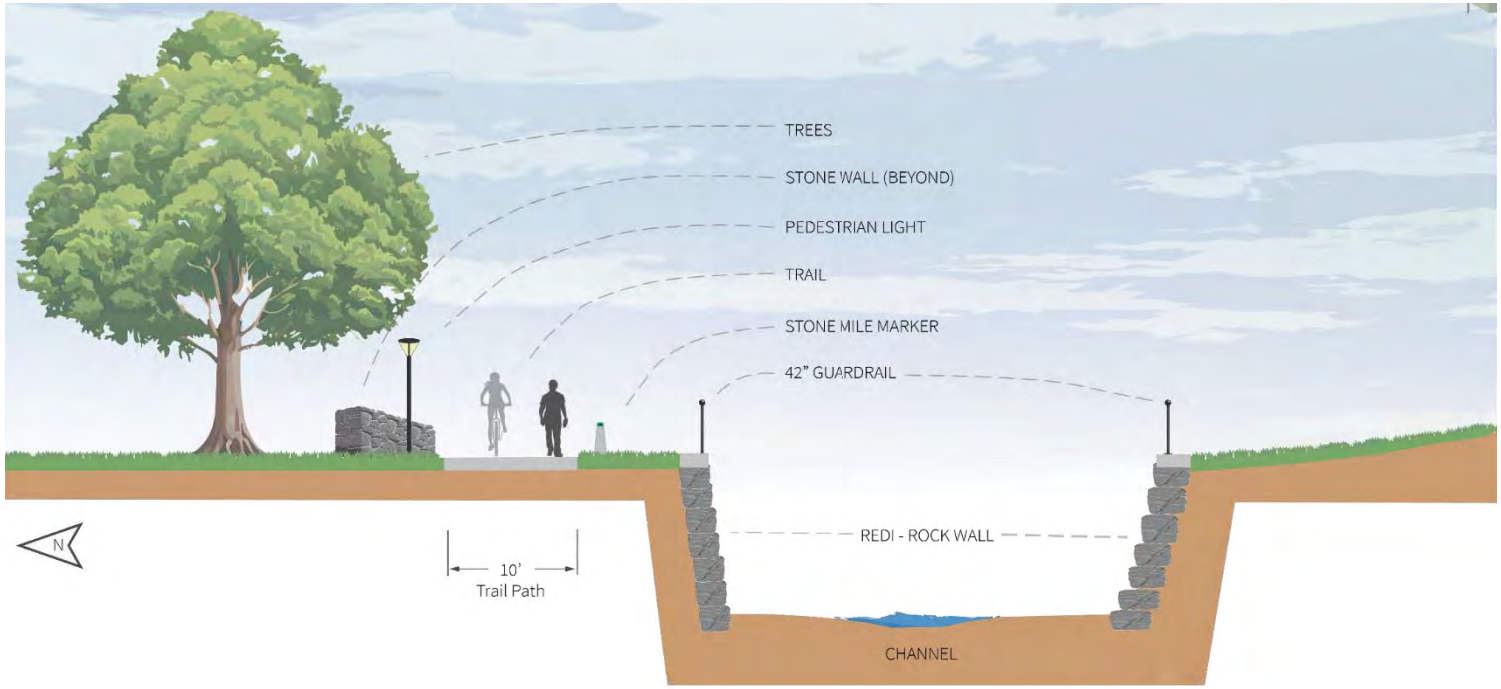


Figure 3 - Rock Creek Park Trail Section

Concept #2 – Market in the Green

The Market in the Green concept envisions expanding events, pop-up markets, and the Farmers Market beyond Johnson Drive, utilizing City-owned property to the west. Key features include a large pavilion on Johnson Drive, smaller pavilions to the west, restrooms, and artful shade structures for visual interest during events. A fitness area near the large pavilion, along with pollinator landscapes and a bioretention area, would emphasize the connection between farmers, food, and biodiversity. Unlike the previous concept, Reeds Road remains open, with proposed traffic tables and chicane street alignments to enhance safety. Additional permeable parking with sub-surface stormwater storage is suggested to support the market and events.

Figure 4 - Concept 2: Market in the Green

Market in the Green Trail Section

Concept 2 introduces new and unique trailside features that enhance the experience on the trail and the surrounding environment. **Figure 5** illustrates elements such as pollinator gardens and traditional pedestrian-scale lighting along the trail path to enhance the natural environment experience by creating interactive and safe spaces.

Potential Enhancements

- Traditional Pedestrian Lighting
- Pollinator Gardens
- Speed Tables
- Chicanes
- Bioretention Ponds
- Green Curb Inlets
- Bioswales
- Pervious Pavement
- EV Charging
- Restroom
- Shade Structures
- Art Structures
- Fitness Area
- Event Space
- Pavilion
- Trash and Recycling Receptacles
- Wayfinding Signage
- Creek Edge Guard Rails
- Dog-waste Stations

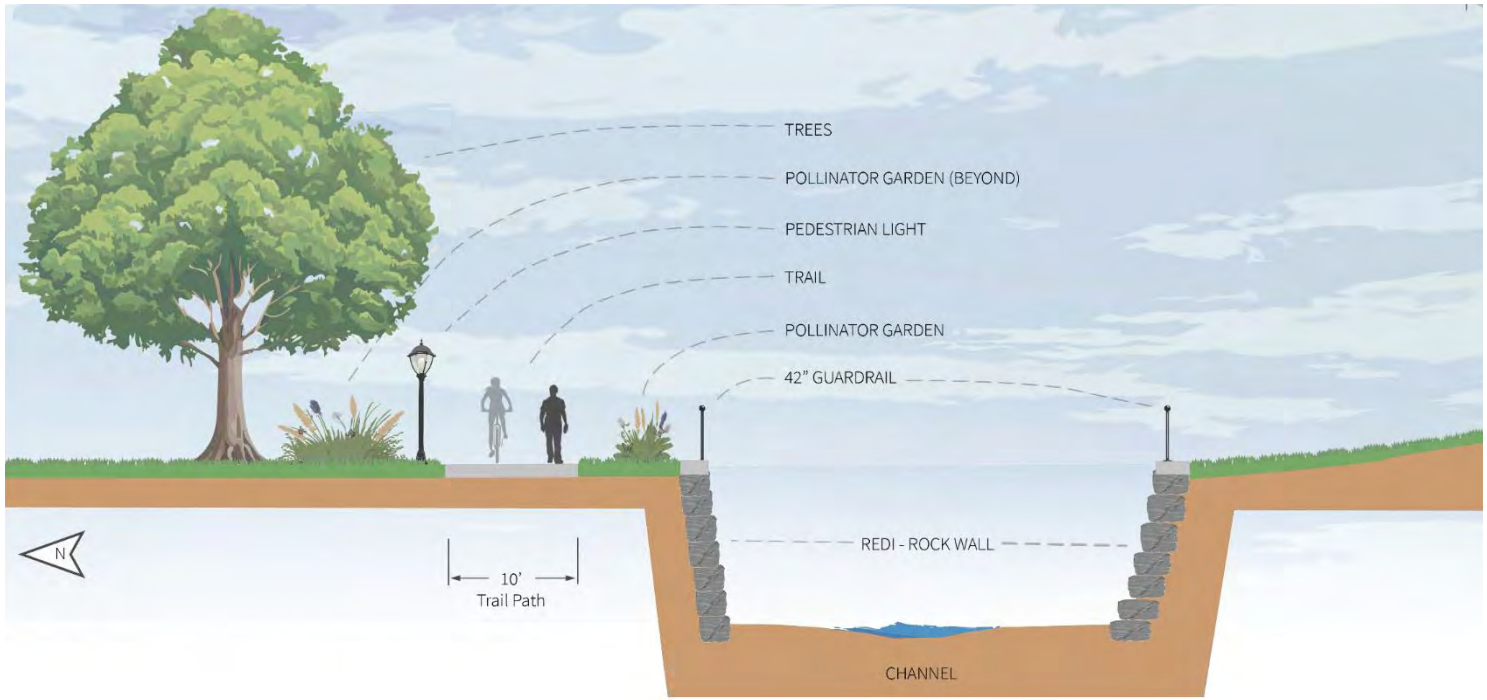


Figure 5 - Market in the Green Trail Section

MARTWAY COMPLETE STREETS

The Martway Complete Streets approach focuses on improving Martway Street, east from Nall Avenue to Roeland Drive. These improvements are aimed at enhancing this segment of Martway Street through improvements in traffic safety, multi-modal integration, connectivity, and accessibility. Design approaches and treatments were evaluated through traffic volume analyses, road geometry, and future growth.

Safety Improvements

High-Intensity Activated Crosswalk (HAWK)

A traffic control device that stops traffic and assists pedestrians crossing at major arterials, intersections, and midblock crossings. HAWK signals can reduce up to **29%** of total crashes and **69%** of pedestrian collisions.

Read more: High-Intensity Activated Crosswalks (HAWK) I FHWA (dot.gov)

Figure 6 - HAWK Signal (City of San Rafael, CA)

Rectangular Rapid Flashing Beacon (RRFB)

A safety treatment device that flashes yellow lights to alert drivers of crossing pedestrians and cyclists at marked locations with uncontrolled or unsignalized crossings. RRFBs can reduce up to **47%** of pedestrian collisions and **97%** increase in motorists yielding.

Read more: Rectangular Rapid Flashing Beacons (RRFB) I FHWA (dot.gov)

Figure 7 - RRFB (FHWA)

Raised Speed Table

A midblock traffic calming treatment that raises the entire wheelbase of a vehicle across a roadway to physically slow down and limit the speed of a motorist. Raised speed tables can reduce up to **36-64%** of crashes and slow down speeds between **4-11 mph** in the 85th percentile range.

Read more: Raised Speed Table | FHWA (dot.gov)

Figure 8 - Raised Speed Table (NACTO)

Pedestrian Refuge Islands

A protected space placed in the center of the road usually accompanied by a median to protect and facilitate bicycle and pedestrian crossings. Refuge islands can reduce up to **56%** of pedestrian collisions and enhance the visibility of the crossing.

Read more: Medians and Pedestrian Refuge Islands in Urban and Suburban Areas | FHWA (dot.gov)

Figure 9 - Refuge Island (NACTO)

High Visibility Crosswalk

A traffic calming treatment that enhances crosswalk visibility (solid and ladder merged crosswalks), signs, and alerts drivers of potential crossing pedestrians. High-visibility crosswalks can reduce up to **40%** of pedestrian collisions.

Read more: Crosswalk Visibility Enhancements | FHWA (dot.gov)

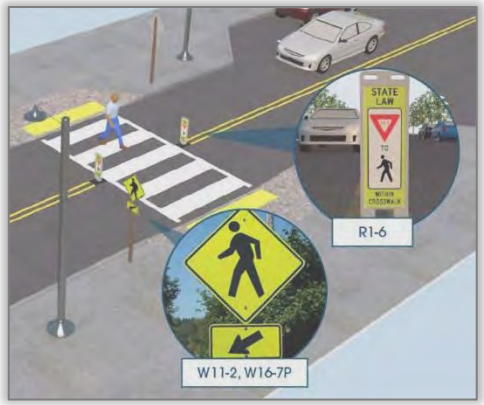


Figure 10 - High-Visibility Crosswalk (FHWA)

Street Trees

A cost-effective traffic calming treatment that creates visual friction and optical narrowing to reduce traffic speeds along a road segment.

Read more: Countermeasures (*5.5.5.2 Landscaping*) | FHWA (dot.gov)

Figure 11 - Street Trees (City of Falls Township)

Nall Avenue Intersection Improvement

The Nall Avenue intersection is a leading topic in the conversation for activating and improving the functionality and safety of Martway Street due to existing conditions and incoming future growth. Three main factors are considered for improving the intersection: **safety**, **accessibility**, and **connectivity**.

Safety

- Maintain left-turn lanes. Reduce through lanes from 16-ft to 12-ft
- High visibility crosswalk improvements

Connectivity

- 10-ft Right-of-Way (ROW) available on the north side; North sidewalk connection
- North and south connection to the trail

Accessibility

- Crosswalks at each leg of the intersection for accessibility from all cardinal directions to and from the trail
- Leading Pedestrian Interval (LPI) traffic signals at the intersection

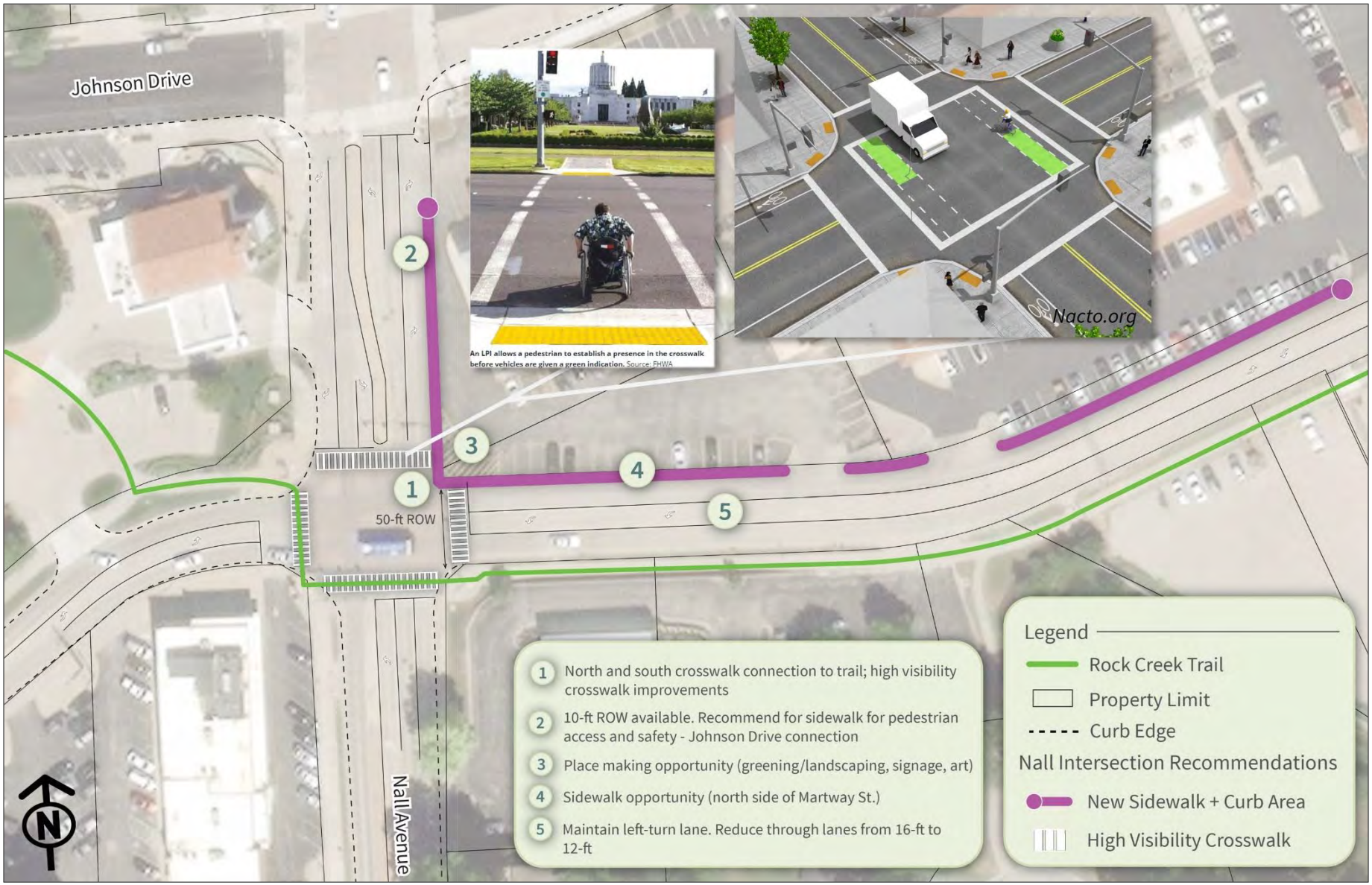


Figure 12 - Nall Avenue Intersection Improvement Plan

Alternative 1: Cycle Track

Alternative 1 implements a protected cycle track on the north side of Martway Street that reduces the existing lanes from three lanes to two lanes while maintaining the existing curb-to-curb roadway width. The south side sidewalk remains unchanged. Alternative 1 aims to provide a continuous north side connection from the trail while implementing new on-street infrastructure that reduces driving roadway and slows traffic, creating a safe road environment for all users.

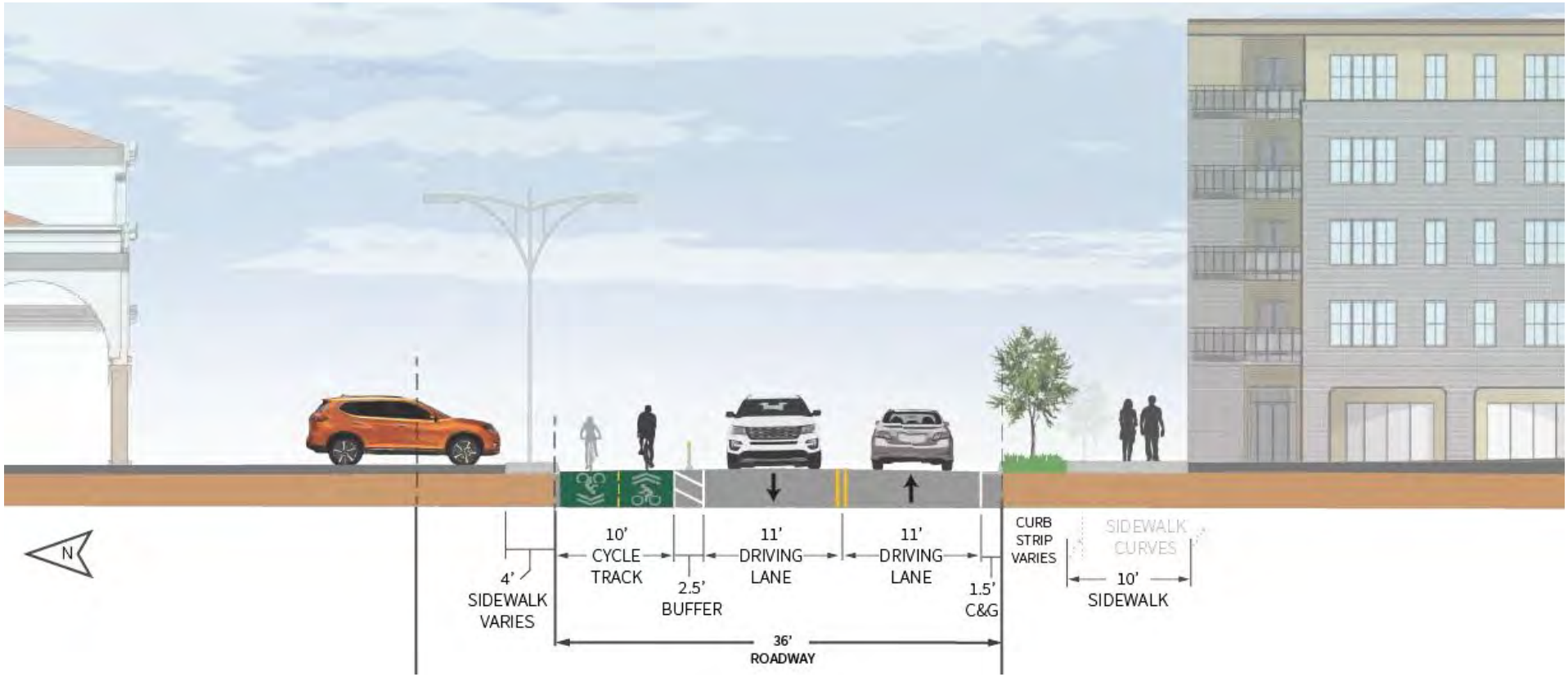


Figure 13 - Alternative 1: Cycle Track

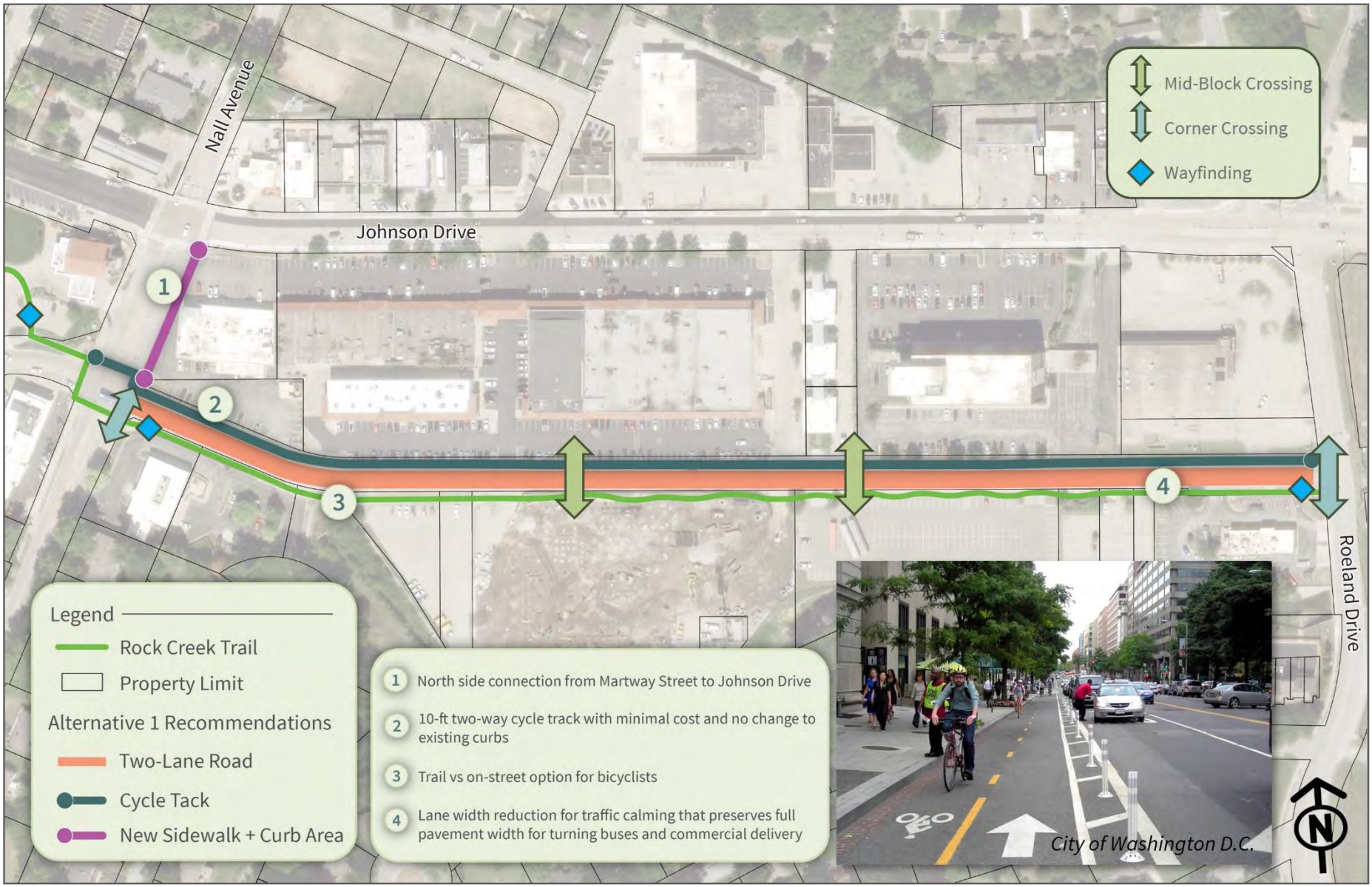


Figure 14 - Cycle Track Plan Diagram

Alternative 2: Median

Alternative 2 provides an 8-ft median along Martway Street that reduces curb-to-curb roadway width and reduces lanes from three lanes to two lanes with preserved left-turn lanes. The north side curb is reconstructed closer to the street allowing for a 5-ft sidewalk on the north side (where applicable), creating a continuous north side connection from the trail. The south side sidewalk remains unchanged. Alternative 2 aims to create a safer road environment by physically reducing curb-to-curb distance with a median providing visual friction and narrowing turn radii to improve roadway safety, crossing distances, and pedestrian access and connectivity.

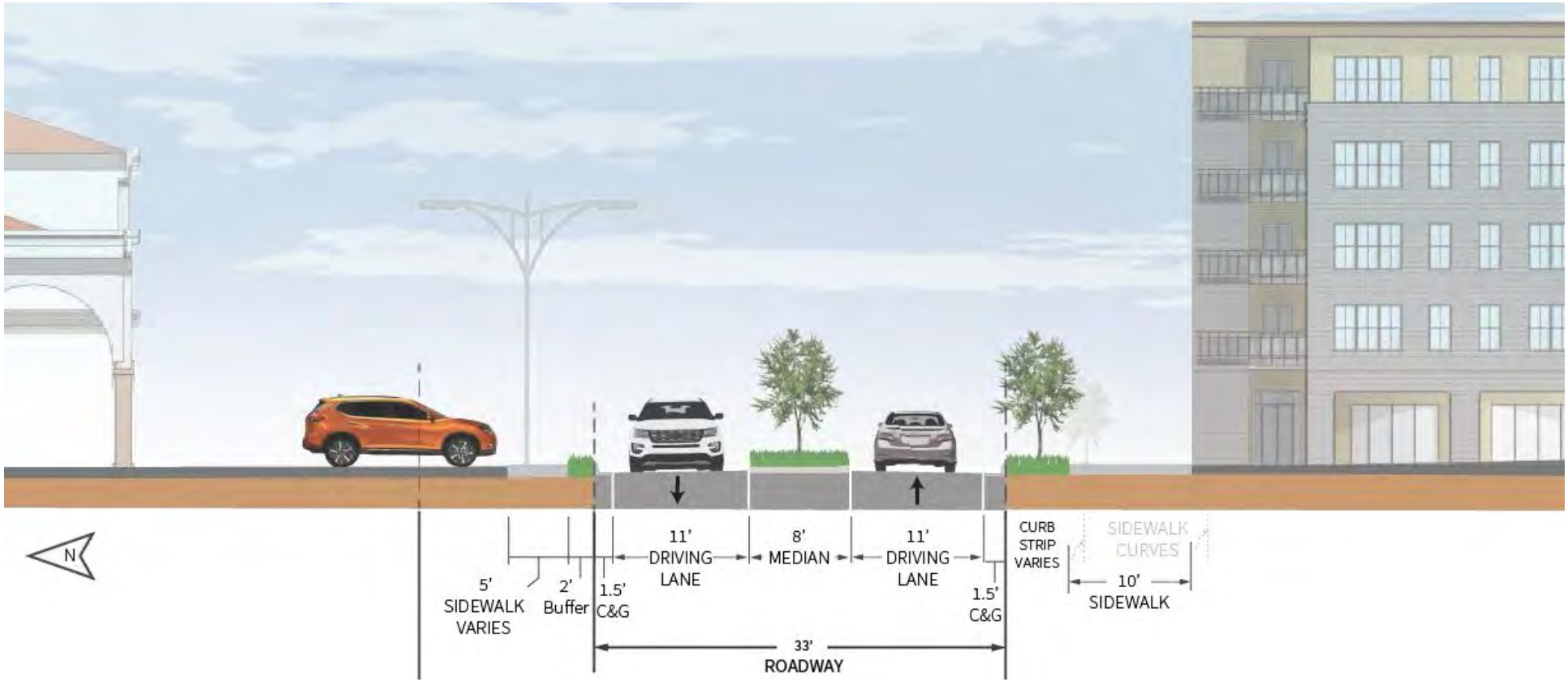


Figure 15 - Alternative 2: Median

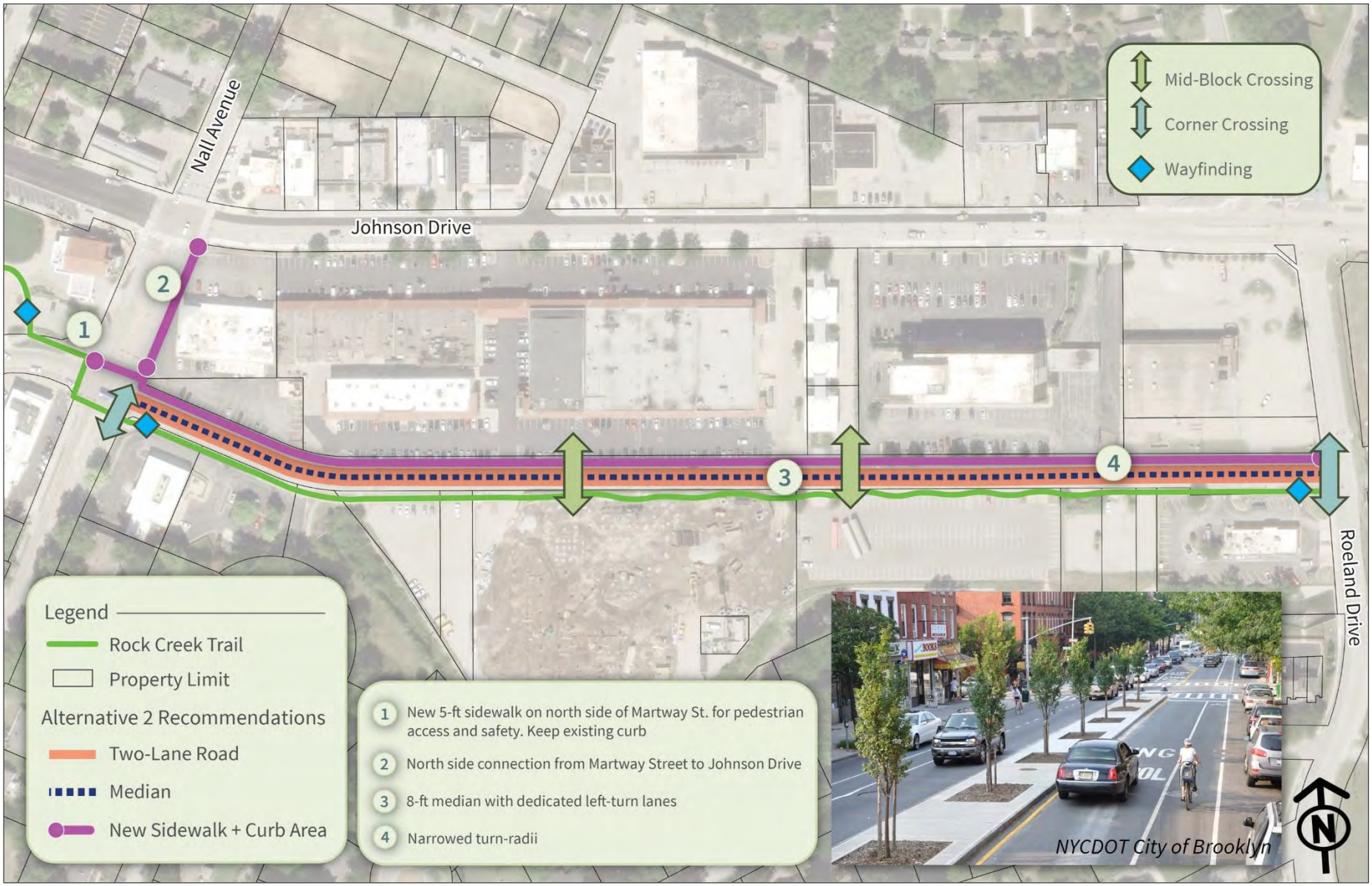


Figure 16 - Median Plan Diagram

Alternative 3: North Sidewalk

Alternative 3 provides a reconstructed curb-to-curb reduction from the existing 36-ft to 25-ft of roadway that allows for an 8-ft sidewalk on the north side of Martway Street. The reduced roadway width will narrow turn radii that aim to slow traffic, reduce crossing distance, and create a safer road environment for all users. The north sidewalk will provide ample space for street furniture and utilities, maximizing the shared-use space for both trail paths and reducing two-way mode conflicts. Alternative 3 aims to improve continuous connectivity, accessibility, and roadway safety.

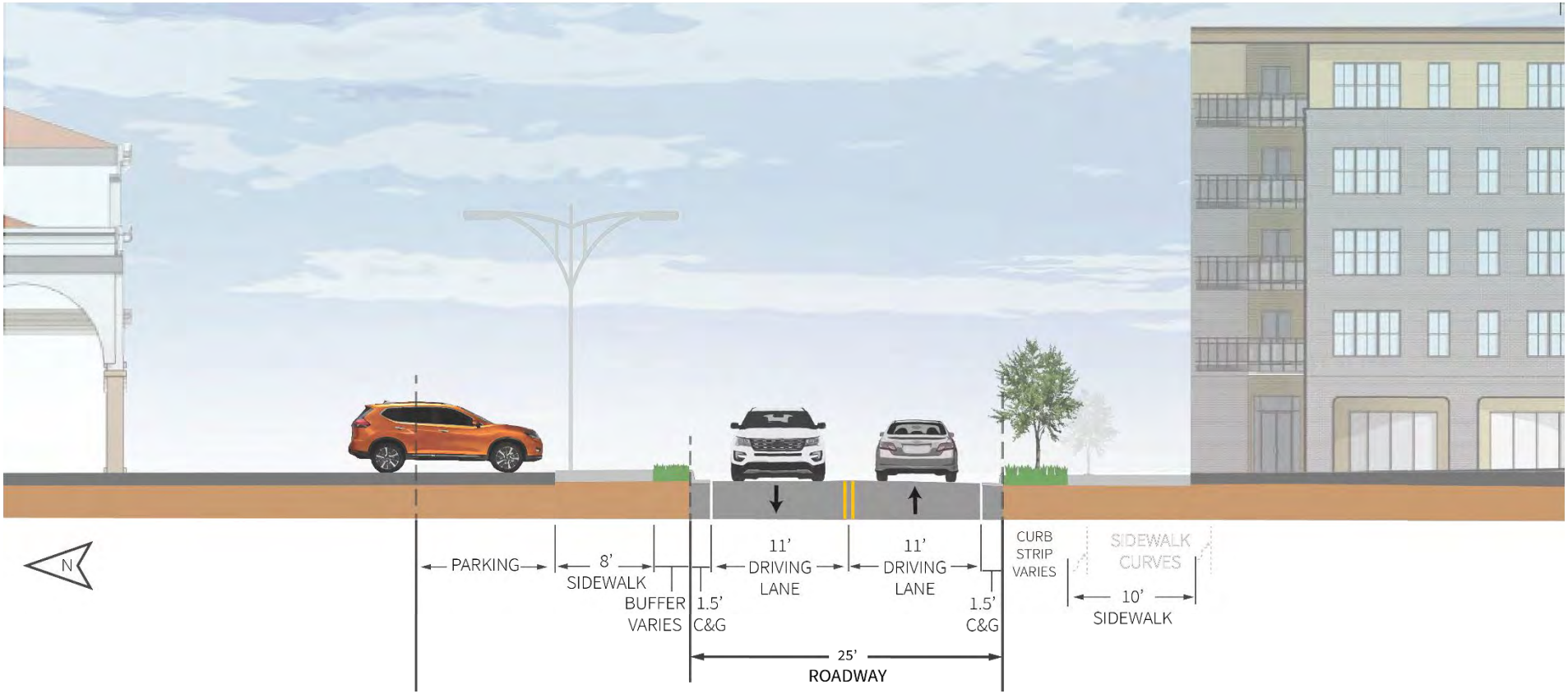


Figure 17 - Alternative 3: North Sidewalk

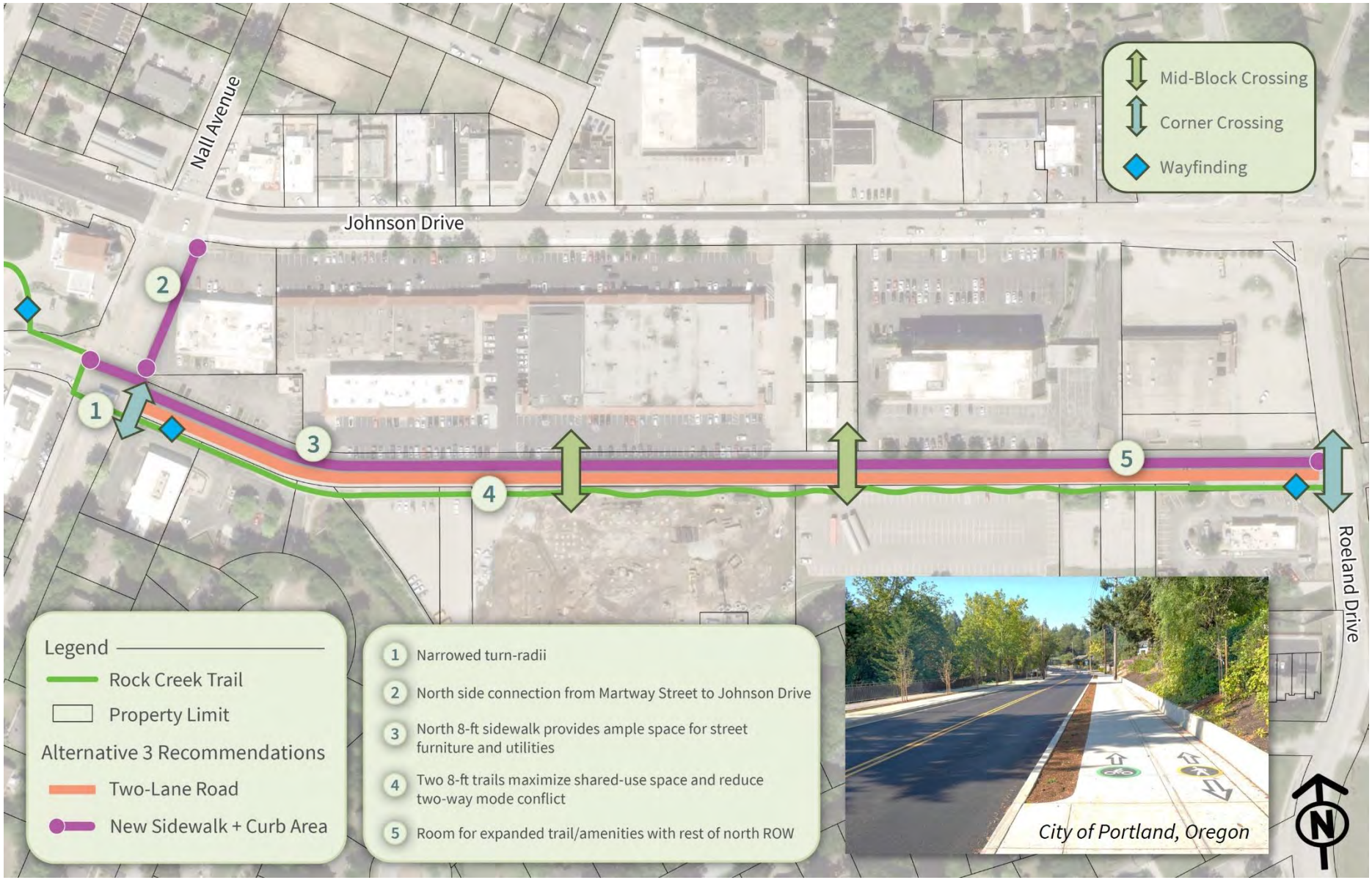


Figure 18 - North Sidewalk Plan Diagram

COMMUNITY FEEDBACK

Community feedback was collected to refine concept elements, identify building recommendations for further consideration, and further address community input.

Concept 1 Dialogue

- Increase focus on the safety issues that have been communicated
- Add a pedestrian/bike connection at Reeds Road if closed to vehicular traffic
- Appreciation of west-end utilization where currently there is a lot of vacancy
- I like the market structure and restrooms – they serve more than just trail users
- I like the trees and vegetation between the trail and street (Johnson Drive), which also acts as a noise buffer – I would appreciate as much separation as possible
- I like the market space and water feature, which creates opportunities for more diverse uses and audiences
- Some are concerned about the maintenance of the water feature and perception when the water is not running
- I appreciate the accessibility to all businesses and amenities of concept 1 – compliments the experience and connectivity
- Low-maintenance synthetic turf is preferred
- This pavilion would be a great opportunity to have a space to program live music
- Great idea to beautify the parking areas and the edge of the channel with plantings
- The pump track is a highly requested feature
- Great opportunities for both public art and landscape integration

An open-house design table discussion

Concept 2 Dialogue

- Why more parking on the west end? – additional market space and parking for new gathering spaces
- Potential opportunity for food trucks and new vendors
- Space for multi-purpose but back of buildings aren't attractive
- I like the signature shade structure – it adds artistic character
- I like activating more of the west and south parts of the study area
- The event space at Capital Federal Bank is exciting

Complete Streets Dialogue

- Majority of residents liked the cycle track
- Potential for sidewalks on both sides of Martway Street
- Add plantings and vegetation to beautify and buffer from car traffic
- The trickiest part of walking in the area is crossing Martway (hills, low visibility, narrow sidewalk, no buffer from fast-moving vehicles
- The potential to connect Pearl Harbor Park is a great idea
- Identify the safest spots to cross and provide wayfinding
- I like the idea of reducing the Right-of-Way (ROW)
- Crossing Nall in 2 phases is a terrible idea
- I would like the cycle track long-term, but it is ahead of its time without a full city bike plan
- Parking will start to be a premium on the east-end of the corridor
- Reduce crossing length and naturally slow the flow of traffic

Open-house attendance and design feedback

RECOMMENDATIONS

The building recommendations for the Rock Creek corridor were developed from public input, the existing conditions assessment, and the alignment of the City's interests and goals.

Open House – Vote Ballot

An open house was held on December 7th, 2023 at the Powell Community Center where residents gave final feedback on the design concepts for the Rock Creek Trail and Martway Street. The project team discussed the concepts with the community residents and City staff to refine recommendations. Refer to **Appendix B** for further details.

A vote ballot was created to record and understand majority preferences among design concepts. Community members cast their ballots on their top preferences. The results are below:

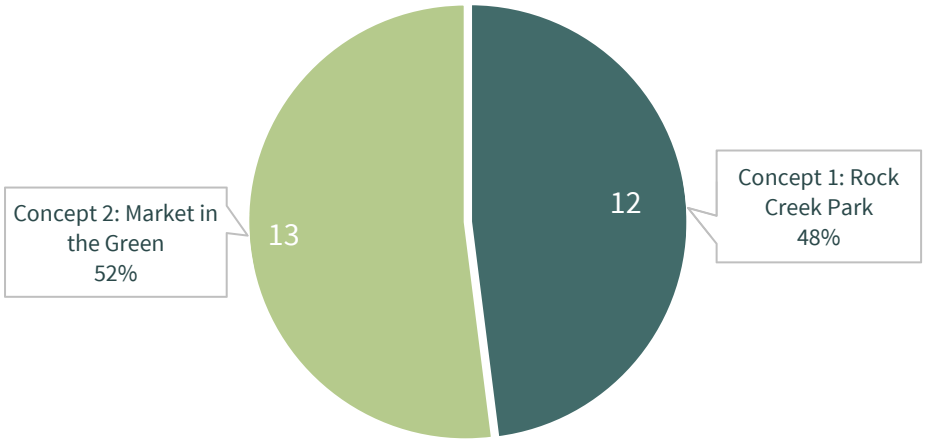


Table 5 - Rock Creek concept ballot results

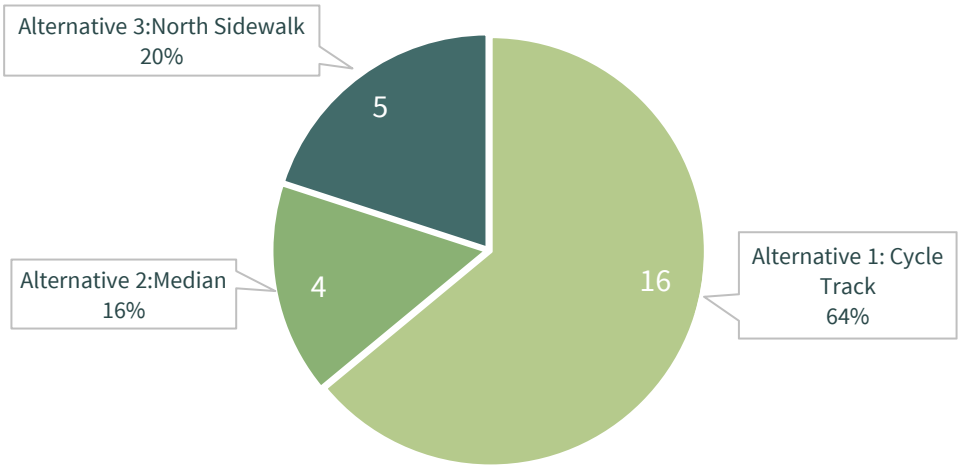


Table 4 - Martway Street alternative ballot results

Cost-Benefit Tradeoff Analysis

Table 6 provides a comprehensive understanding of the individual design concepts to compare benefits, opportunities, feasibility, community priorities, and project-goal achievement.

The Cost-Benefit matrix splits concepts 1 and 2 with elements, planning level costs, and project goal achievement. At the bottom of the matrix, there is a score analysis of how each concept ranks in terms of the analysis factors.

- **Concept 2** scores at a lower cost than Concept 1
- **Concept 1** scores higher than Concept 2 in transportation
- **Concept 1** scores higher than Concept 2 in green infrastructure and sustainability
- **Concept 1** scores higher than Concept 2 in public amenities and programming

Ultimately, the City has the opportunity to implement elements from either concept. Our analysis shows community support for both concepts. Considering the cost-benefit trade-off analysis results, there is more benefit to meeting project goals in Concept 1.

Please refer to **Appendix E** on cost-benefit methodology.

Table 6 - Cost-Benefit Trade-off Matrix

Rock Creek: Cost Benefit Trade-off					
Option:	Element:	Cost ($-$$$$):	Project Goals/Benefits Met:		
			Transportation:	Green Infrastructure & Sustainability:	Public Amenities & Programming:
Concept 1: Rock Creek Park	Speed Table	$$$$	X		
	Street closure	$$$$	X	X	X
	Hammerhead turn radii	$$$	X		
	Chicanes	$$	X	X	
	Stone wall	$$$			X
	Bioretention pond	$$$		X	X
	Green curb inlet	$$	X	X	
	Bioswale	$		X	X
	Tree	$		X	X
	Pollinator garden	$$		X	X
	EV charging	$$$	X	X	X
	Recirculating system	$$		X	X
	Restroom	$$$			X
	Fitness court	$$$		X	X
	Pavilion	$$$$			X
	Entry node	$			X
	Pump track	$$$	X	X	X
	Rock Creek Trail Marker	$	X		X
	Splash Pad	$$$		X	X
	Creek Edge Guard Rail	$		X	X
	Wayfinding Signage	$$	X		X
	Trash and Recycling Receptacles	$		X	X
	Pedestrian light pole	$$	X		X
	Average/Total Criteria	***2.35***	***10***	***14***	***19***
Concept 2: Market in the Green	Speed Table	$$$$	X		
	Parking Lot	$$	X		X
	Chicanes	$$	X	X	
	Bioretention pond	$$$		X	X
	Green curb inlet	$$	X	X	
	Bioswale	$		X	X
	Pervious pavement	$$	X	X	
	Tree	$		X	X
	Pollinator garden	$$		X	X
	EV charging	$$$	X	X	X
	Recirculating system	$$		X	X
	Restroom	$$$			X
	Shade structure	$$$			X
	Fitness Area	$$			X
	Pavilion	$$$$		X	X
	Event space	$$			X
	Trash and Recycling Receptacles	$		X	X
	Rock Creek Trail Marker	$	X		X
	Wayfinding Signage	$$	X		X
	Creek Edge Guard Rail	$		X	X
	Pedestrian light pole	$$	X		X
	Average/Total Criteria	***2.14***	***9***	***12***	***17***

MARC Mid-America Regional Council

mission kansas

WILSON & COMPANY

Preferred Recommendations

The preferred recommendations are suggested improvements that are considered to be most ideal to the city and public's interests, the cost-benefit tradeoff analysis recommendation, and the most optimal to enhance the quality of life and functionality of the Rock Creek corridor. Please refer to **Appendix B** for further details on preferred recommendations methodology.

Rock Creek Design Concept 1.2: Rock Creek Park

The community feedback and voting ballot revealed equal support for both concepts. Following extensive discussions and a thorough cost-benefit analysis, Concept 1 emerged as the preferred choice for further development. However, elements favored by both the public and the City from Concept 2 were integrated into a new refined design, Concept 1.2. This new iteration not only aligns with the project's goals but also represents a blend of approaches that resonate with both community and City interests. This refined version incorporates elements from Concept 2, such as an artful pedestrian bridge at Reeds Roads to preserve pedestrian and bicycle connectivity while closing the street to vehicles. A signature shade structure for informal performances on the Capital Federal lawn is an artistic, yet functional, point of interests, and the restroom building is repositioned behind the existing structure. This scenario also includes additional green infrastructure south of the creek on Outlook Street on City-owned property, with a focus on water quality improvements at existing low points before runoff enters the creek.

Figure 19 - Preferred Concept 1.2: Rock Creek Park

Figure 20 - Concept 1.2 NW rendering

Open-House Public Feedback

- Appreciation of west end utilization where currently there are a lot of vacancies
- "I like the market structure and the restrooms – serves more than just trail users"
- "I like the trees and vegetation between the trail and street (Johnson Drive), which also acts as a noise buffer"
- "Like the market space and water feature, creates opportunities for more diverse uses and audiences"
- "I appreciate the accessibility to all businesses and amenities of Concept 1 – compliments the experience of the trial and connectivity "

Martway Complete Streets Alternative 1: Cycle Track

Alternative 1 was voted by the public and the city as the preferred alternative for Martway Street, contingent on roadway safety improvements, connectivity, feasibility, and a multi-modal approach. Alternative 1 aims to improve roadway safety and connectivity through new north side connections and protected on-street infrastructure while managing future growth on the east-end of the corridor.

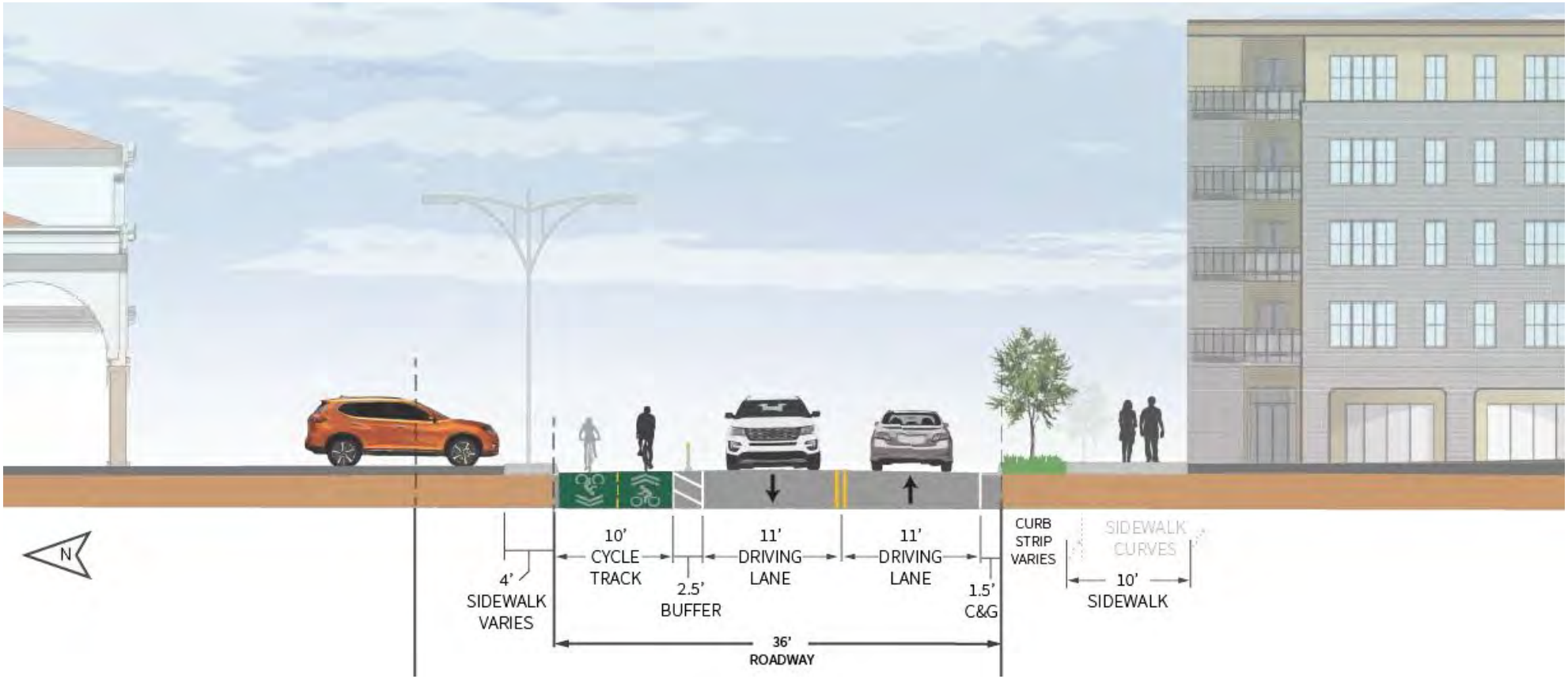


Figure 21 - Preferred Alternative 1: Cycle Track

Figure 22 - Cycle Track NE rendering

Open-House Public Feedback

- A majority of residents like the concept of a cycle track
- "Sidewalks are necessary on both sides of Martway Street"
- "Add plantings and vegetation to beautify and buffer from car traffic – feels more like a trail"
- "Identify the safest spots to cross and provide wayfinding"
- A cycle track will provide a cohesive connection from the west end of the trail – bringing more volume to the east end of the trail

Wayfinding Design

The wayfinding design approach aims to provide a cohesive branding and statement of the Rock Creek Corridor in the community. The proposed wayfinding will communicate locations and opportunities around the Rock Creek corridor to maximize foot traffic and provide key navigation information to surrounding areas along the trail that will create a sense of direction and placemaking. Proposed wayfinding designs are intended to be aesthetically pleasing and cohesive to the Mission Parks + Recreation branding and the surrounding environment. **Figure 23** displays proposed wayfinding designs.

Signpost Design:

- Limestone base
- Mission Parks + Rec branding
- Iconography
- Map location-finding

Scale:

- Large and Medium signs
- Mile/Step-marker posts
- Engraved detail

Engraved/Painted Tile Approach:

- Branding engraved into limestone
- Wayfinding integrated into the rock wall channel feature
- Painted branding/iconography on trail path surface

Education:

- Potential use for nature communication and place sense Interpretive Signing

Figure 23 - Proposed Wayfinding Designs

FUNDING & IMPLEMENTATION

Implementation of the Rock Creek Improvement Plan will rely on some outside sources such as grants and special programs. Some potential funding streams are provided below and may be combined with City funds and private donations.

Funding Opportunities

MARC Planning for Sustainable Places (PSP) Next Round Funding: Implementation

Next-round funding for project implementation through the MARC PSP program is now available as an opportunity for further funding. The MARC PSP program aims to assist local jurisdictions and eligible organizations to advance integrated local transportation, land use planning, and project development actions that support vibrant, connected, and green communities that support healthy living and sustainability. Funding is available to support project implementation and development to further develop and integrate previously identified project needs and concepts outlined in prior plans.

Grants are awarded based on applicant proposal.

Read more: Planning Sustainable Places | MARC

Quadratic Cares 'Energize The Environment' Grant

Quadratic is a leading aftermarket supplier of 4x4 vehicles that is committed to awarding environmental grants to groups and individuals who are pursuing a program or initiative designed to improve the environment. This includes but is not limited to trail-building restoration projects, earth study initiatives, sustainable land management activities, and community environmental projects.

Grants are awarded in amounts of $3,500.

Read more: Quadratec Cares 'Energize The Environment' Grant Program | Quadratec

Sunflower Foundation Grant

The Sunflower Foundation is a statewide health philanthropy and sustainable nonprofit sector with a mission to catalyze improving the health of all Kansans. The Sunflower Foundation is committed to awarding grants to nonprofit organizations with a primary focus on improving community health, social structure, and economic drivers that all contribute to health outcomes.

Grants are awarded up to $25,000 based on the applicant's proposal.

Read more: How We Work - Sunflower Foundation

Building Resilient Infrastructure and Communities Grant (BRIC) – FEMA

The BRIC grant is a federal program offered by the U.S Federal Emergency Management Agency (FEMA) to support states, local communities, tribes and territories efforts to undertake hazard mitigation projects, reducing risks from disasters and natural hazards. BRIC's available funding for fiscal year 2023 is $1 billion. The goal of the program is to address future risks to natural disasters and foster proactive investment in community resilience to reduce disaster suffering.

Grants are awarded based on the applicant's proposal.

Read more: Building Resilient Infrastructure and Communities | FEMA.gov

Flood Mitigation Assistance Grant (FMA) – FEMA

The FMA grant is a federal program offered by the U.S Federal Emergency Management Agency (FEMA) to fund and support states, federal recognized tribal governments, U.S territories, and local government projects that reduce or eliminate the risk of repetitive flooding and damages to buildings insured by the National Flood Insurance Program. FMA's available funding for the fiscal year 2023 is $800 million. The goal of the program is to address future risks to natural flooding and foster proactive investment in community resilience against flooding. Local jurisdictions must apply through the State as a sub-applicant: Kansas Department of Emergency Management (KDEM). This grant opportunity can also be used for property acquisition and relocation of displaced tenants.

Grants are awarded based on the applicant's proposal.

Read more: Flood Mitigation Assistance Grant Program | FEMA.gov

Read more: Hazard Mitigation Assistance | Kansas Adjutant General's Department, KS (kansastag.gov)

Climate Pollution Reduction Grants (CPRG) – U.S EPA

The CPRG grant is a federal program offered by the U.S Environmental Protection Agency (EPA) to fund and support states, local governments, tribes, and territories to develop and implement ambitious plans for reducing greenhouse gas emission and other harmful pollution. This two-phase program provides $250 million for noncompetitive planning grants, and approximately $4.6 billion for competitive implementation grants. If MARC is awarded funding, The City of Mission could apply for funding to potentially implement complete streets and/or some of the improvements in the downtown Market area.

Grants are awarded based on the applicant's proposal.

Read more: Climate Pollution Reduction Grants | US EPA

SS4A Planning & Implementation Grants

Safe Streets and Roads For All (SS4A) is a federal discretionary program established by the Bipartisan Infrastructure Law (BIL) with $5 billion in appropriated fund rounds over 5 years, 2022-2026. The SS4A program funds regional, local, and tribal initiatives to address roadway safety issues through two different types of grants: Planning and Demonstration Grants and Implementation Grants. Eligible applicants include:

- Metropolitan Planning Organizations (MPOs)
- Political subdivisions of the State
- Cities and municipalities
- Counties
- Metropolitan Transit Authorities
- Townships
- Federally recognized Tribal governments

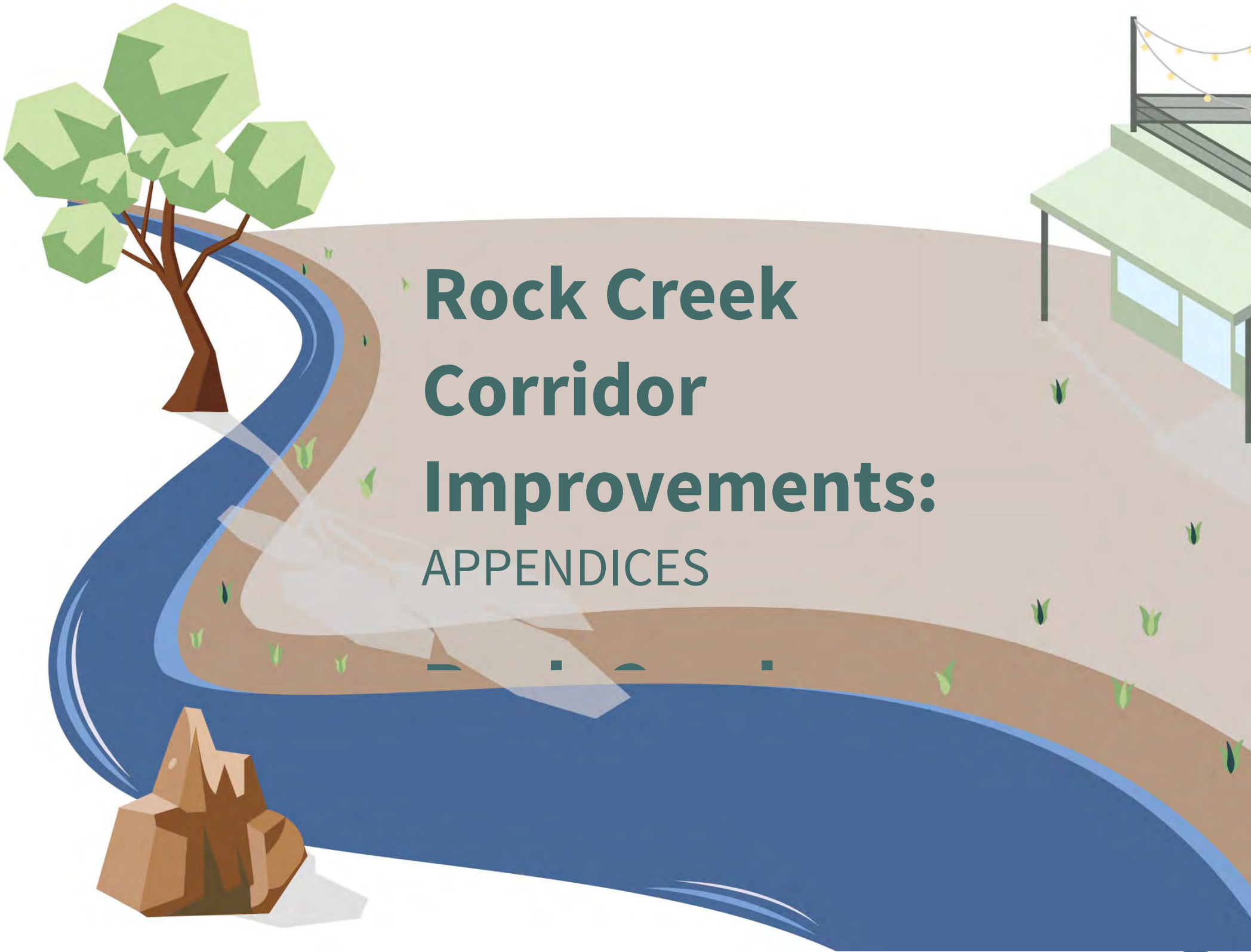
The City of Mission was awarded a Planning and Demonstration grant with a total project cost of $200,000 with a $40,000 local match. The next opportunity for the City of Mission would be the next round of funding for implementation.

Read more: Safe Streets and Roads for All (SS4A) Grant Program | US Department of Transportation

Kansas SS4A Match Pilot Program: Kansas Department of Transportation

The Kansas SS4A Match Pilot Program is a financial initiative to assist local entities awarded by the U.S DOT SS4A grant to provide financial assistance in local match costs and the development of Safety Actions Plans. The Kansas Match Program provided $1.0 million in funding SS4A recipients and is expanding share costs.

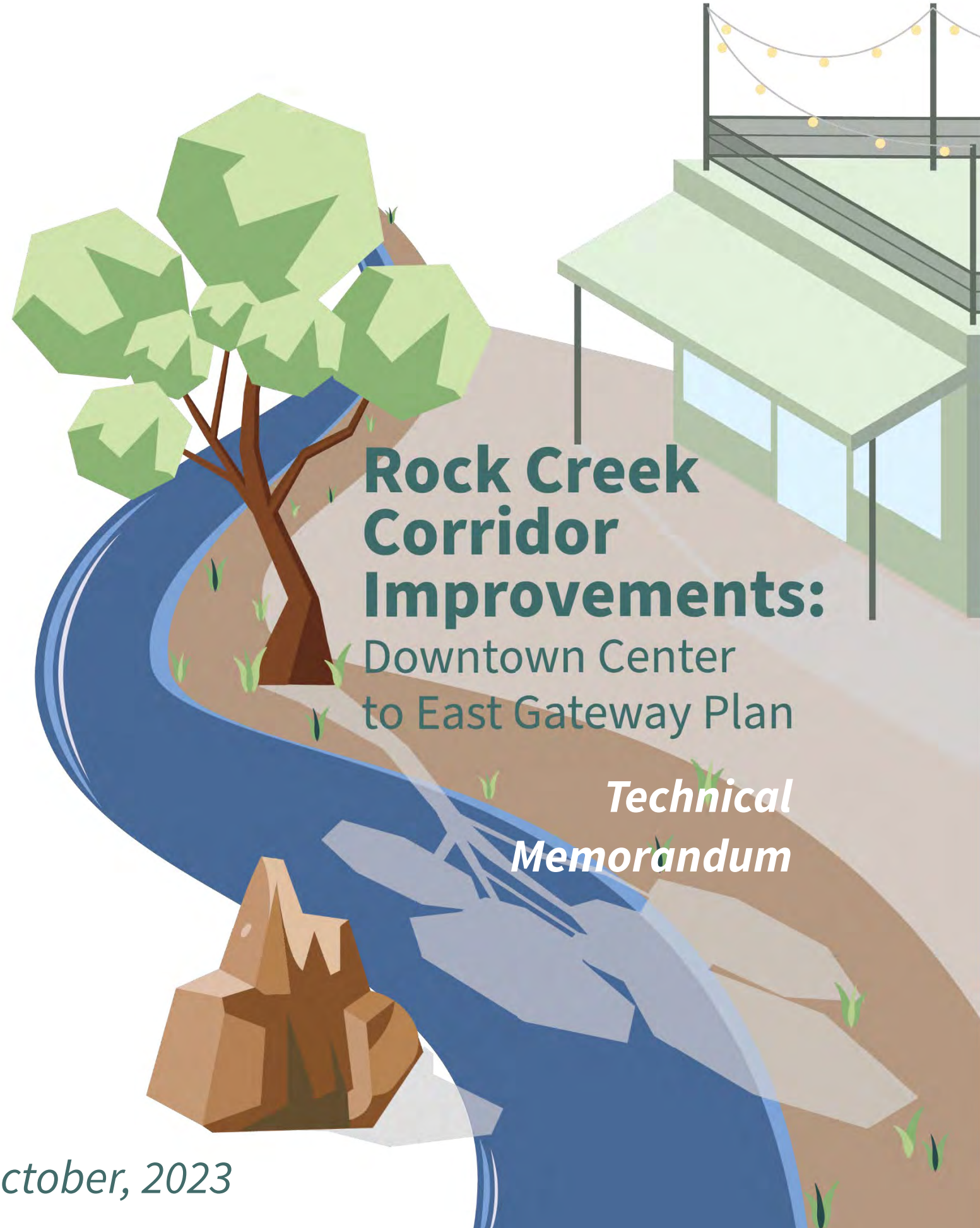
Read more: Program Information (ksdot.gov)



Rock Creek Corridor Improvements:

APPENDICES

Appendix A: Existing Conditions Assessment



Rock Creek Corridor Improvements:

Downtown Center to East Gateway Plan

Technical Memorandum

October, 2023


HOXIE
COLLECTIVE LLC
mission kansas
BIKE WALK KC
SINGLE WING CREATIVE
MARC
Mid-America Regional Council
SWT DESIGN
WILSON & COMPANY

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CLIMATE CHANGE IMPACTS

Climate Action Plan

The Mid-America Regional Council (MARC) developed a Regional Climate Action Plan (CAP) to enhance the region's resilience, equity, and health by providing a voluntary framework for coordinated local efforts. The plan encompasses a range of strategies that can be customized to suit individual community priorities, with a strong emphasis on mitigating climate change and achieving net zero greenhouse gas emissions by 2050. It also addresses adapting to climate risks and promoting long-term well-being, with specific interim targets for various sectors like local government operations, energy generation, and buildings. The plan underscores the interconnectedness of its strategies for a comprehensive approach. The City of Mission adopted the plan and continues to work toward implementing climate action efforts within its jurisdictional context.

Planning Sustainable Places

This project is a Planning Sustainable Places (PSP) project. The PSP program strives to enhance local transportation and land use planning by supporting vibrant, connected, and green communities. Through funding from Surface Transportation Block Grants, the program encourages sustainable concepts and project-specific activities aligned with centers and corridors planning. The Sustainable Places Policy Committee evaluates projects in three planning phases, ensuring community engagement and collaboration. The program aims to create diverse, well-connected, and environmentally healthy places while utilizing various transportation options.

Part of the goal of this project is to understand how changes to the Rock Creek corridor could lessen climate change impacts in the KC region.

INTRODUCTION

The Rock Creek corridor is a crucial component of Mission's transportation network. It connects a variety of land uses and serves as a critical link between neighborhoods and downtown. Addressing transportation, sustainability, economic development, and stormwater management is vital to Mission's future, as these can potentially alleviate several challenges, improve safety and accessibility, and create a more vibrant, livable, and sustainable community for all.

Purpose

The purpose of this existing conditions assessment is to evaluate the current conditions of the Rock Creek corridor and identify challenges and opportunities within the project area. The existing conditions assessment will develop recommendations for improvements that address stormwater, transportation, sustainability, and waterway protection within the study area.

Study Area

Rock Creek corridor is a 1.65-mile shared-use path that serves as an east-west connector. This study will evaluate the eastern half of the Rock Creek corridor from Woodson Road east to Roeland Drive. A 300-foot project parameter will be used to identify property owners and to measure existing conditions (**Figure 1**).

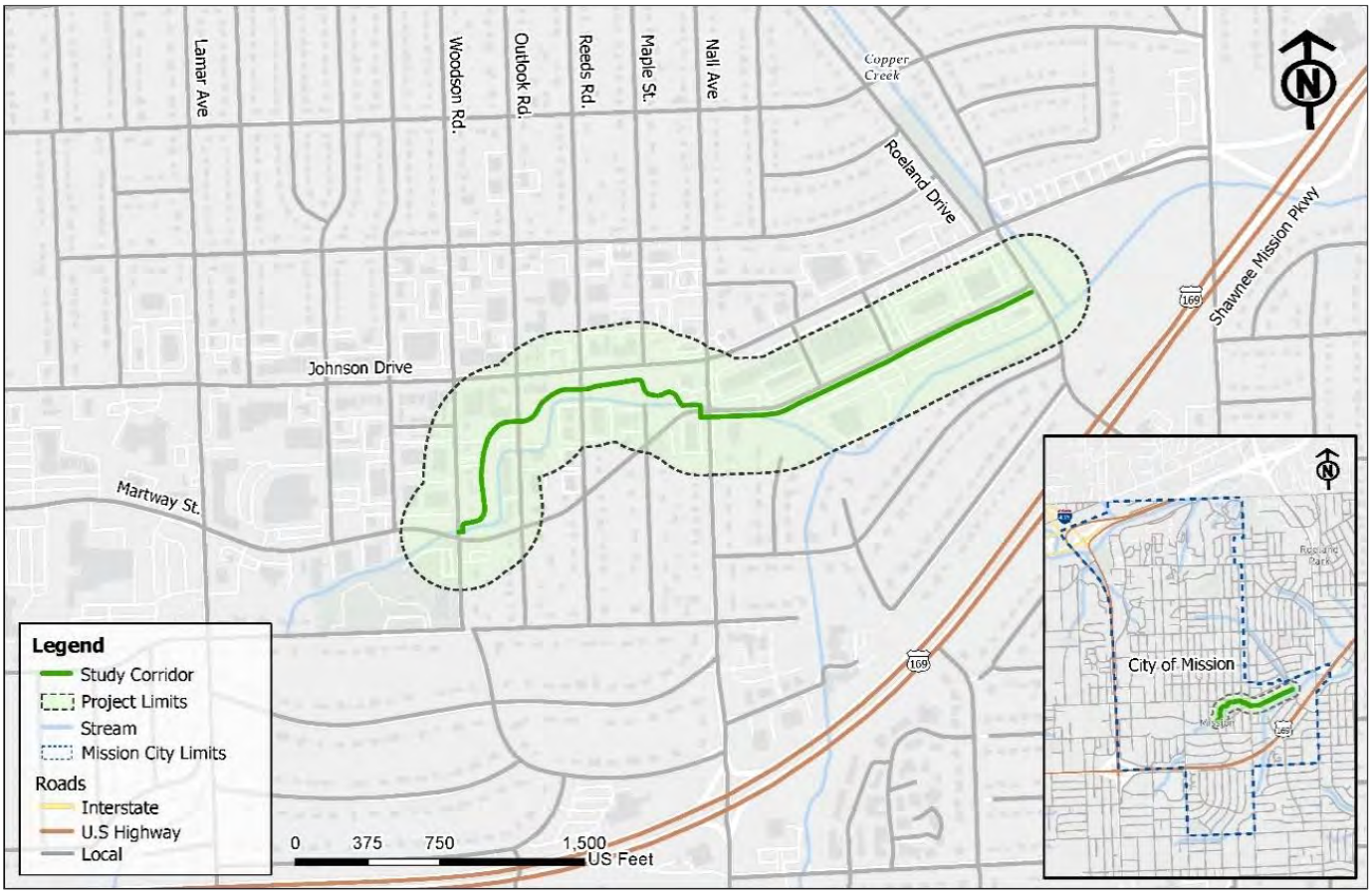


Figure 1 - Study Corridor & Project Area

PLAN REVIEW

Numerous studies, plans, and guidelines have been produced to address several challenges and identify opportunities to respond to community needs. The section below summarizes the plans in preparation for assessing the existing conditions.

East Gateway Redevelopment Plan

This development plan is a 20-year strategy between Mission, Fairway, and Roeland Park to address tri-city issues. Strategies include:

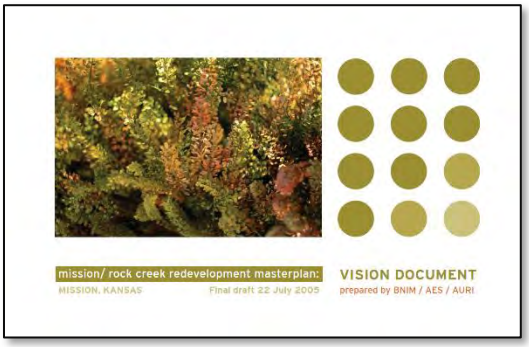
- Need for more urban housing types
- Sustaining and attracting local businesses and residents
- Increased tax bases
- Attaining quality redevelopment that preserves local "flavor"

The plan incorporates elements such as new zones for higher density, mixed-use development, parks, trails, and improved landscape and streetscape amenities to address diverse tri-city issues.

Recommendations:

- Roadway alignment for primary and secondary streets
- Increase of mixed-use and “main street” type of land uses for increased density and walkable urban lifestyle communities

Mission Rock Creek Redevelopment Plan



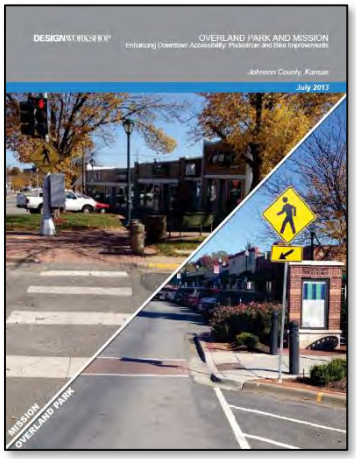
This redevelopment plan aims to assist and encourage identity and development in Mission's downtown district in a sustainable and progressive direction through mixed-range housing, walkability, stormwater management, and strong economic and ecological city core redevelopment.

Recommendations:

- Create partnerships with tributary communities with shared goals to seek improvements in the watershed, water quality, and flood levels
- Extending greenway to the east (downstream) and west (upstream) to reduce flooding impacts and increase floodway management

Overland Park and Mission Downtown Bike and Pedestrian Plan

This document is a toolbox design plan with strategies and recommendations to improve safety and access for all modes of travel, emphasizing bicycle and pedestrian facilities for each downtown district. This plan shapes and guides efforts for vibrant and sustainable places through diverse transit modes and connecting communities.

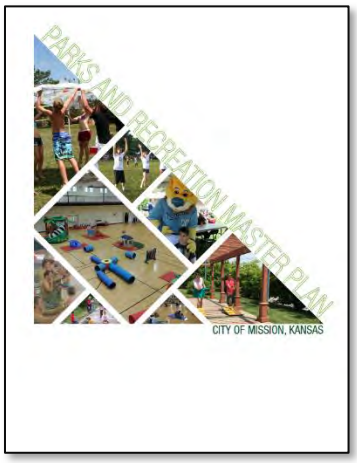


Recommendations:

- Develop a bicycle boulevard network
- Intersection improvements for pedestrian crossings and priority pedestrian zones with streetscape and pedestrians comfort amenities

Park and Recreation Master Plan 2018

The Parks and Recreation Master Plan is a 10-year strategic goal. This plan sets out to guide financial investment in Mission's outdoor park system, recreational facilities, and operations with a goal of high-quality programming and services that support the growth and economic health of the community.



Recommendations:

- Develop a capital investment plan that ensures proper funding for future parks and recreation improvements
- Identify additional sidewalks throughout the city to connect under-served or inaccessible areas

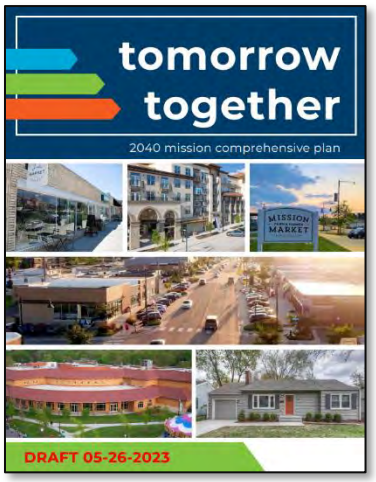
Stormwater Management Plan 2021

The Stormwater Management Plan aims to reduce stormwater runoff pollutants in Mission by implementing six minimum control measures, best management practices, the Clean Water Act, and the Kansas surface water statutes and regulations.

Recommendations:

- Public stormwater educational programs
- Developing, implementing, and enforcing a program to detect and eliminate illicit wastewater discharges or other non-stormwater discharges into the storm sewer system

Tomorrow Together 2040 Mission Comprehensive Plan: Transportation and Mobility



Mission's Comprehensive Plan is a fresh and innovative approach to help guide growth and development through six major themes that reflect Mission's current challenges and conditions. Transportation and Mobility are significant themes that Mission addresses in the plan, with eight goals to achieve its objective:

- Prioritize pedestrian safety
- Multi-modal transportation/mobility system
- Adapt with flexible policies
- Tie current and future mobility plans to economic development strategies and neighborhood stabilization
- Recognize and improve Johnson Drive as a major connection
- Coordination and support for SmartMoves 3.0 Regional Plan
- Explore Johnson Drive and Metcalf Avenue reconfiguration
- Explore future public street alignments

Mission envisions improving transportation and mobility with strategies for each identified goal that will connect neighborhoods and businesses through multi-modal transit options and accessibility for all. The City Council adopted the Plan in December 2023.

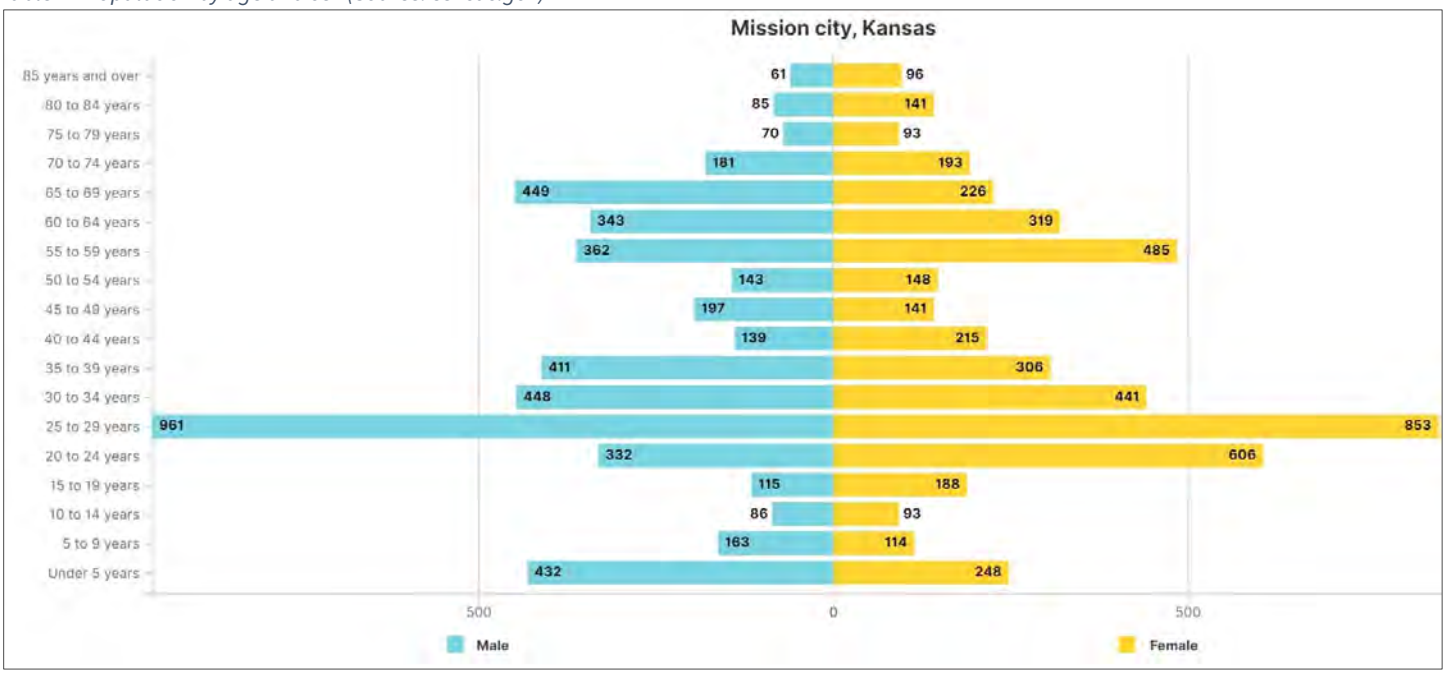
AREA DEMOGRAPHIC PROFILE

Socioeconomic characteristics from the 2021 5-year American Community Survey (ACS) create a demographic profile for Mission and the Rock Creek corridor. To help to visualize demographic differences and understand social transitions, the subsequent figures and tables help to describe population statistics around Mission and the Rock Creek Trail.

Population Distribution

The current population rate is 9,954 residents, and the population distribution varies by age group. As shown in **Table 1**, age groups are based on 5-year increments, with the highest population in the 25 to 29 age group range. Different age groups will have a diverse range of needs, achieved by strategic planning that ensures all community needs are identified and addressed accordingly.

Table 1 - Population by age and sex (Source: census.gov)



Employment by Industry

Table 2 breaks down employment by industry for the employed population. About 30% of the employed population works in educational, health care, or social assistance industries, followed by 16% in professional and administrative/management services. Mission contains diverse industries that can serve diverse employment groups and expand community identity.

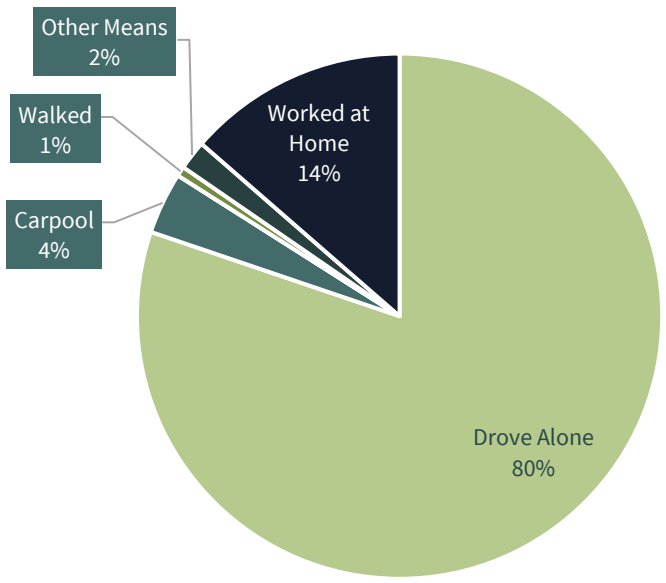
Table 2 - Industry for civilian employed population (Source: census.gov)

Industry	Value
Educational services, and health care and social assistance	**29.6%**
Professional, scientific, administrative, waste management services	**16.0%**
Finance and insurance, and real estate and rental and leasing	**11.2%**
Retail Trade	**8.7%**
Transportation and warehousing, and utilities	**7.4%**
Manufacturing	**5.7%**
Construction	**5.3%**
Arts, entertainment, and recreation, and accommodation and food services	**4.5%**
Other services, except public administration	**4.0%**
Wholesale Trade	**3.9%**
Public administration	**2.1%**
Information	**1.5%**
Agriculture, Forestry, Fishing and Hunting, and Mining	**0.2%**

Mode of Transportation to Work

Table 3 illustrates transportation modes to work. Currently, many residents drive to work as their primary mode of transit, while post-pandemic aftershock has raised working-from-home percentages. Other modes of transportation, such as public transit, remain low, potentially indicating, most residents travel outside Mission to work or are more car-dependent.

Table 3 - Means of transportation to work (Source: census.gov)

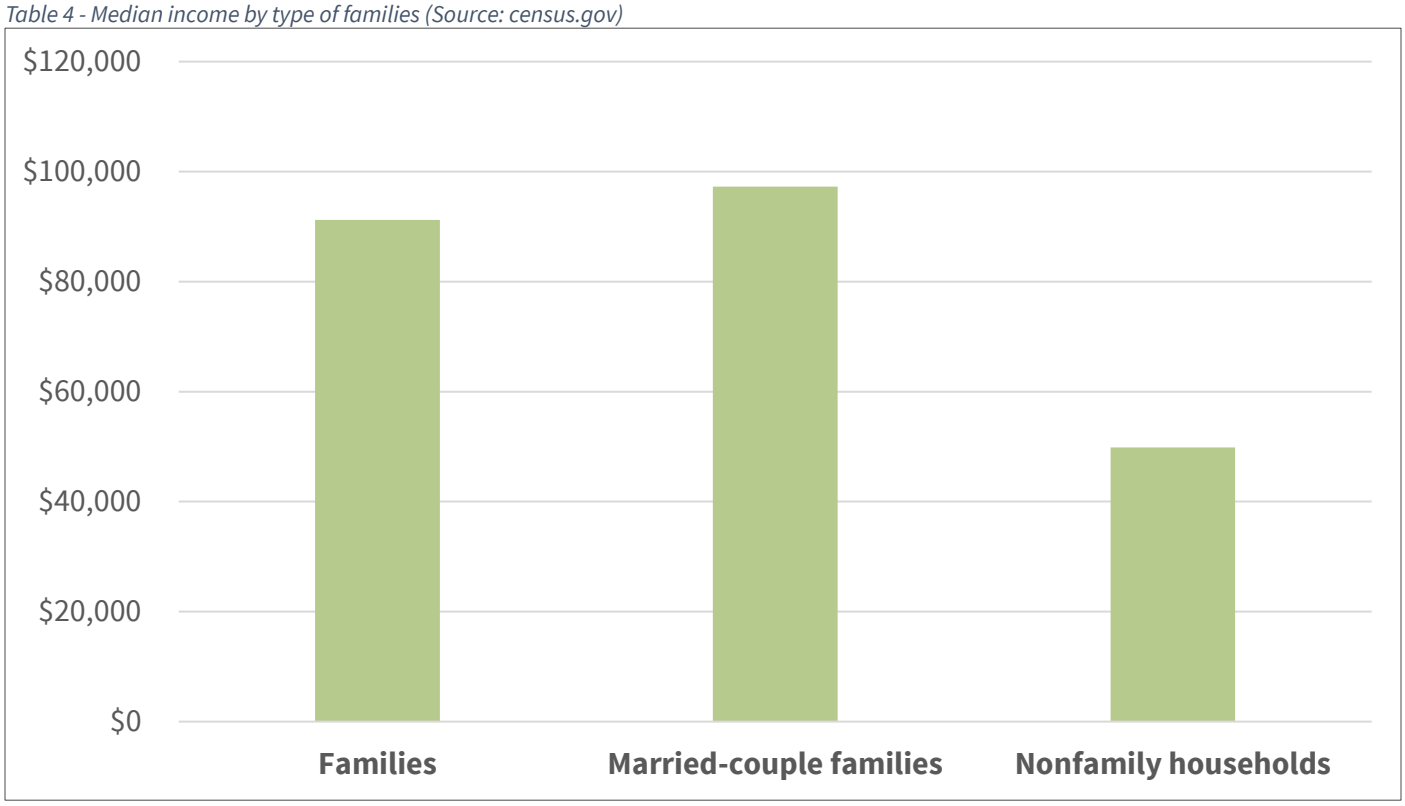


Median Income

According to census.gov, a *married-couple family* is a husband and wife established in the same household, and a *family* is defined as a group of two or more people related by birth, marriage, or adoption. *Nonfamily households* are described as a householder living alone or sharing the home with people to whom they are not related.

Table 4 provides data on median household income by family type. The median household income is $68,859. Median income by family shows that married-couples average $97,250 a year, and families average $91,250 a year. Out of the 5,029 households, 2,345 households are families, and 1,800 are married-couple families. Families and married-couple families account for 83% of households in the city.

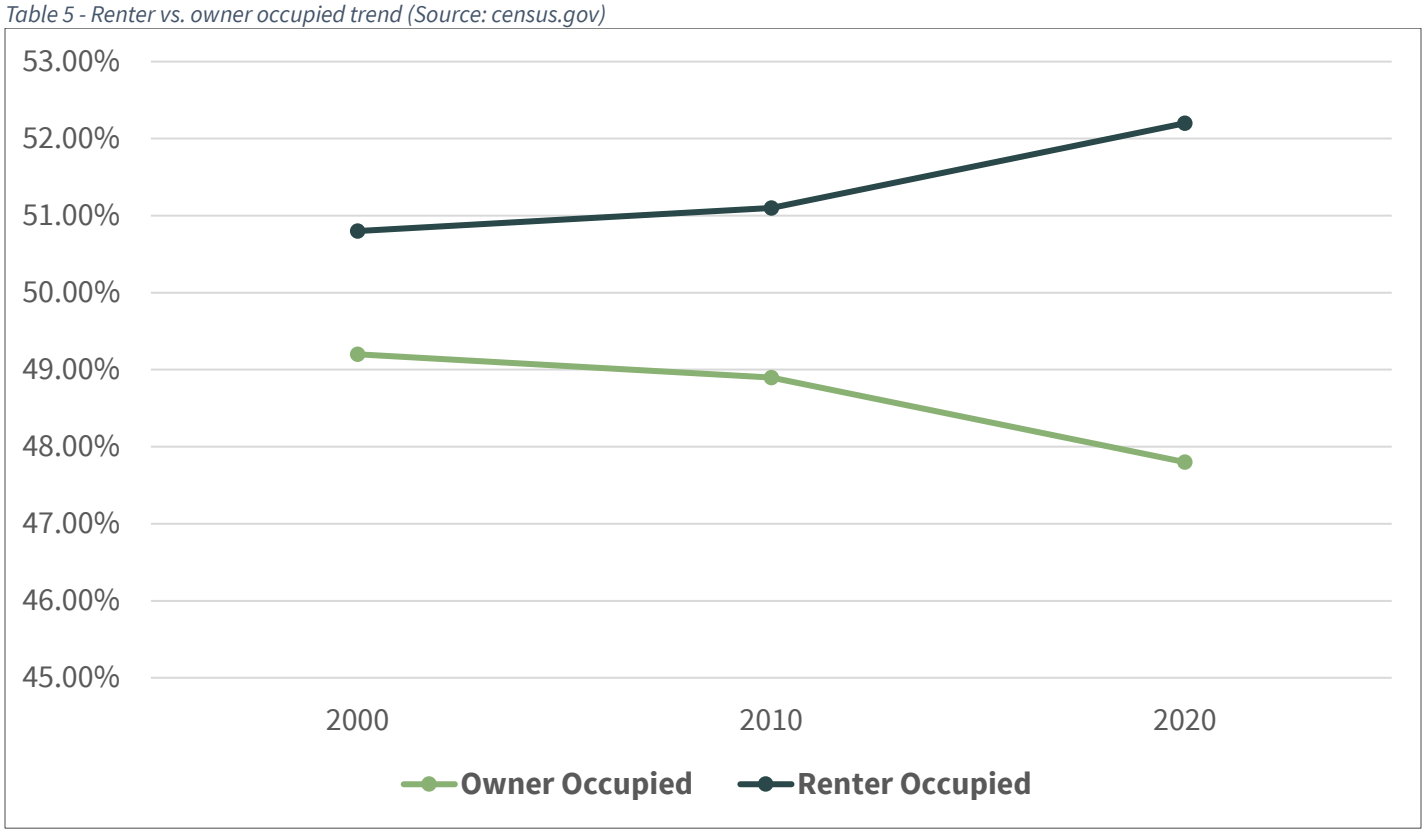
Table 4 - Median income by type of families (Source: census.gov)



Renter vs. Owner-Occupied Housing

Table 5 illustrates housing ownership trends within a 20-year span. Renter-occupied housing has been increasing while owner-occupied housing has been decreasing since 2010. Mission has diverse housing ownership groups that reflect its diverse population. Mission continues to adapt to changes in the local housing landscape through mixed-use high-density and medium-density developments while maintaining and stabilizing homeowner occupants. Changing economic factors and shifts in housing preferences within the community likely have an impact on this data. Mission recognizes these changes and is working to accommodate both renters and owners.

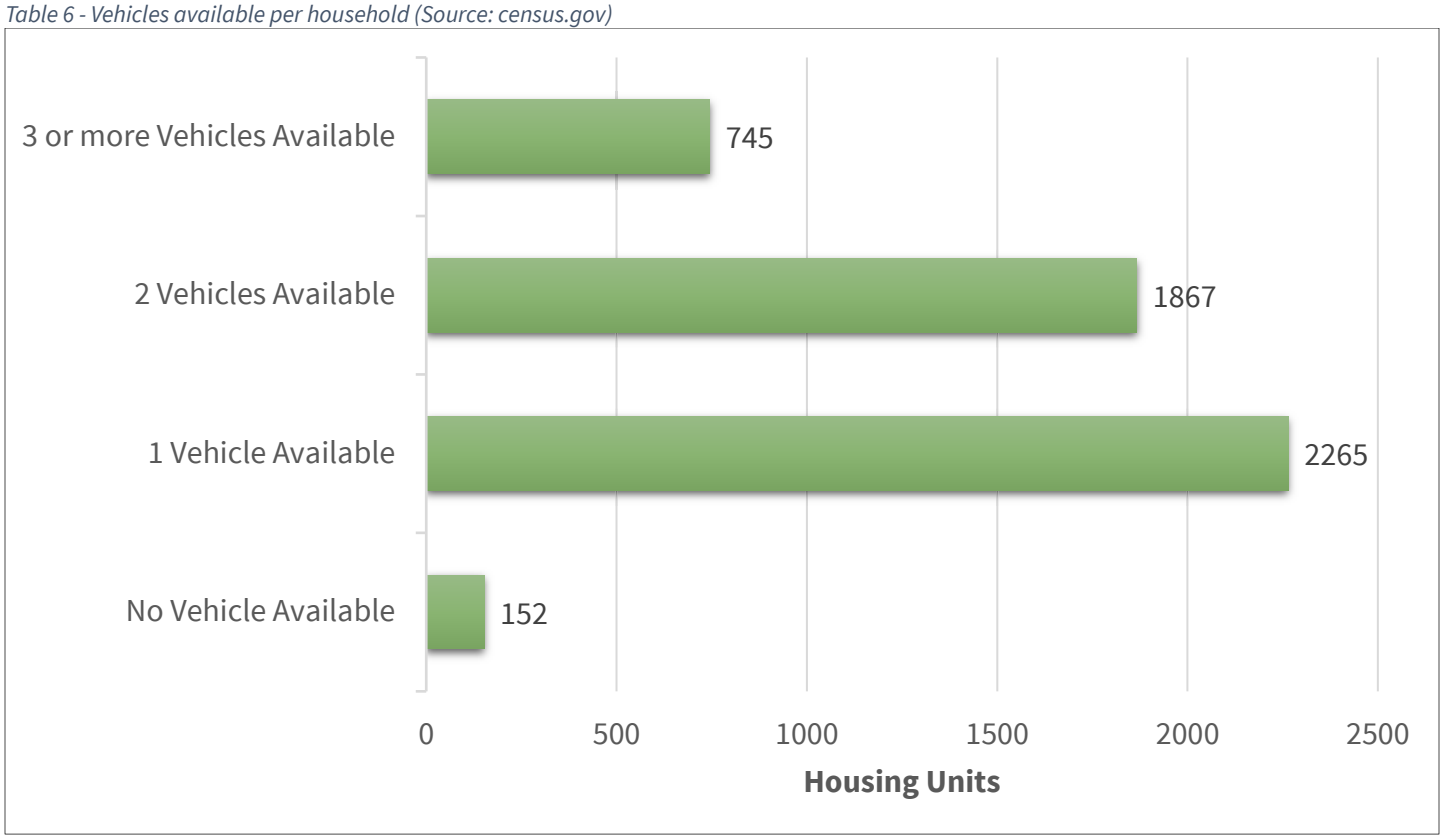
Table 5 - Renter vs. owner occupied trend (Source: census.gov)



Households Vehicle Ownership

Table 6 displays the number of vehicles available per household. Many residents have one or two vehicles available per household, while a few have three or more. Car dependency is a factor in most households. Very few households have no vehicle at all, indicating possible low dependency on other transit modes.

Table 6 - Vehicles available per household (Source: census.gov)

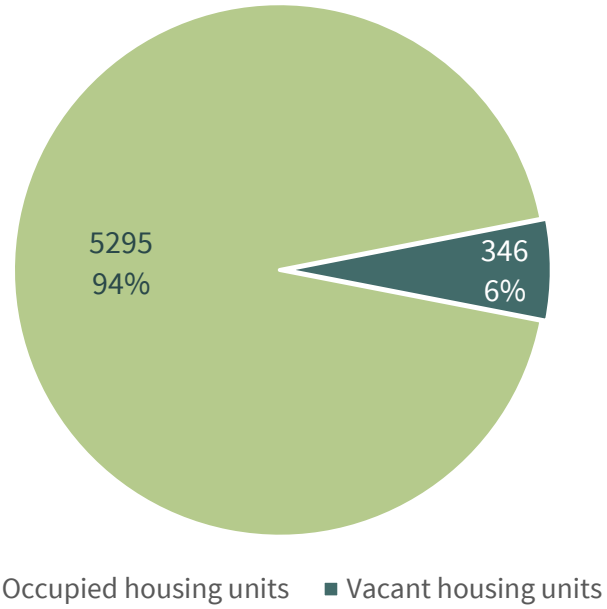


Housing Occupancy

Table 7 illustrates the total housing occupancy comparison in Mission. Most of the housing stock consists of occupied units, with only 6% vacant units around Mission's vicinity.

Comparing this data to the Kansas City Metropolitan Area and Johnson County, we see that the KC Metro has 8% vacant and 92% occupied housing units. Johnson County has 9% vacant and 91% occupied housing units.

Table 7 - Housing Occupancy Status (Source: census.gov)



Where People Work

Most people who live in Mission travel to neighboring cities in the metropolitan area for their jobs (**Figure 2**). Of these cities, the top three neighborhing cities for work include:

- Kansas City, MO - 23.5%
- Overland Park, KS- 18.8%
- Kansas City, KS - 13.2%

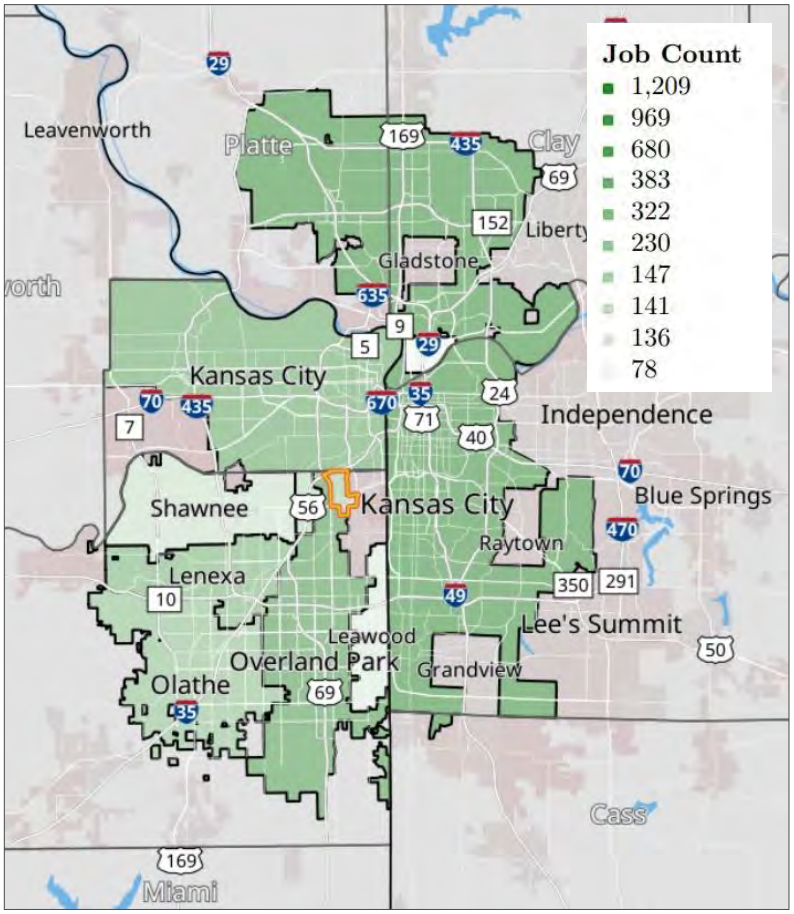


Figure 2 - Where People Work Vicinity

LAND DEVELOPMENT REVIEW

This section documents a land development analysis of the study area to identify current conditions of Mission's land use, zoning, property ownership, and current/potential developments in relation to the Rock Creek corridor and any potential impacts.

Land Use

Figure 3 displays the existing land use in the project area. Within the limits of the Rock Creek corridor, the primary land use is commercial, followed by office and multi-family residential. The corridor is in a walkable commercial strip along Johnson Drive and Martway Street that can serve as a key active transportation connection between residential land uses and the downtown commercial corridor.

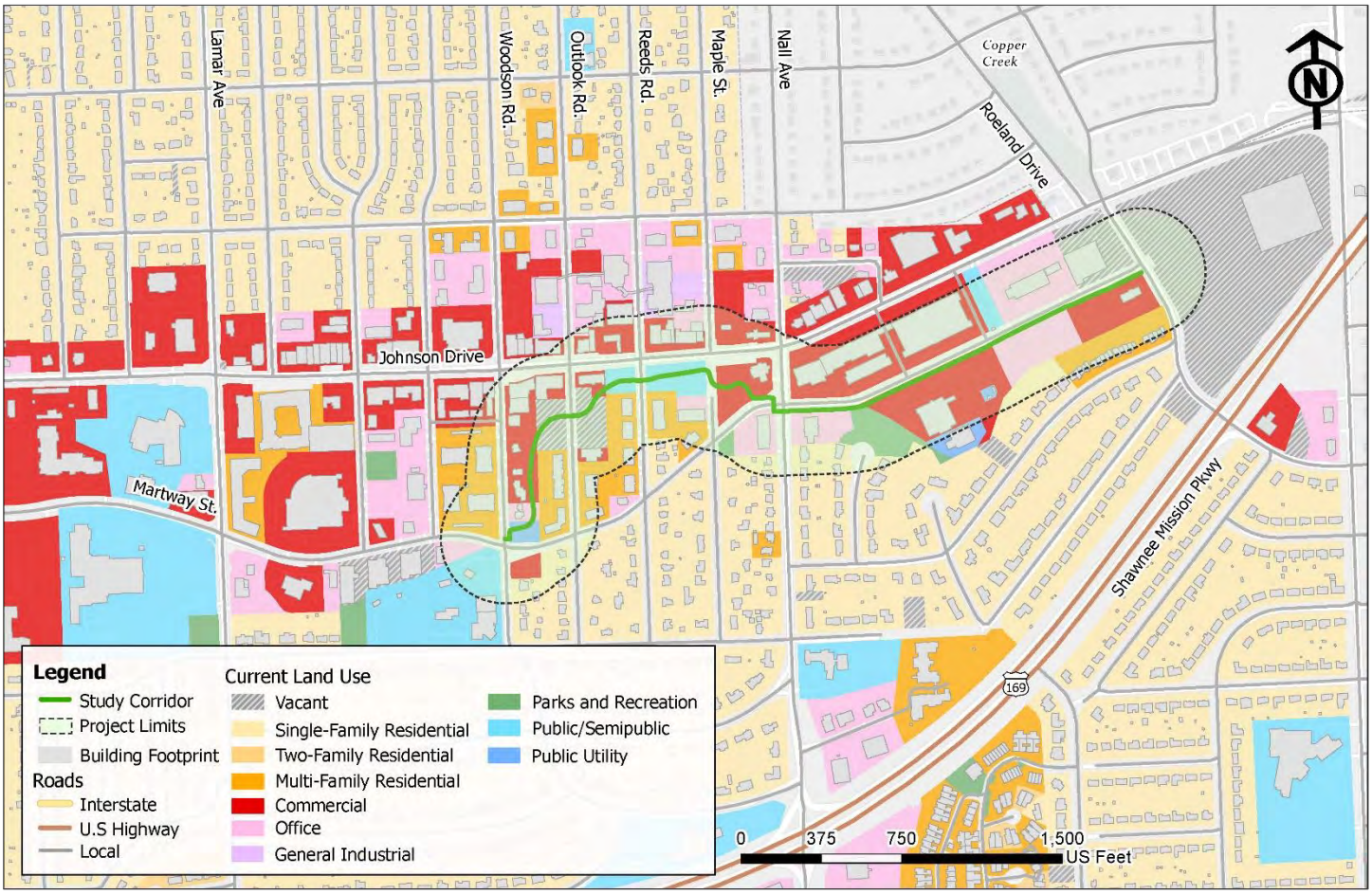


Figure 3 - Existing Land Use

Future Land Use

Figure 4 displays the future land use around the Rock Creek corridor. The future land use introduces more high and medium-density mixed-use development with parks and pathways while commercial is kept on the north end of Johnson Drive near the corridor. The future land use supports and creates a versatile Rock Creek corridor and downtown that bridges the gap and supports both residential and commercial development through mixed-used development and implementation of more green public space. It allows the trail to benefit and enhance land use opportunities and connect communities to downtown.

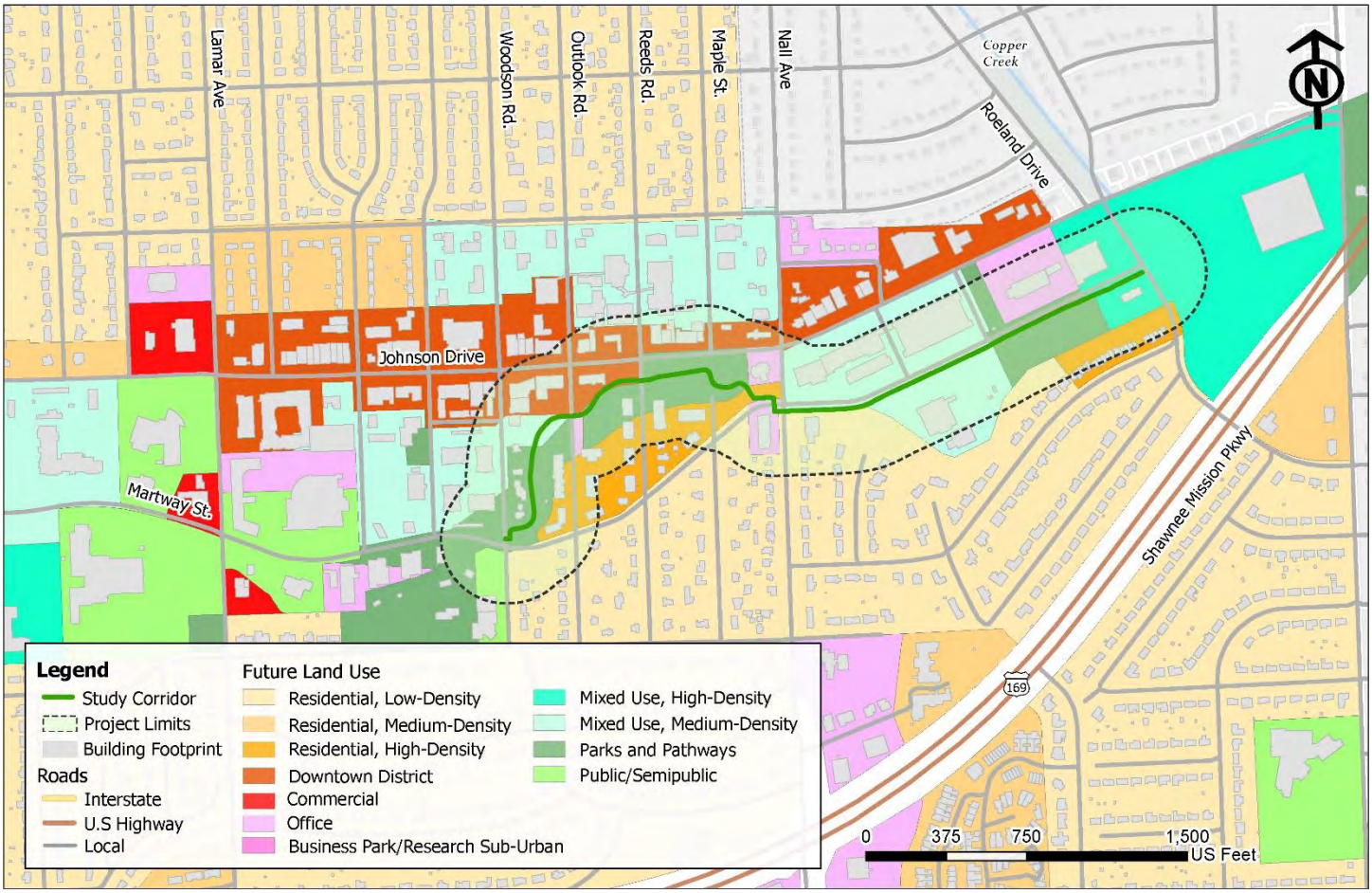


Figure 4 - Future Land Use

Zoning

Figure 5 illustrates existing zoning within the project area. The Rock Creek corridor primarily lies within the Downtown Neighborhood District (DND) and the Main Street Districts (MS1 and MS2). The zoning of property as "DND" Downtown Neighborhood District is intended to encourage private and public investment in the neighborhoods surrounding the commercial core of downtown Mission. The intent is to offer a unique living environment that offers a variety of housing styles, that supports the downtown businesses, and acts as a way to stabilize the surrounding single-family neighborhoods.

The Main Street District 1 (MS1) is intended to provide development opportunities consistent with the existing character within the core of Downtown Mission. Downtown Mission is the original commercial district within the city. The majority of buildings in the core of downtown have been constructed to the public right-of-way. Public parking lots are available and on-street parking is present to serve the downtown businesses. The result is a character unique to downtown that is not found elsewhere in the city. The objectives for Main Street District 2 (MS2) are similar to "MS1", except residential and office uses are permitted on the ground floor level of mixed-use buildings or complexes in order to support the businesses in the downtown area.

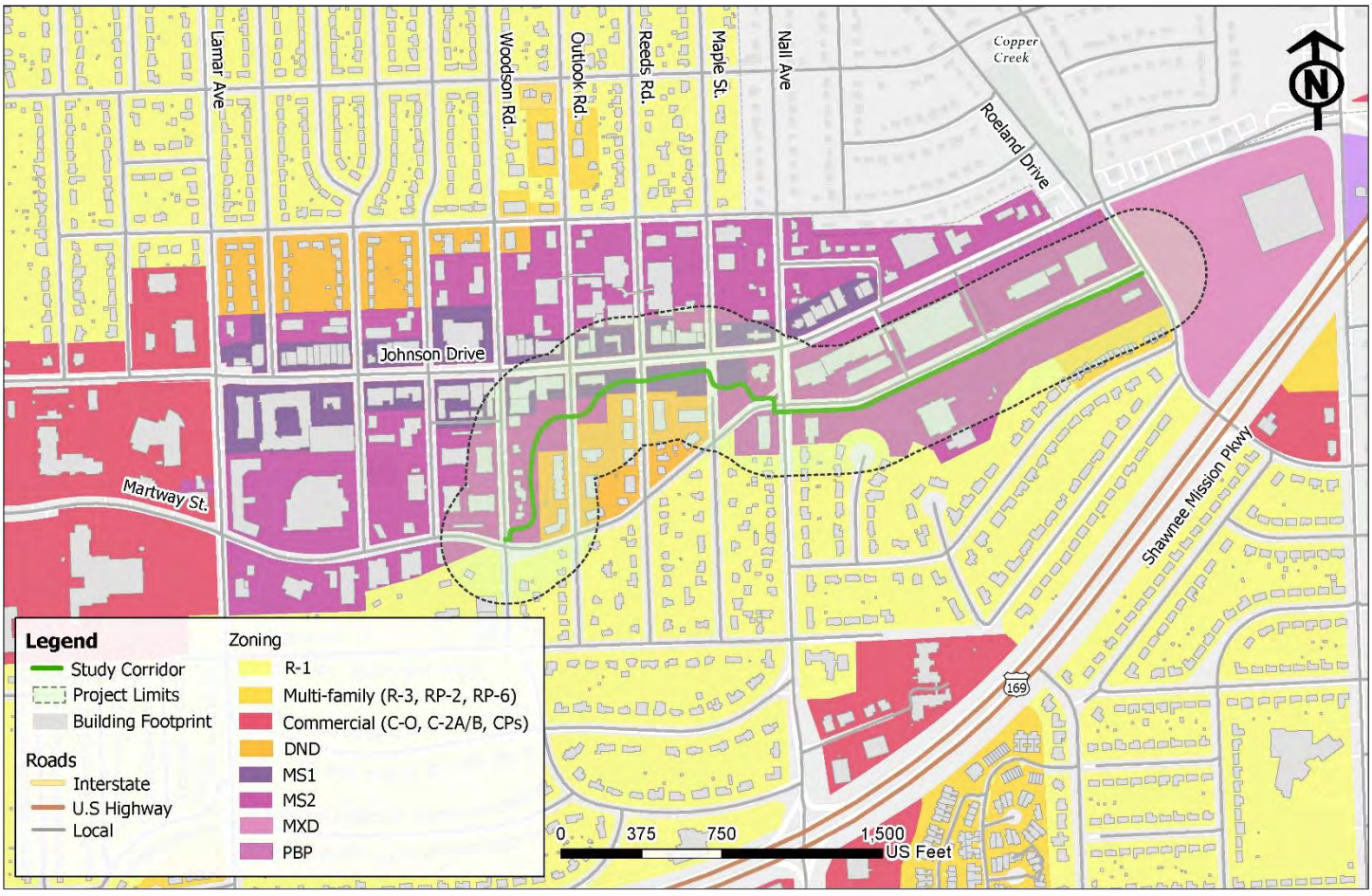


Figure 5 - Existing Zoning

Current and Potential Developments

The City of Mission has seven private development projects that are under construction or in the planning phase. Two out of the seven projects are within the study area (**Figure 6**). These projects are primarily residential developments with a mixed-use component. Most proposed developments have elements that will improve walkability through new sidewalk connections, increase foot and vehicle traffic east of Nall, increase population, and beautify the Rock Creek corridor and nearby properties. New developments will improve economic activity along the trail and downtown, encouraging new businesses to consider Mission. The following pages outline the highlights of key private developments.

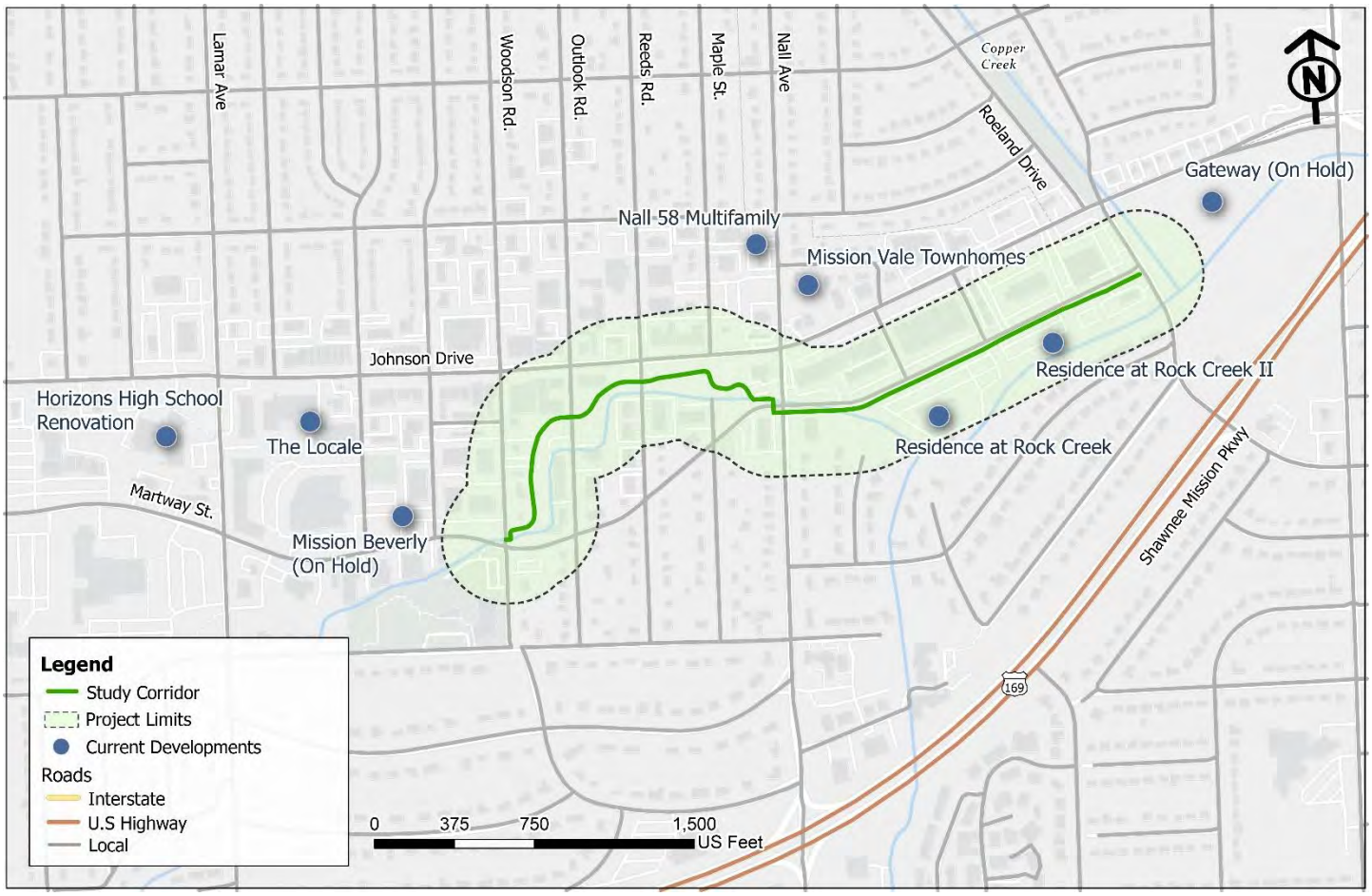


Figure 6 - Current and Potential Developments

Mission Vale Townhomes: Southeast Corner of Nall and W. 58th Terrace

- Two story Townhomes
- 19 units
- 1,341 sq ft each
- 19 units/acre
- New sidewalks around the perimeter of the site
- Currently vacant lot (one single-family conversion to office unit demolished)
- Native Plantings
- Zoning and development approved, and construction permitted. – waiting on the developer to begin construction.

Figure 7 - Mission Vale Townhome Rendering: Unit 6-15

Nall 58 Apartments: Southwest Corner of Nall and 58th Street

- Three (3) stories
- 77 units
- 35 units/acre
- Bicycle storage
- EV (Electrical Vehicle) charging
- New sidewalk north and west of the building
- Native plantings
- Stay true to local characteristics (height, frontage, fascia)
- Zoning and development approved, and construction permitted. The developer and city are currently negotiating a possible tax abatement to assist with construction costs.

Figure 8 - Nall 58 North & East Renderings: 58th and Nall Avenue

Residence at Rock Creek (Phase I): South Side of Martway between Nall and Roeland Drive

- Five (5) stories
- 168 units
- 53 units/acre
- Live-work units on the ground floor along Martway Street
- A linear park experience along the existing Rock Creek Trail by adding trees, landscaping, and pedestrian amenities where none currently exist.
- Pocket fitness park west of the building
- Pocket dog park west of the building

Figure 9 - Residence at Rock Creek I: Entrance Rendering

Residence at Rock Creek II: Adjacent on the East to Phase I

- Under review - preliminary development plan approved and awaiting final development plan (per the ordinance, final must be approved by the commission if no significant changes from PDP and all conditions of approval are met for the FDP)
- Staff required as part of the conditions of approval that the stormwater on site is captured through BMPs that meet the MARC BMP Guidebook and APWA standards – the PDP does not reflect these standards, so we are waiting on the FDP to determine if it conforms.
- 96 units on 74,117 sf
- Approximately 56 units/acre

Figure 10 - Proposed Phase II North Elevation

Land Development Challenges & Opportunities

This section outlines challenges and opportunities identified from the land development assessment that will be used to develop recommendations for the Rock Creek corridor.

Land Development Challenges

The following are identified land development challenges for the Rock Creek corridor:

- Primarily commercial land use/zoning
- Getting large property owners to cooperate and prioritize community-based planning efforts

Land Development Opportunities

The following are identified land development opportunities for the Rock Creek corridor:

- Catalyzed downtown growth
- Mixed-use diversity
- New public spaces and programming
- Improved connectivity between communities in proximity to the Rock Creek corridor to downtown

TRANSPORTATION REVIEW

This section of the report documents an analysis of Mission's transportation network to assess existing transit infrastructure conditions, traffic safety, transit methods, connectivity, and commuter habits.

Traffic Counts

Identifying and understanding traffic volumes are essential to understand roadway demand, efficiency, and commuter habits. 24-hour traffic counts were assessed during a peak hour for each of the four listed intersections by mode.

- Johnson Drive & Reeds Road
- Martway Street & Woodson Road
- Martway Street and Nall Avenue
- Martway Street and Roeland Drive

Traffic Volumes

Figure 11 illustrates traffic volumes and speed percentages per intersection recorded throughout the Rock Creek corridor. Trail crossings are well situated near intersections with high traffic volumes. There is lower traffic volume on Martway Street, east of Nall Avenue, which can be a potential location for on-street bike traffic. There is potential for a complete streets approach along Johnson Drive and Martway Street, where speeding instances have been recorded.

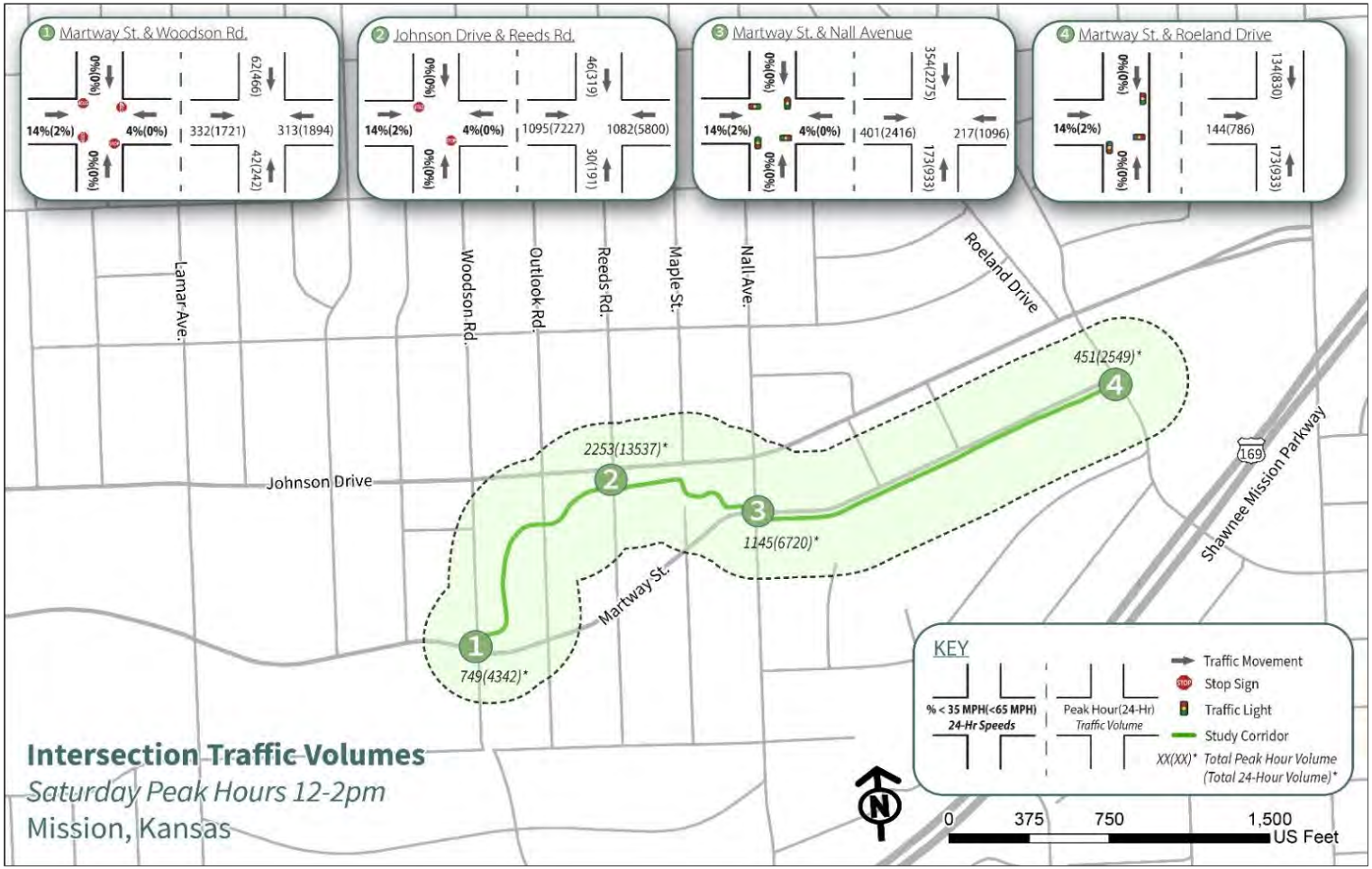


Figure 11 - Intersection Traffic Volumes

Bike and Pedestrian Volumes

Figure 12 illustrates bike and pedestrian volumes per intersection throughout the Rock Creek corridor. Higher pedestrian volumes are recorded on the west end of the corridor. With higher recorded pedestrian activity, the trail serves as a critical link for pedestrians walking towards downtown. There is potential for increasing bike ridership along the corridor to implement transit diversity.

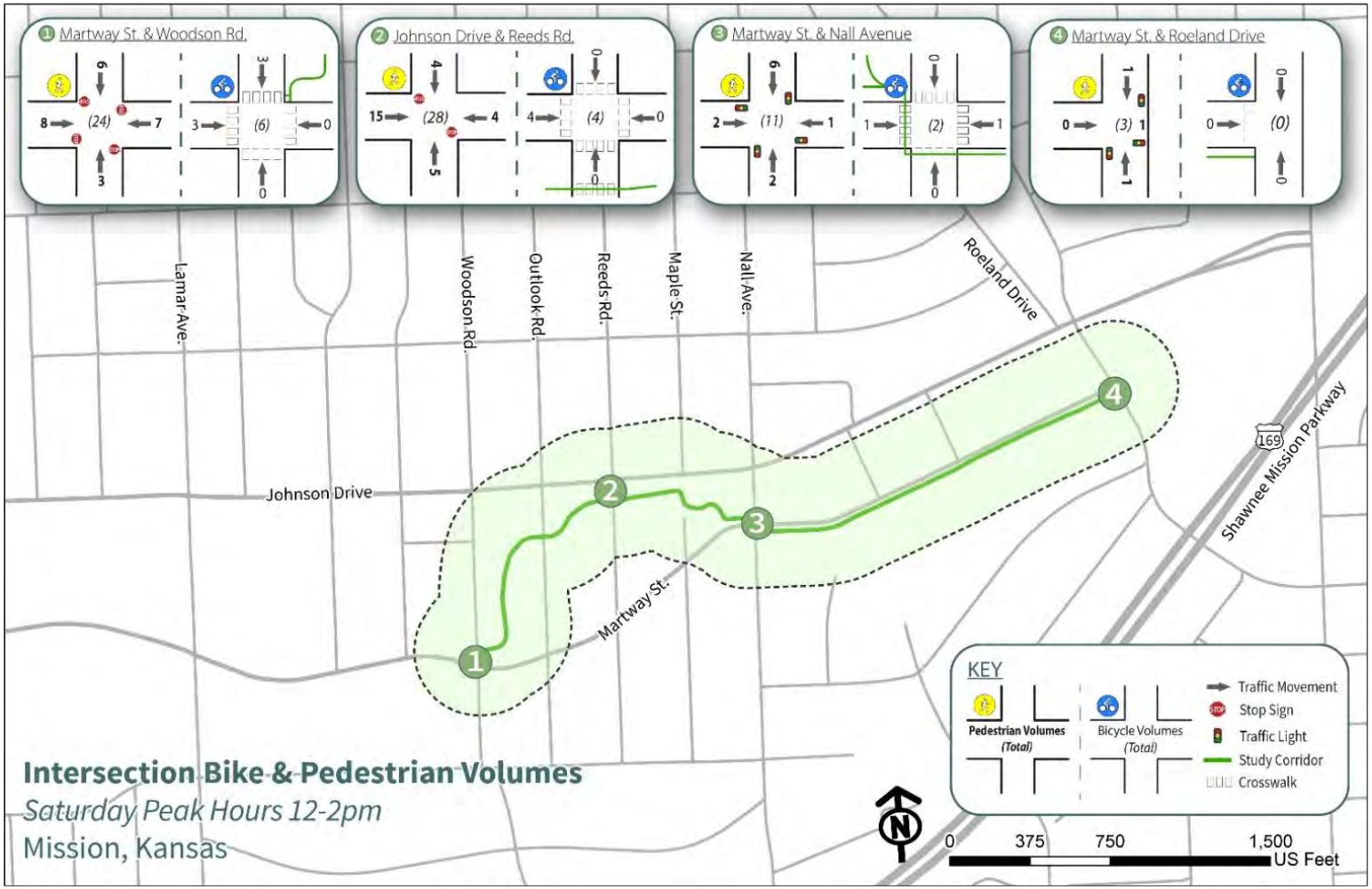


Figure 12 – Bike and Pedestrian Volumes

Traffic Safety

Pedestrian & Cyclists

The Kansas Drive to Zero crash data dashboard is an interactive crash data explorer tool that displays fatal and serious injuries within a 5-year period covering multiple Strategic Highway Safety Plan (SHSP) emphasis areas. **Figure 13** exhibits one serious injury crash that involved one pedestrian and a vehicle near the intersection of Johnson Drive and Lamar Avenue. Driver distractions and traffic signal indicators were contributing factors to the crash. Traffic signal indicator factors are crashes that occur at a location with a traffic signal.

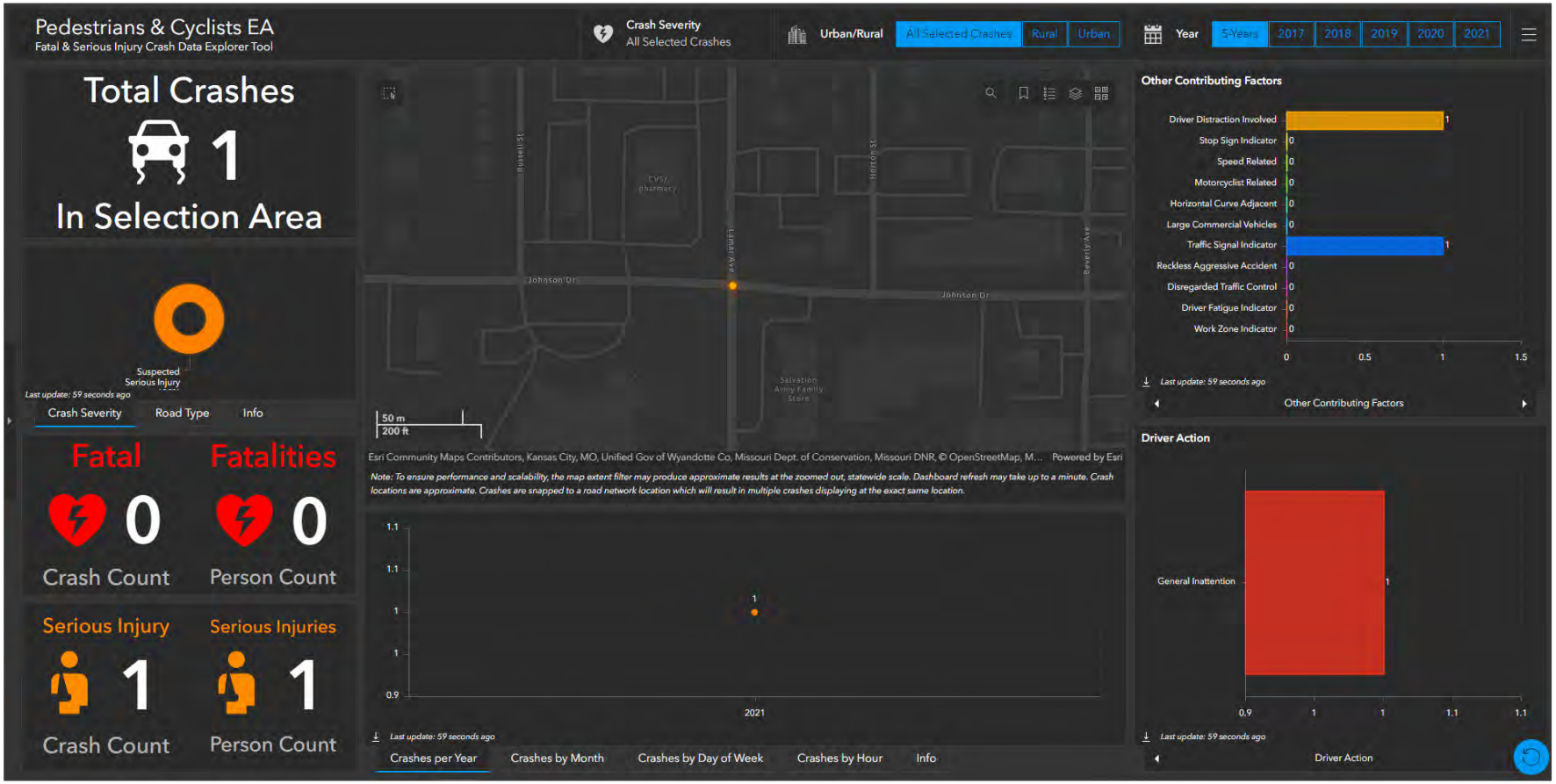


Figure 13 - Pedestrian & Cyclists Crash Data (Source: Kansas Drive to Zero Dashboard)

Mission is relatively safe and satisfactory in having low severe or fatal pedestrian and cyclist crashes. Two total pedestrian and cyclist crashes were accounted for within a 5-year period. In comparison to adjacent and nearby cities with relative area size and population, Mission has greater crash volume than Roeland Park, Mission Hills, and Fairway but far fewer crashes than the city of Merriam. Land area, population, and nearby infrastructure likely have an impact on this data.

- Merriam, Kansas: 4 crashes
- Roeland Park, Kansas: 0 crashes
- Mission Hills, Kansas: 0 crashes
- Fairway, Kansas: 0 crashes

Total General Crashes

Figure 14 presents the total general crashes in the project area's vicinity. A total of ten severe crashes are recorded, nine of which are reported as serious injuries, and one fatal crash. 2021 saw the highest peak, with four crashes recorded, with most crashes happening on Monday. Most collisions are head-on or rear-end crashes with only one angle/side impact crash. The major contributing factors for all general crashes are distracted drivers and traffic signal indicators. The closest crash to the project corridor is a motor vehicle crash south of Martway on West 60th Terrace and Rosewood Street. The Rock Creek corridor is relatively safe, with no high volume of crashes nearby within a 5-year period.

Figure 14 – Total General Crashes (Source: Kansas Drive to Zero Dashboard)

Mission is relatively safe and satisfactory in low severe or fatal total crashes. Seventeen total collisions were accounted for within a 5-year period. Compared to adjacent and nearby cities with relative land area and population, Mission has greater crash volume than Roeland Park, Mission Hills, and Fairway but far fewer crashes than the city of Merriam. Land area, population, and nearby infrastructure likely impact this data.

- Merriam, Kansas: 37 crashes
- Roeland Park, Kansas: 4 crashes
- Mission Hills, Kansas: 3 crashes
- Fairway, Kansas: 3 crashes

Functional Classification

According to the U.S. Federal Highway Administration (FHWA), road functional classification is the method by which streets and highways are grouped into classes or systems according to the character of traffic service that they are intended to provide. Mission's overall street network is comprised of local roads, major collectors, minor arterials, and principal arterials (**Figure 15**). Lamar and Nall Avenue, south of Johnson Drive, are minor arterials. Martway Street is a major collector, and east of Nall Avenue is unclassified. Therefore, it is not a critical link from a functional classification perspective. This is important to note because roadway characteristics can drive, influence, and support future development along the corridor. It can enhance user experience through careful planning and measures for all transit methods and potentially evolve the Rock Creek corridor and downtown.

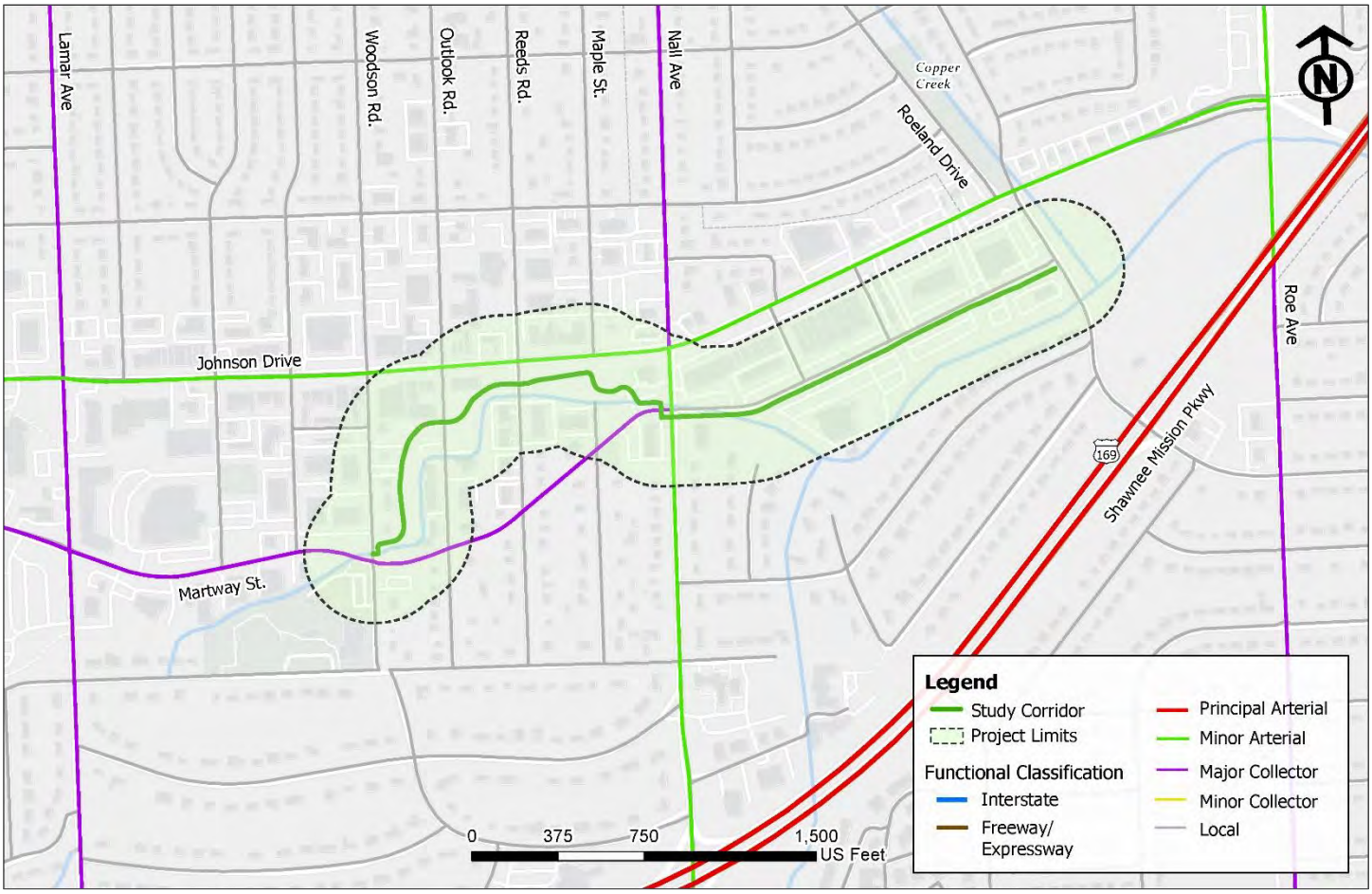


Figure 15 - Road Functional Classification

Connectivity Analysis

Currently, two transit services run through Mission's major roadways that serve essential parts of the downtown corridor and city (**Figure 16**). RideKC has existing routes north on Roe Boulevard and Johnson Drive connecting to the Mission Transit Center (MTC). Johnson County Transit has routes running along the major roadways heading west and south that also depart and connect to MTC. There are multiple transit stops within busy intersection nodes around the trail and downtown corridor. MTC is a critical node in the area and acts as a connector for the trail and transit riders. The project area overall has highly suitable transit accessibility with multiple routes and transit stops. However, there is a lack of connectivity from trails to bike lanes, impeding active transportation development. This is an opportunity with the infrastructure already in place to develop a multi-model transit system.

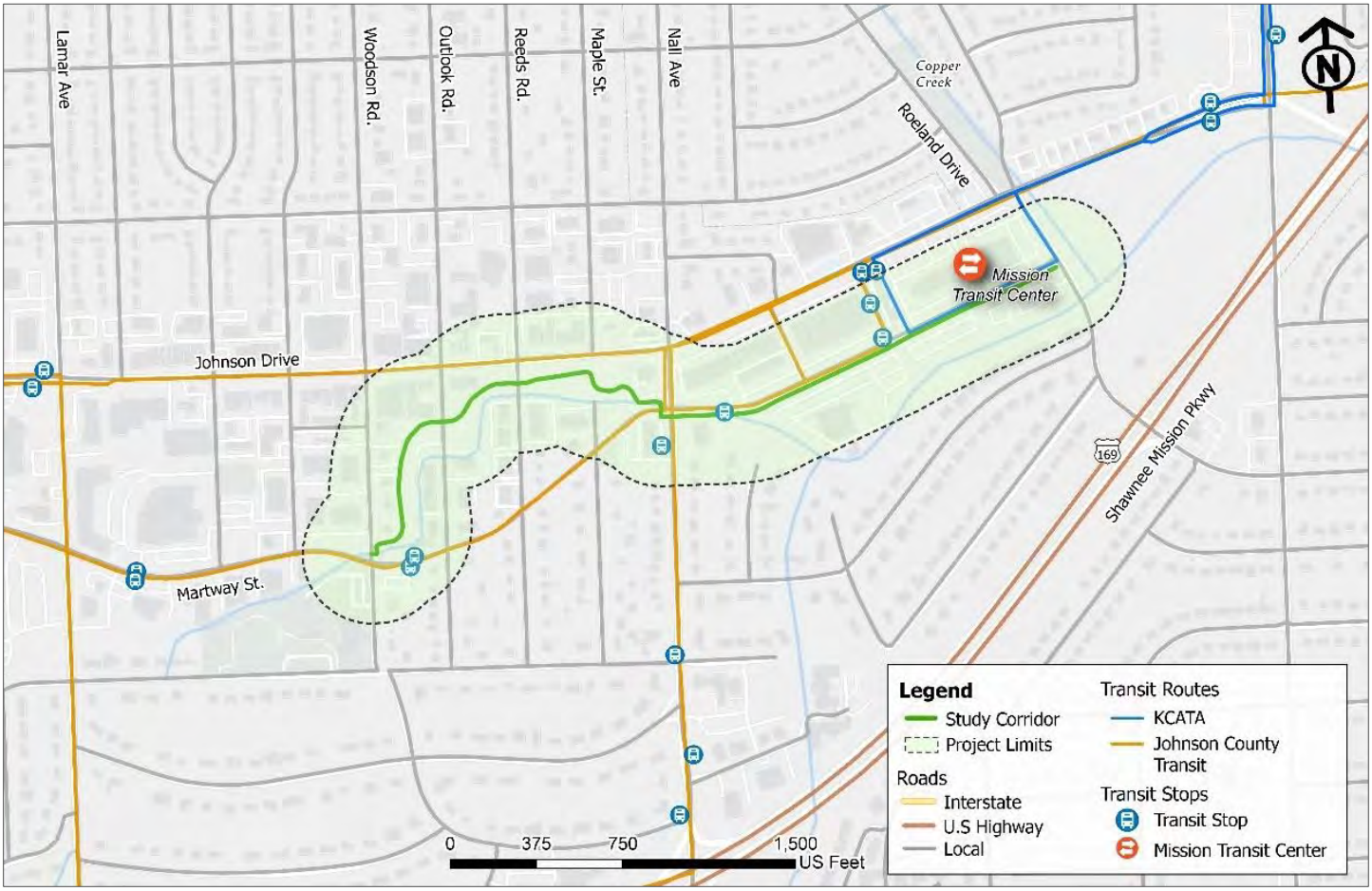


Figure 16 - Existing Transit Routes & Stops

Route 487 87th Street - MTC

Johnson County Transit's RideKC services recently adopted Route 487, connecting Lenexa City Center to Mission Transit Center (**Figure 17**). The newly adopted route is critical in serving the 87th corridor, and the route connects residents of Mission to several other RideKC routes. Additionally, the route also connects riders to multiple different neighborhoods, attractions, trails, and centers. The new route will improve ridership to MTC, enhancing the node and potentially bringing new opportunities to the trail and downtown Mission.

Figure 17 - RideKC Route 487

Existing Bike and Trail Network

The available non-motorized infrastructure in the area is limited, but available for opportunities and improvements. Rock Creek has two types of bike paths: a shared bike lane that runs perpendicular to the Rock Creek corridor along Lamar Avenue, and a bike lane that runs parallel to the Rock Creek corridor west of Nall Avenue along Martway Street (**Figure 18**). Local trails such as Broadmoor Park Trail and trails connecting south and west to Overland Park are present. Currently, there is a lack of connectivity between trails and bike lanes to the area and study corridor. Fortunately, the infrastructure is in place to plan and develop a friendlier bike and pedestrian transit system that can increase bike ridership along the corridor. The opportunity is in reach to improve north and south connections to local vicinities.

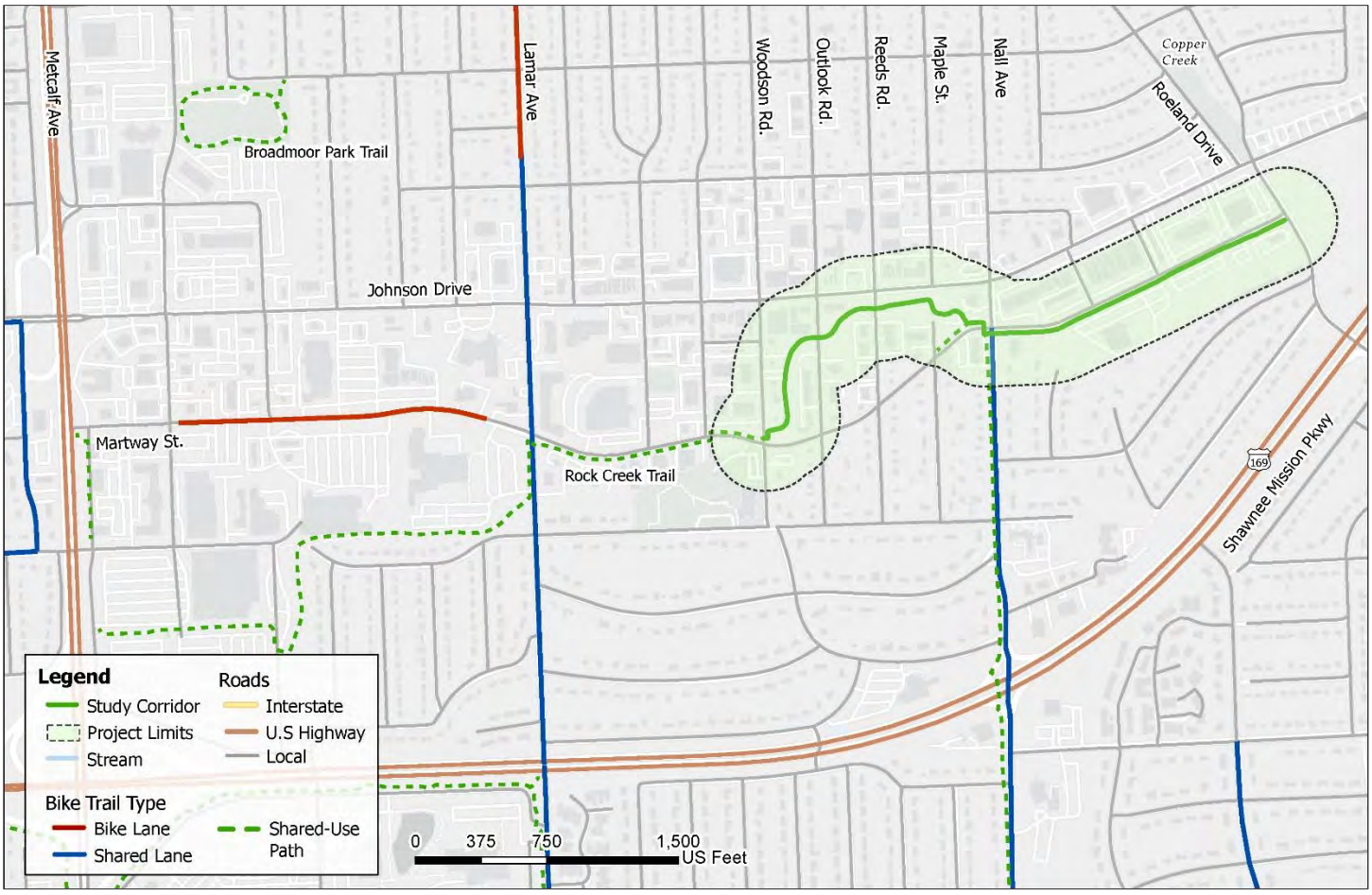


Figure 18 - Existing Bike and Trail Routes

Transportation Challenges and Opportunities

This section outlines challenges and opportunities identified from the transportation assessment that will be used to develop recommendations for the Rock Creek corridor.

Transportation Challenges

The following are identified transportation challenges for the Rock Creek corridor:

- Lack of connectivity from trails to bike lanes
- Unmitigated safety risks at key crossings
- Vehicular speed (Johnson Drive & Martway Street)
- Lack of bike signage/markings north of 67th Street along Nall Avenue.

Transportation Opportunities

The following are identified transportation opportunities for the Rock Creek corridor:

- Safer crossings
- Connectivity (intersections vs outside connections)
- Wayfinding clarity
- Increasing bike ridership along the corridor

ENVIRONMENTAL REVIEW

This section documents an environmental analysis to assess current environmental conditions and identify potential areas of concern throughout the project area.

Topography

The topography in the project area is a significant factor in water runoff, risk, and development. There are moderate elevation differences from the lowest and highest elevation points in the project area, but there is a gradual elevation change (**Figure 19**). The corridor runs along the lowest elevation point adjacent to the floodplain. Due to the natural decrease in elevation, stormwater runoff is potentially increasing the risk of property flood damage.

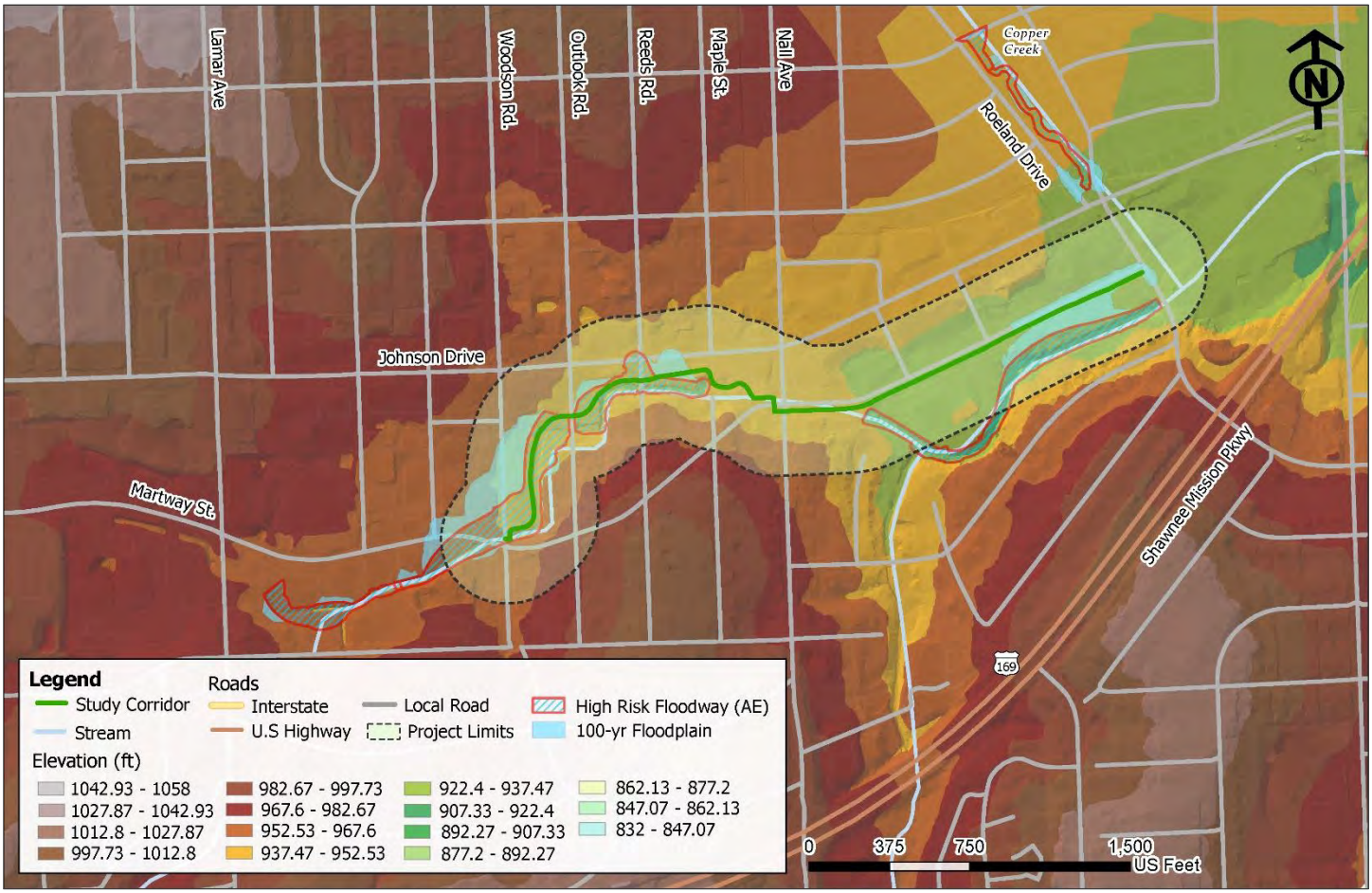


Figure 19 – Project Area Elevation

Flood Risk Evaluation

The 100-year floodplain and the high-risk floodway (AE) are portrayed in **Figure 20** The floodplain and AE zone cover most of the trail from Woodson Road to Maple Street, following the stream channel and the decrease in elevation change. The 100-year floodplain means there is a 1% flooding each year. Consequently, properties proximate to the corridor and floodplain are at higher risk of flood-related damages and safety risks for trail riders. Fortunately, there are opportunities to implement green infrastructure and stormwater best practices to mitigate and reduce flood-related risks.

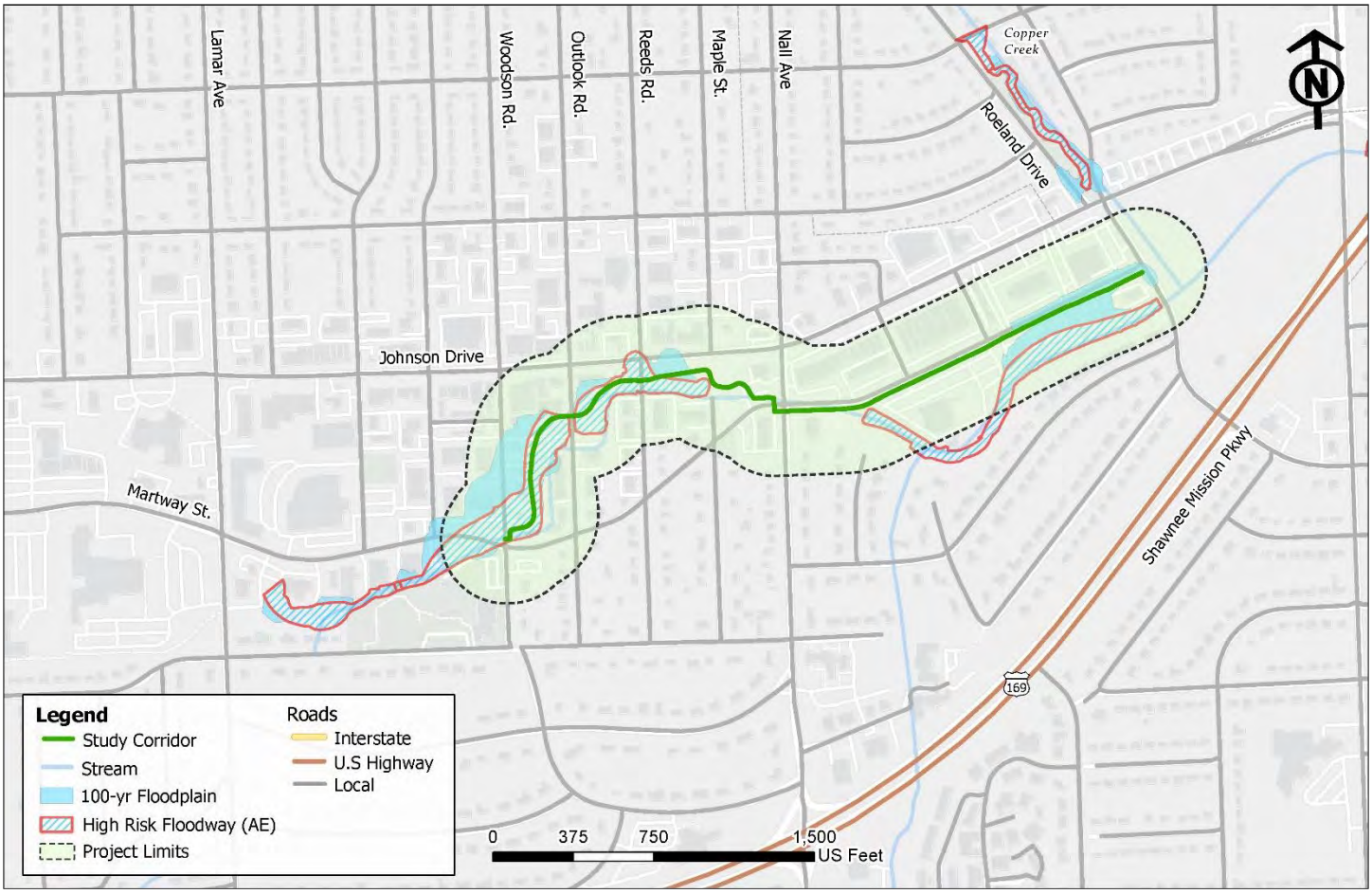


Figure 20 - Project Area Floodplain

Alternative Engineering Floodplain

Figure 21 displays a recent engineering study that identified various solutions that could reduce the existing floodway in Mission. If funded, solution three could potentially shore up some of the floodplain's inundation boundary, lowering risks for business owners and trail users, and mitigating economic hardship for property owners.

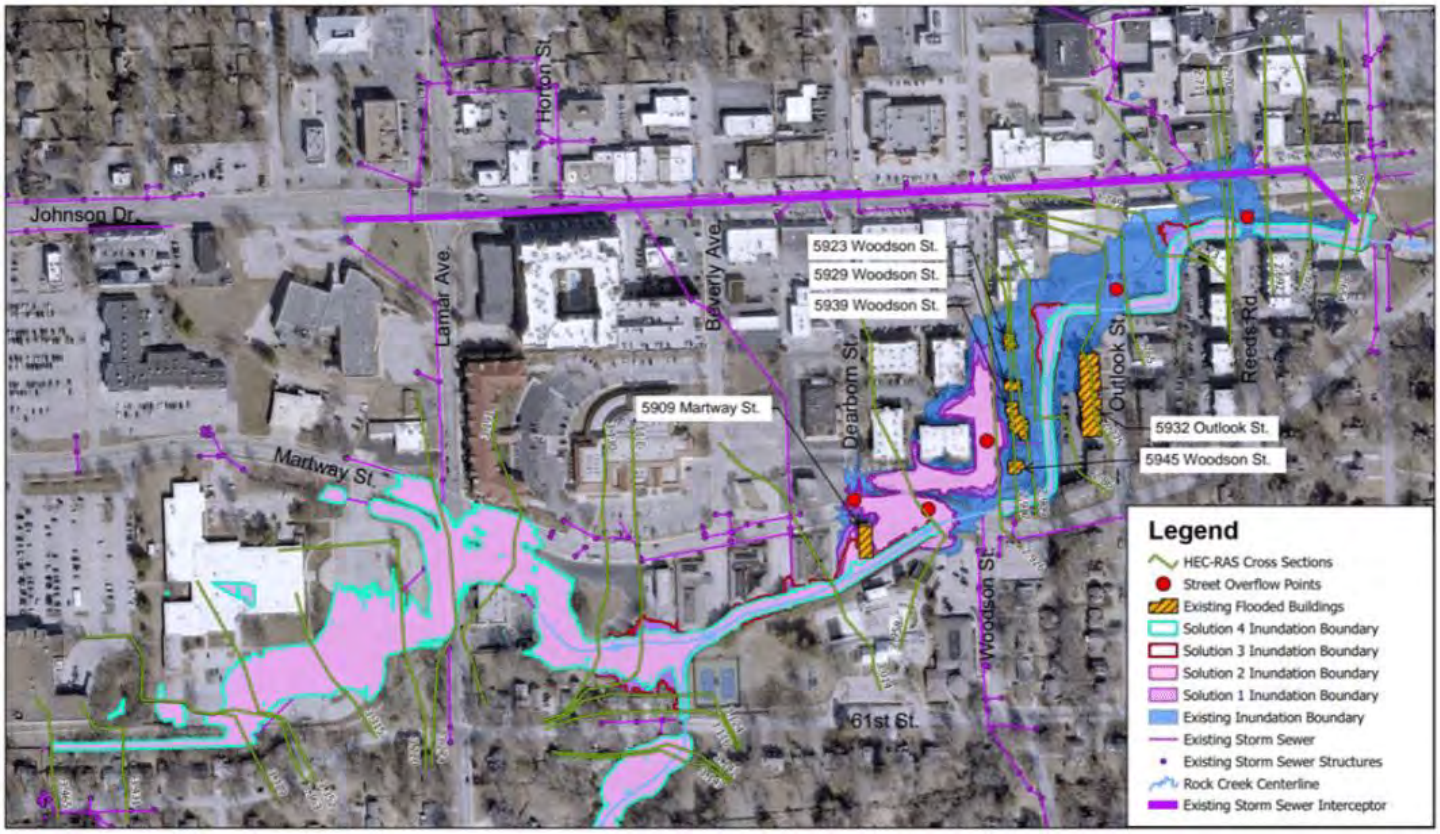


Figure 21 – Olsson Floodplain Study

Environmental Challenges and Opportunities

This section outlines challenges and opportunities identified from the environmental assessment that will be used to develop recommendations for the Rock Creek corridor.

Environmental Challenges

The following are identified environmental challenges for the Rock Creek corridor:

- AE flood risk
- Large floodplain
- Properties at risk of flood-related damages

Environmental Opportunities

The following are identified environmental opportunities for the Rock Creek corridor:

- Gradual elevation change
- Green infrastructure best practices
- Community interaction
- Stormwater best practices
- Floodway mitigation efforts

UTILITY AND SERVICES REVIEW

This section documents an assessment of Mission's utilities and services to determine current conditions and identify opportunities for stormwater and electrical structure improvements.

Stormwater Structures

Figure 22 displays the location of stormwater drains by type and mains. Most drains located near the project corridor are of Curb or Grate Inlets. Stormwater mains primarily run parallel to the channel and perpendicular to Nall Avenue and Maple Street.

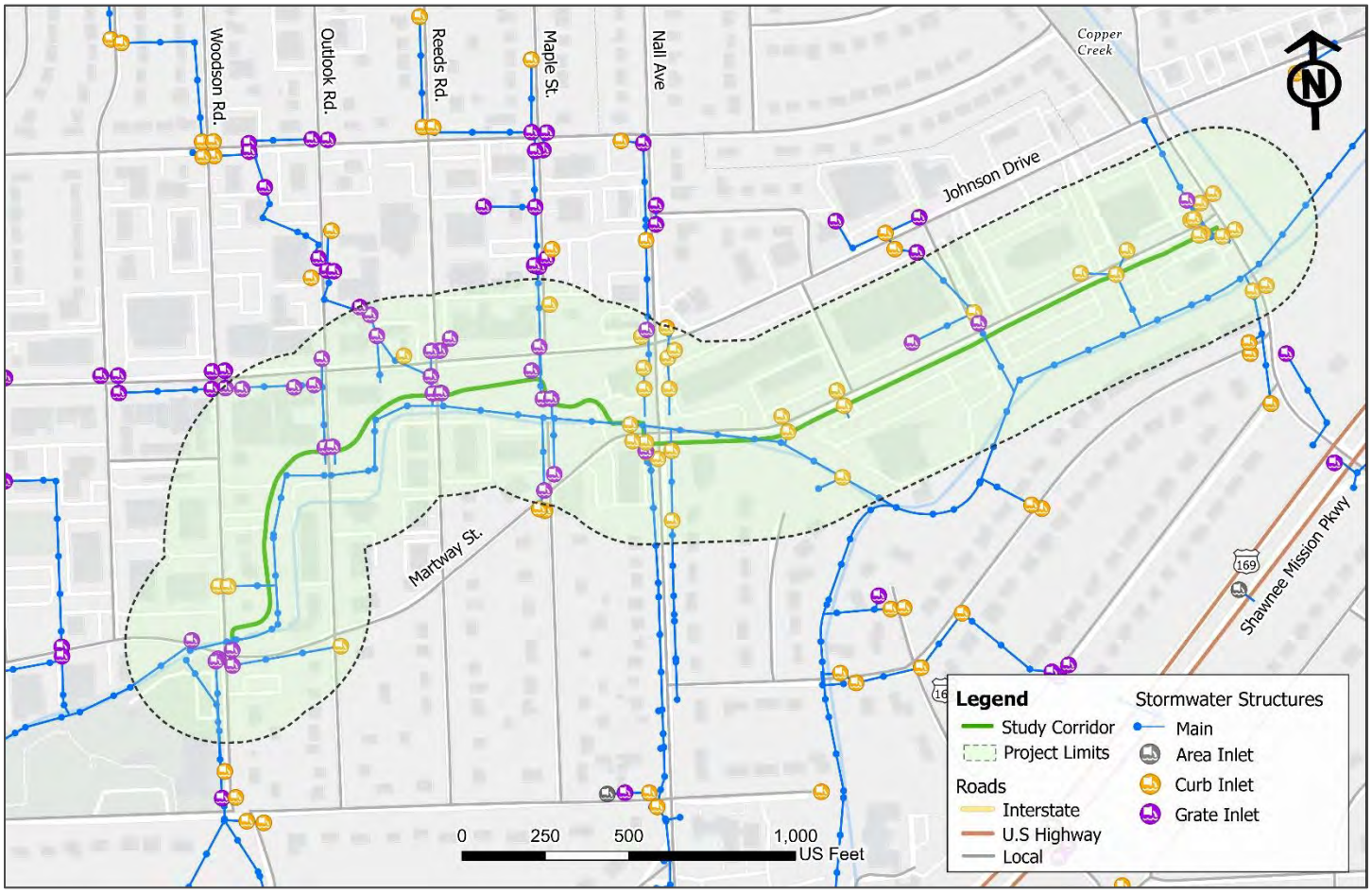


Figure 22 - Stormwater Structures by Type

Figure 23 illustrates stormwater drainage locations, density, and mains. Currently, the project corridor has a few areas, primarily at intersections, with high counts of drains to contain and mitigate stormwater flooding. The highest density area that includes many gutters is east of the corridor at Martway Street and Roeland Drive. All drainage is connected to the stormwater main.

Figure 23 - Stormwater Drainage Density

Water & Sanitary Sewer Lines

Figure 24 displays water and sewer lines along the Rock Creek corridor. Most water and sewer lines run parallel to each other along local roads, with a few exceptions where water lines run perpendicular to sewer lines on the corridor. Most water lines are located west of the Rock Creek corridor near businesses and residential properties. One main water line runs east on Martway Street parallel to the corridor. Sanitary sewer lines are located throughout the corridor connecting to local residential properties. The Rock Creek corridor is experiencing several water line breaks along Outlook and Reeds Road. Water lines and sanitary sewer lines are often close to each other, which imposes a threat to water quality and safety due to potential contamination from nearby sewer lines.

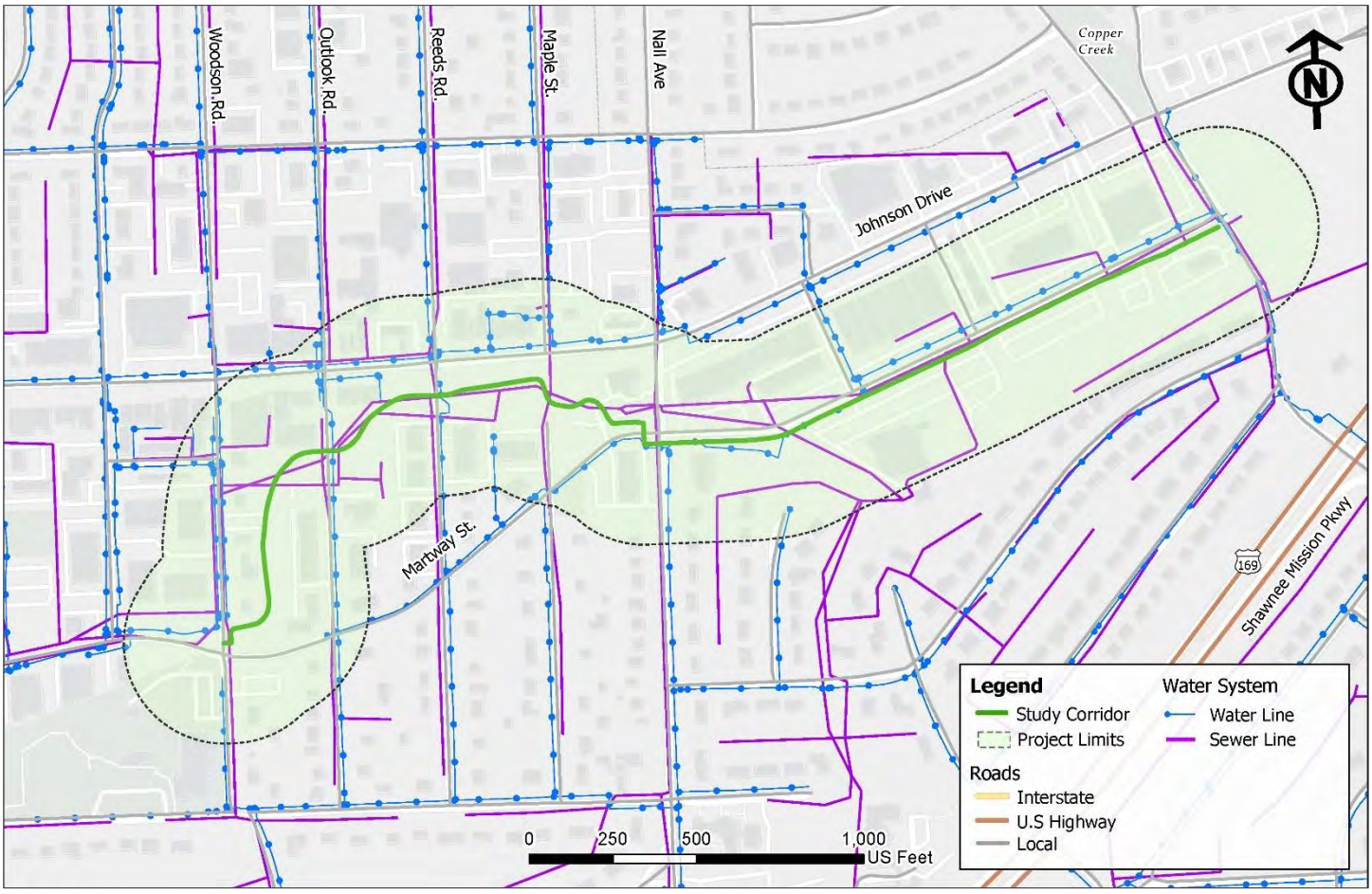


Figure 24 - Water & Sanitary Sewer Line System

Electrical Structures

Figure 25 exhibits electrical structures along the Rock Creek corridor. Most single-pole structures are located within residential roads and west of Nall Avenue along the project corridor. A few single electrical poles are east of Nall Avenue along the project corridor. A majority of single electrical poles have overhead primary and secondary lines that run parallel to each other behind residential properties. The project corridor has a moderate source of electrical overhead lines and poles west of Nall Avenue and an adequate amount of underground electrical lines all around.

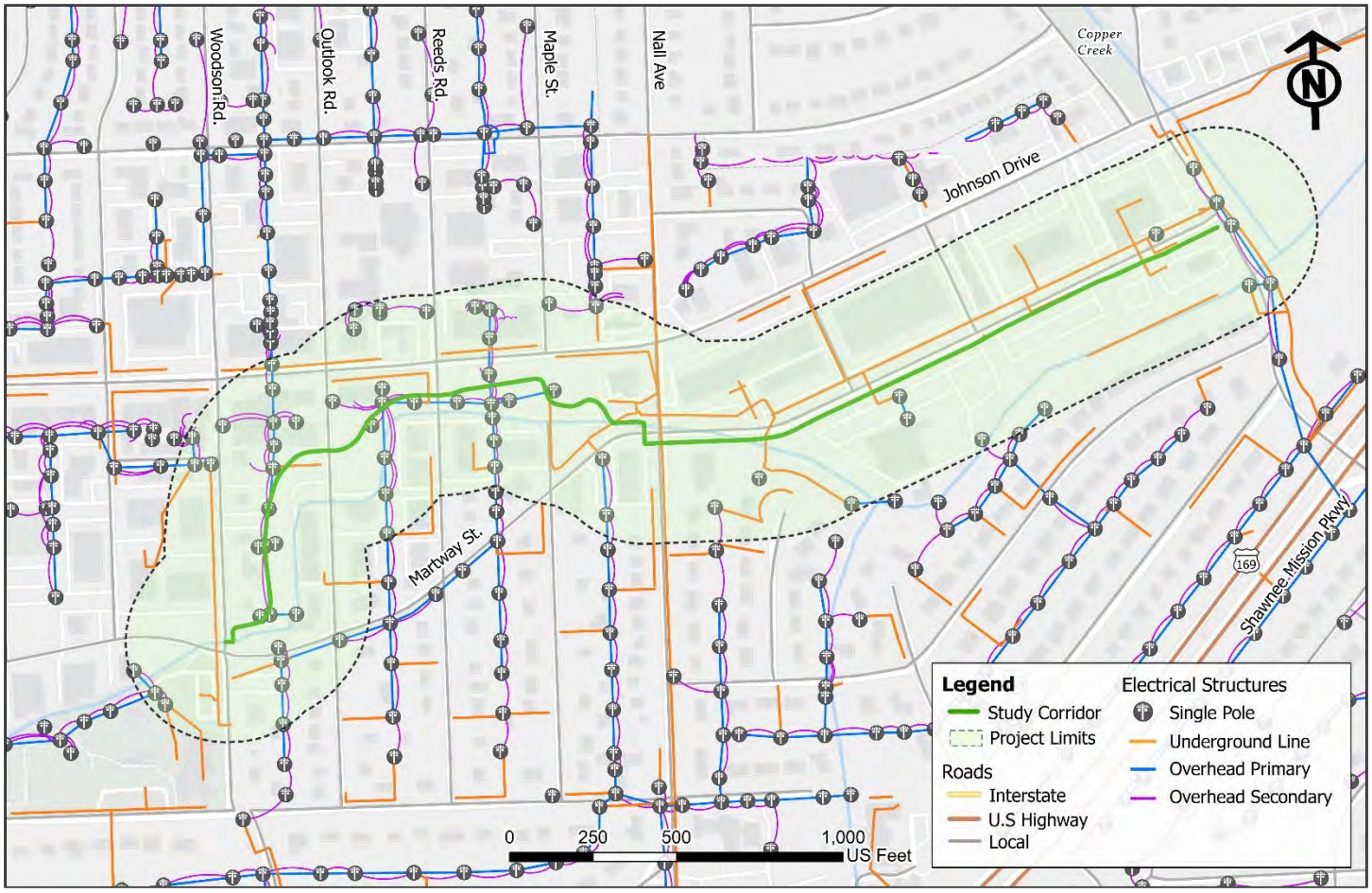


Figure 25 - Electrical Structures

Utility and Service Challenges and Opportunities

This section outlines challenges and opportunities identified from the utilities and services assessment that will be used to develop recommendations for the Rock Creek corridor.

Utility and Service Challenges

The following are identified utility challenges for the Rock Creek corridor:

- Lack of electrical structures east of Nall Avenue along the trail
- Potential water contamination from sanitary sewer lines
- Water line breaks along Outlook and Reeds Road

Utility and Service Opportunities

The following are identified utility opportunities for the Rock Creek corridor:

- Suitable stormwater main network
- Suitable electrical underground network

NEXT STEPS

Evaluating Public Input

Public input is being received through meetings and workshops with local business owners, residents, and stakeholders. Public input is being evaluated through an online survey to identify community priorities, opportunities and challenges, individual needs and wants, project and process feedback, and, ultimately, understand the relationship of the residents to the Rock Creek corridor.

Walk and Roll Workshop

Walk and Roll is the initial community engagement workshop to engage residents in the project, cultivate a shared understanding of the state of the Rock Creek corridor, and identify both challenges and opportunities. The workshop is conducted by a walking tour along the stretch of the trail or a biking tour along the bike routes of the project corridor, with both having stopping points at important locations to discuss existing trail conditions, constraints, and potential improvement opportunities.

Building Recommendations

The building recommendations for Rock Creek shall be based on public input, existing conditions assessments, and align with city interests and goals. These recommendations aim to enhance the quality of life and functionality of the Rock Creek corridor.

Appendix B: Engagement Summary

The Rock Creek Corridor Improvement Plan engaged Mission residents, business owners, non-profit leaders, City staff, and elected leaders throughout the project. A stakeholder group was formed at the beginning of the process to guide the project team as a sounding board of representative community perspectives. This group guided the direction of the project in each phase of work, participated in public events, and assisted with outreach to their community. The phases of work were 1) Existing Conditions Analysis, 2) Conceptual Design, and 3) Final Corridor Improvement Plan). During Phase 2, there were two Focus Groups - business owners and residents. The team met with each business owner one-on-one, and the Resident Focus Group met as a group to talk over the main points of the project and provide input on community priorities. Finally, there were two public engagement events: the Walk and Roll, which occurred at the beginning of the project to outline community-identified existing conditions, and the Public Open House that occurred at the end of the project to give the community a final opportunity to give feedback on the conceptual alternatives. There was also an online survey, social media outreach, flyers distributed, yard signs, and an informational project webpage on the City of Mission's website.

Phase I: Existing Conditions Analysis

Stakeholder Meeting #1

On August 10th, the first Stakeholder Meeting was held at the Sylvester Powell Jr. Community Center. The purpose of this meeting was to discuss project goals and desired outcomes, and for the Stakeholders to help tailor a successful engagement process for Mission.

When asked, *What would make the study a success for your community?* the main takeaways were:

- Wayfinding
- Identity
- Culture
- Safety
- Greenspace

MARC Mid-America Regional Council

mission kansas

WILSON & COMPANY

When asked, *What are the biggest opportunities to the project that relate to the goals of the corridor?* the main takeaways were:

- Cohesive but with distinct areas and uses
- New development aligned with Rock Creek Trail Plan
- Pocket Parks

When asked, *Is there any feedback on the engagement process (i.e., Methods, City Website, In Person Meeting Types, People to Engage)?* the main takeaways were:

- Reach out to Homes Association, Senior Living Facilities, Artists, Councilmembers, Sustainability Commission, Parks and Recreation, Independence Walk, and businesses on Johnson Drive
- Put up signs with QR code to landing page along the trail and at the pool, and at Schools?
- On the website, have people post their pictures of things that they like/don't like + photos of development to show Before and After imagery
    - Walk and Roll Tour: Send your pictures to _____
- Have as many city staff involved as possible, including Public Works and Parks
- The Independence walk (fundraiser) is September 9th to highlight businesses along Johnson Drive. It might be a good idea if you wanted to put together a flyer.
    - Distribute hard copies to business owners.
- Mission Project started a walking group in 2004. The participants can walk to almost any destination and the trail is the anchor.

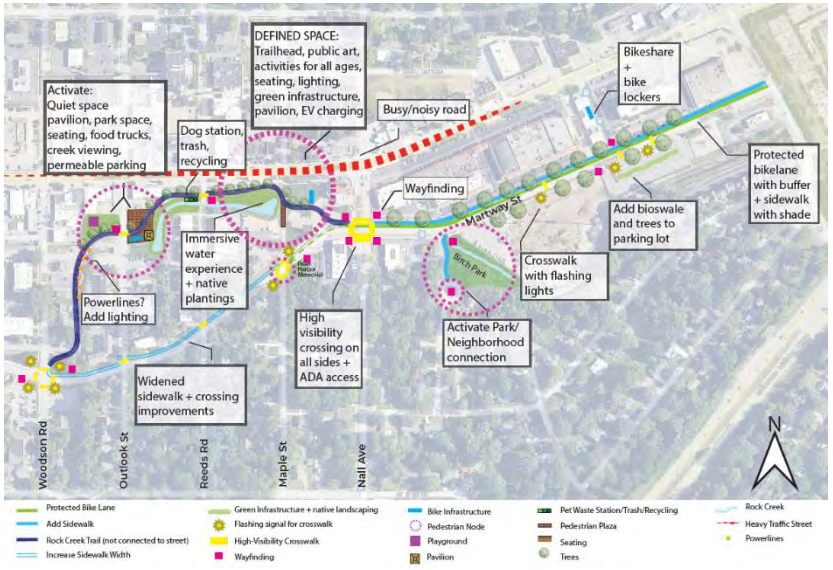
In immediate response to Stakeholder feedback, yard signs were made and distributed throughout the study area to spread awareness for public input, and an online photo opportunity was started on the City's website.

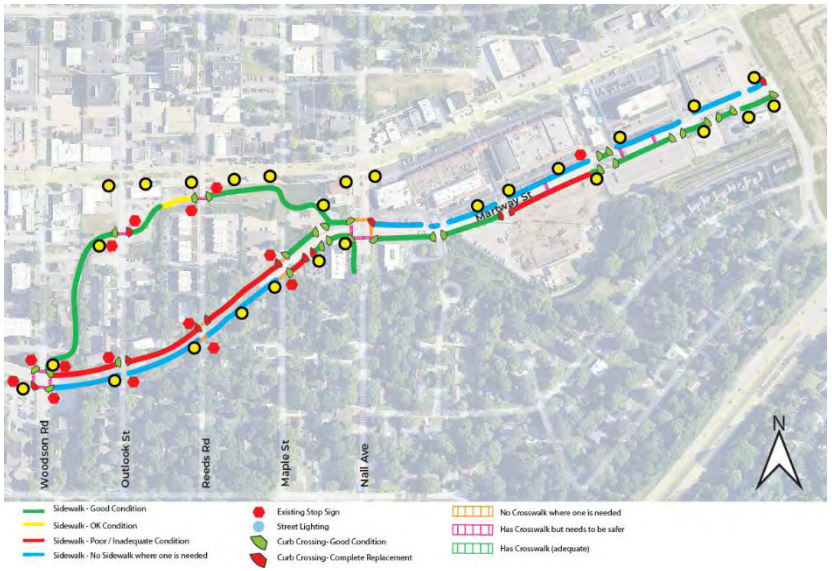
To access the presentation, please click here.

Walk and Roll – Public Event

On September 16th, 41 residents of Mission joined the consultant team for the Walk and Roll tour. Of the 41 residents, 36 walked with team members along the tail in the study area, while 5 rode their bicycles with team members from BikeWalkKC throughout the entirety of Rock Creek Trail. With the large number of attendees, the residents were divided into smaller groups that walked the trail as team members facilitated conversations at designated stops. At each stop, residents were asked how the area looked and felt, what their visions for the spaces could be, and if there are any current challenges to overcome. Residents were also prompted for input on safety, comfort, multi-modal transportation, stormwater management, neighborhood connection, and any other observations. The community's feedback helped to guide the direction of the Conceptual Designs. Overall comments included:

- Add protected bike lanes with a buffer and/or a sidewalk with shade (Martway)
- Bikeshare and bike lockers needed at Transit Center (Martway)
- Add bioswale and trees to the parking lot (Martway)
- All crosswalks should be high visibility with speedbumps or flashing lights
- Activate Park and improve neighborhood connection (Birch Park)
- Nall and Martway need to have high visibility crossing on all sides and ADA access
- Wayfinding should be throughout, *but* shouldn't need signs to know it's a trail
- Widened sidewalk and crossing improvements needed throughout (Martway)
- Johnson Drive is a busy and noisy road –promote safety and foot traffic headed west
- This should be a defined space that has a trailhead, public art, activities for all ages (Greenspace west of Capital Federal Plaza/ Mission Market area)
- Dog stations, trash receptacles, and recycling are needed throughout
- Make Rock Creek an immersive water experience with native plantings
- Activate this space as a quiet space with a pavilion, park space, seating, food trucks, creek viewing, and permeable parking (vacant lots along Outlook and Woodson)
- Are the powerlines dangerous? Additional lighting needed to improve safety (trail between Outlook and Woodson)

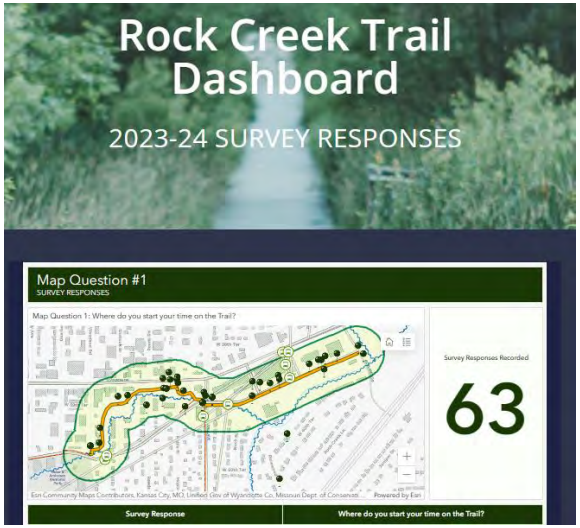




During the Walk and Roll, a map of existing pedestrian conditions was also made which detailed the conditions of sidewalks, crosswalks, and ADA access, while noting locations of stop signs and lighting.

Phase II: Conceptual Design

Public Survey



On August 23rd, the online public survey went live and remained accessible until October 20th. The survey gathered public input regarding trail and street improvements, flood hazard mitigation strategies, and new public amenity concepts. The survey had interactive mapping components where residents could pinpoint specific details, such as where they enter or exit Rock Creek Trail, destinations, where they would like to see more connections, and where they have concerns. The 47 responses provided the team with additional understanding of the community's relationship with the trail.

- Most respondents have a car and drive most of the time, while others choose to commute or would like to commute more in the future.
- A couple of respondents did not have vehicles and used the bus as their main form of transportation.
- While most have vehicles and choose to drive, 30% would like to use active or public transportation more.
- Many respondents had never been on Rock Creek Trail before, and 2 were unsure.
- Most of the respondents use the trail multiple times a month and throughout the year.
- About 40% of respondents would use the trail more if it connected to more places,
- About 30% of respondents would prefer to have more amenities such as shade and lighting throughout the trail.
- Almost 20% of respondents would use the trail more if it were easier to get to, while almost 10% of respondents said future improvements would not change the frequency they use the trail.
- Of the respondents that use the trail, most walk while others bike or ride their scooter. To get to the trail, most walk.
- 26% of respondents use the trail to run errands, commute to or from work, or to visit a friend.

To view all results from the Public Input Survey, please click here.

Focus Group Meetings

Resident Focus Group

The Resident Focus Group met on October 3rd at the Sylvester Powell Community Center. It included homeowners, multi-family property owners, and residents who live within a block of Rock Creek Corridor. In total, 15 residents gathered to learn about the project, discuss how the project can best serve residents and neighborhoods, and identify priorities for the project. Comments from the meeting include:

- "Is that what the trail is called?"
- Should include signage with a map that could identify destinations, breweries, restaurants, bike stations, hydration stations, and mile markers
- Signage could increase foot traffic to businesses and connect residents from their neighborhoods to the trail.
- The trail is run down, and the poor aesthetics diminish the experience.
    - Routinely emptying the dumpsters, adding more waste receptacles, adding lighting, and repairing sections of the trail and parking lots could make the trail feel like less of an "alleyway."
- Safety could be improved by adding a play or exercise area, activating spaces on the backside of businesses, clearly marking the trail, and adding more lighting.
- Challenges for cyclists include the crossing at Lamar Avenue (behind Fluffy Fresh), the intersection of Nall and Martway, and the intersection of Johnson Drive and Metcalf.
- Sidewalks are in disrepair and need improvements
- Accessing the trail from any street should be and feel safe with improved crosswalks.
- Biking is more difficult on the eastern edge of the trail as there are many stopping points and intersections, so cyclists are most likely to bike in the street if they are coming from the east.
- Martway and Reeds experiences substantial amounts of water runoff
- "What can we do on our properties to help with water retention?"
- Crossing improvements are needed at Martway and Nall.
- Johnson Drive and Martway Avenue west of Nall could benefit from mid-block crossings with a flashing beacon, but a pedestrian refuge or median is not necessary.

- Biggest concerns are maintenance and cohesion

To view all comments from the Resident Focus Group, please click here.

Business Focus Group

From the end of September through the middle of October, one-on-one meetings were held with business owners to understand how the goals of the project could be achieved through the lens of the business community. The team met with Mason Hans from Mission Board Games, Jay Fleer from Mission Barbell Club, Janay and Tim Joy from High Vibe Bride, and Jenny Pugh from LuLu's Boutique. Comments included:

- Increase accessibility from the trail to businesses through improved sidewalks, placemaking, infrastructure, and education.
- Improve connectivity from the businesses to the trail—especially for those with mobility challenges.
- Improve intersections and wayfinding to aid pedestrians
- Interested in a conservation approach and privacy for property owners along the trail (High Vibe Bride).
- Would like to see more park space, trail amenities, and flood management.
- Increase the walkability of Johnson Dr. and the trail through the incorporation of public art along the trail and at businesses
- Enhance and uplift community identity and trail aesthetics through public art.
- Increase community involvement and development through movie nights and after-hours events

To view all comments from the Business Focus Group, please click here.

Phase III: Final Corridor Improvement Plan

Final Stakeholder Group Meeting

On November 16th, the 3rd Stakeholder Meeting was held at the Sylvester Powell Jr. Community Center. The purpose of this meeting was to review the Walk & Roll Feedback and the Online Engagement Summary; and review the design concepts, wayfinding, and complete streets concepts. The design team facilitated feedback from the group on all proposed concepts.

Concept 2

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Comments:

- Increase focus on the safety issues that have been communicated
- **Add a pedestrian/bike connection at Reeds if closed to vehicular traffic**
- Appreciation of west end utilization where currently there is a lot of vacancy
- Like the market structure and restrooms – serves more than trail users
    - Could the restroom be more tucked away – less prominent on Johnson Dr?
    - The placement is based on the floodway and to make sure that eyes are on it for public safety and maintenance
- Like the trees and vegetation between trail and street (Johnson Drive), also acts as a noise buffer – would appreciate as much separation as possible
- Like the market space and water feature, creates opportunities for more diverse uses and audiences
- Some are concerned about maintenance of the water feature and perception when the water is not running
- Sewer line near Capitol Federal parcel – road/pavement hump where line is located underneath would be near the proposed pavilion?
- Appreciate the accessibility to all businesses and amenities of concept 1– compliments the experience and connectivity
- Kids love artificial turf areas to play – great opportunity for families to have more to do here (soccer, yoga, entertainment)
    - Low maintenance synthetic turf preferred
    - No fitness court but perhaps concrete ping pong table, and/or futsal court with mini goals
- **This pavilion would be a great opportunity to have a space to program live music (currently must travel to other cities for this activity)**
    - The market could potentially outgrow the pavilion, where would vendors be placed?
- Like the idea of beautifying the parking areas and the edge of the channel with plantings
- Penn - The pump track is a highly requested feature, and I like the idea that it is also a training space for new bike riders
- **Where are the opportunities for public art? Call them out**
    - Gateways
    - Trailheads
    - Mile markers
    - Open spaces

Concept 2

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WILSON & COMPANY

Comments

- Why more parking on the west side?
    - Potentially for food trucks and to support vendors for additional market space and parking for new gathering spaces
    - Could be pervious and landscaped for multiple purposes not just parking
- Space for multi-purpose is nice but the backs of those buildings aren't attractive
    - Mass St. in Lawrence KS is a good example of behind building parking that is landscaped and aesthetically pleasing
- **Like the event space**
- **Like the signature shade structure, adds artistic character**
- **Like activating more of the west and south part of the study area**

Overall, the group likes Concept 1 better because:

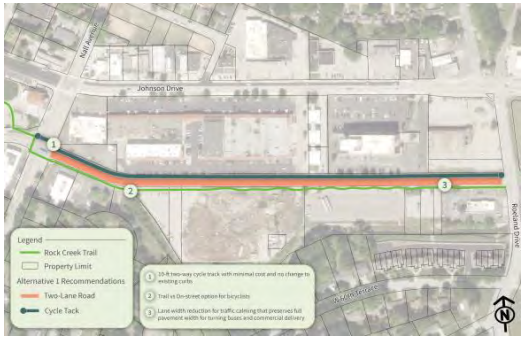
- It has more buffer between the trail and street
- Appreciate closing Reeds
- Seems more flexible
- It has more open space to gather, play, and rest (Concept 2 seems a little over-programmed)
    - Smaller pavilion
- Several nodes of exciting design
- Like the water feature – a nice compromise to naturalizing the creek – a way to touch the water (however, maintenance concerns)
- Daytime family corridor + late night date night location across from restaurants and bars

Complete Streets Dialogue:

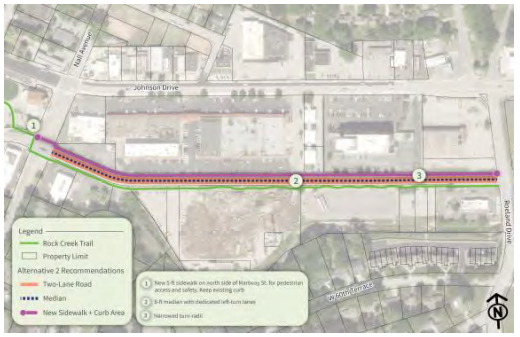
- *1. How does each option ensure **safety** for **pedestrians**, **cyclists**, and **drivers**?*
- *2. Which alternative offers the best overall **user experience**?*
- *3. How well does each design integrate with the **neighborhood** and **local businesses**?*
- *4. What potential **social** or **economic impacts** might arise from each option?*
- *5. What are the expected **maintenance costs** and **sustainability** aspects for each alternative?*
- *6. Which option presents the best **long-term value** for the community and stakeholders?*
- **Really like the cycle track**

  - Why on the north side of Martway? There are more traffic conflicts with the parking lot
  - On the south side it would be coupled with the wide sidewalk
  - If on south, still need sidewalk and plantings/buffer on north
- **Need sidewalks on both sides of Martway**
- **Add plantings and vegetation to beautify and buffer from car traffic (feel more like a trail)**
- Once new apartment residents are there things will change
  - Wait and see on traffic flow before reducing lanes?
  - Analysis of counts and increased use shows that reduced lanes will handle the traffic with no problem – turns will take a little more time.
- The trickiest part of walking in the area is crossing Martway (hills, low visibility, narrow sidewalk, no buffer to fast moving traffic)
  - **Identify the safest spots to cross and provide wayfinding**
- No one expressed interest in planted median option

To access the presentation, please click here.



Concept 1.



Concept 2.

Concept 3.

Open House

An Open House was held on December 7th at the Sylvester Powell Jr. Community Center where residents gave final feedback on the Design Concepts. Residents discussed the concepts with the consultant team and City staff and provided comments for refinement. Community members cast their ballots on their top choices. It was a close vote, with 13 in favor of Concept 2: “Market in the Green,” and 12 in favor of Concept 1: “Rock Creek Park”. The vote on Martway alternatives revealed that 16 were in favor of a 2-way on-street cycle track, 5 were in favor of a wide sidewalk on the north side, and 4 were in favor of a center median and sidewalk.

The feedback received at this final public event will guide the final plan design and recommendations.

To view all comments from the Open House, please click here.

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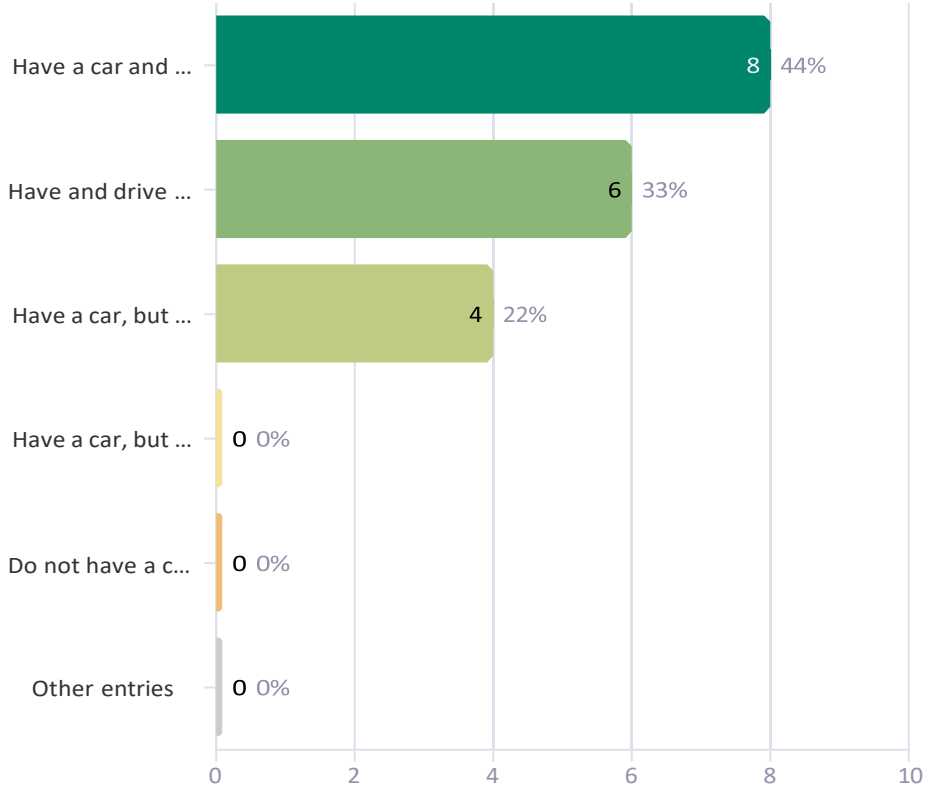
Appendix C: Rock Creek Improvement Online Survey

Rock Creek Corridor Improvement Survey

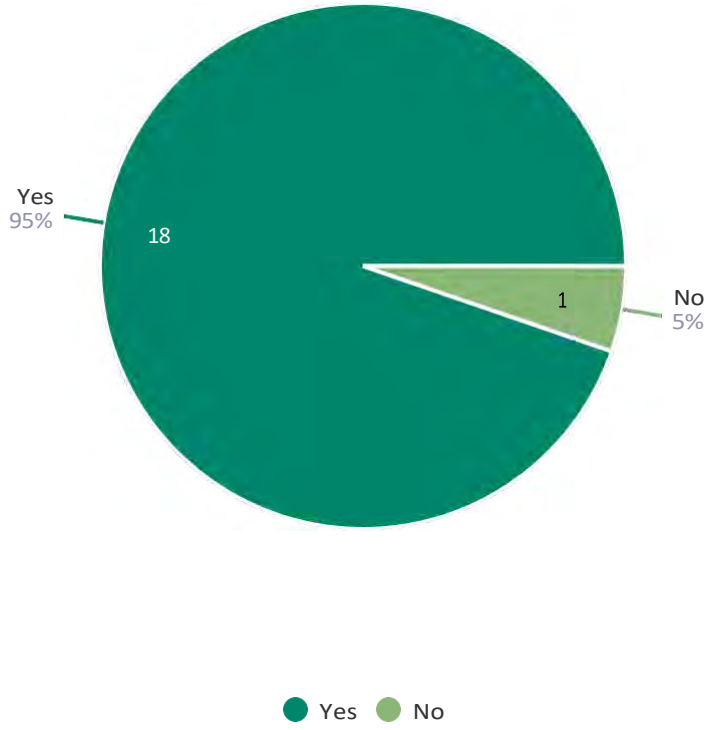
How do you use the Rock Creek Trail?

18 Responses- 1 Empty



Have you ever used the Rock Creek Trail?

19 Responses



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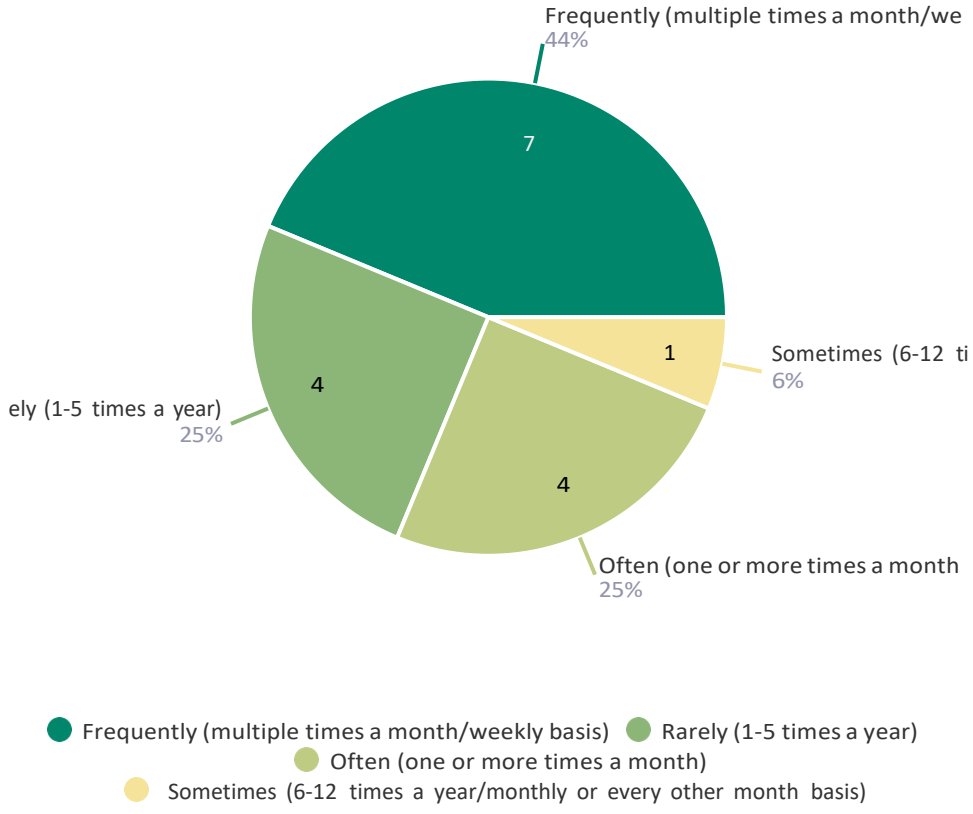
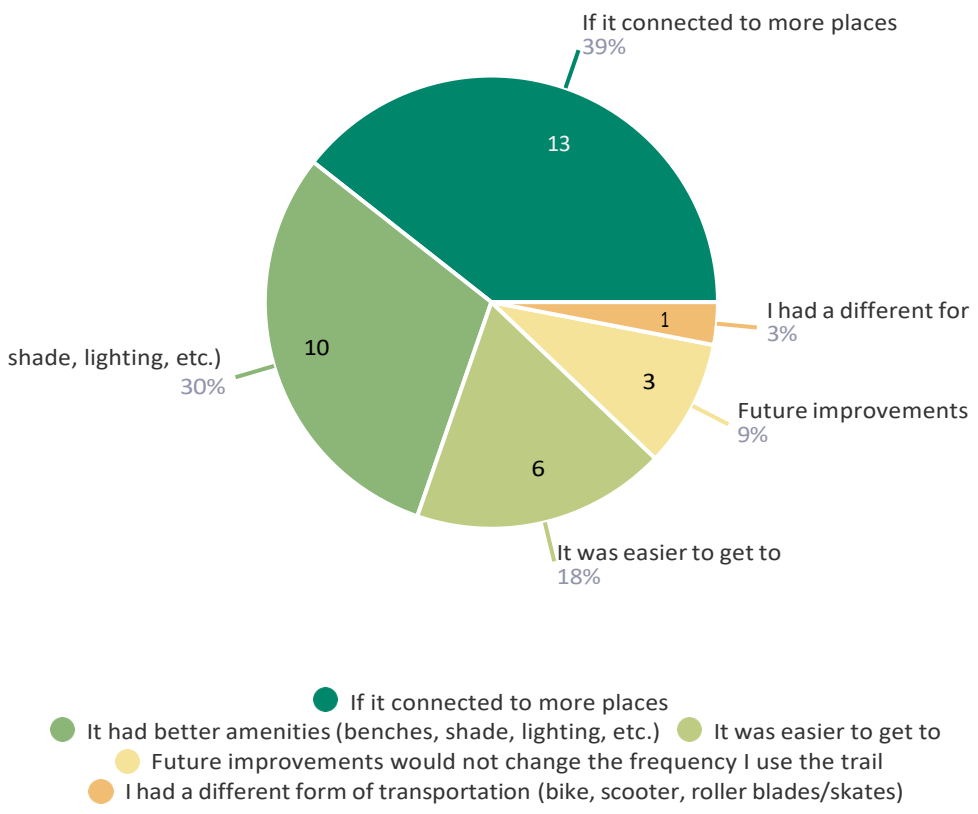
If yes, how often do you use the trail?

16 Responses- 3 Empty



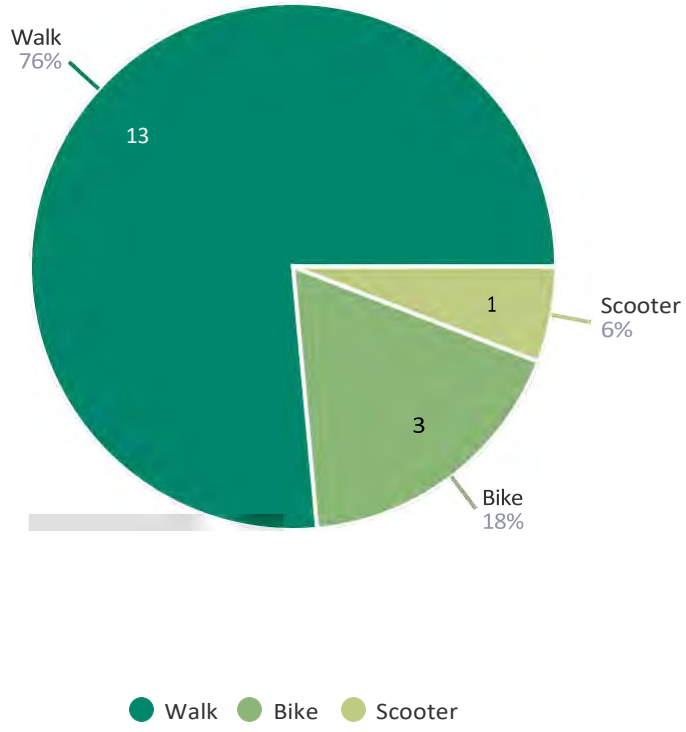
If yes, I would use the trail more often if

33 Responses- 2 Empty



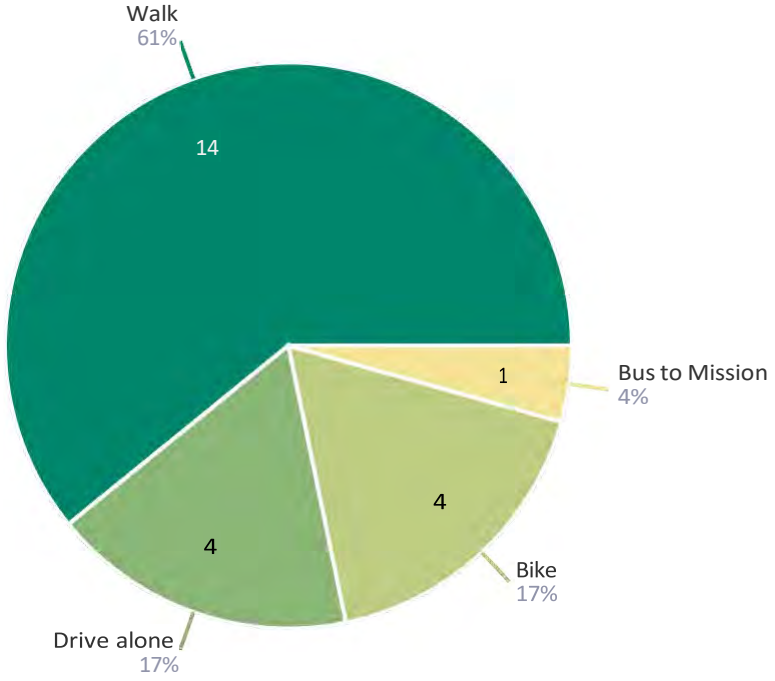
If yes, what mode of transportation did you use on the trail?

17 Responses- 2 Empty



If yes, how did you arrive at the trail?

23 Responses- 2 Empty



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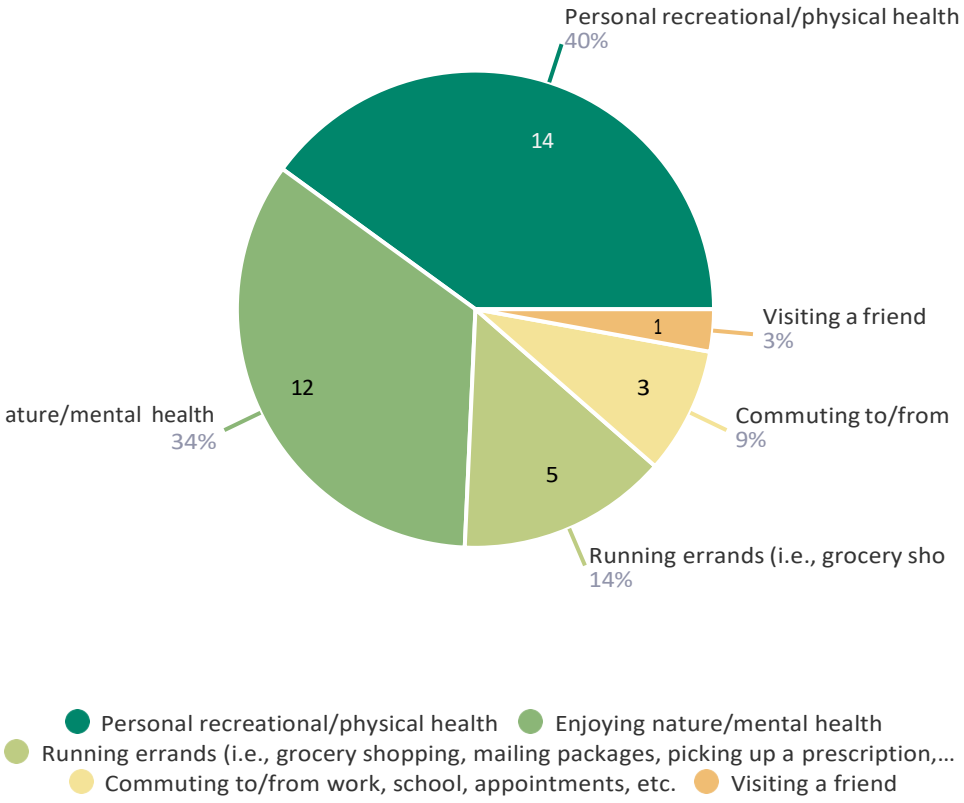
If yes, what was your primary reason for using the trail?

35 Responses- 2 Empty



How would you rate your level of comfort and safety in and around the Rock Creek Trail?

18 Responses- 1 Empty

Best Response

3

33%
Percentage

18
Responses

Data	Response	%
3	6	33%
5	5	28%
4	4	22%
2	3	17%
1	0	0%

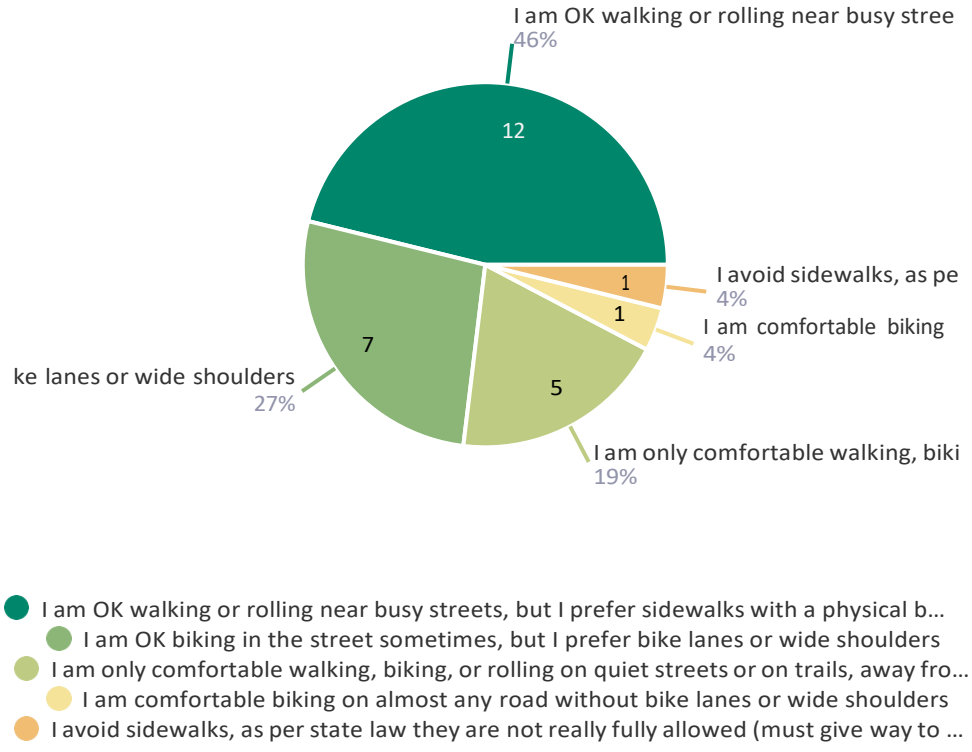
If you require mobility assistance devices such as wheelchairs or walkers, how confident are you in using them to navigate the Rock Creek Trail?

4 Responses- 15 Empty

Data	Responses
N/A	1
pretty confident on the short stretches of good trail itself, but not as comfortable getting to and from the trail. Also, sidewalk closures are so frustrating. Mission started putting pedestrian detour signage, but unsure if all of the detours were accessible or not.	1
n/a	1
the portion of Rock Creek Trail which has a wide sidewalk is great. the portion between Nall and Woodson is not as accommodating.	1

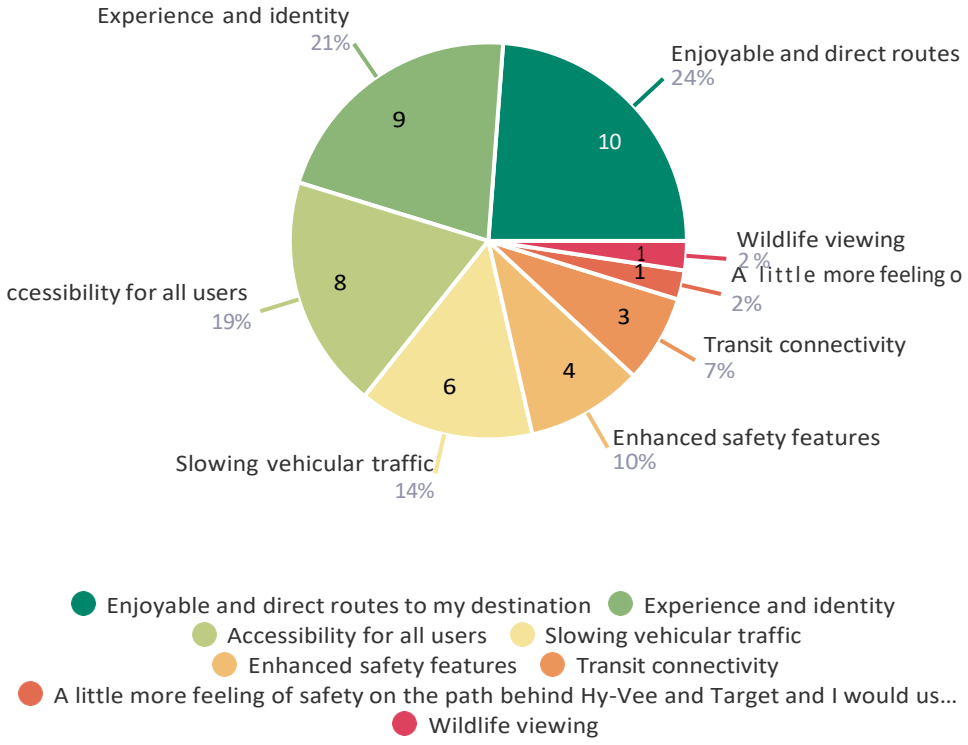
What is your comfort level in walking, biking, or rolling in and around the Rock Creek Trail? (Rolling refers to roller blades/skates, scooters, skateboards.

26 Responses



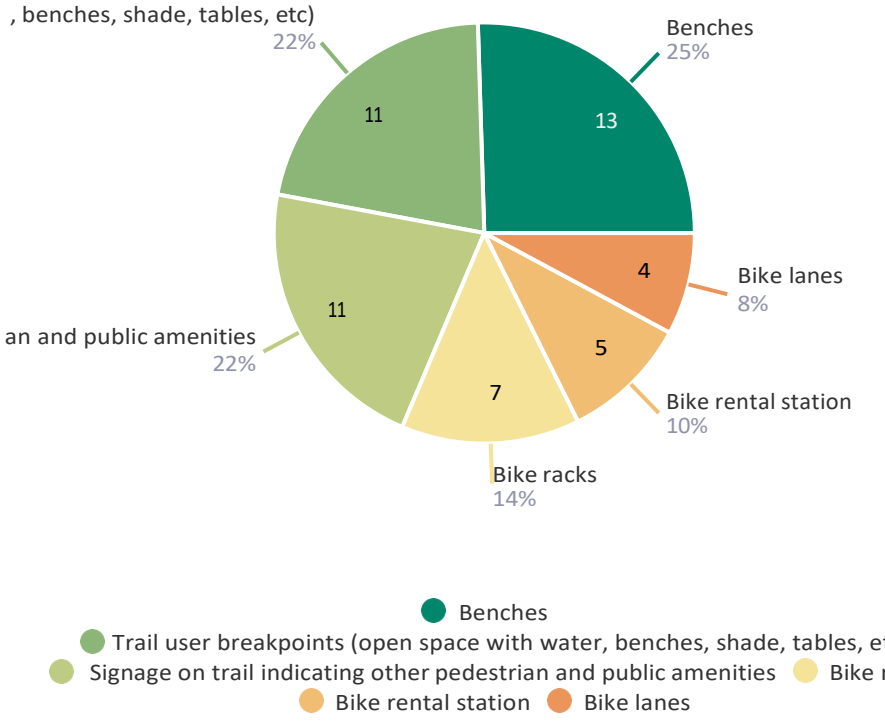
What are the key factors that must be addressed to improve your experience on Rock Creek Corridor

42 Responses



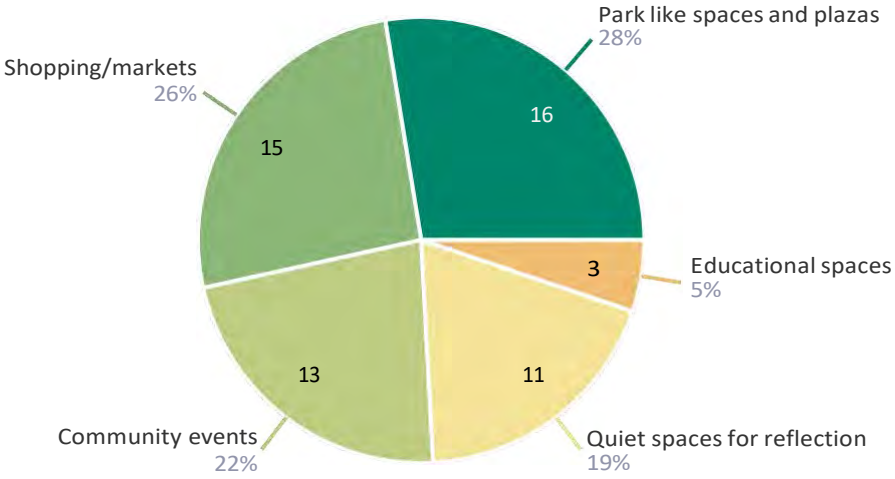
What infrastructure features would improve the pedestrian and biking experience on Martway Street?

51 Responses



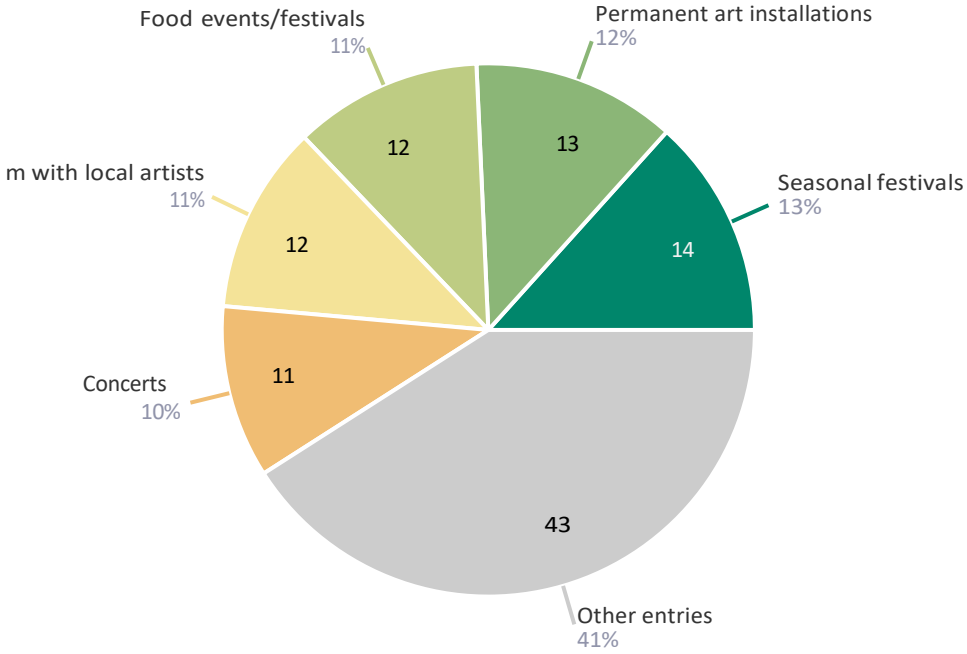
What types of community events would you like to participate in?

58 Responses



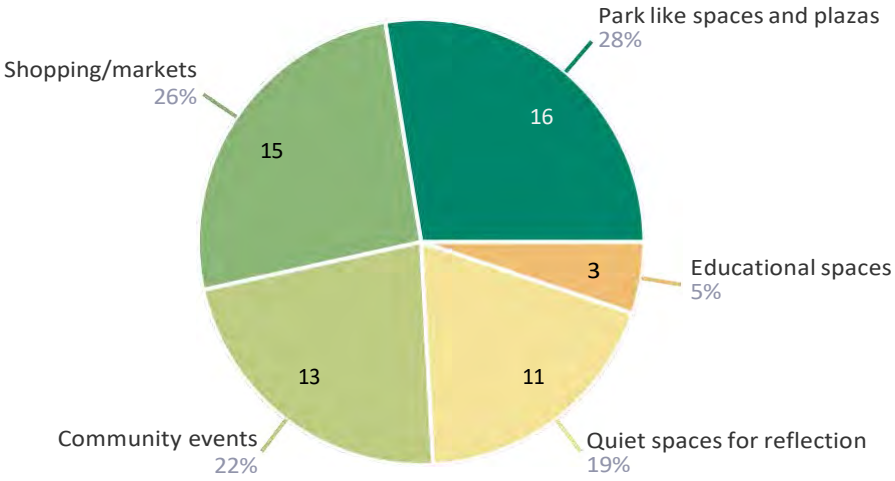
If you selected COMMUNITY EVENTS: What types of community or art events would you like to participate in?

105 Responses- 2 Empty



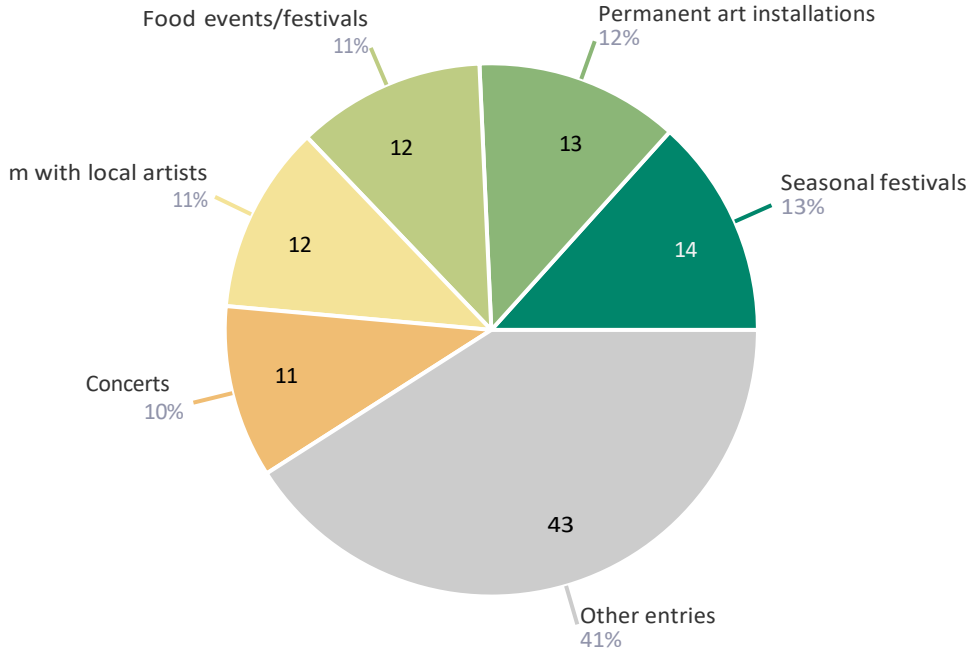
What types of community events would you like to participate in?

58 Responses



If you selected COMMUNITY EVENTS: What types of community or art events would you like to participate in?

105 Responses- 2 Empty



Rock Creek Corridor Improvement Survey

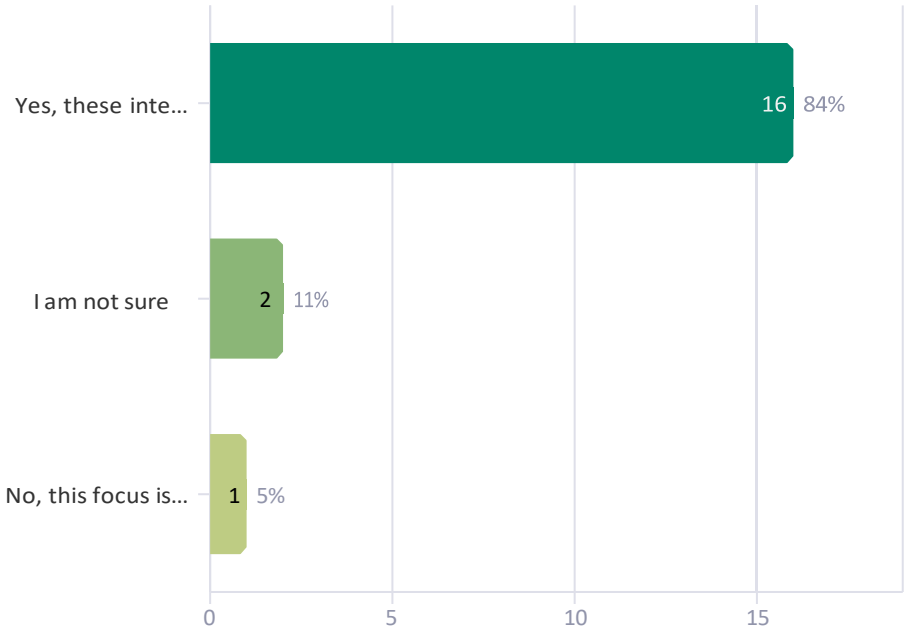
Please provide your thoughts on local people and organizations that should be involved in placemaking and programming.

9 Responses- 10 Empty

Data	Responses
KC Art Institute & JCCC could provide a conduit to new local artists for creating sculptural works and murals	1
Schools within the city - Rushton, (although not "in Mission") Hocker Grove and SMN. Could be a good outlet for middle and high school students to share their creativity and allow the community to provide additional support for the kids.	1
Arts Council of Johnson County	1
Any of the shops and eateries along Johnson Drive should be involved, too. And AtHome Apartments in Mission.	1
Tyler's House, Elementary Schools, Samba seniors, Sustainability commission, neighborhood party groups, special Olympics of Kansas, Down syndrome guild, volleyball players near Nall Avenue Church.	1
We should partner with more Black-owned businesses across KC- Generating Income for Tomorrow has a lot of connections, as well as community organizations like Big Brothers Big	

Should Rock Creek Corridor be a model of integrated, nature-based solutions for managing stormwater, increasing the environmental quality of the water and surrounding landscape, and providing a beautiful place for people to connect with and learn from nature?

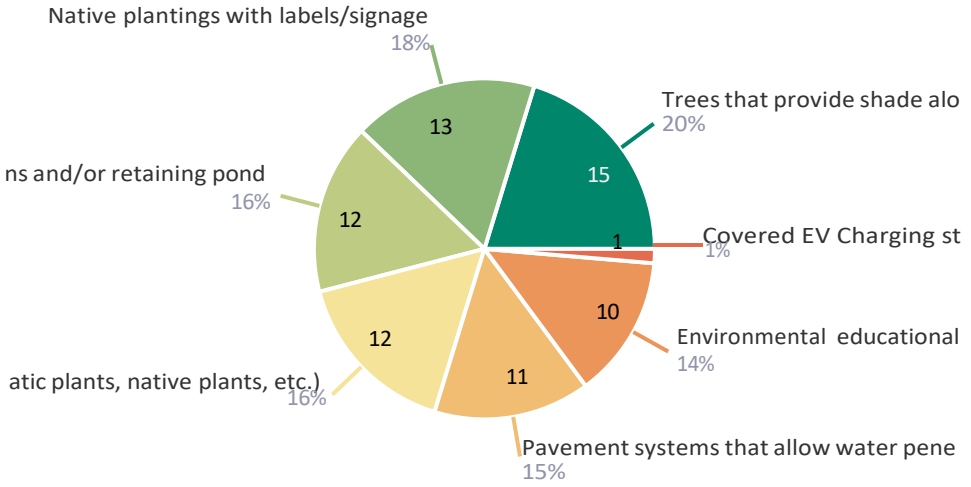
19 Responses



Rock Creek Corridor Improvement Survey

As improvement concepts are developed for Rock Creek Corridor, which environmental improvements would make this place unique and inviting?

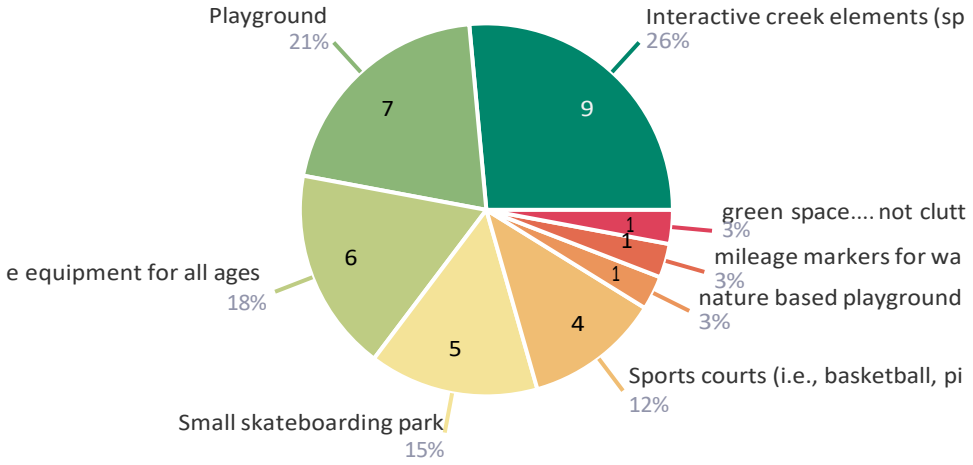
74 Responses- 1 Empty



Trees that provide shade along the full path
Native plantings with labels/signage
Rain gardens and/or retaining pond
Continuous nature-centered channel improvements (flowering plants, aquatic plant…
Pavement systems that allow water penetration
Environmental educational opportunities for all ages and abilities
Covered EV Charging stations in city owned parking lots along the trail.

What would you like to see included along the corridor for active recreation?

34 Responses



Interactive creek elements (splash and play areas for people and animals)
Playground
Exercise equipment for all ages
Small skateboarding park
Sports courts (i.e., basketball, pickleball, tennis, volleyball, roller skating, etc.)
nature based playground (hoping this is cheaper than full blown playground)
mileage markers for walking distances along the trail.
green space....not cluttered with stuff

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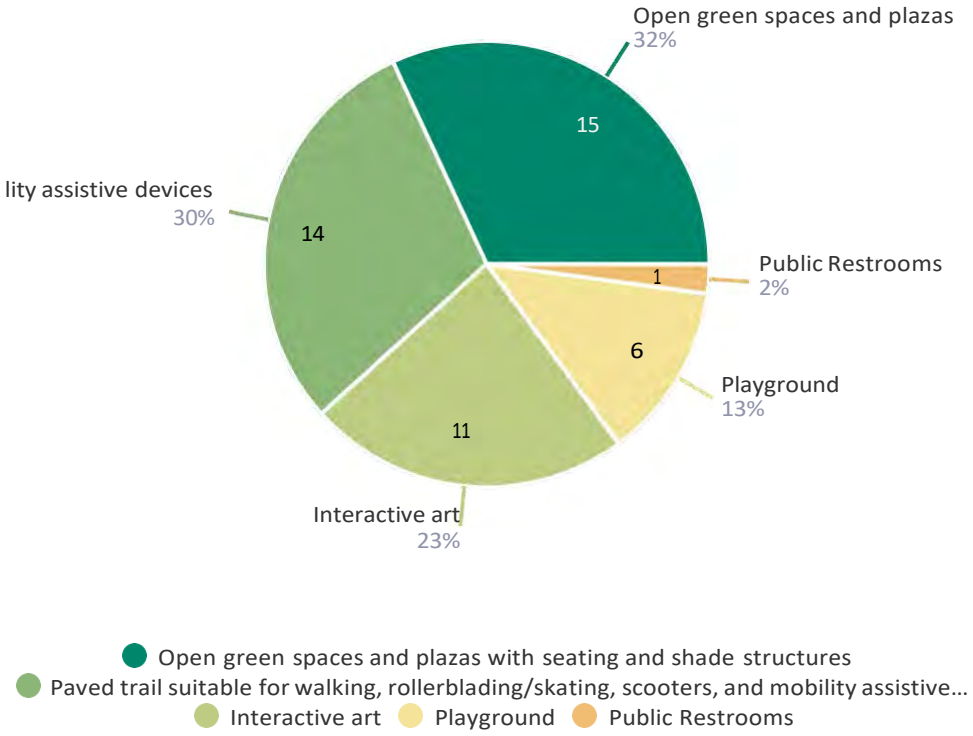
What would you like to see included along the corridor for passive recreation?

47 Responses



Is there a location or locations in the corridor you would like to see used for the passive recreations you selected?

8 Responses- 11 Empty

Data	Responses
The area SW of the Johnson County offices on Lamar seems underutilized; as does the land around where the trail intersects with Outlook Street. The park land at the Birch Street trail access point could also be used for a playground.	1
Anywhere they would fit!	1
Outlook parking lot with the woody-whacker station wagon that never moves.	1
Johnson Drive across from Urban Prairie Coffee	1
along martway west of woodson. Those vacant buildings would be a great place for a skatepark. That part of the creek could use some help, and would extend the park that is already there.	1
The empty abandoned parking lots along Outlook, south of Johnson drive.	1
While I'd love to select an open natural channel, the fact is that	

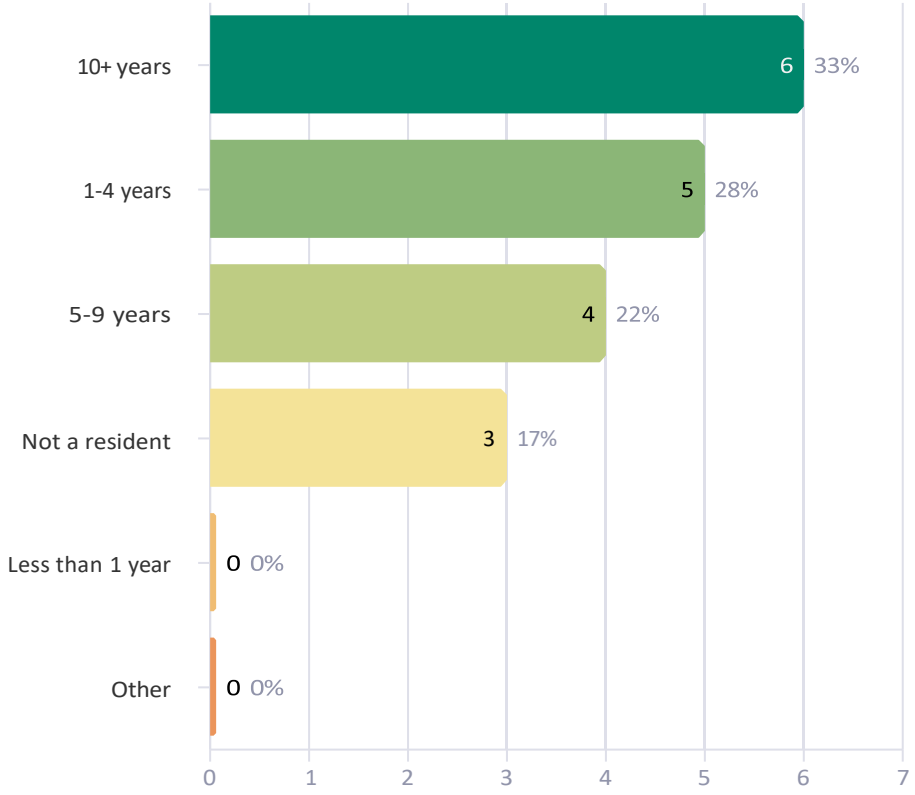
What is you zip code?

19 Responses

Data	Responses
66202	13
66205	3
66212	1
12345	1
64111	1

How long have you lived in Mission?

18 Responses- 1 Empty



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What improvements are most important to you? Please rank the list from most important (11) to least important (1).

209 Responses

Data	Responses
3: Connection to trails in neighboring cities	8
4: Improved pedestrian and bicycle environment	8
10: Rock Creek restoration (i.e., bringing it back to a natural creek state, removing concrete, etc.)	7
11: Safety	7
1: Improved accessibility for all users and abilities	7
5: Improved recreational opportunities	7
7: Educational spaces about nature	7
9: Improved capacity to handle stormwater	6
2: Connection from neighborhood and businesses to the Rock	

What else would you like to tell us about your current perception of the Rock Creek Corridor Study Area, and how it could be improved?

11 Responses- 8 Empty

Data	Responses
There needs to be a lot of benches added above anything else. There's nowhere to sit along the whole thing!	1
I would have had connection to trails in neighboring cities as #1, because it would be awesome to have a longer off street trail option closer to home. But my understanding is that that is nearly impossible due to neighboring cities reluctance to seek easements that would be necessary. If my understanding is wrong, and there is any hope, that would be awesome. Off street trails are something that those that choose to live further south enjoy that I'm really jealous of. If I want to take my family for a safe trail ride, we have to load the bikes up and take a car to get there. It stinks and not all families can afford the equipment necessary to do that.	1
I use the trail daily for exercise and to get to some of the businesses along the South side of Johnson Drive. I've always thought it could use more trees or places to rest along the way, and would be nice to see it extended. It would be great to see	

If you would like to be informed about future community events, please enter your email.

9 Responses- 10 Empty

Data	Responses
jamesarpin@gmail.com	1
josh.thede@gmail.com	1
thamara.subramanian@Gmail.com	1
humblefurniture@gmail.com	1
shoobe01@gmail.com	1
bridgetvpohlman@gmail.com	1
janay@janay-a.com	1
spartain@olsson.com	1
laura@mcconwell.com	1

Appendix D: Additional Stakeholders & Advising Committee

Client Team	Name	Email	Organization	Phone number	Notes				
	Karie Kneller Brian Scott Taylor Cunningham	kkneller@missionks.org bscott@missionks.org tcunningham@marc.org	Mission, Community Development Mission, Neighborhood Services MARC						
Consultant Team	Drew Pearson	Drew.Pearson@wilsonco.com	Wilson						
	Brian Ortiz Christina Hoxie Tianna Morton	brian.ortiz@wilsonco.com choxie@hoxiecollective.com tmorton@hoxiecollective.com	Wilson Hoxie Hoxie						
	Tresa Carter Lance Klein	tresa.carter@bikewalkkc.org lancek@swtdesign.com	BWKC SWT						
	Will Metcalf Emily Elmore Sarah Shipley	willm@swtdesign.com emily@singlewingcreative.com sarahs@singlewingcreative.com	SWT Singlewing Singlewing						
Stakeholder Group City reps	Karie Kneller	kkneller@missionks.org	Mission City Planner						
	Brian Scott Mayor Flora	bscott@missionks.org sflora@missionks.org	Mission Deputy City Administrator Mayor		ALWAYS KEEP HER COPIED ON OUTREACH, INFO AND MEETINGS				
	Penn Almoney	palmoney@missionks.org	Parks and Recreation Director		accepted	added to invite, 8/3			
	Brent Morton Dan Madden	bmorton@missionks.org dmadden@missionks.org	Public Works Manager Chief of Police		emailed 7/27, 8/3 emailed 7/27, 8/3	added to invite, 8/3 added to invite, 8/3			
Commission Members	Kate Deacon Emily Randel Ramsey Attaria	kdeacon@missionks.org erandel@missionks.org rattaria@gmail.com	Mission Farmers' Market Coordinator Deputy City Administrator Sustainability Commission		accepted but unavailable for first meeting emailed 7/27, 8/3 emailed 7/27, 8/3	 added to invite, 8/3 added to invite, 8/3			
Electeds	Cathy Boyer-Shesol Cynthia Smith Nicole Sullivan Robin Dukelow Lea Loudon	cboyershesol@gmail.com cynthiaelainesmith@gmail.com nseier09@gmail.com Robin.Dukelow@hendersonengineers.com lloudon@missionks.org	Sustainability Commission Member Planning Commissioner Parks and Recreation and Tree Board Planning Commissioner for Ward IV City Councilmember for Ward II		accepted but unavailable for first meeting accepted accepted accepted but unavailable for first meeting accepted				
Service providers	Ben Chociej Bob Fagan Sarah Mai	bchociej@missionks.org Robert.fagan@cbre.com sarah@kcdsi.org	City Coucilmember for Ward IV Down Syndrome Innovations rep Down Syndrome Innovations rep		accepted accepted emailed 7/27, 8/3	 out of town until 8/7			
	Cori Hastings Laura Jackson (Bob Randall POC)	cori.hastings@tylershousekc.org ttownmill@aol.com	Tyler's House The Mission Project		declined accepted				
Residents	Josh Powers Justus Welker Dave Breneman	Joshua.powers@jocogov.org Justus.welker@jocogov.org hhanddb@gmail.com	Joco Transit Joco Transit rep Countryside Homeowner and artist/sculpturist		emailed 7/27, 8/3 emailed 7/27, 8/3 accepted	added to invite, 8/3 added to invite, 8/3			

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	Jessica Carlson	jessicaeder26@hotmail.com	Homeowner and avid bicyclist		accepted				
Technical Advisor	Michele Ohmes	michele@michele-able.com	ADA Specialist		said she'd be happy to talk				
Engaged Residents (from survey)		jared.p.bergeron@gmail.com							
		spartain@olsson.com							
		laura@mcconwell.com							
		jamesarpin@gmail.com							
		josh.thede@gmail.com							
Focus Group 1: Business and Property Owners	outreach language in 4th	thamara.subramanian@gmail.com humblefurniture@gmail.com shoobe01@gmail.com bridgetvpohlman@gmail.com janay@janay-a.com							
	Steve Choikhit Andrew Brain	commven@yahoo.com abrain@braingroup.com jay@missionbarbell.com	Owner of Mission Mart Shopping Center Owner of 5201 Johnson Dr. (Brain Group) Owner of Mission Barbell Club						
	Janay A Johnathan Williamson	janay@janay-a.com jonathan@sandhillsbrewing.com	Owner of High Vibe Bride Sandhillls Brewing Co.						
	Mike Coughlin	mike@scriptpro.com sbrandli@wtads.com	ScriptPro Walz						
	Mason Hans Jenny Pugh	masonsterlinghans@gmail.com artsifartsi02@yahoo.com	Owner of Urban Prairie Coffee						
Focus Group 2: Residents	outreach language in 4th								
	Darion & Claire Hillman	913-529-9518 Darion.Hillman@yahoo.com	5519 W 61st Street		emailed 09/15 emailed 09/15				
	David & Annette Henderson	913-485-9663 hendersondm@yahoo.com 913-485-9661	5705 W 61st Street		**Unable to attend** Accepted!! (Annette)				
	Rick & Barb Kemmis	816-507-1764 Rick.kemmis@gmail.com 816-507-1764 Barbkemmis@gmail.com	6001 Reeds Road		Accepted!! Accepted!!				
	Kevin & Laura Patti	847-903-7534 jessicaeder26@hotmail.com	6008 W 61st Terrace		accepted!!				
	Emily & Brodie Knop	Kpatti@att.net 913-908-8134 lspatti55@gmail.com 913-909-2336 bknop@yahoo.com (Brodie)	5709 W 61st Terrace		accepted!! **Unable to attend** Accepted!!				
	Todd & Sally Johnson	913-707-6229 eshopper@yahoo.com 816-807-2550	5812 W 62nd Street		emailed 09/15				

	Brian Downing	816-853-6100 tjsally@hotmail.com 913-669-5850 thedownings88@yahoo.com	6138 Glenwood Street 5104 Rock Creek Lane		emailed 09/15				
	Joy Warner Jeff & Anna Koehler	913-221-7376 jewarner29@gmail.com Jeff 816-718-6961	5101 W. 60th Terrace 5137 W. 60th Terrace		accepted!! left voicemail 09/15				
	Dayna Brehm	Anna 913-396-1428 annakoehler22@gmail.com 913.432.5247 dbrehm@aha-kc.com	At Homes Apartments		accepted!! called and Dayna is fowarding email to 1-2 residents per complex 09/15				
Potential Focus Group 3*: Developers	Scott Koenigsdorf	scott@koenigbuilding.com	Mission Vale Townhomes (owns property; construction permitting approval imminent)						
	Banks Floodman John Moffit Dayna Brehm	bfloodman@sunflowerkc.com jmoffitt@moffittrealty.com dbrem@aha-mn.com	Residence on Rock Creek (ons property through Sunflower; apartments under construction) Nall58 Apartments (final approvals granted/we are waiting on CDs) At Home Apartments Regional Manager						
	Billy Robbins	billyrobbinsmng@aol.com	Maple Hill						
*Technical Advisory could take the place of a focus group; certain folks could float to this group as needed									
**Double bonus if Focus Group to help homeowners "get to know" multi-family residents if they aren't acquainted; would likely get fairly low turnout from MF residents for the population ratio, so maybe just general public meetings for this demographic?									

Potential Focus Groups

Appendix E: Cost-Benefit Methodology & Costs

The methodology used to create the cost-benefit trade-off matrix involved an assessment of the two design concepts, and how their elements align with both project goals and planning-level costs.

Project goals included improving transportation & mobility, Green Infrastructure & Sustainability, as well as Public Amenities & Programming. An average of how each concept aligned with project goals is located at the bottom row of each concept.

Additionally, order of magnitude planning-level costs were established for each element ($-$$$$), where one dollar sign equates to lower costs (approx. in the hundreds) and four-dollar signs equate to higher costs (approx. in the millions). Element costs were evaluated by full implementation of each element per concept, not a per unit costs per se. The average count of dollar signs is also shown at the bottom row of each concept (i.e. 2.35-dollar signs). This average does not indicate the cost of the concept, however, suggests the "pricy-ness" of each.

The analysis sets thresholds for recommending a concept based on three criteria: low cost, feasibility, and achieving two or more project goals than its counterpart.

Ultimately, the City has the opportunity to implement elements from either concept. Our analysis shows community support for both concepts. Considering the cost-benefit trade-off analysis results, there is more benefit to meeting project goals in Concept 1

Rock Creek: Cost Benefit Trade-off

Option:	Element:	Price ($-$$$$): *($4-$1.1m)	Project Goal Met:		
			Transportation:	Green Infrastructure & Sustainability:	Public Amenities & Programming:
Concept 1: Rock Creek Park	Speed Table	$$$$	X		
	Street closure	$$$$	X	X	X
	Hammerhead turn radii	$$$	X		
	Chicanes	$$	X	X	
	Stone wall	$$$			X
	Bioretention pond	$$$		X	X
	Green curb inlet	$$	X	X	
	Bioswale	$		X	X
	Tree	$		X	X
	Pollinator garden	$$		X	X
	EV charging	$$$	X	X	X
	Recirculating system	$$		X	X
	Restroom	$$$			X
	Fitness court	$$$		X	X
	Pavilion	$$$$			X
	Entry node	$			X
	Pump track	$$$	X	X	X
	Rock Creek Trail Marker	$	X		X
	Splash Pad	$$$		X	X
	Creek Edge Guard Rail	$		X	X
	Wayfinding Signage	$$	X		X
	Trash and Recycling Receptacles	$		X	X
	Pedestrian light pole	$$	X		X
	Average/Total Criteria	***2.35***	***10***	***14***	***19***
Concept 2: Market in the Green	Speed Table	$$$$	X		
	Parking Lot	$$	X		X
	Chicanes	$$	X	X	
	Bioretention pond	$$$		X	X
	Green curb inlet	$$	X	X	
	Bioswale	$		X	X
	Pervious pavement	$$	X	X	
	Tree	$		X	X
	Pollinator garden	$$		X	X
	EV charging	$$$	X	X	X
	Recirculating system	$$		X	X
	Restroom	$$$			X
	Shade structure	$$$			X
	Fitness Area	$$			X
	Pavilion	$$$$		X	X
	Event space	$$			X
	Trash and Recycling Receptacles	$		X	X
	Rock Creek Trail Marker	$	X		X
	Wayfinding Signage	$$	X		X
	Creek Edge Guard Rail	$		X	X
	Pedestrian light pole	$$	X		X
	Average/Total Criteria	***2.14***	***9***	***12***	***17***

Table 1 - Cost-Benefit Tradoff Matrix

Table 2 summarizes potential enhancements specific to Concept 1, categorizing them based on their alignment with project goals. These enhancements are evaluated and compared in terms of price, unit, quantity, and total costs.

This table serves as a template tailored to Concept 1, providing the City of Mission with a planning-level cost guide to facilitate the conversation of design elements towards implementation.

Rock Creek Cost/Benefit Analysis: Concept 1					
Category	Action:	Price:	Unit:	#:	Total:
Transportation	Speed table	$18	per sqft.	-	-
	Street closure	$4	per sqft.	-	-
	Hammerhead turn radii	$16,000	total	-	-
	Chicanes	$12,000	set of 3	-	-
	Subtotal:				$XXX,XXX
Green Infrastructure & Sustainability	Stone wall	$160	per LF	-	-
	Bioretention pond	$35	per sqft.	-	-
	Green curb inlet	$8,000	per sqft.	-	-
	Bioswale	$30	per sqft.	-	-
	Tree	$500	per each	-	-
	Pollinator garden	$8	per sqft.	-	-
	EV charging	NA	NA	-	-
	Recirculating system	NA	NA	-	-
	Splash pad	$600,000	per each	-	-
	Subtotal:				$XXX,XXX
Public Amenities & Program Improvements	Restroom	$400,000	per sqft.	-	-
	Fitness court	$22	per sqft.	-	-
	Large pavilion	$700,000	per each	-	-
	Entry node	$25,000	per each	-	-
	Pump track	$130,000	per each	-	-
	Trail marker	$1,200	per each	-	-
	Pedestrian light pole	$8,000	per each	-	-
	Creek edge guard rails	$85	per LF	-	-
	Wayfinding signage	$8,000	per each	-	-
	Dog waste stations	$350	per each		
	Trash and recycling receptacles	$1,500	per each	-	-
	Subtotal:				$XXX,XXX
Total:					$XXX,XXX

Table 2 - Concept 1 Cost-Benefit Analysis

Table 3 summarizes potential enhancements specific to Concept 2, categorizing them based on their alignment with project goals. These enhancements undergo comparison in terms of price, unit, quantity, and total costs.

This table serves as a template for Concept 2, offering the City of Mission a planning-level cost guide to facilitate the conversation of design elements towards implementation.

Rock Creek Cost/Benefit Analysis: Concept 2					
Category	Action:	Price:	Unit:	#:	Total:
Transportation	Speed table	$18	per sqft.	-	-
	Parking lot - asphalt	$6	per sqft.	-	-
	Chicanes	$12,000	set of 3	-	-
	Subtotal:				$XXX,XXX
Green Infrastructure & Sustainability	Bioretention pond	$35	per sqft.	-	-
	Green curb inlet	$8,000	per sqft.	-	-
	Bioswale	$30	per sqft.	-	-
	Permeable Paver	$25	per sqft.	-	-
	Tree	$500	per each	-	-
	Pollinator garden	$8	per sqft.	-	-
	EV charging	NA	NA	-	-
	Recirculating system	NA	NA	-	-
	Subtotal:				$XXX,XXX
Public Amenities & Program Improvements	Restroom	$400,000	per sqft.	-	-
	Shade structure	$200,000	per each	-	-
	Fitness area	$22	per sqft.	-	-
	Large pavilion	$1,100,000	per each	-	-
	Event space	$50,000	per each	-	-
	Pedestrian light pole	$8,000	per each	-	-
	Creek edge guard rails	$85	per LF	-	-
	Trash and recycling receptacles	$1,500	per each	-	-
	Dog waste stations	$350	per each	-	-
	Wayfinding signage	$8,000	per each	-	-
	Subtotal:				$XXX,XXX
Total:					$XXX,XXX

Table 3 - Concept 2 Cost-Benefit Analysis