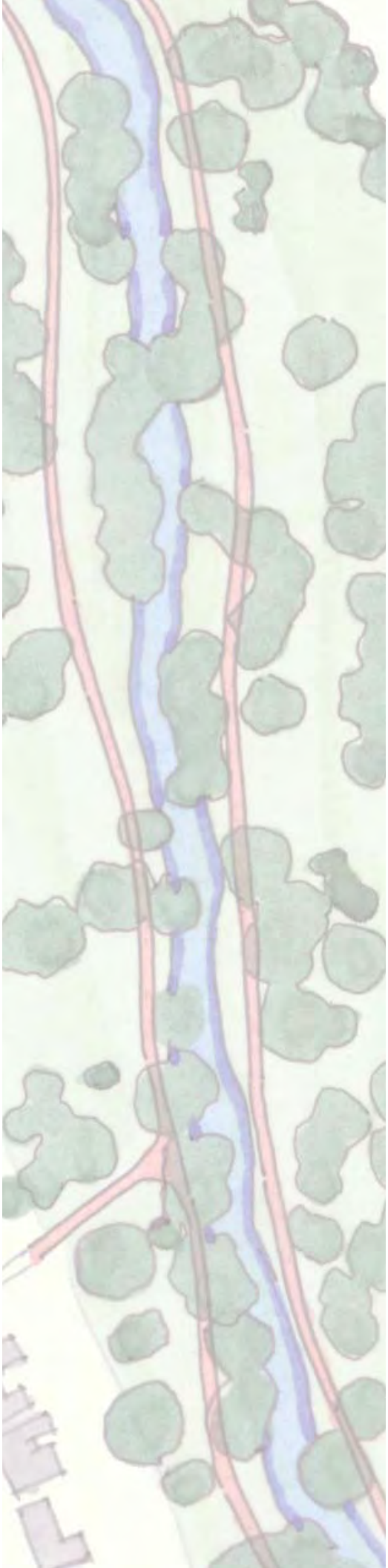
Midwest City Trails Master Plan and Implementation Study

2009

Midwest City Trails

Prepared for:
City of Midwest City

Adopted
August 25, 2009



ACKNOWLEDGEMENTS

Midwest City, Oklahoma

Trails Master Plan and Implementation Study

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EXECUTIVE SUMMARY

- The community of Midwest City, Oklahoma was founded in 1942 to support the adjacent Tinker Air Force Base. While the City's relationship to Tinker is remains a key factor in its success, the City is home to many businesses and institutions, and residents enjoy a variety of amenities and services.

- Linear parks along Soldier Creek provide a green connection from the core of the City into many neighborhoods. Citizen advocacy in the mid-1990s resulted in the addition of trails to the parks. Today these trails are widely used for recreation and transportation.

- City leadership is supportive of the existing trail system and recognizes the community's desire to expand the trail system. An expanded system will allow Midwest City residents greater opportunities for pedestrian and bicycle access to schools, civic institutions, parks, and businesses.

- Trails are an investment in Midwest City's quality of life. A comprehensive trail system is a valuable amenity when communities compete to recruit new residents and businesses. A thoughtful analysis of constraints and opportunities is key to the success of the system, therefore the City embarked upon the Trail Master Planning and Implementation Study.

- The proactive approach to trail planning is an offshoot of the recently updated Midwest City Comprehensive Plan. The Comprehensive Plan addresses the overall built environment in Midwest City. The Trail Master Plan and Implementation Study provides a complementary document detailing a cohesive approach to the development of the community-wide trail system

- The Trail Master Plan and Implementation Study provides development standards, preliminary implementation costs, and a rational strategy for expanding the existing system. The report also addresses ongoing maintenance and operational costs for the trail system. Midwest City leadership is committed to preserving the high quality of the existing system and maintaining high standards as the system expands.

- The Trails Master Plan reflects the optimal synthesis of the available existing resources, the priorities of residents and community leaders, and an achievable path for sustainable public improvements. The plan is informed by the input gathered through the Public Forum Process and is specific to the unique characteristics of the Midwest City community.

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1.0 INTRODUCTION

Midwest City, Oklahoma has been a planned community since it was founded in the early 1940s. Located in central Oklahoma, the City encompasses 25 square miles and is adjacent to the communities of Oklahoma City, Del City, Tinker Air Force Base (AFB), Choctaw, Nicoma Park, Spencer, as well as unincorporated areas of Oklahoma County. City leadership and staff are actively engaged in a variety of initiatives to improve quality of life for residents.

Trails increase pedestrian and cyclist safety and provide health and fitness benefits. Trail corridors planned in conjunction with open space protection can improve air and water quality. The Trails Master Plan and Implementation Study provides an opportunity for Midwest City to build upon the strength of their existing trails and provide the exponentially increasing benefits of a comprehensive system.

The existing Midwest City trail system evolved in large partly due to the efforts of private citizens. City Council, City staff, and various individuals and groups within Midwest City have supported efforts to develop trails. This grassroots effort has resulted in a well-developed trail along Soldier Creek that is actively used by the community.

The intention of the Trails Master Plan initiative is to provide a cohesive plan and implementation strategy for Midwest City, resulting in a comprehensive system. The trail system will benefit residents on a daily basis. The benefits of the trail system will also be evident as an investment in the city's quality of life on an ongoing basis as Midwest City competes with other communities to attract new residents and businesses.

Community involvement is an important part of the project approach. A Trails Advisory Committee guided the process. Several public meetings, a survey, and a webpage were utilized to gather citizen input. The Trails Master Plan reflects existing Midwest City planning documents, addresses community concerns in a proactive manner, and provides a clear and focused guide to implementation.

1.1 HISTORY OF PLANNING IN MIDWEST CITY

Midwest City was founded in 1942 by W.P. "Bill" Atkinson. Midwest City has a history of planning, setting goals, and achieving set goals. In 1951 Midwest City was honored as "America's Model City." Midwest City also holds the official designation of "Tree City USA" sponsored by the Arbor Day Foundation.

In 1993, Hazel Craddock approached the Midwest City Council to clear and establish a walking trail along Soldier Creek. Hazel remains active in the community and served on the Trails Advisory Committee (TAC) for the Trails Master Plan. The Soldier Creek Nature Trail & Memory Lane is now a favorite recreation place for Midwest City residents. In addition to being an enjoyable walk, the trail provides pedestrian access to municipal buildings, the library, senior center, and park facilities. The trail is an example of the possibilities that lie in Midwest City's future.

The first comprehensive planning effort for Midwest City started in 1957, and subsequent plans were drafted in 1970 and 1985. A vision and plan for future development, the *Midwest City Millennium: Launching Our Legacy Plan,* was completed in 1999. The *Millennium* plan addressed goals related to buffers, greenbelts, sidewalks, parks. In 2008, Midwest City finished a comprehensive planning document to provide vision for the future of the City and guidance in long-term public policy. The plan is a comprehensive view of the City as it is, with clear goals and objectives of where the City is going.

1.2 PURPOSE OF MIDWEST CITY TRAILS MASTER PLAN

The Midwest City Trails Master Plan was developed to present a vision of the Midwest City Trails Network. The Midwest City Trails Master Plan and Implementation Study provide the long-term vision for the development of a citywide bicycle and pedestrian network. The network consists of shared use trails, shared roadways, designated bicycle lanes, and sidewalks. The network will increase opportunities, provide a safe environment for bicyclists and pedestrians and will be complemented with education, safety, and security programs.

The Trails Master Plan also addresses the following recommendations for the trail system identified in the Midwest City Comprehensive Plan of 2008.

- Trail expansion – Trail expansion should be a city priority
- Trail Locations – Locate existing and planned trail segments
- Trail Concept – Develop a comprehensive system of trails and amenities, maximizing the resources of the City
- Access to the Trail – Provide access to the trail network and adopt policy for future development to make connections to network
- Sidewalks – Prioritize sidewalk paving and replacement program
- Citizen Input – Obtain citizen input into master planning process
- Trail Width – Trails should be appropriate width for use
- Trail Construction – New development should connect to network
- AT&SF Trail Segment – Adopt the AT&SF as part of the trail network
- Regional Trail Considerations – Consider regional plan and connections
- Trailheads – Identify trailhead points of access
- Tree Preservation – Develop tree preservation plan for trail development and construction

In addition to addressing the specific recommendations of the Midwest City Comprehensive Plan, the Midwest City Trails Master Plan contributes to the broader goals and objectives of the Comprehensive Plan. The Trails Master Plan will help Midwest City:

- Increase the quality of the existing park system
- Provide alternative transportation options and access
- Improve community image
- Assist in desirable growth and development
- Increase housing desirability
- Provide off-base community recreation
- Increase the quality of life in Midwest City

- Encourage quality retail and residential development
- Fuel new development
- Foster citizen participation and ownership
- Promote Midwest City and Town Center Plaza
- Provide more business access and patronage
- Increase pedestrian safety
- Contribute to the landscape aesthetics of the City
- Improve school access.
- Contribute to neighborhood and regional connections
- Assist in resource protection and stormwater reduction

1.3 IMPLEMENTING THE PLAN

1.3.1 CONTENTS OF THE MIDWEST CITY TRAILS PLAN AND IMPLEMENTATION STUDY

Chapters 1-4 outline the existing trail and pedestrian network conditions in Midwest City and provide goals to guide the planning process. Chapters 5-7 present the recommendations to guide the development and maintenance of the trails network. The Appendices provide supporting information for the document. The Midwest City Trails Master Plan and Implementation Study contains the following Chapters:

Chapter 1 – Introduction provides an overview of the plan, its purpose, and implementation strategies.

Chapter 2 – Existing Conditions provides a description of the existing trail and pedestrian network conditions and policies. The chapter includes a map of the existing trails and of opportunities and constraints within Midwest City.

Chapter 3 – Goals and Objectives reviews relevant existing plans and policies and establishes new policies, goals and objectives to guide future network planning.

Chapter 4 – Needs Analysis summarizes the community survey, looks at an overview of existing user groups, and benefits analysis.

Chapter 5 – Recommendations outlines the recommended trail routes and facilities as well as programs the City should implement to promote pedestrian, bicycle, and vehicular education and safety. The chapter includes a map of recommended trails and facilities such as trailheads and a preliminary prioritized project list.

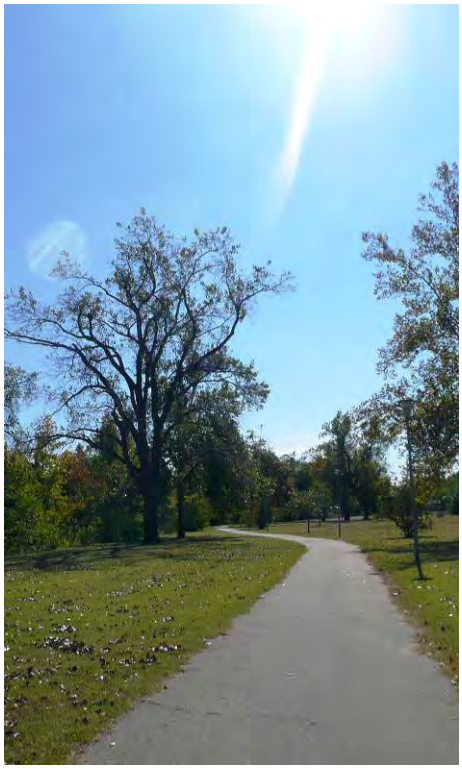
Chapter 6 – Funding and Implementation provides a prioritized list of recommended trails and pedestrian corridors, construction and maintenance cost opinions, and funding sources.

Chapter 7 – Maintenance and Operations relates the short and long-term costs associated with protecting the public investment in trails.

Appendix A: Excerpts from Midwest City Code
Appendix B: Public Survey
Appendix C: Potential Code Updates
Appendix D: Project Description Sheets

2.0 EXISTING CONDITIONS

2.1 EXISTING CONDITIONS SUMMARY



Midwest City has a variety of housing and developments. City leadership has been continually improving the quality of the community's built environment. **Figure 1** documents some of Midwest City's existing trail and sidewalk facilities and identifies the more desirable examples of development.

The existing pedestrian system needs to be upgraded by addressing gaps in service and Americans with Disabilities Act (ADA) accessibility. Although many neighborhoods are not served by sidewalks, improvements have recently been made. A sidewalk committee is in place to continue to recommend and make upgrades.

The existing trails along Soldier Creek are well used by city residents. Some portions of the trail do not meet safety standards. The trail system needs to be upgraded and expanded to serve a greater percentage of the community and to link schools, businesses, and services.

Existing facilities are well maintained. New facilities added to the system must be implemented with consideration for long term upkeep and the commitment of sufficient resources to uphold the standards.

2.2 OPPORTUNITIES AND CONSTRAINTS

Advancing new community initiatives requires an assessment of physical attributes, community priorities, and the municipality's ability to implement and sustain the improvement. The overall findings are often termed opportunities and constraints and inform the character and extent of the proposed plan. Specific opportunities identified in this assessment involve the ongoing success of the Soldier Creek Trail and the potential for success by creating a comprehensive trail system.

The existing Soldier Creek Trail links parks, schools, city offices, and facilities including the Library and Post Office along a north-south alignment following Soldier Creek. The existing trail is well-situated to form the spine of a city-wide trail system. The trail is actively used and is a favorite of residents.

Another main link with great potential is the 2.7 mile rail corridor extending from northwest of Reno and Sooner Road to 15th Street between Midwest Boulevard and Douglas Boulevard. This corridor connects parks, neighborhoods, commercial areas, Mid-Del Tech and Midwest City High School. The corridor can accommodate both a Rail With Trail and active rail lines. The Rail With Trail concept has been successfully implemented in projects throughout the country and has been engineered to a conceptual level along this alignment.

Figure 2 illustrates the broad opportunities and constraints present in Midwest City. The following list highlights some of the Opportunities and Constraints identified in the Master Plan assessment of existing conditions.

EVALUATION OF EXISTING CONDITIONS

Opportunities

- City ownership or control of multiple linear corridors
- Federal funding through various programs
- Citizen support
- Trails are key to healthy living initiatives
- Ability to provide amenity for all Midwest City residents as well as the Tinker community
- Trails are key to energy conservation initiatives
- Existing 2.5 miles of railroad right-of-way suitable for Rail-With-Trail
- Trail systems exist in Oklahoma City and Tinker AFB, with plans underway in other communities
- Undeveloped floodplains suitable for trails
- Ability to advance quality of life issues within the community
- New trail connections and safer crossings will reduce the recent tragic accidents in the area
- Ability to link neighborhoods and schools
- Opportunity to increase parklands and add trailheads
- Property values will increase as a result of a high quality system

Constraints

- Lack of existing sidewalks in some neighborhoods
- Challenge of dealing with limited rights-of-way and multiple commercial driveways
- Land use controls associated with Tinker AFB
- Growth of system will need to occur gradually due to funding availability
- Some property owners are concerned about trails in proximity to their homes
- Maintenance and enforcement budgets will need to keep pace with trail development.
- Connectivity requires linear corridors, which are sometimes difficult to assemble

2.3 REVIEW OF EXISTING PLANS, POLICIES, AND LEGISLATION

2.3.1 LOCAL PLANS AND POLICIES

Midwest City Comprehensive Plan 2008

Midwest City has a long history of community planning. The Midwest City Millennium: Launching Our Legacy plan was completed in 1999 and addressed the rejuvenation of the City. Seven goals were set and numerous objectives related to quality of life were identified in the Millennium Plan, including buffers, greenbelt areas, and sidewalks. The initiatives outlined in the Millennium Plan helped Midwest City address improvements throughout the community.

The Midwest City 2008 Comprehensive Plan builds on the previous planning efforts of the last 50 years. The Comprehensive Plan states 17 clear goals for the City and identifies the actions needed to achieve the goals. A high-quality trail system is identified as a specific goal, and the establishment of a community-wide system supports many of the other, more general goals. Of the 17 goals identified in the Comprehensive Plan, the proposed trail system specifically supports the following areas of concentration:

- *Goal 1: Provide a high-quality park system that (1) maximizes the potential of existing parks, (2) increases the amount or length of the current trail system, and (3) efficiently manages the City's resources.*

- *Goal 2: Provide a transportation system that will effectively and economically serve the community's existing and projected travel needs, while creating a safe and enjoyable driving environment.*

- *Goal 7: Establish a quality of life within Midwest City that is among the best in the region and State.*

- *Goal 17: Ensure quality stormwater and development practices are used throughout the City.*

2.3.2 LOCAL REGULATION AND ORDINANCE REVIEW

Midwest City Code currently contains elements conducive to the development of pedestrian and bicycle routes, including drainage easement requirements, sidewalk requirements, and a parkland dedication ordinance. The City is in the process of updating the Subdivision Regulations. Slight alterations to the existing code could assist in the implementation of the Trails Master Plan and are identified in Chapter 5.

Appendix A contains additional information relating to the current Midwest City Code. The following is a brief summary:

- **Chapter 13, DRAINAGE AND FLOOD CONTROL:** Article III, STORMWATER RUNOFF CONTROL contains language regarding drainage easements that could easily be amended to address use of the easements for trails.
- **Chapter 37, STREETS AND SIDEWALKS:** Article III, TRANSPORTATION PLAN addresses the required construction of sidewalks in new subdivisions.
- **Chapter 38, STANDARDS AND REGULATIONS FOR THE SUBDIVISION OF LAND:** Article II, SUBDIVISION DESIGN STANDARDS includes the park land dedication requirement.

2.3.3 REGIONAL APPROACHES TO TRAILS

Communities in Central Oklahoma are in step with the national movement to encourage active living and advance trail development. Midwest City developed the Soldier Creek Trail in the mid-1990s. Oklahoma City approved a Trails Master Plan in 1997 and embarked on a trail building initiative focused along the North Canadian River at that time. Ongoing trail advocacy and planning efforts are occurring in many central Oklahoma communities.

The Association of Central Oklahoma Governments

The Association of Central Oklahoma Governments (ACOG) is a voluntary association of city, town, and county governments within Central Oklahoma, including Midwest City. ACOG's purpose is to aid local governments in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development. ACOG coordinates long and short-range transportation planning and works with local government members and with local, state, and federal transportation agencies to determine priorities for allocating federal transportation dollars within the region.

The ACOG Oklahoma City Area Regional Transportation (OCARTS) planning study for 2030 includes a *Bicycle & Pedestrian Facilities* component. The 2030 OCARTS Plan encourages all communities in Central Oklahoma to provide sidewalks that conform to the Americans to Disabilities Act in both residential and commercial areas. The OCARTS Trail plan is comprised of locally adopted trails master plans and other existing and approved trails facilities. *These plans, when fully implemented, will double*

the base year miles of the OCARTS area bicycle facilities from nearly 200 miles to over 400 miles (OCARTS2030).

The OCARTS 2030 Plan's *Existing, Planned, and Extended Vision Bicycle Facilities* map **(Figure 3)** identifies bike lanes along arterials within Midwest City and a trail along the abandoned rail corridor. These trails are noted as Extended Vision trails. No other proposed trails are shown within Midwest City.

Neighboring Communities

Choctaw - A draft Trails Map 2008 of the City of Choctaw includes existing and proposed City and OCARTS trails. Opportunities for Choctaw and Midwest City connections primarily follow the North/South creek basin between 15th and 10th Streets between Westminster and Anderson. The OCARTS plan shows trail connections between Midwest City and Choctaw at 10th Street, Hiwassee, and 15th.

Del City - Sooner Road is the municipal boundary between Del City and Midwest City. An existing trail in Del City runs north along Sooner Road to Midwest City at 29th Street. Sooner Road is an Extended Vision trail with east west connections at 29th, 15th, Reno, and 10th. Reno and 10th Street is the intersection of the planned rail with trail corridor.

Nicoma Park - ACOG identifies 10th Street on the south border of Nicoma Park as a trail route connecting Midwest City, Choctaw and Nicoma Park. There are no other known trail plans within Nicoma Park.

Spencer - ACOG Extended Vision trails in Spencer have three potential connection points with Midwest City, 36th and Midwest Boulevard, 23rd and Spencer Road, and 23rd and Post Road.

Tinker Air Force Base - Tinker AFB has a comprehensive green infrastructure plan that includes internal trail systems and an urban greenway. The gates of Tinker provide both vehicular and pedestrian access, and are the best options for connections. Connections would provide an opportunity for military personnel to access Midwest City services and recreation facilities. Future expansion of the urban greenway is planned to the east of the base along Soldier Creek and will provide an opportunity for trail access south of Midwest City to Draper Lake.

Oklahoma City - Oklahoma City completed the Oklahoman City Bicycle Transportation Plan in April of 2008. The Bicycle Transportation Plan steering committee developed a list of proposed bicycle routes that travel throughout Oklahoma City and connect with the surrounding communities. Proposed Multi-Use Shared Path connections from Oklahoma City to Midwest City are at Sooner Road/29th and along the North Canadian River. The Bicycle Transportation Plan developed Phase I Bike Routes that connect with Midwest City at Post/29th. Phase II Proposed Bike Routes connect at North and South Sooner Road, South Anderson, and South Choctaw Road. SE 44th Street is also identified on the Phase II as a bike route.

Oklahoma County - Oklahoma County does not have trails and does not currently have funds available for the installation or maintenance of trails. To the extent feasible, the County is interested in potentially partnering with neighboring communities to assist in developing trails. The County's role may be in the form of providing easements.

2.3.4 FEDERAL TRANSPORTATION POLICY

The Federal Highway Administration (FHWA) policy is to create an integrated, intermodal transportation system which provides travelers with a real choice of transportation modes. *Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) was signed into law in

2005. It replaced two previous bills and focuses on multimodal systems of transportation including rail, freight, airport access, and pedestrian and bicycle facilities. The inclusion of pedestrian and bicycle transportation in the legislation creates opportunities for communities to access federal funds for the development of pedestrian and bicycle facilities.

- **FHWA Guidance – Bicycle and Pedestrian Provisions of Federal Transportation Legislation (Updated October 22, 2008)**

  Federal transportation policy is to increase nonmotorized transportation to at least 15 percent of all trips and to simultaneously reduce the number of nonmotorized users killed or injured in traffic crashes by at least 10 percent. This policy, adopted in 1994, remains a high priority for the U.S. Department of Transportation (DOT). SAFETEA-LU is the most recent legislation providing funding opportunities, planning processes, and policy language by which States and metropolitan areas can achieve this ambitious national goal.

  Improving conditions and safety for bicycling and walking embodies the spirit and intent of Federal surface transportation law and policy to create an integrated, intermodal transportation system which provides travelers with a real choice of transportation modes. To varying extents, bicyclists and pedestrians will be present on all highways and transportation facilities where they are permitted and it is clearly the intent of Federal surface transportation law that all new and improved transportation facilities be planned, designed, and constructed with this fact in mind.

  - Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State..." (23 U.S.C. 217(g)(1))
  - "Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction and transportation facilities, except where bicycle and pedestrian use are not permitted." (23 U.S.C. 217(g)(1))
  - “Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians." (23 U.S.C. 217(g)(2))
  - “In any case where a highway bridge deck is being replaced or rehabilitated with Federal financial participation, and bicyclists are permitted on facilities at or near each end of such bridge, and the safe accommodation of bicyclists can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations." (23 U.S.C. 217(e)) (Source: http://www.fhwa.dot.gov/environment/bikeped/bp-guid.htm#bp2)

  FHWA policy states that all streets shall be designed and constructed to serve experienced bicyclists at a minimum, and to provide more secure bike lanes and paths for inexperienced bicyclists in those corridors where there are no alternative routes for less experienced children and adult bicyclists. AASHTO’s Guide for the Development of Bicycle Facilities sets appropriate design standards for geometric design of all roadways to accommodate bicyclists and should be adopted for the development of facilities to enhance and encourage safe bicycle travel.

2.3.5 FEDERAL PROGRAMS / IMPLEMENTATION SUPPORT

Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU) administered through the Oklahoma Department of Transportation’s Transportation Enhancement Program (TEP)

The **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users** (SAFETEA-LU) was signed into law in 2005. The legislation is the latest version of two previous

transportation bills, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21). SAFETEA-LU provides funding for highways, highway safety, and multi-modal public transportation totaling $244.1 billion.

SAFETEA-LU addresses challenges including improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment. Trail funding is included as a part of SAFETEA-LU. The federal funding available through SAFETEA-LU is administered by the Oklahoma Department of Transportation (ODOT) and distributed through the **Transportation Enhancement Grant Program (TEP)**.

The **TEP** provides funding to communities to help expand transportation choices. Grants require a minimum 20% local match. Eligible projects include safe bicycle and pedestrian facilities (both master planning and construction), scenic routes, beautification, and other investments that increase recreation opportunity and access. Midwest City has received funding through the TEP program in the past, including the funding to prepare the Trails Master Plan.

Recreational Trails Program (RTP)

The Recreational Trails Program (RTP) provides funds to states to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses. Funds are available to develop, construct, maintain, and rehabilitate trails and trail facilities. Trail uses include hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicle.

Safe Routes to School (SRTS)

The Safe Routes to School program addresses the downward trend of students walking or bicycling to school. According to a study by FHWA, in 1969, about half of all students walked or bicycled to school. Today fewer than 15 percent of all school trips are made by walking or bicycling.

Besides the environmental consequences of increasing number of children arriving to school in private automobiles, growing evidence shows that children are more sedentary and are at risk for a variety of health problems such as obesity, diabetes, and cardiovascular disease. The SRTS program makes funding available for a wide variety of programs and projects, from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle safely to school (source: http://safety.fhwa.dot.gov/saferoutes/#s1)

2.3.6 STATE TRANSPORTATION POLICY

The USDOT 2001 Policy Statement states: "*Bicycle and pedestrian ways shall be established in new construction and reconstruction projects in all urbanized areas,*" unless specific exceptions exist. At the state level, the American Association of Highway and Transportation Officials (AASHTO) provide

guidelines for State Departments of Transportation which are widely accepted for use throughout the U.S. The AASHTO 1999 *Guide for Development of Bicycle Facilities* includes the following policy guidance:

> *"All highways except those where cyclists are legally prohibited, should be designed and constructed under the assumption that they will be used by cyclists. Therefore, bicycles should be considered in all phases of transportation planning, new roadway design, roadway reconstruction, and capacity improvements and highway projects."*

2.3.7 DESIGN STANDARDS

AASHTO Standards

AASHTO sets guidelines for the design of bicycle facilities. A 1994 report by the FHWA uses the following general categories of bicycle user types to assist highway designers in determining the impact of different facility types and roadway conditions on bicyclists *(Source: Guide for the Development of Bicycle Facilities 1999)*:

- Advanced or experienced riders are generally using their bicycles as they would a motor vehicle. They are riding for convenience and speed and want direct access to destinations with a minimum of detour or delay. They are typically comfortable riding with motor vehicle traffic; however, they need sufficient operating space on the traveled way or shoulder to eliminate the need for either themselves or a passing motor vehicle to shift position.
- Basic or less confident adult riders may also be using their bicycles for transportation purposes, e.g., to get to the store or to visit friends, but prefer to avoid roads with fast and busy motor vehicle traffic unless there is ample roadway width to allow easy overtaking by faster motor vehicles. Thus, basic riders are comfortable riding on neighborhood streets and shared use paths and prefer designated facilities such as bike lanes or wide shoulder lanes on busier streets.
- Children, riding on their own or with their parents, may not travel as fast as their adult counterparts but still require access to key destinations in their community, such as schools, convenience stores and recreational facilities. Residential streets with low motor vehicle speeds, linked with shared use paths and busier streets with well-defined pavement markings between bicycles and motor vehicles can accommodate children without encouraging them to ride in the travel lane of major arterials.

National Complete Streets Coalition

"Complete Streets" is the term coined for a growing movement to integrate non-motorized transportation into the planning, design, and operation of roads, bridges, and transit projects. This initiative promotes the value of incorporating bike and pedestrian ways into transportation planning and development. The National Complete Streets Coalition is a diverse group working to promote design and policy changes for Complete Streets. Complete Streets promote streets that are designed and operated to enable safe access for all users.

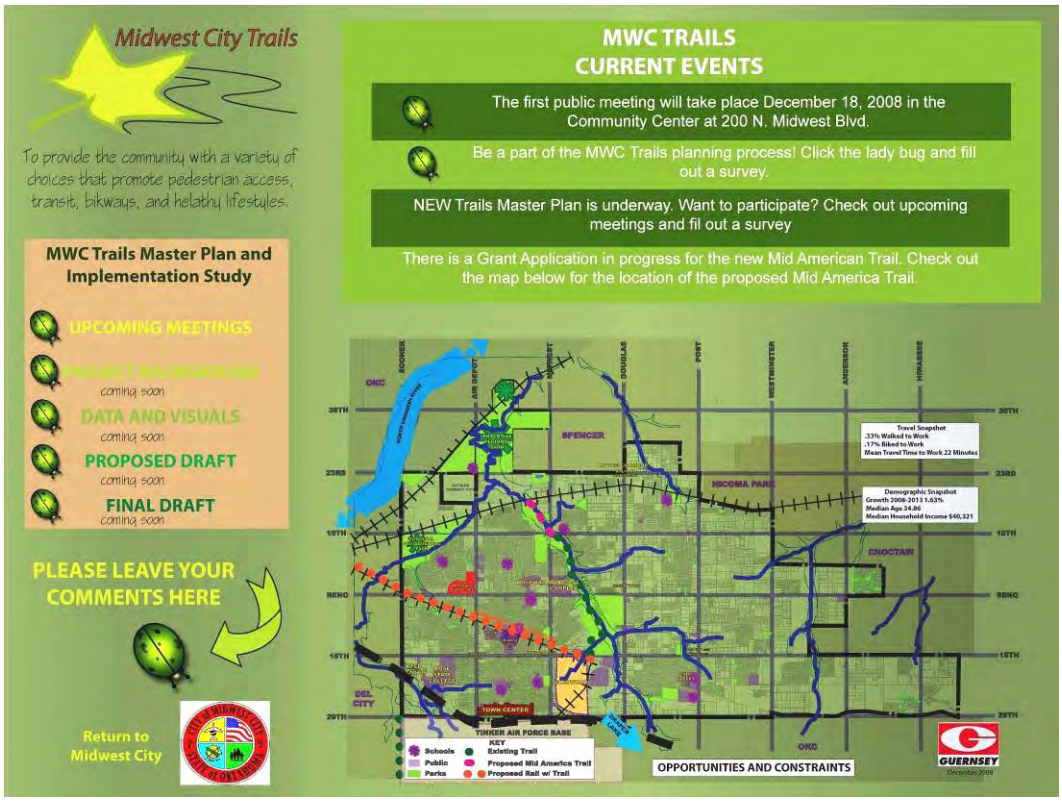
The main principles of a Complete Street are:

- Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.
- Creating Complete Streets means changing the policies and practices of transportation agencies.
- A Complete Streets policy ensures that the entire right of way is routinely designed and operated to enable safe access for all users.
- Transportation agencies must ensure that all road projects result in a Complete Street appropriate to local context and needs.

3.0 GOALS AND OBJECTIVES

3.1 VISION, GOALS, AND OBJECTIVES

The Trails Master Planning process included city staff and a Trails Advisory Committee (TAC) comprised of local residents. The planning process sought public input through two public open houses, a web page, and a survey. This input guided the development of the vision, goals, and objectives.



3.1.1 VISION STATEMENT

The Midwest City Trails Master Plan will provide a long-term vision for the development of a recreation and transportation network. The network will be complemented by educational, maintenance, and safety programs. The Master Plan pursues safe, well maintained, and accessible facilities for all users.

3.1.2 GOALS AND OBJECTIVES

Goals:

- Increase recreation and transportation opportunities
- Provide accessible, safe routes for pedestrians
- Provide safe commute routes for bicyclists
- Pursue connections
- Provide education, safety, and security
- Provide quality of service

- Protect resources
- Capitalize on transportation and recreation benefits to the local economy
- Improve the health and physical fitness of Midwest City residents

Objective: Implement the Midwest City Trails Master Plan

- Address key areas of concern
- Prioritize projects
- Develop phasing and implementation plan
- Update development regulations
- Follow the Trails Master Plan in future project development, such as residential developments and street upgrades.
- Assess accomplishments with benchmark data
- Re-visit plan and update on a periodic basis
- Develop partnerships (hospital, schools, neighboring communities, clubs)

3.1.3 DETAILED GOALS AND RECOMMENDED ACTIONS

Goal 1: Increase Recreation and Transportation Opportunities

- Provide a range of shared-use recreation and transportation trails.
- Integrate trails as an important component of an intermodal transportation system
- Provide a trail network that accommodates walkers, bikers, joggers, runners, roller-bladers, pet walkers, and other suitable uses.
- Incorporate other user groups and trail types as feasible to provide additional recreational opportunities. Additional trail types may include equestrian, nature, cross country running, and mountain biking.
- Provide supporting trail facilities and activity elements to the network.

Goal 2: Provide accessible, safe routes for pedestrians

- Provide wide, safe, accessible trails with moderate grades for pedestrian access along designated routes as identified in the Trails Master Plan.
- Provide access from neighborhoods to workplaces, municipal facilities, schools, the trail network, parks, and commercial centers as an alternative transportation mode and for recreation.
- Incorporate sidewalks in all new development and new city streetscapes.

Goal 3: Provide safe commute routes for bicyclists

- Identify and prioritize commute corridors and workplace connections for bicyclists.
- Retrofit and restripe streets to provide bicycle lanes, including the use of sharrows for shared roadways.
- Incorporate bicycle lanes in new street upgrades and new development according to the Trails Master Plan.
- Accommodate shared roadways and bike lanes designated by the Trails Master Plan.

Goal 4: Pursue Connections

- Develop relationships with neighboring communities and coordinate transportation and recreation trail planning to encourage the development of regional trails and to achieve Trails Master Plan goals.
- Connect the Midwest City Trail System to Lake Stanley Draper Trail System, North Canadian River Trails, Oklahoma City Trail System, Tinker Air Force Base, and other neighboring community trail systems, pedestrian corridors, and commute routes.
- Preserve existing rail corridors for rail-trail or rail-with-trail use.
- Utilize creek corridors and natural areas to serve as greenway links and to preserve floodplain.

Goal 5: Provide Education, Safety, and Security

- Provide safe and secure environment for bicyclist, pedestrians, and motorists.
- Resolve multi-user conflicts on trails through design and education programs.
- Establish safe crossings and corridors to protect the safety of the trail user.
- Educate the public appropriate trail use and etiquette.
- Incorporate trail signage, striping, and pavement markings such as sharrows to denote trail routes.
- Educate motorists to the rights of bicycles and pedestrians and the locations of trail routes.
- Work with Midwest City Police to develop and provide police patrols along trail s and a comprehensive safety, security, and enforcement program.

Goal 6: Provide Quality of Service

- Ensure that Midwest City's trails network is well maintained and operated.
- Plan for long-term maintenance costs in the Trail Master Plan, and be prepared to provide required resources.
- Identify potential short and long term funding sources associated with trail plan implementation

Goal 7: Protect Resources

- Protect, and use wisely the resources of the City.
- Protect and enhance the natural resources of the City including creeks, floodplains, existing trees, and habitat areas, and supplement the urban forest through tree plantings associated with trail projects.
- Protect private property and increase property values adjacent to trail facilities by educating real estate professionals and developers about the benefits of trail systems.
- Provide opportunities for residents to walk or bike to reduce noise, improve air quality, and reduce energy costs while improving public health.
- Provide safe access to bus stops and encourage alternative transportation.

Goal 8: Capitalize on transportation and recreation benefits in the local economy

- Promote the trail system as a valuable quality of life amenity to recruit residents and businesses.
- Provide pedestrian corridors to business districts.
- Encourage recreation activities and maximum use of trails networks.
- Host club events: cycling weekends, pedestrian fairs, and nature walks and promote trail use by sponsoring events on the trails.

- Incorporate landscaping into the fabric of the network. Preserve existing trees and use native landscaping, xeriscaping, and low-maintenance landscaping where appropriate.

Goal 9: Improve the health and physical fitness of Midwest City Residents:

- Provide safe and pleasing environment for physical activities.
- Provide a variety of recreation opportunities with diverse experiential activities.
- Partner with medical community to provide education and trail enhancements related to health.

3.1.4 POTENTIAL METRICS

As the Midwest City trail system grows, it may be desirable to conduct periodic assessments of progress as related to the stated goals of the plan. Potential areas to measure include:

- Miles of completed trails
- Number of linkage projects completed
- Miles or percentages of commuter routes established
- Citizen survey to identify number of regular bicycle commuters / miles traveled
- Citizen survey to identify recreational trail users and correlate to health statistics
- Number or percentage of connections to neighboring communities
- Reductions in accidents between motor vehicles and bicyclists and pedestrians
- Number of trees planted
- Miles of trail maintained annually

4.0 NEEDS ANALYSIS

The goals identified in the previous chapter address the desired outcomes of the Trails Master Plan as articulated by the citizens and leadership of Midwest City. Addressing the range of issues requires inventory and analysis of existing conditions and the identification of the opportunities and constraints inherent in these conditions. The gap between the existing and desired condition represents the full range of needs which must be addressed in order to achieve the stated goals.

The Trails Master Plan developed for Midwest City reflects the optimal synthesis of the available existing resources, the priorities of residents and community leaders, and an achievable path for sustainable public improvements. The plan is informed by the input gathered through the Public Input Process and is specific to the unique characteristics of the Midwest City community.

The basic element addressed throughout the planning process is the need for bicyclists and pedestrians to have access to safe, well maintained facilities for transportation and recreation. Pedestrians require continuous sidewalks to destinations, safe pedestrian crossings, and reasonable grades. ADA compliant facilities are important in order to provide equal access and are federally mandated in all public right-of-ways. Bicyclists must operate in shared facilities with pedestrians at times and alongside motorists in other situations. Signage, pavement markings, education, and enforcement are other issues vital to the success of the overall system.

4.1 PUBLIC INVOLVEMENT

4.1.1 TRAILS ADVISORY COMMITTEE (TAC)

The Trails Advisory Committee (TAC) provided guidance to staff and the consultant team throughout the project. The TAC members include Hazel Craddock (Park Board Appointment), Turner Mann (Sidewalk Committee Appointment), Richard Rice (Council appointment), and Floyd Wicker, Chairman (Planning Commission Appointment).

TAC at the December 18, 2008 Public Forum Meeting
From left: Floyd Wicker, Hazel Craddock, Richard Rice, and Turner Mann

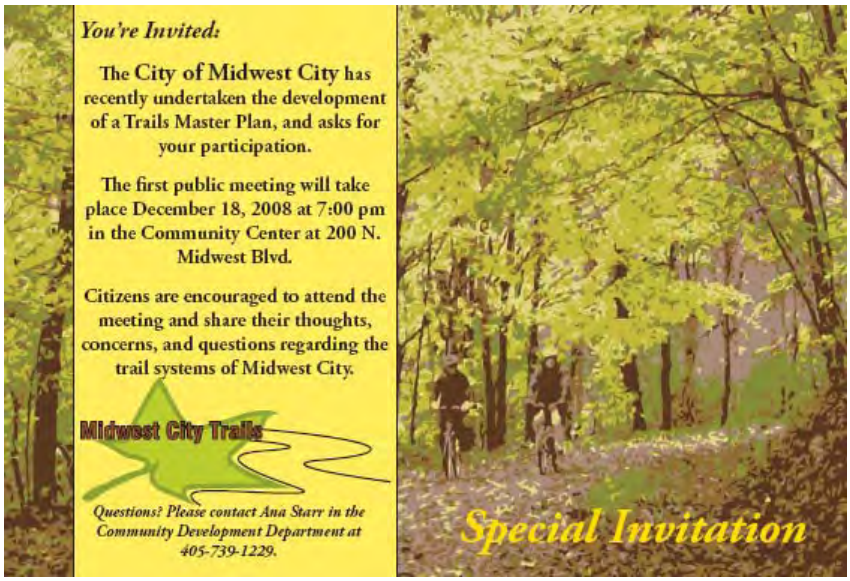
4.1.2 REGIONAL MEETING

Midwest City staff hosted planners and project managers from adjacent entities to discuss regional trail connections. Attendees included representatives from Choctaw, Tinker Air Force Base, Del City,

Oklahoma City, Oklahoma County, and ACOG. The OCARTS Plan and each entity's existing trail plans were discussed, along with challenges and opportunities for collaboration.

4.1.3 PUBLIC MEETINGS, WEB PAGE, AND SURVEY

Trails Public Forums occurred at the Midwest City Community Center on Thursday, December 18th, 2008 and Thursday, April 2nd, 2009. Residents were notified through the City's phone system and postcards were sent to stakeholders, community groups, and interested citizens. The initial public meeting described the project goals, outlined the master planning process, and facilitated discussions to collect input regarding trail access and desirable destinations. The majority of the approximately seventy people attending the meeting strongly supported trail development.



A survey was distributed at the onset of the trails Master Planning process. Survey forms were available at Midwest City's offices, on the web page, and were distributed at the initial Trails Public Forum. The survey results provided a sense of public opinion regarding wants and needs.

43 surveys were received. Responses indicate that the existing system is very popular. Residents recognize that the existing system needs safety upgrades and would like to see the system expanded to include a pedestrian system that connects residents with services throughout Midwest City. Residents desire both pedestrian and bicycle routes to school, work, surrounding cities, parks, government services, and commercial districts. The trail system should accommodate both recreation and transportation uses.

- Most respondents would use the trail for walking and bicycling.
- A significant number of people responded that they would use the trail for running, jogging, nature observation, and commuting.
- The survey asked respondents to indicate their top three activities. Bicycling, walking, and commuting to work/school were the activities that people prefer.
- Survey takers identified their three most frequent destinations. Parks and Draper Lake rank as the most popular destinations. "Town Center", which is interpreted to include the Town Center Plaza as well as other businesses and city services, also ranks high. People expressed the desire to be able to walk or ride to city services.

- The majority of respondents indicated that they would use the trail weekly; daily use the next highest response.
- Elements identified as enhancing the experience of the trail include paved surfaces; trail system maps and signage (including mile markers); site furnishings such as benches, water fountains, and garbage cans; and landscaping, specifically the use of native plants.
- The most desired complimentary facilities to the trails were trailheads consisting of restrooms, parking areas, and associated signage.

A sample of specific comments includes:

> *"I would like to see the trails blend into the community in a way that residential homes can walk all the way to parks, schools, shopping areas without having to walk into a busy street."*

> *"Would like to have bike trails for students/staff to get to Rose State College—many of our students cannot afford cars. Would like to see safe trails for elementary and middle schoolers to ride their bikes to school."*

Other comments provided by survey respondents pertained to general topics such as:

- Bike/vehicular safety
- Bicycling education
- Infringement into residential areas
- Regular visible security
- Maintenance
- Safe access to MWC businesses for the disabled, walkers and those on scooters.
- Safe access to neighborhood schools for school children
- Control costs
- How will the trails affect property costs and low income people?

The survey results were compiled for the TAC and project team's use. A copy of the survey and the full summary of the survey results is provided as **Appendix B.** The input was used to develop the conceptual trails plan, and the survey results and conceptual plan were presented at the second Trails Public Forum meeting on April 2nd, 2009.

4.2 CONCLUSION

The conceptual plan identified and prioritized trail routes. The Midwest City Trails and Master Plan develops a system that meets the needs of the city, and addresses the concerns of the residents. The final Trails Master Plan was discussed and approved in public meetings by the Trails Advisory Committee, Midwest City Park Board, Planning Commission, and adopted by City Council.

5.0 RECOMMENDATIONS

5.1 SUMMARY OF RECOMMENDATIONS

The recommendations result from the evaluation of existing conditions, application of the goals and objectives, and the guidance provided by the TAC and gathered through the public involvement process. The recommendations encompass proposed programs, development standards, and maintenance and operations over the long term.

The main goals of the programmatic elements are to improve the safety of bicyclists and pedestrians and encourage the use of alternative modes of transportation. Stakeholders, such as cyclist groups, can help develop the various initiatives and promote the programs in the community.

Development standards require the consideration and approval of City leadership. A comprehensive trail system requires consistent standards and implementation throughout the community. Efforts will entail upgrading existing neighborhoods and addressing trail routes in outlying areas as development occurs. Development regulations must include requirements for trails as well as sidewalks.

Maintenance and operational needs are best served by a proactive approach to the trail system design and implementation. Durable materials, appropriate and accessible trail facilities, and realistic commitment of staff and equipment resources must be identified prior to the investment in trails. Partnerships and citizen involvement can assist with maintenance and support city staff.

5.1.1 EDUCATION PROGRAMS

A ‘Share the Road’ campaign can help educate bicyclists, motorists, and pedestrians. Flyers can be developed for each group to educate all individuals about legal rights, responsibilities, and general safety precautions, such as giving an audible warning when passing a pedestrian. Public service announcements on radio and television can promote sensitivity to bicyclists.

5.1.2 SAFETY PROGRAMS

Midwest City should work with local school districts to incorporate safety classes and informational flyers targeting school children and their parents. Local law enforcement or parks departments often sponsor a ‘Safety Town’ type summer session. The engagement of law enforcement and regular bike patrols of the trails establishes a positive presence and provides a valuable tool in discouraging potential inappropriate behaviors.

5.1.3 COMMUNITY INVOLVEMENT PROGRAMS

Wayfinding, websites, and partnerships can help encourage new trail users. Community events can reinforce the utility of the trail system by utilizing the trails or trail head areas as a venue. Examples include a Fun Run, health fair, block party, or bike rodeo.

5.2 RECOMMENDED TYPES OF TRAILS

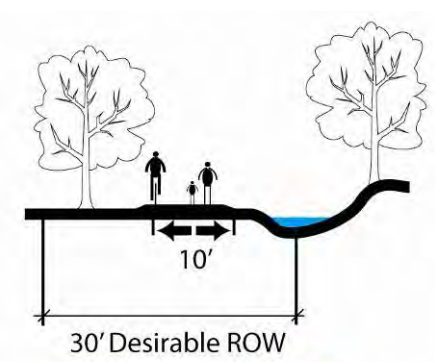
The FHWA classifies three general bicycle users as Advanced, Basic, and Children. Advanced riders generally use their bikes as a vehicle. Basic riders are less confident and generally avoid busy streets, but might use their bike to go to the corner store. Children are the least experienced, and are slower riders usually with their parents. A trail system should provide access for all levels of pedestrian and bicycle users.

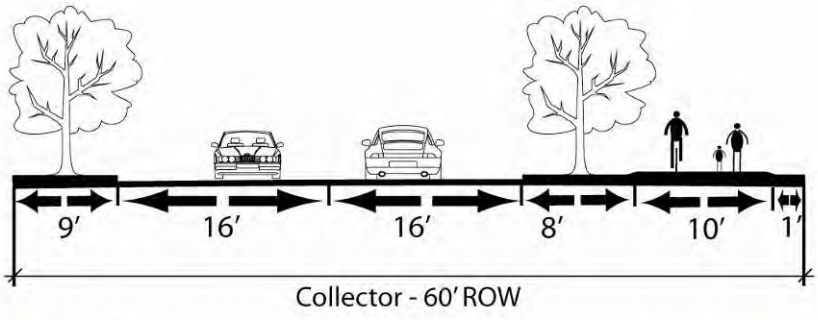
5.2.1 SHARED USE TRAILS

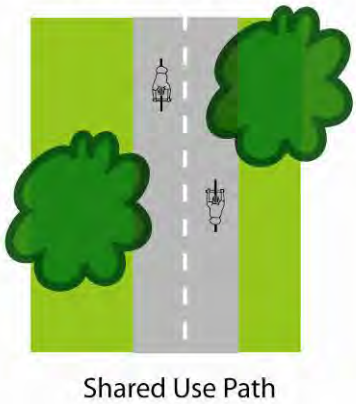
A Shared Use Trail is the most desirable trail type because of the level of safety it provides for pedestrians and bicyclists and the multi-use service opportunities it provides. A Shared Use Trail typically serves slower paced pedestrians, inexperienced bicyclists, roller-bladers, and moderately-high speed bicyclists. A Shared Use Trail is separated from motorized vehicular traffic by an open space or barrier and either within the right-of-way or within an independent alignment.

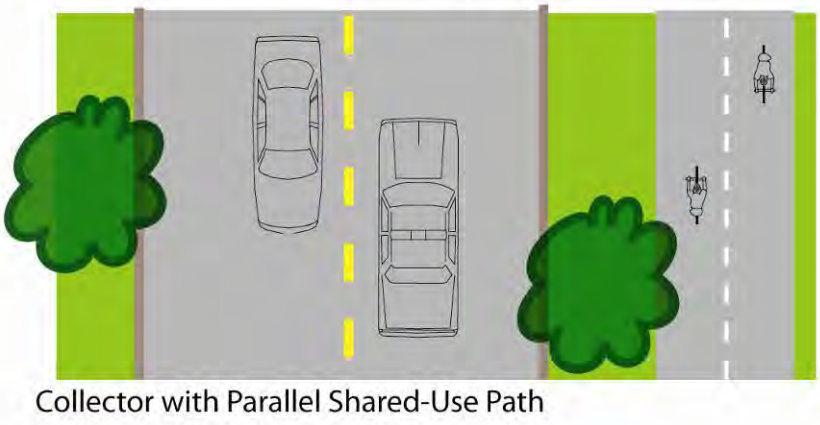
Issues to be addressed regarding shared use trails include:

- Provide information, including signage, in multiple formats that clearly indicates permitted users and rules of conduct.
- Ensure that the shared-use path provide sufficient width and an appropriate surface for everyone, or provide alternate paths for different types of users.
- Provide sufficient separation for users traveling at different speeds. For example, if volume and space permits, bicyclists and pedestrians should have different lanes or pathways;
- Provide the necessary amenities for all users, such as bike racks or lockers for bicyclists
- Consider the needs of people with disabilities within the range of user groups. Many individuals with disabilities may use a longer hand cycle or wider tricycle design that may not be compatible with bike racks, bathroom stalls, or lockers of limited width. Longer and wider equipment may need additional maneuvering space in restrooms and when transferring from the chair to benches.

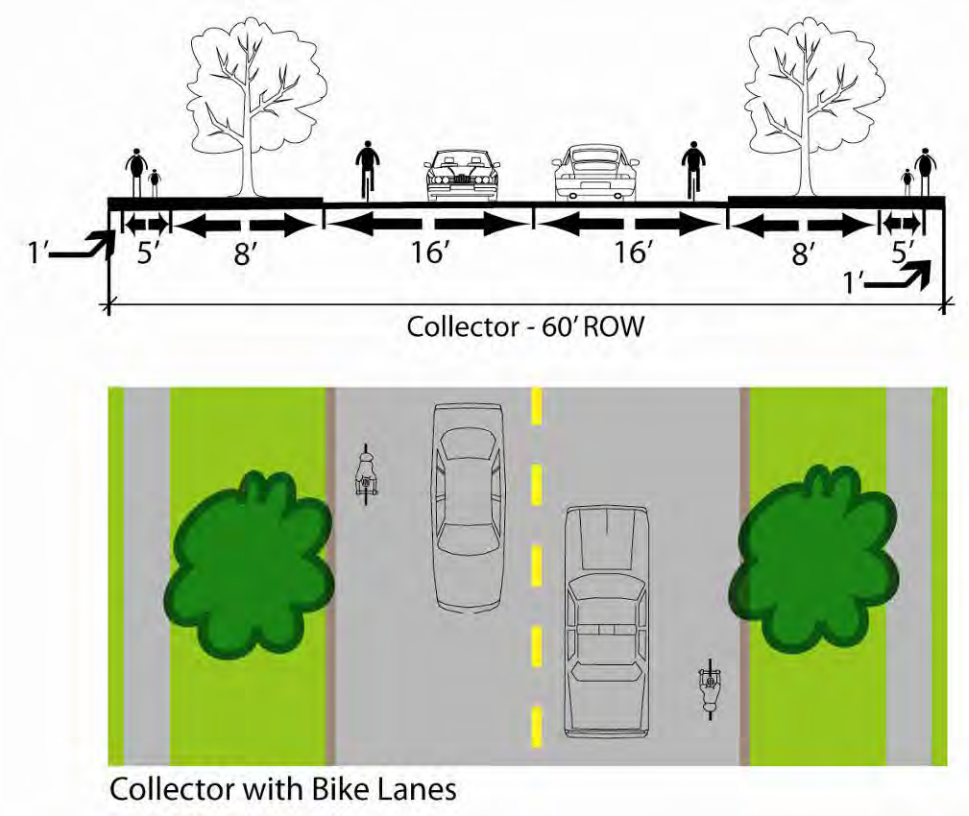








5.2.2 SHARED ROADWAY WITH SIDEWALKS (SRS)



A Shared Use Roadway with Sidewalks (SRS) is a signed bicycle route on a collector street with sidewalks on both sides of the street. SRS are constructed where Shared Use Trails are impractical and marked bicycle lanes are not required. A 'Sharrow' pavement marking is recommended for SRS facilities.

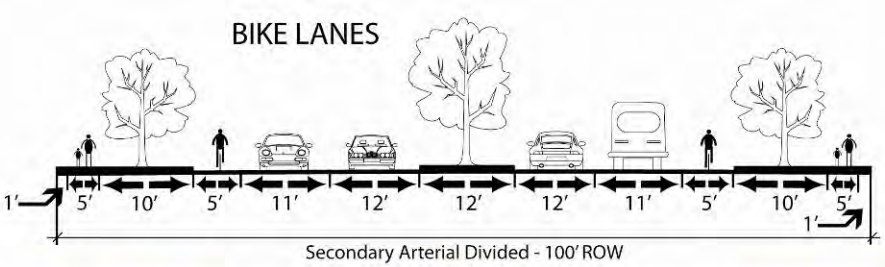
Typically SRS are constructed on slow residential streets and are connectors or spurs from residential neighborhoods to the trail system. The routes also provide continued service between disconnected trails. The pedestrian and bicycle facilities of the SRS are both identified as integral to the trail system.

Simply signing roadways has led to undesirable results in surrounding cities. A uniform and comprehensive strategy must be used when constructing SRS.

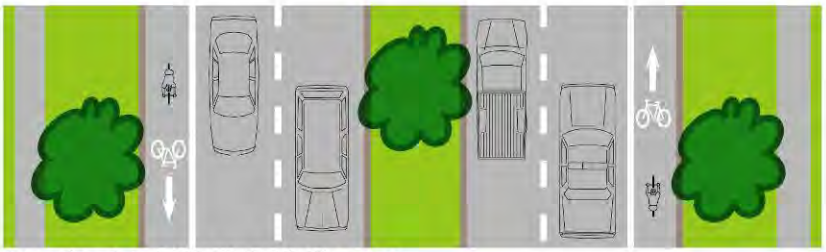
(1) First or in conjunction with bike facilities, sidewalks are implemented for pedestrians.
(2) Make safety upgrades for bicyclists, such as controlling speeds, providing smooth pavement, seeing that utility covers are flush, and bicycle-safe drainage grates.
(3) Eliminate on-street parking, or at a minimum reduce it to one side of the street.
(4) Commit to maintenance, safety, and cleaning programs, and
(5) Sign route. A signed route should connect to the existing trail system, provide continuous service between disconnected segments or destinations, and have logical termini.

5.2.3 BIKE LANES WITH SIDEWALKS (BLS)

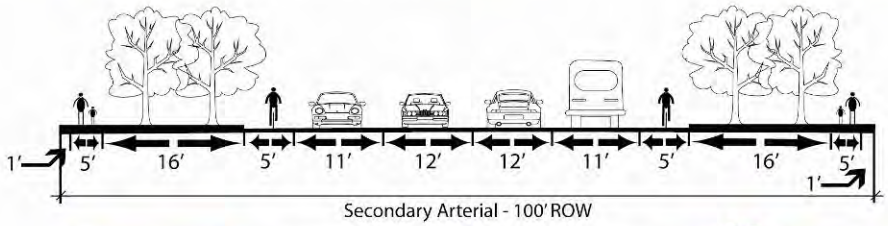
A BLS is recommended for streets and arterials with high volumes of traffic. When a Shared Use Trail is impractical to implement and traffic speeds or volume are too high for a SRS trail, BLS are recommended. High volume collector streets should also be considered for the BLS trail type.



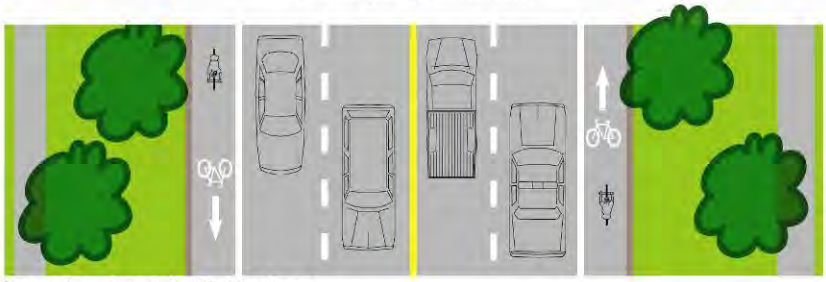
Secondary Arterial Divided - 100′ ROW



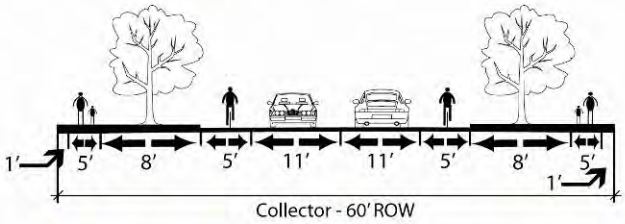
Secondary Arterial Divided with Bike Lanes



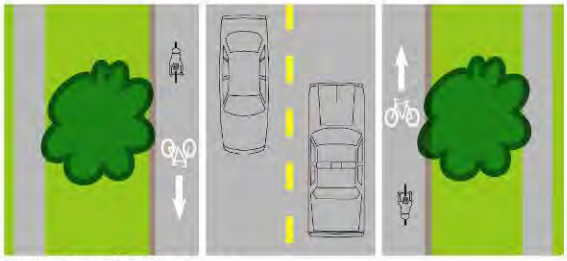
Secondary Arterial - 100′ ROW



Secondary Arterial with Bike Lanes



Collector - 60′ ROW



Collector with Bike Lanes

Post Road is an example of a high volume street. The proposed Post Road Trail is a BLS type trail that will serve as a future regional connector through Midwest City. The process of implementation for a BLS is very similar to the SRS.

(1) First or in conjunction with bike facilities, sidewalks are implemented for pedestrians.
(2) Next, safety evaluation and upgrades for bicyclists are made, such as controlling speeds, providing smooth pavement, seeing that utility covers are flush, and bicycle-safe drainage grates are in place.
(3) Eliminate on-street parking where necessary.
(4) Commit to maintenance, safety, and cleaning programs for trail segment, and finally (5) mark and sign route. Bicycle lanes that are part of the trail system should provide service between disconnected segments or destinations and have logical termini.

5.3 RECOMMENDED TRAIL ROUTES AND PRIORITIZATION

A systematic approach was used to develop trail routes throughout Midwest City. Data from the public input process included a public survey and meeting comments. Demographic data and site analysis data was gathered and evaluated. Destinations, links, and connections were analyzed at the local and regional scale. Other data included more subjective data like Midwest City goals from the 2008 Midwest City Comprehensive Plan and the quality of the experience a trail would provide. A Universal Options Map (**Figure 4)** was developed to identify all the possible routes within Midwest City. The approach to the Universal Options is to identify the widest possible range of potential trail locations. Each route was then scored, and a priority map was developed.

5.3.1 UNIVERSAL OPTIONS

Using the analysis of data gathered, the Universal Options Map (**Figure 4)** was developed. The map includes routes and route segments throughout the Midwest City. A route segment includes a logical termini, connection points, and provides linkages. Existing and proposed collector streets are also included in the plan, because of pedestrian suitability and right-of-way widths.

5.3.2 PRIORITY MATRIX AND SCORING METHODS

A scoring system was developed to evaluate each trail's merit. The scoring system relates directly to the goals and objectives of the Master Plan. Each potential route identified on the Universal Options Map is listed in the Priority Matrix and evaluated in 15 categories. The available points are weighted to reflect the importance of each category, with a maximum point total of 29.

Figures 5 and 6 provide the evaluation of each trail segment. **Figure 5** lists each trail segment alphabetically for ease of reference with the Universal Option Map**. Figure 6** prioritizes the trails according to the point score. The priority trails were then evaluated on the basis of constructability, which is discussed in Chapter 6.

5.3.3 MATRIX CATEGORIES AND SCORING

Population Density (0-3): The population ranking evaluates the number of residents served by a trail segment. The *Future Land Use Plan* from the *Midwest City 2008 Comprehensive Plan* was used to determine areas of low to high residential density.

(0) Large undeveloped, rural areas
(1) Low density residential areas
(2) Low to medium density residential areas

(3) Medium to high density residential areas

Multimodal Connections (0-1): Potential multimodal connections were given an extra point. Grants such as Oklahoma Department of Transportation Enhancement grants gain credit for alternative types of transportation connections, such as bus stops.

(0) Unlikely potential
(1) A point was added if:
   a. The trail route crossed or connected to the Rail with Trail Route.
   b. The route crossed or connected to a main arterial where a future bus stop could be placed. Only arterials west of and including Douglas were considered.
   c. The trail crossed or connected to a significant destination, such as Town Center Plaza or the Midwest City Regional Hospital.

Link to Municipal Facilities (0-1): Municipal facilities include the Municipal Complex, where people can pay a water bill or conduct other City business. The Municipal Complex is also the location of the Senior Center, Library, Police, Municipal Court and other services.

(0) Does not connect or link to municipal facilities or the existing trail system connected to the Municipal Complex
(1) A point was added if the trail route connected or crossed the existing trail system that connects to the Municipal Complex, or connected to the Public Works Administration complex.

Link to Schools (0-1+): The goals of the Midwest City Comprehensive Plan and the Trails Master Plan provide for safe routes for pedestrians and bicyclists to schools. School access is a public concern that is reflected in public comment and survey. Grants, such as Safe Routes to School Grants, are available when providing access to public schools.

(0) The route does not provide a school connection
(1+) A point was added for each school the route provided access to.

Link to City Parks / Enhance Park Use (0-1): The goals of the Midwest City Comprehensive Plan and the Trails Master Plan are to encourage park use. City parks also rank high from public input. City parks also can function as trailheads and provide additional amenities and destination points.

(0) The route does not provide a park connection
(1) The route provides at least one park connection

Link to Commercial Centers (0-3): Providing pedestrian and bicyclist access to the commercial centers of Midwest City benefit both citizens and commerce. Providing safe routes to down town and other commercial centers scored high throughout the data gathering and public input process. In addition to purchasing goods and services, access to commercial centers provides safe routes for commuters to travel to work.

(0) Route is strictly in a residential or rural area
(1) Route crosses or connects to commercial areas within the city
(2) Route crosses or connects to main commercial areas within the city
(3) Route crosses or connects to the downtown commercial district or the Reno commercial corridor.

Link to Neighboring City (0-3): Promoting regional connections for tourism and transportation is one of the goals of the Midwest City Comprehensive Plan. Public input through the Trails Master Planning process also scored inter-city recreation and transportation connections as a priority.

(0) Route does not connect to neighboring city
(1) Route connects to neighboring city, but does not link to proposed or existing trail or bike system
(2) Route links to proposed, neighboring city trail or bike system
(3) Route links to existing, neighboring city trail or bike system

Link to Existing System (0-1): Extending the existing trail system is a goal of the Midwest City Comprehensive Plan and the Trails Master Plan. Extending the system provides continuous use for additional users, and increases

(0) Route does not connect or extend the existing trail system
(1) Route crosses, connects, or extends the existing trail system

Link to ACOG, OCARTS plan (0-2): Goal # 4 of the Trails Master Plan is to pursue connections. The Midwest City Comprehensive Plan also has a goal of pursuing regional goals. The Association of Central Oklahoma Governments (ACOG) is a regional entity and has a vision promoting healthy lifestyles and greater connectivity between municipalities. Building regionally planned trails is also beneficial when pursuing transportation enhancement grants.

(0) Route does not connect or extend an ACOG Planned or Extended Vision Trail
(1) Route crosses or connects to, but does not extend an Existing, Planned, or Extended Vision Trail
(2) Route extends an ACOG Planned or Extended Vision Trail.

Enhance Tinker Connection (0-1): Connecting Tinker to Midwest City is a goal of the Comprehensive Plan and the Trail Master Plan. Tinker is the largest single facility employer in the State and it is a goal of Midwest City to extend support to the Tinker AFB and its personnel. Commercial, recreational, and transportation connections were found important through the public process. Tinker's commitment to a base-wide Green Infrastructure Plan is also relevant to the efforts underway by Midwest City.

(0) Route does not significantly enhance the Tinker/Midwest City connection
(1) Route enhances the Tinker/Midwest connection.

Easements (0-2): Easements are a required and potentially expensive component in the development of a trail system. Working within existing easements is most desirable. Acquiring easements should be a long term goal. Acquired easements are typically a requirement when seeking federal transportation enhancement grants, and may be for other grant types.

(0) No or discontinuous easements along route
(1) Probable easements for shared roadway paths and bike lanes
(2) Probable easements for shared-use paths

Resource Protection and Conservation (0-2): Goals of the Midwest City Comprehensive Plan, the Trails Master Plan, and the Tinker Green Infrastructure Plan pursue the protection and conservation of drainage basins, creeks, rivers, and the native environment. Reducing stormwater helps protect private and public property and resources. Shared-use paths complement conservation and preservation goals.

(0) Route does not significantly enhance resource protection goals

(1) Route further enhances resource conservation goals
(2) Route enhances resource conservation and protection of high quality streams, rivers, or native vegetation.

Experiential (0-3): Pleasant and attractive routes are preferred. Routes located off main corridors, with lower noise and pollution, are desirable. Routes along creeks or with attractive vegetation and trees are enjoyable. Goals of the Midwest City Comprehensive Plan and the Trails Master Plan are to increase recreation opportunities and to encourage improved health and physical fitness, and to provide a high quality life to Midwest City residents.

(0) Routes with low experiential qualities
(1) Routes with moderate experiential qualities
(2) Routes with moderate to high experiential qualities
(3) Routes with the highest experiential qualities

Public Survey and Comments (0-3): Public input is given additional weight. In general, the public response has been very positive towards the Trails Master Planning process. Analysis of public comment from the public meeting, the Dot Map, and Trail Survey process has generated community priorities.

(0) Low priority trail. Trails that show low levels of public interest
(1) Low to moderate priority trail. Trails that show some level of public interest (Example: links to neighboring cities, between neighborhoods, and to city sidewalks)
(2) Moderate to high priority trails. Trails that Scored moderately on survey and public comment (Example: Connections to OKC, Tinker, Commercial Centers, Schools)
(3) Highest priority trails. Destinations that Scored the highest on public survey. (Example: Connection to Town Center Plaza, Lake Stanley Draper, parks, and the Municipal Complex)

System Integration (0-7): Trail organization and route priority is given additional weight. Primary routes, secondary, and tertiary routes all play critical roles in the system, and are weighted as such.

(0-2) Routes with low system integration, and non-essential links and connections
(3-4) Secondary and tertiary routes that provide essential links and connections for increase neighborhood access to the trail system
(5-6) Primary routes that make critical connections and links, based on current and future needs
(7) Primary routes that make the most critical connections and links within the city, based on current need and potential use

5.3.4 INITIAL PRIORITY MAP

The Universal Options Map was updated to reflect the results of the Route Matrix. The resulting plan is the Initial Priority Map, **Figure 7**. The Priorities Map reflects trails that scored in the top three tiers:

1. TIER ONE (26-29 points): a large city loop, bifurcated by the proposed Rail with Trail.
2. TIER TWO (21-24 points): connection to and extension of the existing and first ranking routes.
3. TIER THREE (16-20 points): internal residential connectors and routes that will require long-term planning. As neighborhoods build out and population densities increase, the third tier of trails will have increased priority.
4. Less than 16 points: trail routes attaining less 16 points are not a priority and will not be implemented in the foreseeable future, therefore they are not part of the Trails Master Plan at this time.

The trail routes identified as Tier One and Tier Two priorities were further evaluated in the field, as described in Chapter 6, Funding and Implementation. The implementation plan was developed by assessing the overall priority of the route in conjunction with the feasibility of construction.

5.4 POLICY CONCLUSIONS AND RECOMMENDATIONS

The need for safe bicycle and pedestrian access throughout the City of Midwest City led to the Trails Master Plan initiative. Community support was evident during the Trails Public Forum meetings and throughout the planning process. Citizens demonstrated their enthusiasm for trails by the high rate of attendance and participation in the two Trails Public Forum meetings. Some people voiced concern about a specific trail segment, but the majority of the Midwest City residents in attendance expressed support for trails and encouraged the City to move forward with a community-wide system of trails.

Midwest City will support the development of a complete system of bikeways, pedestrian facilities and shared use paths, and safe crossings connecting residences, businesses, transit stops and public places. The City will promote bicycling and walking for health, environmental sustainability, exercise, transportation, and recreation. City development regulations are crucial to realizing the vision for a comprehensive trail system.

Chapter Two reviews existing Midwest City Code, and Appendix A contains excerpts from the current code. The City is currently in the process of updating their regulations, and provisions to fully address sidewalk and trails should be added. Appendix C addresses potential updates to the code that will assist in the process of meeting the goals set forth in the Trails Master Plan.

Suggested modifications include:

- Integrate bikeways within roadway and right-of-way definitions
- Add pedestrian uses to purpose of street system language
- Update new sidewalk installation and sidewalk grades and slopes codes to reflect Final Draft: Priorities and Guidelines for Providing Places for Pedestrians to Walk along Streets and Highways. (FHWA, 1999).
- Add the Trails Master Plan to the Subdivision Regulations and require connections to trail routes for new developments within a half mile of designated routes
- Amend drainage easement requirements to accommodate trails
- Add bike lanes to arterial roads and collector roads as appropriate
- Refer to Trails Master Plan in bridge and street crossing language and address traffic separation as possible
- Include sidewalks, crossings, and pedestrian accommodations

The Trails Master Plan goals were developed during the planning process and are specific to the desires expressed by the community. Principles expressed in the goals are consistent with reducing energy consumption, improving public health, providing accessible facilities, and promoting safe, equitable options for citizens. These principles have common characteristics with green building standards as promoted by the United States Green Building Council (USGBC), sustainable design and development practices such as Leadership in Energy and Environmental Design (LEED), Complete Streets policies, green infrastructure efforts, public health initiatives including fighting childhood obesity, and community improvement strategies such as Richard Florida's 'Creative Class' theory and placemaking initiatives.

Adopting updated code requirements will continue to advance Midwest City as a leader in the Central Oklahoma Region. The proposed improvements will benefit the overall community and provide a lasting investment in Midwest City's quality of life.

6.0 FUNDING AND IMPLEMENTATION

6.1 EVALUATION PROCESS

The initial trail priorities were established through a scoring and ranking system based upon the overall goals of the Master Plan (**Figure 6**). Although routes may score highly in terms of meeting goals, a key factor in implementation will be the feasibility of construction. A constructability analysis was conducted to evaluate conditions in the field.

6.1.1 CONSTRUCTABILITY ANALYSIS

The constructability analysis included site visits to the proposed trail routes by two teams of Midwest City and C.H. Guernsey & Company (GUERNSEY) staff. A standard scoring sheet was utilized to document the existing status of the proposed trail routes. This approach gave the teams the ability to 'ground truth' the practicality of constructing trails in the locations proposed on the plans. The scoring sheet evaluates five overall categories impacting constructability per the following criteria:

TRAIL SEGMENT & RANK - SAMPLE SCORING SHEET	
Constructability	SCORES ARE BASED ON THE FOLLOWING CRITERIA:
Easement/ROW width	Will existing row accommodate proposed trail? Can easement be easily assembled?
Existing infrastructure	Will current roadway accommodate? Can current sidewalk be widened / improved?
Utilities	Is the alignment free of poles / guys / meter boxes?
Terrain (Cross slopes)	Is there minimal cross slopes at proposed trail alignment (1 to 2%)?
Vehicular Conflicts	
Drives	Is there a low number of crossings (equates to better safety and cost implications)
Parking	Can parking be limited to one side of street max for shared roadway?
Maintenance	
Flooding	Is a trail a good use of floodplain without lots of maintenance concerns?
Erosion	Can the trail be implemented without contributing to erosion issues?
Vegetation	Is the proposed alignment easy to clear and maintain?
Security	Will trail development enhance visibility and use of area?
Suitability	
Traffic	Would trail reduce conflicts with vehicles?
Trees	Can a trail be installed without adversely affecting trees?
Proximity to Houses	The ability to serve concentrated area good IF space to accommodate & appropriate
Quality of Experience	Aesthetics and 'comfort'
Potential High Costs	
Fill/Retaining	Minimal grading necessary?
Bridge/Underpass	Potential to separate vehicular and trail traffic?
Signalized Crossings	High score if no new signalized crossings are necessary
Total Score	
General Comments:	

6.1.2 CONSTRUCTABILITY SCORING

On-site inspections and scoring were conducted for all trails ranked as first and second priorities in the Trail Segment Matrix (**Figure 6**). In addition to the routes initially proposed, the scoring teams investigated potential alternative alignments. Teams also considered the suitability of the proposed trail types and recommended alternatives as appropriate. This fine tuning allowed proposed trail routes to achieve the highest constructability ranking possible.

The scoring approach summarized the Route Assessments conducted in the field and grouped them into three major categories. The trail segments scoring highest on the constructability analysis are identified as priority projects with Near Term readiness.

PRIORITY / NEAR TERM: 1 Point – Route is ready for construction

- ROW owned / No ROW issues
- Limited infrastructure, utilities, and terrain obstacles
- Little or no drive and parking issues
- Feasible maintenance / not burdensome to City staff
- High suitability and high potential use
- Benefits greatly outweigh the costs

PRIORITY / MID RANGE: 2 Points – Route has some obstacles but could be constructed

- ROW may need to be acquired but could be assembled
- Minor infrastructure, utilities, and terrain obstacles.
- Limited drive and parking issues that can be addressed through design
- Feasible maintenance that may require upfront cost assessment
- Moderate to high suitability
- Benefits outweigh the costs

LONG TERM: 3 Points – Route requires long-term planning / has significant issues

- ROW to be acquired through long-term regulations and planning
- Major infrastructure and utility obstacles best addressed through long-term planning.
- Drive and parking issues to be resolved
- Not feasible to commit to maintenance at the present time
- Low suitability issues / low anticipated use
- Costs currently outweigh the benefits

6.2 IMPLEMENTATION STRATEGY

The existing trails in Midwest City are well-regarded community amenities. Successful expansion of the trails requires careful investment and a commitment to maintenance and operations. The implementation strategy is grounded in a practical, cost effective, and attainable approach to developing a comprehensive trail system for the Midwest City community.

The priority rankings are based directly on the Trail System Goals. The constructability analysis reflects conditions in the field. The synthesis of these two sets of data allow the development of a phased

approach to implementation that addresses practical concerns while responding to the overall vision for the trail system.

The Trail Segment Matrix (**Figure 6)** sorts the trail segments into three tiers. The Constructability Analysis assigns a value related to Near Term readiness, Mid-Range readiness, or Long-Term project readiness. **Figure 8**, the Trail Implementation Matrix, combines these values to develop the overall Trail Implementation Map (**Figure 9**).

KEY TO VALUES USED IN FIGURE 8, TRAIL IMPLEMENTATION MATRIX

TRAIL PHASING – BASED ON PRIORITY AND CONSTRUCTABILITY			
Trail Priority Ranking	**First Tier** 1 point	**Second Tier** 2 points	**Third Tier** 3 points
Constructability Evaluation	**Near Term** 1 point	**Mid-Range** 2 points	**Long Term** 3 points
SCORE:	2-3 points **PHASE 1**	3-4 points **PHASE II**	5+ points **PHASE III**
Second Tier trail with Mid-Range constructability ranks as a **PHASE I** PROJECT			
First Tier Trail with Long Term constructability ranks as a **PHASE III** PROJECT			

6.3 DETAILED PROJECT AND COST INFORMATION

PHASE I AND PHASE II PRIORITY TRAIL PROJECT SUMMARY

ROUTE	Trail Length (LF)	Existing Road Crossings	Underpass Crossing	Proposed Road Crossings	linear foot cost	Total Cost	Implementation Score
PHASE I PROJECTS							
Rail With Trail	14,350	1	3	2	$220.00	$3,157,000	2
Crutcho Creek	15,500	1	1	2	$216.00	$3,348,000	2
Soldier Creek Extension	7,500	1	1	1	$255.00	$1,912,500	2
Soldier Creek Upgrade	22,500	1	3	0	$160.00	$3,600,000	2
Palmer Loop	14,600	1	1	1	$206.00	$3,007,600	2
Draper Lake	3,600	0	0	2	$215.00	$774,000	3
29th	12,350	4	2	0	$200.00	$2,470,000	3
Crutcho Creek Connector	11,000	2	1	1	$217.00	$2,387,000	4
PHASE II PROJECTS							
West 10th	13,500	3	3	0	$180.00	$2,430,000	4
Trib 6	9,900	1	0	2	$193.00	$1,910,700	4
Rose State Connector	10,500	1	0	0	$155.00	$1,627,500	4
Rail With Trail East Ext.	14,400	1	0	1	$180.00	$2,592,000	4
Silver Creek	13,300	1	1	0	$194.00	$2,580,200	5
Trib 4	12,000	0	0	2	$182.00	$2,184,000	5
Reno	13,800	2	0	2	$177.00	$2,442,600	5
TOTAL LENGTH:	**188,800**	**LF**	**35.75 mi**	**TOTAL COST:**		**$33,266,100**	

A detailed Project Description Sheet including preliminary conceptual-level cost estimates was prepared for each Phase I and Phase II trail segment. The Project Description Sheets are included as **Appendix D** and encompass over 35 miles of proposed trails. Each sheet includes a written summary of the trail route, proposed trail type, linear feet, anticipated crossings and underpasses, constructability issues, design suggestions, estimated costs, and site photographs.

As an example, the Rail With Trail (RWT) project was ranked as one of the highest priority projects. The existing 2.7 mile rail corridor is owned by one entity, and the City of Midwest City has had preliminary discussions about acquiring a permanent easement for construction of a trail. The proposed RWT would provide an important central east-west route connecting multiple schools, neighborhoods, and the existing Soldier Creek trail.

A conceptual design was prepared to investigate the feasibility of constructing the RWT. The existing rail corridor can accommodate both rail activity and a shared use bicycle and pedestrian trail. Trails of this nature have been implemented across the country. The photo below is from a Rail With Trail project in downtown Denver. For additional information regarding the RWT, refer to the Project Description Sheet in **Appendix D**.

The Project Description Sheets can be utilized for general budget and planning purposes. They are also suitable for refinement into grant proposals and funding applications. The data contained in the Project Description Sheets should be periodically reviewed to keep the information up to date with site conditions and current construction costs.

6.4 FUNDING STRATEGY

A variety of potential funding sources exist for trails projects. Federal transportation funding (SAFETEA-LU, as described in Chapter 2) is the major source of grants. The SAFETEA-LU funds include Transportation Enhancement Grants, Safe Routes to School, and Congestion Mitigation and Air Quality initiatives.

Community Development Block Grants could be utilized for trail development as part of an overall sustainable development initiative. Other entities with grant programs include the Oklahoma Conservation Commission, the Oklahoma City Community Foundation, Sarkeys Foundation, Oklahoma City Beautiful, the Noble Foundation, and Midwest City Regional Hospital.

Often grants from various sources can be combined to meet local match requirements. The City of Midwest City must pursue the full spectrum of available programs and incorporate trail facilities into initiatives which provide multiple benefits to the community.

Partnerships are another important tool. Midwest City may have the opportunity to partner with local school districts, health organizations or hospitals, or private businesses to fund or provide in-kind services the installation, maintenance, or patrolling of trails.

Aside from pursuing outside funding to construct trails, the Trails Master Plan must be successfully integrated into Midwest City's development requirements. Roadway and bridge improvements can achieve economies of scale by addressing trail crossings and facilities. New development must adhere to sidewalk and trail installation requirements. The cumulative effect of this effort will be the gradual creation of a comprehensive system.

The cost of Phase I and Phase II of the proposed trail system is estimated to be approximately $33.2 million dollars (estimated in 2009 dollars without adjustments for inflation). The trails are anticipated to be implemented over a 20 year time period. The higher priority projects are identified as Phase I initiatives, and represent a $20 million investment.

The City of Midwest City should develop a line item in the annual budget for trail installation and maintenance costs. If it is desired to implement the $20 million in Phase I projects over a 10 year period, a $2 million investment would need to be made annually. Grants typically fund 80% of the project cost, therefore the City should consider a $400,000 line item for trails. Additional budget items include staff time for project administration and the addition of a 'sinking fund' to address trail repairs and replacement over time.

Initial expenditures will focus on capital expenses. As the system is developed, the commitment to ongoing maintenance and operations budgets will need to increase. Chapter 7 provides an overview of the ongoing tasks and costs associated with trails.

7.0 MAINTENANCE AND ONGOING OPERATIONS

Residents of Midwest City support the Trails Master Plan initiative in large part because they are pleased with the quality of the existing Soldier Creek Trail and other municipal facilities. New trail construction will require the same commitment of ongoing maintenance and upkeep. This Chapter addresses typical long-term costs associated with trails. Citizens will likely judge the overall success of the trails program based upon the amount of use the trails receive as well as the appearance and condition of the facilities over time.

Maintenance activities include regular mowing, weed control, collection of litter from along the trail corridors and from waste receptacles, periodic snow removal, and general upkeep. Ongoing maintenance tasks include trail resurfacing, re-striping, replacement of signage, and painting of bridge structures and other long term upkeep. The range of facilities provided in conjunction with the trails will impact the amount and cost of staff time and materials associated with maintenance and upkeep.

Relationships with volunteers groups can provide great benefits including general trail advocacy within the community and donations of in-kind services. Support may include activities ranging from brush clearing and litter collection up to minor trail construction. Other activities may consist of hosting safety and training seminars, group rides, and community events. Groups that have supported trail functions in the past or expressed an interest include the Earthbike Fellowship, civic clubs such as Kiwanis or Rotary, scout troups and individuals, and local schools.

Annual routine maintenance equipment, supplies, and staff time are estimated at $2,500 per mile. Larger scale maintenance associated with ongoing operations will require a budget of approximately $15,000 per mile for replacement of damaged pavement. Large issues such as bridge replacement or intersection upgrades will require annual analysis as part of the capital improvements budget process.

EXISTING CONDITIONS
EXHIBIT --

not this...

Neighborhoods lacking sidewalks
No trees

Although adequate, narrow sidewalks without buffers can be uncomfortable

Clearance and line of sight vary with use type

THIS

Neighborhoods with sidewalk systems
And pleasant environment

Wide paths accommodate multiple users and are safer for users traveling at different speeds.

Suitable shared use trail section

RESOURCE COMMITMENTS

Enforcement/types of users

On going maintenance

PLACE MAKING

Memorials

Encourage community involvement and ownership of trails

Playgrounds and social areas

EXISTING CONDITIONS
EXHIBIT --

ACCESSIBILITY

Broken segments of the trail and pedestrian system where users travel through parking lots or in the street are hazardous.

Parking and vehicular access to parks and trails are needed to provide access outside of the immediate neighborhood.

Safe and access able crossings

CONNECTIONS

Curb cuts, reasonable grades, access able bus stops and road crossings will increase access for all

Neighborhood connections may need parking and trail head facilities to accommodate more use.

Natural connection points within the community.

SOONER
AIR DEPOT
MIDWEST
DOUGLAS
POST
WESTMINSTER
ANDERSON
HIWASSEE

OKC
NORTH CANADIAN RIVER

36TH
23RD
10TH
RENO
15TH
29TH

SPENCER
POTENTIAL REGIONAL PARK
HWY 62 CORRIDOR
WALMART
WALGREENS
OUTSIDE MIDWEST CITY
NICOMA PARK
POTENTIAL NEIGHBORHOOD PARK
HERITAGE PARK MALL
HOSPITAL MUNICIPAL COMPLEX
CREST FOODS
EXISTING TRAIL
PROPOSED RAIL WITH TRAIL
MID-DEL TECH
MIDWEST CITY H.S.
GATEWAY PLAZA
UPTOWN PLAZA
Buy for Less
Walgreens
REED CENTER
ROSE STATE COLLEGE
GLENWOOD
CARL ALBERT H.S.
CHOCTAW
DEL CITY
TOWN CENTER
DRAPER LAKE
TINKER AIR FORCE BASE
OKC

Travel Snapshot
.33% Walked to Work
.17% Biked to Work
Mean Travel Time to Work 22 Minutes

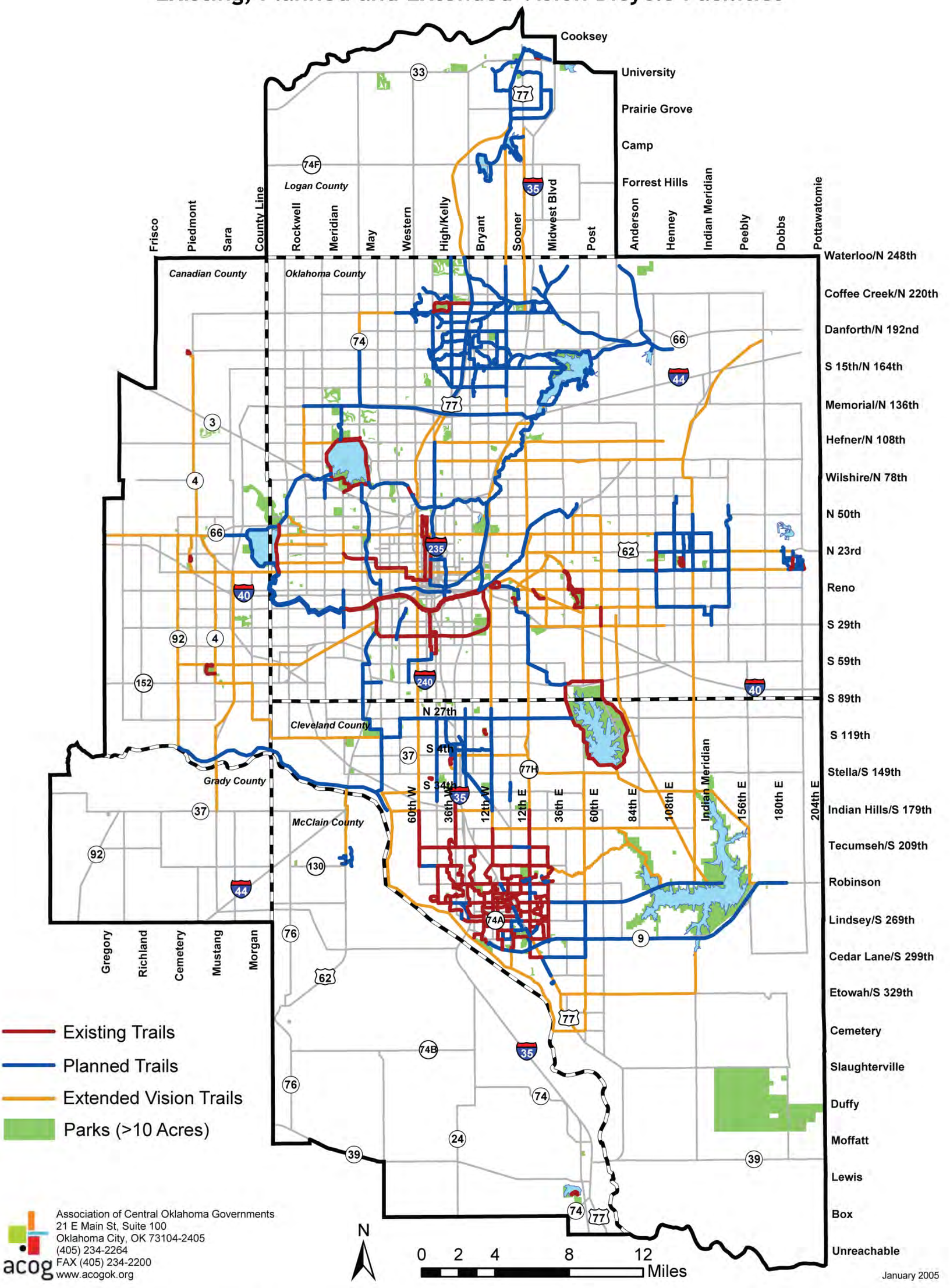
Demographic Snapshot
Growth 2008-2013 1.63%
Median Age 34.86
Median Household Income $40,321

KEY
- Schools
- Public
- Parks
- Existing Trail
- Proposed Mid America Trail
- Proposed Rail w/ Trail

OPPORTUNITIES AND CONSTRAINTS

GUERNSEY
December 2008

Figure 14:
Existing, Planned and Extended Vision Bicycle Facilities



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Map Disclaimer Applies. See the report Table of Contents or http://www.acogok.org/mapdisclaimer.asp

MAP NOTES

Route segments for evaluation were derived from the data gathering and analysis process.

Route colors are only to distinguish the termini of an individual route.

Route segments include a logical termini, connection points , and provide linkages. Existing and proposed collector streets are included, because of pedestrian suitability and right-of-way widths.

REGIONAL PLANNED TRAILS

MIDWEST CITY TRAILS MASTER PLAN
UNIVERSAL OPTIONS
JULY 2009

FIGURE 4
UNIVERSAL OPTIONS MAP

GUERNSEY

FIGURE 5
TRAIL SEGMENT LIST - ALPHABETICAL

ROUTE OPTIONS	0-3	0-1	0-1	0-1+	0-1	0-3	0-3	0-1	0-2	0-1	0-2	0-2	0-3	0-3	0-7	**0-36**
ROUTE OPTIONS	**Population Density**	**Multimodal connections**	**Link to Municipal Facilities**	**Link to School(s)**	**Link to City Parks (enhance park use)**	**Link to Commercial Center**	**Link to neighboring city**	**Link to existing system**	**Link to ACOG, OCARTS Plan**	**Enhance Tinker Connection to City**	**Easements**	**Resource Protection and Conservation**	**Experiential**	**Survey Ranking**	**System Integration**	**Total**
12th	1	1	0	0	0	0	0	0	1	0	1	0	1	1	4	**10**
13th	1	0	0	0	0	0	1	0	0	0	1	0	1	1	1	**6**
17th PC (Proposed Collector)	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	**4**
18th PC	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	**3**
19th	2	1	0	0	0	0	1	0	1	0	1	0	1	1	0	**8**
21st PC	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**1**
27th PC	2	1	0	0	0	1	0	0	0	0	0	0	1	1	1	**7**
29th	2	1	0	0	1	3	3	0	2	1	2	0	1	3	7	**26**
29th Connector	2	1	0	0	0	3	0	0	1	1	2	0	1	3	4	**18**
4th PC	2	1	0	0	0	0	0	0	0	0	1	0	1	1	1	**7**
7th	2	1	0	0	0	0	1	0	1	0	1	0	1	1	0	**8**
Acres PC	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**1**
Bella Vista	3	1	0	1	0	3	0	0	1	0	1	0	1	2	4	**17**
Belleview	2	0	0	0	1	0	0	0	0	0	1	0	2	1	4	**11**
C.A. Connector	2	1	0	1	0	0	0	1	1	0	1	0	1	2	1	**11**
Caldwell	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	**5**
Cambridge Drive	3	1	0	0	1	0	0	0	1	0	1	0	1	2	4	**14**
Cardinal	1	1	0	0	1	0	0	0	0	0	1	0	1	1	1	**7**
Choctaw	1	0	0	0	0	0	2	0	1	0	0	2	3	2	6	**17**
Choctaw Creek	1	0	0	1	0	0	2	0	0	0	0	2	3	2	6	**17**
Choctaw Creek Connector	2	0	0	0	1	2	0	0	1	0	0	1	2	2	6	**17**
Crutcho Creek	3	1	0	0	1	1	2	1	2	0	2	2	3	3	7	**28**
Crutcho Creek Connector	3	1	0	1	1	3	0	1	1	1	1	2	2	3	7	**27**
Draper Lake	3	1	1	0	1	2	2	1	1	1	2	2	3	3	5	**28**
Draper Lake Connector	2	1	0	0	0	2	3	0	1	1	0	1	2	3	4	**20**
E. 21st PC	1	0	0	0	0	1	1	0	0	0	1	0	1	1	1	**7**
East 15th	0	0	0	0	0	1	1	0	0	0	1	0	1	1	3	**8**
East 3rd	2	0	0	0	0	1	0	0	0	0	1	0	1	1	1	**7**
East PC	0	0	0	0	0	0	1	0	0	0	1	0	1	1	0	**4**
Eddie	2	1	0	0	0	1	0	0	0	0	1	0	1	2	2	**10**
Elizabeth	2	0	0	0	0	1	2	0	0	0	1	0	1	0	0	**7**
Felix Dr.	3	1	0	2	0	3	0	0	1	0	1	0	1	3	4	**19**
General Senter	3	1	1	0	0	0	0	0	1	0	1	0	0	0	0	**7**
GR PC	1	0	0	0	0	1	1	0	1	0	0	0	1	1	1	**7**
Harmony Drive	3	1	1	1	1	1	0	0	1	0	1	0	1	2	4	**17**
Holoway	2	1	0	0	1	0	0	0	1	0	1	0	1	0	2	**9**
Hospital Connector	3	1	1	0	1	3	0	0	0	0	1	0	1	2	4	**17**
J. Barnes Connector Upgrade	3	1	0	0	1	2	0	1	2	0	2	0	1	2	3	**18**
Jarman	2	1	0	1	0	1	0	0	1	0	1	0	1	2	2	**12**
Key Blvd	2	1	0	2	1	2	0	0	1	0	1	0	1	3	4	**18**
King	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	**3**
Kittyhawk	3	1	0	2	0	2	0	0	1	0	1	0	1	2	0	**13**
Kiwanis Connector	2	1	1	1	1	0	0	1	1	0	0	1	2	3	4	**18**

FIGURE 5
TRAIL SEGMENT LIST - ALPHABETICAL

ROUTE OPTIONS	Population Density	Multimodal connections	Link to Municipal Facilities	Link to School(s)	Link to City Parks (enhance park use)	Link to Commercial Center	Link to neighboring city	Link to existing system	Link to ACOG, OCARTS Plan	Enhance Tinker Connection to City	Easements	Resource Protection and Conservation	Experiential	Survey Ranking	System Integration	Total
Mead	2	0	0	0	0	0	0	0	1	0	0	0	1	0	1	**5**
Meadowwood	2	1	0	0	0	1	1	0	1	0	1		1	0	0	**8**
MWC Lakes	0	1	0	0	1	0	2	0	1	0	2	2	3	2	5	**19**
N. Timber	1	0	0	0	0	0	0	0	1	0	1	0	2	1	4	**10**
Nawassa PC	2	0	0	0	0	0	0	0	1	0	0	0	1	1	2	**7**
North Canadian Connector	1	1	0	1	1	0	1	0	1	0	1	0	2	2	6	**17**
Ocama	2	1	1	1	0	2	0	0	1	0	1	0	1	2	2	**14**
Palmer Loop	3	1	0	1	1	3	2	1	2	1	1	0	2	3	6	**27**
Post	2	1	0	2	1	3	1	1	1	1	1	0	0	2	4	**20**
Post Oaks	2	0	0	0	0	0	1	0	1	0	1	0	3	2	3	**13**
Quinlan/Holoway Connector	3	1	0	0	1	1	0	1	2	0	1	1	2	2	2	**17**
Rail Road	2	0	0	1	0	0	0	1	1	0	1	0	1	1	0	**8**
Rail With Trail	3	1	1	3	1	2	2	1	1		2	1	2	3	6	**29**
Reed Extension	3	1	0	1	0	3	0	1	1	1	0	0	1	3	4	**19**
Reno	3	1	1	1	1	3	0	1	1	0	0	0	1	3	5	**21**
Rolling Lane	3	1	0	1	1	0	0	1	1	0	1	0	1	2	4	**16**
Rose	2	0	0	1	0	0	0	0	0	0	1	0	0	1	0	**5**
Rose State Connector	3	1	0	2	0	3	0	0	1	0	1	1	1	3	6	**22**
RWT East Extension	3	1	0	2	1	3	0	0	1	0	0	0	2	2	6	**21**
S. Timber	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	**5**
Shady	2	1	0	1	0	2	1	0	1	0	1	0	1	2	2	**14**
Sheffield	2	0	0	0	0	0	0	0	0	0	1	0	1	1	2	**7**
Sheffield PC	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	**3**
Shirley PC	1	0	0	0	0	0	1	0	1	0	1	0	1	0	0	**5**
Silver Creek	2	0	0	1	1	2	1	0	1	0	0	3	3	2	6	**22**
Silver Creek Connector	3	1	0	1	1	0	0	0	1	0	0	1	2	2	6	**18**
Silver Meadows	2	1	0	2	1	0	0	1	1	0	1	0	1	3	4	**17**
Soldier Creek Extension	3	1	0	1	1	1	0	1	2	0	2	2	3	3	7	**27**
Soldier Creek Upgrade	3	1	1	0	1	1	0	1	2	0	2	2	3	3	7	**27**
Spencer	3	1	1	1	1	2	2	1	2	0	1	0	1	2	4	**22**
St. Paul	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0	**4**
Symphony	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	**5**
Timber	2	0	0	0	0	0	0	0	1	0	1	0	1	2	4	**11**
Town Center	3	1	1	1	1	3	0	0	2	1	1	0	2	3	6	**25**
Town Connector	3	1	0	1	1	3	0	0	1	1	1	0	1	3	4	**20**
Trib 4	3	1	0	0	1	0	0	1	1	0	1	2	3	3	6	**22**
Trib 4 Extension	2	0	0	1	1	0	2	0	1	0	0	2	3	2	5	**19**
Trib 6	3	1	1	0	1	2	0	1	1	0	1	2	3	3	5	**24**
Turtleback PC	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**2**
Webster PC	1	0	0	0	0	1	1	0	1	0	0	0	1	0	0	**5**
West 10th	3	1	0	1	1	2	2	1	2	0	1	0	2	2	4	**22**
West 15th	3	1	0	3	0	2	1	0	2	0	1	0	1	2	2	**18**
Windsong	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	**5**
Zachery	2	0		1	1	0	1	0	1	0	1	0	3	3	4	**17**

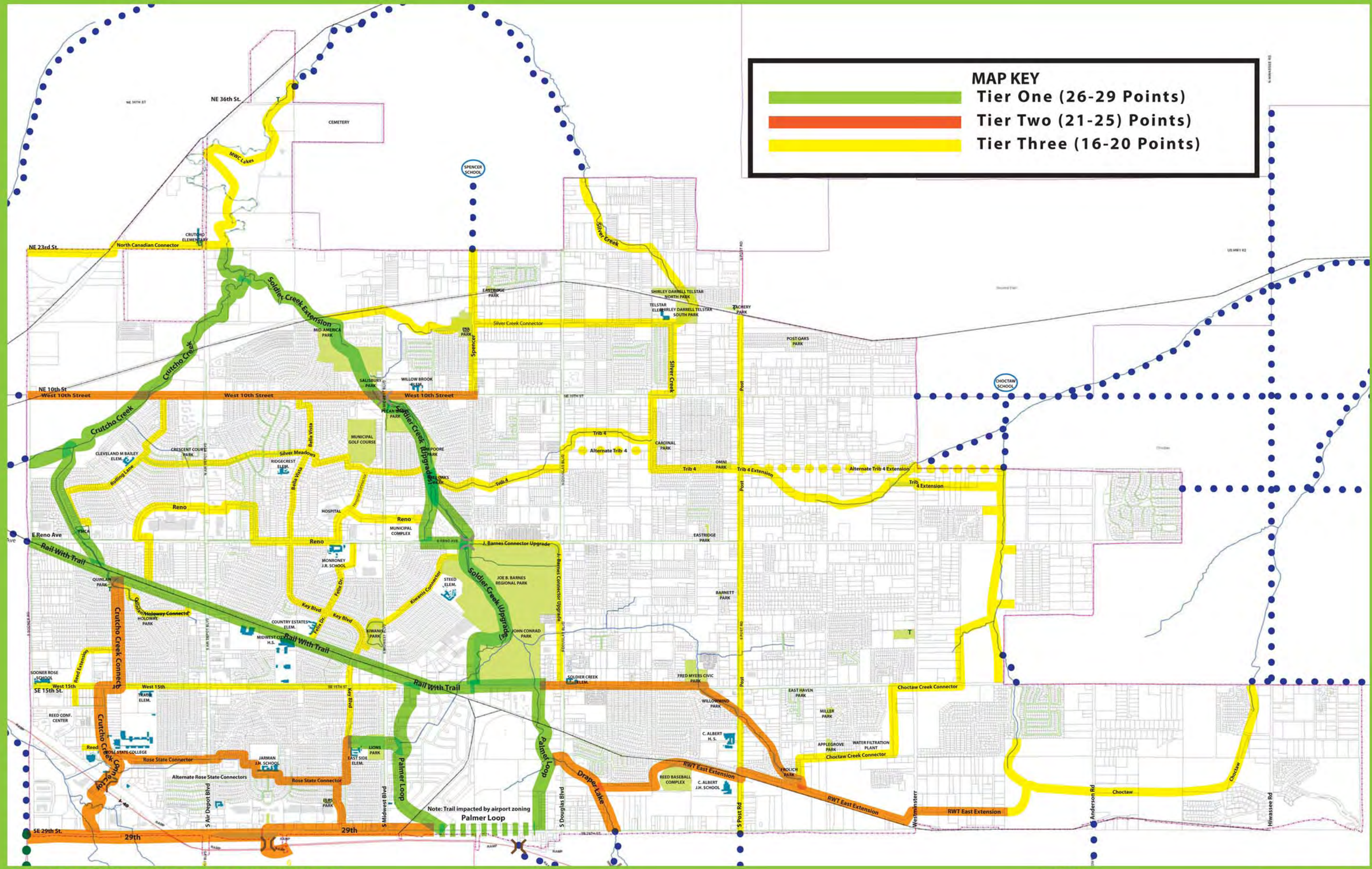
FIGURE 6
TRAIL SEGMENT LIST - PRIORITIZED

	0-3	0-1	0-1	0-1+	0-1	0-3	0-3	0-1	0-2	0-1	0-2	0-2	0-3	0-3	0-7	**0-36**
ROUTE OPTIONS	**Population Density**	**Multimodal connections**	**Link to Municipal Facilities**	**Link to School(s)**	**Link to City Parks (enhance park use)**	**Link to Commercial Center**	**Link to neighboring city**	**Link to existing system**	**Link to ACOG, OCARTS Plan**	**Enhance Tinker Connection to City**	**Easements**	**Resource Protection and Conservation**	**Experiential**	**Survey Ranking**	**System Integration**	**Total**
TIER ONE PRIORITIES																
Rail With Trail	3	1	1	3	1	2	2	1	1		2	1	2	3	6	**29**
Crutcho Creek	3	1	0	0	1	1	2	1	2	0	2	2	3	3	7	**28**
Draper Lake	3	1	1	0	1	2	2	1	1	1	2	2	3	3	5	**28**
Crutcho Creek Connector	3	1	0	1	1	3	0	1	1	1	1	2	2	3	7	**27**
Soldier Creek Extension	3	1	0	1	1	1	0	1	2	0	2	2	3	3	7	**27**
Soldier Creek Upgrade	3	1	1	0	1	1	0	1	2	0	2	2	3	3	7	**27**
Palmer Loop	3	1	0	1	1	3	2	1	2	1	1	0	2	3	6	**27**
29th	2	1	0	0	1	3	3	0	2	1	2	0	1	3	7	**26**
TIER TWO PRIORITIES																
Town Center	3	1	1	1	1	3	0	0	2	1	1	0	2	3	6	**25**
Trib 6	3	1	1	0	1	2	0	1	1	0	1	2	3	3	5	**24**
Rose State Connector	3	1	0	2	0	3	0	0	1	0	1	1	1	3	6	**22**
Silver Creek	2	0	0	1	1	2	1	0	1	0	0	3	3	2	6	**22**
Spencer	3	1	1	1	1	2	2	1	2	0	1	0	1	2	4	**22**
Trib 4	3	1	0	0	1	0	0	1	1	0	1	2	3	3	6	**22**
West 10th	3	1	0	1	1	2	2	1	2	0	1	0	2	2	4	**22**
Reno	3	1	1	1	1	3	0	1	1	0	0	0	1	3	5	**21**
TIER THREE PRIORITIES																
RWT East Extension	3	1	0	2	1	3	0	0	1	0	0	0	2	2	6	**21**
Draper Lake Connector	2	1	0	0	0	2	3	0	1	1	0	1	2	3	4	**20**
Post	2	1	0	2	1	3	1	1	1	1	1	0	0	2	4	**20**
Town Connector	3	1	0	1	1	3	0	0	1	1	1	0	1	3	4	**20**
Felix Dr.	3	1	0	2	0	3	0	0	1	0	1	0	1	3	4	**19**
MWC Lakes	0	1	0	0	1	0	2	0	1	0	2	2	3	2	5	**19**
Reed Extension	3	1	0	1	0	3	0	1	1	1	0	0	1	3	4	**19**
Trib 4 Extension	2	0	0	1	1	0	2	0	1	0	0	2	3	2	5	**19**
29th Connector	2	1	0	0	0	3	0	0	1	1	2	0	1	3	4	**18**
J. Barnes Connector Upgrade	3	1	0	0	1	2	0	1	2	0	2	0	1	2	3	**18**
Key Blvd	2	1	0	2	1	2	0	0	1	0	1	0	1	3	4	**18**
Kiwanis Connector	2	1	1	1	1	0	0	1	1	0	0	1	2	3	4	**18**
Silver Creek Connector	3	1	0	1	1	0	0	0	1	0	0	1	2	2	6	**18**
West 15th	3	1	0	3	0	2	1	0	2	0	1	0	1	2	2	**18**
Bella Vista	3	1	0	1	0	3	0	0	1	0	1	0	1	2	4	**17**
Choctaw	1	0	0	0	0	0	2	0	1	0	0	2	3	2	6	**17**
Choctaw Creek	1	0	0	1	0	0	2	0	0	0	0	2	3	2	6	**17**
Choctaw Creek Connector	2	0	0	0	1	2	0	0	1	0	0	1	2	2	6	**17**
Harmony Drive	3	1	1	1	1	1	0	0	1	0	1	0	1	2	4	**17**
Hospital Connector	3	1	1	0	1	3	0	0	0	0	1	0	1	2	4	**17**
North Canadian Connector	1	1	0	1	1	0	1	0	1	0	1	0	2	2	6	**17**
Quinlan/Holoway Connector	3	1	0	0	1	1	0	1	2	0	1	1	2	2	2	**17**
Silver Meadows	2	1	0	2	1	0	0	1	1	0	1	0	1	3	4	**17**
Zachery	2	0		1	1	0	1	0	1	0	1	0	3	3	4	**17**
Rolling Lane	3	1	0	1	1	0	0	1	1	0	1	0	1	2	4	**16**

FIGURE 6

TRAIL SEGMENT LIST - PRIORITIZED

ROUTE OPTIONS	Population Density	Multimodal connections	Link to Municipal Facilities	Link to School(s)	Link to City Parks (enhance park use)	Link to Commercial Center	Link to neighboring city	Link to existing system	Link to ACOG, OCARTS Plan	Enhance Tinker Connection to City	Easements	Resource Protection and Conservation	Experiential	Survey Ranking	System Integration	Total
NON-PRIORITY TRAIL SEGMENTS																
Cambridge Drive	3	1	0	0	1	0	0	0	1	0	1	0	1	2	4	**14**
Ocama	2	1	1	1	0	2	0	0	1	0	1	0	1	2	2	**14**
Shady	2	1	0	1	0	2	1	0	1	0	1	0	1	2	2	**14**
Kittyhawk	3	1	0	2	0	2	0	0	1	0	1	0	1	2	0	**13**
Post Oaks	2	0	0	0	0	0	1	0	1	0	1	0	3	2	3	**13**
Jarman	2	1	0	1	0	1	0	0	1	0	1	0	1	2	2	**12**
Belleview	2	0	0	0	1	0	0	0	0	0	1	0	2	1	4	**11**
C.A. Connector	2	1	0	1	0	0	0	1	1	0	1	0	1	2	1	**11**
Timber	2	0	0	0	0	0	0	0	1	0	1	0	1	2	4	**11**
10th	1	1	0	0	0	0	0	0	1	0	1	0	1	1	4	**10**
12th	1	1	0	0	0	0	0	0	1	0	1	0	1	1	4	**10**
Eddie	2	1	0	0	0	1	0	0	0	0	1	0	1	2	2	**10**
N. Timber	1	0	0	0	0	0	0	0	1	0	1	0	2	1	4	**10**
Holoway	2	1	0	0	1	0	0	0	1	0	1	0	1	0	2	**9**
19th	2	1	0	0	0	0	1	0	1	0	1	0	1	1	0	**8**
7th	2	1	0	0	0	0	1	0	1	0	1	0	1	1	0	**8**
East 15th	0	0	0	0	0	1	1	0	0	0	1	0	1	1	3	**8**
Meadowwood	2	1	0	0	0	1	1	0	1	0	1		1	0	0	**8**
Rail Road	2	0	0	1	0	0	0	1	1	0	1	0	1	1	0	**8**
27th PC	2	1	0	0	0	1	0	0	0	0	0	0	1	1	1	**7**
4th PC	2	1	0	0	0	0	0	0	0	0	1	0	1	1	1	**7**
Cardinal	1	1	0	0	1	0	0	0	0	0	1	0	1	1	1	**7**
E. 21st PC	1	0	0	0	0	1	1	0	0	0	1	0	1	1	1	**7**
East 3rd	2	0	0	0	0	1	0	0	0	0	1	0	1	1	1	**7**
Elizabeth	2	0	0	0	0	1	2	0	0	0	1	0	1	0	0	**7**
General Senter	3	1	1	0	0	0	0	0	1	0	1	0	0	0	0	**7**
GR PC	1	0	0	0	0	1	1	0	1	0	0	0	1	1	1	**7**
Nawassa PC	2	0	0	0	0	0	0	0	1	0	0	0	1	1	2	**7**
Sheffield	2	0	0	0	0	0	0	0	0	0	1	0	1	1	2	**7**
13th	1	0	0	0	0	0	1	0	0	0	1	0	1	1	1	**6**
Caldwell	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	**5**
Mead	2	0	0	0	0	0	0	0	1	0	0	0	1	0	1	**5**
Rose	2	0	0	1	0	0	0	0	0	0	1	0	0	1	0	**5**
S. Timber	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	**5**
Shirley PC	1	0	0	0	0	0	1	0	1	0	1	0	1	0	0	**5**
Symphony	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	**5**
Webster PC	1	0	0	0	0	1	1	0	1	0	0	0	1	0	0	**5**
Windsong	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	**5**
17th PC (Proposed Collector)	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	**4**
East PC	0	0	0	0	0	0	1	0	0	0	1	0	1	1	0	**4**
St. Paul	2	1	0	0	0	0	0	0	0	0	0	0	1	0	0	**4**
18th PC	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	**3**
King	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	**3**
Sheffield PC	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	**3**
Turtleback PC	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**2**
21st PC	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**1**
Acres PC	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**1**



MIDWEST CITY TRAILS MASTER PLAN
INITIAL PRIORITY MAP
JULY 2009

FIGURE 7
INITIAL PRIORITY MAP

GUERNSEY

FIGURE 8
TRAIL IMPLEMENTATION MATRIX

TRAIL SEGMENT	LENGTH (miles)	TIER	READINESS	SCORE	IMPL. PHASE
Rail With Trail	2.7	1	1	2	PHASE I
Crutcho Creek	3	1	1	2	PHASE I
Soldier Creek Extension	1.4	1	1	2	PHASE I
Soldier Creek Upgrade	3.4	1	1	2	PHASE I
Palmer Loop	2.7	1	1	2	PHASE I
Draper Lake	0.7	1	2	3	PHASE I
29th	2.3	1	2	3	PHASE I
Crutcho Creek Connector	2.3	1	3	4	PHASE I
PHASE I TOTAL:	**18.5**				
West 10th	2.6	2	2	4	PHASE II
Trib 6	2	2	2	4	PHASE II
Rose State Connector	2	2	2	4	PHASE II
RWT East Extension	2.7	2	2	4	PHASE II
Silver Creek	2.5	2	3	5	PHASE II
Trib 4	2.3	2	3	5	PHASE II
Reno	2.6	2	3	5	PHASE II
PHASE II TOTAL:	**16.7**				
Felix Dr.		3	2	5	PHASE III
J. Barnes Connector Upgrade		3	2	5	PHASE III
Key Blvd		3	2	5	PHASE III
West 15th		3	2	5	PHASE III
Bella Vista		3	2	5	PHASE III
Hospital Connector		3	2	5	PHASE III
Spencer		3	3	6	PHASE III
Post		3	3	6	PHASE III
MWC Lakes		3	3	6	PHASE III
Reed Extension		3	3	6	PHASE III
Trib 4 Extension		3	3	6	PHASE III
Kiwanis Connector		3	3	6	PHASE III
Silver Creek Connector		3	3	6	PHASE III
Choctaw		3	3	6	PHASE III
Choctaw Creek		3	3	6	PHASE III
Choctaw Creek Connector		3	3	6	PHASE III
North Canadian Connector		3	3	6	PHASE III
Quinlan/Holoway Connector		3	3	6	PHASE III
Silver Meadows		3	3	6	PHASE III
Rolling Lane		3	3	6	PHASE III

MAP KEY

- **PH I: HIGH PRIORITY/READY FOR CONSTRUCTION**
- **PH II: HIGH PRIORITY TRAIL/SOME CHALLENGES REMAIN**
- **PH III: LOWER PRIORITY TRAILS AND/OR SOME PLANNING REQUIRED**

MIDWEST CITY TRAILS MASTER PLAN
TRAIL IMPLEMENTATION MAP
JULY 2009

FIGURE 9
TRAIL IMPLEMENTATION MAP

GUERNSEY

APPENDIX A
EXCERPTS FROM CURRENT (June 2009) MIDWEST CITY CODE

Chapter 13 DRAINAGE AND FLOOD CONTROL

Article III STORMWATER RUNOFF CONTROL

Sec. 13-68. Primary drainage channels.

All primary drainage channels lying within or immediately adjacent to the subdivision shall meet the following conditions:

(1) All land within the designated floodway, as shown on the flood Boundary and Floodway Map--March 8, 1983, shall be dedicated to the city for the purpose of providing drainage and utility easement use. This shall not include floodway lands that can be reclaimed by engineering design and formal approval from the Federal Emergency Management Agency for the reclamation of such land.

Sec. 13-69. Secondary drainage channels.

Surface drainage and all secondary channels within or adjacent to the subdivision shall meet the following conditions:

(6) The dimensions for public easements and rights-of-way for drainage shall consider topography, accessibility, work space requirements for equipment, depths below grade, flooding area, alignments, and such other factors as may concern a particular site. In no case shall an easement be less than fifteen (15) feet in width.

(7) Open channels shall be improved by providing a minimum paved section, that will carry the runoff from a rain of ten-year frequency and sodded section to carry the runoff from a rain of the one-hundred (100) frequency. If desired, a paved section to accommodate a fifty-year frequency may be constructed, in which case sodding will be required to the extent necessary to protect paving. The design of the channel improvement shall be in accordance with the standards set forth on Figures B and B-1. Whenever an open improved channel is required or authorized for a secondary drainage channel under the provisions of these regulations and the channel crosses residential lots which have a width of not less than ninety (90) feet and an area of not less than thirteen thousand five hundred (13,500) square feet, and the channel improvement is to be designed as an integral part of the landscaping of the area that will be maintained by the property owners of the area or whenever a developer intends to dedicate to the public lands containing a secondary channel which are acceptable to the city council as a part or green belt, then the city council may modify the requirements of the first part of this provision to permit a channel improvement design in accordance with Figure C. The sodding shall be either slab sod or maintained by the developer until grass is fully established and there is no erosion.

Chapter 37 STREETS AND SIDEWALKS

Article III TRANSPORTATION PLAN

Sec. 37-67. Construction of sidewalks

(a) In all residential subdivisions, approved after the passage of this Ordinance No. 2086, sidewalks shall not be required.
(b) In subdivisions where sidewalks have been installed partially, the following requirements shall be applicable:

(1) When sidewalks exist partially on both sides of a street, the sidewalks on both sides of the street shall be continued to the intersecting streets.
(2) When sidewalks exist partially on only one side of a street, sidewalks on that side of the street shall be continued to the intersecting streets.
(3) When a sidewalk exists along the full length of a street between intersecting streets and no sidewalks exist on the other side of the subject street, no sidewalks shall be required on the side where no sidewalk exists.
(4) When a sidewalk exists on the circular part of a cul-de-sac, the sidewalk shall be continued on both sides of the street to the intersecting street.

(c) In those subdivisions approved prior to passage of this Ordinance No. 2086, where no sidewalks have been constructed at the time of adoption of this Ordinance No. 2086, no sidewalk shall be required.
(d) Any sidewalk requirements for multi-family, office, commercial, institutional or industrial uses required under Ordinance No. 1853 shall not be applicable on any building permit application under review, any building under construction, or any use under a temporary certificate of occupancy at the passage of this Ordinance No. 2086.
(e) Sidewalks required in section (b) above, shall be included in the paving/driveway permit obtained from the City of Midwest City. Sidewalks shall be constructed to a minimum width of four (4) feet and shall be placed into the street right-of-way one (1) foot off the property line and constructed as per standard drawing specifications on file in the city engineer's office.
(f) If topographic or other physical conditions on the land will make strict application of this section result in exceptional practical difficulties, the city engineer is hereby authorized to allow such relocation or realignment of sidewalks as is necessary for its installation.
(g) Sidewalks, where required, shall be part of the requirements for a building permit. No final certificate of occupancy or final water service shall be approved until all sidewalks have been installed.
(h) In a planned unit development, or in a neighborhood unit concept which was approved prior to the adoption of this Ordinance No. 2086, no sidewalks shall be required.

Chapter 38 STANDARDS AND REGULATIONS FOR THE SUBDIVISION OF LAND

Article II SUBDIVISION DESIGN STANDARDS

Sec. 38-45. Public areas and open spaces

Public parks, playgrounds, school sites and other public areas and open spaces shall be provided in accordance with the requirements and standards set forth in the comprehensive plan and in the ordinances relating thereto. Refer to article IV, section 38-104 of these regulations.
(Ord. No. 2054, 7-23-85)

Midwest City Trails

Midwest City Trails Master Plan and Implementation Study

SURVEY AND SUGGESTIONS

Point of Contact: Anais Starr, (405) 739-1229, astarr@midwestcityok.org

The City of Midwest City is planning a community trails system to promote pedestrian access, transit, bikeways and a healthy lifestyle. The trail system will serve the community with recreation activities and transportation access. This survey is to help the Trails Advisory Committee better understand what kind of trail system you---the residents of Midwest City--would like to have.

1. How should a community trail system in Midwest City be used? Please rate each of the activities below with a 1, 2, or 3:

1. I would use the trail for this activity.
2. I think this activity should be accommodated, but I would not use the trail in this way.
3. I don't think this is an appropriate activity for the trail.

___ Commuting to work/school
___ Horseback riding
___ Walking
___ Nature observation/Birding
___ Bicycling
___ Running/Jogging
___ Walking Pets
___ Other (specify_____)
___ Cross Country Running
___ Roller blading
___ Riding Skateboards

2. From the list above, please indicate the top three activities in which you are most likely to participate:

1. _____ 2. _____ 3. _____

3. If you used a community trail system, what would be your most frequent destinations? (Check all that apply.)

___ Downtown (Town Center) Midwest City
___ Draper Lake
___ Parks
___ Senior Center
___ School (specify _____)
___ Other (specify _____)
___ Oklahoma City
___ Retail Services
___ Library
___ Neighboring Community (specify _____)
___ Work (specify _____)
___Tinker AFB
___ Restaurants
___ City Hall

4. Which of the three above destinations would be most important?

1. _____ 2. _____ 3. _____

5. How often would you use the trail? (Check the one that most applies)

___1. Daily ___2. Weekly ___3. Weekends only ___4. A few times a year ___5. Not at all

6. Please check the elements that would enhance your experience of the trail: (Check all that apply)

___ Paved trail surface
___ Dirt trail surface
___ Compacted gravel surface
___ Dual surface (dirt and paved)
___ Exercise course with stations
___ Interpretive signs
___ Trail system maps
___ Benches
___ Water fountains
___ Garbage cans
___ Artwork (murals, sculptures)
___ Other (specify _____)
___ Posted regulations
___ Viewing/rest areas
___ Pet waste disposal
___ Mile markers
___ Information Kiosks
___ Trail Signing
___ Fencing
___ Historical signs
Native plant
___ Landscaping

7. From the list of elements above, please indicate the top five elements of most important to you:

1. _____ 2. _____ 3. _____

4. _____ 5. _____

Please Turn Over For Additional Questions and Suggestions

8. Please check the complimentary facilities that would enhance your experience of the trail: (Check all that apply)

___ Restrooms ___ Trail heads ___ Parking at trail heads ___ Emergency phones
___ Covered picnic shelters ___ Bike lockers ___ Shower facilities ___ Bike/transit station
___ Bike racks ___ Other (specify) _____

9. From the list of facilities above, please indicate the top three facilities of most important to you:

1. _____ 2. _____ 3. _____

10. You are completing this survey representing: ___ Individual ___ Household: number in household _____

11. Do you have any ideas, comments, or concerns you would like to make about the trail system?

_____

_____

_____

_____

_____

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_____

Optional Information (Be added to our mailing list for MWC Trail Updates):

Name:_____ Affiliation:_____

Address:_____ City:_____ State:_____

Zip:_____ Phone:_____ E-mail:_____

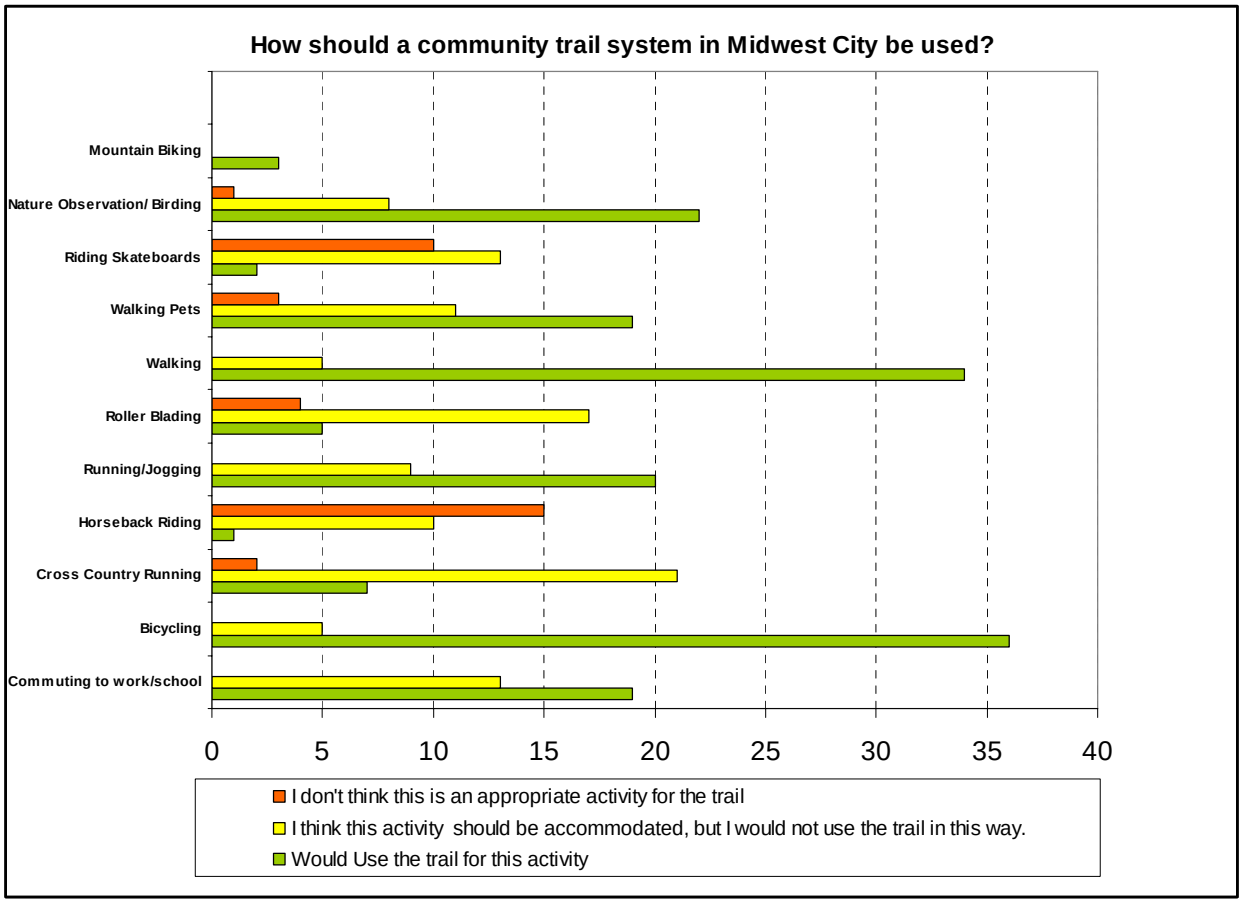
Prefer to be contacted by U.S. Mail _____
or Email _____

Midwest City Trails

Thank you for your time in assisting the Trails Advisory Committee

Midwest City Trails Survey Results

Survey Question 1:



Would Use:

- ◊ Most respondents would use the trail for walking and bicycling.
- ◊ A significant number of people responded that they would use the trail for running, jogging, nature observation, and commuting.

Should be accommodated:

- ◊ Cross Country Running and Nature Trails ranked highly as uses that should be accommodated.

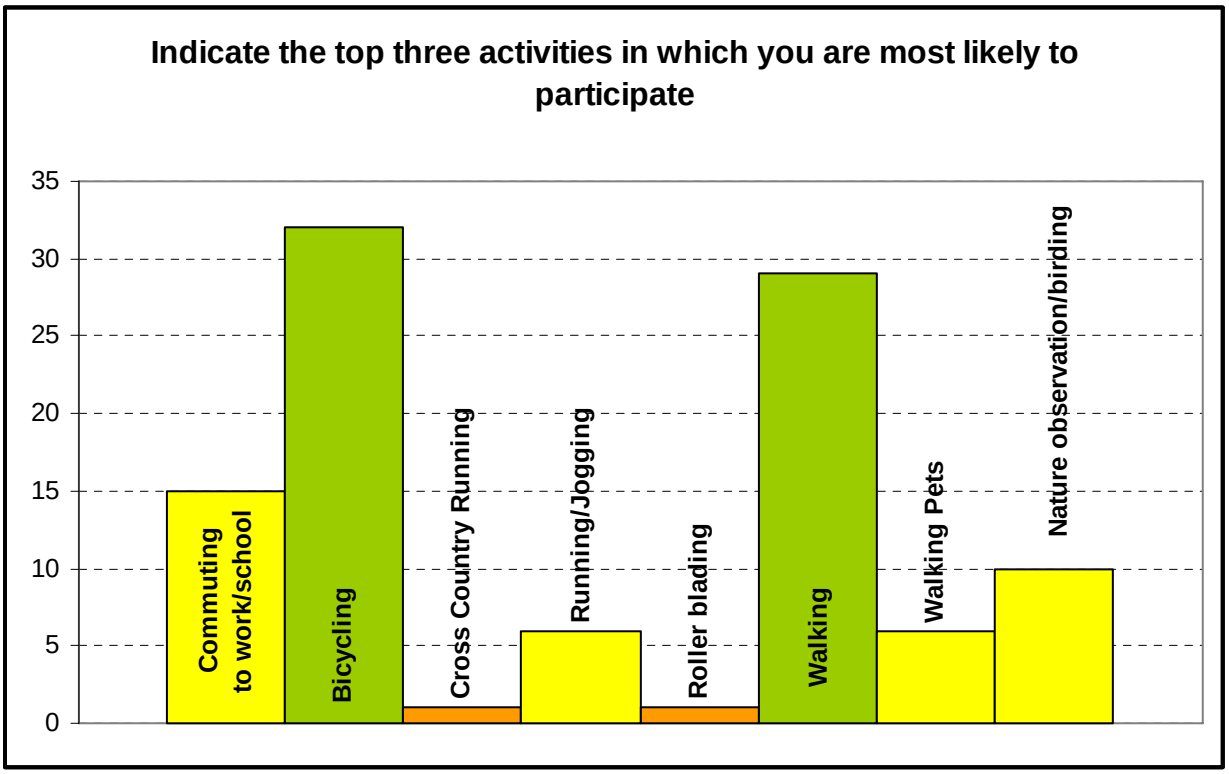
Inappropriate activity:

- ◊ Horseback riding leads this activity, but also has some support as a use to be accommodated. A separate loop may be most appropriate for this activity.

"I would like to see the trails blend into the community in a way that residential homes can walk all the way to parks, schools, shopping areas without having to walk into a busy street."

"Mountain biking trails—either a stacked trail system or an "out and back". For Mountain Biking, a loop works much better (Riders in one direction only) versus a two way traffic trail. Other user groups interested in off-road trails will be runners, joggers, and families. Build it and they will come."

Survey Question 2:



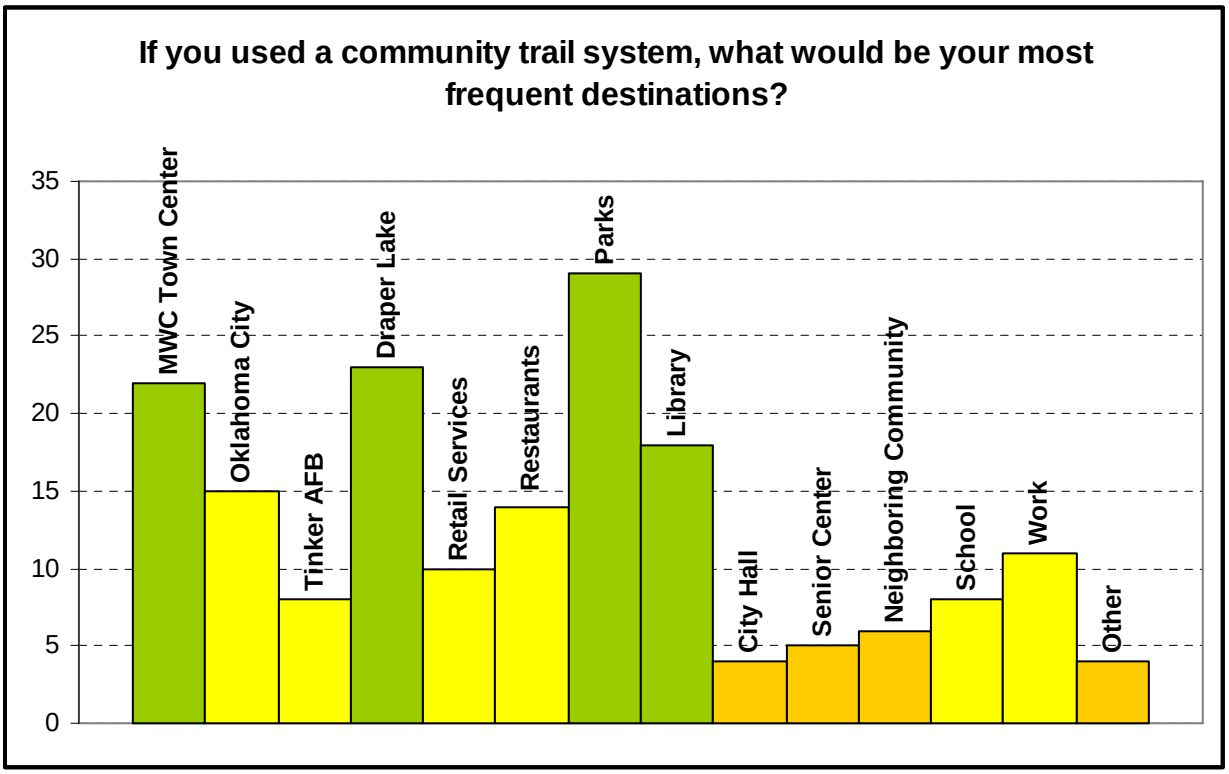
The survey asked respondents to indicate their top three activities. Bicycling, walking, and commuting to work/school were the activities that people prefer to participate in. A mixed-use trail can accommodate bicycling and walking. Loops are preferable for recreation activities.

Commuting to work/school ranked third. Providing access for commuters is a different system than recreation bicycling and walking. This system would be more destination or corridor orientated, with schools, major employment, and business centers as destinations. Commuter routes should be thought of as a system of safe pedestrian access as well as bicycle routes. Safe access to schools for school children, and safe access to business districts for the disabled should be considered as part of this system.

Nature observation/birding and walking pets are also activities that ranked as significant uses survey takers would participate in.

"Would like to have bike trails for students/staff to get to Rose State College—many of our students cannot afford cars. Would like to see safe trails for elementary and middle schoolers to ride their bikes to school."

Survey Question 3:

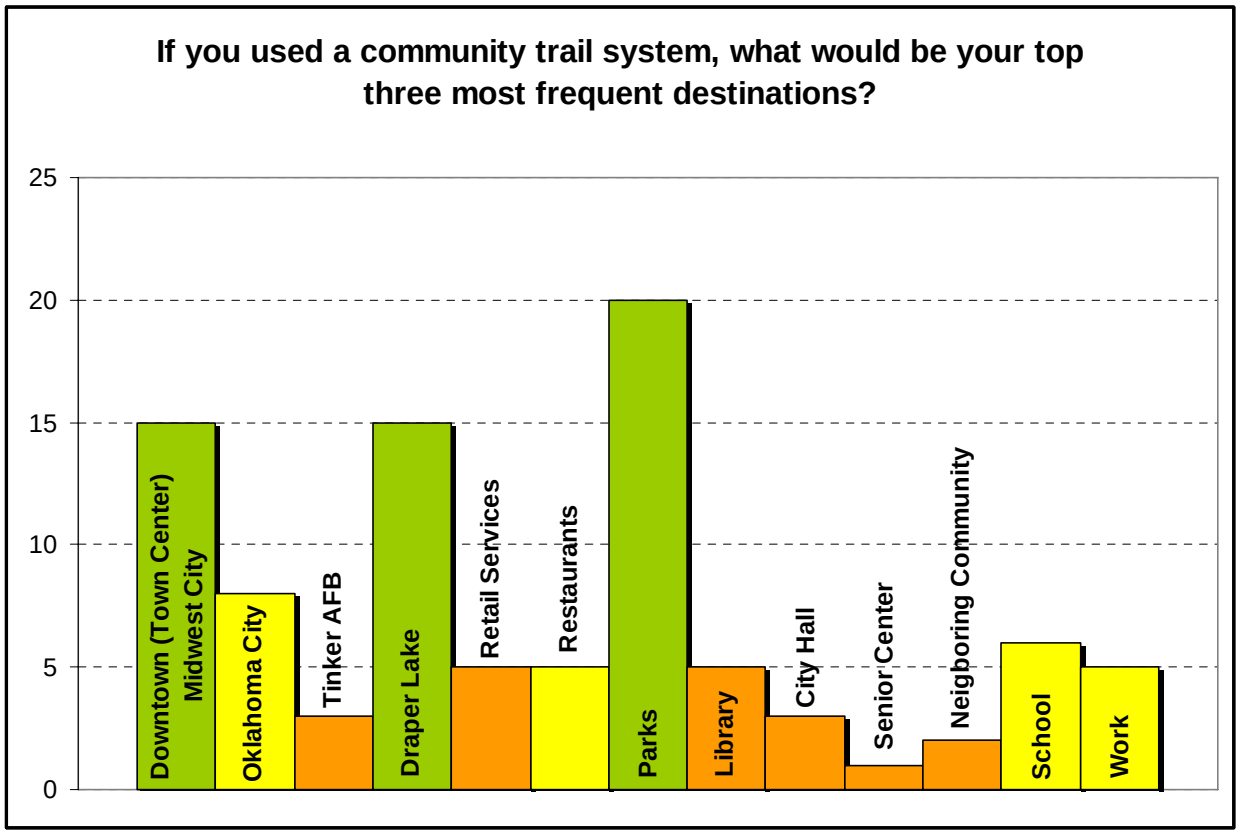


Parks and Draper Lake ranked as the two top most frequent destinations. This suggests that links to recreation areas would be well used, and that these destinations should also have trails facilities to accommodate recreational activities.

Almost as many people would use the trail to go to "Town Center" as Draper Lake. This suggests a need for more access to city services. A common theme in survey comments is the need for better access, especially for children, the elderly, and the disabled. Other service type destinations also rank high.

"I would highly value additional trails in our city. They greatly add to our quality of life. I use trails for recreation, commuting and errands."

Survey Question 4:

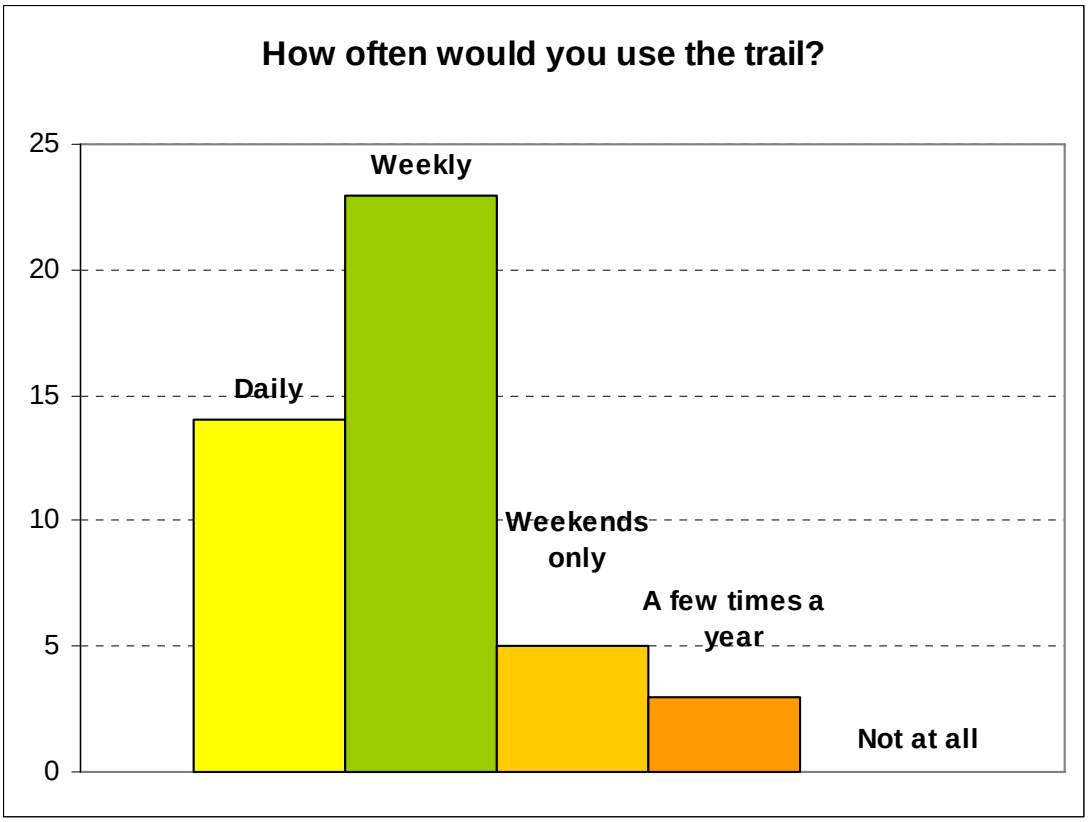


Survey takers were asked to narrow their choices to their top three most frequent destinations. Parks and Draper Lake rank as most popular destinations. “Town Center”, which may be interpreted from question 3 to include businesses and city services, ranks high. People would like to be able to walk or ride to city services.

A connection to Oklahoma City shows support. Other survey questions and comments mention the need for connection to Oklahoma City trails, access to the North Canadian River, and connections to neighboring communities.

“I think Connecting OKC trails to Lake Draper would make MWC a destination for some Oklahoma Bicycle Society bike rides.”

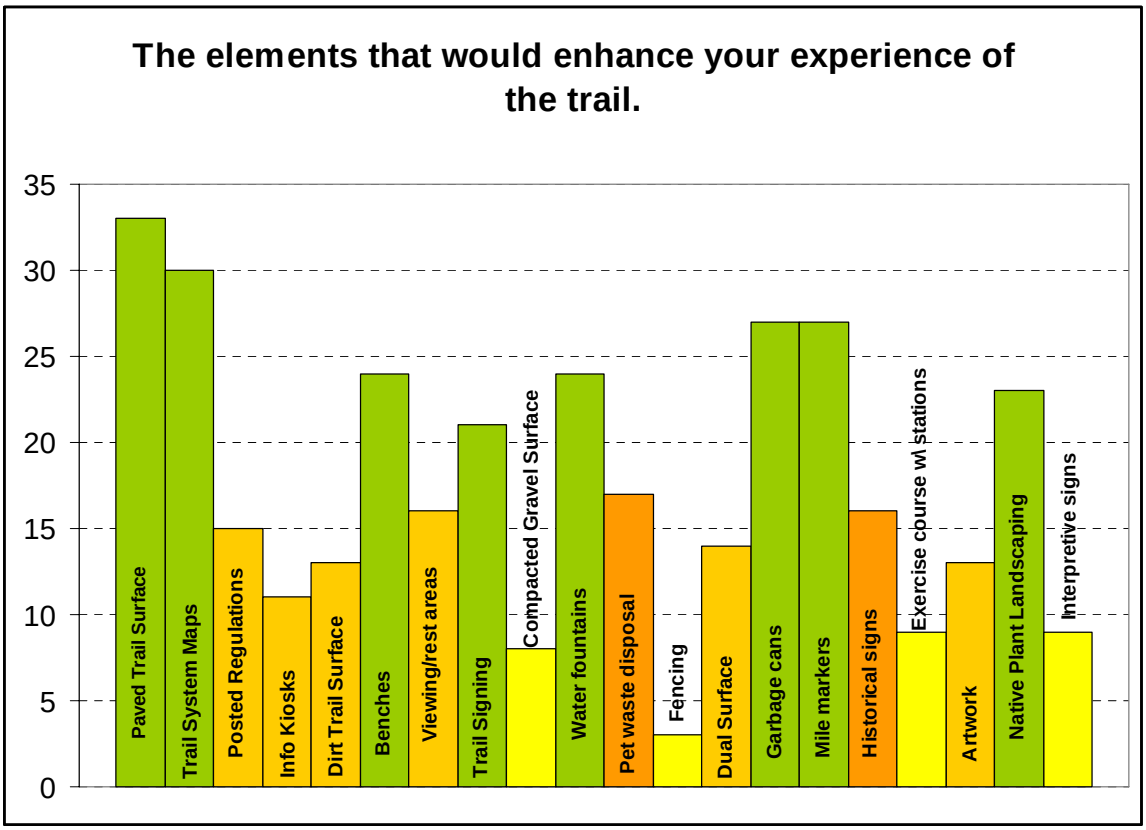
Survey Question 5:



This suggests that those with access to a trail would use it regularly. Regular use would include recreation and pedestrian access uses. The trail system should be considered an alternative to vehicular access.

"I like to bike with my grandchildren from 101 W. Marshall to the trail head on SE 15th leading to Regional Park. The problem is that we cannot go through safely. It would be nice to have a sidewalk from SE 15th and Midwest Blvd. to park, perhaps on the north side of 15th."

Survey Question 6:

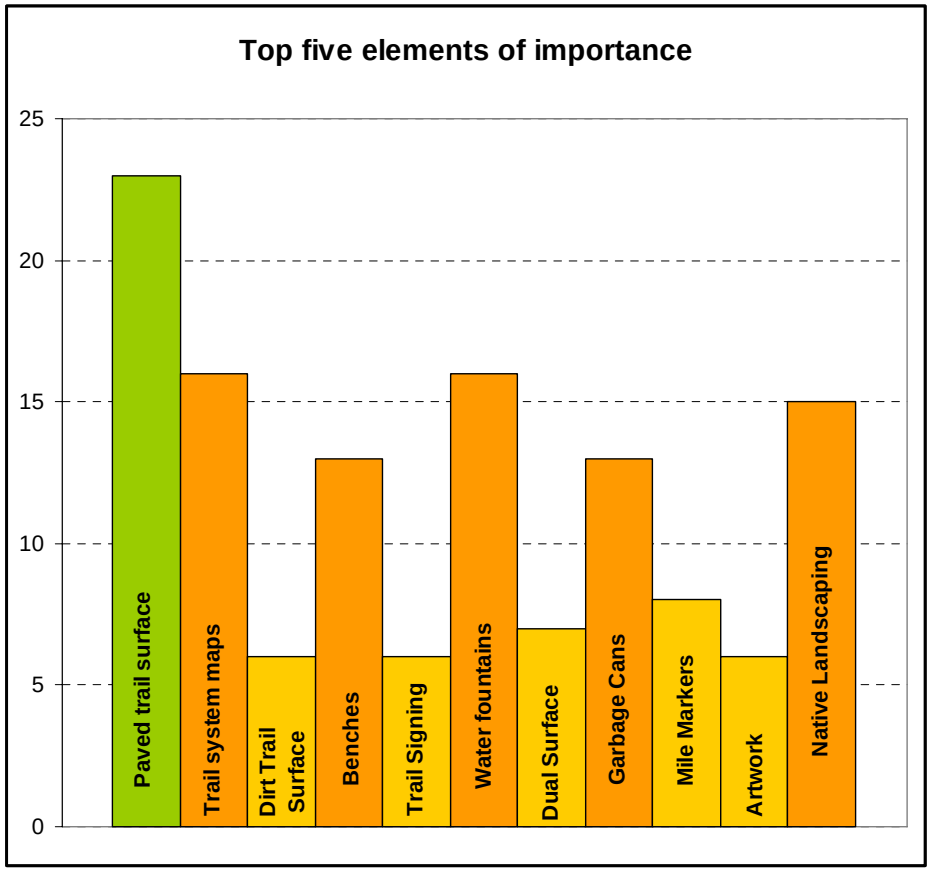


High ranking elements that would enhance the experience of the trail:

- ◊ Paved surfaces
- ◊ Trail system maps and signage, including mile markers
- ◊ Benches, water fountains, and garbage cans
- ◊ Landscaping and native plant landscaping

"Make sure that new trails are wider than Regional Park trail and well marked for bikers and walkers"

Survey Question 7:



Survey takers were asked to narrow their elements of importance. Ranking the highest is a paved trail surface. Trail system maps, benches, water fountains, garbage cans and native landscaping also rank high as important elements to the trail system.

(Because of comments on the survey, and the alignment of "Native Plant Landscaping", it is possible to interpret the response to Native Plant landscaping as Landscaping in General. Some of the survey takers appeared to interpret Native Plant Landscaping as Landscaping.)

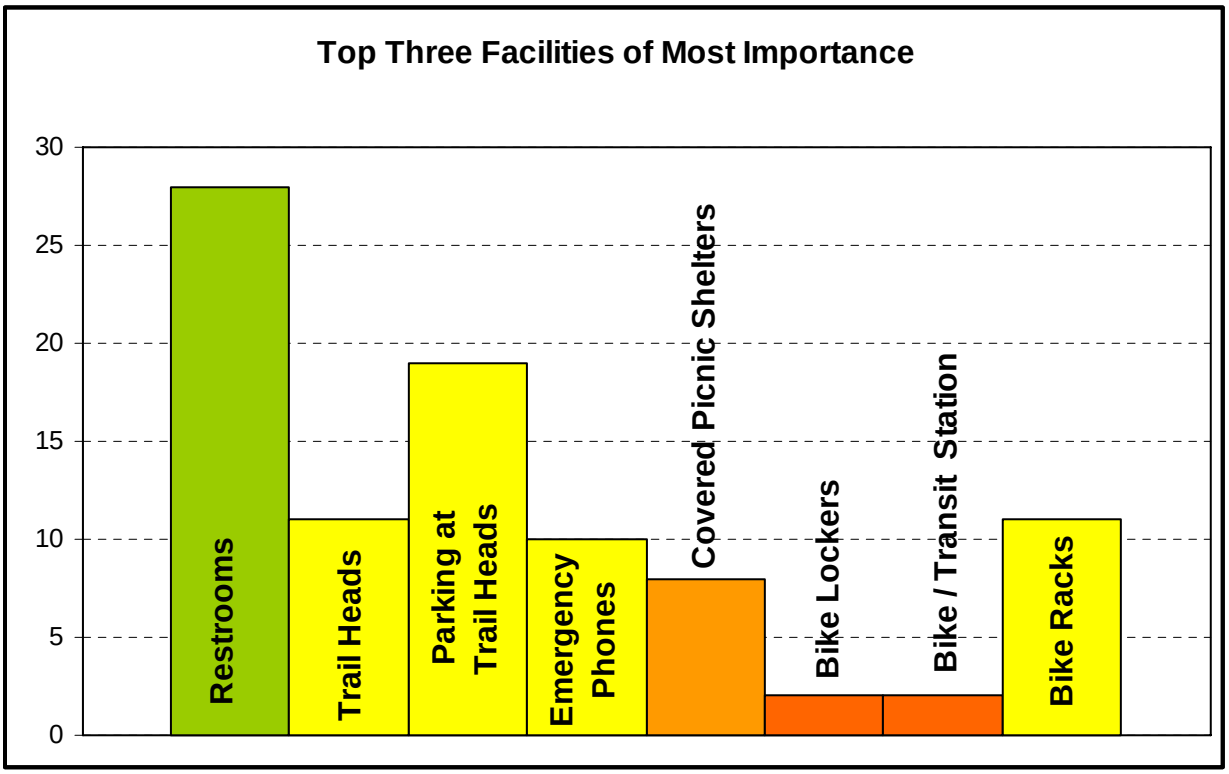
"I have a friend that suffers from MS. He tried using the trail system over the summer by riding in his electric scooter. His destination was the downtown (Town Center) area of Midwest City. He got stuck at 15th street near Century Blvd."

Survey Question 8:

- ◊ Facilities that ranked of most importance are restrooms and parking at trailheads.
- ◊ Emergency phones have a high priority suggesting security concerns for users of the trail system.
- ◊ Bike racks also rank high in needed facilities.
- ◊ Covered Picnic Shelters were mentioned at the public meeting and in comments in the survey. Covered Picnic Shelters were suggested as serving as emergency shelters to get out of inclement weather. Weather in the area can move swiftly and catch walkers and bikers unprepared.

"Provide city police to walk or cycle the trails on foot to make them safe. If they're not safe, people will not use them."

Survey Question 9:

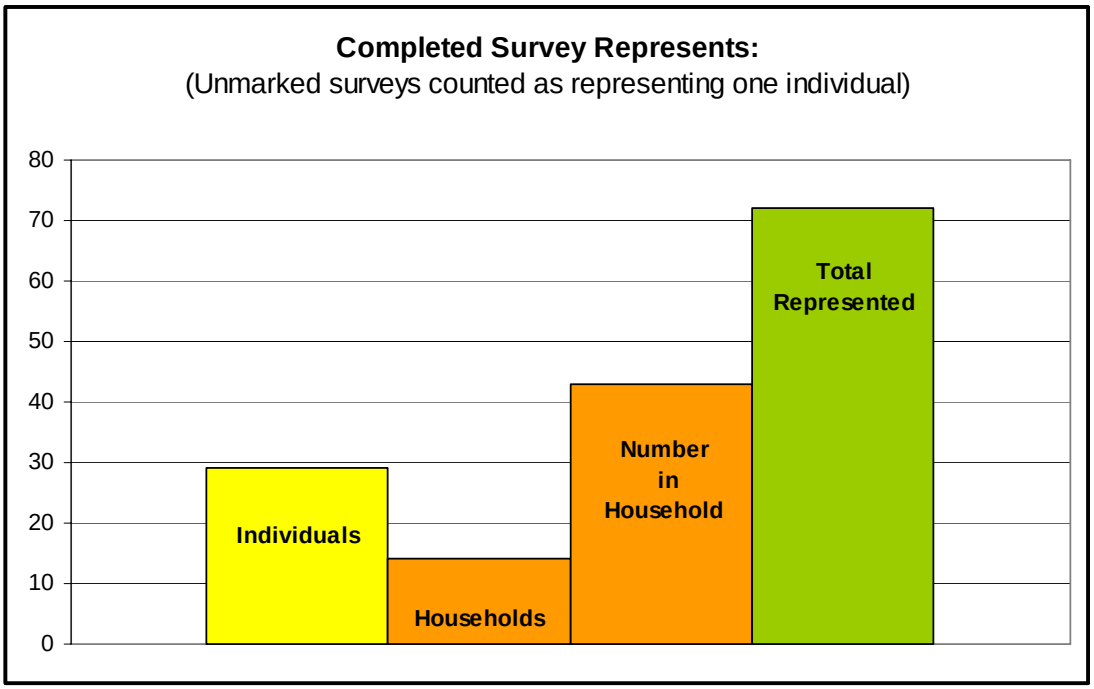


When asked to narrow their choice for facilities down to three, restrooms ranked the most needed facility. The most important facilities:

- ◊ Restrooms
- ◊ Trail heads
- ◊ Parking
- ◊ Emergency phones
- ◊ Bike Racks

"I am part of an off-road bicycle user group. I live outside the MWC area, but would like to see trail networks link all the major municipalities in the Metroplex. Our group would also be interested in the development of off road cycling in conjunction with the trails plan."

4.1 CONCLUSION



43 surveys were received from the date of the first public meeting, December 18, 2008 to January 7, 2009. (Other surveys may be received from the new web page, and will be recorded)

The existing system is very popular. Residents recognize that the existing system needs safety upgrades and would like to see the system expanded. There is a need for a pedestrian system that connects residents with services throughout Midwest City. Residents desire both pedestrian and bicycle routes to school, work, surrounding cities, parks, government services, and commercial districts. The trail system should accommodate both recreation and transportation.

In addition to a trail system, comments of concern were raised about:

- ◊ Bike/vehicular safety
- ◊ Bicycling education
- ◊ Infringement into residential areas
- ◊ Regular visible security
- ◊ Maintenance
- ◊ Safe access to MWC businesses for the disabled, walkers and those on scooters.
- ◊ Safe access to neighborhood schools for school children
- ◊ Control costs
- ◊ How will the trails affect property costs and low income people?

The Midwest City Trails and Master Plan will design a system that meets the needs of the city, and will address the concerns of the residents.

APPENDIX C
RECOMMENDATIONS FOR AMENDMENTS TO MIDWEST CITY CODE

Implementation of the Trails Master Plan will require amending existing ordinances to include language related to trails. Existing codes identified in Appendix A can be amended, however the City of Midwest City is currently updating the codes and the specific sections and references may change as a result of these updates. It is suggested that the overall modifications include:

- Integrate bikeways within roadway and right-of-way definitions
- Add pedestrian uses to purpose of street system language
- Update new sidewalk installation and sidewalk grades and slopes codes to reflect Final Draft: Priorities and Guidelines for Providing Places for Pedestrians to Walk along Streets and Highways. (FHWA (1999).
- Add the Trails Master Plan to the Subdivision Regulations and require connections to trail routes for new developments within a half mile of designated routes
- Amend drainage easement requirements to accommodate trails
- Add bike lanes to arterial roads and collector roads as appropriate
- Refer to Trails Master Plan in bridge and street crossing language and address traffic separation as possible
- Include sidewalks, crossings, and pedestrian accommodations

These requirements may be addressed by utilizing language such as:

EXAMPLE 1

SIDEWALKS.

(A) Sidewalks and/or bike trails shall be constructed on both sides of all streets except as waived by Council. Within all residential developments, sidewalks shall be four feet in width, except on "through" or more important streets where five feet will be required.

(B) For purposes of this section, bike trails will be installed in lieu of the required sidewalk. Bike paths shall be installed in accordance with the adopted Midwest City Trails Master Plan and to provide connections to all parks, schools, adjacent neighborhoods, etc., as approved by the Planning Commission. When trails are shown within a half mile of the proposed development, a trail connection shall be provided to link to the Midwest City Trail System.

1. When a bike path is placed along the front of residential lots, the bike path shall be at least eight feet in width and constructed of concrete. In addition, the front building lines for those lots shall be at least 35 feet behind the bike path. When bike paths are required along a side property line of a single-family lot, the house shall not be constructed within ten feet of the bike path easement, or the bike path itself, if not contained within an easement.

EXAMPLE 2

SIDEWALK AND TRAIL REQUIREMENTS

All subdivisions, site developments or sections thereof which, shall have installed in them sidewalks and trail facilities as specified in Midwest City Trails Master Plan to serve each lot or parcel therein. Such sidewalks and trail facilities shall be installed by the property owners abutting the street rights-of-way within the development and along the existing streets fronting the development, except as provided for in subsections (E), (F), (G) and (H) below, and they shall be constructed according to the requirements herein.

(A) Sidewalks and trails shall have a hard, improved surface constructed of materials and to standards established by the Director of Community Services depending on type of street construction, anticipated permanence of sidewalk, and land uses being served.

(B) Sidewalks and trails shall be located in the right-of-way of the street or as close to the right-of-way line as possible, and shall extend across the entire dimension of each lot or parcel side adjacent to a public street.

(C) All sidewalks and trails required by this chapter shall be completed upon the occurrence of any one of the following conditions:

(1) Prior to final inspection by the department of the building, structure, or other improvement on the lot or parcel that the sidewalk serves.

(2) In the case of vacant lots or parcels, whenever seventy-five (75) percent of the lots or parcels located on a given side of a dedicated street between two (2) consecutive intersecting streets (a block) have been serviced with a final inspection by the department.

(3) Not later than the second (2nd) anniversary after the date of acceptance of the improved streets by the city.

(D) Trails shall be located, configured and completed according to the Midwest City Trails Master Plan and include separate shared-use paths, bike lanes and signed and marked shared bike routes.

(E) Notwithstanding the provisions stated earlier where a subdivision includes a dedicated street to provide access from an existing street to the subdivision, and such dedicated street bisects property and thereby creates parcels which are not a part of the subdivision but are adjacent to the dedicated street, then it shall be the responsibility of the developer or subdivider to install sidewalks and trails within the dedicated street right-of-way or easement whenever sidewalks and trails are required in the subdivision itself. Such sidewalks and trails shall be installed along the dedicated street right-of-way or easement from the existing street to the first lots or parcels in the subdivision, and shall be completed prior to acceptance of the improved street by the city.

(F) Notwithstanding the foregoing provisions of this section, where the zoning code permits placement of continuous sidewalks in common space rather than in the public right-of-way, then the placement provisions of the zoning code shall govern.

(G) Sidewalk or Trail Fee in Lieu of Construction. It is the desire of the city to have required sidewalks and trails built at the time of and congruent with development. However, there may be circumstances regarding safety, economic waste and geographical features that preclude such construction. The Director of Community Services has the authority to approve construction exemptions and collect a fee in lieu of as set out in properly promulgated rules and regulations. In no instance will a private or public entity not build or pay a fee in lieu of sidewalk or trail construction.

EXAMPLE 3

1. When Sidewalks are to be Constructed or Reconstructed

(a) Sidewalks shall be constructed in any area of the city where:

(1) Sidewalks are necessary to provide adequate and safe routes for school children to and from their dwellings and to and from educational facilities;

(2) Pedestrian traffic is not adequately accommodated by existing sidewalks;

(3) No sidewalks are in existence; or

(4) The health, welfare, and safety of the public require that adequate sidewalks be provided for the public convenience.

(b) Any existing sidewalks, or portions thereof, shall be reconstructed or replaced:

(1) Where any vertical displacement of the adjoining sidewalk section exceeds three-quarters of an inch;

(2) Where any lateral displacement of adjoining sidewalk exceeds one inch;

(3) Where the surface condition of the sidewalk has deteriorated, cracked, settled, or chipped, so as to create or constitute a hazard or unsafe condition to the public;

(4) Where the transverse slope of the sidewalk exceeds one inch per foot or in which the combination of transverse or longitudinal grade is insufficient for adequate drainage of the sidewalk;

(5) Where the sidewalk is less than four feet wide in any residential zoning district in the city and less than six feet wide in any business or industrial zoning district in the city, if the sidewalk or any portion thereof constitutes a hazard to pedestrian safety; or

2) Transportation Standards for Streets, Trails, and Sidewalks: Streets, curb and gutters, sidewalks, trails, and the public rights-of-way therefore, are provided in conformity with the standards in the City of Midwest City Design and Construction Standards, and meet the following conditions:

(A) Streets are aligned to join with planned or existing streets.
(B) Streets are designed to bear a relationship to the topography, minimizing grade, slope, and fill.
(C) There are no dead-end streets without an adequate turnaround and appropriate barriers.
(D) Access to freeway, arterial, or collector street occurs only at intersections approved by the city manager, if the manager finds that the access provides efficient traffic movement and safety for drivers and pedestrians.
(E) When the plat dedicates a street that ends on the plat or is on the perimeter of the plat, the subdivider conveys that last foot of the street on the terminal end or outside border of the plat to the city in fee simple, and it is designated by using an outlot.
(F) Streets are provided as prescribed by the Midwest City Comprehensive Plan or other formally adopted plan.
(G) Sidewalks are provided in all subdivisions, unless the city manager determines that no public need exists for sidewalks in a certain location.
(H) Traffic control signs are provided, as required by the city manager for control of traffic.

(I) Pedestrian crosswalks are provided, as required by the city manager for traffic control and, at a minimum, between streets where the distance between intersecting streets exceeds one thousand feet.
(J) Bike trails or lanes are provided in conformity with the Midwest City Trails Master Plan and are dedicated to the city.

APPENDIX D
PROJECT DESCRIPTION SHEETS

DIRECTORY

PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

RAIL WITH TRAIL

PROJECT DESCRIPTION:
The abandoned rail corridor is an ideal location for a shared use trail. The 2.7 mile trail would connect with the existing Soldier Creek trails and proposed regional connections to the west. The trail would be an east west connection that would serve several neighborhoods and schools. Quinlan Park is a natural place for a trailhead on the west end, and existing trailhead service on Soldier Creek would serve the east end. The trail ranks high in public support and the City is presently pursuing this trail.

EXISTING CONDITION PHOTOS

Typical Rail Corridor

Rail Crossing and Underpass at Quinlan Park

Rail Crossing at Key Boulevard

Rail Corridor at Reno

Trail Type: Shared Use Trail
Linear Feet of Trail: 14,350
Crossings/Underpass: 3

- Bridge and underpass at Quinlan Park Drainage
- Bridge crossing Key Blvd
- Concrete box at drainage crossing on 15th

Existing Signal Crossings: 1

- Reno

Required Signal Crossings: 2

- Air Depot
- Midwest Blvd

Constructability:

- High constructability.
- Grade changes along the trail may require retaining walls, erosion control, and ramps for pedestrian access.
- Signal at Reno may require upgrades.
- Route has limited access points and may require additional safety signage at such points.
- The route can be broken into 3 construction segments (1) Soldier Creek Trail to Schools at Maple Drive, (2) Maple Drive to Quinlan Park, (3) Quinlan Park to Reno.

<u>IMPROVEMENT OPTIONS AND DESIGN DETAILS</u>

- ✓ Construct shared use trail on south side of rail corridor from Reno to 15th Street. Construct. shared use trail on north side of 15th from rail corridor to Soldier Creek Trail.
- ✓ Quinlan Park as a trailhead will require some upgrades.
- ✓ Ramps for access will be required to park from trail.
- ✓ Provide neighborhood access spurs at South Fox Drive, future Reno Trail Connection point.
- ✓ Provide neighborhood access at Maple Drive.
- ✓ Coordinate trail linkages to schools on route.

PRELIMINARY OPINION OF COST
Cost Opinion: $3,145,500*
Estimated Cost per LF $220
Cost Opinions are preliminary and subject to change upon further review
*The costs allows for $350,000 for retaining walls for areas of significant grade changes

Not included in cost opinion

- Land Acquisition
- Trailhead upgrades at Quinlan Park

LOCATION MAP

PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

CRUTCHO CREEK TRAIL

PROJECT DESCRIPTION:
The three mile, Crutcho Creek Trail links the Rail With Trail and the Soldier Creek Extension Trail completing an eight and a half mile loop in the north west of MWC. In addition, the trail would link the proposed regional park, at 23rd and Air Depot, the proposed neighborhood park, off of Sooner, and Quinlan Park. Each of the parks would serve as trailhead facilities. Crutcho Creek Trail is a critical loop trail that will link up with Soldier Creek Extension Trail, MWC Lakes Trail, North Canadian Connector, West 10th Street Trail, Rail With Trail, and other regional planned trails.

EXISTING CONDITIONS PHOTOS


Existing Trail at YMCA on Reno


Trail from Quinlan Park to Reno


Air Depot and 23rd, Crutcho Creek School


Intersection Crossing on 23rd Street

Trail Type: Shared Use Trail
Linear Feet of Trail: 15,500
Linear Feet of Trail Upgrades: 1,700
Crossings: 1

- Water Crossing at tributary just before the confluence with Crutcho Creek

Existing Signal Crossings: 1

- Reno and Woodcrest Drive

Required Signal Crossings: 2

- 10th
- Air Depot

Constructability:

- High constructability.
- Upgrades of existing trail between Reno and Quinlan Park may not be feasible at present time.
- The trail can be broken into 4 segments (1) Quinlan Park to Reno upgrades, (2) Reno to a trailhead accessed off Sooner, (3) Trailhead at Sooner to trailhead accessed off Air Depot, and (4) Connections to Soldier Creek Trails and 23rd Street.

IMPROVEMENT OPTIONS AND DESIGN DETAILS

- ✓ Upgrade trail from Quinlan Park to YMCA north of Reno.
- ✓ Construct shared use trail on east side of Trib D to Sooner Road, crossing north of the residential development.
- ✓ Construct trailhead off of Sooner at proposed neighborhood park.
- ✓ Construct neighborhood access points at Sunny Valley Drive, Glenoaks Drive and Glenmanor Drive.
- ✓ Construct shared use trail from trailhead on Sooner to trailhead off Air Depot.
- ✓ Construct shared use trail connections to 23rd Street and proposed MWC Lakes Trails and Soldier Creek Trails.
- ✓ This Trail may pose some security risks. Additional security measures should be considered including adequate lighting; long sight lines; wide, cleared shoulders; and additional connections to increase use adding a sense of security. Residents have stated there concern for security, especially along Trib D.
- ✓ Underpasses at main roads are most desirable. Investigate further, underpass and bridge options at
    - Sooner Road
    - 10th Street
    - Railroad Crossing
    - Air Depot Road and Crutcho Creek Crossing
    - 23rd Street

PRELIMINARY OPINION OF COST
Cost Opinion: $3,342,000
Estimated Cost per LF: $216
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion:

- Land Acquisition
- Neighborhood Park/Trail Head
- Regional Park/Trail Head
- Underpass and bridge options

LOCATION MAP:

PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

SOLDIER CREEK EXTENSION

PROJECT DESCRIPTION
The 1.4 mile Soldier Creek Extension Trail extends the existing Soldier Creek Trail from 10th and Air Depot along Soldier Creek to 23rd Street. A grant proposal has already been written for the trail from 10th to Mid-America Park (The trail segment is called Mid-America Trail). The preliminary cost estimate for the first 3,400 LF of trail was $750,000 or $220 per LF. From Mid-America Park the trail would continue under the railroad bridge along the west side of Soldier Creek to the planned regional park. Preliminary plans would require two bridges along trail. The trail would connect to future MWC Lake Trails north of 23rd.

EXISTING CONDITIONS PHOTOS


Soldier Creek and 10th


Mid America Park Trailhead requires upgrades


23rd and Sooner Open Space


23rd Street Crossing will require pedestrian upgrades

Trail Type: Shared Use Trail
Linear Feet of Trail: 7,500
Crossings/Underpass:

- Railroad underpass

Existing Signal Crossings: 1

- 10th Street

Required Signal Crossings: 1

- Signal or warning light at 23rd Street

Constructability:

- High constructability
- Some additional planning may be required on north end of proposed regional park
- The trail can be broken into 2 segments (1) 10th to Mid America Park, and (2) Mid America Park to 23rd Street.
- Grant application for the first segment of this trail has been submitted.

IMPROVEMENT OPTIONS AND DESIGN DETAILS

- ✓ Construct shared use trail from 10th Street to Mid America Park.
- ✓ Construct Shared use trail from Mid America Park to 23rd Street.
- ✓ Construct trailhead at Mid-America Park. Additional upgrades including parking are required.
- ✓ Construct neighborhood access point with a small number of parking spots on southwest corner of Mid-America Park.
- ✓ Provide bridge for neighborhood access to the apartments and neighborhoods to the east of Soldier Creek and Mid-America Park.
- ✓ This Trail may pose some security risks. Additional security measures should be considered including adequate lighting; long sight lines; wide clear shoulders; and additional connections to increase use adding a sense of security.
- ✓ Clear signage encouraging access and use should be placed at 10th directing use to Mid-America Park. Increased use will increase security.

PRELIMINARY OPINION OF COSTS

Cost Opinion: $1,912,500

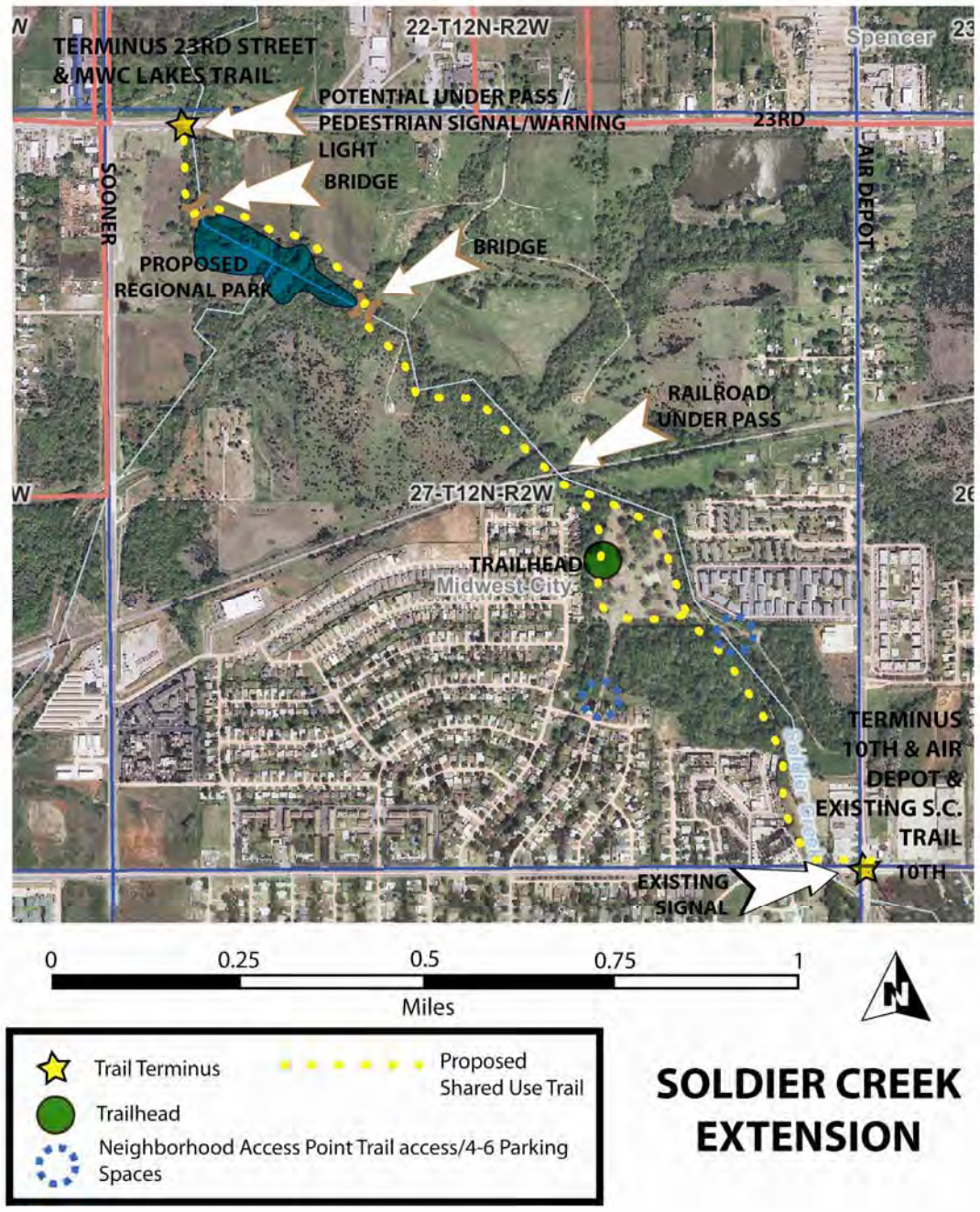
Estimated cost per LF $255

Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- Additional investigation required to assess erosion control and costs required
- Additional investigation required to assess railroad underpass options and costs
- Neighborhood access points and suggested bridge and parking
- Mid-America Park trailhead upgrades
- Neighborhood connections and parking
- Planned Regional Park

LOCATION MAP



PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

SOLDIER CREEK UPGRADES

PROJECT DESCRIPTION
The 3.4 mile of existing Soldier Creek Trails are the nexus of the Midwest City trail system, and their success promotes future trail projects. The existing trails are in need of upgrades. Upgrades include standard shared use trail width throughout, added lighting, and increased security. Sight-lines and width of shoulder would also be evaluated to improved safety. This would include 0.8 miles of new trails, including a new segment of trail at the Municipal Complex to provide a safe route to government services, and a new safer segment along Morris McGee Drive.

Trail Type: Shared Use Trail
Linear Feet of New Trail: 4,500
Linear Feet of Trail Upgrade: 18,000
Crossings/Underpass that require upgrades:

- Crossing at Poore Park
- Crossing at Pecan Grove Park
- Crossing/Underpass at Reno and Barnes Park

Existing Signal Crossings: 1

- 10th Street and Air Depot
- Reno

Required Signal Crossings: 0
Constructability:

- High constructability

IMPROVEMENT OPTIONS AND DESIGN DETAILS

- ✓ Assess existing trail and bring up to conform to standards of a shared use trail.
- ✓ Construct new segment of shared use trail connecting trail at Senior Center to Reno and east to Soldier Creek Trail.
- ✓ Add underpass crossing of Reno
- ✓ Construct new segment of shared use trail on south end of Soldier Creek Trail
- ✓ Provide neighborhood access and limited parking at Tall Oaks Drive
- ✓ Provide neighborhood access points, including parking, to the east and west side of Poore Park.
- ✓ This trail poses safety and security risks. Additional security measures should be considered including adequate lighting; long sight lines; wide, cleared shoulders; and additional connections to increase use adding a sense of security.
- ✓ Trailheads may require upgrades

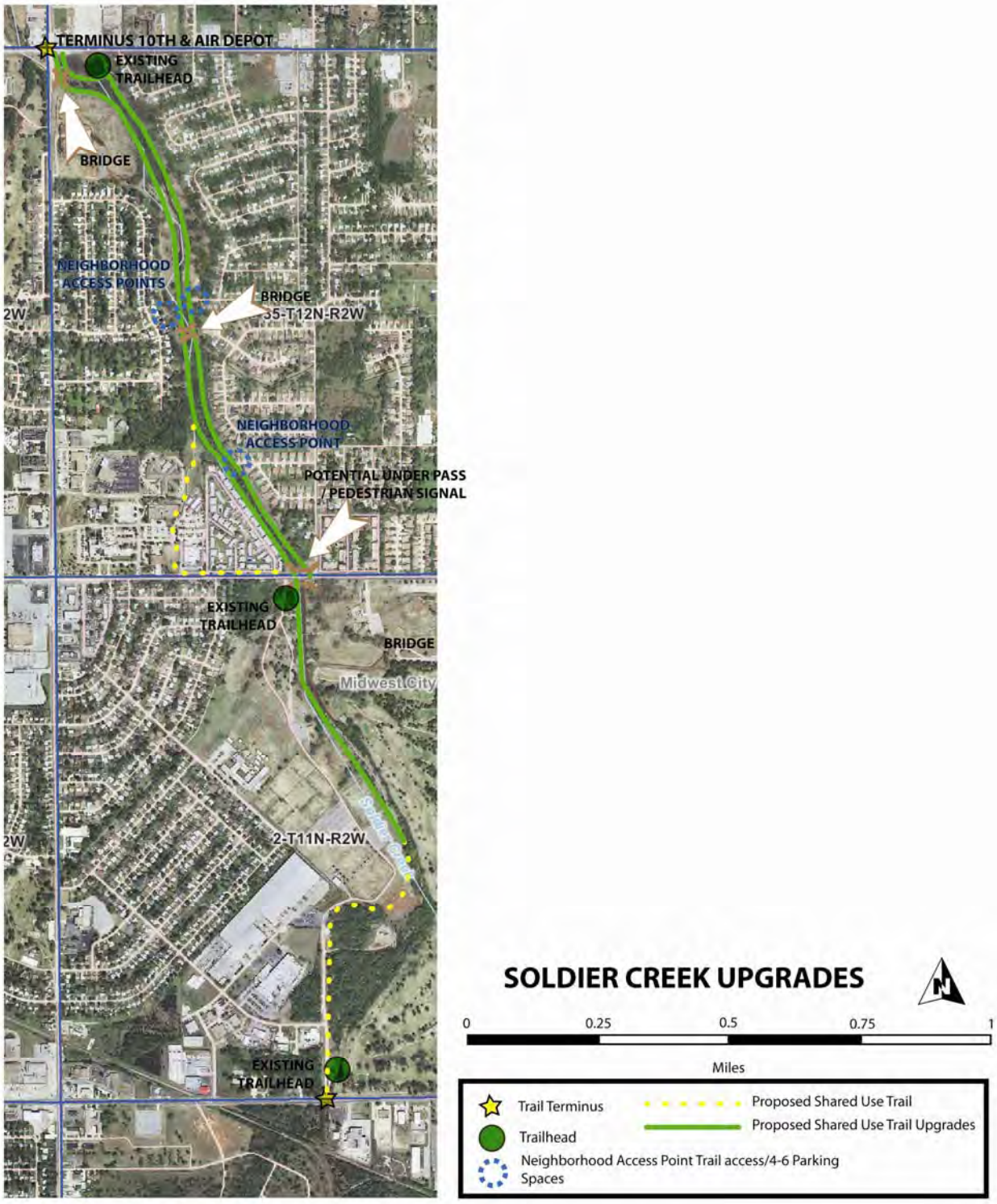
PRELIMINARY OPINION OF COSTS
Cost Opinion: $3,587,000
Estimated cost per LF $160
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition

- Additional investigation required to assess erosion control required along Soldier Creek
- Underpass crossing at Reno
- Trailhead upgrades

LOCATION MAP



PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

PALMER LOOP

PROJECT DESCRIPTION
The Palmer Loop Trail follows the outside perimeter of the TAFB APZ. The Palmer Loop would provide a critical connection point for north south and east west trails. The Palmer Loop will provide connection points for nine trails headed in all four directions. The 2.7 miles of shared use trail consists of two segments connected on the north by the Rail With Trail and to the south by a segment of trail impacted by airport zoning. The west side trail connects to the Rail With Trail, crosses 15th, and parallels the APZ zone to Palmer Drive. The trail then would parallel Palmer drive and connect with the proposed 29th Street Trail. A trail spur would connect East Side Elementary, Lions Park, and the proposed Rose State Connector Trail. Lions Park would serve as a trailhead, and require some upgrades. The east side of the Palmer Loop trail begins at the existing Soldier Creek Trail, and the terminus point of the Rail With Trail. The trail would run along the north side of 15th, and would require a pedestrian signal to cross 15th. The desirable trail route would follow Soldier Creek and connect with the proposed Draper Lake Trail.

EXISTING CONDITIONS PHOTOS
(NONE)

Trail Type: Shared Use Trail (Undetermined trail type along 29th where trail passes through APZ)
Linear Feet of Trail: 14,600
Linear Feet of APZ Trail: 3,400
Crossings/Underpass:

- Bridge at Soldier Creek

Existing Signal Crossings: 1

- Midwest Blvd

Required Signal Crossings: 1

- 15th Street and Public Works

Constructability:

- High constructability.
- ROW along APZ are still not secure, and require some work with TAFB.
- Termination point in southwest corner where trail meet 29th needs identified.
- ROW issues may need resolved along Soldier Creek and from Soldier Creek to 29th. Alternative routes may be considered.
- The trail can be broken into 4 construction segments (1) 15th and RWT to Key Blvd (2) Lions Park Way to 29th Street, (3) Soldier Creek to Draper Lake Trail, and (4) Draper Lake Trail to 29th Street.

<u>IMPROVEMENT OPTIONS AND DESIGN DETAILS</u>

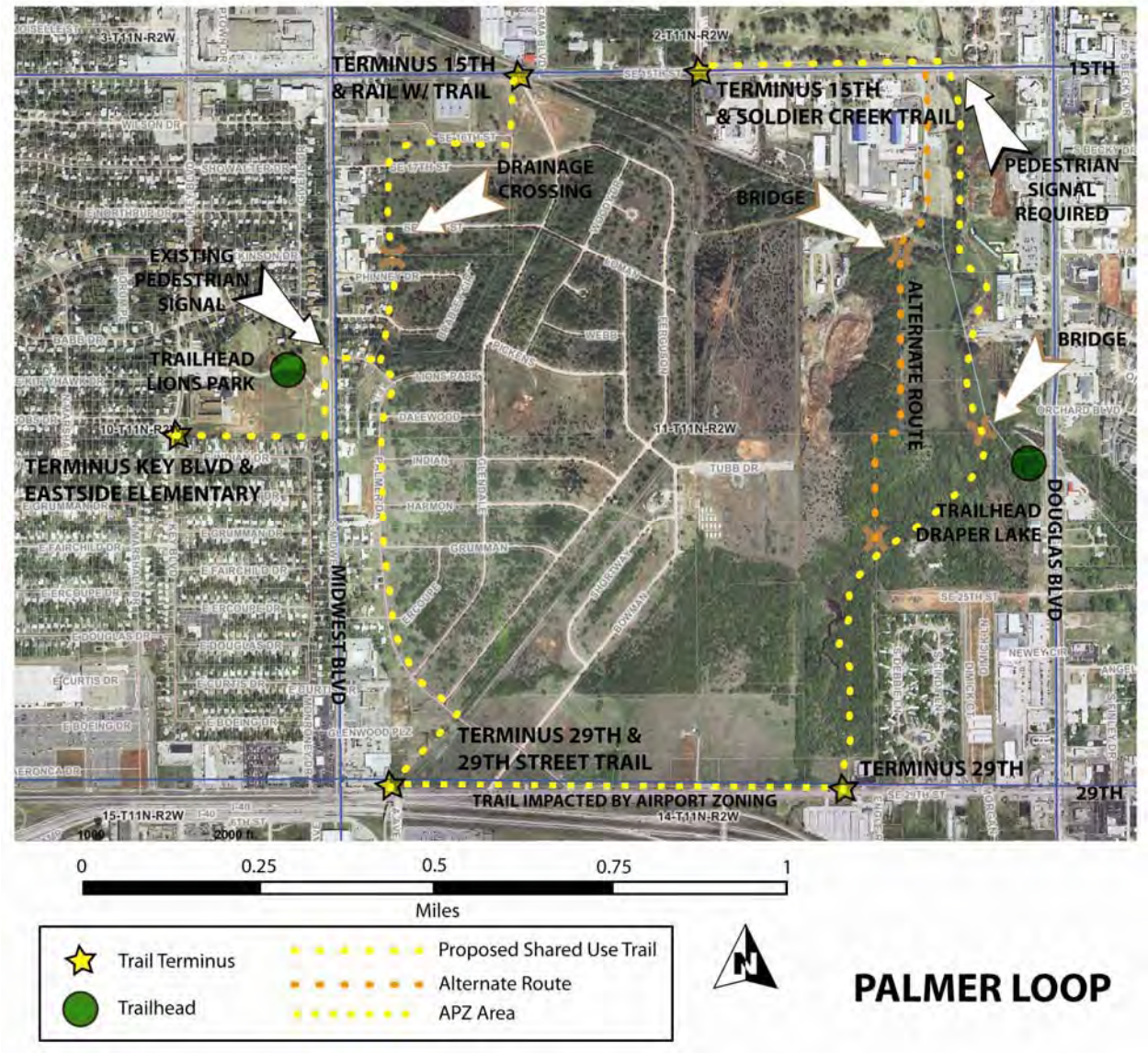
- ✓ Construct entire Palmer Loop Trail with shared use trail.
- ✓ Trailhead upgrades at Lions Park.
- ✓ The trail segment impacted by airport zoning is desirable and should be pursued, coordinating with TAFB.
- ✓ It would be desirable to follow Soldier Creek and meet the Draper Lake Trail.
- ✓ Trailhead recommended off Douglas at north end of Draper Lake Trail.

PRELIMINARY OPINION OF COSTS
Cost Opinion: $3,003,000
Estimated cost per LF $206
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- Trail segment impacted by APZ
- Trailhead upgrades at Lions Park
- Draper Lake Trailhead

LOCATION MAP



PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

DRAPER LAKE TRAIL

PROJECT DESCRIPTION
The 0.7 Mile Draper Lake Trail is an extension of the Soldier Creek Trail and spur of the Palmer Loop Trail towards Draper Lake. The trail has high public support. TAFB and OKC have expressed interest in assisting with a regional effort completing a Trail from Midwest City to Draper Lake. The trail location should be coordinated with regional stakeholders. The shared use trail would follow Soldier Creek. Trees should be preserved where possible taking into consideration, sight-lines, width of trail, and security.

Trail Type: Shared Use Trail
Linear Feet of Trail: 3,600
Crossings/Underpass: 0
Existing Signal Crossings: 0
Required Signal Crossings: 2

- Douglas and Soldier Creek
- 29th and Soldier Creek

Constructability:

- High constructability
- Some ROW may need to be secured.
- Coordination with TAFB may assist in the purchase of ROW.

<u>IMPROVEMENT OPTIONS AND DESIGN DETAILS</u>

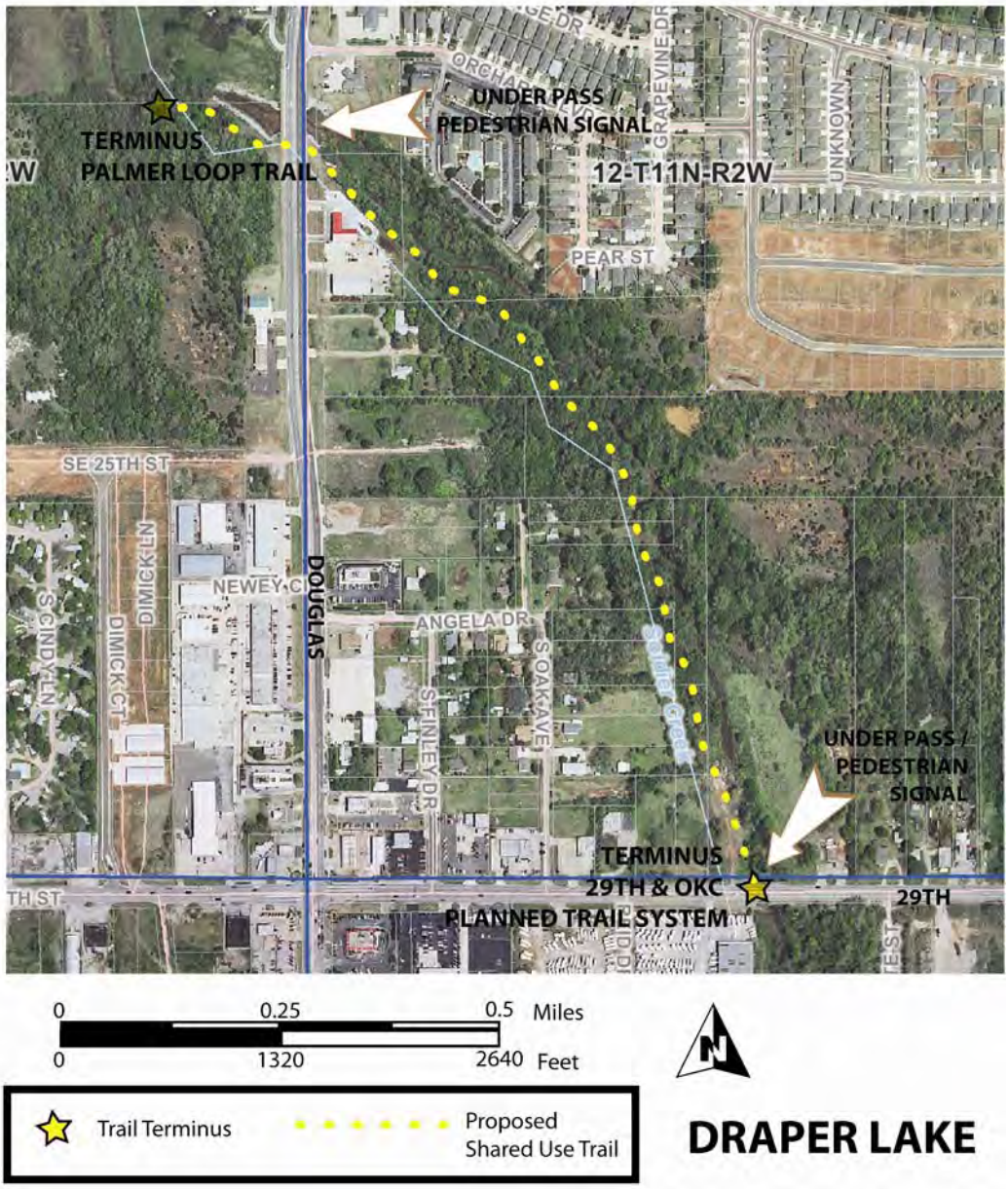
- ✓ Construct shared use trail for full length of trail
- ✓ Install 2 signalized pedestrian crossings at (1) Douglas and Soldier Creek, and (2) 29th and Soldier Creek.
- ✓ Underpasses on Soldier Creek at Douglas and 29th are desirable and should be upgrades considered in long term planning.
- ✓ Trail should follow one side of Soldier Creek.
- ✓ Pursue further coordination with regional stakeholders for a continued trail to Draper Lake.

PRELIMINARY OPINION OF COSTS
Cost Opinion: $773,000
Estimated cost per LF $215
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- Trail Underpasses at Douglas and 29th.
- Environmental/erosion/retaining.

LOCATION MAP



PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

29TH STREET TRAIL

PROJECT DESCRIPTION
Downtown Midwest City is a challenge for pedestrian and bicycle activities. During the public comment and survey process, access for pedestrians and bicyclists to the town center, increased Tinker linkage, and connections to regional trails ranked as a high priority. The 2.3 mile, 29th Street, Trail will serve as an east west connector linking the existing Del City trail, Tinker, and the town center business district. The existing Welcome Center with minimal upgrades can serve as a trailhead. A proposed pedestrian bridge over I-40 will improve pedestrian activity from Tinker to town center, and provide pedestrian access to Tinker Bicentennial Park. The east end of the trail will connect to the Palmer Loop Trail and eventually to Draper Lake. The complete length of 29th Street Trail is a shared use trail for pedestrian and bicycle use.

EXISTING CONDITIONS PHOTOS


Welcome Center


I-40 Crossing over 29th


Town Center

F Avenue Bridge

Existing Del City Shared Use Trail at Sooner & 29th

I-40 Frontage Road Is Not Pedestrian Friendly

Trail Type: Shared Use Trail
Linear Feet of Trail: 12,350
Crossings/Underpass: 2

- Bridge at Crutcho Creek
- Bridge or concrete box culvert at Kuhlman Creek

Existing Signal Crossings: 4

- Sooner Road
- Air Depot
- Mid America Blvd
- Midwest Blvd

Required Signal Crossings: 0
Constructability:

- High Constructability
- Further investigation required into I-40 crossing pedestrian crossing and Tinker access
- Further investigation required into east end termination point and connection with Palmer Loop Trail regarding Airport Zoning.
- ROW issues along Tinker and I-40 need further investigation, including City Boundaries and ROW, ODOT and Tinker ROW.
- Trail Crossing under I-40 looks constructible, further investigation with ODOT will be required
- The trail is all shared use trail, which will face some infrastructure challenges from Air Depot to Midwest Blvd. Including,
- Numerous driveways and street crossings will require increased safety for pedestrians and bicyclists
- There are four existing signalized crossings that may require pedestrian upgrades
- The trail can be broken into 3 construction segments (1) Sooner to the Welcome Center (2) Welcome Center to Palmer Loop, and (3) pedestrian I-40 bridge and loop to tinker

<u>IMPROVEMENT OPTIONS AND DESIGN DETAILS</u>

- ✓ Construct shared use trail on south side of 29th to the Welcome Center
- ✓ Construct shared use trail on north side of Welcome Center to connect with proposed Palmer Loop Trail
- ✓ Construct pedestrian bridge over I-40 on west end of Tinker Bicentennial Park
- ✓ Construct shared use trail along 5th Street

- ✓ Provide pedestrian access across F Avenue Bridge
- ✓ Provide trailhead facilities at Welcome Center. Some upgrades may be required.

PRELIMINARY OPINION OF COSTS
Cost Opinion: $2,470,000
Estimated cost per LF $200
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land acquisition
- Pedestrian bridge cost over I-40
- Trail head upgrades at Welcome Center

LOCATION MAP

PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

CRUTCHO CREEK CONNECTOR TRAIL

PROJECT DESCRIPTION

The 2.3 mile Crutcho Creek Connector trail is a north south trail completing a southwest city loop and a larger west side city loop. The trail is the main connector for Rose State College and will provide improved safety for bicycle commuters and students. The trail will also connect to the Reed Center providing an additional amenity for the conference center and Midwest City's hospitality district. This trail faces some constructability challenges with the Hudiburg Bridge and acquiring ROW from Hudiburg to 29th. The potential connections rank this trail in the highest priority, and it is estimated to get a large amount of use. A visitor renting a bike in the hospitality district could safely get to town center, the Welcome Center, Draper Lake, and the regional system like the Oklahoma River Trails. From the hospitality district a visitor could also connect with the more scenic trails of Midwest City like Crutcho Creek Trail and Soldier Creek Trail. Another major connection is for Dell City and Tinker residents accessing Rose State. It is recommended that a trail plaza and additional bicycle facilities be added at Rose State for student and staff commuters. A partnership opportunity with the Reed Center and the Hospitality District exists for additional facilities and bicycle rental.

EXISTING CONDITIONS PHOTOS

Open Space behind Hudiburg off 29th

Hudiburg Drive Sidewalks from Rose State to 15th

Typical Rose State Sidewalk System

Hudiburg Drive Bridge Will Need Pedestrian Upgrades

Trail Type: Shared Use Trail and Shared Roadway with sidewalks
Linear Feet of Trail: 11,000
Linear Feet of Shared Use Trail: 9,500
Linear Feet of Shared Roadway w/Sidewalks: 1,500
Crossings/Underpass: 1

- Bridge or concrete box culvert at Kuhlman Creek.
- (Bridge at Crutcho Creek may be required depending on where ROW is obtained)

Existing Signal Crossings: 2

- Hudiberg Drive and I-40
- Johnson Blvd and 15th

Required Signal Crossings: 1

- 29th Street

Constructability:

- Construction Challenges.
- The trail segment from Quinlan Park to 7th Street is not suitable for a shared use trail and a shared roadway with sidewalks on both sides is recommended, and would benefit the neighborhood.
- The trail segment from 7th Street to 11th Street is residential, but it is side yards, and shared use trail would be desirable. Further investigation into feasibility is required.
- Shared use trail is recommended from 11th Street south including along Johnson Blvd and Hudiburg Drive.
- ROW needs negotiated in several places along trail.
- Hudiburg Drive bridge upgrade will probably wait until ODOT improvements to the bridge take place, but should be considered in that event.
- Crossing the triangle from Hudiburg Drive to 29th poses some challenges that will require some long term planning and negotiation by the City. The triangle would also be a prime location for a trailhead serving the southwest corner of Midwest City.
- The trail can be broken into 3 construction segments (1) Quinlan Park to 15th, (2) 15th to Hudiburg Bridge, including spur to Reed Center, and (3)Hudiburg Bridge to 29th Street.

<u>IMPROVEMENT OPTIONS AND DESIGN DETAILS</u>

- ✓ Upgrade west side of Quinlan Park with a few parking places for neighborhood trailhead parking.
- ✓ Construct shared use trail to Crosby Blvd.
- ✓ Construct shared roadway trail with sidewalks from Quinlan Park to 7th Street.
- ✓ Construct shared use trail from 7th Street to 29th Street.
- ✓ A trailhead is recommended on 29th Street.
- ✓ A bicycle plaza with facilities for commuters is recommended at Rose State; Coordinate trail system and plaza with Rose State.
- ✓ A bicycle and pedestrian plaza is recommended in the hospitality district with amenities for bicycles, and possibly bicycle rentals; Coordinate with hospitality district and Reed Center.
- ✓ Construct shared use trail spur along Short Street to link up with Reed Center and hospitality sidewalk system.

- ✓ A trailhead is recommended on the south end of the trail. A trailhead along 29th would serve as western route to Draper Lake, a connection to Rose State, and a link to the commercial district and Welcome Center along 29th.

PRELIMINARY OPINION OF COSTS
Cost Opinion: $2,395,000
Estimated cost per LF $217
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- Bridge Upgrade over I-40
- Trailhead on south end
- Trailhead upgrades at Quinlan Park

Cost opinion includes

- 2 small plazas for $20,000 each
- 800 linear of feet of trail in Quinlan Park

LOCATION MAP

PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

WEST 10TH STREET TRAIL

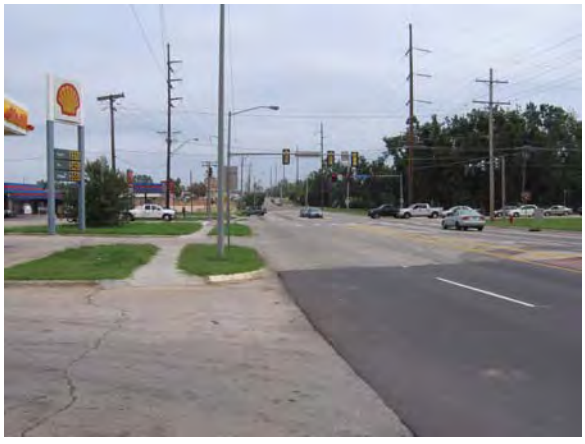
PROJECT DESCRIPTION
The 2.6 mile West 10th Street Trail is one of the few trails that are recommended along a primary arterial. The West 10th Street shared use trail would parallel 10th street on the north side from Sooner to Bella Vista Drive and from Midwest Blvd to Spencer Road. The trail would parallel the south side of 10th from Bella Vista to 10th Street. West 10th Street trail is an east west connector. The West 10th Street trail is an east west connector linking up with OKC proposed Bike Routes on 10th and Sooner, and the North Canadian East Greenway Trail. The trail would also provide safe route to school for Willow Brook Elementary and eventually to Spencer Schools.

EXISTING CONDITIONS PHOTOS

Grade changes and drives

Discontinuous Sidewalks

Pedestrians Using the Street



Driveways and utilities

Trail Type: Shared Use Trail
Linear Feet of Trail: 13,500
Crossings/Underpass: 3

- Crutcho Creek
- Tributary
- Soldier Creek

Existing Signal Crossings: 3

- Sooner Road
- Air Depot
- Midwest Blvd

Required Signal Crossings: 0
Constructability:

- Construction Challenges
- Constructability is borderline between "ready" and "Reduced Readiness". Much of the trail is ready to begin construction. All of the ROW's are probably owned.
- Bridge crossings need further investigation to determine if trail can be constructed or if bridge work is required.
- The trail would cross numerous driveways east of Air Depot, and will require some additional safety measures. There is a considerable grade change east of Midwest Blvd which creates a significant design challenge where driveways and trails intersect.

IMPROVEMENT OPTIONS AND DESIGN DETAILS

- ✓ Construct shared use trail full length of 10th Street Trail.
- ✓ Less desirable would be (striped) Bike Lanes with Sidewalks. Shared use roadway would be the least desirable option and not recommended, because of the amount of traffic along 10th Street. OKC's connection to the west end of the trail will probably be a signed shared roadway route with no sidewalks. This type of route has not been recommended along primary arterials in Midwest City because of safety concerns.

PRELIMINARY OPINION OF COSTS
Cost Opinion: $2,430,000
Estimated cost per LF $180
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- Bridge work at Crutcho, Tributary, and Soldier Creek.

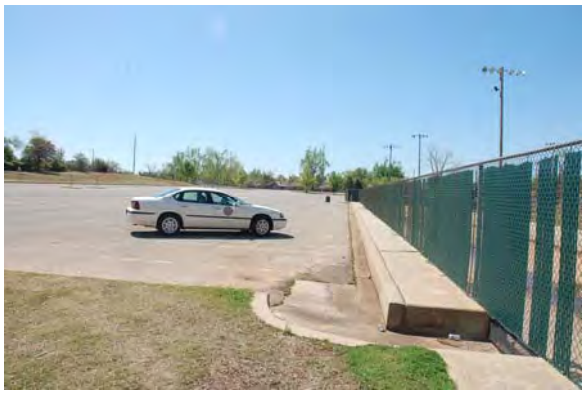
LOCATION MAP

PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

TRIB 6 TRAIL

PROJECT DESCRIPTION
The most desirable route for Trib 6 is to follow the tributary from Soldier Creek to Frolich Park. However, the more feasible route, because of foreseen difficulties obtaining ROW along Trib 6, is to connect to the Palmer Loop Trail on 15th Street and Soldier Creek and follow 15th Street to Tributary 6. The 1.9 mile trail is an east west connector that will connect urban development to the core trail system. The trail will provide safe route to the Soldier Creek Elementary School and the existing Carl Albert north south trail on Post. The trail will also link Fred Meyer Park and Frolich Park, which will serve as natural trailheads. When completed the east end of the trail would connect trails headed in four directions.

EXISTING CONDITION PHOTOS


Parking at Fred Meyer Park


Wide ROW, Trib 6 off 15th Street


Trib 6 at Frolich Park


Trib 6 and Douglas, Desirable Route

Trail Type: Shared Use Trail
Linear Feet of Trail: 9,900
Crossings/Underpass: 0
Existing Signal Crossings: 1

- 15th and Douglas

Required Signal Crossings: 2

- Fred Myers Civic Park and 15th Street

- Post and 17th Street

Constructability:

- Construction Challenges
- ROW needs acquired east of Post
- The trail can be broken into 3 construction segments (1) west terminus to Fred Meyer Park, (2) Fred Meyer park to Carl Albert trail, (3) Carl Albert Trail to Frolich Park
- Construction on the first and second segment would rank has high constructability and would qualify as a safe routes to school project.
- Construction on third segment requires ROW to be acquired, and longer term planning.

IMPROVEMENT OPTIONS AND DESIGN DETAILS

- ✓ Construct shared use trail full extent of trail
- ✓ Construct pedestrian crossings at Fred Meyer Park and on Post
- ✓ Make trailhead upgrades to Fred Meyer Park
- ✓ Make trailhead upgrades to Frolich Park, including parking as a minor trailhead.

PRELIMINARY OPINION OF COSTS

Cost Opinion: $1,907,000

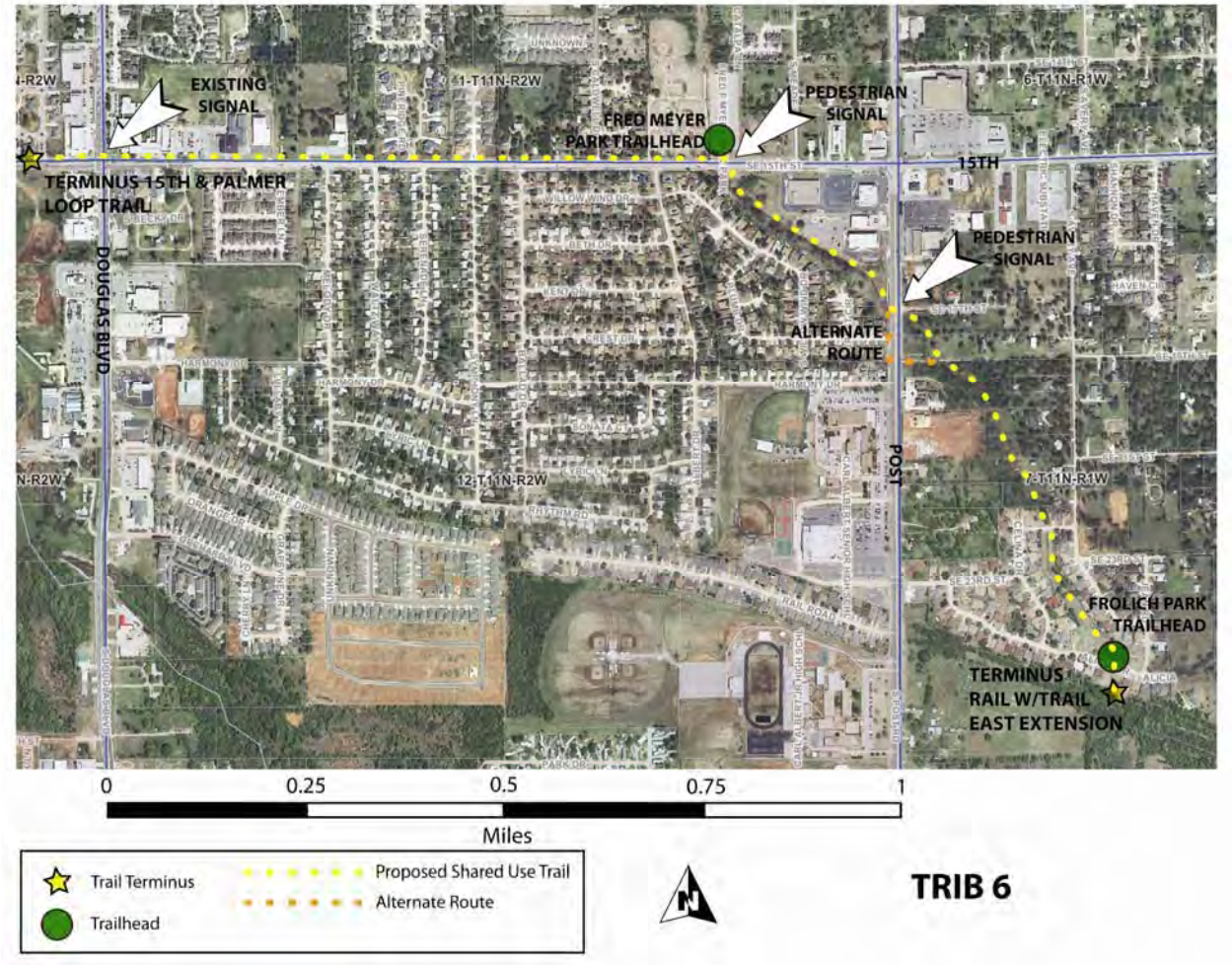
Estimated cost per LF $193

Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- Trailhead improvements at Fred Meyer and Frolich Park

LOCATION MAP



PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

ROSE STATE CONNECTOR TRAIL

PROJECT DESCRIPTION
The 2.0 mile, Rose State Connector is an east west connector trail. The trail Ranks high on public survey and comments and would provide safe, commuter access to Rose State College and downtown. The connector trail would also provide a safe route to Jarman Junior High School and East Side Elementary. Most of the trail would be shared roadway with sidewalks. Two segments would be shared use trail, (1) a segment along Adair Boulevard and (2) a segment connecting Elks Park to 29th Street. Several challenges exist near Air Depot Blvd, and alternative options need to further investigation and planning. The most desirable and safest route would be for a shared use trail route.

EXISTING CONDITIONS PHOTOS

Air Depot Unsuitable for Trails

Adair Blvd with Drainage through East End

Elks Park Behind Town Center

Typical Residential Neighborhoods Suitable for Shared Roadway with Sidewalk Trails

Trail Type: Shared Roadway with Sidewalks and Shared Use Trail
Linear Feet of Trail: 10,500
Linear Feet of Shared Use Trail: 3,700
Linear Feet of Shared Roadway: 6,800
Crossings/Underpass: 0
Existing Signal Crossings: 1

- Air Depot

Required Signal Crossings: 0
Constructability:

- Construction Challenges
- Acquire ROW
- Route needs further planning and coordination to determine best route through neighborhoods.
- Route needs coordination with Rose State to complement their trail system
- The trail can be broken into 4 construction segments (1) from East Side School to 29th Street, (2) from Marshall Drive to Jarman School, (3) from Jarman School to Air Depot, and (4) from Air Depot to Rose State.

IMPROVEMENT OPTIONS AND DESIGN DETAILS

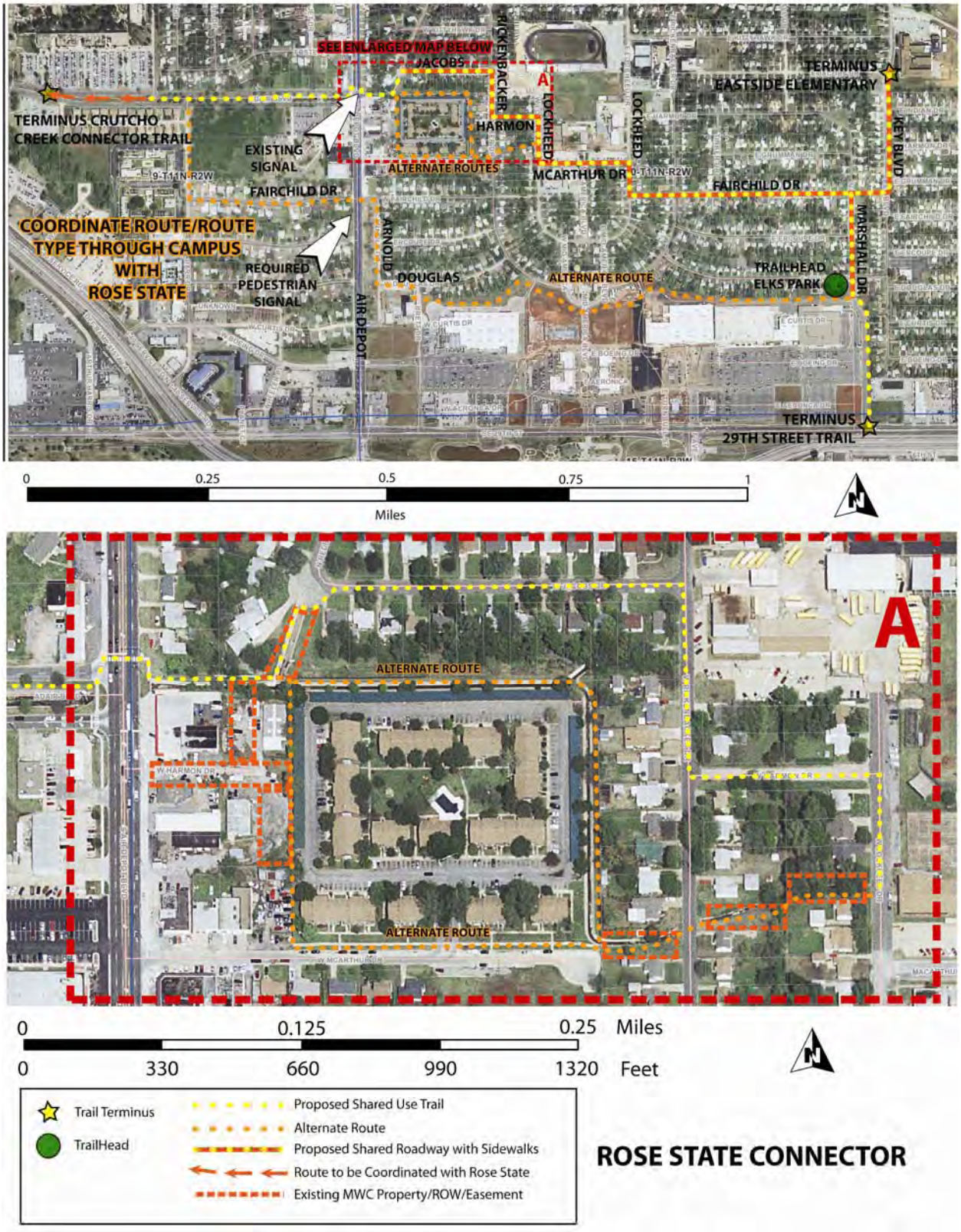
- ✓ Construct shared roadway with sidewalks through neighborhoods.
- ✓ Construct shared use trail from Elks Park to 29th street and from Rose State to neighborhoods.
- ✓ Several desirable alternatives are marked on the map. Air Depot at Adair is where pedestrian will need to cross because of other existing lights on Air Depot. Alternative routes to the school across existing owned property by Midwest City has the opportunity to be a shared use path, which would much more desirable for pedestrians headed to school. The route serves two schools and the college and pedestrians safely off the street is the most desirable option.
- ✓ One alternative is to cross the back side of town center. The trail would have only a couple of places where traffic would be crossing the trail, and most of the trail could be constructed immediately. A traffic signal would be required at Fairchild, an already active intersection for school busses.
- ✓ Elks Park may require trailhead upgrade.

PRELIMINARY OPINION OF COSTS
Cost Opinion: $1,624,000
Estimated cost per LF $155
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- Trailhead upgrades at Elks Park

LOCATION MAP



PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

RAIL WITH TRAIL EAST EXTENSION TRAIL (RWTEE)

PROJECT DESCRIPTION
The 2.7 mile, RWTEE is an east west connector. The trail would serve as a safe route to school and serve existing neighborhoods west of Frolich Park. The trail would also serve future development to the east of Frolich Park. Some planning is required to secure ROWs through existing land. It is desirable to keep existing trees and vegetation along the trail to enhance the experience of the trail. There are three optional trail termini for the RWTEE, (1) A proposed regional park in east Midwest City, (2) The Oakwood Neighborhood Private Park off Lakeside Drive or Lorene Avenue, and (3) the intersection with the Choctaw Trail, which would be the logical place for a trailhead.

EXISTING CONDITIONS PHOTOS

Typical Low Density Residential on 28th Street

Typical Undeveloped Land West of Westminster

Entrance to Reed Baseball Complex

Open Area North of Reed Baseball Complex

Trail Type: Shared Use Trail
Linear Feet of Trail: 14,000
Crossings/Underpass: 0
Existing Signal Crossings: 1

- Post Road and 23rd

Required Signal Crossings: 1

- Westminster and 28th

Constructability:

- Construction Challenges
- Planning still required determining route through planned and future subdivisions.
- ROW needs to be acquired.
- 28th Street will require curb and gutter to accommodate a shared use trail.
- Further investigate existing and preliminary plats east of Post.
- The trail can be broken into several construction segments (1) Draper Lake Trail to Carl Albert Trail, (2) Carl Albert Road to logical termini as development proceeds, and (3) from there to Trail terminus, Choctaw Creek Trail or Eastern Regional Park. Logical termini are required for ODOT grant applications, and should serve as neighborhood collectors or be natural points of activity.

IMPROVEMENT OPTIONS AND DESIGN DETAILS

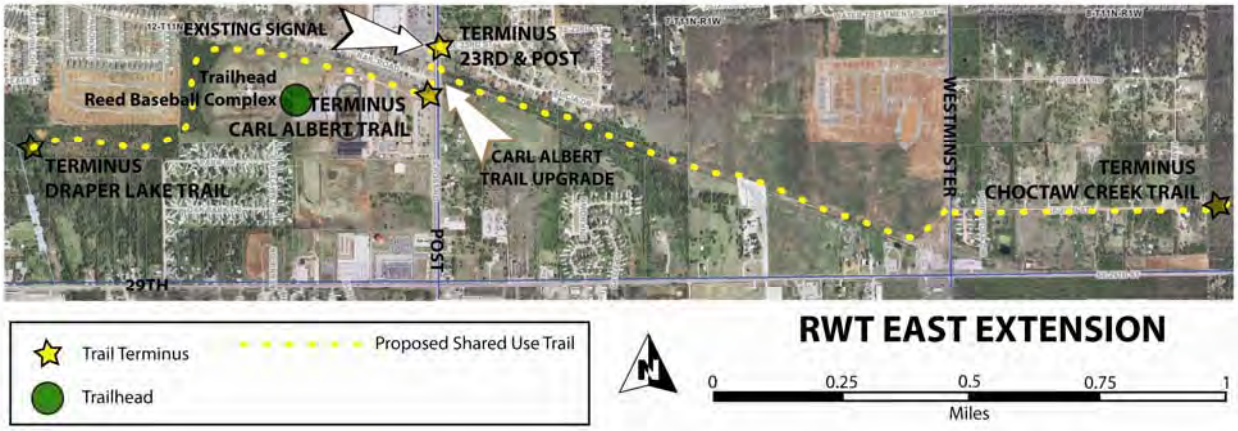
- ✓ Construct shared use trail from Draper Lake Trail to Post Road.
- ✓ Upgrades may be required on segment of Carl Albert Trail that trail overlaps.
- ✓ Pedestrian crossing required at Post and Westminster.
- ✓ Construct shared use trail from Post to trail terminus.
- ✓ Further investigation on existing and preliminary plats is required.
- ✓ Trailhead upgrades may be required at Reed Baseball Complex.

PRELIMINARY OPINION OF COSTS
Cost Opinion: $2,520,000
Estimated cost per LF $180
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition.
- Trailhead upgrades at Reed Baseball Complex.
- Curb and gutter work required along 28th Street.

LOCATION MAP



PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

SILVER CREEK TRAIL

PROJECT DESCRIPTION
The 2.5 mile, Silver Creek Trail is a north south connector, linking the regional trail system and future North Canadian East Greenway Trail. The connector also provides a safe route to the Telstar Elementary School and Telstar Park. On completion, the trail would provide access for residents in the north east area of the city to access the main trail system. The complete length of the Silver Creek Trail is a shared use trail. The trail would start on the north edge of Midwest City and Silver Creek. Regional coordination is suggested to determine the best route to the North Canadian East Greenway Trail.

Trail Type: Shared Use Trail
Linear Feet of Trail: 13,300
Crossings/Underpass: 1

- Existing undercrossing at Telstar Park

Existing Signal Crossings: 1

- 10th and Christine Drive

Required Signal Crossings: 0

- 23rd and Shady Nook Way

Constructability:

- Planning Required
- ROW needs to be acquired
- Regional connections needs coordinated
- The trail can be broken into 3 construction segments (1) the southern end to Telstar Park, (2) the northern connection to regional trails from Telstar to the trailhead, and (3) the Post Trailhead spur connecting to the Post Road Trail.

<u>IMPROVEMENT OPTIONS AND DESIGN DETAILS</u>

- ✓ Construct shared use trail for entire route
- ✓ Construct signalized pedestrian crossings at 23rd and Shady Nook Way
- ✓ Construct major trailhead at north end of Silver Creek Trail for access to North Canadian River trails.
- ✓ Make trailhead improvements at Zachery Park. Trailhead would serve regional connection along Post and access to the North Canadian River via Silver Creek Trail.

PRELIMINARY OPINION OF COSTS
Cost Opinion: $2,576,000
Estimated cost per LF $194
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- Trailhead costs on north end of trail
- Trailhead costs or upgrades at Zachary Park

LOCATION MAP

PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

TRIB 4 TRAIL

PROJECT DESCRIPTION
The 2.3 mile, Trib 4 Trail is an east west connector, linking the northwest corner of Midwest City to the interior of the city. The trail will connect large residential neighborhoods to the Soldier Creek Trails and provide access to downtown Midwest City. Trib 4 is also a main connector linking to the recreational and commuting activities of east Midwest City, like the Silver Creek Trail and the Post Road Bicycle Route. Shared use trails and shared roadway with sidewalks are used where appropriate when passing through neighborhoods or open space. Two trailheads are proposed and one is suggested. One trailhead is proposed along Douglas with suggested vehicle access off Douglas. Omni Park is another natural trailhead. Vehicular access off Post to the trailhead would be desirable. An optional minor trail head is Cardinal Park where the east west connector, Trib 4 Trails, intersect with the north bound Silver Creek Trail.

EXISTING CONDITIONS PHOTOS

Soldier Creek Trail

Trail Type: Shared Use Trail and Shared Roadway with Sidewalks
Linear Feet of Trail: 12,000
Linear Feet of Shared Use Trail: 9,900
Linear Feet of Shared Roadway with Sidewalks: 2,100
Crossings/Underpass: 0
Existing Signal Crossings: 0
Required Signal Crossings: 2

- Douglas Blvd. and 4th Street
- Post and 4th Street

Constructability:

- Planning Required
- ROW needs acquired
- Land needs acquired for trailhead off Douglas Blvd
- The desirable trail is along the creek. However, Cardinal Place from Douglas to Woodland may be a more feasible route.
- The trail can be broken into 2 segments (1) Soldier Creek to trailhead on Douglas and (2) Douglas trailhead to Post Road.

IMPROVEMENT OPTIONS AND DESIGN DETAILS

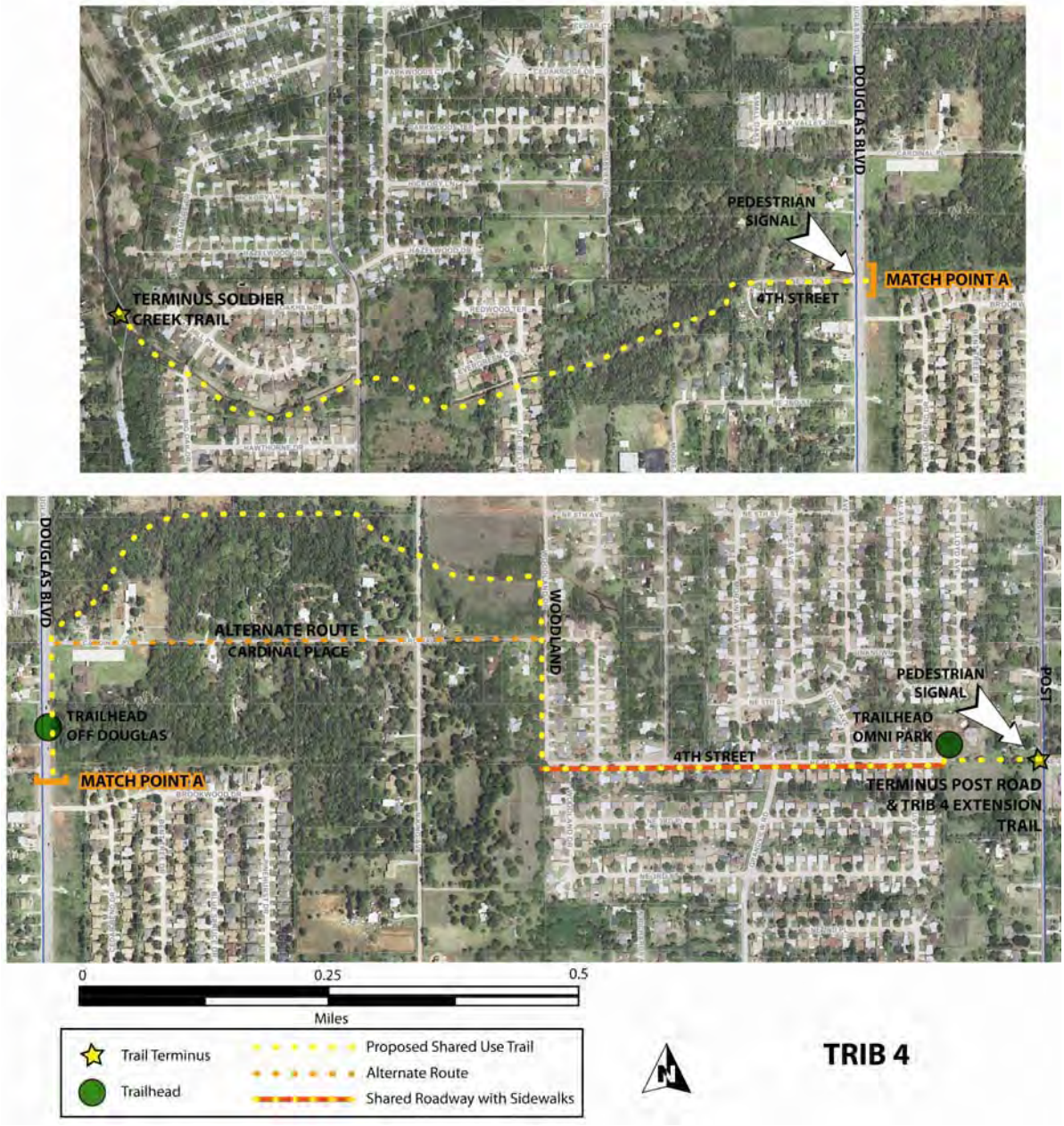
- ✓ Construct shared use trail from Soldier Creek to Woodland Drive and 4th Street
- ✓ Construct trailhead off Douglas
- ✓ Add trailhead upgrades to Cardinal Park to be used as a neighborhood trailhead.
- ✓ Construct shared roadway with sidewalks from Woodland Drive and 4th Street to Omni Park
- ✓ Construct shared use trail from Omni Park to Post Road
- ✓ Provide vehicle trailhead access off Post Road to Omni Park Trailhead

PRELIMINARY OPINION OF COSTS
Cost Opinion: $2,180,000
Estimated cost per LF $182
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- Trailhead improvements at Omni Park
- Trailhead off Douglas

LOCATION MAP



PROJECT DESCRIPTION SHEET
HIGH PRIORITY IMPLEMENTATION PROJECTS

RENO TRAIL

PROJECT DESCRIPTION
The 2.6 mile, Reno Trail is an east west connector. The trail serves Heritage Mall, the Hospital, and the Municipal Complex. The trail connects to Rail with Trail, at the proposed Quinlan Park Trailhead, and Soldier Creek Trails. The trail winds through commercial and hospital zones, terminating at the Municipal Complex. The trail borders several neighborhoods providing safe route to Monroney School. A partnership opportunity exists for the City and the Hospital to increase health awareness and trail use activity. Reno is a commercial corridor with the hospital being its largest employer. The trail will provide needed, safe pedestrian and commuter access to the commercial district, hospital, and the Municipal Complex.

EXISTING CONDITIONS PHOTOS

Pedestrian Obstructions, Driveways and Curbs

Parallel Streets to Reno from Shady Brook to Mockingbird Lane

Discontinuous sidewalks

Exposed pedestrian conditions with no traffic buffers

Trail Type: Shared Use Trail
Linear Feet of Trail: 13,800
Linear Feet of Shared Use Trail: 12,100
Linear Feet of Shared Roadway with Sidewalk: 1,700
Crossings/Underpass: 0
Existing Signal Crossings: 2

- National Avenue and Midwest Blvd
- Parklawn Drive and Reno

Required Signal Crossings: 2

- Reno & west end of Heritage Mall
- Air Depot and Meadow Lane

Constructability:

- Planning Required.
- Planning and ROW acquirement is still required for the Reno Trail
- The trail can be broken into 4 construction segments (1) Extending Soldier Creek Trail to Hospital, (2) Completing hospital segment to Monroney School, (3) Monroney School to Heritage Mall, and (4) connecting Heritage Mall to Rail With Trail.

<u>IMPROVEMENT OPTIONS AND DESIGN DETAILS</u>

- ✓ Shared Use Trail is the most desirable, and should be used throughout, except when passing through neighborhoods such as found along Fox Drive.
- ✓ The desirable route for this trail is off Reno Avenue. Less driveways and less traffic will make for a safer and more pleasant experience.
- ✓ Partner with hospital for health loop or plaza.
- ✓ Partner with Heritage Mall to provide pedestrian and bicycle plaza.

PRELIMINARY OPINION OF COSTS
Cost Opinion: $2,449,000
Estimated cost per LF $177
Cost Opinions are preliminary and subject to change upon further review

Not included in cost opinion

- Land Acquisition
- 2 small trail plazas for commuters to Hospital and Heritage Mall.

LOCATION MAP