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1 Introduction

Benefits of Trails and Bikeways



Town Branch Trail

Bentonville is taking a proactive approach to active transportation development because of the numerous benefits trails provide to the community. The health and fitness benefits are obvious, but trails can support a clean environment, promote economic development and provide alternatives for transportation.

Health, Fitness and Recreation. According to the U.S. Department of Health and Human Services (HHS), approximately 64% of all Americans are overweight or obese. Such conditions can lead to heart disease, Type 2 diabetes, and some forms of cancer. This is a growing health crisis that affects people of all ages.

To combat these statistics, people need to shift from a sedentary lifestyle to an active lifestyle. Although it is up to an individual to choose to exercise, communities have a responsibility to make exercise attractive and easily accessible. Trails are one feature of a community that offers the recreational opportunities that can lead to a healthier lifestyle. Without trails, there are few safe and inexpensive alternatives for walking, biking, running, and skating.

Economic. A good trail system can attract visitors from beyond the city limits and become a destination. They can increase tourism and recreation spending on items such as bikes and in-line skates. Trails often improve the natural beauty and raise property values of adjacent properties. According to a study completed in 1995, 74% of real estate agents surveyed in Denver, CO believed that homes adjacent to trails would be easier to sell.

Transportation. Trails provide connections between residential areas and places of employment, shopping, schools, and entertainment. They serve as an alternative method for traveling. They are often a critical element in the success of providing multi-modal transportation. Surveys suggest that the more facilities that are available, the more people are willing to use non-motorized forms of transportation.

Environment. Many trails are located in greenways or along natural corridors, such as floodplains. Such trails can protect wildlife environments from development, soil erosion, and runoff from roads and agricultural uses. Because they offer an alternative to vehicular transportation, they can help improve air quality. And, they provide a hands-on outdoor classroom for learning about nature and the environment.

Purpose of the Plan

The preparation of this plan evolved from a recommendation in the City's General Plan adopted in 2000 which states: "To provide greater access to alternative transportation modes by developing a pedestrian and bikeway transportation plan that includes new routes as well as plans for the reconstruction and maintenance of existing routes."

The Bentonville Master Trail Plan is a comprehensive trail network that consists of local trails integrated into a regional network. They are interconnected and work together to act as a transportation system to enhance non-motorized forms of transportation. These trails connect with each other, and link origination points with destinations, such as home to office.

It consists of primary trails that follow the natural drainage system enhanced with spur trails. Some of the trails travel through natural areas with connections provided by the sidewalk network. Trails within parks are also part of the overall network. They range in construction from natural paths to asphalt to concrete. The trails are universally designed to accommodate Americans with permanent or temporary disabilities.

The purpose of this plan is to:

- Identify trail routes.
- Establish design standards.
- Prioritize trail development.
- Create a plan for budgeting, operations, and maintenance.
- Identify and address safety issues.



North Bentonville Trail

Guiding Principles

The following principles should serve as a guide in the preparation and use of this document.

- The Bicycle and Pedestrian Master Plan (BPMP) should support and complement local and regional trail, transportation, and park plans.
- The BPMP maps should be used as a guideline for developing the trail network. Exact locations will be determined at the time of construction.
- The BPMP should guide acquisition of trail right-of-way, donations, and easements during the development review process.
- The BPMP should guide funding priorities for trail development.
- The BPMP should be reviewed each year during the budgeting process to ensure funding is earmarked for plan implementation.
- The BPMP should guide sidewalk development as it relates to street improvement projects.

Completed Improvements

City Council adopted the first Master Trail Plan on February 14, 2006. Since its adoption, the trail system has jumped from 9 trails and 11.17 trail miles to 22 trails and 37 trail miles. The system now connect with the Rogers Greenway System in two locations.

	2006	2011
Trails / Ped Connectors	9	22
Trail Miles	11.17	37.76
Bike Routes	0	11
Bike Route Miles	0	20.3

The following new trails were completed since the first plan was adopted:

Shared Use Trails

Wishing Springs Trail - Lake Bella Vista to edge of Hwy 71 right of way South Bentonville Trail - 8th Street south to southern city limits, Crystal Bridges Trail - Tiger Blvd to Compton Gardens AR/MO Railroad Trail - Phyllis St to Eagle Street (under I-540) Lincoln Loop - Behind Lincoln Jr High Jefferson Trail - Behind Thomas Jefferson and Sugar Creek Elementaries Enfield Trail - Enfield Park to Crystal Bridges Trail Soccer Trail - Between the soccer fields in Memorial Park Members Place Trail - From the South Bentonville Trail over to Moberly Lane

Side Path Trails

John DeShields Blvd - NE J Street to Central / Hwy 72 Tiger Blvd - NE J Street to McCollum Blvd Heritage Trail - Side path along SW I Street

Native Surface Trails

All-American Trail - West of Crystal Bridges Trail



Crystal Bridges Trail

Current Conditions

Since the original Master Trail Plan was adopted, Bentonville has changed significantly. Below is a summary of major changes since 2006.

- Bentonville's population increased by 23% percent, from 28,621 in 2006 to 35,301 in the 2010 US Census.
- Park Facilities have improved with upgrades to Memorial Park including improved soccer fields, a 12 court tennis complex, four sand volleyball courts
- New park facilities have opened, including Orchards park, Lawrence Plaza Ice Rink and Splash Pad, the Downtown Activity Center, Gilmore Park, and Enfield Park.
- A community center is planned for location at Hwy 12 and Hwy 112.
- Crystal Bridges Museum of American Art is opening in November 2011
- The 21c Museum Hotel located downtown is under construction.
- Walmart Visitors Center was renovated and expanded in 2011.
- Two new parking lots were constructed downtown.
- There is now a Wednesday Farmers Market.
- A historical school house was renovated on NW 2nd Street and is now home of the Benton County Historic Society.
- The bicycle recycling program was cancelled and a formal bicycle rental program was initiated at the new Downtown Activity Center.



Wishing Springs Trail

2 Bicycle and Pedestrian Facilities

Bicycle & Pedestrian Facility Types

Bentonville's Bicycle and Pedestrian System consists of trails, on-road bicycle facilities and pedestrian connectors. The city has 21 trails: 12 miles of shared-use trails, 10 miles of sidepaths, and 16 miles of native surface trails. The bicycle network consists of 20.3 miles of shared lanes.

Bicycle & Pedestrian Facility Types						
Trails						
Shared Use Trail	A trail, typically a minimum of 10' wide, designed for use by a variety of users, including pedestrians and bicyclists, located off-road, usually in a park or linear trail system. Example: North Bentonville Trail.					
Side Path Trail	A trail, typically a minimum of 8' wide, designed for use by pedestrians and recreational bicyclists located adjacent to a roadway as a means to connecting the trail system. Example: Moberly Lane.					
Native Surface Trail	A natural surface trail used for walking, hiking, and mountain biking, typically located in areas that are environmentally sensitive, have limited development and contours with the natural topography.					
On-road Bicycle Fac	cilities					
Bicycle Lane	A portion of the roadway that has been designated by striping, signing, and pavement markings for the preferential and exclusive use of bicyclists.					
Shared Lane	A traffic lane with pavement markings, typically a sharrow, that indicate the lane is on a bicycle route and is to be shared between both auto-drivers and bicyclists. The on-paving markings indicate to bicyclists the best way to occupy the road and notify the auto-driver of a higher level of bicycle traffic on that lane.					
Pedestrian Connectors						

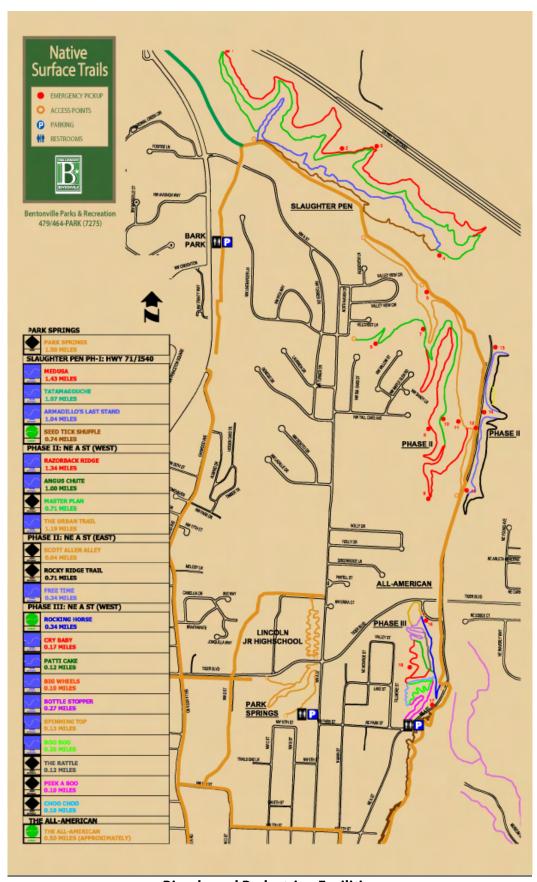
Sidewalk Existing sidewalks that are used to make a pedestrian connection to the trail system.

Existing Trail Facilities

	Existing Trail Facilities						
		Location	Туре	Distance	Width	Material	
1	Bella Vista Lake Trail	Bella Vista Lake	SU	1.75 mi	10'	Concrete/Asphalt	
2	Wishing Springs Trail	South of Bella Vista Lake	SU	.67	10'	Concrete	
3	North Bentonville Trail – Razorback Greenway	North Bentonville	SU	4.09 mi.; 2.2 mi. existing	10'+ jogging path	Concrete	
4	Slaughter Pen Mountain Bike Trails	North Bentonville	NS	16 mi.	varies	Native surface	
5	Crystal Bridges Trail – <i>Razorback Greenway</i>	North of Compton Gardens	SU	1 mi	10'	Concrete	
6	Tiger Trail	Tiger Blvd	SP	3.1 mi	4 – 10′	Concrete	
7	Lincoln Loop	Lincoln Jr. High	SU	.44 mi	10′	Concrete	
8	Jefferson Trail	Thomas Jefferson and Sugar Creek Elementary Schools	SU	.35 mi	10′	Concrete	
9	Downtown Trail	Downtown	SU	1.1 mi.	4' - 8'	Concrete	
10	Town Branch Trail – <i>Razorback Greenway</i>	SE of Square	SU	.77	8'	Concrete	
11	John DeShields	Memorial Park	SP	1 mi	10'	Concrete	
12	Memorial Park Fitness Trail	Memorial Park	SU	1 mi	10'	Asphalt	
13	Park Spring / Burns Trail	Park Springs Park	NS	.75 mi	Varies	Natural	
14	J Street Trail	NE J Street	SP	1.23 mi	8 – 10′	Concrete	
15	Moberly Lane Bike Trail	Moberly Lane	SP	1.98 mi	8 – 10′	Concrete	
16	Heritage Trail	Hwy 72 and Hwy 12	SP	2.5 mi	Varies	Concrete	
17	Arkansas/Missouri RR Trail	I-540 and NWACC	SU	.75 mi	10'	Concrete and Asphalt	
18	South Bentonville Trail	Medical Center Parkway	SU	2.55 mi	10'	Concrete	
19	Enfield Park Trail	North of Crystal Bridges	SU	.21 mi	10'	Concrete	
20	Members Place Trail	North of Members Place Drive	SU	.36 mi.	10'	Concrete	
21	Soccer Trail	Memorial Park Soccer fields	SU	.26 mi	10'	Concrete	
22	All American Trail	West of Crystal Bridges Trail	NS		Varies	Natural surface	



Bicycle and Pedestrian Facilities



Bicycle and Pedestrian Facilities

Regional Trail Systems

Regional Razorback Greenway

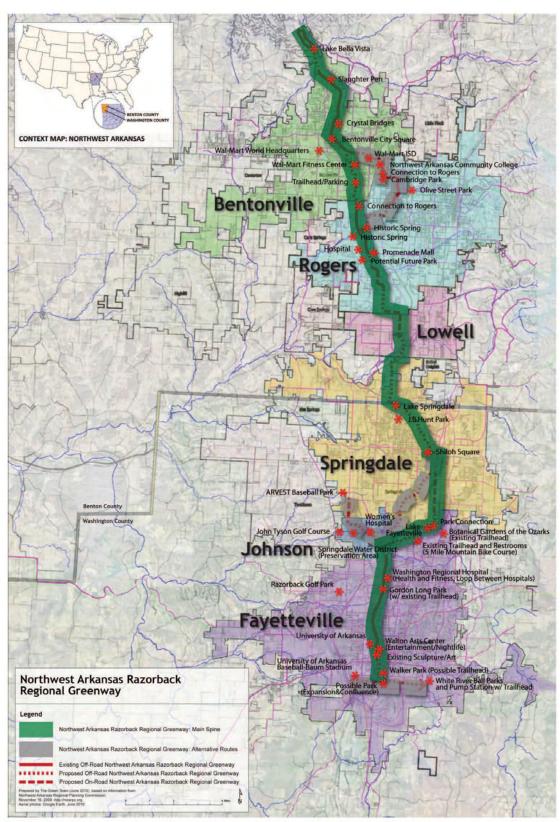
The Regional Razorback Greenway is 36 miles of primarily off-road shared use trails that will link the six major cities of Northwest Arkansas, Bentonville, Rogers, Lowell, Springdale, Johnson and Fayetteville. The trail will connect with the University of Arkansas, three major hospitals, commercial centers, and corporate headquarters of Walmart, JB Hunt and Tyson Foods, arts and entertainment venues, historic sites, parks, playgrounds and residential areas.

As of Fall 2011, 14.2 miles of the planned route are in use. The remaining 21.8 miles is either in a planning or design phase. The total project development costs are estimated to exceed \$38 million. In November 2010, a \$15 million in TIGER II program federal funding was awarded to the Northwest Arkansas Razorback Regional Greenway project, with additional matching funds anticipated to come from the private foundation and other private funding sources. Construction on the remaining routes will begin in later 2011 with the full greenway estimated to be complete by December 2013.

Bentonville's portion of the Regional Razorback Greenway is nearly complete. It travels from the North Bentonville Trail to Town Branch Trail to the South Bentonville Trail, connecting to the Rogers Greenway System. When the portion connecting the North Bentonville Trail to the Wishing Springs Trail is constructed, Bentonville's portion of the greenway will be complete.

Regional Heritage Trail

The Northwest Arkansas Heritage Trail Plan is Amendment Five to the 2025 Regional Transportation Plan for Metropolitan Northwest Arkansas. It was unanimously adopted by the Northwest Arkansas Transportation Study (NARTS) Policy Committee on October 28, 2002. It is a regional network of bicycle and pedestrian facilities in Benton and Washington Counties that connects Northwest Arkansas citizens and visitors to the rich heritage, recreation and cultural assets, a healthier lifestyle and to each other. There are three historical trails that make up this system: Trail of Tears, Butterfield Stagecoach Route, and Civil War troop movements.



Northwest Arkansas Razorback Regional Greenway

Bicycle and Pedestrian Facilities

On-Road Bicycle Facilities

Existing on-road bicycle facilities consist of marked bike routes with signage and pavement sharrows. The map on the following page shows the 20 miles of marked bicycle routes. The routes were determined by a group of bicyclists at the Walmart Home Office, which fabricated and donated the route signs.

	On-Road Bicycle Facilities						
Route	Location	Distance	Destinations				
Brown	North Bentonville Trail	2.5 mi	Crystal Bridges, Dog Park, Compton Gardens, Downtown				
Blue	Bella Vista Rd – 5 th Street – NW A St	2.1 mi	Bark Park, Compton Gardens				
Gold	Tiger Blvd	1.6 mi	Lincoln Jr High				
Green	F St	1.1 mi	Walmart Home Office, Cemetery, Sugar Creek Elementary, Thomas Jefferson Elementary				
Pink	NE J St.	1.2 mi	Orchards Park, Memorial Park, Crystal Bridges				
Purple	Town Branch Trail	1.7 mi	Walmart ISD, Downtown, Northwest Arkansas Community College				
Orange	S Main St. / Downtown Trail	0.9 mi	Bentonville Public Library, Walmart Home Office				
Yellow	John DeShields	1.0 mi	Orchards Park / Memorial Park, Washington Middle School, Apple Glen Elementary School				
Red	Central / NW 3 rd St	3.5 mi	Downtown, Elm Tree Elementary, RE Baker Middle School, Spring Hill Middle School				
Black	Moberly	2.0 mi	Walmart ISD, Sam's Club Home Office				
Teal	C Street	2.7 mi	Mary Mae Jones Elementary, Barker Middle School				



Bicycle and Pedestrian Facilities

Active Transportation Routes

The bicycle and pedestrian facilities just described are used to create active transportation routes for bicyclists and pedestrians.

Bicycle Routes

Bicycle routes are defined by AASHTO Guide for Development of Bicycle Facilities as various types of bicycle facilities (shared lanes, bicycle lanes, and shared use trails) which establish a continuous routing. In Bentonville, bicycle lanes, widened lanes, shared lanes, shared use trails and side path trails are all used to make up bike routes. Signing of bicycle routes indicates to cyclists that there are particular advantages to using these

Facility Type	Bike Routes	Ped Routes
Paved Trails:		
Shared Use Trail		
Side Path Trail		
Spur Trail		
Native Surface Trails:		
Mountain Biking Trail		
Hiking Trail		
On-road Bicycle Facilities		
Bicycle Lane		
Widened Lane		
Shared Lane		
Pedestrian Connectors		

routes compared to alternate routes. This means the responsible agencies have taken action to ensure these routes are suitable as shared routes and will be maintained.

Design. As per *AASHTO Guide for Development of Bicycle Facilities*, the following criteria should be considered prior to signing a route:

- The route provides through and direct travel in bicycle-demand corridors.
- The route connects discontinuous segments of shared use paths, bicycle lanes and/or other bicycle routes.
- An effort has been made to adjust traffic control devices (e.g., stop signs, signals) to give greater priority to bicyclists on the route, as opposed to alternative streets.
- Street parking has been removed or restricted in areas of critical width to improve safety.
- A smooth surface has been provided (e.g., adjust utility covers to grade, install bicycle-safe drainage grates, fill potholes, etc.)
- Maintenance of the route will be sufficient to prevent accumulation of debris
- Wider curb lanes are provided compared to parallel roads.
- Shoulder or curb lane widths generally meet or exceed width requirements
- If frequent stops along a route are required for a bicyclist, this will not only discourage use of that facility, but can lead to potentially hazardous interactions between motorist and bicyclists.

Pedestrian Routes

Pedestrian Routes include the shared use trails, side path trails and pedestrian connectors.

- These routes should be as flat as possible.
- Vehicle access points should be kept to a minimum.
- Preferred to have at least a two to four feet buffer zone between roadways.

3 Bicycle and Pedestrian Action Plan

The Bentonville Bicycle and Pedestrian Action Plan is the blueprint for reaching the vision of "an interconnected trail system and bicycle facilities network to improve health and fitness while enhancing the transportation network." The Action Plan includes Policies, Implementation Strategy, Priority Rankings, and a 10 Year Annual Work Program.

There are two main categories that the policies and strategies fall into: Development and Public Relations. Development related activities include facility construction, amenities, and safety elements to the physical bicycle and pedestrian system. Public Relations includes promotion, programming, and safety awareness.

	Plan Goals
Goal 1	A safe on-road bicycle and off-road trail system.
Goal 2	A trail system with sufficient support facilities and unique amenities.
Goal 3	Adequate funding for construction of trail and bicycle infrastructure and supporting amenities.
Goal 4	Appropriately placed, clearly marked, and correct placement and installation of wayfinding, regulatory and informational signage and pavement markings.
Goal 5	A clean and aesthetically pleasing trail system.
Goal 6	Trails that connect the bicycle and pedestrian network consistent with the Master Bicycle and Pedestrian Map.
Goal 7	On-road bicycle routes that are marked and signed to connect the bicycle and pedestrian system consistent with the Master Bicycle and Pedestrian Plan Map.
Goal 8	Educational programs that improve bicycle and pedestrian safety.
Goal 9	Programming designed to increased awareness and participation in bicycling, walking, and running as a means of transportation, recreation, and part of a healthy lifestyle through programming.
Goal 10	Enforcement of trail rules and bicycle laws.
Goal 11	Comprehensive and consistent promotion of the bicycle and trail network.

Policies

Development Policies

- The Bicycle and Pedestrian Master Plan Map should be used to consider priorities for street resurfacing, reconstruction and streetscape projects.
- The safety of pedestrian and bicyclists should be accommodated in all street improvement projects.
- Use the Bicycle and Pedestrian Master Plan to guide planning, design, and implementation of bicycle infrastructure and facilities with other city plans and private development plans.
- Coordinate the trail and bicycle network with the public transit system (ORT).
- Support the regional trail system.
- Revisit and update the Bicycle and Pedestrian Master Plan in 2016.
- Ensure that signage along the routes and in key areas are highly visible and user friendly.
- Encourage low-maintenance landscaping along trails.
- Design trail landscaping with maintenance in mind.
- Encourage trail users to clean up after pets by providing pet waste stations and signage.
- Continue to use traffic calming measures as a way to slow down vehicle traffic and increase safety for bicyclists and pedestrians.
- Follow AASHTO and MUTCD standards for all trail and bike facilities development.
- The connected active transportation network should consist either of a multi-use trail, or an on-road bike route plus pedestrian connectors.
- Bike routes should be marked with a bike route sign indicating the route and direction to other routes, and have on-pavement shared route markings in the form of a sharrow.

Public Relation Policies

- Maintain lines of communication between the various city departments involved in trail development including Parks, Streets, Planning, and GIS.
- Establish partnerships for education and awareness with the business community, Bike Bentonville, Downtown Bentonville, Inc, Bentonville / Bella Vista Chamber of Commerce, and the Bentonville Convention and Visitors Bureau.
- Work with user groups mountain bikers, runners, long distance cyclists, walkers, etc.
- Encourage and promote commuter and recreational bicycling, walking and running.
- Enforce unsafe and unlawful bicyclists and motorist behavior.

Implementation Strategy

The implementation strategy is setup as a matrix that establishes specific actions recommended to achieve the Plan's goals. This list is not intended to be exhaustive or all inclusive – the City and other public and private entities will take numerous actions throughout the life of this plan to achieve bicycle and pedestrian goals. This list is intended to identify the highest priority tasks to be pursued over the next several years.

Goal: A finished or end product.

Action Step: Specific actions needed to reach the goal.

Responsible Entities: Identifies the departments and outside organizations that should participate in the

implementation of the action step.

Budget Impact: Indicates the relative fiscal impact of the specific strategy on the City's budget. The

ranking abbreviations are labeled in the following manner:

Low - Little or no fiscal impact on the City's budget.

Moderate - Some fiscal impact, but likely to be funded within one to two fiscal periods.

High - May be significant fiscal impact, depending on the nature of the capital

investment, but may provide opportunities for the use of alternative revenue

sources.

For trail construction, cost is based on \$1 million per mile, as an estimate. This does not indicate a final project cost, which would be determined upon completion of construction documents.

Timeframe: Identifies the year that this action should begin, depending on the availability of

funding and other necessary resources.

Financing: Identifies if funding has been identified or if not, where funding may come from,

or other financing options that might be available, such as grants and donations.

(NF) = Not Funded

(F) = Funding Identified or Budgeted

De	evelopment				
	Action Step	Responsible Entities	Time- frame	Budget Impact	Financing
Goa	al 1: A safe on-road bicycle and off-ro	oad trail system.			
1.1	Develop a plan for installing security mile markers and identify trail access points for emergency vehicles.	Transportation, Fire, Planning, Police, Parks, GIS	2012	Moderate	General Fund (NF)
1.2	Identify existing sidewalk access around schools and create a plan for adding or repairing sidewalks within ½ mile of schools.	Transportation, Planning, School District	2013	Moderate	Safe Routes to School, CDBG (NF)
1.3	Review and make a determination of the need for lighting along off-road trails.	Transportation, GIS Planning, Police, Parks	2013	High	General Fund (NF)
1.4	Consider adding call boxes.	Transportation, Planning, Police, Parks, GIS	2013	Moderate	General Fund (NF)
1.5	Study the feasibility of an at-grade crossing at 3 rd and Walton Blvd.	Transportation, Planning, Police	2013	High	Grant, General Fund (NF)
1.6	Add improved signals and signage at the intersection of Tiger and Walton Blvd	Transportation, Planning	2014	Moderate	General Fund (NF)
1.7	Identify and address crosswalk needs and improvements.	Transportation, Planning	2014	Moderate	Grant, General Fund (NF)
Goa	al 2: A trail system with sufficient sup	pport facilities and u	nique an	nenities.	
2.1	Seek opportunities for art installations along the off-road trails.	Parks, Planning, Public Art Committee	Ongoing	Moderate	Donations, General Fund (NF)
2.2	Encourage developers to provide minor access points to nearby trail facilities.	Planning, Parks	Ongoing	Low	N/A
2.3	Identify bicycle parking needs along trails, trailheads, and at major destinations.	Parks, Planning	2013	Moderate	N/A
2.4	Require new development, renovations and existing facilities to provide bicycle parking and seating for facility users.	Planning	2013	Low	N/A
2.5	Analyze and determine the need for and location of water fountains.	Parks	2014	Moderate	General Fund (NF)

	Action Step	Participants	Timeframe	Costs	Financing
Goa	Al 3: Adequate funding for constru	ction of trail and bicy	cle infrastru	cture and	supporting
3.1	Include trail projects in all Capital Improvement Planning.	Parks, Planning	Annually	Low	N/A
3.2	Establish an annual budget amount earmarked for trai design and construction.	Parks, Planning	Annually	Low	N/A
3.3	Review and seek grant opportunities for trail design, construction, enhancement, improvements and education.	Planning, Parks	Annually	Low	N/A
Goa	al 4: Appropriately placed, clearly r wayfinding, regulatory and in				
4.1	Identify areas with safety concerns and install appropriate warning signs at roadway and trail intersections.	Parks, Planning, Police, Fire	2012	Low	Grant, General Fund (NF)
4.2	Provide trail rules and courtesy guidelines along the traspystem.	il Parks	with new trail construction	Moderate	General Fund (NF)
4.3	Provide trail maps in kiosks at trailheads.	Parks, Planning	2012	Moderate	General Fund (NF)
4.4	Provide appropriate wayfinding signage between Cryst Bridges Trail and the Town Branch Trail, through downtown.	al Parks, Planning	2013	Moderate	General Fund (NF)
Goa	al 5: A clean and aesthetically plea	sing trail system.			
5.1	Coordinate trail clean-ups with the Great American Clean Up and the Keep Arkansas Beautiful Clean Up.	Parks, Planning	Annually	Low	N/A
5.2	Establish an Adopt A Trail program.	Parks, Planning, Bike Bentonville	2012	Low	General Fund (NF)
5.3	Coordinate city trail operations policies consistent with that of those created for the Regional Razorback Greenway.	Parks	2012	Low	N/A
5.4	Locate trash receptacles and pet waste stations at trailheads and at regular intervals along the trails.	Parks, GIS	2012	Moderate	General Fund (NF)
5.5	Develop and implement landscaping plans for trailhead	ls. Parks, Planning, Tree & Landscape Committee	2014	Moderate	Tree & Landscape Cmte Donations (NF)

De	Development (continued)					
	Action Step	Participants	Timeframe	Costs	Financing	
Goal	6: Trails that connect the bicycle and Bicycle and Pedestrian Plan Map. (Construction costs are based on an estimation financing, F = funding available, NF = no for the Bicycle and Pedestrian Master Plan	ate of \$1 million per mile j unding available. Letter fo	for a traditiona	l trail. Unde	r	
6.1	Downtown Trail Extension (A)20 mi Construct an east/west <i>shared-use trail</i> between the Downtown Trail and the Town Branch Trail, which is part of the Razorback Regional Greenway.	Parks, Planning, Engineering, GIS	2013	High (\$200,000)	AHTD Enhancement Grant, General Fund (F)	
6.2	NW D St Pedestrian Connector23 mi Make a <i>pedestrian connection</i> on NW D Street between 9 th Street and 5 th St, creating a pedestrian connector between RE Baker and Jefferson Trail.	Planning, Engineering, Parks, Transportation, GIS	2013	High (\$115,000)	Grants, General Fund, Donations (NF)	
6.3	Water Tower Road (E) .78 mi Construct a <i>sidepath</i> with the Water Tower Road improvement project.	Planning, Engineering, Parks, Transportation, GIS	2013	High (\$780,000)	Street Budget (F)	
6.4	Community Center East (I)- 1.75 mi Construct a <i>shared-use trail</i> connecting the Bentonville Community and Recreation Center to the South Bentonville Trail at Riviera Rd, connecting also to the Razorback Regional Greenway.	Parks, Planning, Engineering, Transportation, GIS	2014	High (\$1.75 mil)	Grants, General Fund, Donations (NF)	
6.5	S Bentonville Gravel Running Path – 1.65 mi Construct a gravel running path next to the South Bentonville Trail. 1.65	Planning, Engineering, Parks, Transportation, GIS	2015	Moderate (\$60,000)	Grants, General Fund, Donations (NF)	
6.6	N Walton Trail (B) – 1.7 mi Construct a <i>shared-use trail</i> under Walton Blvd to connect the Bark Park and Stonehenge neighborhood.	Parks, Planning, Engineering, GIS	2016	High (\$2 mil)	Grants, General Fund, Donations (NF)	
6.7	McCollumn Rd (N)83 mi Construct a <i>sidepath</i> along McCollumn Rd, between Tiger Blvd and Central Ave.	Parks, Planning, Engineering, Transportation	2016	Moderate (\$830,000)	Grants, General Funds, Donations	
6.8	Phillips Park Trail System (O) – 1 mi Construct a <i>shared-use trail</i> within Phillips Park.	Parks, Planning, Engineering	2016	High (\$1 mil)	Grants, General Funds, Donations (NF)	
6.9	Crystal Bridges Trail West Extension (D)30 mi Construct an east/west <i>shared-use trail</i> between Park Springs Park and Crystal Bridges Trail.	Parks, Planning, Engineering, GIS	2017	High (\$300,000)	Grants, General Fund, Donations (NF)	
6.10	8 th Street (H) - 2 mi Construct an east/west <i>sidepath</i> along 8 th Street for the entire length of the 8 th Street road widening project, estimated between SW A Street to the interchange at I- 540.	Planning, Engineering, Parks, Transportation, GIS	2017	High (incorpor- ated into road project)	Federal Grant, General Fund (F)	
6.11	Community Center West (J)70 mi Construct a <i>shared-use trail</i> connecting Central Park Elementary school to the new Bentonville Community and Recreation Center.	Parks, Planning, Engineering, GIS	2018	High (\$700,000)	Grants, General Fund, Donations (NF)	

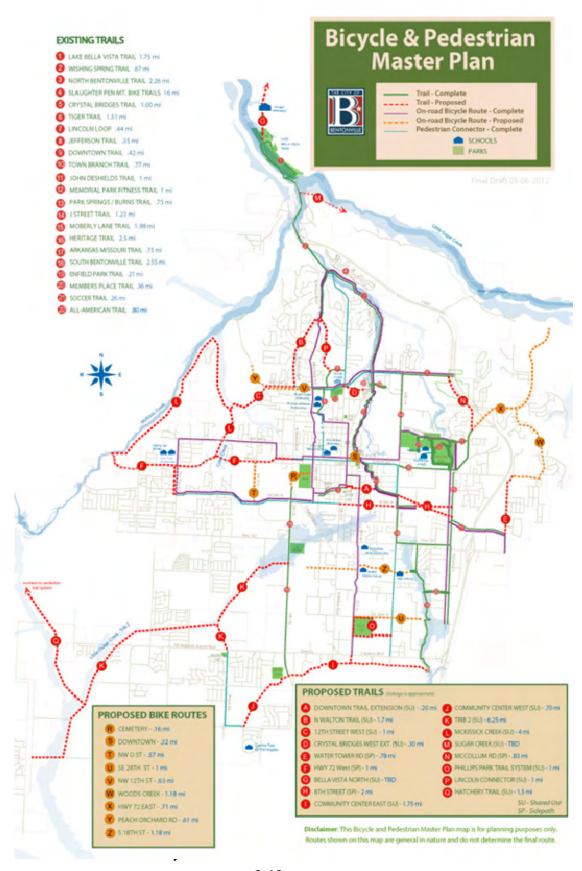
De	Development (continued)						
	Action Step	Participants	Timeframe	Costs	Financing		
6.12	Lincoln Connector (P) – 1 mi Construct a <i>shared-use trail</i> from Bella Vista Rd at North Walton Boulevard, traveling southeast toward Lincoln Jr High	Parks, Planning, Engineering, GIS	2019	High (\$1 mil)	Grants, General Funds, Donations		
6.13	12 th Street West (C) - 1 mi Complete <i>pedestrian connection</i> on NW 12 th Street between Walton Blvd. and Crimson Drive and create shared-use trail from Crimson along tributary of McKissic Creek.	Planning, Engineering, Parks, Transportation, GIS	2021	High (\$1 mil)	Grants, Donations, General Fund (NF)		
6.14	Highway 72 West (F) – 1 mi Construct a <i>sidepath</i> on Hwy 72 west (2 nd Street) out to Elm Tree Rd. From Elm Tree, connect to proposed trail for McKissic Creek (L on map).	Planning, Engineering, Parks, Transportation, GIS	2022	High (\$1 mil)	Grants, General Fund, Donations (NF)		
6.15	Trib 2 (K) – 6.25 mi Construct a <i>shared-use trail</i> along Tributary 2, from SW I St to the Western City Limit.	Parks, Planning, Engineering, GIS	Beyond 2022	High (\$6.25 mil)	Grants, General Funds, Donations (NF)		
6.16	Hatchery Trail (Q) – 1.5 mi Construct a <i>shared-use trail</i> from Trib 2 north to connect with the Centerton Trail System.	Parks, Planning, Engineering, GIS, Coordination with Centerton	Beyond 2022	High (\$1.5 mil)	Grants, General Funds, Donations		
6.17	McKissick Creek (L) – 4 mi Construct a <i>shared-use trail</i> along McKissic Creek, running from the end of the Hwy 72 trail extension (F) , north along McKissick Creek to tributary, then traveling south to connect with Coler Creek.	Parks Planning, Engineering, GIS	Beyond 2022	High (\$4 mil)	Grants, General Funds, Donations		
6.18	Little Sugar Creek (M) – 3 mi Construct a <i>shared-use trail</i> , beginning where McKissic Creek and Little Sugar Creek merge, traveling southeast along Little Sugar Creek. Much of this project is outside Bentonville's city limits, therefore, the city's role will be to encourage and support this trail based on its benefit to the regional trail network.	Parks, Planning, Engineering, GIS	N/A – Outside city limits	High (\$3 mil)	Grants, General Fund, Donations		
6.19	Bella Vista North (G) – TBD Encourage the City of Bella Vista and support efforts to connect the Lake Bella Vista to Metfield golf course with a <i>shared-use trail</i> . This would be a partnership with Bella Vista and would not be in the City's trail capital improvement program.	Parks, Planning, Engineering, GIS, City of Bella Vista	N/A – Bella Vista Project	N/A	N/A		

De	evelopment (continued)				
	Action Step	Participants	Timeframe	Costs	Financing
Goal	7: On-road bicycle routes that are m pedestrian system consistent with				
	(Cost estimates are based on a cost \$1 the road)	160 per unit for sharrov	vs, spaced 250	' apart on	both sides of
7.1	Cemetery (R) – .16 mi Mark and sign a bike route connecting the bike route on F Street (purple route) to Walmart Store 100, through the Bentonville Cemetery and the Walmart Home Office parking lot. Sharrows most likely will not be used through the cemetery, route will only be signed.	Planning, Engineering, Parks, Transportation, GIS	2013	Low	Grants, General Fund, Donations (NF)
7.2	Downtown (S) – .32 mi Identify an alternative on-road bike route from Lawrence Plaza to Town Branch Trail.	Planning, Engineering, Parks, Transportation, GIS	2013	Low (\$2,250)	Grants, General Fund, Donations (NF)
7.3	O St (T)57 mi Mark and sign a north/south bike route connecting NW 2 nd St and SW 8 th Street, via O Street.	Planning, Engineering, Parks, Transportation, GIS	2013	Low (\$3,840)	Grants, General Fund, Donations (NF)
7.4	S 28 th St (U) – 1 mi Mark and sign an on-road bike route along 28 th Street to connect Phillips Park with the South Bentonville Trail (Razorback Regional Greenway).	Planning, Engineering, Parks, Transportation, GIS	2013	Moderate (\$6,720)	Grants, General Fund, Donations (NF)
7.5	NW 12 th St (V)63 mi Mark and sign an on-road bike route on NW 12 th Street, between Bella Vista Rd and Crimson Drive.	Planning, Engineering, Parks, Transportation, GIS	2014	Moderate (\$4,160)	Grants, General Fund, Donations (NF)
7.6	Woods Creek (W) – 1.18 mi Mark and sign a bike route along Woods Creek Rd. between Hwy 72 and Battlefield Rd.	Planning, Engineering, Parks, Transportation, GIS	2014	Moderate (\$7,680)	Grants, General Fund, Donations (NF)
7.7	Hwy 72 East (X)71 mi Mark and sign an on-road bike route on Hwy 72 from McCollum to east city limits as part of the Regional Heritage Trail.	Planning, Engineering, Parks, Transportation, GIS	2014	Moderate (\$4,800)	Grants, General Fund, Donations (NF)
7.8	Peach Orchard Rd (Y) – .61 mi Study opportunities for a bike route and/or bike lane on Peach Orchard Road.	Planning, Engineering, Parks, Transportation, GIS	2014	Moderate (\$4,160)	Grants, General Fund, Donations (NF)
7.9	18 th St (Z) – 1.18 Mark and sign an on-road bike route along 18 th Street to connect Lake Bentonville to Bentonville High School.	Planning, Engineering, Parks, Transportation, GIS	2014	Moderate (\$8,000)	Grants, General Fund, Donations (NF)

Pı	ıblic Relations										
	Action Step	Participants	Timeframe	Costs	Financing						
Goa	Goal 8: Educational programs that improve bicycle and pedestrian safety.										
8.1	Budget for bicycle and pedestrian safety education. The city's annual budget should include a line item for bicycle and pedestrian safety education and awareness.	Moderate	Grants, General Fund, Donations (NF)								
8.2	Seek additional funding for bicycle and safety education. Alternative funding, through AHTD, grants and loans can leverage the city's budget.	Parks, Planning	Ongoing	Low	N/A						
8.3	Coordinate bike safety rodeos. A bike rodeo is a clinic that helps teach children the skills and precautions they need to be safe on their bicycles and why it's so important.	Walmart Home Office Bike Leadership Committee, Bentonville Bicycle Advocacy Group, Bike Bentonville	Annually	Low	N/A						
8.4	Establish Bike/Pedestrian Buses. A "bike/pedestrian bus" is a group of people who cycle or walk together on a set route following a set timetable to get to their destination safely. Users may join or leave the bike/pedestrian bus at various points along the route. They can be used by riders of all skill levels, but often the most experience serves as the leader or "bus driver". They can be organized through a workplace or schools, churches, parks, shopping trips, etc. The bike bus uses the roads, marked bicycle routes, trails, and sidewalks in the case of pedestrians. The pace of the bus is determined by the users, but can be broken into smaller buses of slower and faster riders.	Parks, Planning, Bicycle Advocacy Group, Bike Bentonville	2012	Low	N/A						
8.5	Establish practices to educate motorists and bicyclists about sharing the road. Use the City of Bentonville website (www.bentonvillear.com), brochures, press releases, and social media to promote bicycle safety and how to use bicycle facilities, such as bike lanes.	Parks, Planning, Bike Bentonville	2013	Low	N/A						
8.6	Establish an active Safe Routes to School Program.	Parks, Planning, Transportation, Engineering, Public School District, PTO's, Bike Bentonville	2013	Low	Grants, General Fund, Donations (NF)						
8.7	Create a Trail Ambassador Program. This program is made up of volunteers that provide safety tips, assist with bicycle maintenance, identify network infrastructure maintenance issues and distribute bicycle and pedestrian system maps.	Parks	2013	Low	N/A						
8.8	Establish bike training programs ranging from novice to advanced. Consider partnering with the Northwest Arkansas Community College to establish bicycle commuter courses.	Parks, Planning, Bentonville Bicycle Advocacy Group, Bike Bentonville	2014	Low	N/A						

Pu	Public Relations (continued)								
	Action Step	Participants	Timeframe	Costs	Financing				
Goal	Goal 9: Programming designed to increased awareness and participation in bicycling, walking, and running as a means of transportation, recreation, and part of a healthy lifestyle through programming.								
9.1	Seek opportunities to host local, regional, statewide, national, and international bicycle events.	Parks, Bike Bentonville	Ongoing	Low	Sponsorships, Donations				
9.2	Participate in Slaughter Pen Jam each fall.	Parks, Bike Bentonville	Annually	Low	General Fund (F)				
9.3	Adopt May as Bike Month with a resolution signed by the Mayor and plan related activities during that month.	Parks, Planning, Bike Bentonville	Annually	Low	N/A				
9.4	Host the annual Bentonville Running Festival.	Parks, BCVB	Annually	Low	Sponsorships, Donations (F)				
9.5	Develop and maintain a city-operated bike share program. The Parks and Recreation Department has an area designated for the bike share program in the Downtown Activity Center.	Parks	2012	Moderate	General Fund (F)				
9.6	Expand Bike to Work Week activities. Encourage city staff to participate and partner with employers and local advocacy groups to create incentives for participation in bike to work week activities, such as contests, groups rides, speaking to civic organizations, and hosting special events.	Parks, Planning, Bike Bentonville	2012	Low	General Fund (NF)				
9.7	Conduct mountain biking camps and clinics. These will be half-day camps where children, typically ages 8 – 18, will learn to handle their bicycle, learn safety and etiquette, play games, and spend time with other bikers.	Parks, Bike Bentonville	2012	Low	General Fund (NF)				
9.8	Coordinate lunch-time group rides during the fall and spring.	Parks, Bike Bentonville	2013	Low	General Fund (NF)				
9.9	Work with local employers to identify end users needs at the facilities and establish programs that support and encourage bicycle commuters.	Parks, Planning, Bike Bentonville	2013	Low	General Fund (NF)				
9.10	Organize nature walks along the native surface trails.	Parks	2013	Low	General Fund (NF)				
9.11	Organize a mom and strollers walking club.	Parks	2013	Low	General Fund (NF)				
9.12	Organize two special group rides each year, possibly park and trail tours.	Parks, Bike Bentonville	2014	Low	General Fund (NF)				
9.13	Establish a Commuter Mentor Program (commuter buddies). Bicycle mentors or buddies can help show novice bicyclists the ropes and build their cycling confidence.	Parks, Planning, Bike Bentonville	2014	Low	General Fund (NF)				

	Action Step	Participants	Timeframe	Costs	Financing
Goal	10: Enforcement of trail rules and bicy	cle laws.			
10.1	Create a card or pamphlet to give with warnings.	Police, Planning	2012	Low	General Fund (NF)
10.2	Seek opportunities to provide additional officers on bicycles.	Police	2013	Low	Grants, General Fund (NF)
10.3	Establish an annual training program for police officers. The training should include an overview of common motorist/bicycle law enforcement practices, update on bike and trail routes, crash statistics and areas of concern.	Police	2013	Low	Grants, General Fund (NF)
10.4	Monitor crash statistics and develop strategies to reduce opportunities for shared user conflicts.	Police	2014	Low	Grants, General Fund (NF)
Goal	11: Comprehensive and consistent pro	motion of the bicy	cle and trail r	etwork.	
11.1	Maintain an up-to-date City of Bentonville bike route map and trail map.	Planning, Parks, GIS	Ongoing	Low	N/A
11.2	Maintain data on the city's GIS system of bicycle and trail routes.	Planning, Parks, GIS	Ongoing	Low	N/A
11.3	Use the city newsletter to update citizens on trail construction, openings, and trail rules and etiquette.	Planning	Ongoing	Low	N/A
11.4	Use social media (Facebook, Twitter, etc.) to promote activities and programs.	Parks, Planning, Bike Bentonville	Ongoing	Low	N/A
11.5	Use the trails section of the city website to maintain up- to-date maps and information about programming.	Parks	Ongoing	Low	N/A
11.6	Publish brochures annually on trails and bicycle routes and distribute to local bike shops, the Bentonville Convention and Visitors Bureau, Downtown Bentonville, Inc, Bentonville Public Library, local hotels and restaurants.	Parks	Ongoing	Moderate	General Funds (NF)
11.7	Sponsor trail grand openings to thank donors and promote the trails.	Parks, Planning	As Needed	Low	General Funds (NF)
11.8	Create an online bicycle route/trail route input tool. An interactive online web-based program can help the City collect and share relevant data, allow users to report deficiencies, form communities of interest, identify system needs, and participate in the prioritization of infrastructure improvements.	Planning, GIS, Parks	2014	Low	General Funds (NF)



Priority Rankings

In order to determine annual work programs, the trails and bicycle routes were prioritized. The following guidelines were used to develop the list of priority projects.

Safety Project corrects a problem on an existing trail or travelway, or meets a critical

pedestrian need near schools.

Completion Completes an existing unfinished project along a primary trail corridor. **Gaps** Project completes a gap providing a significant continuous trial corridor.

ROW Land is owned by the city or an easement is currently available.

Coordination The project can be coordinated with another planned project, such as a road

improvement, residential or commercial development, or park improvement.

Connection Provides a connection to existing trail facilities.

Destination Project has a key destination at either end or along the trail, such as schools,

parks, and major employment centers.

RRG Conn The trail connects to the Razorback Regional Greenway.

Scores are based on conditions at the time the plan was originally prepared. Rankings do not necessarily determine the order in which the trails will be built. Over time, as trails are developed, conditions change, and opportunities present themselves, priorities may change. The table can be updated so that priority ratings will adjust accordingly.

Pri	ority Rankings - 20	112														
Goal #	omen	Map Reference	Section	Туре	Miles	Safety	Completion	Gaps	ROW	Coordination	Connection	Destination	Razorback Greenway Conn.	Total	Priority Ranking	Comments
6.10	8th St	н	SW A St to Water Tower Rd	SP	2.00	1	1	1	1	1	1	3	1	10	1	Destination: WM Home office, ISD, NWACC
6.7	Water Tower Road	Е	Hwy 102 to Battlefield Rd	SP	0.78	1	0	0	1	1	2	1	0	6	2	Connection: Heritage Trail, MO/AR RR Trail Destination: NWACC
6.1	Downtown Trail Extension	А	Downtown Trail to Town Branch Trail	SU	0.20	0	0	0	1	0	2	1	1	5	3	Connection: Downtown Trail, Town Branch Trail. Destination: Public Library
6.2	NW D St Pedestrian Connector		5th St to 9th St	Ped Conn	0.23	1	0	1	1	0	0	2	0	5	3	Destination: Schools at each end
6.11	Community Center East	1	Community Center to South Bentonville Trail	SU	1.75	0	0	0	0	1	2	1	1	5	3	Connection: Heritage Trail, RRG; Destination: Community Center
6.16	McCollumn Rd	N	Tiger Blvd to Central Ave	SP	0.83	1	0	1	1	0	2	0	0	5	3	Connection: Tiger Trail, Heritage Trail
6.9	Bella Vista North	G	Lake Bella Vista to Metfield Golf Course	MU	TBD	0	0	0	0	0	1	2	1	4	4	Connection: Lake Bella Vista Trail Destination: Lake Bella Vista Park, Golf Course
6.6	Crystal Bridges Trail West Ext	D	Crystal Bridges Trail to Park Springs Park	SU	0.30	0	0	0	0	0	2	1	0	3	5	Connection: CB Trail, PSP Trail. Destination: Park Springs Park
6.12	Community Center West	J	Community Center to Central Park Elementary	SU	0.70	0	0	0	0	0	1	2	0	3	5	Connection: Heritage Trail Destination: Central Park, Community Center
6.15	Little Sugar Creek	М	McKissick Creek to Hwy 72	SU / NS	3.00	0	0	0	0	0	2	0	1	3	5	Connection: Wishing Springs, Heritage Trail
6.17	Phillips Park Trail System	0	Phillips Park	SU	1.00	0	0	0	1	1	0	1	0	3	5	Destination: Phillips Park
6.3	N Walton Trail	В	Bark Park to NW 12th St	SU/SP	1.70	0	0	0	0	0	1	1	0	2	6	Connection: N Bentonville Trail Destination: Bark Park
6.4	12th St West	С	Walton to McKissic Creek Tributary	SP/ SU	1.00	1	0	0	1	0	0	0	0	2	6	
6.5	South Bentonville gravel running path		Hwy 102 to S Walton Blvd	gravel	1.65	0	0	0	1	0	0	0	1	2	6	Enhancement of existing trail
6.18	Lincoln Connector	Р	Bella Vista Rd to Lincoln Jr High	SU	1.00	0	0	0	0	0	1	1	0	2	6	Connection: N Bentonville Trail; Destination: Lincoln Jr High
6.8	Hwy 72 West	F	Central to McKissic Creek	SP	1.00	0	0	0	0	0	0	1	0	1	7	Destination: Elm Tree/Spring Hill
6.14	McKissick Creek	L	Hwy 72 around to Coler Creek	SU / NS	4.00	0	0	0	0	0	1	0	0	1	7	Connection: Heritage Trail
6.13	Trib 2 (K)	K	SW I to Western City Limit	SU	6.25	0	0	0	0	0	0	0	0	0	8	
6.19	Hatchery Trail	Q	Little Osage, from Trib 2 to Centerton	SU / NS	1.50	0	0	0	0	0	0	0	0	0	8	

SCORING KEY

0 - no safety issue
1 - corrects a safety issue
Completion
0 - does not compelte an existing trail does complete an existing trail
Gap
0 - does not fill a gap
1 - does fill a gap
NoW
0 - ROW is not currently available
1 - ROW is currently available
1 - ROW is currently available
1 - conocition to poportunity
1 - coordination opportunity
1 - conocition to RRG
1 - connection to RRG
Trail Connection
of existing trails the proposed trail will connect with
Destination
of orax's chool, or employment destinations along trail

Based on the priority scores received, the proposed trails rank as follows. Some trails received the same score, so several trails may fall into the same rank.

Trail Priorities					
Trail	Ranking				
8th Street	1				
Water Tower Rd	2				
Downtown Trail Extension NW D Pedestrian Connector Community Center East McCollumn Rd	3				
Bella Vista North	4				
Community Center West Phillips Park Trail System Crystal Bridges Trail – West Extension Little Sugar Creek	5				
N Walton Trail 12 th Street West S Bentonville gravel running path Lincoln Connector	6				
Hwy 72 West McKissick Creek	7				
Trib 2 Hatchery Trail	8				

10 YEAR ANNUAL WORK PROGRAM

Annual work programs are developed based on the priority ranking of the trails and bicycle routes. Conceptual work programs are provided for the next 10 years. However, this work program does not determine exactly what and when a project will take place. It is designed only to serve as a guideline when preparing capital improvement budgets.

Projects that will be completed as part of a road improvement project, such as 8th St and Water Tower Rd, or park improvement, such as Phillips are not included in this work program. For public relations and programming action step, times frames that are considered "Ongoing" or "Annual" are not included in this annual work program. Design costs are based on a 6% of estimated construction costs.

The Action Plan identifies a total of 19 projects, 17 of which are new trail construction adding 24 trail miles to the bike and pedestrian network. The plan identifies 6.4 miles of new bike routes.

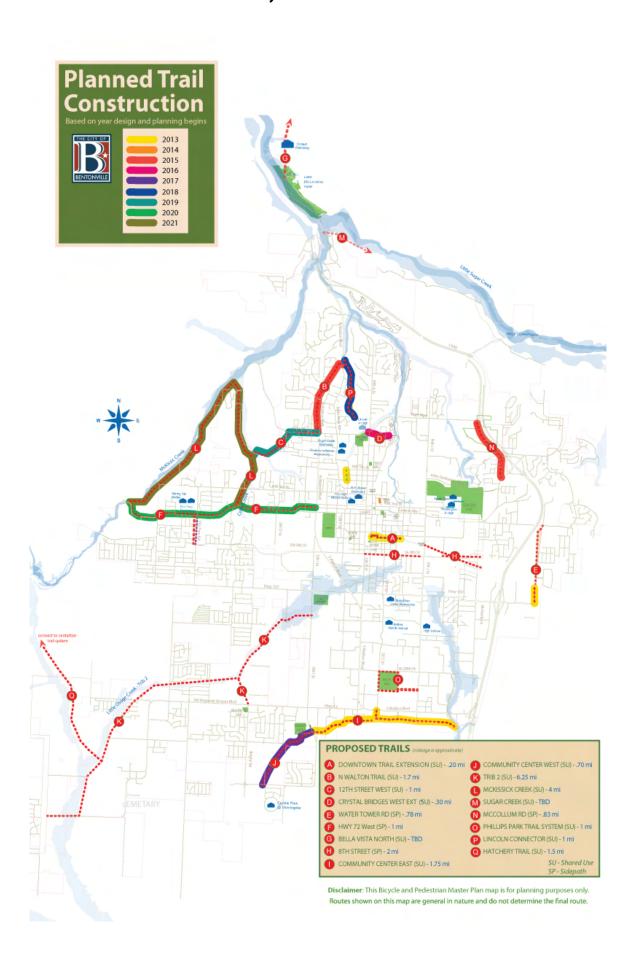
The 10-year Annual Work program identifies 11 projects, adding 8.48 trail miles. The 10-year Annual Work program proposes all bike routes will be constructed during this time. Total design and construction cost for this work program is \$9.86 million.

2013			
CATEGORY	ACTION STEP	REF #	BUDGETARY IMPACT
Safety	Complete installation of mile markers	1.1	\$50,000
	Prepare a plan to address sidewalk needs within ½ mile of schools	1.2	_
	Determine need to lighting on off-road trails	1.3	-
	Study need for call boxes	1.4	-
	Study feasibility of at-grade crossing at 3 rd and Walton Blvd	1.5	_
Support Facilities	Identify bicycle parking needs	2.3	_
	Adopt ordinance requiring bicycle parking at new commercial facilities	2.4	_
	Address wayfinding signage between Crystal Bridges and Town Branch through square	4.4	\$15,000
Construction	Downtown Trail Extension – complete construction	6.1	\$150,000 (funded)
	NW D Connector – design and complete construction	6.2	\$115,000
	Community Center East – seek funding, prepare construction drawings	6.4	\$100,000 (design)
Bike Routes	Mark and sign bike routes for the following:	7.1 –	\$15,000
	- F St to Walmart Store 100	7.4	
	- Lawrence Plaza to Town Branch		
	- NW 2 nd St and SW 8 th St, via O St		
	- 28th St, connecting Phillips park with RRG		
Public Relations	Establish bike buses	8.4	_
	Educate motorists and bicyclists about sharing the road	8.5	_
	Establish Safe Routes to School Program	8.6	_
	Establish Trail Ambassador Program	8.7	_
Programming	Initiate lunch time group rides	9.8	
	Work with employers to establish programs that support bicycle commuting.	9.9	_
	Organize nature walks.	9.10	_
	Organize a mom and stroller walking club	9.11	_
			\$445,000

2014			
Safety	Add improved pedestrian signals and signage at Tiger & Walton	1.6	\$40,000
	Identify need and develop plan for other crosswalk improvements	1.7	-
Support Facilities	Analyze and determine need for water fountains	2.5	_
	Develop and implement landscaping plans for trailheads	5.5	\$50,000
Construction	Community Center East – complete construction	6.4	\$1.75 mil (construction)
	S Bentonville Trail – gravel path – seek funding, prepare construction drawing	6.5	\$6,000 (design)
Bike Routes	Mark and sign bike routes for the following: - NW 12 th ST, Bella Vist Rd to Crimson Dr - Woods Creek Rd, Hwy 72 to Battlefield - Hwy 72, McCollumn to east city limits - Peach Orchard Rd - 18 th St, Lake Bentonville to Bentonville HS	7.5 – 7.8	\$30,000
Public Relations	Establish bike training programs	8.8	_
	Create an online bicycle rout/trail route input tool	11.8	_
Programming	Organize two special group rides each year (park & trail tours)	9.12	_
	Establish a commuter mentor program	9.13	_
			\$1.876 mil
2015			
Construction	S Bentonville Trail Gravel Path – complete construction	6.5	\$60,000 (construction)
	North Walton Trail – seek funding, prepare construction drawings, acquire row	6.6	\$120,000 (design)
	McCollumn Rd – see funding, prepare construction drawings	6.7	\$50,000 (design)
			\$230,000
2016			
Construction	McCollumn Rd – complete construction	6.7	\$830,000 (construction)
	North Walton Trail – complete construction	6.6	\$2 mil (construction)
	Crystal Bridges West Extension – seek funding, prepare construction drawings, acquire easements	6.9	\$18,000 (design)
			\$2.848 mil
2017			
Construction	Crystal Bridges West Extension – complete construction	6.9	\$300,000 (construction)
	Community Center West – seek funding, prepare construction drawings, acquire row	6.11	\$42,000 (design)
			\$342,000
2018			
Construction	Community Center West - complete construction	6.11	\$700,000 (construction)
	Lincoln Connector – seek funding, prepare construction drawings, acquire easements, right of way	6.12	\$60,000 (design)
			\$760,000
2019			
Construction	Lincoln Connector - Complete construction	6.12	\$1 mil (construction)
	12 St West - seek funding, prepare construction drawings, acquire easements, right of way	6.13	\$60,000 (design)
			\$1.06 mil
2020			
Construction	Hwy 72 W - seek funding, prepare construction drawings, acquire easements, right of way	6.14	\$60,000 (design)
			\$60,000

2021			
Construction	12 St West - complete construction	6.13	\$1 mil (construction)
	McKissic Creek - seek funding, prepare construction drawings, acquire easements, right of way	6.17	\$240,000 (design)
			\$1.24 mil
2022			
Construction	Hwy 72 W - complete construction	6.14	\$1 mil (construction)
			\$ 1 mil

TRAIL CONST	rructi	ONTIMELINE
Budgeting/Planning		Completion
NW D Connector Community Center East	2013	Downtown Trail Extension NW D Connector
South Bentonville Gravel Path	2014	Community Center East
N Walton Trail McCollum Rd Sidepath	2015	South Bentonville Gravel Path
Crystal Bridges West Extension	2016	NWalton Trail McCollumn Rd Sidepath
Community Center West	2017	Crystal Bridges West Extension
Lincoln Connector	2018	Community Center west
12 Street West	2019	Lincoln Connector
Hwy 72 West	2020	
McKissic Creek Trail	2021	12 St West
	2022	Hwy 72 West
Trib 2 Hatchery Trail	Y	McKissic Creek Trail
*Trails being constructed wit 8th St and Water Tower R		



4 Design Standards

Intent

The purpose of this chapter is to identify minimum standards for trail development. Those involved in designing, constructing, and the development of the master trail system should follow these minimum guidelines. The information provided should be used as a reference to assist in the implementation of the plan.

Design Considerations

The following shall be considered during the design process:

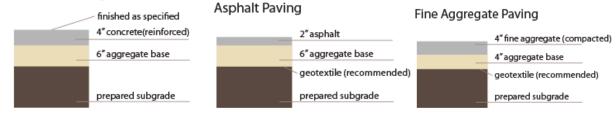
- Safety: avoid busy intersections, steep grades, and environmental contamination
- Avoid, minimize, or mitigate negative impacts to surrounding habitat and ecosystems
- Locate in floodplains, when available
- Connectivity and continuity to increase usefulness
- Provide linkages to points of interest
- Involve adjacent land owners to determine needs for buffering or screening
- Involve the anticipated users in the design of the trail
- Accessibility
- Research natural and human history along trail and install educational and informational signage
- Consider context: natural features, local materials, immediate scale, historical significance
- Incorporate public art

General Construction

Typical Cross Section

Trails should be constructed with three layers: sub-grade, base and surface material.

Concrete Paving



Surfaces

Trail type, location and permeability, primary user, cost, and maintenance shall be considered when choosing a surface material. See *Bicycle and Pedestrian Facility Types* section of this document for details.

Hard Paving: Shared Use Paths

- Concrete: high initial cost, low routine maintenance, high repair cost, impermeable
- Asphalt: medium initial cost, medium routine maintenance, low repair cost, semi-permeable
- Compacted Sand: low initial cost, high routine maintenance, low repair cost, permeable

Soft Paving: Native Surface

Native surfaces should be used as much as possible. When it is necessary to use imported surface material, it should be similar to and compatible the dominant native surface.

Grading

Grading should be designed for the highest demand trail user (usually a bicyclist). Hard Paved Trail Grades shall be designed as per *AASHTO* standards and Uniform Federal Accessibility Standards, and the ADA Guidelines.

Sight Distances

Sight distances should be designed for the highest demand trail user (usually a bicyclist). Sight distances are usually designed from the perspective of what needs to be seen, such as signage, hazards, traffic, etc. Sight distances may vary on Native Surface Trail types as the expected skill level of the user is high. Sight Distances shall be designed as per AASHTO Guide for Development of Bicycle Facilities, Chapter 2: Design, Section: Grade.

GRADING

5% or less typically 5-6% for up to 240 m (800 ft) 7% for up to 120 m (400 ft) 8% for up to 90 m (300 ft) 9% for up to 60 m (200 ft) 10% for up to 30 m (100 ft) 11+% for up to 15 m (50 ft)

TYPICAL SITE DISTANCE

Pedestrian: 50'.

Bicyclist: 50' - 450',
depending on speed, slope
and direction of travel.

Paved Trails - Shared Use Trail

Use Case. Existing infrastructure such as drainage ways or railroad beds are available to locate the trail along. Trails located along roadways are called Side paths. See *Special Considerations for Side paths* section of this document for appropriate use case and treatment. This trail type should not be employed along residential streets as they conflict with the existing scale and context. Instead consider a Bicycle Facility with Sidewalk. See the On-road Bicycle Facility section of this document for details.



Primary User. Shared use trails accommodate both pedestrians and bicyclists. This design solution should be used when the travel is expected to be primarily recreational as opposed to commuting. These users are expected to be at low and intermediate skill levels and therefore value safety, scenery, and ease of use over efficiency of travel.

Width. 10'-14' depending on the design capacity. 10' is the minimum required width to accommodate bicyclists and pedestrians. A width of 12'-14' is recommended wherever possible and is required where medium or high use is expected such as near points of interest or in high density areas such as downtown. An exceptional width of 8' may be used only on trails that meet the following conditions: have less than 2 access points per mile, bicycle traffic is expected to be low at all times, pedestrian use is only occasional, sightlines are good, passing opportunities are provided, and typical grades are less than 3%.

Surface Type. Asphalt is preferred by most recreational users and should be used if a feasible maintenance schedule is included in the proposal. Compacted fine aggregate may be used in sensitive ecosystems, for its permeable nature, or on trails in remote or undeveloped areas if a feasible maintenance schedule is included in the proposal. Concrete may be used otherwise. Consider that concrete is not preferred by joggers and walkers. It is also often not preferred by bicyclists due to the frequent seams.

Grade. 2% cross slope with 2' wide graded shoulders.

Edge Treatment. Trails are linear parks. Landscaping elements and features are crucial to this concept. Landscaping buffers, retaining walls, railings, or fences are required along trails where the adjacent terrain produces a hazardous drop off or adjacent land use (such as a rail line or high velocity roadway). When these elements are used they should also be used to create a sense of place and distinguish the trail from sidewalks. See Features: Landscape section of this



document for details.

Special Conditions for Location in Floodplains. Shared use trails can be located along drainage ways, in floodway sand floodplains and sometimes directly adjacent to waterways.

Surface Type. Asphalt or another permeable surface should be used in these areas due to potential flooding, to reduce impact on the environment, and to preserve the natural context of these areas. Concrete is not recommended in sensitive riparian zones or where flooding is expected to occur due to its impermeability. Compacted Fine Aggregate is also not recommended in areas prone to flooding.

Grade. Special considerations for grading should be made to account for drainage in the likely event of flooding.

Edge Treatment. When using landscaping elements and features, environmental impact and context should be considered. Landscaping should reinforce and ideally, preserve and mitigate the natural ecosystem. Features should be used sparingly and incorporated into the natural context. Where a trail is directly adjacent to a waterway, edge barriers to prevent flooding and allow for drainage are necessary. Retaining walls and footing may also be necessary to preserve the integrity of the trail.



Special Considerations for Fitness Loops. Fitness loops are typically located in or around parks. Parks provide for a good size loop for on-foot recreational users. These loops are often not preferred by bicyclists for exercise or recreation, but may be used for travel from point to point. The primary user is expected to be on foot (i.e. joggers and runners). Asphalt should be used and striping is required only where usage is high and width is narrow. Landscaping and features along this trail type should be designed in conjunction with the overall design of the park.

Paved Trails - Side Path

Use Case. This trail type should be used <u>only</u> when all other types and locations for shared use trails are shown to be impossible and where installation of this trail will contribute to overall continuity and connectivity. Many bicyclists prefer the on-road bicycle facilities compared to the side path. Therefore, the on-road bicyclist facililities paired with a sidewalks is preferred to this trail type. Side Paths should only be used under the following conditions:



- There are not more than 8 roadway or driveway crossings per mile
- At-grade midblock crossings on arterial or collector streets can be avoided.

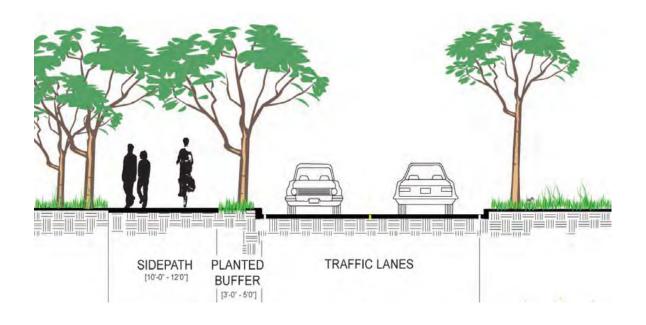
Primary User. Primarily pedestrians and recreational bicyclists that are of beginner or intermediate skill levels.

Width. 10' preferrably, but many existing side paths are 8'.

Surface Type. If concrete is used, continuous pavement markings such as striping should be used to distinguish trails from sidewalks. See *Signage: Regulatory: On-paving: Shared Use Trail Striping* for details.

Grade. Grading will be consistent with that of the adjacent roadway.

Edge Treatment. A landscaped buffer of at least 3' should be in place for at least 85% of the total length. A buffer of 6' or greater along its entire length is recommended.



Native Surface Trails - Mountain Biking & Hiking Trails

Use Case. This trail type should only be employed in natural environments, ideally with dynamic terrain. These trails are typically part of a larger system. Although the system itself may be divided by a roadway, the individual trails should be located and designed in such a way as to avoid all at-grade roadway crossings.

Primary User. This design solution should be used when the expected use is primarily active recreation, especially mountain bicyclers. However these trails should also be designed for hikers as well. These users are expected to be at high and intermediate skill levels and therefore can safely navigate more challenging terrain and constraints. A primary user should be designed for based on expected use. The accommodations for hikers and mountain bicyclists are often mutually exclusive. Additionally,



if both uses are encouraged to the same extent, safety conflicts are more likely to arise. Where necessary, user types may be restricted for safety.

Width. A minimum width of 18" is required. 24" is recommended. A greater width may be required where there is an expected mix of user types or high use. The maximum allowable width is 3' to limit the impact on the environment. This maximum width should be maintained and repaired where wear and tear has widened the trail through use.

Surface Type. These trails must be native surfaces. They may require to be compacted. Alternative soft surface materials may be used where necessary to preserve the integrity of the trail. Natural drainage such as water bars should be used incrementally along the length of the trail to prevent erosion. maintenance schedule should be considered in advance as these surface types can require considerably more maintenance than paved trails.



Grade. Grades on these trails should be appropriate for the environment. Exceptions to grade requirements may be necessary where the terrain or environment make grading impossible or not feasible. Every effort should be made to have as little impact on the environment as possible while designing for safety and challenge.

Edge Treatment. Landscaping should be entirely natural and should only be altered as necessary to produce an acceptable trail width. The terrain should be altered only to provide for allowable cross slopes and adequate drainage. The trail should be reinforced with a rock wall or other natural features to preserve the integrity of the trail where necessary. Features should only be used to enhance the level of challenge provided by the trail or to preserve the integrity of the trail. Amenities should be installed more for necessity and less for convenience. In the case of Nature Trails, landscaping should be thoughtfully maintained to emphasis natural elements. Rare species of flora should be encouraged and invasive species discouraged to preserve and enhance the natural ecosystem

Special Considerations for Mountain Bike Trails. These trails are designed primarily for mountain bike use. They have a small footprint on the land and require the least amount of disturbance and support features of all types of trails. They are typically 18" – 24" wide and constructed using hand tools or low impact machinery to create a bare earth of leaf litter surface.

Special Considerations for Hiking Trails. Hiking trails are used primarily for pedestrians/hikers. They are typically 18" to 6' wide with a 9' vertical clearance and maximum slope of 5%. They are costructed of dirt, rock, soil, forest litter, wood chips, and crushed stone. Edging is needed on the low side of the trail, at steps and terraces. Water bars can be used to direct surface water off the trail and bedrock can help reduce erosion.

On-road Bicycle Facilities - Bicycle Lane

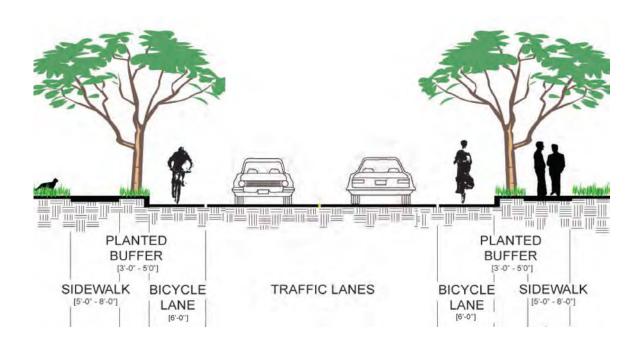
Use Case. On roadways with average daily traffic (ADT) counts of 3,000 or more and where the speed limit exceeds 35 MPH. Not suitable where there are a high number of commercial driveways. Suitable for 2-lane facilities and 4-lane divided facilities. Bicycle lanes are often considered the safest of accepted on-road bicycle facility types. They also have a high "perceived safety" by users, and encourage use of on-road facilities. They are located on both sides of the road, except one way streets, and carry bicyclists in the same direction as adjacent motor vehicle traffic.



Primary User. Intermediate to advance bicyclists. These bicyclists should have had some experience with on-road bicycling and/or attended bicycle education classes.

Width. At least 40" of dedicated, usable space is required to accommodate a bicycle lane. This width can be often be achieved by narrowing existing road lanes. This is also a typical traffic calming device. This should be done at the discretion of engineering judgment in consideration of bicyclists and motorist use of the roadway. It should be considered when designing width, that State of Arkansas law requires motorists to pass bicyclists with at least 3 feet between the passing vehicle and the bicyclist.

Specifications. Install as per MUTCD and AASHTO. Shared Road Symbols should be installed at least every 200' along a route and immediately following an intersection. Install at intersections as per *Roadway Crossings: On-road Bicycle Facilities at Intersections* section of this document. See *Signage: Regulatory* for Shared Road Symbol Specifications.



On-road Bicycle Facilities - Shared Lane

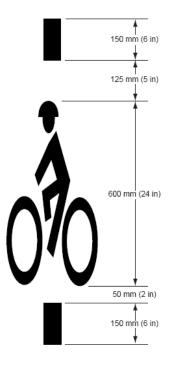
Use Case. Shared Lanes should be used where lanes are too narrow for striping bicycle lanes and where the speed limit does not exceed 35 MPH. They can be used with or without on-street parking.

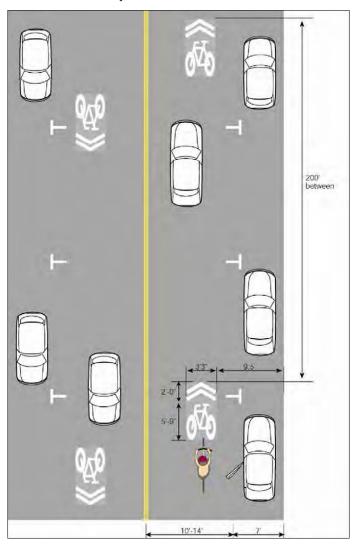
Primary User. Advanced bicyclists.

Width. Need to keep in mind that State of Arkansas law requires motorists to pass bicyclists with at least 3 feet between the passing vehicle and the bicyclist.

Specifications. Install as per MUTCD and AASHTO. Shared Road Symbols

should be installed at least every 250' along a route and immediately following an intersection. Install at intersections as per *Roadway Crossings: On-road Bicycle Facilities at Intersections* section of this document. All pavement markings proposed to be placed on Arkansas Highway and Transportation Department (AHTD) right-of-way must be approved by AHTD prior to installation. For Shared Road Symbol Specifications and Installation, see *Signage: Regulatory*.





Pedestrian Connector - Sidewalk

Use Case: Designed for pedestrians and often located in or adjacent to residential area, allowing those residents access to the trail system. While they are not considered a trail, they play a role in making connections to the system, often on a temporary basis until the trail system is compete. However, in downtown and more urban areas, sidewalks are an integral part of the trail system and a more long-term solution to pedestrian travel. Furthermore, all onroad bicycle facilities should be designed with a pedestrian connector component.



Primary User. Pedestrians and runners. Pedestrian connectors should not be used by bicyclists.

Width: The City of Bentonville Master Street Plan sets the width for sidewalks, depending on the roadway type. Arterial and collector streets must have a 6' sidewalk on both sides; Local and residential streets must have 5' on both sides. Urban Collectors, those that are located through downtown must have a 13' wide sidewalk.

Surface Type: Concrete.

Edge Treatment. A welcoming, pleasant and safe environment will encourage the pedestrian use of sidewalks. To achieve a sense of safety and security, the sidewalk needs protection from vehicular traffic on the street. This can be achieved with a grass or landscaped space between the edge of the curb and the edge of the sidewalk. To bring the environment down to a human scale, street trees can provide some enclosure and signs and lighting need to be visible to the pedestrian.

Grade. Consistent with adjacent roadway.

Specifications: All sidewalk design and construction should be consistent with *City of Bentonville Street Specifications*.

Crossings

Crossings include those that cross roadways (above grade, at grade, and below grade), those that are needed to cross unique terrain, such as a creek, and railroad crossings.

Roadway Crossings - Above Grade

Use Case. Trail overpasses are prohibitively expensive. They should only be placed in areas of substantial need to provide trail access over large man-made features such as highways and railroads, when existing topography allows for smooth transitions, and where a "signature bridge" is feasible. A 'signature' bridge should be considered in areas of high visibility, such as over major roadways. While often more expensive, a more artistic overpass will draw more attention



to the trail system in general, and could serve as a regional landmark.

Design. The following shall be considered during the design process:

- Safety should be the primary consideration in bridge/overpass design.
- Specific design and construction specifications will vary for each bridge and can be determined only after
- all site-specific criteria are known.
- Coordinate design with Drainage Systems and Streets.
- Always consult a structural engineer before completing bridge design plans, before making alterations or additions to an existing bridge, and prior to installing a new bridge.

Specifications. For Shared Use Trails, a minimum width of 14' is required where the length of the bridge exceeds 200'. Otherwise the design width of the trails may be used for the length of the bridge. Coordinate with *Fences and Railings* section of this document.

Roadway Crossings - Below Grade

Use Case. Over and underpasses should be considered only for crossing arterials with greater than 20,000 vehicle trips per day and speeds 35 mph and over. Underpasses work best with favorable topography when they are open and accessible, and exhibit a sense of safety.

Design. Utilize existing overhead roadway bridges adjacent to steams or culverts under the roadway that are large enough to accommodate trail users. Proper drainage must



be established to avoid pooling of storm water. Some underpasses can be designed to flood periodically (after significant rainfall, for instance).

Specifications. Vertical clearance of the underpass is ideally at least 10'; minimum clearance is 8'. Width of the underpass is ideally at least 12'; minimum width is 10'. Underpasses should have a daytime luminance minimum of 10 fc and a night time level of 4 fc.

Roadway Crossings - At Grade

Considerations

- Relative speeds of shared-use path and roadway users,
- Relative volumes of shared-use path and roadway traffic, and
- Relative importance of shared-use path and roadway.
- STOP signs should not be used where YIELD signs would be acceptable.
- Being overly restrictive in an attempt to protect the path user can lead to confusion and unsafe practices by both path users and motorists, increasing the potential for a collision. AASHTO Guide for Development of Bicycle Facilities, pg 50, last paragraph
- Motorists often misinterpret long start times as an intention not to start. Once in motion, it is more difficult to stop a bicycle than a car at low speeds.
- Bicyclists are less likely to obey regulatory signs than motorists. While ongoing education and etiquette can mitigate this, it would be inappropriate to assume that bicyclists will consistently obey regulatory signs.
- When designing for safety it is often more important to consider behavior than to assume that regulations will be followed.

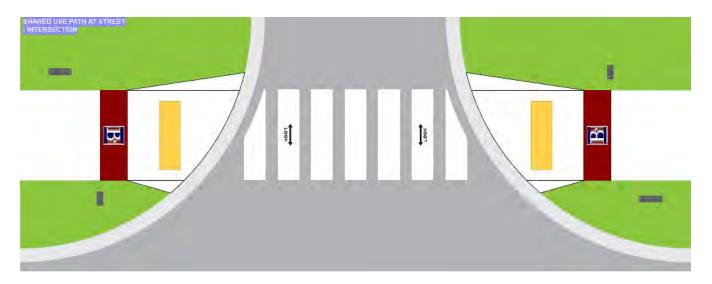
Crosswalks

Crosswalks mark the pedestrian right-of-way across a street. These should be marked where the pedestrian is most likely to cross and in these instances: 1) at traffic signals and stop signs, 2) street crossings in school zones, and 3) where crosswalks are desireable and can be engineered for maximum safety. Thermoplastic is the perferred materials for installing crosswalks due to their longevity and low maintenance. The following guidelines should be applied when determining locations for and construction crosswalks (source: Trail Design Resource Notebook):

- Should not be installed at intersections without traffic signals where speeds exceed 40 mph.
- Crosswalks may need to be paired with other techniques to maximize safety, especially on roadways with an average daily traffic above 10,000.
- The minimum width of a crosswalks is 6', but may need to be up to 10' or wider at downtown locations.
- Crosswalk markings should extend the full length of the crossings, including curb ramps and other sloped areas.
- All crosswalks markings should be white, per MUTCD.
- The "continental" or "ladder" crosswalk pattern are preferred in Bentonville.



The lines should be one to two feet wide and spaced one to five feet apart.



Curb Ramps

Curb ramps are necessary for access between the sidewalk/trail and roadways to a variety of users, including wheelchair users, people using walkers, crutches or handcarts, people pushing bicycles or strollers and anyone with a physical impairment. Federal law requires curb ramps to be located at all intersections and mid block crossings. A separate curb ramp is needed for each crosswalk. The ramp slopes should be at a maximum of 1:12 (8.33%).



Crossing Enhancement Elements

Advanced Stop Bar. These are stop bars that are set back considerably from the crosswalk to increase visibility. These should be used at all intersections and mid-block crossings. For details, see Signage section.

Bulb-out. Bulb-outs, also known as neckdowns, are curb extensiosn at intersections and mid block crossings that reduce the roadway width from curb to curb. The increase safety by reducing the roadway crossing distance. Bulb-outs should be used where on-street parking exists near a pedestrian crossing, typically in downtown locations.

Crossing Enhancement Elements

advance stop bar refuge island pedestrian lighting reflectors in pavement bulb outs signals signage

Pedestrian Lighting. See Trail Lighting – *On-road* in the Amenities section of this chapter.



Reflectors in pavement.

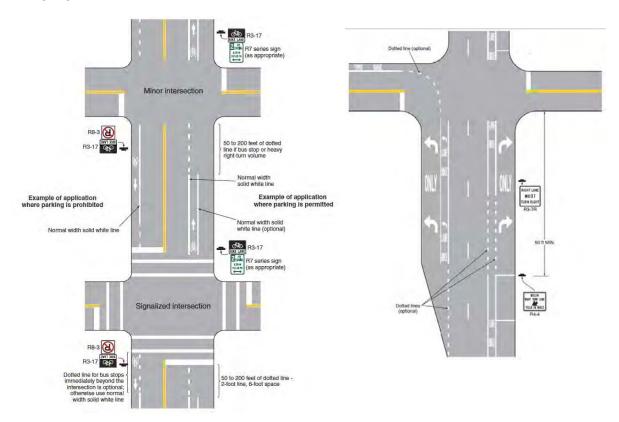
Refuge Island. These should be used at intersections and midblock crossings in roadways with four or more lanes.

Signage. Signage, for both the vehicle and trail user, such as in-road pedestrian crossing signs, crosswalk signs, etc. These include both post mounted signs and on-road markings that should be used at all crossings. For details, see Signage Standards chapter.

Signals. Traffic signals and pedestrian signals can enhance safety of crossings at intersections as well as mid-block crossings. Pedestrian signals are installed at roadway crossings to indicate to the pedestrian when it is safe to cross. Federal policy requires all new pedestrian signals to be the countdown type, that shows how many seconds the pedestrian has to cross the street.

Roadway Crossings: Bicycle Facilities at Intersections

Intersection treatment for bicyclists are critical since these present a higher chance of collision than any other interaction between the vehicle and the bicyclists. Use MUTCD for guidance on lane delineation and signage.



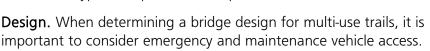
Roadway Crossings: Side Paths at Intersections

It is standard practice to treat these types of crossings in the same manner as a typical street intersection. Right-of-way should be assigned based on similar considerations. Considerations specific to shared use intersections is outlined below. "Although the shared use path should be given the same

priority through intersections as the parallel highway, motorists falsely expect bicyclists to stop or yield at all cross-streets and driveways. Efforts to require or encourage bicyclists to yield or stop at each cross-street and driveway are inappropriate and frequently ignored by bicyclists." AASHTO Guide for Development of Bicycle Facilities, pg 34, last paragraph bicycle book.

Terrain Crossings - *Bridges*

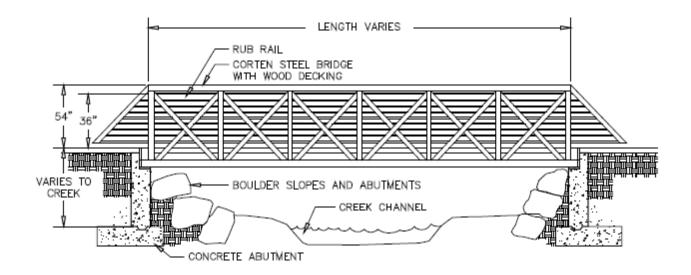
Use Case. Multi-Use Trail bridges (also 'bicycle/pedestrian bridges' or 'footbridges') are most often used to provide trail access over natural features such as streams and rivers, where a culvert is not an option. The type and size of bridges can vary widely depending on the trail type and specific site requirements.





If a corridor already contains a bridge such as an abandoned rail bridge, an engineer should be consulted to assess the structural integrity before deciding to remove or reuse it. All abutment design should be sealed by a qualified structural engineer and all relevant permits should be filed.

Specifications. A trail bridge should support 6.25 tons. Prefabricated bridges are recommended because of their relative low cost, minimal disturbance to the project site, and usually, simple installation.



Terrain Crossings - Boardwalks

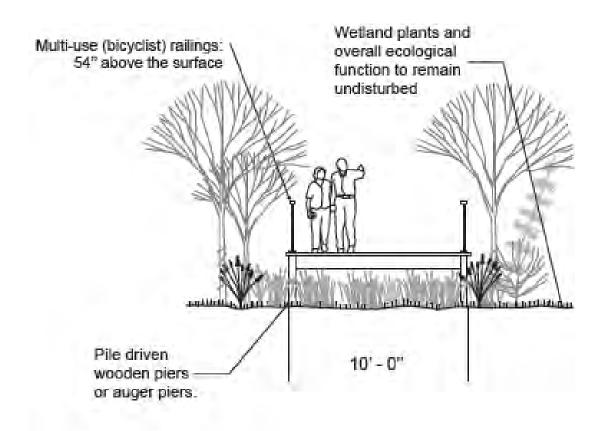
Use Case. Boardwalk or wood surface trails are typically required when crossing wetlands or other poorly drained areas. In general, building in wetlands should be avoided.

Design. The design should reinforce a sense of place and be consistent with the context. Reduce the disturbance within wetland areas to the greatest extent possible. Structural engineers should be consulted.



Specifications. When the height of a boardwalk exceeds

30", railings are required (see *Fences and Railings* for details). The thickness of the decking should be a minimum of 2". Opportunities exist to build seating and signage into boardwalks. Note: muddy bicycle tires may be slick on wood surfaces. Include warnings as necessary.



Railroad Crossings

Bentonville Bicycle & Pedestrian Master Plan

Railroad crossings can be particularly hazardous for anyone on a non-motorized wheeled device, such as a wheelchair or bicycle. The following techniques can be employed to increase the level of safety.

- Level the crossing by sloping the crossing toward the top of the track rails.
- The bicycle routes/path should cross the railroad tracks at a right angle.
- Use signs, flashing lights and sound to warn users of the upcoming railroad tracks.
- Clear debris from the shoulders of railroad crossings.
- Fill flangeway with rubberized material to eliminate the gap in the travel path.

Trail Heads

Trailheads serve as the major points of access to the trail system. There are two types of points of access to a trail system, minor and major. The size and number of amenities should be determined upon design and development of a trailhead with consideration to context and expected use. Trailheads should be designed and reviewed before being built.

Major

Locations. Locations are determined as per the Trails Master Plan Map. Typically located at libraries, parks, civic centers, major retail, schools, and transportations nodes.

Recommended Elements:

- Dedicated Parking
- Restrooms
- Water Fountains
- Trash Receptacles
- Sheltered Seating
- Signage as per Signage and Way-finding section of this document
- Manicured Landscaping
- Bicycle Racks
- Play Feature
- Emergency Telephone

Minor

Locations. Within residential neighborhoods where direct access to the trail is not available via on road facilities. Locations are determined as per the *Bicycle and Pedestrian Master Plan Map*.

Recommended Elements:

- Nearby Parking Partnerships could also be sought with owners of existing parking lots near trails.
- Benefits are three fold: Business benefit from trail-user patronage; trail owners benefit from not
 having to buy more land and construct a parking facility; and the environment benefits from less
 development in the watershed.
- Trash Receptacles
- Seating
- Signage as per Signage and Way-finding Standards Chapter of this plan.
- Manicured landscaping
- Bicycle Racks



Amenities

Bicycle Parking

Use Case. Public: Community Centers, Libraries, Parks, Civic Institutions. Private: Colleges, Grocery Stores, other frequented retail. The following table can serve as a guide on bicycle parking needs. Bicyclists have a significant need for secure long-term parking when bicycles parked for longer periods are more exposed to weather and theft. Consider the following locations: Colleges, Community Centers, Hospitality, and Transit Stops. Consider the following types: lockers, cages, and attended.

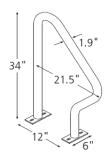
Use Category	Specific Use	Required Long-term Parking Spaces	Required Short-term Parking Spaces
Residential	Boarding houses	2, or 1 per ten sleeping rooms	None
	Hotels, motels	2, or 1 per 50 employees	None
Commercial / Industrial	Retail sales, service operations *	2, or 1 per 50,000 square feet of gross floor area	2, or 1 per 25,000 square feet of gross floor area
	Office buildings **	2, or 1 per 50,000 square feet of gross floor area	2, or 1 per 50,000 square feet of gross floor area
	Museums, libraries	2, or 1 per 50 employees	4, or 1 per 25,000 square feet of gross floor area
	Movie theaters	2, or 1 per 50 employees	4, or 1 per 50 seats
	Restaurants, ice cream shops, coffee shops	2, or 1 per 50 employees	4, or 1 per 50 seats
	Recreation centers	2, or 1 per 50 employees	4, or 1 per 25,000 square feet of gross floor area
	Major event entertainment (e.g., stadiums, arenas)	2, or 1 per 50 employees	8, or 1 per 500 seats
	Manufacturing	2, or 1 per 50 employees	None
	Warehousing	2, or 1 per 50 employees	None
Institutional	Medical centers	2, or 1 per 50 employees	2, or 1 per 25,000 square feet of gross floor area
	Transit park and ride lots	1 per 50 daily boardings	None

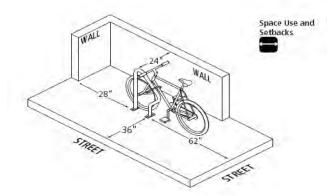
^{*} Retail businesses below 3,000 square feet of gross floor area are exempt from bicycle parking requirements
** Office buildings below 10,000 square feet of gross floor area are exempt from bicycle parking requirements

Installation. A row of individual racks should be installed with 15" minimum between racks. Empty racks should not pose a tripping hazard for visually impaired pedestrians. Position racks out of the walkway's clear zone. When possible, racks should be in a covered area protected from the elements. Long-term parking should always be protected. They need to be located near enough to the trail that bicyclists do not tie bicycles up to posts or poles closer to the trail.

Standard Bike Rack Specifications				
Size	34" x 21.5"			
Style	Single hoop			
Tube Width	1.9"			
Setback from parallel wall	24"			
Setback from horizontal wall	28"			
Setback from parallel street	36"			
Distance from horizontal street	62"			

Specifications. The city's standard bike rack is 34" in height and 21.5" at its maximum width.

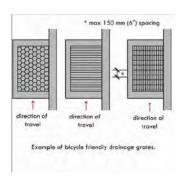




Drainage Grates - Bicycle Friendly

Use Case. Drainage grates in the roadway are often located on the outer edge of the roadway where bicyclists typically travel in a bike lane or shared road. The right type of drainage grate can decrease the changce of bicycle damage or crashes from averting a grate.

Specifications. The honeycomb style, rows perpendicular to the direction of travel or a grid with 6" spacing are the preferred drainage grates on roadways and trails.



Fences and Railings

Use Case. Railing and fences are important features on bridges, some boardwalks, or in areas where there may be a hazardous drop-off or hazardous adjacent land uses (such as active rail lines). Local, state, and/or federal regulations and building codes should be consulted to determine when it is appropriate to install a railing.

Specifications. These facilities shall conform to specifications to be determined by Parks and Recreation Director and the Parks and Recreation Advisory Board. A pedestrian railing should be 42-inches above the surface. A bicyclist railing should be 54-inches above the surface. The middle railing functions as a "rub rail" for bicyclists and should be located 33-and 36-inches above the surface.

Landscaping

Use Case. Landscaping is recommended at trailheads, access points, destination signing, pocket parks, to enhance intersections, as part of a reclamation strategy along a trail, at water infiltration zones, to control erosion, and to enhance the sense of place along a trail where ever needed.

Design. The following should be considered during the design process.

• Maintenance issues and irrigation needs

- Landscape features along trails should serve to preserved and rehabilitate existing adjacent habitats
- Low maintenance, native strategies should be employed where ever appropriate
- Trees that drop debris and have aggressive roots should be avoided
- In urban setting where the existing landscaping is controlled additional landscaping should be as well
- Landscape features should avoid creating hiding places for offenders.

Play Features and Pocket Parks

Use Case. Should be considered on a case by case basis at trailheads, access points, along the trail at significant historical points of interest or as enhancement along the trail where passive recreation will reinforce trail use. Locations for these features shall be included in the Bicycle and Pedestrian Master Plan and reviewed during update processes.

Design. At the discretion of the Parks Dept upon advisement of the Parks and Recreation Advisory Board and upon approval of City Council, on a case by case basis.

Public Art

Explore opportunities to include public art within the overall design of the trail system. Local artists can be commissioned to provide art for the trail system, making it uniquely distinct. Many trail art installations are functional as well as aesthetic, as they may provide places to sit and play on. According to American Trails,

"Art is one of the best ways to strengthen the connection between people and trails. Across America and elsewhere, artists are employing a remarkably wide range of creative strategies to support all phases of trail activities, from design and development to stewardship and interpretation. In particular, art can be an effective tool for telling a trail's story compellingly and memorably."

All Public Art installations must be approved by City Council before installation.

Restrooms and Water Fountains

Use Case. Full-service restrooms should be installed in areas where demand requires and where water and sewer connections are easily accessible. In areas where such utilities are not available, and there is a significant demand, compost toilets and container based drinking station may be considered on a case by case basis.

Design. These facilities shall conform in character to specifications to be determined by Parks and Recreation Director and the Parks and Recreation Advisory Board.



Specifications. All restroom facilities should be buffered from adjacent land uses, picnic and rest areas. At least one restroom must meet ADA standards, which requires approximately 50 to 60 square feet. A locking feature should be available to secure the facility at night and during off-seasons.

Seating: Benches

Use Case. Benches should be installed on a case by case basis to compliment play features, pocket parks, trailheads and access points. Benches should also be installed in intervals along the trail such that approximately 2 seating opportunities per mile are provided.

Installation. Provide wheelchair access alongside benches, at least a 30-by-48-inch area for adequate maneuvering. If benches are next to each other (either side by side or face to face), allow 4 feet between them.

Specifications. These facilities shall conform to specifications to be determined by Parks and Recreation Director and the Parks and Recreation Advisory Board.



Seating: *Integrated*

Use Case. Informal seating opportunities may exist along a trail or near at a trailhead. Seating can be integrated as part of a landscape feature design, pocket park or play feature.

Design. The proposed design of integrated seating must be included in any design proposal and approved before implementation. Consider that wheelchair access spacing recommendations apply to all seating

Stairs

Use Case. Stairways should only be used where there is no other alternative, due to challenging terrain or through sensitive wet areas and across small waterways. If stairways are used they should gutters so that bicyclists can easily roll their bicycles up and down the incline.





Trail Lighting - Off Road

Use Case. Lighting for multi-use trails should be considered on a case-by-case basis in areas where 24-hour, with full consideration of the maintenance commitment lighting requires. Lighting should not be used where:

- Night usage is not desired or permitted
- It is not acceptable to residents living along or near the trail
- The area is a wildlife area
- There is little to no development

Lighting should be considered in the following locations

- Entrances and exits of bridges
- Public gathering areas along the trail
- Trail access points

Specifications. Specifications to be coordinated with Master Parks Plan, Commercial Code, and Street Scape Guidelines. If possible use full cut-off, energy-efficient lighting that is IDA Approved Dark Sky Friendly to avoid excess light pollution and save costs

Trail Lighting - On Road

Use Case. Attention should be paid to crossings so that there is sufficient ambience for motorists to see pedestrians. To be most effective, lighting should be consistently and adequately spaced. In commercial or downtown areas and other areas of high pedestrian volumes, lower level, pedestrian-scale lighting with emphasis on crossings and intersections may be employed to generate a desired ambiance. Ensure pedestrian walkways and crossways are sufficiently lit. Consider adding pedestrian-level lighting in areas of higher pedestrian volumes, downtown, and at key intersections.

Specifications. Specifications to be coordinated with Master Parks Plan, Commercial Code, and Street Scape Guidelines. It is important to note that every effort should be made to address and prevent light pollution.

Transit Stops – *Bicycle and Pedestrian Treatments*

Use Case. All transit stops in the city limits should be designed to adequately accommodate the pedestrian, by using marked crosswalks, curb ramps and adequate sidewalks widths. As Ozark Transit begins to provide bicycle racks on their buses, the transit stops should also become equipped with bicycle racks and walking/bicycling route maps. Other items to consider are water fountains, pedestrian-scale lighting, shelter, seating, and air compressors.

Design. The bicycle racks provided at transit stops shall be consistent with the adopted city standard.

Trash Receptacles

Use Case. As needed to combat littering and preserve the natural environment. Should be placed along the trail near seating and at all trailheads.

Installation and Specifications. These facilities shall conform to specifications to be determined by Parks and Recreation Director and the Parks and Recreation Advisory Board.





Signage

Sign Types

Regulatory Bicycle Position Symbol Bicycle Lane Symbol Sharrow Symbol Arrow Symbol Shared Use Path Striping Bicycle Lane Striping Bicycle Lane Striping Major Desination Major Destination Minor Destination Minor Informational Decision Making Mile Markers Etiquette Share the Road Dismount Zone Right-of-way Minor Informational Decision Making Mile Markers

General Signage

Use Case. It is recommended that sign types and specifications be limited to those indicated in this document, to avoid over signing and to retain uniformity. Alternate signs may be used if a safety concern cannot be addressed through design and engineering. The minimum size and number of signs should be used to achieve navigability and safety.

Installation. All post mounted and on pavement signage shall be installed as per MUTCD where applicable. It is recommended that Shared Use Path post mounted signs be installed no more than 4' from the edge of the path.

Specifications. See *Design and Detail Specifications Sheets* for details.

Regulatory

Use Case. Regulatory and warning signs are used when a potentially hazardous condition cannot be avoided through design and engineering solutions. Every effort should be taken in the design phase to mitigate potential hazards such as problematic terrain, roadway crossings, and ambiguous or discontinuous paths of travel. To avoid over signing as per MUTCD, all post mounted regulatory signs in this section shall be used only when deemed necessary for safety reasons. All signs related to right-of-way and crossings shall be used in accordance with the Crossing section of this document. These signs shall be used on roadways only where the warning or indication applies solely to bicycles. Bicyclists are subject to all the same regulatory signage as motorists unless, by its nature, the regulation cannot apply to bicyclists. It is recommended that sign types be limited to those indicated in this document, to avoid over signing and to retain uniformity. Alternate signs may be used if a safety concern cannot be addressed through design and engineering.

Installation. Regulatory signs directed toward shared use path users shall be installed at a height of 4' - 5' from the base of the sign to the near edge of the path surface. Regulatory signs installed along roadways shall retain uniformity with existing roadway signage.

Specifications. All Regulatory Post Mounted signs shall be engineering grade retro reflectivity in order to maintain uniformity with and to command equal respect as roadway signs. Higher reflectivity may be used only if deemed absolutely necessary for safety reasons. See Design and Detail Specifications Sheets for additional details.

Regulatory - Post Mounted

Type		Indication	Specification
R1	STOP	stop	18" x 18"
R2	TIE	yield	18" x 18" x 18"
W1- 1,2,3,4,5	\$\\\\$\\\\$\\\\$\\\\$\\\$\\\$\\\$\\\$\\\$\\\$\\\$\	turn, curve warning	18" x 18"
W2- 1,2,3,4,5	(+) (*) (*)	intersection warning	18" x 18"
W3-1, 2		stop, yield ahead	18" x 18"
W5-2	NARROW BRIDGE	narrow bridge	18" x 18"
W5-4a	PATH	path narrows	18" x 18"
W7-5		steep grade	18" x 18"
W8-1,2	BUMP DIP	bump, dip	18" x 18"
W8-10	(FE)	bicycle surface condition	18" x 18"
W10-12	WHO WHO	skewed rail crossing	18" x 18"
W11-15	A STATE OF THE STA	directed toward motorists to warn of trail crossing	30" x 30"
W12-2	7-6	low clearance	18" x 18"
R1-6	₩	In-street pedestrian crossing	12" x 36"

Specifications. As per MUTCD: See *Design and Detail Specifications Sheets* for details.

Regulatory - On-paving: Bicycle Position Symbo

Use Case. The symbol should be used at all intersections along designated bicycle routes to indicate the ideal position for a left turn. This is usually just before the stop bar on the right side of the right most left turning lane. If the intersection has only one lane per direction of travel, this symbol should be placed on the left side of the lane.

Installation. The specific location is usually just before the stop bar on the right side of the right most left turning lane. If the intersection has only one lane per direction of travel, this symbol should be placed on the left side of the lane.

Regulatory - On-paving: Bicycle Lane Symbol

Use Case. The symbol should be used on all designated bicycle lanes.

Installation. As per MUTCD: The symbol shall be located directly after intersections and after portions of the lane where striping is dashed. The symbol shall also be located along the lane at least every 250'.

Specifications. As per MUTCD: See *Design and Detail Specifications Sheets* for details.

Regulatory - On-paving: Shared Lane Symbol

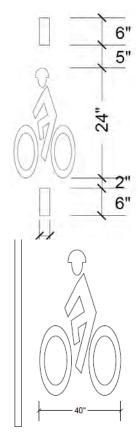
Use Case. The symbol should be used on all designated Shared Lanes.

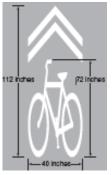
Installation. As per MUTCD: The symbol shall be located directly after intersections and after portions of the lane where striping is dashed. The symbol shall be located along the lane at least every 250'.

Regulatory - On-paving: Arrow Symbol

Use Case. The symbol should be used only for directional emphasis at transitions from shared use paths to On-Road Bicycle Facilities.

Installation. As per MUTCD: The symbol shall be located directly after intersections, after portions of the lane where striping is dashed, and at the beginning of a bicycle lane. The symbol shall be located along the lane at least every 250'.







Regulatory - On-paving: Shared Use Path Striping

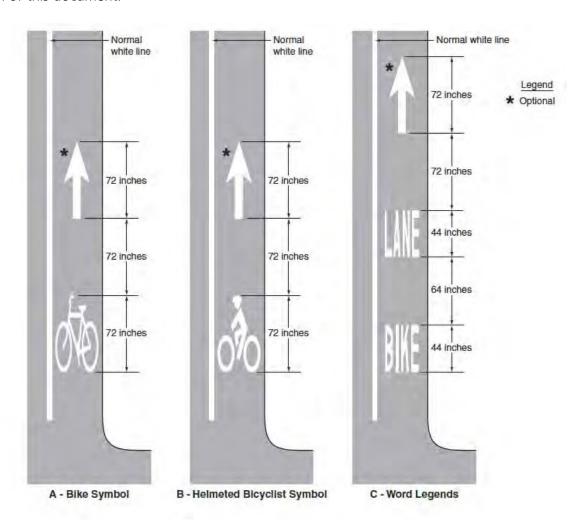
Use Case. Striping should be used on all side paths to emphasize the path as such and where high use or speed is expected. The striping should be predominantly dashed unless a no passing condition is deemed necessary for safety concerns.

Installation. As per MUTCD: Solid line striping shall be used only where passing is prohibited for safety reasons. A dashed line shall be used otherwise.

Regulatory - On-paving: Bicycle Lane Striping

Use Case. Striping is required on all designated bicycle lanes and may be used only on designated bicycle lanes.

Installation. Distance from curb to be determined upon design according to *Trail Type: Bicycle Lane* section of this document.



Way-finding - Major Destination



Use Case. Primarily directed toward motorists. To be used at Major Trailheads to indicate to motorists the location of the trail head. The design of these signs should be incorporated into the initial design of parks or related facilities where applicable. These signs shall not be used where they may compete with other Destination signs such as Parks or Facilities signs. These signs should be part of an overall design which includes a landscaping strategy. These signs should only be located where they can be made visible to a significant traffic flow at a distance. The entrance to parking areas is typically where these signs are located. These

signs should not be used at Minor Trailheads.

Installation. These signs should be designed and reviewed as part of a Trailhead, Park or Facility design proposal before installation.

Specifications. See *Design and Detail Specifications Sheets* for details. Alterations may be made to the recommended design of these signs in order to accommodate the character of the context. These alterations should not result in stylistic inconsistencies.

Way-finding - Minor Destination



Use Case. Primarily directed toward pedestrians. To be used at major trailheads only if a major destination sign is not appropriate. To be used at minor trailheads only where they can be made visible to a significant pedestrian traffic flow at a distance.

Installation. These signs should not be located at the Start Point of a trail, to avoid competing with informational signage and to avoid over signing. See *Design and Detail Specifications Sheets* for additional details.

Way-finding - Major Informational

Use Case. These signs should be located at every major trail head at the Start Point of the trail.

Installation. For accessibility, these signs shall be installed with such that a dedicated paved surface of at least 60" x 60" is adjacent to the front and back of the sign. The maximum grade of this surface shall not exceed 3%. See *Design and Detail Specifications Sheets* for additional details.



Way-finding - Minor Informational



Use Case. These signs should be located at Minor Trailheads at the Start Point of the trail. These signs should also be located along the trail wherever point of interest such as historical markers, play features, interpretive opportunities and public art will be signed. Alternative sign designs should not be used along the trail. These signs are intended to accommodate donor recognition and should be used for in all cases of special signage being added to the trail to maintain uniformity.

Installation. For accessibility, these signs shall be installed with such that a dedicated paved surface of at least 60" x

60" is adjacent to the front of the sign. The maximum grade of this surface shall not exceed 3%. See *Design and Detail Specifications Sheets* for additional details.

Way-finding - Decision Making

Use Case. These signs are installed for the purpose of distance judgment, orientation and direction. They should be located at "moments of decision" along the trail. Moments of decision may include intersections, or apparent intersections with other trails, street crossings, bridges. These signs may also be used minimally along the trail where there are long distances without Decision Making Moments. 2,000' is a typical signing distance if mile markers are used.

Installation. These signs should be installed at a maximum of 8'. See *Design and Detail Specifications Sheets* for additional details.Install as per *MUTCD*.



Way-finding - Mile Markers

Use Case. These signs are installed for the purpose of distance judgment, orientation and direction. They should be located at "moments of decision" along the trail. Moments of decision may include intersections, or apparent intersections with other trails, street crossings, bridges. These signs may also be used minimally along the trail where there are long distances without Decision Making Moments. 1,000' is a typical minimum signing distance if mile markers are used.

Installation. These markers should be located every ¼ mile as per the "Zero Point" indicated for each trail on the *Bicycle and Pedestrian Mater Plan Map*. See *Design and Detail Specifications Sheets* for additional details.

Etiquette - General

Use Case. Etiquette signage should be used as an on-site educational element as needed for safety and ease of use. These signs should only be used when necessary and should conform in size color and treatment with existing regulatory and way-finding strategies.

Installation. These signs shall be installed as per MUTCD when directed toward motorists. When located along Shared Use Paths, these signs should be installed at a height in between 4'-5' (from the bottom of the sign to the near edge of the trail surface) at least 2' from the edge of the trail.

Specifications. These signs should be specified on a case by case basis. Once specified, the same specifications should be used for all future locations. All indications made by etiquette signage shall conform with the Operational Policies of this document.

Etiquette - Share the Road



Use Case. Indication to motorists and to bicyclists to exercise safe and courteous use of the road. These signs should only be used where there is a significant need. To be used only on roads that do not include a Bicycle Facility, unless compelling safety reasons deem otherwise. May also be used on roads currently designated as Bicycle Routes as of 2011, until such time as a Bicycle Facility is installed.

Etiquette - Dismount Zone



Use Case. Dismount zones are areas where bicyclists interface with a passive pedestrian zone such as parks, squares and plazas. These signs should only be used where there is a significant need.

Etiquette - Right-of-way



Use Case. These signs indicate to trail users suggested yielding and right-of-way etiquette. These signs should only be used along trails where there is a significant need. Right-of-way is also indicated in the etiquette portion of informational signage located at trail heads and public information available in City brochures, and on the city website.

Appendix A - Support

Related Plans

The city has several plans that impact and support the Bicycle and Pedestrian Master Plan. All of these documents should work together and complement one another.

Bentonville General Plan. The City's General Plan was originally adopted in 2000 and updated in 2007. In that plan, the Transportation goal states: *Provide and maintain a transportation system that includes multiple modes and emphasizes connectivity, safety, and cost effectiveness while supporting the preferred land use pattern.* Policy T-3 specifically states: *Both pedestrian and bicycle facilities shall be planned. In the Public Facilities element, policy PF-38 states that the city should create safe linkages to surrounding neighborhoods for pedestrians and bicyclists.* The General Plan will be updated again in 2011.

Bentonville Parks Master Plan Map. Bentonville's Parks Master Plan Map was adopted in 1995. A complete revision of the map and plan were completed in late 2007. It's policies include to provide pedestrain links and accessibility to public open space and to coordinate plans for park development with multi modal routes defined in the Master Trail Plan.

Bentonville Master Street Plan. Adopted on February 10, 2004, and amended on May 20, 2008, the city Master Street Plan is a vision document that defines the long term transportation systems that Bentonville will need in the future. The plan identifies nine types of road classifications. Throughout Bentonville, existing and proposed future roadways have been assigned a classification based on the volume of existing traffic, the volume of future traffic and the growth patterns within the City. The classifications are mainly defined by right-of-way widths, traffic volume, traffic speed, green space and sidewalk width.

Bentonville Downtown Master Plan. The Downtown Master Plan was adopted in December 2004. The focus of the plan is to guide redevelopment and new development within the redevelopment district to promote an urban center for the city. The plan encourages dense development to create the urban environment. One element of promoting higher density is to address other modes of transportation. The plan has a complete section on circulation and linkages. Part of the implementation strategies for that section address the Downtown Trail, the North Bentonville Trail, sidewalks, signage and parking.

Regional Heritage Trail Plan. The Northwest Arkansas Heritage Trail Plan is Amendment Five to the 2025 Regional Transportation Plan for Metropolitan Northwest Arkansas. It was unanimously adopted by the Northwest Arkansas Transportation Study (NARTS) Policy Committee on October 28, 2002. It is a regional network of bicycle and pedestrian facilities in Benton and Washington Counties that connects Northwest Arkansas citizens and visitors to the rich heritage, recreation and cultural assets, a healthier lifestyle and to each other.

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Northwest Arkansas Regional Greenway. Also known as the Razorback Regional Greenway, it was developed for an application for TIGER II federal funds. The Razorback Greenway will connect the northwest Arkansas region with active transportation alon ga 36-mile bicycle, pedestrian and mobility corridor linking the cities of Bentonville, Rogers, Lowell, Springdale, Johnson and Fayetteville. The project is designed to serve as a national model for active transportation, green infrastructure, healthy living, equitable and sustainable economic development and public-private partnerships.

Regional Transportation Plan. The Northwest Arkansas Regional Transportation Study prepares the 2030 Northwest Arkansas Transportation Plan, with updates every five years. It is a Federal requirement that the 2030 Northwest Arkansas Transportation Plan cover at least a period of 20 years into the future. This document is in its third update, and is titled the 2030 Northwest ArkansasRegional Transportation Plan. The Study Area for the Plan consists of Washington and Benton Counties. The Plan now includes a Bicycle and Pedestrian element, including on-street and off-road trails.

Regional Transportation Improvement Plan (TIP). The TIP contains all short-term commitments for State and Federal transportation funding in the metro area of Benton and Washington Counties. This document covers a four-year period. No Federal expenditures can be made on transportation facilities within the NARTS metro area unless they are listed in the TIP. The TIP is a major tool for shaping the region's transportation infrastructure.

Related Codes, Laws & Policies

Bentonville Zoning & Subdivision Codes. The Zoning Code and the Subdivision Code contain regulations pertaining to development in Bentonville. Zoning identifies areas where certain uses are permitted and sets for the density, lot size, setbacks, and other related regulations. The Subdivision Code is focused on how land is to be divided and developed. Both of these documents were completely revised in 2003 and are amended annually to address changes in development conditions. Any person wishing to construct a trail must submit an applictaion for an In-House Large Scale Development, per the Subdivision Code, Sec. 300.8. Those trails that are constructed as part of an approved large scale development or preliminary plat do not have to submit separately. This allows for the city to review all trails constructed in the city limits, whether public or private, for consistency with established standards.

Planned Unit Developments (PUD). The Planned Unit Development is a unique zoning tool that can allows the city to expand its trails into unique developments. The PUD regulations require that 20% of the development be established as common public open space. To meet that requirement, many developers choose to construct a trail within the development. This is the only tool currently available for encouraging trail construction in private development projects.

Bentonville Traffic Calming Manual. The guidebook, adopted in November 2006, is designed to assist city officials with requests to slow traffic, as well as developers of new streets that want to incorporate traffic calming features into street design. Specific techniques are divided into three categories: Level I: Education, Level II: Minor Street Changes, and Level III: Major Street Changes. A definition of the technique is described along with a list of advantages and disadvantages and an illustration. Certain techniques that calm traffic can also be incorporated into at-grade street crossings for trails, such as textured pavement, bulb-outs, and center island narrowing.

Trail Design Resource Notebook. The Green Team, hired by the Walton Family Foundation, put together a Trail Design Resources Notebook in June of 2010 to provide design guidelines for trails and trail-related facilties that are used in various locations across the United States. They were pulled together to help create a unified trail system across the Northwest Arkansas Region, while providing for flexibility on a project-by-project basis. The standards are provided for trails, bicycle facilities and pedestrian facilities.

Arkansas Bicycle Laws. The State of Arkansas' bicycle statutes are located in Arkansas Code of 1987, annotated, ("A.C.A.") Title 27, chapters 49 through 111. Generally, cyclists may use any public road in Arkansas, except freeways and controlled-access highways. State law permits the riding of bicycles on sidewalks, however, in Bentonville it is prohibited, per Chapter 9.12.01 of the City Code. The statutes identify six principles for riding on the roadways:

- 1) Drive on the right side of the roadway; never on the left, and never on the sidewalk;
- 2) Obey all traffic signals and traffic control devices;
- 3) When you reach a more important or larger road than you are on, yield to crossing traffic;



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- 4) When you intend to change lanes or move laterally on the roadway, yield to traffic in the new lane or line of travel;
- 5) When approaching an intersection, position yourself with respect to the direction of your destination; and
- 6) Between intersections, position yourself according to your speed relative to other traffic.

Generally, the state law requires cyclists to signal like other vehicles and to have an active white headlight and an active red tail light on the rear (not just reflectors) on the bike when riding at night; Helmets are not required for either children or adults. Information on how motorists are to manage bicycles in the roadway are located in the *Arkansas Driver's License Study Guide*.

AASHTO – Guide for the Development of Bicycle Facilities. The American Association of State Highway and Transportation Officials published the Guide for the Development of Bicycle Facilities in 1999. The guide is



designed to provide information on the development of facilities to enhance and encourage safe bicycle travel using normal engineering practices. The information in this guide should be used when facilities are developed in Bentonville.

MUTCD – Traffic Control for Bicycle Facilities. The Manual of Unified Traffic Control Devices



published by the Federal Highway Administration, is the standard for signs, signals, and pavement markings in the United States. Part 9 provides those standards specifically for bicycle faciltiies. Table 9B-1 provides the sign minimum sizes and Figure 9B-2 illustrates the regulatory signs for bicycle facilties. The city's signage program should reflect what is provided in the MUTCD.

ADA STANDARDS. Specific standards for the construction and alteration of transportation facilities that are covered by the Americans with Disabilities Act (ADA) provide the means by which facilities must be accessible to persons with disabilities. They became effective November 29, 2006. These must be followed in the development and construction of trails and bicycle facilities in Bentonville.

Agencies

Ozark Regional Transit. The City of Bentonville has worked with Ozark Regional Transit to develop a fixed bus route system that became effective August 3, 2005. There are eight designated stops, starting at Scottsdale Plaza and ending at Northwest Medical Center. The transit's operating hours are 7:30 a.m. to 5:30 p.m.. Traversing the entire route takes about one hour's time.

479/756-5901 I www.ozark.org I facebook

Northwest Arkansas Regional Planning Commission (NWARPC).

The Northwest Arkansas Regional Planning Commission serves as the Metropolitan Planning Organization (MPO) with the function of working with the governmental entities of the area and the State Highway Department to determine transportation needs and funding priorities through long range planning. They coordinate

Transit Stops

- Scottsdale Plaza
- N.W.A.C.C.
- N.A.R.T.I.
- Harp's Grocery Store
- Wal-Mart Home Office
- Super Center
- Osage Terrace
- Osage Heights
- The Gardens at Osage
- Northwest Medical Center

with all of the communities in Benton and Washington Counties to preapre the Regional Transportation Plan, the annual Regional Transportation Improvement Plan, and the Heritage Trail Plan. 479/751-7125 | www.nwarpc.com

City of Bentonville - Trails and Active Transportation Committee. In 2011, the City of Bentonville organized a technical advisory committee consisting of staff from various departments involved in the implementation of the Trails Master Plan. The departments include: Planning, Transportation, Engineering, Parks and Recreation, and GIS. The committee meets monthly to discuss trail and bicycle facility projects as well as programming for the trails.

479/271-6826 I www.bentonvillear.com

Organizations

Trailblazers. In 1996, a group of students in the Bentonville/Bella Vista Chamber of Commerce Leadership Class founded the Bentonville/Bella Trailblazers Association, Inc. Trailblazers is chartered for the purpose of promoting trail building throughout Bentonville and Bella Vista. It is a 501(c)(3) non-profit organization. The mission became very clear in when Cooper Communities, Inc. presented the Trailblazers with the opportunity to take possession of 70 acres of land at Lake Bella Vista. Since the completion of the 1.8 mile Bella Vista Trail, the Trailblazers received a \$750,000 grant from the Walton Family Foundation and \$250,000 from the City of Bentonville to construct the 2.8 mile North Bentonville Trail, completed in March of 2005. The Trailblazers have assembled \$2,026,000 in local grants and \$300,000 in federal grants. Over \$1,700,000 has already been invested in trails and park amenities at Lake Bella Vista and North Bentonville Trail.



1999

Trailblazer Projects

- Bella Vista Lake Trail
- North Bentonville Trail
- Downtown Bentonville Trail
- Slaughter Pen Mountain Bike Trails

Friends at Slaughter Pen Trails (FAST). Friends At Slaughter Pen Trail (FAST) is a dedicated group of volunteers working together to maintain the Bentonville, Arkansas off-road trail system at Slaughter



Pen mountain bike park, promoting off road cycling, hiking, and trail running in Northwest Arkansas, as well as growing the amount of volunteers by encouraging a fun, family friendly, and team like atmosphere. The have regularly scheduled work days to ensure the trails are well maintained and safe.

www.fasttrails.org I facebook

Bentonville Bicycle Advocacy Group (BAG). The Bentonville Bicycle Advocacy Group is a group of volunteers who are passionate about making Bentonville a more Bicycle Friendly Community. They use tools provided by the League of American Cyclists (LAC) to understand the

areas to work on to become more bicycle friendly and eventually get Bentonville, AR officially certified through the LAC. The BAG focuses on five E's: Engineering, Education, Encouragement, Enforcement, and Evaluation & Planning. They have made solid strides in Engineering with the signage, maps, and trail plans that are in place. They work in cooperation with the City and police department in Enforcement and Evaluation & Planning. The Education and Encouragement elements include increases ridership around town with events like "Get out and Ride" as well as education for cyclists and motorists. They host Bicycle Rodeo's around town, Boys & Girls Clubs, and at schools and promote the Safe Routes To School Program.

Walmart Home Office Bike Leadership Committee. This is a committee of bicycle riders at the Walmart Home Office with a mission to promote healthy living via a safe, fun and supportive environment for bicycle riders at Walmart and the encouragement of more bike riders. Their goal is to increase safe bicycle commuting to, from, and across the Walmart campus over the next decade. Some of their objectives are: 1) to increase Walmart Home Office Associate fitness & lower carbon footprint,

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2) to help Walmart Home Office attain Bicycle Friendly Business designation, and 3) to support Walmart Community by sharing resources with Walmart field associates and local communities for replication.

Bicycle Coalition of the Ozarks. The BCO is a 501(c)3 non-profit working to create a more bicycle-friendly community through improving Bicycle Education, & Bicycle Infrastructure. The organization promotes bicycle safety, driver's education, bike repair, urban rides, and safe bicycle infrastructure. The BCO serves as a great resource to assist in educating the public about bike safety.

www.bconwa.com | bco@bconwa.com

Boston Mountain Cycling. The Boston Mountain Cyclist's (BMC) club was started in 1979 in Fayetteville, AR by Joe Martin as Arkansas' first racing team. These cyclists often use the streets of Bentonville for training.

NWA Triathletes. Northwest Arkansas Triathletes is a multisport team focused on sharing their passion of triathlon and fitness with others that is a member of USAT (US Association of Triathletes). NWA Triathletes is a source of training advice for any level of triathlete, they share resources and host group training sessions. Their vision is to train and compete as a team at a regional and national level, while sharing triathalon specific knowledge and resources to both experienced and new triathletes, with the goal of improving peformance at all levels.

www.nwatri.com I facebook

League of American Bicyclists. The mission of the League is "To promote bicycling for fun, fitness and transportation and work through advocacy and education for a bicycle-friendly America. They represent the interests of the nation's 57 million cyclists and have a current membership of 300,000 affiliated cyclists. They have several programs to educate and support bicycling: Bicycle Friendly America Program, Bicycle Safety and Education, National, State and Local Bicycle Advocacy and National Bike MonthTM.

Safe Routes to School. The national Safe Routes to School program was developed to address traffic safety, traffic congestion and air quality issues around schools, while also acknowledging the health benefits of active school travel. The federal SRTS program empowers states and local communities to choose to make walking and bicycling to school a safe and available everyday mode choice. Bentonville can use the same concepts in the national program to encourage and create safe routes to schools in Bentonville. The **saferoutesinfo.org** website provides useful information on the many opportunities to implement this program.

Events / Programs

Get Out and Ride. Organized by the Bentonville Advocacy Group to promote all types of biking in Bentonville. The event includes: a community ride with the Mayor, long rides, kids mountain bike rides, poker ride, and antique bike show. This event is usally held on a Saturday and coordinated with the Bentonville Farmer's Market.

Slaughter Pen Jam. This is an annual three-day mountain bicycling event usually held in the fall, hosted by Friends at Slaughter Pen Trail (FAST). Activities include trails, short track dash, kids mountain bike race, trail run and a leisure night ride.

Bike Blast. The Walmart Home Office Bike Leadership Committee hosted the second annual B2 Bike Blast on Saturday, Sept. 11, 2010 on the Bentonville Square in coordination with the Downtown Farmer's Market coordinated by Downtown Bentonville, Inc. The event includes bicycle safety demonstrations, helmet checks, a bike rodeo for the kids and a bike parade around the square. It also featured a local stunt team, Self Destruct, four of the top BMX stunt riders in the nation, and bicycle suppliers. Twitter@BVILLEBIKERODEO | facebook

Bike Rodeos. A bike rodeo is a clinic that helps teach children the skills and precautions they need to be safe on their bicycles and why it's so important. Both the Bentonville Bicycle Advocacy Group and the Walmart Home Office Bike Leadership Committee host these events.

Bicycle Maintenance and Safety Workshops. The Bentonville Bicycle
Advocacy Group and the Bicycle Coalition of the Ozarks routinely host
workshops to educated youth and adults on bicycle maintenance and bicycle safety. They also work to
educate automobile drivers about ettiquette when sharing the road with a bicycle.

Group Rides. Most of the organizations listed above organize groups rides to promote fitness and bring awareness to bicycling and bicyclists sharing the road.

Bentonville Running Festival. The Bentonville Running Festival is a race weekend featuring a half marathon, 5K, fun run, Runner's Expo, Pasta Party and Post Race Celebration with food, music, vendors, and inflatables for kids. The event is designed to appeal to first time runners as well as seasoned professionals and provides entertainment for the entire family.



www.runbentonville.com

Bike Share Program. As of September 2011, the City of Bentonville is operating a bike share program whereby bicycles are made available for temporary use. The program is designed to increase bicycle usage for recreation and transportation by eliminating some issues involved with bicycles, including loss from theft or vandalism, lack of parking or storage, and maintenance requirements. The program requires the user to provide a valid credit card, along with substantial security deposits for bicycles and mandatory security locks.

Public Relations & Education

Part of the scope of the plan is to promote the safe use of trails for recreation and alternative transportation. A combined approach to promotions and advertising is the key to reaching as many existing and potential users as possible. Depending on the avenue used, users can find out about trail and road conditions, upcoming events, and volunteer opportunities. Interactive methods can allow users to notify the city of conditions on the trails that need to be addressed.

City Newsletter. The City of Bentonville newsletter, Focus, is published three times a year. It is mailed out in utility bills to all utility customers. Therefore, it gets to most homes and businesses within the city. It can be used to let the public know about trail openings, programs, and initiatives.

Utility Bills. As mentioned above, the utility bills go out to all utility customers, both residential and commercial. One insert is permitted per month. Therefore, with the three newsletters per year, there are nine months available. These should be used sparingly as many other departments also use this method of communication. Reserve this to special announcements to address safety concerns.

Press Releases. Press releases, no more than a page in length, can be distributed to all media outlets. Its one of the easiest ways to notify local media about upcoming events and programs. However, there is no guarantee that the outlet will publish or pursue an article about the press release and can be unreliable.

City Website. The city website...www.bentonvillear.com....provides the most up-to-date information on the trails and programming and events for bicycle and pedestrian facilities. Updates on construction of new facilities or addition of amenities should be maintained on the website.

Social Media. Social media outlets (facebook, twitter) have not been utilized much for the promotion of trails to-date. This resource should be considered to provide up-to-the minute information on trail and bicycling conditions.

Email. Establishing a group email of those interested in the bicycling and trail network and programs is an easy way to reach those users.

Razorback Greenway Website. The Razorback Greenway website (<u>www.razorbackgreenway.com</u>) provides information about the greenway, the planning process, construction, benefits of the greenway, and events. Since the north end of the greenway begins in Bentonville, this web site will serve as a great resources of information for the regional trails network.

Funding Opportunities

General Fund. The Planning Department has historically set aside funding each year in the Capital Improvement Program for trail development, which comes out of the city's general fund. Today, trails construction, maintenance and programming falls under the newly created Parks and Recreation Department, they will be identifying money for trail construction out of the General Fund. Furthermore, approximately \$50,000 is budgeted for the Tree and Landscape Committee which can and has been used for landscaping along trails.

A&P Tax. Bentonville Advertising and Promotion Commission collects taxes on hotels and restaurants. The city can request funds from the A&P for use of these revenues for specific parks projects, including trails.

Impact Fees. An impact fee is one that requires new development to pay for its contribution to growth. Bentonville approved an impact fee for Parks and Trails, effective May 2009. As of February 2011, the fee is \$791 for single family units and \$568 per unit for all other residential units.

Park Land Dedication. The concept of park land dedication is that developers make a dedication of land for public park facilities. This can be either in the form of land or money. It is usually based on residential development. The city should choose either this option or an impact fee option, but should not implement both.

Trailblazers Association. The Bentonville/Bella Vista Trailblazers Association is a non-profit organization that can accept donations for trail development. They have played the primary role in finding funding for the Lake Bella Vista Trail, North Bentonville Trail, and the Downtown Trail. Trailblazers have received funding from the Walton Foundation, the PepsiCo Foundation, and transportation enhancement funds to assist in constructing these trails. The Trailblazers continue to seek additional funding for projects they have planned, including the link between Lake Bella Vista Trail and the North Bentonville Trail.

Federal Transportation Funds

- SAFETEA-LU:Transportation Enhancement. These funds may be used for pedestrian and bicycle facilities, construction and non-construction activities. The federal share is usually 80%, with a 20% match from the municipality. This is run through the state's Statewide Transportation Improvement Plan.
- SAFETEA-LU: Recreational Trails Program. The Arkansas Highway and Transportation Department (AHTD) administers this federal trail program. The program funds the following activities: Engineering, architect, planning and construction inspections are not eligible costs. It is an 80/20 matching, reimbursable program. Donated materials, volunteer labor, and appraised value of property can be used toward the local match. The city successfully applied for this program in 2003 to fund the first phase of the Memorial Park Fitness Trail.
- SAFETEA-LU: Safe Routes to School Program. This is a new program added with SAFETEA-LU that will be administered by the Arkansas Highway and Transportation Department. The purpose of the program is to encourage children, including those with disabilities, to walk and bicycle to

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school; to make walking and bicycling to school safe and more appealing; and to facilitate the planning, development and implementation of projects that will improve safety, and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. Eligible activities include planning, design and construction of projects including sidewalks, traffic calming and speed reduction, pedestrian and bicycle crossing, on-street bicycle facilities, off-street bicycle and pedestrian facilities, bike parking and traffic diversion in the vicinity of schools.

Federal Entitlement Funds: Community Development Block Grants (CDBG). Bentonville is an entitlement city for CDBG funds. These funds can be used to benefit low and moderate-income persons and aid in the elimination of slums and blight. Sidewalk and trail development within targeted low-to moderate income areas are eligible activities.

Federal Recreation Funds: *Outdoor Recreation Grants Program.* These funds are made available through the Land and Water Conservation Fund (LWCF) authorized by the LWCF Act of 1965. The Arkansas Department of Parks and Tourism administers this program. There are two grant opportunities:

- Trails for Life Grant: There are two project types for this grant (1) standard health and fitness trail for looped fitness trails ¼ mile in length, maximum \$35,000 and (2) Custom Health and Fitness Project for projects that target public health and fitness, such as linear trails with a maximum of \$70,000. There are no matching requirements but the applicant must provide the land where the trail will be constructed. Funds can be used for engineering costs.
- 50/50 Matching Grant: The purpose of this grant is to provide outdoor recreation. The grantee must finance 100% of project costs and will be reimbursed for 50% of project costs. The maximum grant amount is \$250,000. Funds can be used for land acquisition for recreational development and construction of recreational facilities.

Foundation Grants.

- American Greenways: Kodak Awards Program. The Conservation Fund administers this program that provides grants of \$500 to \$2500 to local greenways projects. Grants can be used for almost any activity that serves as a catalyst for local greenway planning, design or development.
- Design Arts Program of the National Endowment for the Arts. Funds projects that promote excellence in urban design, historic preservation, planning, architecture, and landscape planning.
- *PepsiCo Foundation.* The PepsiCo foundation provided financial assistance for the construction of the Downtown Trail. The project must be presented to the foundation by an employee of PepsiCo.

Corporate Funding. Northwest Arkansas is home to a number of large corporations. Because these corporations have invested in the community by remaining in the area, they understand the benefits trails can provide to their employees. Efforts to contact the corporations should be part of an overall financing program. Some of the options include:1) *Employee volunteers* – requesting employees to participate in volunteer efforts that may include building or maintaining trails., 2) *Matching donations* – request corporation to match city funds, and 3) *Adopt-A-Project* – Request corporations to donate a specific amount of money for a specific element of trail development.

Retail Proceeds. Ask bookstores or other businesses to donate a percentage of sales on a given day to the trail. Sell posters or art of the trail.

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Trail Sponsorship. Sell mileage markers, planks or bricks, sell trees with plaques, sell trail amenities (drinking fountains, shelters, benches, etc.).

Easement or Land Dedications. Donations with along with utility easement acquisitions (gas, electric, water, sewer, cable, telephone, cell towers). Through the development review process.

Donations. Voluntary on utility bills. Make available online and on mobile phones.

Event Entry Fees. Entry fees, such as for the Running Festival and summer camps can be used toward trail maintenance.

Trails / Parks Conservancy. Essentially a land trust, typically set up as a non-profit organization or a public-private partnership as an advocacy group for parks and/or trails. Conserving land for the benefit of people and animals. Often work to raise funds to maintain parks and trails. Help implement the parks and trails master plans.

Initiatives & Programs

Bike/Pedestrian Buses. A "bike/pedestrian bus" is a group of people who cycle or walk together on a set route following a set timetable to get to their destination safely. Users may join or leave the bike/pedestrian bus at various points along the route. They can be used by riders of all skill levels, but often the most experience serves as the leader or "bus driver". They can be organized through a workplace or schools, churches, parks, shopping trips, etc. The bike bus uses the roads, marked bicycle

routes, trails, and sidewalks in the case of pedestrians. The pace of the bus is determined by the users, but can be broken into smaller buses of slower and faster riders.



http://www.bikebus.org.au/img/bikebus4_600.jpg

Trail/Bike Ambassadors. Trail ambassadors create an on-trail presence of knowledgeable volunteers who assist trail users to ensure they have a safe and enjoyable experience. Those with bicycling experience and a little training can volunteer their time while on the trail or bike routes. Volunteers become knowledgeable about the bicycle or pedestrian facility they choose and provide emergency assistance (but medical knowledge is not required), report trail conditions to the city, help coordinate efforts to clear litter on facilities, provide mechanical assistance, disburse information on trail etiquette, and provide maps and other resourceful information.

Adopt-A-Trail. This is another volunteer program giving the public an opportunity to be involved in the ongoing maintenance and aesthetics of the trail system. Responsibilities typically include picking up litter, removing broken glass, trimming stray branches, and reporting problems concerning maintenance such as trail erosion, tree falls, vandalism or other safety concerns. This is a good group activities for businesses, church groups and civic organizations.

Mountain Bike Day Camp. The Bentonville Parks and Recreation Department plans to conduct mountain biking day camps in the summer of 2012. These will be half-day camps where children, typically ages 8 – 12, will learn to handle their bicycle, learn safety and etiquette, play games, and spend time with other bikers.

Trail Counters. Trail counters, whether electronic or manual, provide invaluable data as to the use of the trail system. It counts not only the number of users, but documents time of day to determine highest uses. The City has an infrared trail counter. Another option is to use volunteers to visually count trail users.