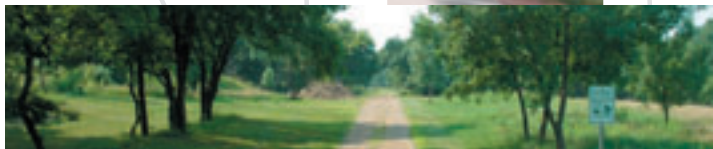




THE  
**SIoux FALLS**  
Trails Master Plan







## TABLE OF CONTENTS



<b>CHAPTER 1: Introduction to the Master Plan</b>	<b>5</b>
<b>CHAPTER 2: The Cherry Creek Trail Network</b>	<b>11</b>
<b>CHAPTER 3: The Diamond Creek Trail Network</b>	<b>27</b>
<b>CHAPTER 4: The Arrowhead Creek Trail Network</b>	<b>35</b>
<b>CHAPTER 5: The City System</b>	<b>43</b>
<b>CHAPTER 6: Design Standards and Concepts</b>	<b>47</b>
<b>CHAPTER 7: Implementation</b>	<b>65</b>







# CHAPTER 1

## Introduction to the Master Plan







## Introduction to the Sioux Falls Trail Master Plan

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Sioux Falls was a pioneer in building urban trail systems. The trail loop developed during the 1970s along the Big Sioux and Skunk Creek Greenways was one of the nation's first major urban trails. Now, more than three decades later, this trail remains one of Sioux Falls' defining features and has helped the city rank high in community quality. The Big Sioux Trail knits most of the city's largest parks together into a continuous greenway, connects directly to Downtown Sioux Falls, and is within a mile of most of the city's neighborhoods. The city has supplemented the loop with a network of eleven signed and numbered bicycle routes, many of which link neighborhoods to the main trail.

The greenway loop and its connecting routes provided Sioux Falls with an excellent pedestrian and bicycle network before trail development took hold in other cities. As a result, the city was built fewer new trails during the 1980s and 1990s than many other communities. However, with rapid growth during this same period, many new areas lacked the trail service enjoyed by residents of the "core city" between the I-29 and I-229 corridors. Since 2000, residential and commercial platting and development has continued south of 57th Street, west of Interstate 29, and east of Interstate 229. Eastern and southeastern growth will probably accelerate with the construction of South Dakota Highway 100, a new east side loop that will eventually link I-90 and I-29.

To address these emerging recreation and transportation needs, the City of Sioux Falls completed a Bicycle Plan in

2001. This document provided detail to general recommendations of the 2000 Sioux Falls metropolitan area Long Range Transportation Plan and other documents, and identified both future trails and study corridors. Future trails identified by the plan included:

- The long anticipated closing of the north side of the trail loop around Joe Foss Field (Sioux Falls' airport). The trail is currently unpaved and is available for pedestrian and certain types of bicycle use.
- A new trail on the west side of the Big Sioux, paralleling the existing loop trail between Maple Street and Yankton Trail Park.
- A northeast extension along the Big Sioux River, connecting the loop to Great Bear Recreation Park.
- A west side trail, extending northwest along Skunk Creek and a tributary drainageway, and connecting back to the loop along Benson Road.

The 2001 plan also identified a number of study corridors, including:

- The Big Sioux River around the east side of the metropolitan region with extensions to the west into urbanizing areas.
- Branches from the existing loop and the proposed west-side trail into areas experiencing substantial current development activity. These include:



*New development west of I-29 (left) and south of I-229 (right)*

- A south trail connecting with the Big Sioux loop at Yankton Trail Park and extending roughly parallel to Western Avenue to 85th Street. This area has been a major growth center for Sioux Falls since 2000.
- An east corridor that generally follows Highway 42 from Highway 11 to Perry Nature Area and Arrowhead Park. The South Dakota 100 project, announced after the completion of the Bicycle Plan, and the PariPassu development, a major mixed use project planned along the north side of Highway 42 between Powder House and Six Mile Roads, make advance planning for this corridor particularly timely.

This document provides a detailed master plan for the Westside Trail and the south and east study corridors, serving the city's primary growth centers. It also considers ways to integrate these trail facilities into a comprehensive city network, and presents design standards for these and other trails in Sioux Falls.

## Trail and Bikeway Types

The trail networks proposed by this plan suggest different types of facilities to match specific settings. These types include both off-road facilities, separate from roadways and designed exclusively for non-motorized users; and on-road facilities that provide for shared bicycle and motor vehicle use. The trail and bikeway types recommended by this plan include:

### *Off-Road Facilities*

- **Multi-purpose trails.** These trails (often referred to as "Class I" bikeways) typically operate independently from streets and road rights-of-way, and accommodate pedestrians, bicyclists, in-line skaters, and other non-motorized users. Multi-purpose trails often follow streams, greenways, former railroad lines, or utility corridors. They may be located within street or highway rights-of-way, but are widely separated from motor vehicles and intersect with them infrequently. The Big Sioux trail loop is an excellent example of a multi-purpose trail. The new South Dakota 100 also includes a parallel multi-purpose trail. While located within the highway right-of-way, the SD 100 Trail will have limited interaction with motor vehicles.
- **Sidepaths.** Sidepaths are off-road facilities usually located within street rights-of-way and close to the adjacent street channel. Often, sidepaths are widened sidewalks that are frequently crossed by streets and driveways. These conflict points require special design attention to provide safe facilities for a variety of users. Sidepaths are often preferred by beginning and intermediate riders who are uncomfortable with mixed vehicular traffic and most concerned about being hit from behind, and are less popular with experienced "vehicular" bicyclists. They provide trail continuity in places where right-of-way for true multi-purpose trails is either unavailable or unfeasible because of cost, neighboring land uses, or local opposition.



*Perry Nature Area*

## ***On-Road Facilities***

- ***Bicycle Lanes.*** Streets with bicycle lanes (often referred to as “Class II” bikeways) provide a specific space for bicycles within the street channel, defined by pavement markings. Bicycle lanes should always move in the direction of traffic and should never produce a counterflow situation unless the counterflow lane is physically and three-dimensionally separated from the flow of motor vehicles. This plan proposes bicycle lanes for on-road routes that connect the three major trail corridors to the Big Sioux Loop or other major destinations. Streets with bicycle lanes may include two configurations:

*Exclusive bicycle lanes*, where painted, colored, or distinctively surfaced lanes are provided for the exclusive use of bicycle traffic. Exclusive lanes may be used on streets with or without on-street parking, but are always separated from the parking lane. Exclusive lanes have special pavement markings or symbols within their width.

*Shared bicycle/parking lane or shoulder.* This treatment provides a domain that may be shared by both parked cars and bicycles. Usually, this technique defines the trafficway for moving traffic by a white line, with the area between that line and the curb providing both parking and a refuge for bicycle traffic. This treatment is appropriate for streets that lack the width for exclusive lanes and have a minor demand for on-street parking. While not optimum, shared shoulders have specific applications in the proposed Sioux Falls system.

- ***Shared Routes.*** Shared routes (often referred to as “Class III” bikeways) provide designated and signed routes for bicyclists without providing a reserved domain. Shared routes are fully shared by both motor vehicles and bicycles. Most of Sioux Falls current connecting system uses signed and numbered shared routes. Shared routes are also used for connecting routes between exclusive trail corridors and the Big Sioux Loop or other major destinations. Variations proposed by this plan include:

*Multi-lane streets, with shared lanes designated by a “sharrow.”* The sharrow, a new pavement marking approved by the Manual of Uniform Traffic Control Devices, designates a lane for shared motorized and bicycle traffic. The sharrow may be used on multi-lane street (typically four-lane facilities) where the sharrow directs bicycle traffic to a specific (usually the outer) moving lane, or on two-lane streets to emphasize the possibility of bicycle traffic to motorists and identify a preferred line of bicycle movement.

*Shared streets*, with signage but without pavement markings.

Chapters 2,3, and 4 present detailed trail maps and annotated descriptions for the three trail networks. Chapter 5 places the proposed network into the context of the citywide trail and bicycle route system.

Chapter 6 presents detailed design and dimensional standards for these types of facilities. Specific standards are included for the following:

#### *Trail and bikeway routes*

- Class I multi-use trails.
- Underpass widths and clearances.
- Class II bicycle lanes.
- Class IIa shared parking/bicycle shoulders.
- Class III shared routes

#### *Intersections*

- Right-turn bypasses.
- Enhanced pedestrian/trail crossings.

Chapter 7 presents statements of probable cost and a phasing plan for development of the three trail networks included in this master plan. It also considers implementation concepts for the plan.