

Prairie Creek Greenway Master Plan

June 3, 2004

Prepared for:
Platte County Board of Commissioners

Acknowledgements

Platte County Commissioners

Betty Knight, Presiding Commissioner Michael Short, First District Commissioner Steve Wegner, Second District Commissioner

Platte County Park Board

Neil Davidson, Chair Bill Hillix, Vice Chair Margie Maasen, Secretary Sean Eisler Diza Eskridge Dick Stephens Laurie Burgess

Platte County Parks & Recreation Department

Brian Nowotny, Director
Jim Kunce, Assistant Director of Parks & Open Spaces
Forest Decker, Assistant Director of Trails & Greenways
Noel Challis, Park Planner
Rhonda Smith, Secretary
Jon Carney, Operations Supervisor

Platte County Planning & Zoning Department

Aaron Schmidt AICP, Director
Daniel Erickson, Assistant Director
Valerie McCaw P.E., Roads Master Plan Engineer
Nate Baldwin P.E., Platte County Engineer
Gale Cantu C.B.I., Codes Coordinator
Jason Halterman, Planner
James Fuller C.R.B.I., Building Inspector
Cheryl Linard, Office Manager
Brook Linderman, GIS Coordinator
David Nelson, GIS Technician

Contents

- Chapter 1: Project Introduction 6
- Chapter 2: Project, Site and Planning Context 8
 - Chapter 3: Planning Process 11
 - Chapter 4: Master Plan Vision 14
 - Chapter 5: Implementation 16
 - Chapter 6: Funding Sources 17

Appendices

Appendix A: Northland Trails Vision Plan

Appendix B: Explore! Platte County Parks

Appendix C: Proposed Trailhead Designs

Appendix D: Prairie Creek Greenway Master Plan

Appendix E: Cost Estimate

List of Figures

- Figure 1.1, Prairie Creek Greenway Location Map
- Figure 1.2, Developer Financed Trail, Hills of Oakmont
- Figure 2.1, Thomas Langley Homestead Foundation
- Figure 2.2, County Greenway Property Purchases
- Figure 2.3, Prairie Creek
- Figure 2.4, 100-Year Floodplain
- Figure 2.5, Natural Bedrock Waterfall
- Figure 2.6, Bur Oak
- Figure 2.7, Three Quarter Grooved Axe Head
- Figure 2.8, Pump House
- Figure 2.9, Cemetery
- Figure 2.10, Rock Fence
- Figure 3.1, Platte Valley Park
- Figure 3.2, Platte County Community Center
- Figure 3.3, NTVP Public Participation
- Figure 3.4, NTVP Public Participation
- Figure 3.5, NTVP Public Participation
- Figure 3.6, Prairie Creek Greenway Public Open House
- Figure 3.7, Prairie Creek Greenway Public Open House
- Figure 4.1, Prairie Creek Trail
- Figure 4.2, Prairie Creek
- Figure 4.3, Eroded Stream Bank
- Figure 4.4, Waterfall
- Figure 4.5, Historic Bridge
- Figure 4.6, Wild Blue Indigo (picture from Clarence A. Rechenthin @ USDA-NRCS PLANTS Database)
- Figure 4.7, Purple Coneflower (picture from Larry Allain @ USDA-NRCS PLANTS Database)
- Figure 4.8, Big Bluestem (picture from Jennifer Anderson @ USDA-NRCS PLANTS Database)
- Figure 4.9, Rattlesnake Master (picture from Bill Summers @ USDA-NRCS PLANTS Database)
- Figure 4.10, Informative Trail Signage
- Figure 6.1-6.8, Flora of Prairie Creek



Chapter I: Project Introduction

Purpose

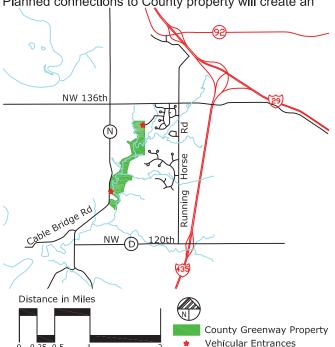
The purpose of the *Prairie Creek Greenway Master Plan* is to provide a guide for the design,
development and funding of the Prairie Creek

Greenway. This master plan is based on the planning
principals of the *Park System Master Plan (PSMP)*and the *Northland Trails Vision Plan (NTVP)*,
examination of the site's cultural and natural
resources, and community involvement.

Location

Figure 1.1 Location Map

The Prairie Creek Greenway is located in central Platte County, Missouri. Platte County owns approximately 119 acres of property off N Highway between 136th street and D Highway (See Figure 1.1). Planned connections to County property will create an



interconnected greenway trail system. There are currently two vehicular entrances to County property; 12315 Hwy N and 13300 Sycamore Drive.

Plan Partnerships

The *Prairie Creek Greenway Master Plan* was developed under direction of the Platte County

Commission by the Platte County Parks and

Recreation Department in coordination with the Platte

County Planning and Zoning Department. The

Planning and Zoning Department has worked

extensively to have
several miles of the
Prairie Creek Greenway
trail constructed by
developers who dedicate
trail property to the
County (See Figure 1.2).



Figure 1.2 Developer Financed Trail

To date, the developers of the following subdivisions have committed to dedicate trail property and construct sections of the trail; Fox Creek, Hills of Oakmont, Lakes at Oakmont, Seven Bridges, Summit Way and Oak Creek. The County and the Timber Park Homes Association have also formalized an agreement providing a trail easement through the Timber Park open space.



Planning Process Overview and Plan Content

The Northland Trails Vision Plan (NTVP) (See Appendix A) was developed in 2000 to guide the planning and development of trails in Platte and Clay Counties. The Platte County Ten-Year Trails Focus Plan (Focus) (See Appendix B) selected eight of the NTVP routes as priorities for planning and development from 2001-2011. The Prairie Creek Greenway Trail was highlighted as a priority route on the Focus plan. In August 2000, Platte County voters approved a one-half cent sales tax for parks and recreation and stormwater control. Proceeds from this tax have been used to purchase the County Greenway property. These funds have also been used as a match for a development grant received for the Prairie Creek

The planning process included:

Greenway project.

- The formation of a project Steering Committee composed of Platte County Park Board Members, the Platte City Park Board President, representatives from the Parks and Recreation Department and the Planning & Zoning Department Director.
- An analysis of the site noting natural, historical, and cultural resources on and adjacent to the property
- Collection of Geographical Information System (GIS) data to aid in determining trail alignment and bridge locations.
- Ongoing involvement of the Planning and Zoning Department and developers to preserve trail easements and dedicate trail right-of-way to the County.

 A community involvement process to allow public recommendations for the *Prairie Creek Greenway Master Plan*.

The community involvement process included focus group meetings, a public open house and presentations to the Platte County Park Board and Platte County Commission.

The following chapters detail the site information, planning process, master plan, implementation, and funding sources.



Chapter 2: Project, Site and Planning Context

Historic Context & Ownership

Before 1825, the Kansa Indians were the primary occupants of Platte County. Other tribes represented included the loway, Sauk & Fox, Missouris, Otoe, Omaha and Osage. In 1825 the land for Platte County was ceded to the United States by the Kansa Indians. This land was to be used to locate Indians who had been removed from their homelands. However, many Euro-Americans settled on the property illegally. The Platte Purchase Treaty of 1836 officially opened Platte County to Euro-American settlement.

The first Platte County citizen listed as owning a portion of the current Greenway property in 1839 was Thomas Langley. Limestone building foundations in this area provide evidence of this settlement (See Figure 2.1). However, in 1843 when the first land patent office

in Platte
County
opened,
no one by
the name



of Thomas

Figure 2.1 Homestead Foundation

Langley filed for property. There is no evidence of why

Langley did not continue to reside in this area.

However, it is possible that Langley did not have the

\$100 necessary to purchase the property from the

government. According to W. M. Paxton's record of that time, the early settlers of Platte County "had, almost without exception, spent the last dollar they could raise to defray their ordinary living expenses and in making improvements on the lands."

The majority of the Greenway property was purchased by the County from Charles Morton Johnston in 2003. Mr. Johnston and his ancestors owned portions of the purchased property as early as 1877.

Approximately 22 acres of the property was purchased from Ken & Lucy Bruene in 2003 (See Figure 2.2).



Figure 2.2 County Greenway Property



Site Features

On its way to the Platte River, Prairie Creek (See Figure 2.3) winds through the County-owned property.

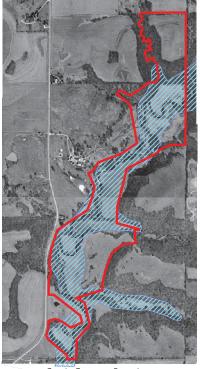
Consequently, about 95% of this property is within the



Figure 2.3 Prairie Creek

100-year
floodplain (See
Figure 2.4). This
floodplain
provides the
perfect setting

for a scenic trail. Visitors can view the creek, a natural bedrock waterfall (See Figure 2.5), wildlife habitat and native forest vegetation. Several of the oak trees on the



County Greenway Property

100-Year Floodplain

site are estimated to be 100-200 years old (See Figure 2.6). The designation as trail property also protects the sensitive floodplain and creek area from future



Figure 2.5 Natural Bedrock Waterfall

development. The area south of Platte City was primarily agricultural land for many years. Recently, the land use patterns have been changing from agricultural to suburban and rural residential. The Prairie Creek Greenway plan preserves approximately 119 acres of

contiguous property
and several miles
of trail easement
dedicated to public
use for a trail system
in this rapidly
developing area.



Figure 2.6 Bur Oak



Cultural Resource Evaluation of the Site

During October 2003, K&K Environmental LLC conducted a Phase I Cultural Resource Survey of the property. According to the survey, it is improbable that the trail project would adversely affect cultural resources in Missouri. The consultant recommends proceeding with trail construction according to Missouri Department of Natural Resource Historic Preservation Program requirements. In the unlikely event that deeply buried cultural resources are discovered, a 36 CFR 61 qualified professional archaeologist will be notified.

The investigation found "no significant evidence of prehistoric occupation" except an isolated find of a three quarter grooved axe head (See Figure 2.7). This

tool was probably

constructed and

used by the Nebo

Hill people (dated

to 1605-1665 B.C.)



Figure 2.7 Three Quarter Grooved and could possibly Axe Head

mark the location of a warm season campsite.

Limestone foundations provide evidence of an 1837 historic farmstead (See Figure 2.1). The house and outbuilding indicated by the limestone foundations were probably constructed and occupied by Thomas

Langley. The consultant recommended a Phase II investigation of this site if construction activities will be conducted in its immediate vicinity.

Other historic elements on and adjacent to the property include a pump house, cemetery, and rock fences (See Figures 2.8-2.10).



Figure 2.8 Pump House





Figure 2.10 Rock Fence



Chapter 3: Planning Process

Several plans have been used to guide the development of the *Prairie Creek Greenway Master Plan*. This history of long term planning and refining to create specific project master plans helps to ensure that citizen demands are met in a responsible manner.

Park System Master Plan

The *Park System Master Plan* completed in June 2000 found that 81% of citizens would like to participate in walking, jogging, or biking. Several of the adopted action strategies from the master plan have been used to help realize the design, planning, and development of the Prairie Creek Greenway.

Action Strategy 3A: Establish parks, trails and open space standards based on equity of access, optimal level of service and cost effectiveness within a positive and inviting image.

The *Prairie Creek Greenway Master Plan* meets this action strategy in a couple of ways. First, standards established for trail width and surfacing are being met.

The trail and trailheads are also designed to meet ADA accessibility requirements and AASHTO standards.

Second, coordination of County departments using in-house resources to develop the Greenway master plan has been a cost effective strategy to plan the Greenway. The Planning & Zoning Department has shared base property information such as contours and aerial photography to decrease initial planning costs.

Action Strategy 3B: Embrace a partnership philosophy to leverage services with other providers...to develop, maintain and operate parks, open space, trails and facilities.

Local developers have been and will be an essential element to the design and construction of the *Prairie Creek Greenway Master Plan*. Several developers have dedicated trail easement property to the County and have agreed to construct the trail according to County standards. Without developer partnerships, County funds would limit the ability to provide significant trail length. However, with developers, over twice as much trail length will be provided.

Action Strategy 6: Provide linkages between existing parks, new parks and points of interest.

Several connections are called for in the *Prairie Creek Greenway Master Plan*. These include access to

Platte Valley Park (See Figure 3.1) (a Platte City Parks and Recreation facility), the northern Platte County

Community Center (See Figure 3.2), several neighborhoods, and long term connections to the Platte River and the Platte County R3 school district main campus.



Figure 3.1 Platte Valley Park





Figure 3.2 Platte County Community Center

Action Strategy 7: Construct recreation facilities to meet citizen demand.

As stated earlier, the citizen survey identified trails as a high priority. The *Prairie Creek Greenway Master Plan* helps to meet this demand. Similar to other County parks and recreation projects, the Prairie Creek Greenway has also been influenced by public input through focus group meetings and a public meeting. This helps ensure that the plan meets citizen desires.

Northland Trails Vision Plan

Based on the citizen desire for a County-wide trail system established in the *Park System Master Plan*, the *Northland Trails Vision Plan (NTVP)* was created in December 2000. This plan is a partnership between Clay and Platte Counties to identify a comprehensive trail system for the Northland. A key component of the *NTVP* was public involvement. Three design charrettes and three public meetings with over 200 residents were held (see Figures 3.3-3.5). Almost 1,000 Clay and Platte County residents were also surveyed. The final

plan calls for 306 miles of trail in Platte County and 306 miles of trail in Clay County.



Figure 3.3-3.5 NTVP Public Participation

Ten Year Trails Focus Plan

Several priority routes from the *NTVP* were selected to create the *Ten Year Trails Focus Plan*, which will provide approximately 57 miles of interconnected trails. This plan was created using input from two focus groups with County-wide representation. One of the trails selected as a priority for development and construction is the Prairie Creek Greenway trail.

Public Involvement in Prairie Creek Greenway Planning

Prairie Creek Greenway Master Plan were provided.

First, the volunteer Platte County Park Board, helped to evaluate the trail plan and recommend purchase of the County Greenway property. Second, the Steering Committee with Platte County and Platte City representatives refined the trail plan. This involvement helped to identify desired links to points of interest and establish partnerships to leverage funds. Third, Focus



Group Meetings were held with the Timber Park
Homeowners Association (TPHOA) to create an
agreement allowing a trail easement across the TPHOA
private open space. This agreement specifies that the
County will construct the trail and maintain the trail and
easement through the TPHOA property. Finally, a
Public Open House was held on March 23, 2004 to
receive public input on the proposed master plan
documents. (See Figures 3.6-3.7)



Review and Approval by Platte County Park Board

The Platte County Park Board reviewed and recommended the *Prairie Creek Greenway Master Plan* for adoption on May 25, 2004.

Approval by Platte County Commission

The Platte County Commission adopted the **Prairie Creek Greenway Master Plan** in a public session on June 3, 2004.



Chapter 4: Master Plan Vision

Introduction

The master plan will be used to direct the development and preservation of the Prairie Creek

Greenway. Trail and trailhead locations provide options for future trail expansion and connections.

Throughout the development of the master plan several options for the trail alignment were studied by steering committee members, focus groups, and County staff. Preliminary trail alignment, based on aerial photography and contours, was walked by staff members and project partners. These site visits were an essential element to determining the trail alignment. The experience of walking proposed trail routes allowed staff and project partners to agree upon the best possible alignment. For example, several proposed routes for the TPHOA section of the trail were carefully reviewed by staff and the TPHOA members through focus group meetings and site visits. On April 6, 2004 the TPHOA signed an agreement with the County allowing easement access through the TPHOA private open space.

Design Principles

Several overall principles have guided the development of the *Prairie Creek Greenway Master*Plan. These principles include:

- Sensitivity of the natural environment and necessity of protecting stream corridors and old growth wooded areas.
- Commitment to following ADA accessibility requirements and AASHTO standards for trail design and development.
- Desire to create opportunities for visitor education through interaction with key site elements such as several distinct ecosystems; a restored prairie, the riparian zone, old growth trees, and open pasture.
- Connection of the trail to regional and local trails and important community elements.

Major Elements of the Master Plan

Passive Recreation Areas: One of the main principles guiding the *Prairie Creek Greenway Master Plan* is protection of natural resources. Therefore, the Greenway property should be utilized for passive recreational opportunities. Other parks in the area such as Platte Ridge Park and parks in Platte City will be used to fulfill active recreation needs.

Trail: The central focus of the *Prairie Creek*Greenway Master Plan is the trail. The plan includes development of approximately 6.2 miles of trail with options for future expansion and connections (See

Figure 4.1).

Prairie Creek:

Trail users will have several opportunities to cross Prairie Creek and



Figure 4.1 Prairie Creek Trail

its tributaries via bridges and culverts. These crossings



create areas to view and appreciate the stream way

(See Figure 4.2).

Stream Bank

Stabilization: Platte

County is seeking

opportunities, possibly



Figure 4.2 Prairie Creek

through grants from the Mid-America Regional Council (MARC) or other organizations, to stabilize Prairie Creek stream banks (See Figure 4.3). Stabilizing



Figure 4.3 Eroded Stream Bank

stream banks helps to decrease erosion and sedimentation and increase the health of the stream corridor.

Stabilized banks will also be valuable for educating the public about techniques used to protect and preserve

riparian areas.

Waterfall Viewing

Area: One of the scenic highlights of the Prairie Creek waterway is the



Figure 4.4 Waterfall

natural bedrock waterfall located on County property.

An access route will be provided to the best point for viewing the waterfall (See Figure 4.4).

Historic Bridges: Currently, there are several historic vehicular bridges in the County that require 15

replacement. The County hopes to disassemble these



Figure 4.5 Historic Bridge

bridges, refurbish and reinstall them at trail creek crossings. Use of the bridges will help preserve County history

and save development funds (see Figure 4.5).

Prairie Restoration: The north section of County property was recently used for agricultural production.

This area will be seeded with native



prairie plants,

Figure 4.6-4.9 Prairie Plants

allowing trail users opportunities to interact with and view a restored prairie habitat (See Figures 4.6-4.9).

Signage: Informative signage such as trail

identification, rules, placed at each key locations.

and maps will be are trailhead and other Signage is a key

component in promoting safety (See Figure 4.10).

trail user education and
Figure 4.10 Signage

Transportation: There are currently two gated vehicular trailheads that will provide access to County property. Motor vehicle access to trail and Greenway property will be limited to trailhead areas. Numerous trail connections for bicyclists and pedestrians will be provided in residential areas (See Appendix C).



Chapter 5: Implementation

Construction Documents

Platte County hired Shafer, Kline, and Warren, Inc. to produce trail construction documents. These documents will include specifications and drawings for all of phase 1 and 2 construction and should be complete by summer 2004. (See Appendix D).

hase | Construction

Phase 1 of the trail includes the north trailhead. prairie restoration area and most of the trail through the TPHOA open space. This phase should be complete by Fall 2004.

hase 2 Construction

This phase will connect Phase 1 with the south entrance of the County-owned Greenway property. Phase 2 includes construction of 1.1 miles of trail, the longest trail section constructed with County funds. The south trailhead will also be constructed during this phase. Phase 2 should be complete by Fall 2005.

hase 3 Construction

This phase will connect Phase 1 with the developer constructed trail on the east side of Running Horse Road. It includes construction of 0.3 miles of trail and four bridges across Prairie Creek and its tributaries. This phase should be complete by Fall 2006.

Developer Construction

Several sections of the Prairie Creek Greenway trail are being financed and constructed by local developers. The following is a list of these developments and potential completion dates for their trail construction.

- Summit Way Fall 2005
- Hills of Oakmont Fall 2005
- Fox Creek Fall 2006
- Running Horse Fall 2006
- Lakes at Oakmont Fall 2005
- Seven Bridges Fall 2006
- Oak Creek Fall 2007

uture Expansior

Future land acquisition and trail construction should be prioritized and guided by potential connections to other trails, natural resource areas, and community elements. The **Northland Trails Vision Plan** is a tool for connecting to future trail routes. This plan will continue to be used to preserve trail easements and right-of-ways. Additional land acquisition & trail construction should also be guided by trail proximity to important natural resource and community destinations. Some of these destinations include the Platte River, the Platte County Community Center, and the Platte County R3 school district campus. Future opportunities for trail expansion will be evaluated based on these and other important potential connections.

Connectivity is essential to regional trail systems.



Chapter 6: Funding Sources

Introduction

All County parks and recreation projects are supported by the ten-year, ½ cent, sales tax approved by voters in 2000. However, a major goal of the parks and recreation department is to leverage these funds and help the tax dollars stretch further. The department has aggressively pursued funding for the Prairie Creek Greenway Trail through grants and partnerships.

Recreational Trails Program (RTP) Grant

In 2003 the County received a \$60,000 RTP grant for trail development on County property. This grant is matched with County tax dollars and developer financed trails.

Developer Partnerships

These partnerships will fund about 2/3 of the overall trail length, which equates to a substantial cost savings for County citizens. With the help of developers, important trail connections will also be realized in a timely manner.



Figure 6.1-6.8 Flora of Prairie Creek