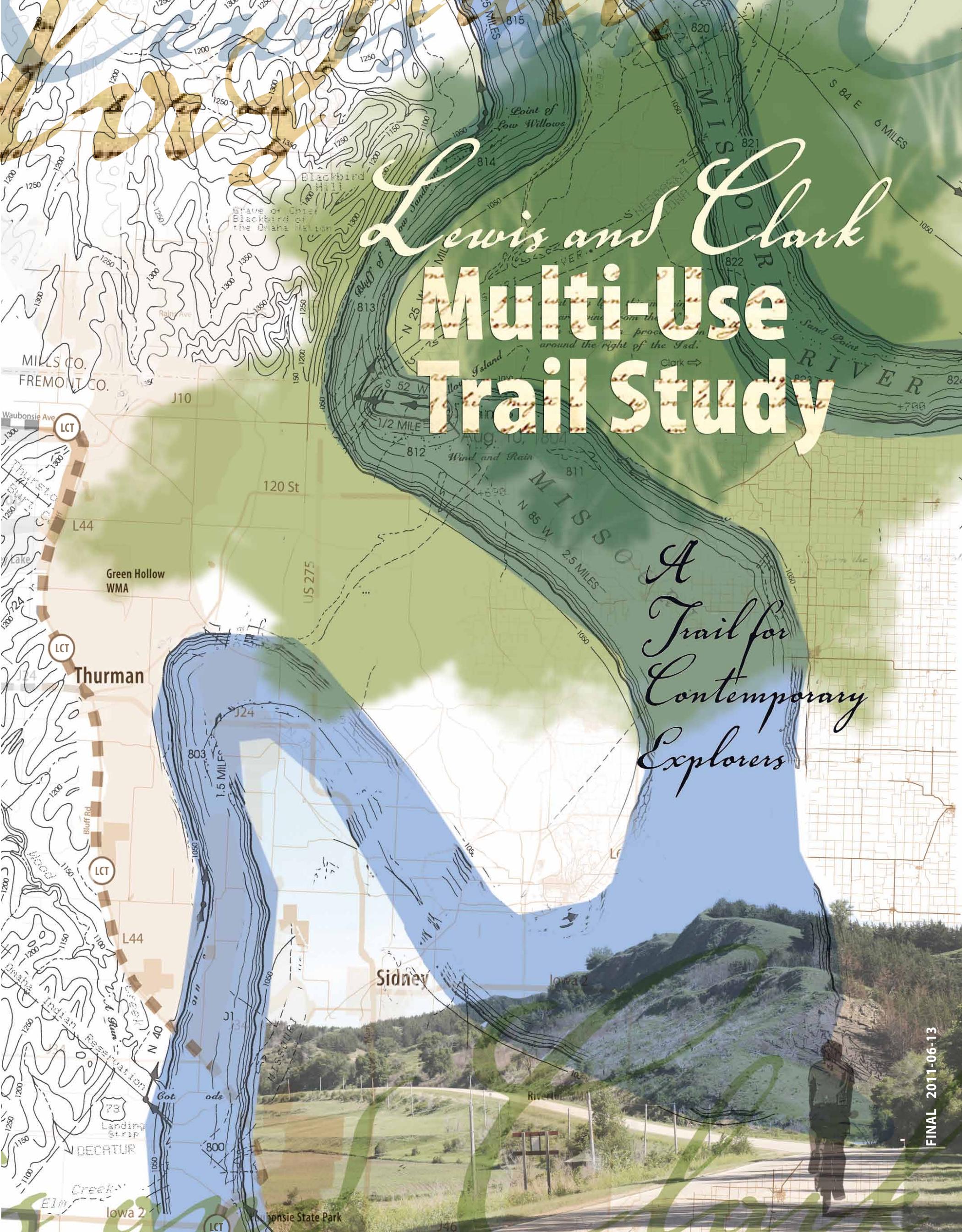


Lewis and Clark Multi-Use Trail Study

*A
Trail for
Contemporary
Explorers*



Acknowledgements

Lewis & Clark Multi-Use Trail Project Committee

Andrea Chase	Larry Wright Jr.
Bill Christian	Lori Holste
Brian Mundt	Marcia Poole
Bob DeSmidt	Terry & Margie Moore
Brian Bray	Mark Norman
Clint Sargent	Mark Shoemaker
Craig Hartman	Marty Walsh, IV
Dan Davis	Monte Brent
Dave Smith	Nate Hoogeveen
Debi Durham	Neal Bedlan
Dennis Sohl	Pat Slaven
Donna Peters	Rebecca Tanner
Doug Kuhlmann	Ron Schlautman
Gary Tucker	Sara Struble
Ginny Sullivan	Scott Leuer
Jeff Synder	Shirley Fredericksen
Jerad Getter	Thomas Rohe
John Slader	Tim Sproul
Larry Foster	Todd Graham
Larry Klimek	

Lewis & Clark Multi-Use Trail Project Steering Committee

Milagros Ortiz-Pagan – <i>Iowa DOT</i>	Dakin Schultz – <i>Iowa DOT</i>
Craig O’Riley – <i>Iowa DOT</i>	David Thomson – <i>National Park Service</i>
Courtney Harter, <i>SWIPCO</i>	Jeremy Middents – <i>SWIPCO</i>
Scott Suhr – <i>Iowa DOT</i>	Michelle Bostinelos – <i>SIMPCO</i>
Stan Peterson – <i>Iowa DOT</i>	Andrea Chase – <i>IA Natural Heritage Found.</i>
Stuart Anderson – <i>Iowa DOT</i>	Greg Youell – <i>MAPA</i>

PLANNING TEAMS:

RDG Planning & Design

Martin Shukert, FAICP – *Project Principal*
Dolores Silkworth, ASLA – *Project Manager*
Amy Haase, AICP – *Planner*
Christopher Stara – *Planner*
Sonja Carter – *Graphic Design*
Ben Iwen – *Graphics*
Hans Klein-Hewett – *Landscape Architect*
Nate Dittman – *Intern*
Paul Hunt – *GIS*

Alta Planning & Design

Steve Durrant, ASLA – *Planner*

With Assistance From:

Schemmer Associates

Matt Sutton

Tallgrass Historians

Leah Rogers

EcoCentrics

George Cunningham



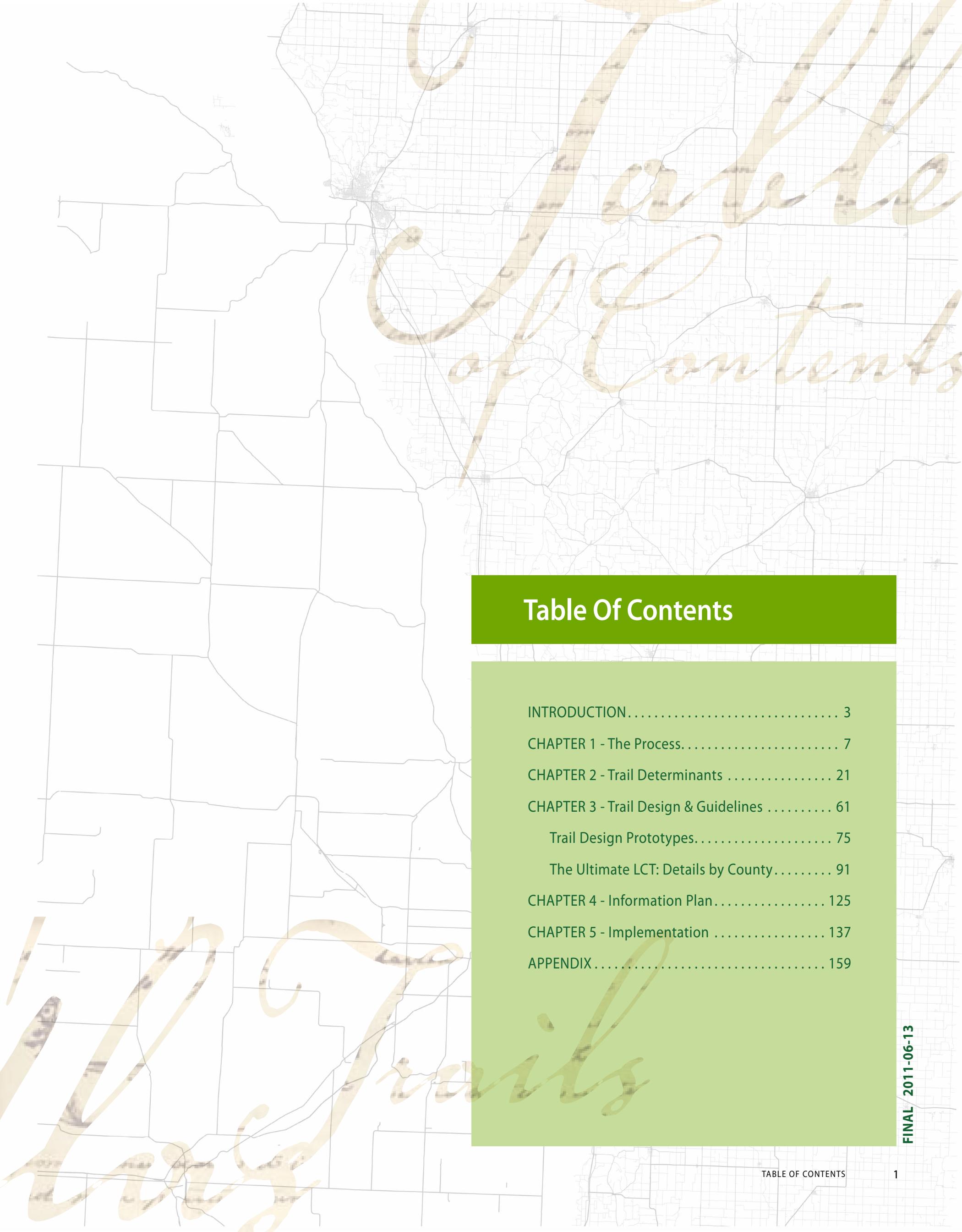
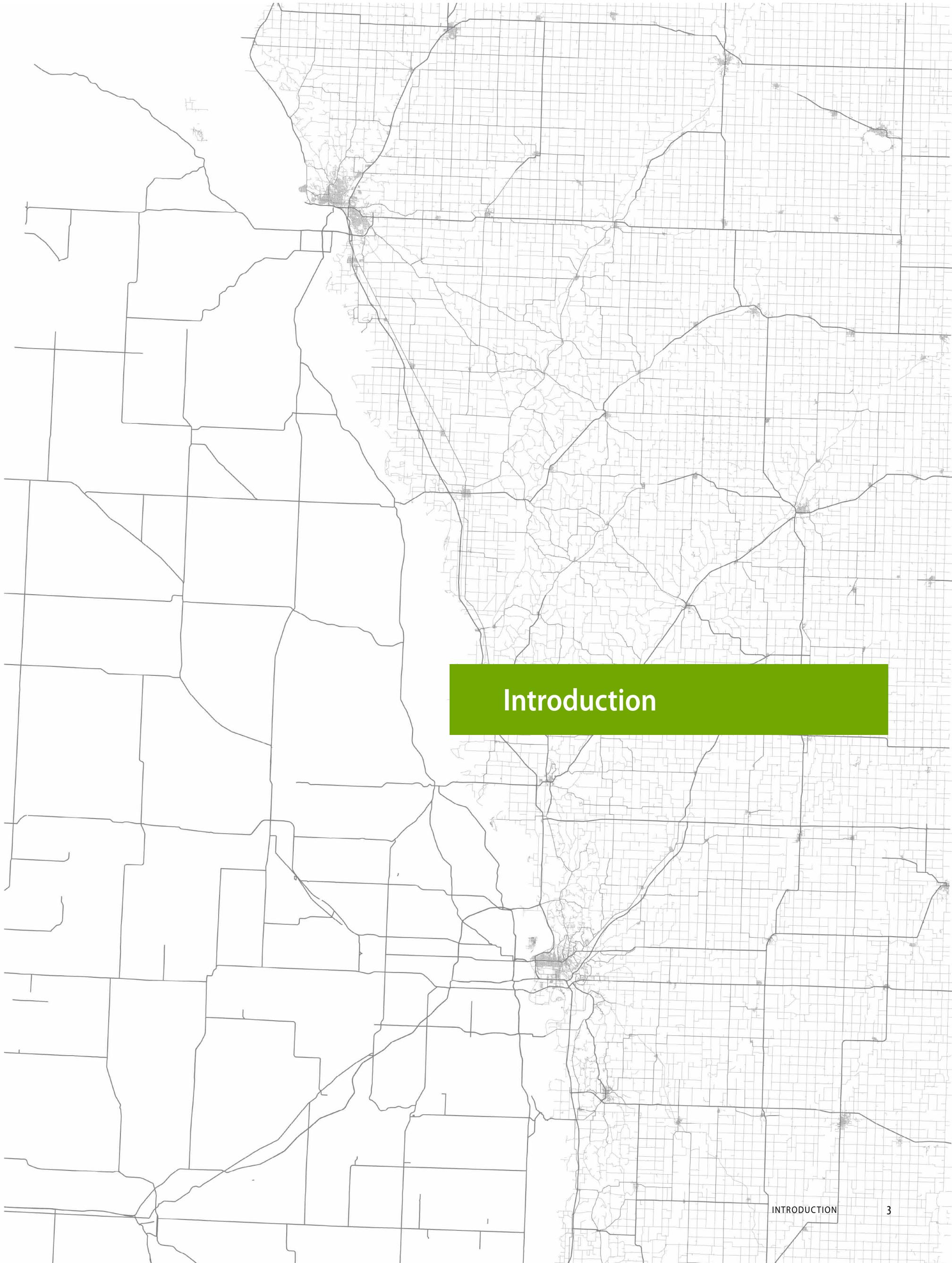
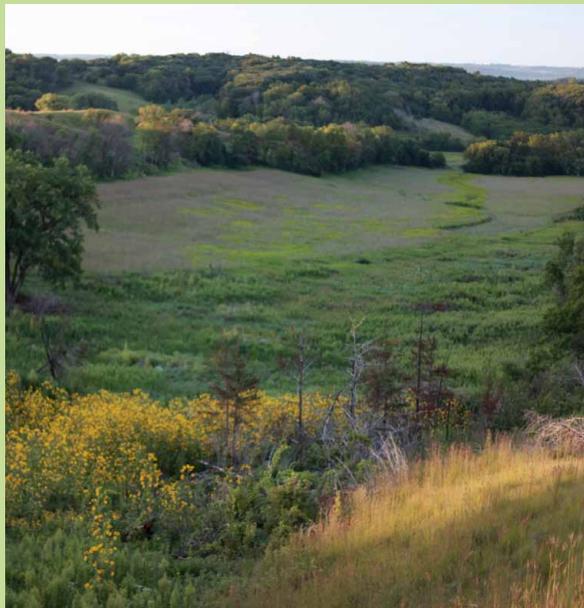


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Introduction



Preparation Canyon State Park



Rural Harrison County



"Spirit of Discovery"

The Lewis and Clark Multi-Use Trail Study:

Building a Trail for Contemporary Explorers

Iowa's Missouri River Valley is an environment of remarkable riches on many levels. The great American explorers Lewis and Clark followed the Missouri River in their quest to explore the Louisiana Purchase in search of a water and land highway to the Pacific Ocean. As they traveled along the Missouri River through Iowa, they moved from the familiar regions of the eastern Midwest to areas fully known only to Native Americans and a few white traders. Lewis and Clark, great observers that they were, inspired a concept that more than two centuries later can open this beautiful and historic territory to a new generation of explorers – a series of interconnected pathways that guide people through diverse places and environments, while letting them control their passage and the nature of their engagement with the landscape and its communities.

The Origin of this Study

As it assessed state trail priorities, the Iowa Department of Transportation (Iowa DOT) used three evaluative criteria: the status of candidates as national trails with the ability to obtain special federal funding, receive national attention, and attract large numbers of bicyclists; their connectivity with existing trails, to connect existing trail segments into unified systems; and their ability to attract visitor dollars to advance regional economic development. By applying these criteria, the Iowa DOT established three categories of trails, with the highest priority level given to five "Trails of Statewide Significance". The state's bicycle plan established the completion of these five trail corridors within 20 years as a primary goal for Iowa DOT.

Iowa's five Trails of Statewide Significance include:

- The American Discovery Trail (ADT), envisioned as a coast-to-coast trail system from Point Reyes, California to Cape Henlopen, Delaware, envisioned by the American Hiking Society in 1989. The Iowa portion of the ADT encompasses 500 miles of shared-use paths that includes:

- The Mississippi River Trail (MRT), with about 335 miles in Iowa, extending from New Albin to Keokuk. The MRT in Iowa makes extensive use of the state, county, and local road systems generally paralleling the Mississippi River.
- The Central Iowa Loop, a continuous 110-mile shared use path system that connects five existing trails in the center of the state.
- The Iowa Great Lakes Connection, a 135-mile system that incorporates existing shared-use paths to create a system that connects the Okoboji lakes, Storm Lake, Black Hawk Lake, and Swan Lake.
- The "Lewis and Clark Trail," the subject of this study, extending from Sioux City to Hamburg, the last of the Trails of Statewide Significance to receive a master plan for its development.

Naming a Trail

The name of a trail tells a great deal about the concept and even the routing of a trail. For example, the name "American Discovery Trail" implies a system that helps the user understand our nation and its people and landscapes, rather than establishing the most direct route between the West and East Coasts. Similarly, the name "Lewis and Clark Trail" implies a trail that generally follows the Missouri River route of the Corps of Discovery, and places an interpretive focus on this great expedition. Yet, there are many other "Lewis and Clark Trails" in the United States, as well as the Lewis and Clark National Historic Trail, inviting potential confusion. In addition, America has recently completed the bicentennial commemoration of the expedition, and popular interest in Lewis and Clark history, while compelling, has understandably waned a bit. For these and other reasons, both the authors of this study and the Steering Committee, integral to its preparation, believed that a different and broader approach was advisable, despite the fundamental importance of the Lewis and Clark expedition to both the history of this area and the statewide significance of a trail that explores it.

The territory that this trail passes through includes two unique and exquisitely subtle environments: the "Bluffs," one of the world's two formations of windblown loess hills; and the valley formed by the shifting channel of the meandering Missouri River along with the great waterway itself, known regionally as the "Bottoms." Both environments are already marked by scenic routes devoted to the au-

tomobile – the Lewis and Clark National Historic Trail with its parallel auto route and the Loess Hills Scenic Byway. The committee suggested naming a unique trail that both explores and links these two environments the "Bluffs and Bottoms Trail," honoring both Lewis and Clark's search for knowledge and their drive to explore all aspects of this distinctive area and local traditions. The name is also alliterative and easy to abbreviate as the "BBT." Members of the public suggested other ideas, including the "Western Explorers' Trail" or simply the "Explorers' Trail" (ET).

For convenience, this study continues to refer to the ultimate facility as the Lewis and Clark Trail or the LCT. However, we believe that another name that reflects both a spirit of exploration and the special geography and character of this part of Western Iowa will communicate the values and experience of this potential facility.

Objectives of the Trail

The Lewis and Clark Trail's overall goal is to make the landscapes and natural and human history of the Missouri River Valley and the Loess Hills more accessible to a wide variety of users for recreational, transportation, educational, and economic development purposes. This section identifies the objectives that if realized, will help the trail meet this goal over time.

- 1. The trail will satisfy recreation and transportation needs of a variety of user groups.** Long distance trails such as Iowa's Trails of Statewide Significance are most commonly associated with bicyclists with the range and ability to cover these distances. Indeed, many of this plan's recommendations and concepts are designed to adapt roads to safer and more pleasant bicycle use. However, while bicyclists are probably the dominant constituency for a trail network, they are by no means the only users. Hikers and other pedestrians, equestrians, and water and motorized recreationalists also should be accommodated within the overall system, and its features should provide high quality environments for all these user groups.
- 2. The trail concept should recognize different levels of user abilities with appropriate features and facilities.** Some LCT users will be long-distance road cyclists who will cover the Hamburg to Sioux City route in two days and are completely comfortable on most highways. Others will be families with small children out for a short, car-free trip through the countryside. Still other groups, like hikers and birders, may be looking for trails that take them to untouched, natural environments or observation points. The most successful trail should provide all these and others with satisfying, safe, and comfortable settings.
- 3. The trail should use existing facilities and resources to the maximum degree possible.** The Iowa DOT's draft bicycle and pedestrian plan identifies over 113,000 miles of highways, county roads and municipal streets which can be used by bicyclists in the state. This document includes low-volume roadways, roads with paved shoulders, and streets with bike lanes within the definition of "trail" and the LCT study area is rich in low-volume roads. Many of these can be adapted without additional land acquisition, and bicycle-oriented improvements often create better and safer facilities for motorists. The study area also has many special resources that may help define and enrich a trail corridor. These include properties owned by the Iowa Department of Natural Resources, existing state and county parks, federal levees, and public tribal lands. All of these resources can both accommodate trails and enrich the experience of using them.
- 4. The trail should tell the story of this unique part of the state, and direct users to features that advance the narrative.** The western Iowa area has a rich variety of museums, parks, interpretive displays, historical sites, and other places of interest. The trail should help users find these distinctive locations, and through interpretation, help inform and enrich their experience. While trails are not primarily educational institutions, they can build an awareness and sensitivity to environment, history, culture, art, and commerce.



Cedar Falls Trail in Cedar Falls, a segment of the Iowa part of the American Discovery Trail (ADT).



Mississippi River Trail (MRT) - Davenport



Heart of Iowa Trail in Story County, part of the American Discovery Trail.

Trails of Statewide Significance

The ultimate goal of the Iowa Department of Transportation's Bicycle Plan is to encourage connectivity among communities, parks, natural resources, shopping, employment, and other amenities with a comprehensive, multi-modal, easily accessible trails system. As part of the process of developing a statewide bicycle plan, the Iowa DOT conducted an extensive analysis of existing corridors to help establish a network of cross state, and interstate trail connections.

The Iowa DOT in cooperation with cities, counties, metropolitan planning organizations, regional planning affiliations, interest groups, trail users, and citizens in general, established five trails of "Statewide Significance" as a first phase in the implementation of a statewide bicycle system. The ultimate goal of these trail corridors being completed within the next 20 years. They include the American Discovery Trail, Mississippi River Trail, Central Iowa Loop, Iowa Great Lakes Connection, and the Lewis & Clark Trail.



The Missouri River - Then and Now



Light House at Lewis and Clark State Park



Blue Lake, Lewis and Clark State Park

Lewis and Clark State Park

A changing landscape

At the time of Lewis' and Clark's journey, the Missouri River was part of a vast and untamed wilderness. The river was equally dynamic and untamed, with changes in its channel cutting into and building back the surrounding landscape.

The illustration above, superimposing the historic channel on a contemporary aerial photograph, illustrate how the river has changed since the time of expedition. The Missouri River of Lewis' and Clark's time was vastly different from today's swift channel. Its tight meanders often led the expedition back to within a few yards of their location several days earlier.

At this location, including Lewis and Clark State park and the City of Onawa, the Missouri River channel is more than two miles from the bend that the expedition traversed on August 5, 1804. Floods caused the river to change course, sometimes dramatically during very short periods.

Lewis and Clark State Park includes more than 176 acres, with campgrounds, picnic shelters, hiking trails, and a 250 acre ox-bow lake.

In addition its recreational activities, the park offers a full-sized replica of the keelboats used during the expedition. Each year, a re-enactment at the park memorializes the journey of discovery and demonstrates the vessels that made the expedition possible.

- The trail should promote economic development.** Major trails should create business opportunities. Trail users need supporting services – food, lodging, retailing– and are drawn to the communities that provide both these services and local character. A region's cities and towns provide that most valuable of trail experiences: pleasant and often unplanned human interaction. In rural areas, several new businesses can add enormously to the local economy and the viability and quality of communities.
- The trail should have integrity and continuity at all stages of its incremental development process.** The Lewis and Clark Trail is an ambitious concept that will take many years to develop. But LCT evolves, always usable but changing and improving over time. From the outset, the LCT should offer a complete experience to users, one that gets better and more memorable as the years go by.

The Organization of the Plan

The objectives described above frame the approach and organization of this document:

Chapter One describes the process and results of the extensive stakeholder and user participation program that was fundamental to this document. These included fourteen stakeholder discussions in six locations as part of a bike tour of the area by the consulting team, an opinion poll about trail users and needs, design workshops throughout the region, and a detailed review of the experiences of other thematic, long distance trails across the nation.

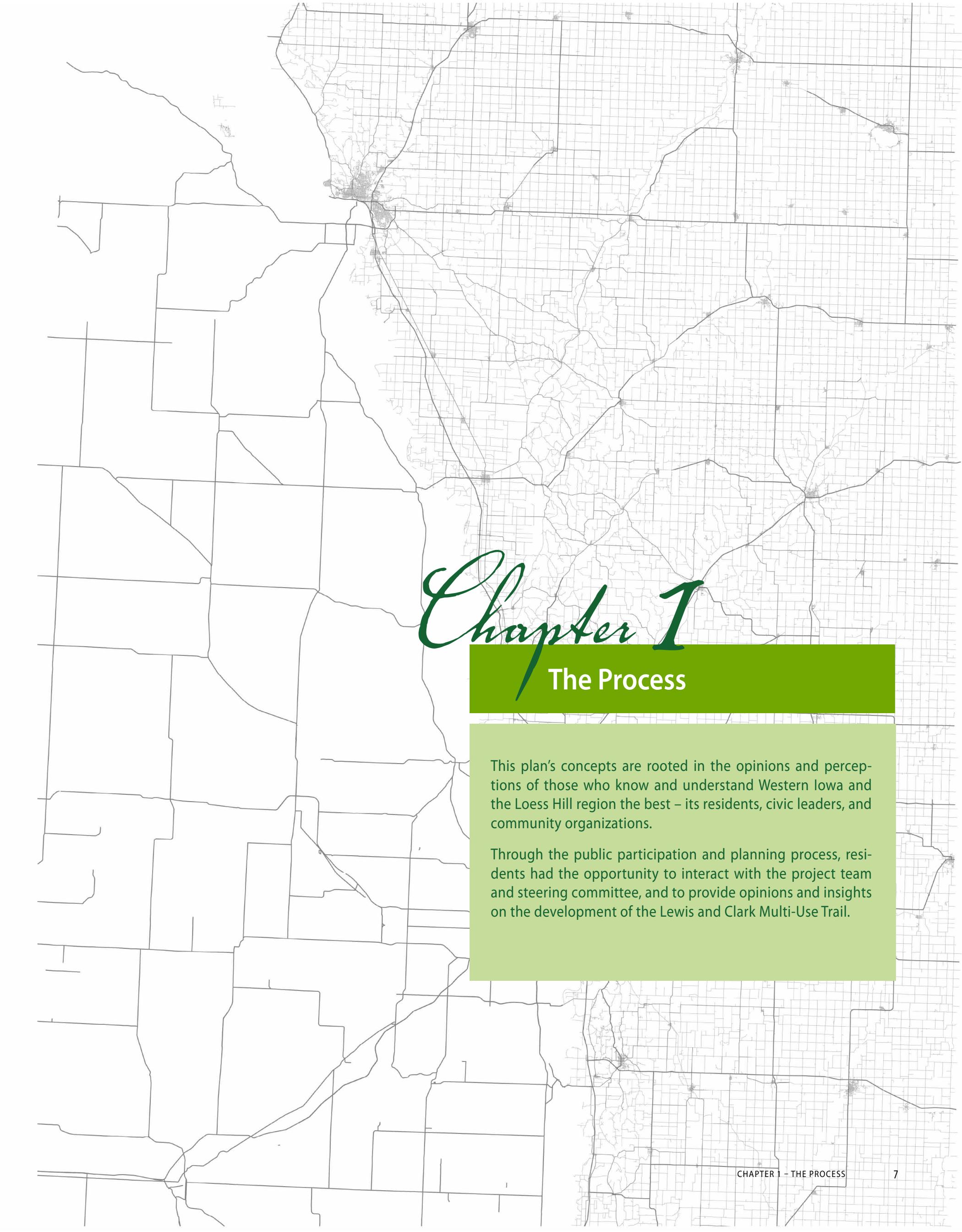
Chapter Two presents an atlas of trail determinants, mapping the resources, services, opportunities, and attractions that help determine the trail route and character.

Chapter Three proposes the overall trail concept with interconnected alignments that give trail users access to a rich variety of settings and resources. It also considers the contexts of the trail and presents design prototypes and general guidelines for trail segments in each of these contexts. The chapter concludes by matching trail prototypes with specific segments.

Chapter Four presents an information and theming plan, considering the stories and themes opened by the trail, and the means of communicating these themes to users and visitors. It also develops a graphics and signage program that includes a trail marker, information and directional graphics, and supporting information.

Chapter Five sets forth the implementation plan, considers alternative organizational structures for trail development and administration, and illustrates sequencing ideas that maintains integrity and usefulness through many years of gradual development. The implementation plan also includes statements of probable cost for the system and its individual segments, and reviews funding methods for construction and maintenance.

The Lewis and Clark Multi-Use Trail expands the original idea of a point-to-point trail that generally follows the National Historic Trail route to an idea that encourages users to explore the entire region, in the spirit of the Corps of Discovery as it investigated the future of the young American nation. We hope that this plan also helps people of all ages view this great land with the wonder and idealism of youth, recapturing the spirit of discovery that has made our country great.



Chapter 1

The Process

This plan's concepts are rooted in the opinions and perceptions of those who know and understand Western Iowa and the Loess Hill region the best – its residents, civic leaders, and community organizations.

Through the public participation and planning process, residents had the opportunity to interact with the project team and steering committee, and to provide opinions and insights on the development of the Lewis and Clark Multi-Use Trail.

The Process

A Review of the Goal-Setting Process

This plan's concepts are rooted in the opinions and perceptions of those who know and understand western Iowa and the Loess Hill region the best – its residents, civic leaders, and community organizations. While participation in a trail planning process typically focuses on conservation boards, engineers, recreational associations, and local and state officials, this process also focused on end users. Every resident has a compelling interest in the development of additional recreational opportunities within the region and had the opportunity to participate at some level.

The public participation process included:

- **Public Opinion Survey.** This opinion survey could be completed either on-line or in hard copy. While non-scientific, the survey identified potential issues and goals that stakeholder meetings and design workshops addressed more completely.
- **Peer Survey.** A peer survey of state and municipal transportation agencies provided insight into the policies and practices that other regions have utilized in implementing and maintaining regional trail networks.
- **Stakeholder Interviews.** At the beginning of the planning process, the planning team and Iowa Department of Transportation sent invitations to key stakeholders within the study area, requesting their participation as members of the project steering committee. In April 2009 phone interviews welcomed them to the process and asked for their initial thoughts and opinions about the project.
- **Trail Planning.** Workshops took place on July 27th – 30th, 2009 and September 21st – 25th, 2009. They were held in Hamburg, Percival, Glenwood, Council Bluffs, Missouri Valley, Onawa, Sloan, and Sioux City.
- **Project Steering Committee.** The Project Steering Committee met at key points during the planning process to review the progress of the plan and make revisions to the draft concepts.
- **Open House.** Public Open Houses were held on August 3, 4, and 5, 2010 at Glenwood, Missouri Valley, and Sioux City. At the open houses members of the public reviewed and commented on the master plan before final revision and adoption.



Figure 1.1: Steps in the Planning Process

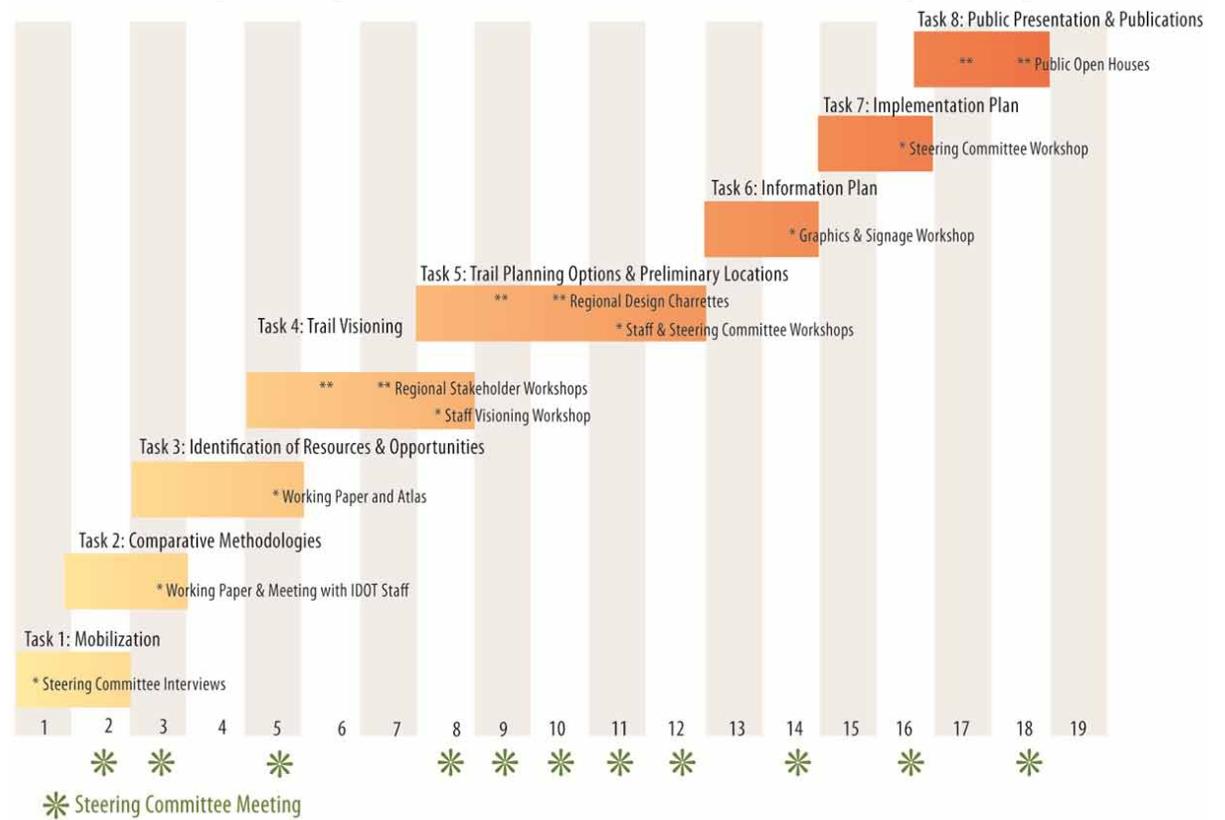


Figure 1.2: Recreational Activities of Survey Respondents

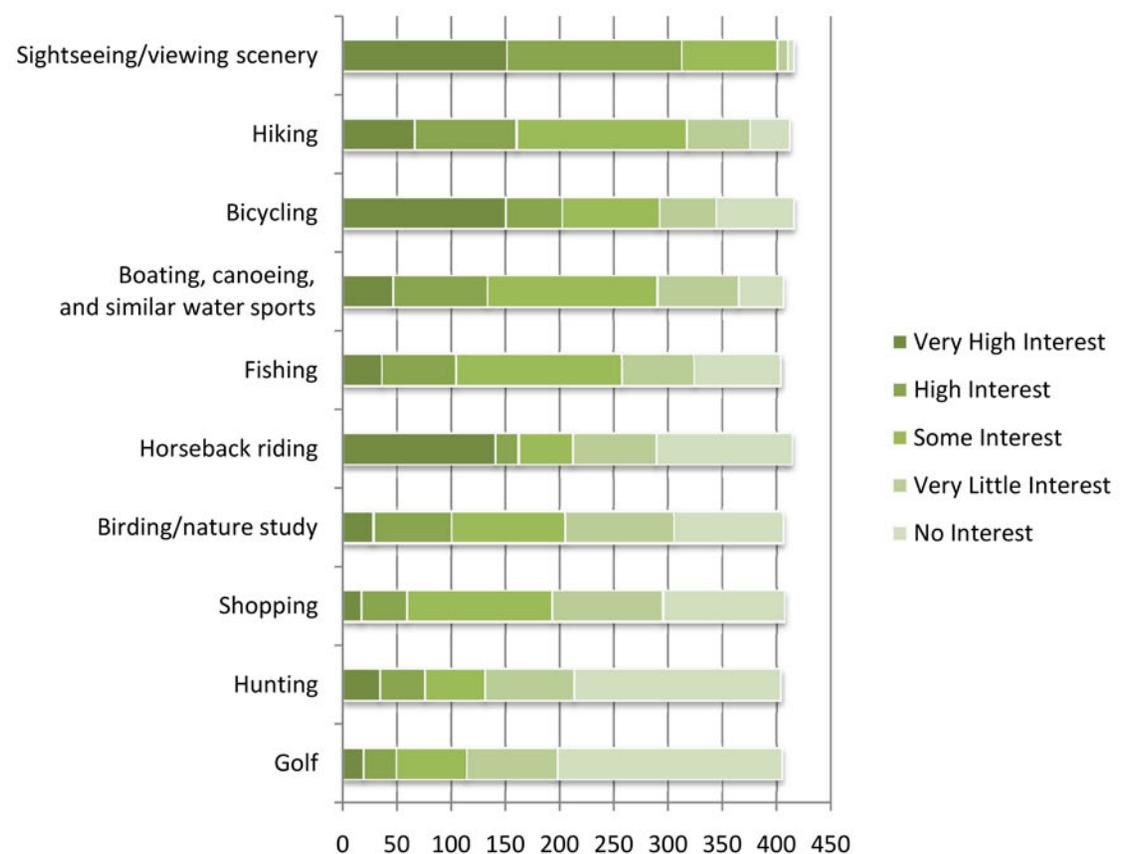


Figure 1.3: Historical & Cultural Interests of Survey Participants

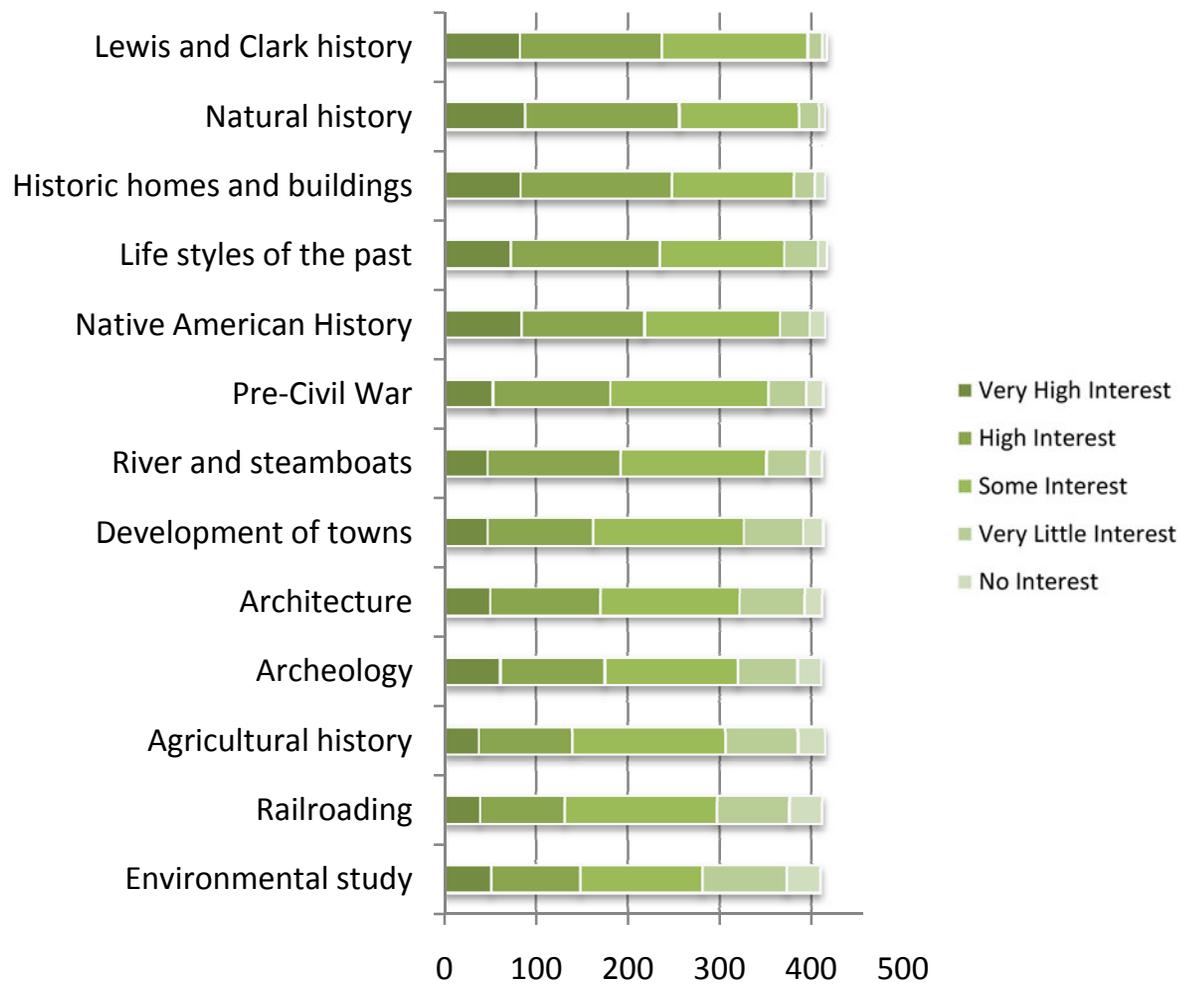
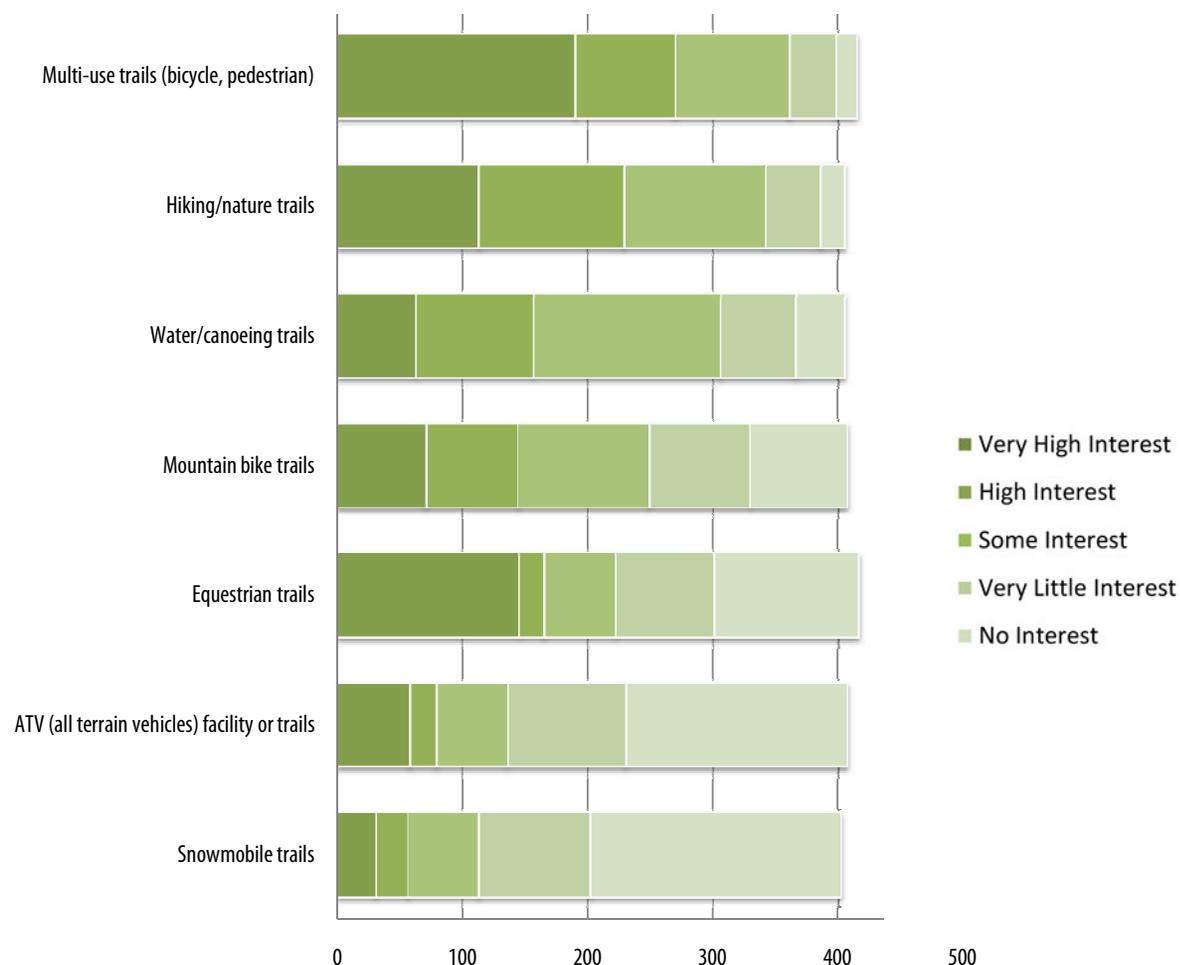


Figure 1.4: Trail Type Preferences of Survey Participants



Public Opinion Survey

The process began with an opinion survey that gathered opinions and perceptions about the development of a multi-use trail network and the type of facilities and attractions that it should include. Marketing for the survey included newspapers, the project website, and an information booth set-up at RAGBRI 2009 Expo in Council Bluffs, Iowa. Over a six week period, 429 people completed the survey on-line or on paper. Participants answered a wide range of questions on recreational interests, regional points of interest, and applicability of types of trail facilities. This section summarizes the findings of this survey.

Recreational Activities

Respondents rated their level of interest in recreational activities on a scale of "Very High Interest" to "No Interest". A substantial majority of participants identified a high interest in sightseeing and viewing scenery. In addition, outdoor recreational activities, most notably bicycling, hiking, equestrian activities, and water related excursions were rated highly. Figure 1.2 illustrates the frequency of individual responses.

Historic and Cultural Resources

The survey asked participants to score their level of interest in various types of historic and cultural resources. Significant interest existed for all resource areas. However, the highest scoring selection was the history of Lewis and Clark, with 90% of respondents showing interest in the interpretation and linking of historic resource connected to their expedition. Also scoring highly were natural history, historic sites, lifestyles of the past, Native American history and culture, and pre-Civil War history. Results indicated a strong appreciation for cultural and historic resources linked to "American" cultural dynamics, and the regions natural resources. Figure 1.3 details the frequency of responses.

Trail Types

The survey asked respondents to rate their level of preference for various types of facilities. Multi-use trails that supported both walking and biking received the highest number of positive responses. Responses indicating at least some interest in a particular facility included hiking and nature trails, followed by water/canoeing trails, and mountain bike trails. Figure 1.4 details the frequency of responses.

Figure 1.5: Self Description of Survey Bicyclists

Attractions

The survey asked participants about past visits to attractions, museums, and communities. About a third indicated visits to some type of state park or recreational area in the last year. The Loess Hills Byway, Stone State Park, and the Bob Kerry Pedestrian Bridge were the most frequently visited destinations during the last year. DeSoto Bend, Lewis and Clark State Park, and Loess Hill State Park, were also popular attractions, but the majority of respondents had not visited them during the last year.

Museums received relatively less frequent visits than other attractions. The majority of respondents never had visited museums listed in the survey. Of available choices the most frequently visited museums were:

- Bertrand Museum, De Soto National Wildlife Refuge (38%)
- Sioux City Art Center, Sioux City (31%)
- Sioux City Public Museum, Sioux City (30%)
- Union Pacific Railroad Museum, Council Bluffs (28%)

A separate question addressed museums and monuments related to Lewis and Clark. About 25 percent or more of survey respondents indicated visits to at least one of these facilities. The most popular facilities were the Sergeant Floyd Monument (47%) and the Lewis and Clark Interpretive Center (36%).

Trail Facilities and Use Characteristics

The survey included questions to help define facility preferences of pedestrians and bicyclists. Responding to a question asking bicyclists to describe their comfort with different facilities, about 45% were comfortable riding their bike on a legal road to at least some degree. About 25% were uncomfortable in mixed traffic, preferring separated trails. (See Figure 1.5)

A following question asked respondents to rate how well different facility types met their needs. Off-road trails (both paved and unpaved) met the needs of the greatest number of respondents, followed by paved bike lanes and boardwalks. (See Figure 1.6)

The survey asked participants whether or not they would use a trail network along the Missouri River corridor from Sioux City to the Hamburg. More than 70 percent stated that they were extremely or very likely to use such a trail network. (See Figure 1.7)

Finally, the survey asked participants to rate how important various trail facilities were to them. Signage and directional information, trailheads with facilities, and campgrounds were rated most important by survey respondents. The most important trail types were bicycle trails, nature trails, shoulder improvements on roads, and canoe trails followed by equestrian and winter sports trails. (See Figure 1.8)

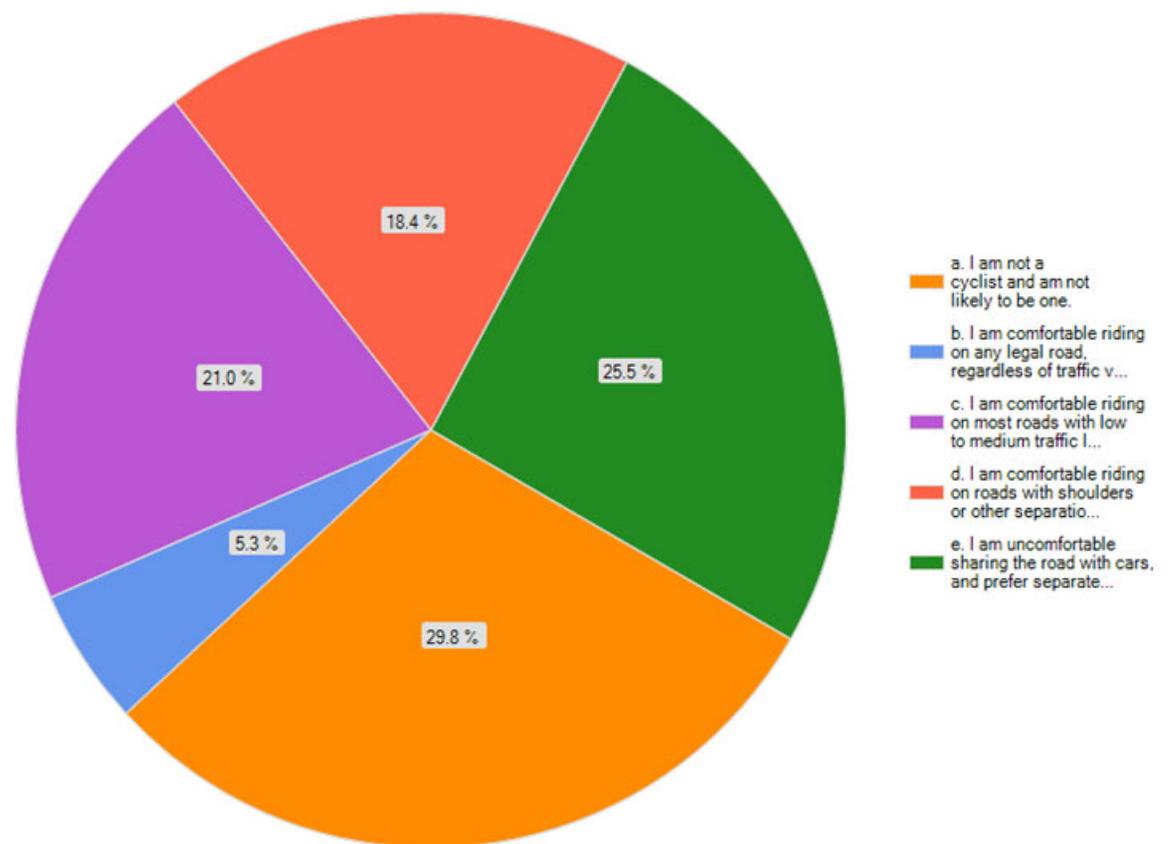


Figure 1.6: Ability of Various Trail Designs to Meet Individual Cycling Participant's Needs

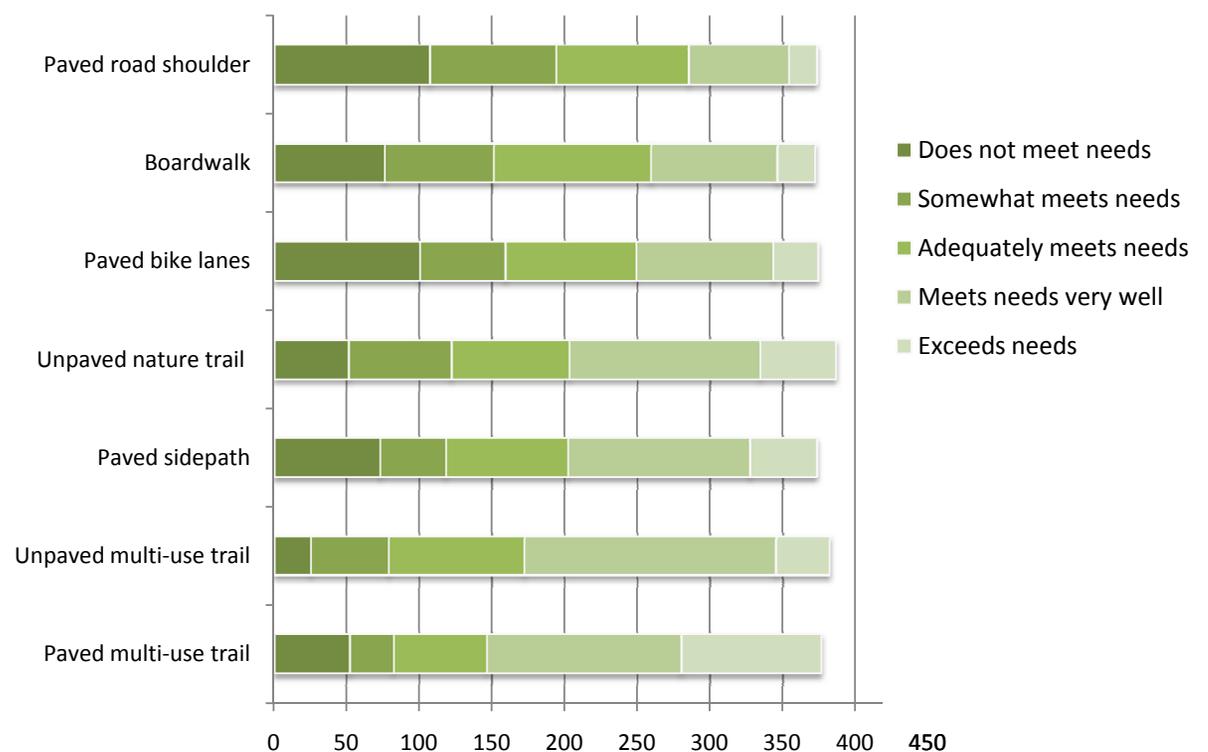
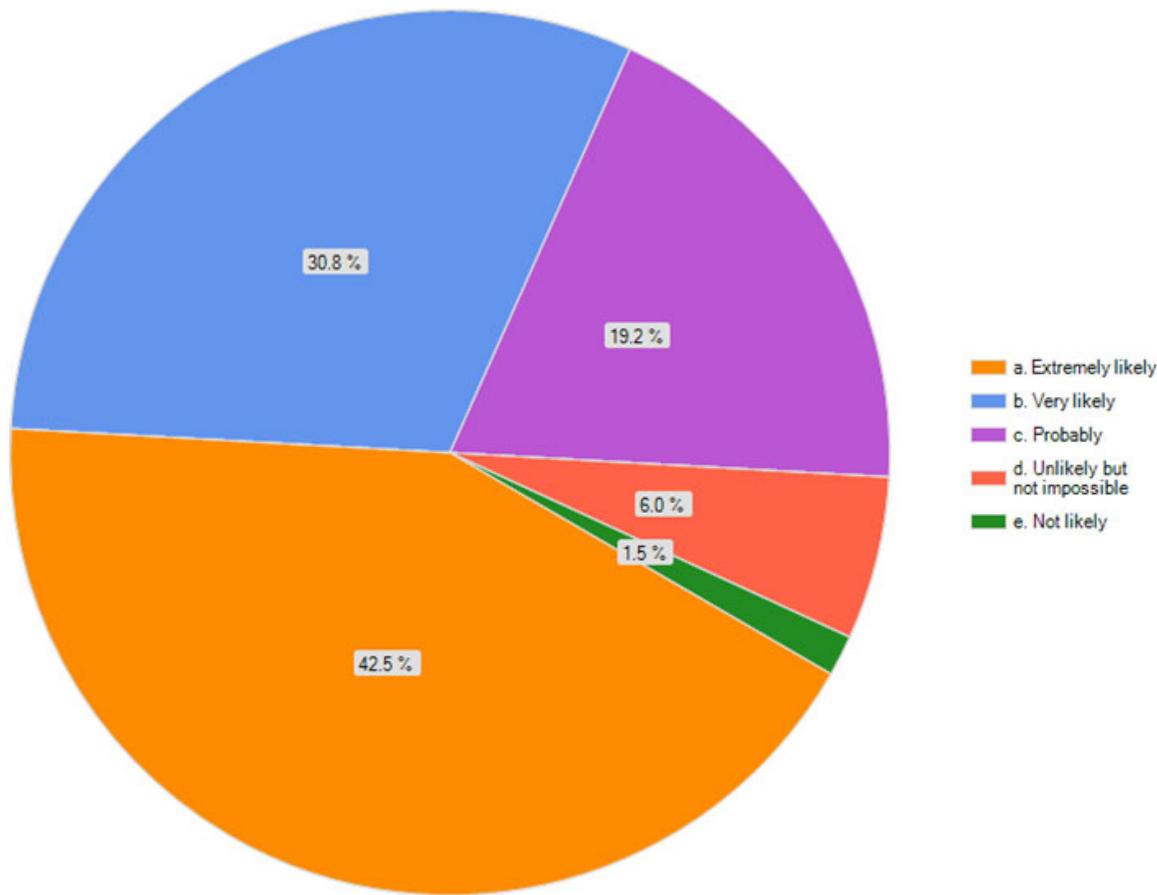
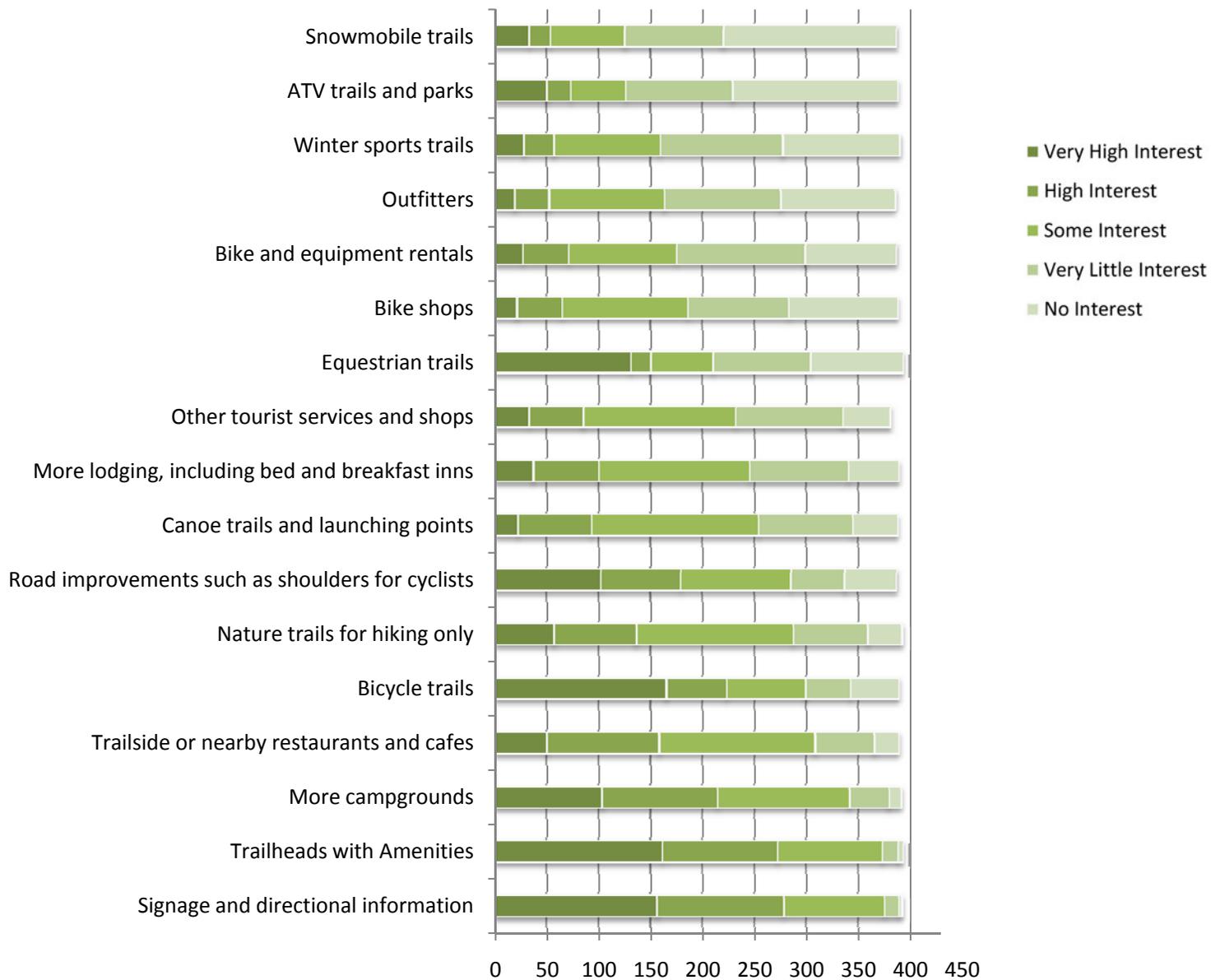


Figure 1.7: Participants Expectation of Use of Hamburg to Sioux City Trail



Council Bluffs' Riverfront Trail provides access to a number of recreational areas including; Lewis & Clark Monument, Big Lake Park, Narrows River Park, Dodge Park Golf Course, Western Historic Trails Center, Harveys Recreation Complex, and Lake Manawa State Park. In addition, the trail also provides access to Nebraska, via the Bob Kerrey Pedestrian Bridge.

Figure 1.8: Importance of Various Trail Facilities



Benefits of Multi-Use Trail

While trail networks are often considered to be recreational amenities, they also have many other benefits, including tourism, economic development, education, social contact and health and wellness. The survey asked respondents their opinions about the benefits of a multi-use trail along the Missouri River corridor. The opinion of participants was that likely benefits were attraction of new residents, rural economic development, habitat conservation, education, and community economic development. (See Figure 1.9)

The survey concluded by asking participants to identify specific routes and additional amenities important to a trail network along the Missouri. Routes mentioned as potentially important included the Wabash Trace, Loess Hills Scenic Byway, Stone State Park trails, and Larpenteur Memorial Road. Other suggestions included:

- Tyson Bend
- Loess Hills Scenic Byway
- State Highway 982 (Smithland to Sioux City)
- Tri State Trail in Sioux City
- Orchard Ridge Loop (Loess Hills Byway)
- Stagecoach Loop (Loess Hills Byway)
- Snyder's Bend
- Area west of the Sloan Casinos
- Desoto Bend
- Council Bluffs' trails network
- Painter and Pease Roads
- Pony Creek Loop (Loess Hills Byway)

Specific features and attractions that participants felt should be served by the trail network included the following:

- Riverside trails
- Equestrian trails
- River Resources
- Camping areas
- Loess Hills
- Canoeing/Kayaking
- Historic markers
- ATV trails
- Wisecup Museum
- Religious Museum
- Broken Kettle grasslands
- Boy Scout Campgrounds
- Sergeant Floyd Monument
- Schilling Wildlife area
- Snowmobile trails
- Hitchcock Nature Center
- Visitor Centers
- The Narrows
- Lewis & Clark Monument
- Lewis & Clark State Park
- Preparation Canyon

Questionnaire Conclusions

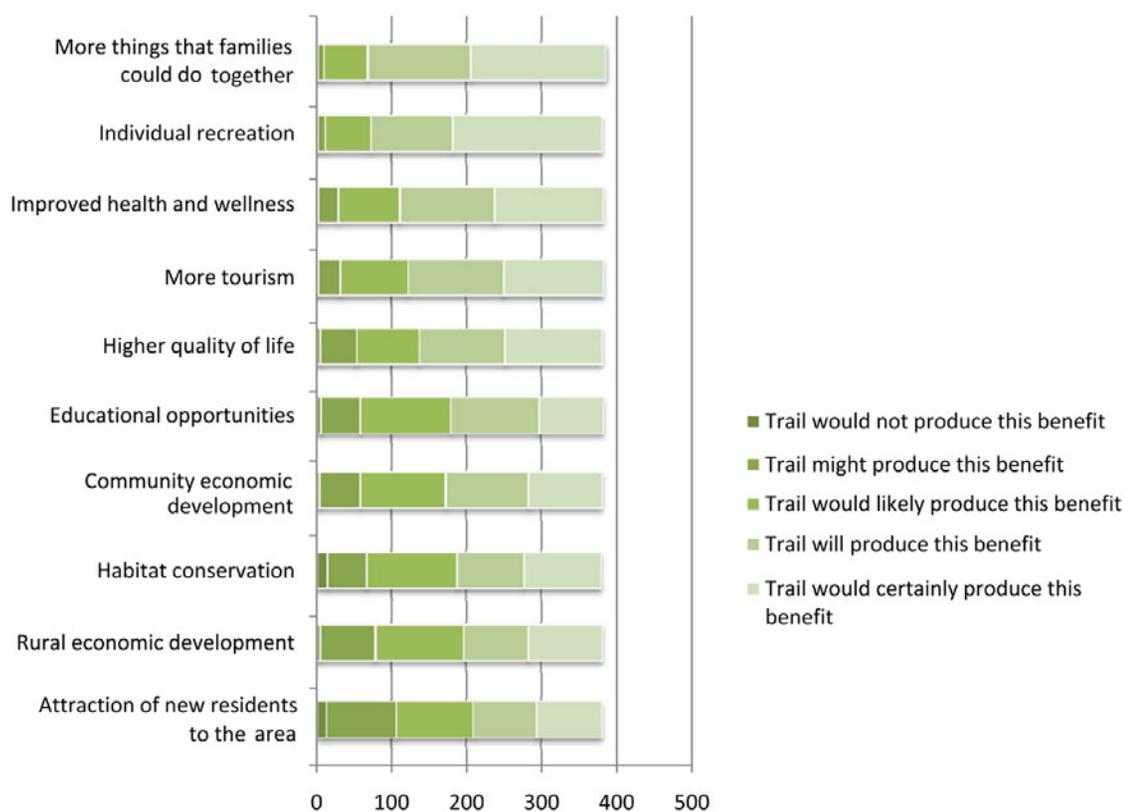
The survey results lead to the following conclusions:

- Strong interest exists in the development of additional multi-use trail facilities in Western Iowa. Additional hiking, biking, water sports and equestrian facilities attracted particular interest.
- Interest in Lewis' and Clark's expedition remains high in the region. Other subjects, such as regional history and culture are of considerable interest. This suggests the value of incorporating multiple interpretive themes into the development of the trail.
- Most bicyclists are comfortable with paved shoulders and low volume roads as potential trail routes. However, the ultimate trail should provide close connections to nature and the Missouri River corridor.
- The trail network can help attract new residents and encourage additional tourism and economic development.



View of the Missouri River Valley from Murray Hill

Figure 1.9: Participants' Opinion of Trail Benefits



Loess Hills National Scenic Byway

The Loess Hills National Scenic Byway is a strong precedent for a route network that displays and interprets the natural features of Western Iowa. The byway effort began in 1989 as a grassroots effort by citizens, Golden Hills Resource Conservation and Development, and Western Iowa Tourism. In 2000 the byway was designated a National Scenic Byway. The network includes a “spine” route made up entirely of paved roads, with a series of loops reaching into more remote sections of the bluffs.

Today’s system is governed by a 13-member board comprised of representatives from the seven Byway counties, State Historical Society, Iowa Department of Transportation,

Golden Hills Resource Conservation & Development, Western Iowa Tourism, and a at-large member. The byway receives both financial and in-kind support from County Boards of Supervisors, county conservation Boards, County Engineers, landowners, and individual volunteers.



Loess Hills National Scenic Byway near Glenwood

Peer Survey

To understand lessons learned from the development and administration of regional trail networks, the project team contacted the managers of 15 regional trails, and received nine responses, identified in Table 1.1. This section summarizes the comments received from the managers, with special emphasis on three areas:

1. Looking back on your experience, what would you do differently?
2. What do you consider your three greatest successes and your three greatest failures?
3. If you were advising a group trying to establish a new non-motorized trail, what would you suggest they do? What should they avoid?

Emerging Themes

The use of open-ended questions produced a wide-range discussion, through which specific themes began to emerge. Themes covered during these interviews are described below.

Coalition Building. Every manager stressed the importance of building a broad coalition and seeking as many partners as possible. Coalition building must begin from the start. Typical partners include political, healthy living organizations, biking and walking clubs, federal, state, county and local government agencies, neighbors of the trail, farmers in rural areas, local chambers of commerce, libraries, and local opinion makers.

An example of the importance of coalition building is the MRT trail in Louisiana. Following Hurricane Katrina much of the trail built on levees needed repair. The United States Army Corp of Engineers (ACOE) stated that it would not rebuild damaged sections of the trail when rebuilding the levee. Fortunately for the MRT in Louisiana, the diverse coalition that had been built over the years including neighborhood groups, Chambers of Commerce, and local politicians came out fighting to keep the trail. Eventually a compromise policy was developed.

Reese Lukie of the American Discovery Trail, credits Nebraska as a state that “did it right” by actively reaching out to farmers in the area of the trail corridor, asking them to consider benefits the trail

Table 1.1: Trail Managers Surveyed

Trail Manager	Trail	Brief Trail Description
<i>Mark Ackelson</i>	Mississippi River Trail- (IA)	The Mississippi River Trail (MRT) passes through 10 states, following the river from its headwaters to the Gulf of Mexico. This study looked at the experiences of three states, Iowa, Minnesota, and Louisiana.
<i>Dan Jertes</i>	Mississippi River Trail-(LA)	<i>See Mississippi River Trail (IA)</i>
<i>Dorian Grilley</i>	Mississippi River Trail- (MN)	<i>See Mississippi River Trail (IA)</i>
<i>Karen Votava</i>	East Coast Greenway	Continuous 3,000 mile route from Maine to Florida. The effort began in 1991, with organizational structure forming in 1995.
<i>John DiMura</i>	Erie Canal	Constructed 170 miles of trails since 1995.
<i>Bob Manzoline</i>	Mesabi Trail (MN)	State trail extending 132 miles at completion. As of 2009, about 102 miles of trail have been completed. The trail offers access at regular intervals. The longest paved section is between Marble, MN and McKinley, MN.
<i>Reese Lukei</i>	American Discovery Trail (Varies)	A Congressionally-chartered “National Discovery Trail”, extending 6,800 miles from Cape Henlopen State Park, Delaware, to Pt. Reyes National Seashore, California. It passes through urban areas such as San Francisco and Cincinnati, 5 national scenic areas, 12 national historic trails and 34 national recreational trails. The ADT crosses both Iowa and Nebraska, and is one of the state’s five Trails of Statewide Significance.
<i>Ginny Sullivan</i>	Underground Railroad Bike Route (Varies)	The Underground Railroad Bicycle Route (UGRR) is themed around the bravery of those who fled bondage and those who provided them with shelter. The trail passes many historic sites and points of interest in its 2,008 mile route. This is new project and is under development by the Adventure Cycling Association.

could bring to their small towns and rural communities. This early and proactive approach helped make allies in developing the trail network.

Dorian Grilley of Minnesota suggested getting one or two influential public officials on board early. Citing successes in other communities, and the positive effects of the trails, he suggests using the Rails-to-Trails Conservancy Library of studies to back up claims of benefits.

Many managers mentioned the problem of people learning about projects late in the game. When people find out a project “late” and feel they were left out of the loop, they often resent the project. What people perceive as “late” may actually be early in the planning process, so broad publicity for projects at the initial phase is very important.

Project Awareness. Project awareness should be thought of in two ways:

- Awareness of the planning and development efforts
- Awareness and use of the trail once it is in place. As each segment is opened, work to make people think of it as an actual route that can be used, not just an idea or a plan.

Karen Votava has struggled with this particular problem on the East Coast Greenway. Only 5 percent of the public is aware the trail exists. Many think something is underway but do not understand the route is on the ground and available for use today. This in turn reduces public support and potential donations.

Several managers have had success using events such as tours and festivals to draw attention to their trails and grow public awareness.

Mesabi Trail

Land of the White Giant

Located in northern Minnesota, the Mesabi Trail is a premier paved bike trail winding through some of the state's most picturesque regions. In 2010, approximately 115 miles of the trail have been completed and offer convenient accessibility at numerous points. At 132 miles when completed, the Mesabi will be the longest paved bicycle trail in the United States.

In 2000 the St Louis & Lake County Railroad Authority undertook the proposition of converting abandoned railroads into trails. Along with the aid of regional residents and landowners, the authority has secured abandoned railroad right-of-ways and other properties to connect the 132 mile route. Financing of the project has largely been supplied

through the collection of user fees. Annual passes cost \$15 per individual.

While user fees are higher than that of most trails, the Authority offers a free shuttle service to trail users. At the end of a trail ride, users can contact the Mesabi Trail Shuttle Service to be picked-up and transported either to their starting location or to another point along the trail for a nominal fee.



Minnesota Discovery Center, Courtesy Mesabi Trail

Tours may be multi-day or single day tours. They are generally a public affair but a tour can be used to target specific fund raising prospects. Karen Votava takes donor prospects on private tours with the trail manager from the region, the board chair and trail council members. Her tours are modeled on the Rails-to-Trails Conservancy donor tours.

Partnerships. The Missouri River lacks the fame or tourism infrastructure of the Mississippi, but groups are working hard to promote the region. The trail managers interviewed suggested taking full advantage of existing activities and efforts taken toward developing the regions tourism industry.

Tourism is the focus of the Iowa Resource Conservation and Development Program (RC&D) website (www.ia.nrcs.usda.gov/partnerships/rcandd.html) and states: "Tourism based on unique aesthetic, cultural and historic resources is an important opportunity for many Iowa communities. Strengthened RC&D assistance to local rural tourism development work will benefit communities across Iowa. Communities along the Missouri River in Congressional Districts 4 and 5 have a particular need to make use of the unique opportunity presented by the Lewis and Clark Bicentennial in 2003."

The Sioux Rivers Area is managed by Darrell Geib, this covers the northern portion of the study area. The southern half is called the Golden Hills Area and is managed by Shirley Frederickson. The Loess Hills National Scenic Byway is a project of the Golden Hills RC&D and may present a partnering resource for the Lewis and Clark Trail.

The National Park Service, Trails and Conservation Program (RTCA) can also be a valuable regional trail partner. RTCA Staff provide technical assistance to community groups and nonprofit organizations, tribes or tribal governments, and local, state, or federal government agencies so they can conserve rivers, preserve open space, and develop trails and greenways. Applications are due August 1 of each year for assistance to begin the following fiscal year.

American Trails is another potential project partner, with a mission to support local, regional, and long-distance trails and greenways in backcountry and rural or urban areas. Since its formation

in 1988 American Trails has been involved in activities ranging from training trails advocates to increasing accessible trail opportunities for persons with disabilities.

Local walking and biking clubs were mentioned by a few managers as important partners for route information as well as trail advocacy.

Unusual partnering examples. An interesting example of a unique partnership that proved very successful is the partnership between the Adventure Cycling Association (ACA) and the University of Pittsburgh Center for Minority Health for the development of the Underground Railroad Route. ACA realized early in the planning process that while the concept would be of great interest to African Americans, the organization itself had few African American members. The need to reach out to potential users in the African American community led to a fruitful partnership with the Center for Minority Health.

Local libraries. Adventure Cycling has found that local libraries provide many support services for travelers. Bicycle tourists stop to take a break from the heat, use the restroom, and check the Internet. ACA maps the local libraries on its route maps and works with libraries to make them friendlier to touring cyclists, and bicyclists in general. Examples of improvements include Internet use without local library cards and quality bike racks. On a grander scale, ACA has been working with Web Junction, a Bill Gates sponsored program that provides technical support to libraries seeking to expand their use of the Internet.

REI, the outdoor gear cooperative, has been another valuable partner for ACA. Local store staff nominates projects for grant assistance, making contact at the local level especially important. While REI does not have an Iowa store, this model might be used for other large retailers.

Challenges caused by geographic location. Mark Ackelson, Board Chair of the Mississippi River Trail (MRT) and Iowa MRT representative points out the challenge of the differences in tourism infrastructure along the Missouri River compared to the Mississippi River. The Missouri River region is not as densely populated, and western Iowa has fewer towns, (large and small) than eastern

Iowa. This leads to such challenges as fewer paved roads and a more "rural attitude" towards bicyclists. Mark noted resistance to trails during the planning of the Wabash Trace. The trail is now an accepted and valued part of the western Iowa landscape.

Another geographic challenge mentioned by more than one manager is the logistical problem of gathering board members, trail council members or steering committees over great distances. Good communication is key to successful planning. However, distances can be a major obstacle.

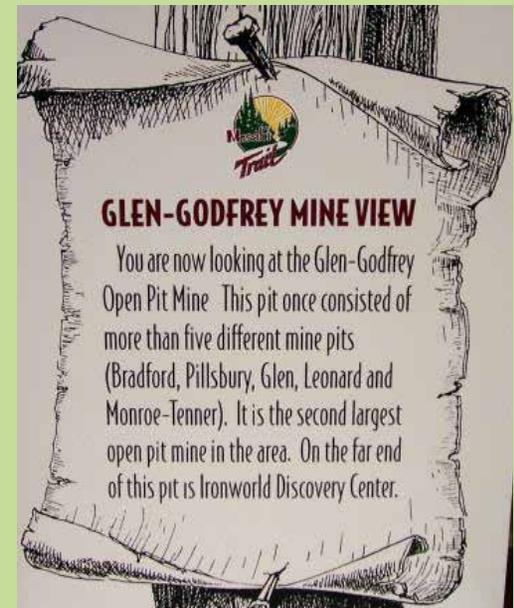
A third geographical challenge for trails of any length are multiple political jurisdictions including counties, cities, and federal lands. The MRT is multi-state and organization of planning and management around state lines works well. Problems occur when a trail needs to be broken down into smaller segments for management. For the MRT, the county level did not work because the counties through which the trail passes are diverse. An extremely rural county faces different management issues than a more urban county. The MRT is still struggling over appropriate segments to organize around.

Use of the levees for trail alignments. The Iowa side of the Missouri River has several levee districts that are charged with maintenance and management of the levee system. Here, the experience of the MRT in Louisiana with the use of levees for trails is instructive. Trail networks need connections to the road grid, and better accommodations for cyclist at street level. If the LCT uses Missouri River levees, it may face challenges to access and maintenance of the trail network.

Signage. Most of the trail managers struggled with trail signage. Long regional networks typically use other trails as their base. For example, the American Discovery Trail stitches local trails and rights-of-way together to form a 6,000 mile trail. Often, local trail organizations do not want to confuse users with multiple signs. The Colorado Trail allows the ADT only an occasional sign to remind users that they are on the right track. In another example, five separate trails use the Golden Gate Bridge. Getting permission to sign is a challenge and sign location may need individual agreements as trail ownership may change.



Mesabi Trail between Kinney and Mt. Iron, *Courtesy Mesabi Trail*



Interpretive Trail Marker, *Courtesy Mesabi Trail*

Dan Jartres reports a similar issue along the Louisiana stretch of the MRT. The river levee trails are on top of the levee crown so trail users can see the land uses on each side. But Lake Pontchartrain Levee trails are on the “wet” side making orientation to surrounding neighborhoods and land uses impossible. Directional information and even distance (minutes vs. miles) information would be very helpful. Signage on travel time along the trail is especially important because distances between points on trails and roads are different.

Adventure Cycling does not attempt to sign its routes, instead selling maps to ACA tourists. This removes the problems of gaining permission and maintaining signs, and makes changing the ACA route as easy as publishing a new map.

Bicycles on roads in Iowa. There is an on-going discussion in Iowa about bicyclists’ use of the roads. Mark Ackelson reports that 17 bikers have been killed in the last 5 years and the drivers all received minor traffic violations. The Lewis and Clark Trail is to involve a combination of off- and on-road sections. Given that, the debate about cyclists’ rights to the roads may come into play.

Staffing balance. Field staff, working to establish and maintain the trail, and office support staff (bookkeeping, office administration, membership, etc.) must be balanced. It is easy to focus on the field staff at the cost of support staff backup necessary to developing and maintaining a trail network.

Local Legitimacy. Some managers of regional trails covering large geographic areas have found it difficult to establish local legitimacy and important local connections. The East Coast Greenway has solved this problem by using State Committees. The committees are made up of volunteers from each state that the ECG travels through. This required the ECG organization to find, organize, and train volunteers. Once this process was completed, the ECG organization transitioned to a support role for the committees. In return, the committees provide important strength in linking the larger organization to local government agencies, and in developing projects across state lines. The state committees also bring legitimacy to the organization, important in building relationships with health groups, local bike clubs, walking groups that provide the necessary support for maintaining the trail.

Dealing with opposition. Trail proponents must seek opinions of everyone, even those who oppose the project. It is important to address opponents and understand and resolve their issues. As mentioned earlier, the ACOE opposed replacing trails with the reconstruction of damaged levees. In the Louisiana case, the Corps did not want to be responsible for projects considered outside its mission. However, if the trail can be billed as serving flood protection or levee inspection purposes, the Corps is generally more agreeable. In Louisiana, the trail was recast as an “all weather access road”.

Promising too much to gain political support. A mistake that was characterized as a “big mistake” by one trail manager is having promised too much in future management responsibilities to gain political support today. He considered it better to build support of local decision-makers and avoid “giving away the store” to gain support quickly.

Cooperation with rural county highway engineers. Rural county highway engineers are challenged by limited budgets, and many are reluctant to use their funds to pave shoulders. Some county highway engineers need more information about funding options and may need to be shown that paved shoulders benefit all highway users.

Board members and funding. Karen Votava of the East Coast Greenway is struggling to run a large organization on a small budget. She has 10 to 11 staff people and a 3,000 mile long greenway to develop and manage. The combination of a small budget, small staff, and big project risks staff burnout. She advises that ongoing project funding strategies be considered early in the process.

The original East coast Greenway board was filled with people who were and are extremely passionate about the greenway, but lacked fundraising connections or skills. While the ECG became a reality project funding did not keep up with the greenway’s growth. Recently, the original board evolved into a “Trails Council” focused on areas within members’ areas of interest or competence. A smaller board focused on fundraising has members with connections to important donors, and an ability to secure donations.

Early achievements. Utilizing established funding sources and resources can build early momentum and extensively contribute to the projects successes. Having a completed segment in place provides opportunities for events, building awareness of the larger project, and helping the public think of the project as an actual route and not as just an abstract concept.

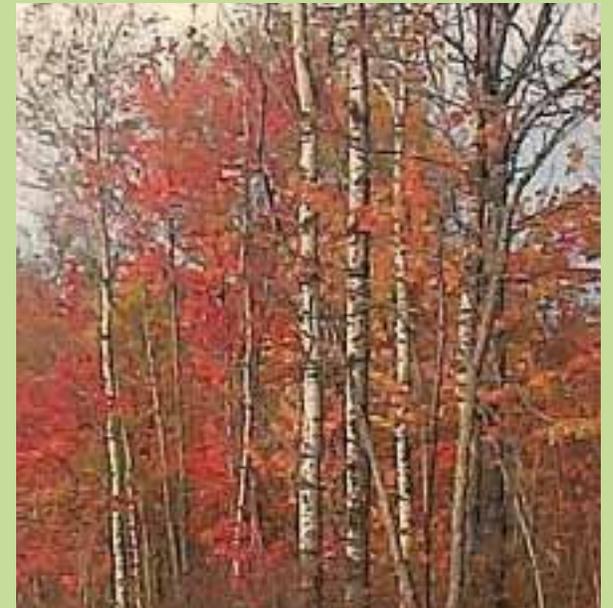
Trail surfacing. John DiMura of the Erie Canal Trail offered advice on trail surfacing. The trail had been using “stone dust” sometimes referred to as limestone screenings. This material while relatively inexpensive to install has maintenance issues. The trail surface washed out at a relatively minor grade of 3 percent, was susceptible to damage by horses, and required steady use to prevent establishment of grasses.

Two years ago, the ECT changed its trail surface policy to favor asphalt as the surface, although stone dust will still be used in some cases. Advantages include:

- Ability to accommodate more uses, and attract users in rural areas where anticipated use might be low otherwise.
- A resurface/regrade frequency of 17 years vs. 9 years for stone dust as per the RTC Northeast Region Rail Trail Maintenance Report.
- Resistance to damage by unauthorized users such as ATV’s, horses, and dirt bikes.



Cover-Pike Cut, Courtesy Mesabi Trail



Successes and Failures

Trail managers shared some of their greatest successes and failures.

Dan Jertres of the MRT in Louisiana. Greatest successes have been in the level to which the trail network is supported and used by local residents. Public reaction to the Corps' original "no trail policy" led other rural parishes to request sections of the trail in their jurisdiction as well.

John DiMura (Erie Canal).

Successes

- Attracting \$25 million in Transportation Enhancements (TE) funds in 2002 to complete major portions of the Erie Canalway Trail and also obtaining millions more in TEP funding prior to that.
- Developing partnerships with Parks and Trails NY (a non-profit working in New York State, [ww.ptny.org](http://www.ptny.org)) and the National Park Service: Rivers, Trails and Conservation Program to assist with trail planning and advocacy, and forming a volunteer Canalway Trails Association to support the trail and help with implementing a trail program.
- Completing 170 miles of trail since 1995 by developing easier to build segments first.

Failures

- Underestimating preliminary costs.
- Implementing segments that were too long, leaving isolated problems that held up miles of trail being developed.
- Not adequately dealing with rights-of-way up front on more difficult projects.

Bob Manzoline of the Mesabi Trail.

Successes

- Formulating a cohesive support group representing 22 cities, 3 counties and many Townships.
- Using that support to advance the project through land acquisition, political wrangling, funding, etc.
- Having a dedicated, professional governance body and staff.

Failures

- Underestimating time involved
- Getting side-tracked due to political agendas

Dorian Grilley. Greatest success on the MRT in Minnesota is that the route is being signed in the Metro Area (Minneapolis/St. Paul). MN/DOT has completed the statewide plan for the trail network, and supports seeking funds to implement the route and will automatically upgrade roads with shoulders and signage when needed, and has also committed to maintaining the route.

On the other hand, the lack of political and staff support at MN/DOT for the project has been frustrating. This caused the project to stagnate for more than four years. Also the MRT continues to struggle with the Minneapolis Parks Board, which refuses to sign the route along its trail system, citing historic reasons, sign proliferation and a sense that existing signage is adequate.

Conclusions

- Strong and broad coalitions of support for the project and trail are essential for successful implementation. Awareness of the trail and the planning process is necessary in developing public, financial, and political support for the project.
- Trail development will face many challenges, including signage, geographical distances and local attitudes towards bicycling.
- Implementation should focus on the projects that will be the easiest to realize first, in terms of costs and resources already in place on the ground. Early accomplishments build momentum for the project, helping ensure implementation of later phases.

Planning Workshops

In late July, 2009 members of the project team from RDG and Alta set off for a series of public trail planning workshops throughout the Missouri River/Loess Hills region. A series of 13 workshops took place over a four day period, with the first workshop being held in the City of Hamburg.

Residents were asked for their insights in developing the trail, and for suggestions as to the type of resources that the trail network should connect. At the end of each meeting the team traveled by bicycle to the next meeting location, utilizing the information they were provided during the workshop to scout out the trails potential route up to their next meeting location.



Design workshop at the Loess Hills Welcome Center, Percival, Iowa.

Stakeholder Interviews

In initiating the planning process, the project team in cooperation with the Iowa DOT sent out invitations to key stakeholders within the study area requesting their participation as members of the project steering committee. These stakeholders include tourism officials, potential user groups, local chambers of commerce, conservation districts, and state and local public officials. In April, 2009 phone interviews were conducted to welcome them to the planning process and to ask if they would be participating in the process. In addition, stakeholders also were asked to share their concerns and opinions regarding the development of a multi-use trail network along the Missouri River corridor. The following summarizes the findings of these proceedings:

Issue 1: Tourism & Economic Development

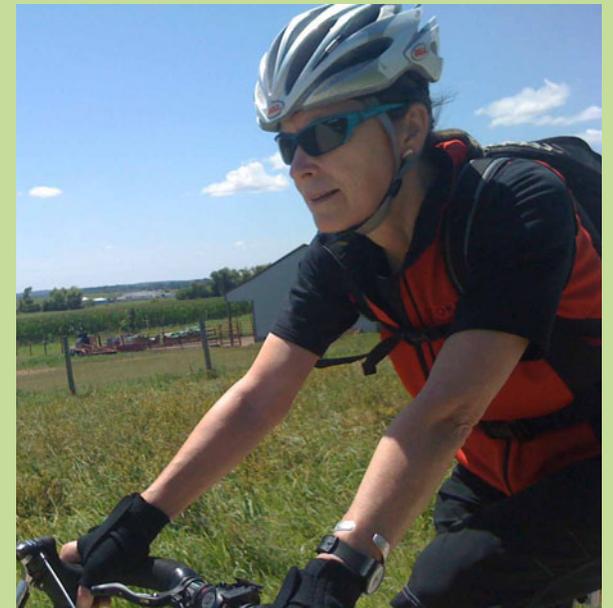
- Compared to the rest of the state, western Iowa outside of the metropolitan areas of Sioux City and Omaha/Council Bluffs is underserved with regards to trails and recreational facilities. Many of the rural counties in the study area are home to a number of state parks, vineyards and historical sites, however these sites are not heavily marketed or interconnected through wayfinding systems, and are often overlooked.
- Trails have greatly increased tourism in other locations throughout the state. The idea of allowing for a diversity of uses, would allow for increased tourism. However, there is always the possibility that during planning or implementation of the plan the number of uses for the project will be reduced in order to save on costs. This could in turn limit the amount of economic development that such a project could bring to the region.
- For Missouri Valley the creation of a regional trail network will offer great economic benefits, because it will connect the community in another way to the Omaha/Council Bluffs metro area. Allowing for trail users from Omaha and Council Bluffs to explore more of the region.

Issue 2: Trail Development

- The use of levees for the development of a trail network would be ideal. However, the question arises as to who will be responsible for the maintenance and repair of the trail when it becomes damaged during repairs to the levee system, or by farm machinery crossing between fields.
- Building consensus between property owners and the Iowa DOT is going to be very important. Public lands in Western Iowa are few and far between. For the success of the project it will be important for city and county organizations to work with landowners to develop land trusts, or easements for trail rights-of-ways.
- Awareness of the Lewis and Clark National Historic Trail is fairly limited in the region. The National Park Service owns very little property along the trails routes, and relies on road and trail networks that are already in place. The creation of a regional trail network would increase access to recreational amenities along the Missouri River in Iowa, and would also help to build awareness for the National Trail.
- The State of Iowa does not allow for ATV's or snowmobiles to travel on county and state roads. This makes it difficult for individuals or groups to get from one point to another without having to first load up their ATV's and transport them to the next point.
- There could be contentions that develop between user groups if exiting trail networks are used. The trail may connect the overall system, but not allow all users equal access.

Issue 3: Environmental Considerations

- The Loess Hills is a truly unique environment; however, its ecosystem has changed dramatically since the time of Lewis and Clark. Erosion caused by the overgrowth of forests, and the expansion of urbanization continue to threaten the environment. In preserving the Loess Hills, efforts are being made to create a state of federal land reserve that would limit development within the hills. Besides offering recreational opportunities, a regional trail network could support efforts in preserving the Loess Hill for future generations by increasing public awareness.
- In developing any network of trails that do not make use of public rights-of-way there needs to be some level of concern for native habitat and wildlife. Many times the routes that are ideal for trail development can also be the same routes that wildlife utilizes between habitat areas.



Planning team bicycling between public workshops in southwestern Iowa.

Planning Workshops: July and September, 2009

Trail planning workshops took place on July 27-30 and September 21-25, 2009, in Hamburg, Percival, Glenwood, Council Bluffs, Missouri Valley, Onawa, Sloan, and Sioux City. Much of the conceptual planning for the project took place during these public sessions. During the July meeting, the project team traveled between meeting locations by bike, scouting proposed routes en route. At the September sessions, the team presented preliminary trail routes to the public and gathered additional input and information. During the workshops, participants were asked to identify:

- Potential on- and off-road routes for a non-motorized trail.
- Local and regional amenities and points of interest.
- Visitor services.
- Lewis and Clark interpretive sites and historic locations.
- Areas that could accommodate or serve as links to other recreation uses, such as hiking, off-road vehicle use, equestrian routes, boating routes, etc.
- Other issues/needs related to trail development or use.

In each community, team members explained the project and described the trail as a major spine with connecting loops. Public discussions at each location defined some of the following themes.

Hamburg

- The Hamburg area has few Lewis and Clark related facilities, yet is historically rich.
- Hamburg could promote such themes as steamboat history, home cooking, orchards, antiques, Loess Hills, Carnegie library, quilting, and farming (corn, beans, and popcorn).
- Areas with local historical/literacy importance include Military Hollow, Underground Railroad sites, and Bluff Road.
- Roads west of town should be widened to allow for safer bicycle and pedestrian facilities.
- A shoulder is needed on Bluff Road.

Percival Iowa Welcome Center

- Trail should be a separate, off-road path for safety – key to its success.
- Water sports are needed in the county.
- A larger RV site at Waubonsie State Park would encourage longer stays.
- River access and use should be increased.
- Biking along the levees may be great, but economic development depends on attracting cyclists into towns.
- Wineries are an important resource.
- Attractions in Riverton include Chautauqua, water fowl, and a wetlands loop.

Glenwood

- Demand exists for more equestrian trails with safe parking, campsites, and other features.
- Safe bike trails for families are needed. While roadside trails are safe for older children, they pose risks for young children.
- Trailheads should connect hiking, biking, and canoeing routes.
- Creation of bike loops would allow visitors to travel out from Glenwood on a designed route, bringing them back into the community. This would allow trail users to see the most scenic areas in the area without having to travel the same route back.
- Dedication of a bike shoulder on US 275 would be useful for both tourists and commuters between Glenwood and Council Bluffs.
- The network should connect visitors to the region's natural areas and historic sites. These include Pony Creek Park and archeological preserves.
- The Wabash Trace could serve as an off-road alternative to US 275 to serve tourists and commuters to Council Bluffs.

- Tourist businesses in the area include Mineola Steakhouse, McCormick Store, Silver City Ice Cream Shop, and downtown Malvern.

Council Bluffs

- Possible routes for on-street trail connections in and out of Council Bluffs include North Broadway and the Lincoln Highway to Crescent. The levee north of Bike Lake Park and the Narrows is also a possible route. The Riverfront Trail currently follows this levee between Nash Avenue and the Western Historic Trails Center.
- Connection to Lewis and Clark Monument should be developed. While the roads leading between Big Lake Park and the monument have low traffic volumes, there are no recovery zones and the bends in the road create blind spots.
- The Western Historic Trails Center should be a key focus point for information and activities along the trails system.
- Regional points of interest include Saw Mill Hollow, Small's Orchards, Pisgah, West Oak Forest, Broken Kettle Complex, and Fairmont Park.
- Old Highway 275 was considered an unsafe route for bicyclists because of high traffic volumes and motorists' attitudes.
- While levees are useful for the development of the trail network, there may be constraints to their use. Not all of the levees in the region are owned by public agencies; some are privately owned, built by farmers for flood protection.

Missouri Valley

- The landscape should be part of economic development programs, with the restoration of natural habitats (prairie bottoms and the Loess Hills).
- A Lewis and Clark Trail (LCT) system should include a connection to Logan.
- There is tension with private property owners toward existing bike trails. Some owners view them as underutilized and too expensive.
- Property rights need to be respected in trail development and trails should not divide properties.



Open House - Glenwood, Iowa



- There is a lack of paved trails within the region. Efforts should be made to pave those that already exist.
- The Loess Hills were often mentioned in the writings of Lewis and Clark, and the trail system should help to weave the story of Lewis and Clark with that of the natural history of the Loess Hills.
- Wilson Island and DeSoto Bend should be linked.
- Bike campsites along the route should be created and promoted.
- The Lincoln Highway (US 30) is an important theme within the Missouri Valley region. Bike loops that trace the earlier highway routes would largely be paved and provide insight into the development of the nation's first highway networks.
- Trail routes could potentially follow the base of the bluffs, utilizing poorly drained and un-farmable areas.

Onawa

- Iowa 175 is a poor choice for a bicycle or pedestrian route because of traffic volume. New shoulders along the highway from Onawa to Turin would create a bike-friendly facility.
- The trail should serve the region economically (dollar benefits) and experientially (sights and facilities).
- In order to match the Lewis and Clark story with cycling, the route will cross the valley a number of times; however, this may not be appropriate for spine routes. Day ride "loops" could be created.
- Onawa's good community infrastructure, services, and resources could be increasingly utilized by tourists.
- Good routes for an on-road trail route include K-42, D-25 (Old Iowa 141) Larpenteur Memorial Road, and Onabike loop.
- Alternative routes would need to be created to support multiple trail uses.
- A trail link to Nebraska across the Decatur Bridge could connect tourists to the Blackbird overlook.

- Loess Hills anchors include hospitality association headquarters (Moorhead), nature center (Pisgah), Murry Hill, Preparation Canyon, and Sy Runkin Nature Preserve.
- The Union Pacific property along the Monona County line provides a trail opportunity.

Sloan

- There is limited access to the river in the Sloan area, reducing potential for a continuous trail along the Missouri.
- Many of the roads within the Loess Hills are scenic and have low traffic volume, but lack shoulders.

Sioux City

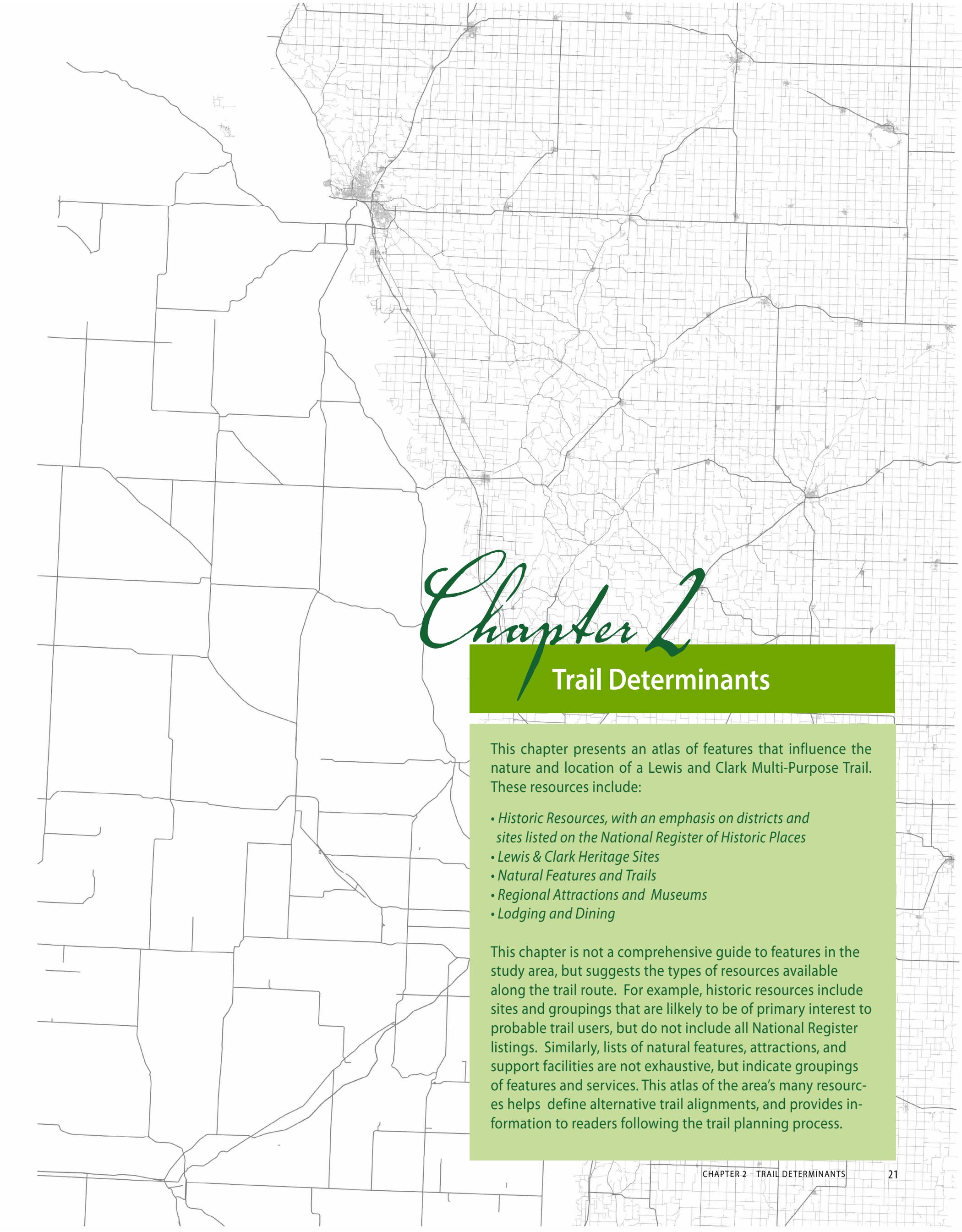
- Boundary issues created by the changing river course should be addressed by routing.
- Trail connections between Sioux City and Sergeant Bluff are poor and need improvement.
- Wayfinding for the city trail system should be upgraded.
- Improved access to the river and natural areas is needed for active recreation.
- Need ATV/snowmobiling facilities permitting travel through the woods. This market needs both linear trails and parks, with access to motel rooms, food, and services. Legislative issues prevent ATV's from operating on county roads. These could be solved by special designations on unpaved corridors.
- An ATV park on the north side of Sioux City is needed, oriented to families and with an emphasis on safety.
- Improved cycling facilities could increase participation in Siouxland Cyclists.
- There are a considerable number of cyclists who follow the American Cycling Association routes through the Sioux City area.
- Trail theming should be more diverse than just Lewis and Clark. The Siouxland region has a rich history to be explored.

- Connections to South Dakota and the Adams Nature Preserve would provide a link to parklands in other states.
- Trail loops that cross into Nebraska and South Dakota should be considered. The history of Lewis and Clark, and the overall region, occurred on both sides of the river.

Open House: August, 2010

A series of public open houses were held on August 3, 4, and 5, 2010, in Glenwood, Missouri Valley, and Sioux City. These open houses allowed the public to offer additional comments on the final document, and to provide feedback on a potential name for the Lewis and Clark multi-use trail. Given a choice between "Lewis and Clark Trail" and "Bluffs and Bottoms Trail," a majority of the people attending the open houses showed a preference for "Bluffs and Bottoms Trail." A suggestion to call the trail "The Western Explorers' Trail" was also favorably received.

Additional comments from the open house suggested that the trail network be extended up to the Broken Kettle Grasslands in Plymouth County, Iowa, just north of Sioux City.



Chapter 2

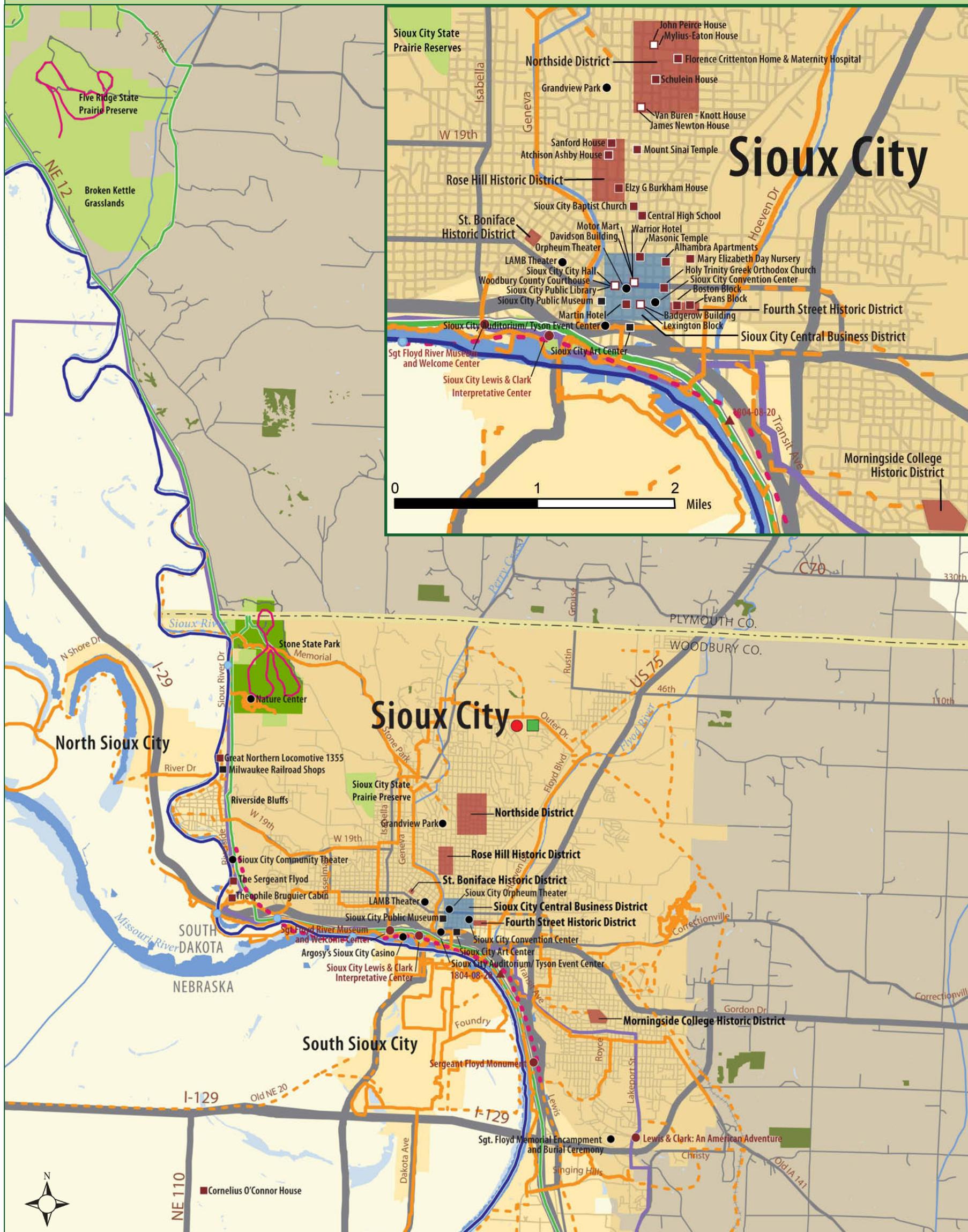
Trail Determinants

This chapter presents an atlas of features that influence the nature and location of a Lewis and Clark Multi-Purpose Trail. These resources include:

- *Historic Resources, with an emphasis on districts and sites listed on the National Register of Historic Places*
- *Lewis & Clark Heritage Sites*
- *Natural Features and Trails*
- *Regional Attractions and Museums*
- *Lodging and Dining*

This chapter is not a comprehensive guide to features in the study area, but suggests the types of resources available along the trail route. For example, historic resources include sites and groupings that are likely to be of primary interest to probable trail users, but do not include all National Register listings. Similarly, lists of natural features, attractions, and support facilities are not exhaustive, but indicate groupings of features and services. This atlas of the area's many resources helps define alternative trail alignments, and provides information to readers following the trail planning process.

WOODBURY COUNTY - North



WOODBURY COUNTY - North



HISTORIC RESOURCES

National Register Districts and Other Concentrations of Historic Resources

■ **Fourth Street Historic District (NRHP District).** Historic Fourth Street contains a high concentration of late 19th century commercial buildings. Many of the larger buildings within this 12 building district are distinguished by their Richardsonian Romanesque style. Individual National Register listings in the Fourth Street District follow.

■ **Boston Block.** Constructed in 1890 this five-story, pink-hued stone building is one of four developed by Boston Investment Company. The building was designed by local architect Edward W. Loft in the Richardsonian Romanesque style.
Address: 1005-1013 East 4th Street, Sioux City, IA.

■ **Evans Block.** One of the few surviving buildings of Sioux City's building boom that occurred during the 1880s and early 1890s.
Address: 1126-1128 4th Street, Sioux City, IA.

■ **Sioux City Central Business District.** While not designated as a National Register District, Downtown Sioux City features a wide variety of architectural styles, some of which are noted below.

■ **Alhambra Apartments.** A six-story, 48-unit apartment building located near the central business district was constructed in 1929 in the Spanish/Moorish Revival Style.
Address: 801 5th Street, Sioux City, IA.

■ **Badgerow Building.** 12 Story early twentieth century office building, constructed in the Gothic Revival Style.
Address: 622 4th Street, Sioux City, IA.

■ **Davidson Building.** Early twentieth century department store building in a neo-classical revival style. The building housed Davidson & Company, once considered the largest department store in the state of Iowa. *Address: 506 6th Street, Sioux City, IA.*

■ **Holy Trinity Greek Orthodox Church.** Designed by noted architect William Steele and built in 1928 to serve the expanding Greek community of Sioux City, Iowa. *Address: 900 6th Street, Sioux City, IA.*

■ **Lexington Block.** *Address: 815 4th Street, Sioux City, IA.*

■ **Martin Hotel.** The Chicago style building was erected in 1912.
Address: 410 Pierce Street, Sioux City, IA.

■ **Motor Mart.** Constructed in 1912 by the CF Lytle Company and designed by company architect EF Henriques for Ralph A Bennett to display and repair automobiles.
Address: 520 Nebraska Street, Sioux City, IA

■ **Municipal Auditorium.** Modern building designed by Knute E. Westerlind, now a part of the Tyson Event Center and the Long Lines community recreation center.
Address: 500 Gordon Drive, Sioux City, IA

■ **Orpheum Theatre.** Built in 1927 as a vaudeville theatre and movie palace, restored in 1999 and is the home of the Sioux City Symphony Orchestra.
Address: 520-528 Pierce Street, Sioux City, IA.

■ **Sioux City Free Public Libraray.** Designed by New York architect Edward L Tilton, a nationally recognized figure in the field of library design and designer of the Immigrant Station at Ellis Island. *Address: 705 6th Street, Sioux City, IA.*

■ **Masonic Temple.**
Address: 820 Nebraska Street, Sioux City, IA.

■ **Warrior Hotel.** Built for the Eppley Hotel Company in 1930 and designed by Alonzo Gentry. Features terra cotta details derived from Native American designs.

■ **Woodbury County Courthouse (NHL).** Designed by leading Prairie Style architects Purcell and Elmsley, in association with William Steele, and built between 1916 and 1918, featuring superb associated art and an iconic 157-foot tower. Fully restored by Woodbury County and designated a National Historic Landmark in 1996.

■ **Rose Hill Historic District (NRHP District) and Adjacent Areas.** Register district incorporates 130 structures, mostly residential and civic buildings, on the 1400 through 1700 blocks of Douglas, Grandview, and Summit north of Downtown Sioux City. Other individual designations located on nearby sites to the east. A sampling of individual designations include:

■ **Atchison Ashby House.**
Address: 1807 Summit Street, Sioux City, IA.

■ **Elzy G Burkam House.**
Address: 1525 Douglas Street, Sioux City, IA.

■ **Mount Sinai Temple.** Originally built as United Orthodox Synagogue and designed by GW Burkhead and William Steele.
Address: 1320 Nebraska Street, Sioux City, Iowa

■ **Sanford House.** *Address: 1925 Summit, Sioux City, IA.*

■ **Sioux City Baptist Church.**
Address: 1301 Nebraska Avenue, Sioux City, IA.

■ **Central High School.** Gothic "castle" educational monument, now seeking alternative uses and designed by Eric Lund and F.S. Allen. *Address: 1212 Nebraska Avenue, Sioux City, IA.*

■ **Morningside College Historic District (NHRP District).** Founded in 1894, Morningside is a private, 68-acre liberal arts college. The Morningside College Historic District includes most of the campus' grounds, including Grace United Methodist Church.

■ **St. Boniface Historic District (NHRP District).** Three building campus west of Downtown Sioux City, designed in the Romanesque Revival style by William Steele and Br. Leonard Darscheid.

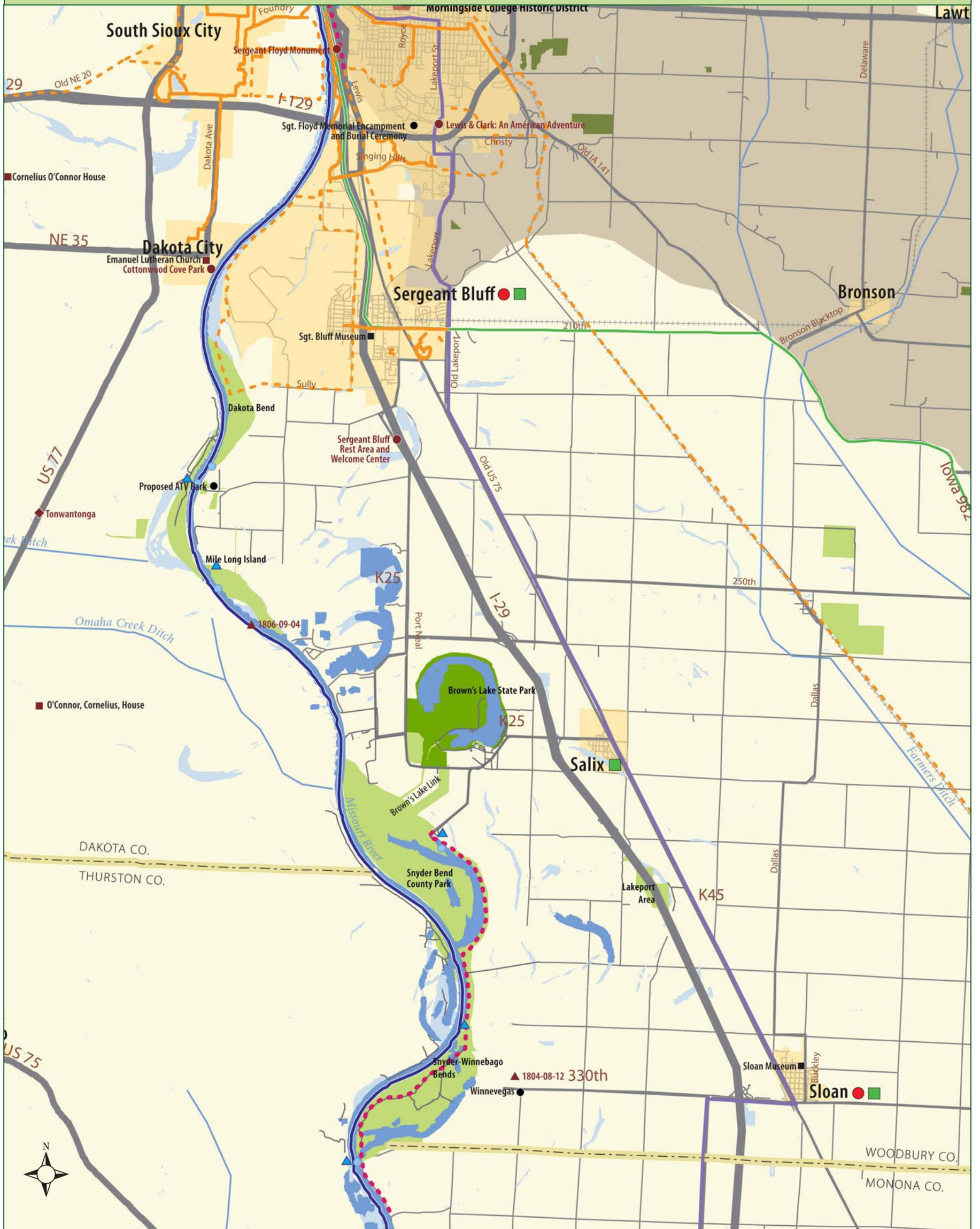
■ **Northside Neighborhoods.** While not a designated district, the area features excellent examples of high-style homes and significant civic uses. Jackson Street is a wide residential avenue with the greatest concentration of significant houses. A sampling of National Register listings within this broad district includes:

■ **Florence Crittenton Home and Maternity Hospital.** Constructed under the guidance of Dr. Agnes Eichelberger, the hospital was designed to care for women and their children.
Address: 1105-1111 28th Street, Sioux City, IA.

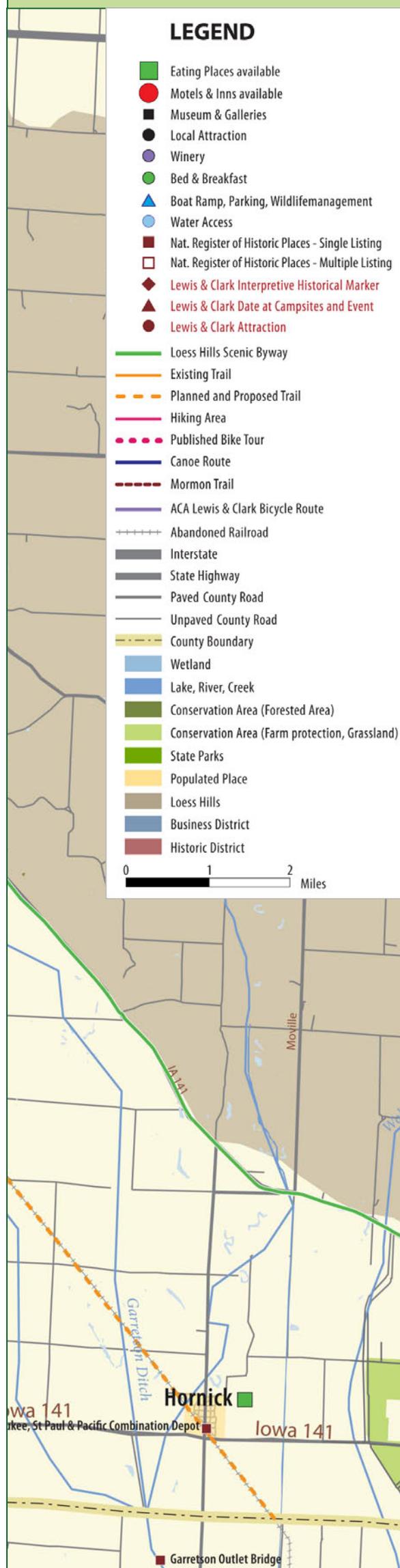
■ **James Newton House.**
Address: 2312 Nebraska Street, Sioux City, IA.

■ **John Pierce House.** Twenty-one room gothic revival mansion constructed of Sioux Falls Granite in 1890 for financier John Pierce, a major promoter of Sioux Falls during the city's boom years and a force in the development of the Northside. House is the home of the Sioux City Public Museum, which is scheduled to relocate Downtown. *Address: 2901 Jackson Street, Sioux City, IA.*

WOODBURY COUNTY - South



WOODBURY COUNTY - South



LEGEND

- Eating Places available
- Motels & Inns available
- Museum & Galleries
- Local Attraction
- Winery
- Bed & Breakfast
- ▲ Boat Ramp, Parking, Wildlifemanagement
- Water Access
- Nat. Register of Historic Places - Single Listing
- Nat. Register of Historic Places - Multiple Listing
- ◆ Lewis & Clark Interpretive Historical Marker
- ▲ Lewis & Clark Date at Campsites and Event
- Lewis & Clark Attraction
- Loess Hills Scenic Byway
- Existing Trail
- - - Planned and Proposed Trail
- Hiking Area
- - - Published Bike Tour
- Canoe Route
- - - Mormon Trail
- ACA Lewis & Clark Bicycle Route
- - - Abandoned Railroad
- Interstate
- State Highway
- Paved County Road
- Unpaved County Road
- - - County Boundary
- Wetland
- Lake, River, Creek
- Conservation Area (Forested Area)
- Conservation Area (Farm protection, Grassland)
- State Parks
- Populated Place
- Loess Hills
- Business District
- Historic District

0 1 2 Miles

■ **Mylius-Eaton House.**
Address: 2900 Jackson Street, Sioux City, IA.

■ **Schulein House.**
Address: 2604 Jackson Street, Sioux City, IA

■ **Van Buren-Knott House.**
Address: 2323 Nebraska Street, Sioux City, IA.

Other National Register Sites with Significance to the Trail

■ **Theophile Bruguier Cabin.** Built as one of a cluster of log cabins by Bruguier for his fur trading post near the bluffs at the mouth of the Big Sioux River. The cabin was moved to its present location in 1934. *Riverside Park, Sioux City, IA.*

■ **Great Northern Railway Locomotive #1355.** Steam locomotive built by Baldwin Locomotive Works in 1909, for both passenger and freight service. Operated on such famous Great Northern passenger trains as the *Empire Builder* and *Oriental Limited*. *Located at the Milwaukee Railroad Shops historic district at 3400 Sioux River Road.*

■ **The Sergeant Floyd (NHL).** See listing under Lewis and Clark Heritage Sites.

■ **Sergeant Floyd Monument (NHL)** See listing under Lewis and Clark Heritage Sites.

■ **Chicago, Milwaukee, St Paul & Pacific Combination Depot.** *Located on Main Street, South of Railway Street, Hornick, IA.*

■ **Mary Elizabeth Day Nursery.**
Address: 814 Court Street, Sioux City, IA.

Related Nebraska Resources

■ **Meisch House.** An elaborate example of the one-story "cubic" style brick house that is indicative to Nebraska.
Address: 213 17th Street, South Sioux City, NE.

■ **Cornelius O'Connor House.** 1875 Italianate Mansion near Homer built by Captain Cornelius O'Connor. The home is open to the public the first and second weekend of November and operated by the Dakota County Historical Society (402-698-2288)

■ **Emmanuel Lutheran Church.** Classical revival structure designed and built by Augustus Haase in 1860.
Address: 1500 Hickory, Dakota City, NE.

LEWIS AND CLARK HERITAGE SITES

Woodbury County

Attractions

● **Sergeant Floyd River Museum and Welcome Center.** The center is housed in a decommissioned Army Corps of Engineers inspection boat, built by Howard Shipyards and named after Sergeant Floyd. Now serves as a tourist information and river museum in Chris Larsen Park.
Located at 1000 Larsen Park Road, Sioux City, Iowa; (712)279-0198.

● **Sioux City Lewis & Clark Interpretive Center.** This 20,000 square foot, private non-profit cultural complex, commemorates the history and encounters that occurred before, during, and after the expedition between the native tribes, explorers, traders and early settlers.
Located at 900 Larsen Park Road, Sioux City, Iowa; (712) 224-5242.

● **Sergeant Floyd Monument.** Constructed in 1901 this 100 foot high stone obelisk memorializes Sergeant Charles Floyd, the only fatality on the Lewis and Clark expedition. Located at Floyd's gravesite, at the crest of Floyd's Bluff off Lewis Boulevard, the site was the nation's first designated National Historic Landmark.

● **Lewis & Clark: An American Adventure.** A series of murals tracing the entire route of the Corps of Discovery, executed by Split Rock Studio for Southern Hills Mall. Includes 38 different mural scenes, stretching 296 feet in length.
Located at 4400 Sergeant Road, Sioux City, Iowa.

● **Sergeant Bluff Rest Area and Welcome Center.** Rest area south of Sioux City on I-29 includes enhancement features such as sculptural steel birch bark canoes, picnic areas and a nature walk with narrative tiles. Other features include terra cotta panels illustrating scenes from the Lewis and Clark expedition and interior mosaic tiles illustrating the Missouri River.

Related Nebraska Resources

Attractions

▲ **Cottonwood Cove Park, Dakota City.** The Corps of Discovery camped near here on August 18, 1804, and celebrated Lewis's birthday, and also held the court martial for private Moses Reed. On August 19th the expedition met with Otoe and Missouri Indians before continuing on their way. Cottonwood Cove Park includes camping, picnicking, river access, and an interpretive overlook of the river.
Located at S 14th and Hickory Streets, Dakota City, Nebraska.

Campsites

▲ **August 13th 1804 – Tonwantonga.** Nebraska State Historical Marker on US Highway 77, 2.5 miles northeast of Homer, Nebraska. The Lewis and Clark expedition visited the Omaha village of Tonwantonga on August 13th 1804, finding it deserted. The expedition stayed near the site for nearly a week. While encamped at this location the expedition held a council with chiefs from the Otoe Tribe who had come to the village seeking peace with the absent Omaha tribe.

NATURAL FEATURES & TRAILS

Woodbury County

State Parks and Conservation Areas

Broken Kettle Grasslands.

Deer Creek Lake. DNR 1,036 acres, uplands, deer, pheasant, rabbit, quail.

Stone State Park. 1,096 acres, (712) 255-4698, camping, (9 electrical campsites, 21 nonelectric campsites), lodge rental, nature trail, bridle and hiking trails, lake and stream fishing, 2 acres man-made lake, snowmobile.

Sioux City State Prairie Preserve. 64 acres, DNR, stream fishing, hunting, deer, pheasant.

Five Ridge Prairie State Preserve. 790 acres, hiking and cross-country skiing trails, hunting.

Dakota Bend. 109 acres, DNR, hunting, marsh, waterfowl, deer, pheasant, access by river only.

Snyder-Winnebago Bend Park. 2,865 acres, DNR. Hunting, marsh, timber, upland, waterfowl, deer, pheasant. Boat ramp to Missouri River.

Mile Long Island WMA. 230 acres, DNR. Hunting, deer, pheasant, rabbit.

Browns Lake State Park. 24 acres, tent and trailer camping, electricity, drinking water and showers, flush toilets, trailer dump station, picnicking, hiking trails, swimming beach, lake fishing, (475 acre lake), boat ramp, baseball field, winter sports, facilities for handicapped.

Chris Larsen Park

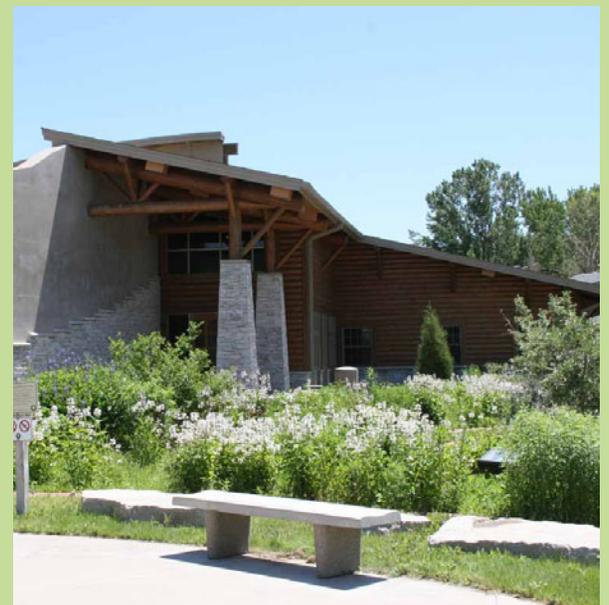
Lewis & Clark Interpretive Center & Betty Strong Encounter Center

The Interpretive Center opened in 2002 to commemorate the Lewis & Clark Bicentennial. In 2007 the center was expanded with the opening of the adjoining Betty Strong Encounter Center. The center's permanent mission is to commemorate the history of encounters that have occurred along the Missouri River in the times before, during and after the expedition.

Joined by the symbolic Crossroads Garden, these two facilities are home to exhibits, programs, and activities that explore the themes of cultural diversity, land conservation, and heritage and history of the Missouri River.



"Spirit of Discovery"



Lewis & Clark Interpretive Center

Sioux City & Sergeants Bluff Community Trail Network

The Point Trail. This 5.18 mile trail is located within the Pointe Nature Preserve at the southeastern most corner of South Dakota, along the confluence of the Missouri and Big Sioux Rivers. The Point Trail can be accessed via the Lewis and Clark National Historic Trail.

Lewis & Clark National Historic Trail. The Lewis & Clark National Historic Trail travels for more than 11 miles along the banks of the Missouri River, through the cities of Sergeants Bluff, Sioux City, and North Sioux City. A 1 mile section of the trail remains to be completed between Sergeants Bluff and Sioux City. Parks facilities connected by the trail include:

- Prairie Park
- Riverside Park
- Larsen Park
- War Eagle Park
- Chris Larsen Park
- Chautauqua Park

Bacon Creek Park. Included in this 240 acre park are more than 4 miles of trails that traverse wooded areas and the shores of the park's lake.

Floyd River Trail. Linked to the Lewis & Clark National Historic Trail, the Floyd River Trail continues northeast for eight miles along the channelized Floyd River. Parks served by the Floyd River Trail include:

- Chris Larsen Park
- Headid Park

Perry Creek Greenway Trail. This 2.65 mile trail connects northern residential districts, parks and schools with downtown Sioux City. Parks along the Perry Creek Greenway include:

- Sanford Park
- Center Street Park

Energy Greenway/Pierce Street Link. This half mile trail link that utilizes an abandoned railroad right-of-way connects the Lewis & Clark National Historic Trail and Perry Creek Greenway Trail.

Related Nebraska Resources

South Sioux City Community Trail Network

Scenic Park Trail. Starting at the foot of Veterans Bridge, the Scenic Park trail follows the Missouri River to the southeast, before turning towards the west and traveling through rich agricultural land. At the intersection of Foundry Road and G Street, the trail links with the Alleyway Trail.

Alleyway/ South Sioux City High School Link. This 1.25 mile trail link connects the Scenic Park Trail with the 39th Street and Dakota City Trails.

Sergeant Floyd Underlook Trail. Starting at 29th and G Streets this 1 mile trail that follows a drainage canal westward out of the city. At the western end is an underlook where Trail-users can observe the Sergeant Floyd Monument on the Iowa side of the Missouri River.

Crystal Cove Trail. Located in Crystal Cove Park, this network allows access to the lake, wetlands, and wildlife areas located in the park. The trail is connected to the city's trail network via the 39th Street Trail.

39th Street Trail. Following the grade of 39th Street, the trail allows access between Crystal Cove Park and Cardinal Park. The 39th Street Trail also provides linkages between South Sioux City and Dakota City, via the Dakota City Trail.

Dakota City Trail. This 2.25 mile trail links the cities of South Sioux City with Dakota City, by following the grade of Dakota/IBP Avenue.

ATTRACTIONS & MUSEUMS

Woodbury County

● **Orpheum Theatre.** Originally built in 1927 and beautifully restored in 1999, the theatre is one of the largest in Iowa and a favorite of area residents. Since reopening, the theatre has hosted performances by Bill Cosby, Sheryl Crow, BB King, Bob Dylan, Willie Nelson, Jewel, Alison Kraus, and Jerry Seinfeld.
528 Pierce Street, Sioux City, IA; www.orpheumlive.com.

● **Sioux City Auditorium/Tyson Events Center.** Featuring the new 10,000 seat Gateway Arena, the events center is an extremely flexible venue for a wide variety of entertainment and sporting events located in Downtown Sioux City.
401 Gordon Drive, Sioux City, IA; www.tysoncenter.com.

● **Sioux City Convention Center.** With a combined 60,000 sq. feet of meeting room and exhibit space, as well as an exclusive in-house caterer, the Sioux City Convention Center prides itself on quality service. The Center is also home to the Tourism Bureau for the area, and can assist with programs, maps, and hotel accommodations.

801 4th Street, Sioux City, IA;
www.siouxcitytourism.com/convention.htm

● **Woodbury County Fair.** Annual August event including local food products, carnival rides, 4-H competitions, and live entertainment. Located in Merville, IA.

● **Sergeant Floyd Memorial Encampment and Burial Ceremony.** A living history encampment featuring re-enactors, tents, camp equipment and firearms like those used by the Lewis and Clark expedition during their stay along the banks of the Missouri River. Renactors in full dress uniform re-create the 1804 burial of Sergeant Floyd, the only member of the expedition to die during the journey.

● **Argosy's Sioux City Casino.** Casino is a replica side-wheel steamboat offering gaming, and dining options on three deck levels. Located at 100 Larsen Park Road, Sioux City, IA.

● **Grandview Park.** Dedicated in 1935 the park grounds contain an award winning music pavilion and rose garden. Home to Saturday in the Park and summer evening concerts by the Sioux City Municipal Band. 24th Street and Grandview Boulevard, Sioux City, IA.

● **LAMB Theater.** Founded in 1979 the LAMB Theater is Sioux City's premier independent live performance theatre, featuring new and classic plays. 417 Market Street, Sioux City, IA.

● **Sioux City Community Theater.** Featuring seven productions a year the Sioux City Community Theater has been providing the community with quality live theatrical productions since 1948. The theater is located in the historic Shore Acres Ballroom which was inducted into the Rock and Roll Hall of Fame in 2006, and has hosted such musical acts as Glenn Miller, Chubby Checker and the Beach Boys. 1401 Riverside Boulevard, Sioux City, IA; 712-233-2788.

● **Winnavegas Casino.** Casino owned and operated by the Winnebago Tribe of Nebraska offering a variety of gaming and entertainment options. Winnevegas offers an annual Riverfest event designed for families and including camping, food vendors, arts and crafts, and concerts. Address: 1500 330th Street, Sloan IA; (712) 428-4219.



Crossroads Garden



Betty Strong Encounter Center

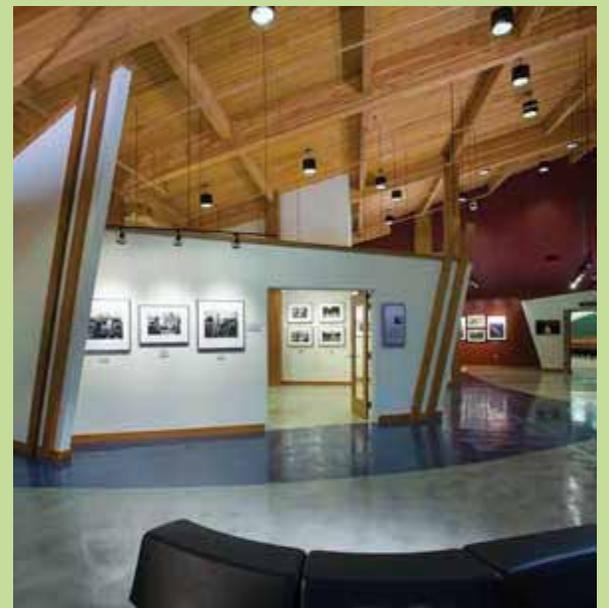


Exhibit Space at the Betty Strong Encounter Center, courtesy DesignSchool.com

■ **Sioux City Arts Center.** Founded in 1938 as a Works Progress Administration project, the art center serves people of all ages and backgrounds. The Sioux City Art Center is one of only four WPA art centers in Iowa to survive to the present without interruption. The Art Center features a permanent collection, exhibits, education, and hosts community events.

225 Nebraska Street, Sioux City, IA; (712) 279-6272.

■ **Sioux City Public Museum.** The Public Museum, currently located in the John Pierce House offers exhibits on the development of Sioux City and the Siouxland area. Exhibits interpret the life of Pierce, and the evolution of Sioux City and its growth from a frontier town at the edge of the Dakota Territory to the current city. It also includes exhibits that detail the lives and material culture of the Lakota Sioux, Winnebago, and Omaha tribes. The Public Museum will relocate to a new downtown home in the former JC Penney department store. The Pierce House will be renovated as a period house as part of the museum system. Other elements of the public museum system include the Loren Callendar Museum at City Hall and the *Sergeant Floyd* river museum.

Address: 2901 Jackson, with relocation to 607 4th Street in Fall, 2010.

■ **Milwaukee Railroad Shops.** This historic complex, including the Milwaukee Road roundhouse is operated by the Siouxland Historical Railroad Association and includes both museum and restoration components. The facility includes static displays of equipment, including Great Northern locomotive #1355, listed on the National Register.

Address: 3400 Sioux River Road, Sioux City, IA; (712) 233-6996

▲ **Art Galleries.** The Siouxland area includes a number of galleries in addition to the Sioux City Art Center. Rural Woodbury County galleries include:

▲ **Loftus Gallery & Pottery.** Features fine art and utilitarian ceramics, made by hand or on a potter's wheel.

202 West Main Street, Lawton, IA; (712) 944-5870.

Nebraska Resources

▲ **Art Galleries.** The Siouxland area includes a number of galleries in addition to the Sioux City Art Center. Rural Nebraska galleries in the overall trail region include:

▲ **The Village Potter.** A contemporary ceramic studio, that also provides lessons. (outside the mapped area)

108 Elk Street, Jackson, NE; (402) 632-4028.

▲ **Woodland Trails Arts & Crafts.** Features the arts and crafts of the Winnebago Ho-Chunk and other Woodlands Tribes. The retail store/art studio and feature authentic art and craft products created by Native Americans. *Ho-Chunk Village, Winnebago, NE.*

LODGING & DINING

The Sioux City metropolitan area provides a rich variety of lodging and dining opportunities. Outside of the immediate metropolitan area, lodging and dining facilities are available in or near the following communities:

Lodging

- **Sloan, Iowa** (multiple facilities)
- **Sergeant Bluff, Iowa** (multiple facilities)

Bed & Breakfasts

- **Grace Corner B&B Retreat House.**
123 East Main Street, Lawton, IA;
(712) 944-5696 or (877) 944-5696

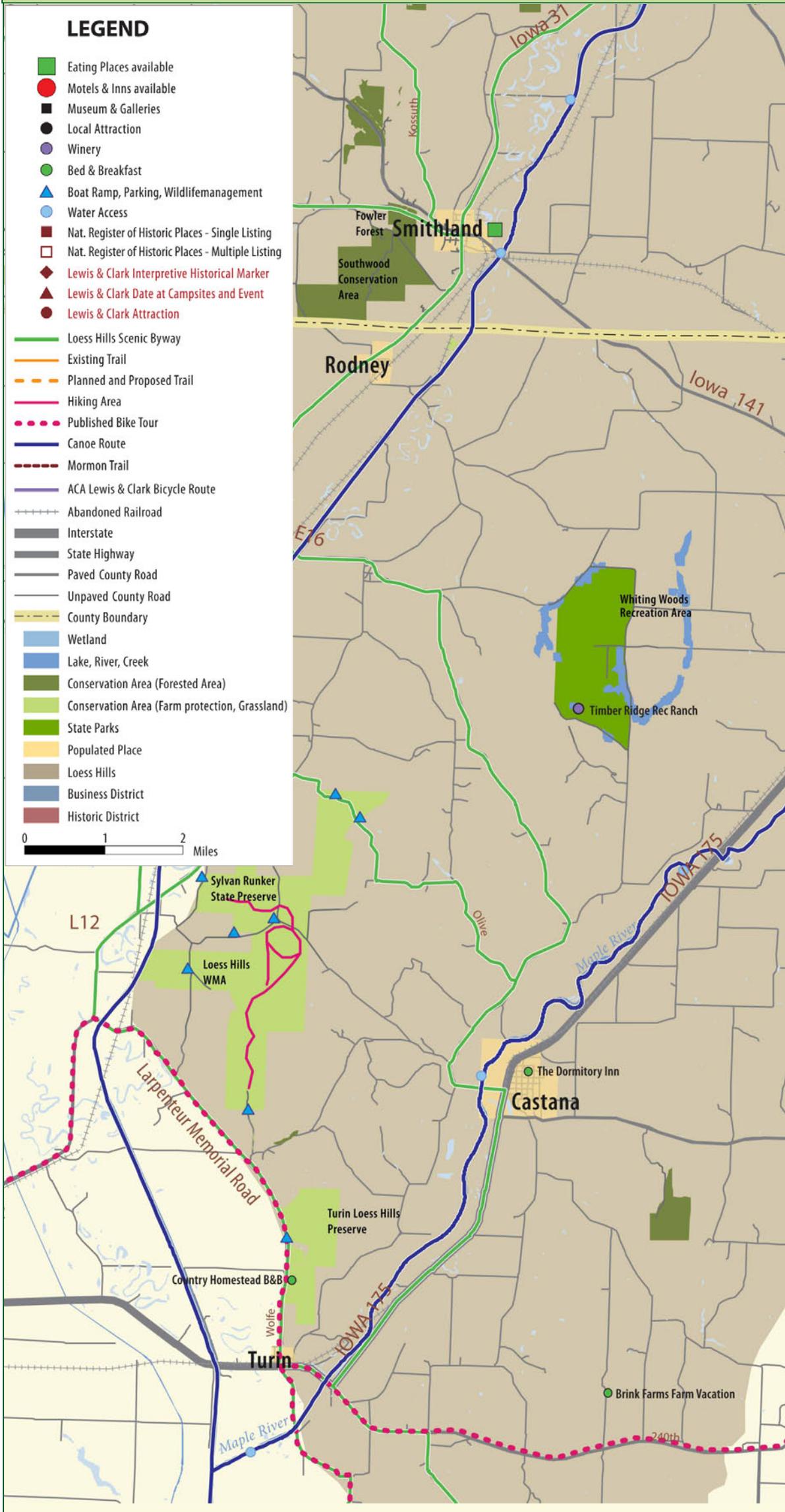
Dining

- **Smithland, Iowa** (multiple facilities)
- **Le Mars, Iowa** (multiple facilities)
- **Hornick, Iowa** (multiple facilities)
- **Sergeant Bluff, Iowa** (multiple facilities)
- **Salix, Iowa**

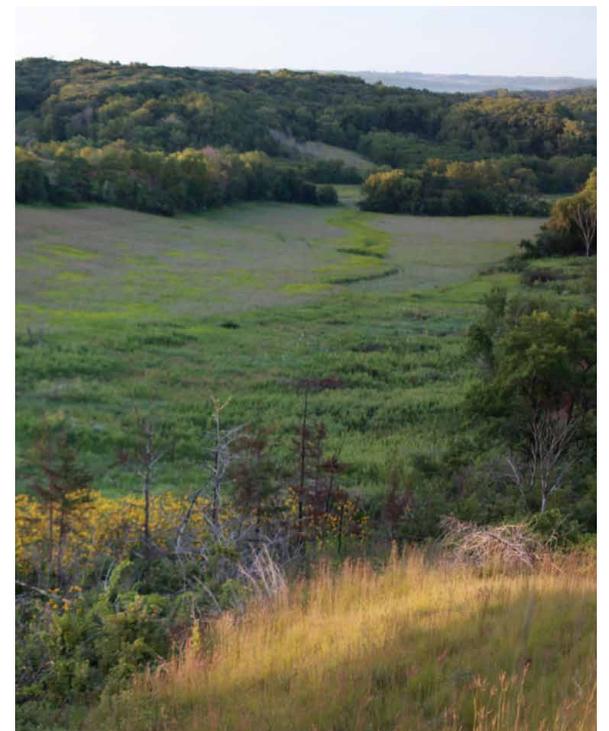
MONONA COUNTY - North



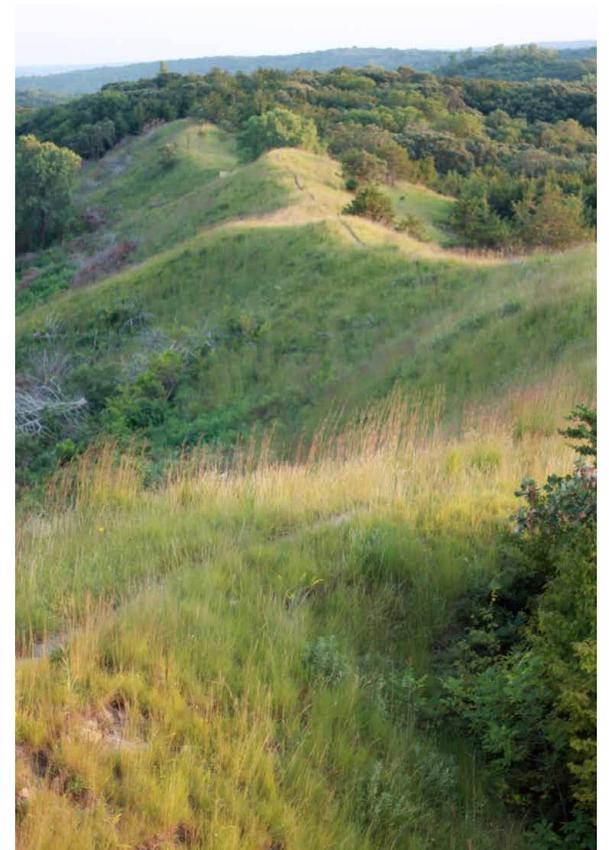
MONONA COUNTY - North



Sugar Clary Vineyard

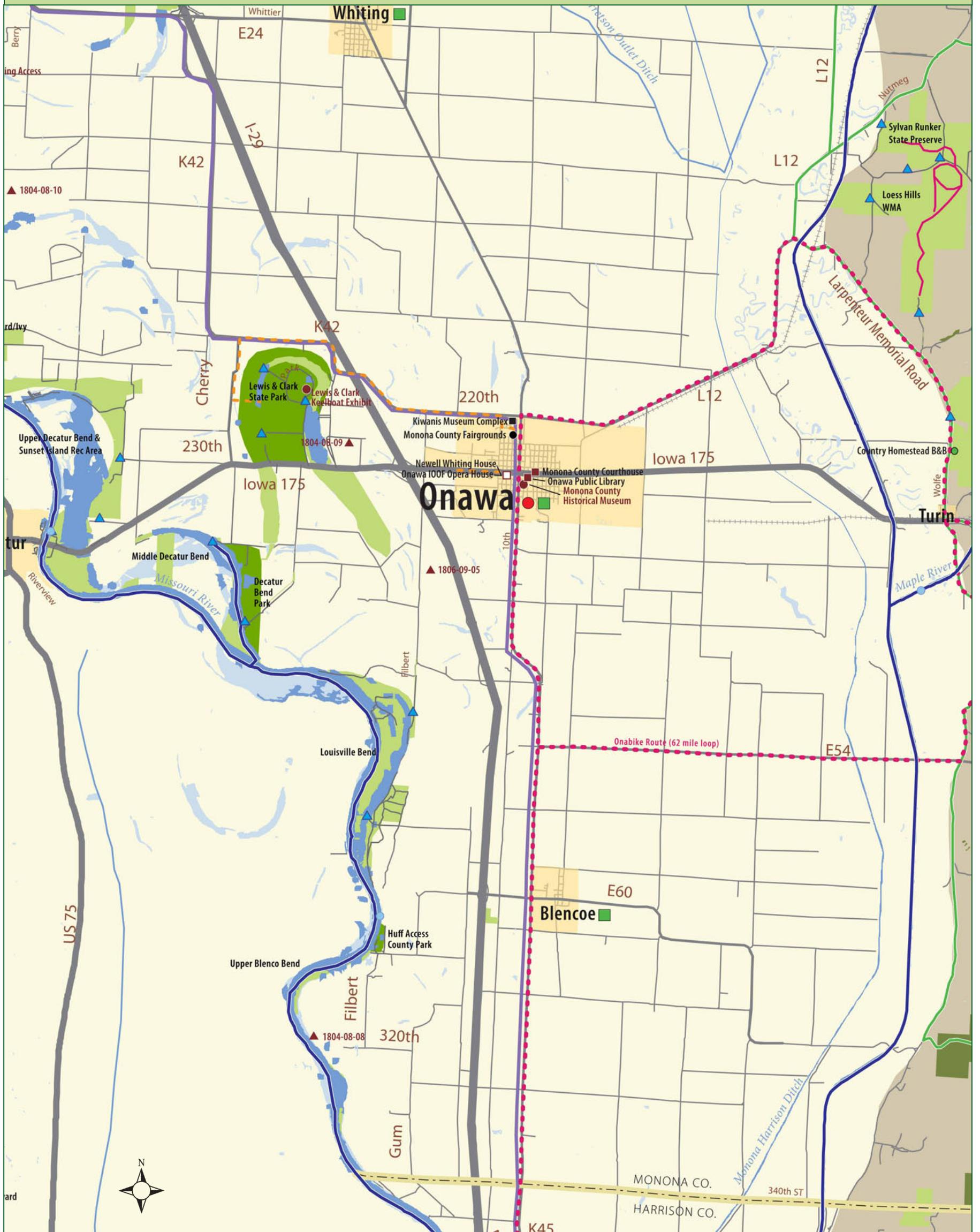


Preparation Canyon State Park

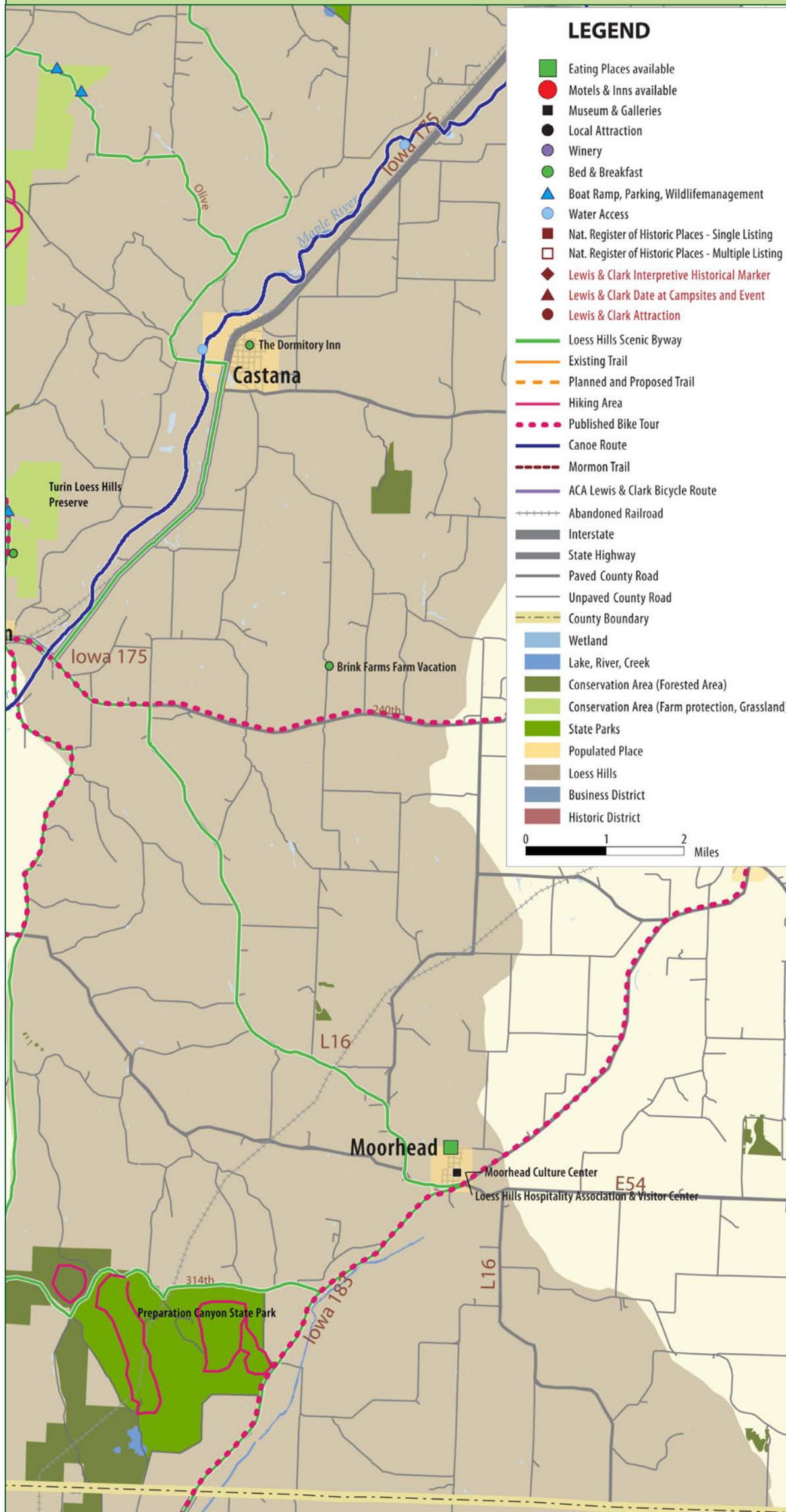


Murray Hill Scenic Overlook

MONONA COUNTY - South



MONONA COUNTY - South



HISTORIC RESOURCES

Monona County

■ **Trinity Memorial Episcopal Church.** This Gothic Revival Church with Romanesque influence, designed by Iowa architect Edward S. Hammatt was commissioned by C.I. Whiting as a memorial to his late wife Flora E. Giddings. The church today houses the Museum of American History.
Address: 302 South 7th Street, Mapleton, IA, (outside of mapped area)

■ **Cooper Township Round Barn**

■ **Garretson Outlet Bridge.**
Location: County Road K64 over Garretson Outlet Ditch.

■ **Monona County Courthouse.** Romanesque Revival Courthouse constructed in 1892 and designed by P.H. Wind and S.E. Moxon.
Address: 610 Iowa Avenue, Onawa, IA.

■ **Onawa IOOF Opera House.** Originally the home of a local chapter of the International Order of Odd Fellows, the Opera House also staged theatrical performances.
1023 North 10th Street, Onawa, IA.

■ **Onawa Public Library.** Designed in the Prairie School style of architecture the library was constructed with funding from the Carnegie Foundation. 707 Iowa Avenue, Onawa, IA.

■ **Newell Whiting House.** 1106 Iowa Avenue, Onawa, IA.

Nebraska Resources

■ **Dr Susan Picotte Memorial Hospital.** Located in Walthill, Nebraska, this one and one half story, frame building was constructed in 1912-13 to serve as a facility for the medical practice of Dr. Susan Picotte. Dr. Picotte was the first Native American woman doctor to practice modern medicine in the United States. In addition to her medical practice, she represented the Omaha tribe at the local and national level, working to improve their quality of life. Address: 505 Matthewson Street, Walthill, NE. (outside of mapped area)

LEWIS & CLARK HERITAGE SITES

Monona County

Attractions

● **Lewis & Clark State Park and Keelboat Exhibit.** The expedition camped near here on August 9, 1804. Replicas of the keelboat and pirogues used by the Corps of Discovery are docked at the lake which was formed as an oxbow lake when the river cut a new course years ago. The park holds an annual Lewis and Clark Festival the second weekend in June. Campsites, trails, fishing and swimming are available at the park just west of I-29 at Exit 112 near Onawa. Call (712) 423-2829 for additional information.

● **Whiting Access.**

Campsites

▲ **August 12th 1804 Campsite.**
Located 4 miles west of Sloan, Iowa, on the north side of 330th Street.

▲ **August 11th 1804 Campsite.** Pasture and woodland area located between I-29 and Catalpa Avenue at Exit 120.

▲ **August 9th 1804 Campsite.**
Located on the south side of 225th Street, .25 miles west of Elder Avenue and 225th Street intersection, Onawa, IA.

Loess Hills Vineyards

Grapes have been grown in the Loess Hills region since the 1860s, and the State of Iowa once ranked sixth nationally in the production of wine. By the 1960s however, production had declined dramatically due to the increased use of pesticides that destroyed many of the region's vines. Renewed interest in viticulture has led to the development of a number of new vineyards. These include:

- Breezy Hill Vineyard & Winery
- Danish Countryside Vines & Wines
- King's Crossing Vineyard & Winery
- Loess Hills Vineyard & Winery
- Prairie Crossing Vineyards & Winery
- Sugar Clay Winery & Vineyards
- Whispering Hills Vineyards
- Timber Ridge



Sugar Clary Vineyard & Winery

Nebraska Resources

Attractions

● **Blackbird Scenic Overlook.** On August 11, the captains and 10 men climbed a hill to the burial site of Blackbird, an Omaha chief who died four years earlier of smallpox, and erected a white flag bound with red and blue. Blackbird Hill is today private property, but an overlook near it on US 75 gives a good approximation of what the explorers saw.

NATURAL FEATURES & TRAILS

Monona County

State Parks and Conservation Areas

Lewis & Clark State Park. 176 acres state park featuring a replica of Lewis and Clark's keelboat *Best Friend* and two pirogues, and a new Interpretive Center. The park's other features include Blue Lake, an 250-acre oxbow hosting a variety of water related recreation activities, including unsupervised swimming and a beach. Other features include hiking trails, camping with electric hookups, picnicking. *Contact: (712) 423-2829*

Preparation Canyon State Park. 344 acres, (712) 423-2829, on a site settled by a group of Mormon families led by Charles B. Thompson, who broke from the main Utah migration. State park offers hiking trails, hike-in camping, picnicking with shelters, and wildlife refuge.

Loess Hills Wildlife Management Area. 2,742 acres, DNR property. Upland, timber, and prairie environments. Hunting.

Loess Hills Pioneer State Forest. 3,121 acres, DNR property. Upland, timber, and prairie environments, hunting permitted. Pond fishing with access to small boats.

Omaha Mission Bend. 120 acres, DNR property. Old river channel, hunting permitted.

Badger Lake WMA. 987 acres, DNR property. Marsh and upland environments, waterfowl and pheasant hunting permitted.

Whiting Woods. 80 acres, dense native timber, drinking water, pit toilets, picnicking, hiking trails.

Huff-Warner Access County Park. 5 acres, camping, electricity, drinking water, picnicking, pit toilets, stream fishing, Missouri River boat ramp.

Upper Monona Bend Wildlife Area. 60 acres, public access to river. Old river channel, hunting permitted.

Davis Wetland. 54 acres, wildlife viewing and hunting.

Blackbird/Ivy Island Wildlife Area. 722 acres, DNR property including a boat ramp and public river access. Marsh and upland environments, hunting permitted.

Upper Decatur Bend and Sunset Island Recreation Area. 534 acres, DNR property. Marsh and timber environments, hunting permitted. Pit toilets, boat ramp, fishing.

Middle Decatur Bend. 338 acres, DNR property. Shallow lake, marsh, hunting permitted.

Louisville Bend Wildlife Area. 904 acres, DNR property. Marsh and timber environments, hunting permitted.

Upper Blencoe Bend. 94 acres, DNR property. Hunting, marsh, timber, waterfowl, pheasant, deer.

ATTRACTIONS & MUSEUMS

Monona County

● **Monona County Fairgrounds in Onawa.** Home of the Monona County Fair, held annually in mid-July and adjacent to Gaukel Park, Onawa's principal active recreational park. Contiguous complex also includes Onawa Community Center.

● **Monona County Historical Museum & Kiwanis Museum Complex.** Features include Lewis and Clark display, Eskimo Pie display, farm equipment and barbed wire collections, a turn-of-the-century kitchen, bedroom and parlor, and a new agriculture building with farm antiques. *Address: 47 12th Street, Onawa, IA.*

■ **Moorhead Culture Center.** Displays reflecting the culture, people, art and history of the area. *120 Oak Street, Moorhead, IA; 712-886-5384. Open 1-4 Fri. - Sun., mid-April to October 28, or by appointment.*

■ **Loess Hills Hospitality Association and Visitors Center.** Base for regional activities to promote exploration of the Loess Hills. The LHHA provides customized tours for individuals, groups, and motorcoach tour organizers, and also conducts its own educational activities and tours. Its Visitors Center and gift shop provides tourism information and features handcrafted items. *119 Oak Street, Moorhead, IA; 712-886-5441 or 800-886-5441. Visitor Center: 9-4 Tue.-Sat., 1-4 Sun., May-Dec.; 1-4 Tue.-Sat., Jan.-Apr.*

● **Timber Ridge Rec Ranch.** Facility offers a variety of grape wines and other fruit-based wines and accommodates camping and off-road vehicle use. Guests beyond the Lodgemust be accompanied by a registered member. *33453 153rd St, Castana, IA; (712) 353-6600.*

LODGING & DINING

Lodging and dining facilities are available in or near the following communities:

Lodging

● Onawa, Iowa

Bed & Breakfasts

● Country Homestead B&B.

22133 Larpenteur Road, Turin, IA; (712) 353-6772 or (888) 563-7455.

● Lighthouse Marina Inn.

4 miles off I-29, Exit 120, Whiting, IA; (712) 485-2066.

Dining

■ Mapleton, Iowa (multiple facilities)

■ Whiting, Iowa (multiple facilities)

■ Onawa, Iowa (multiple facilities)

■ Blencoe, Iowa

■ Moorhead, Iowa (multiple facilities)

■ Decatur, Nebraska (multiple facilities)



Preparation Canyon State Park



Loess Hills Welcome Center; Moorhead, Iowa

Preparation Canyon State Park

In 1853, Charles B. Thompson broke from a Mormon wagon train heading towards Utah after receiving a message from the "Spirit." Leading some 50 families to what is present day Monona County, he founded the town of Preparation. According to Thompson, this place was to be their "School of Preparation for the Life Beyond."

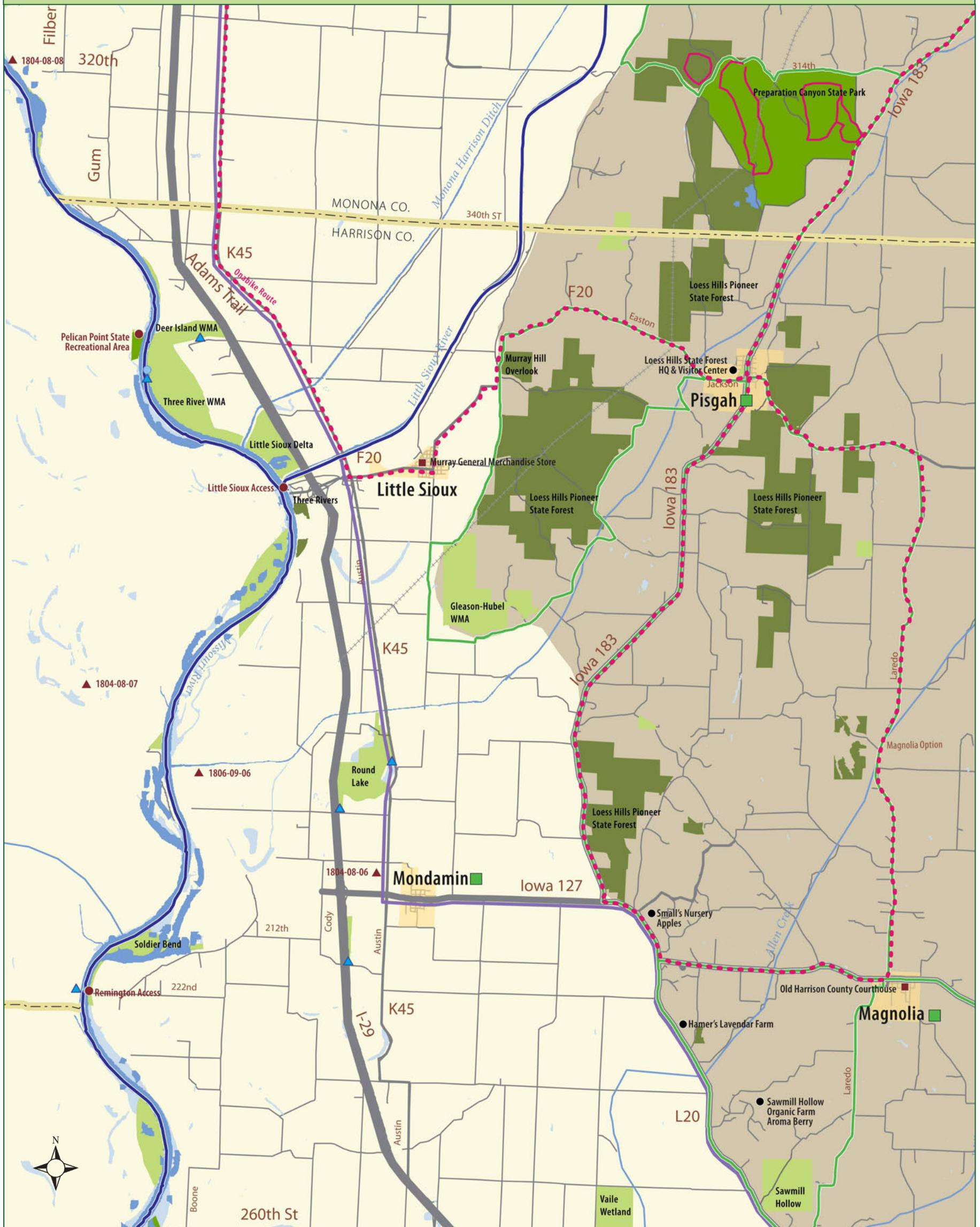
Soon after settling the valley the Mormon pioneers realized that they had discovered one of the richest farming valleys in Iowa. Realizing the potential wealth that the valley could generate, Thompson's newspaper printed an article relating a message he received from a spirit named "Beneemy." According to the article the spirit stated, "I appoint Charles B. Thompson chief steward of my house to receive, hold, manage and direct all the treasures of my house." Believing the article, the settlers turned over all their deeds and possessions to Thompson.

By 1856, the settlers realized the mistake that they had made, and demanded the return of their property. Warned by a loyal follower that the settlers were planning to lynch him, Thompson fled the state. Unable to secure their deeds, many of the disillusioned Mormon families left the valley and headed for Utah.

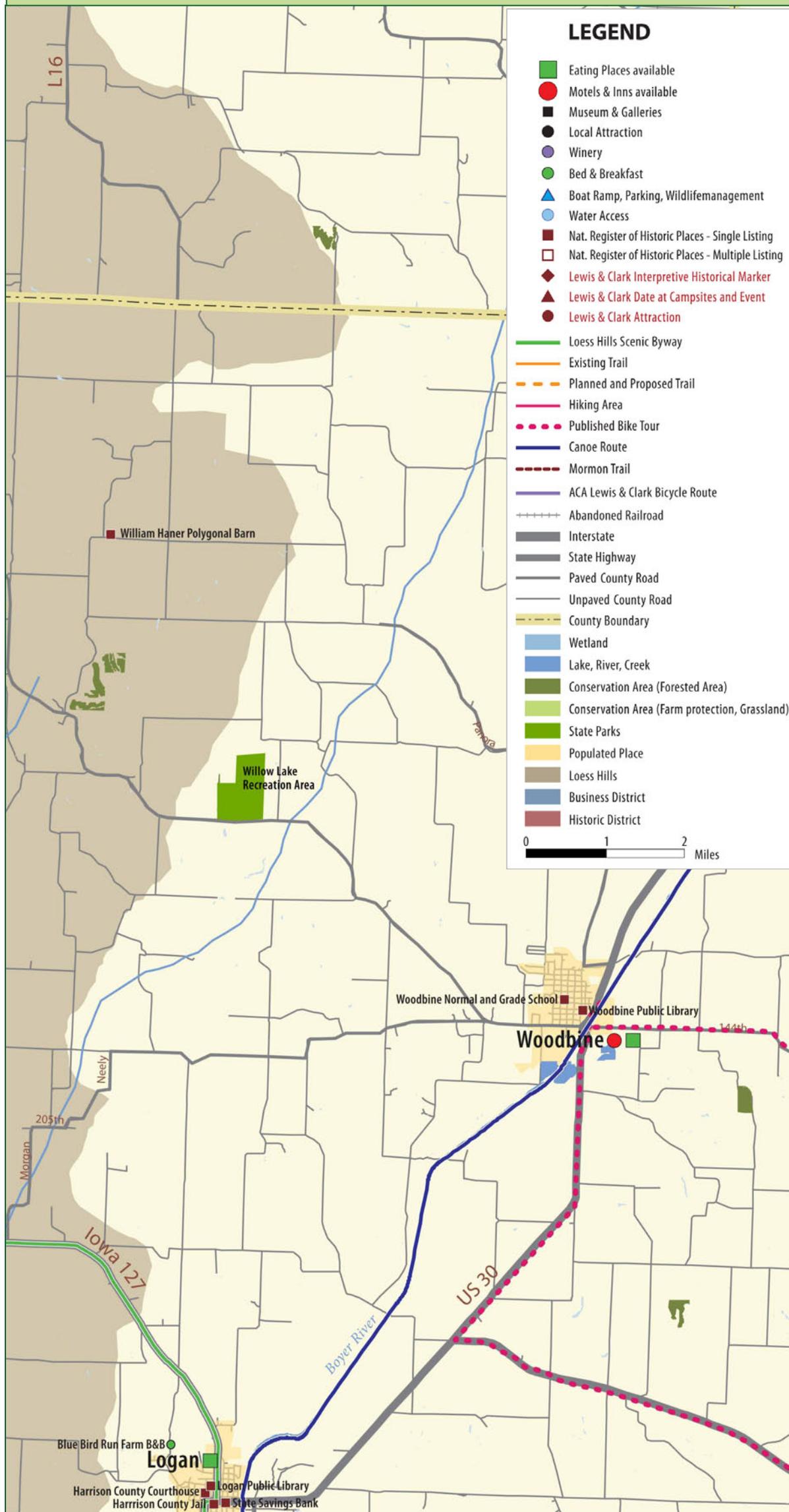
In 1856, the Iowa Supreme Court divided the land equally among the remaining families, whereupon the town of Preparation began to stabilize and grow once more. At one point the community had sixty-seven houses, a post office, skating rink and blacksmith shop. By 1900 however, the town had failed and all that remained was a stockyard operation that closed in 1946.

Between 1934 and 1969 Martha and Walter Perrin, descendants of the original Mormon families, sold the site to the State of Iowa for the development of Preparation Canyon State Park.

HARRISON COUNTY - North



HARRISON COUNTY - North



HISTORIC RESOURCES

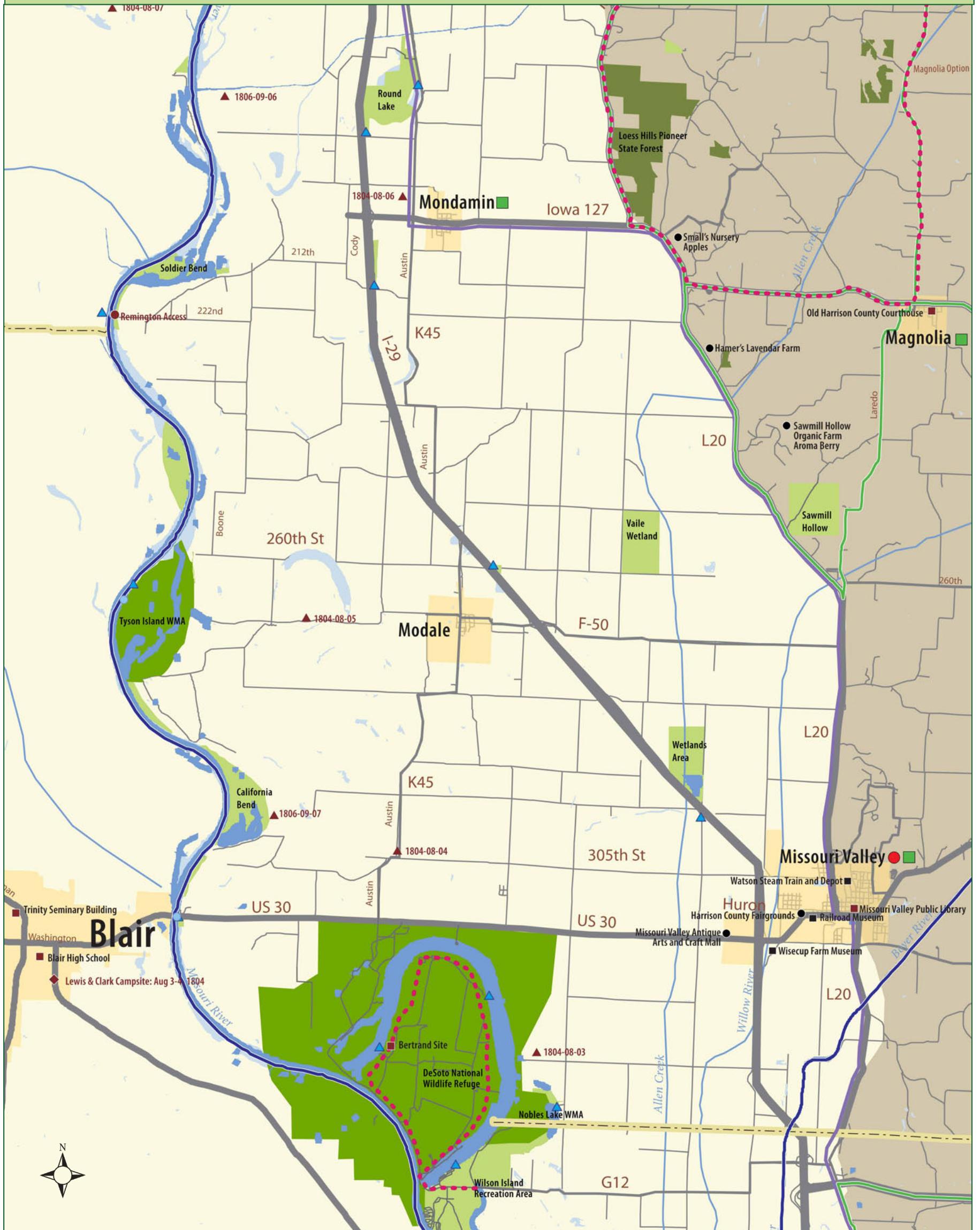
Harrison County

- **John R Wheeler, Jr House.**
Address: 407 South Third Street, Dunlap, IA (outside mapped area).
- **Murray General Merchandise Store.**
Address: Intersection of Mulberry and Second Streets, Little Sioux
- **Harrison County Jail.** Italianate building designed by D.P. Cobleigh. Address: 105 South First Street, Logan, IA.
- **Logan Public Library.**
121 E 6th Street, Logan, IA.
- **Harrison County Courthouse.** Designed by Joseph E. Mills and built in 1910 of Bedford limestone. Includes a series of murals in the central lobby, depicting its predecessors. Located on 7th Street, Logan, IA.
- **State Savings Bank.**
Address: 312 East Seventh Street, Logan, IA.
- **Woodbine Public Library.** Arts and Crafts style Carnegie Library, continuing to serve as the community's library. Address: 58 Fifth Street, Woodbine, IA.
- **Woodbine Normal and Grade School.** Created in 1887, the school was the first school in the state to combine high school education with course work geared towards training teachers. Address: 5th and Weare, Woodbine, IA.
- **Bertrand Site.** Site where the Bertrand Steamboat sank in 1865. A 1968 excavation of the site has revealed more than 200,000 artifacts dating from the Civil War era. Located at the De Soto National Wildlife Refuge, 1434 316th Lane, Missouri Valley, IA.
- **Missouri Valley Public Library.**
Address: 119 North 5th, Missouri Valley, IA.
- **William Haner Polygonal Barn.**
Address: County Road L16, Pisgah, IA.

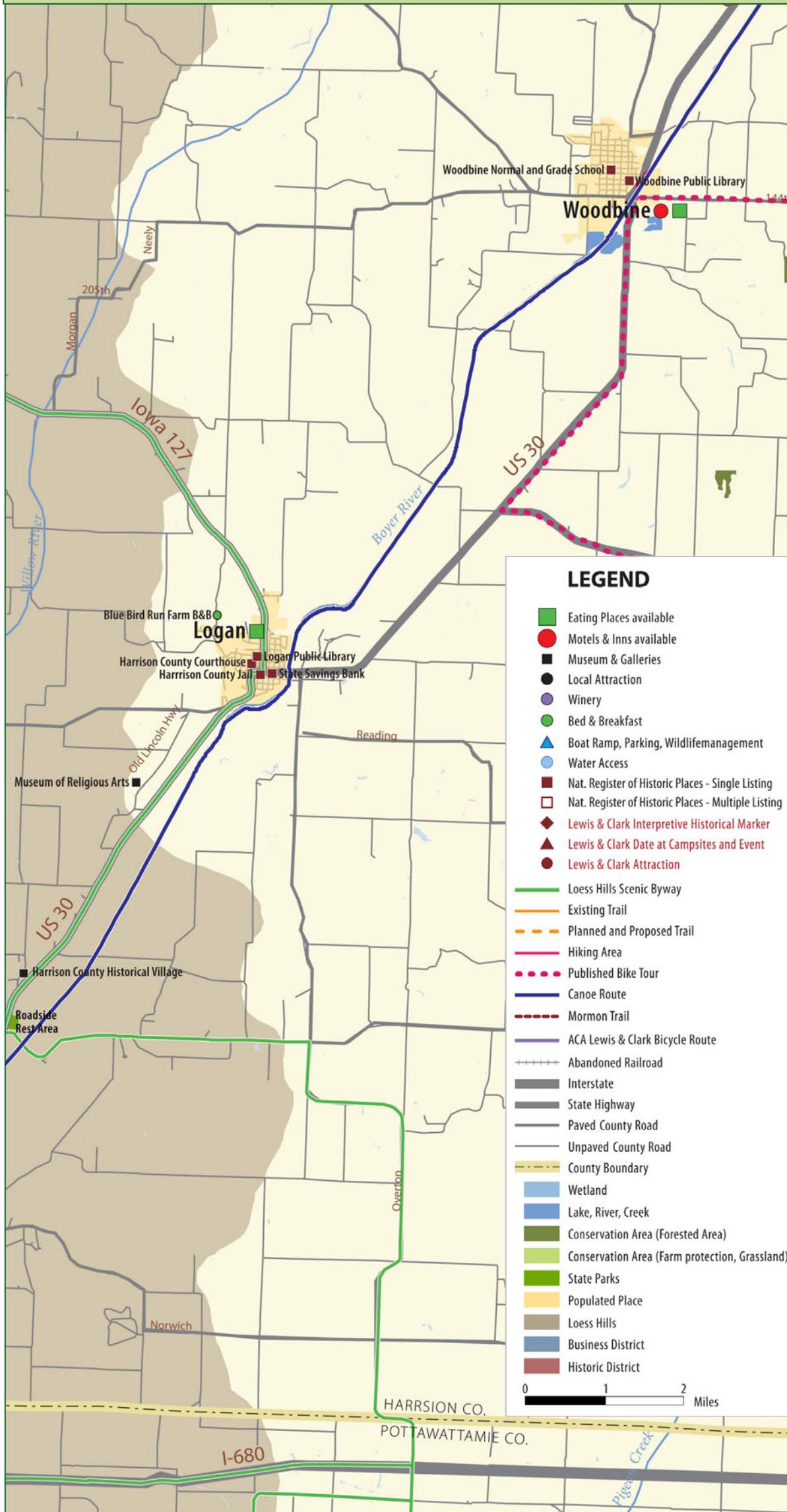
Nebraska Resources

- **EC Houston House.** Circa 1904 Neoclassical Revival house, currently houses the Burt County Museum. Address: 319 North 13th Street, Tekamah, NE; 402-374-1505. (outside of mapped area)
- **H M S Spielman House.**
Address: 1103 I Street, Tekamah, NE. (outside of mapped area)
- **Blair High School.**
Located at 16th and Colfax Streets, Blair, NE.
- **Trinity Seminary.** First structure to be constructed on the Dana College campus. College Drive, Blair, NE.

HARRISON COUNTY - South



HARRISON COUNTY - South



LEWIS & CLARK HERITAGE SITES

Harrison County

Attractions

● **Little Sioux Access.** This Missouri River access point is located near where the Lewis and Clark expedition passed on August 8, 1804. Located near I-29 at Exit 95.

● **Remington Access.** Missouri River access, the site of the desertion of Private Moses B. Reed and boatman La Liberte from the Corps of Discovery on August 6, 1804. Located five and a half miles west-southwest of I-29 at Exit 89 on marked gravel roads.

Campsites

▲ **September 5th 1804 Campsite.** Located along 207th Trail Road, 2.7 miles west of Modale, IA.

Nebraska Resources

Attractions

● **Pelican Point State Recreational Area.** On August 8, 1804, as the expedition passed the Little Sioux River, a member of the crew summoned Lewis from the keelboat cabin to see what appeared to be a white sheet spread across the river. As they drew closer to this phenomenon, the men realized it was a layer of feathers 70 yards wide on a sandbar where thousands of pelicans were molting. Pelican Point State Recreational Area includes camping, Missouri River access, fishing and picnicking. It is located seven miles north of Tekamah, NE County Road 19; (402) 374-1727.

Campsites

▲ **August 7th 1804 Campsite.** Located .35 mile west of the County Road G and County Road 47 intersection, on the Nebraska side of the Missouri River.

▲ **August 3 - 4, 1804 Campsite.** Historical marker located along 13th Street, between Prospect and Wilbur Streets in Blair, NE.

NATURAL FEATURES & TRAILS

Harrison County

State Parks & Conservation Areas

Desoto National Wildlife Refuge (Iowa and Nebraska). 7,823 acre site noted as a waterfowl refuge and the site of the *Bertrand* steamboat excavation. Features include trails, a large oxbow lake, wetlands, hedge rows, food plots, and native prairie restoration. Visitors Center, one of the area's signature attractions, includes extensive exhibitions of artifacts recovered from the *Bertrand*. Fall migration of snow geese peaks in mid-November.

Murray Hill Overlook. 3 acre scenic overlook, Loess Hills bluff.

Gleason-Hubel WMA. 165 acre, Loess Hills prairie environment, with hiking trails; hunting permitted.

Deer Island WMA. 710 acre, DNR property. Timber environment, boat ramp; hunting and fishing permitted.

Three Rivers Wildlife Area. (Access from river only) 300 acres, DNR property. Timber and river bottom environment, hunting permitted.

Willow Lake Recreation Area. 222 acre, camping, cabins, electricity, drinking water, flush toilets, showers, picnicking, hiking trails, swimming beach, fishing jetty, 27 acre pond.

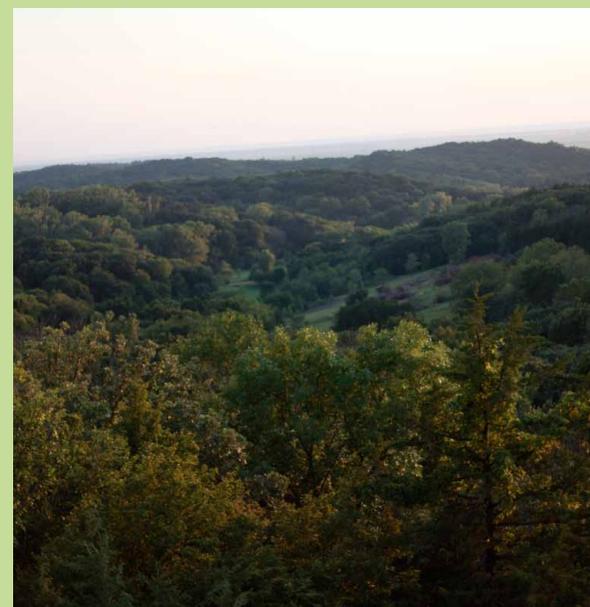
The Loess Hills

Murray Hill Scenic Overlook

Located on Road F-20, Murray Hill Scenic Overlook offers a panoramic view of the Missouri River Valley. The overlook is a well preserved prairie environment that features native flower and grass species. A hike to the top of the hill provides superb views of the hills and river valley. Interpretive markers are located along the hiking path that explain the significance and history of the Loess Hills.



Murray Hill Scenic Overlook



Murray Hill Scenic Overlook

Round Lake. 447 acre, DNR property, including wetland and upland environments and waterfowl environment. Hunting permitted. Site also includes boat access.

Soldier Bend WMA. 279 acres, DNR property. Wetland environment with shallow lake; hunting permitted.

Sawmill Hollow WMA. 155 acre, mixed hardwood timber environment and wildlife habitat. Hiking trails, six acre pond permitting fishing and boating with electric motors only. Hunting permitted.

Vaile Wetland. 280 acres with uplands & wetlands habitats with hiking. Hunting permitted.

Missouri Bottoms Wetlands Area. 240 acre restored wetland, waterfowl, uplands, hunting.

Tyson Bend WMA. 780 acre, DNR property. River island and timber environments. Boat ramp with hunting permitted.

California Bend WMA. 420 acres, DNR property. Currently, public access is limited to river. Timber and wetlands environment, with hunting permitted.

Nobles Lake WMA. 232 acres, DNR property. Wetlands and timber environments with a shallow lake and boat ramp. Hunting permitted.

ATTRACTIONS & MUSEUMS

Harrison County

● **National Old-Time Country and Bluegrass Music Festival and Pioneer Ag Expo of Arts and Crafts.** Multiple stages and numerous performers showcasing acoustic early rural roots music of the Upper Midwest. The week-long event is one of the largest acoustic music gatherings in the Midwest. Also offers arts and crafts, food, workshops, dance, and international shows are offered as well. Occurs in late August at Wisecup Farm Museum, Missouri Valley, IA.

● **Harrison County Fairgrounds.** Site of the annual County Fair in late July.

● **Danish Countryside Vines & Wines.** The winery is located in a completely renovated European style barn and offers tours and tastings. The winery hosts events throughout the summer, and participates in Western Iowa Wine Trail events. A party room is also available for weddings, birthdays, reunions, or any other occasion. Address: 1397 280th St, Modale, IA; (712)-764-2991. (off mapped area)

● Harrison County Historical Village & Welcome Center.

Located on US 30 about four miles northeast of Missouri Valley. Its two-story log building houses a museum and welcome center featuring an Iowa Gift Shop and Iowa Information Center. The village includes an original log cabin and schoolhouse and two additional display buildings.

1434 316th Street, Missouri Valley, IA; 712-642-4121.

● **Wisecup Farm Museum.** Agricultural museum featuring more than 65 pieces of Minneapolis Moline farm equipment, including 25 tractors. In the old family barn, see buggies, sleigh, wooden wagons, a 1946 GMC truck and more. Located at 1200 Canal Street, Missouri Valley, IA; 712-642-3925. Open Memorial Day to September.

● **Sawmill Hollow Organic Farms.** First organic aronia berry plantation in the United States. Over the past ten years, the farm has researched and developed an entire product line from the organic aronia berry. Includes a country store that sells products and plants. Located about nine miles north of Missouri Valley at 2159 Kennedy Avenue.

● **Watson Steam Train & Depot at Missouri Valley City Park.** Train rides operate on weekends from May 1 through October. Operating trains for children include a 1948 coal fired Ottaway Steam Train and the 1959 Ottaway Streamliner. The depot offers displays of railroad artifacts and a gift shop.

● **The Missouri Valley Antique Arts and Craft Mall.** A 60 dealer mall with a large selection of antique furniture, quilts, toys, stoneware, and the largest assortment of antique reference books in the Midwest. Also offers quality handiworks from over 44 Midwest crafters and a vintage Soda Fountain. 1931 Highway 30, Missouri Valley, IA.

■ **Museum of Religious Arts.** The museum features 20,000 square feet of exhibit space that showcases various pieces of Judeo-Christian religious art and artifacts. Exhibits include a replica Southwestern Mission Chapel, Italian stained-glass windows depicting the Eight Virtues, and the "King of Kings"-a wax portrayal of the life of Jesus. The museum also includes a theatre, library and gift shop. 2697 Niagara Trail, Logan, IA; 712-644-3888.

Nebraska Resources

● **Silver Hills Vineyards.** Open seven days a week from April through January, and by appointment February & March. Provides wines to retail and restaurant establishments throughout Eastern Nebraska. Hosts an annual "Back to the Country" Wine and Music Festival and many other events throughout the year. 3130 County Road M north of Tekamah, NE (off mapped area)

● **Big Cottonwood Vineyards.** Big Cottonwood is located northwest of Tekamah, NE. Wine is available for purchase and tasting during regular business hours April through December, and by appointment all other months. 2865 County Road I, Tekamah, NE; (402) 374-2656 (off mapped area)

LODGING & DINING

Lodging and dining facilities are available in or near the following communities:

Lodging

● **Missouri Valley, Iowa** (multiple facilities)

● **Woodbine, Iowa**

● **Blair, Nebraska** (multiple facilities)

Bed & Breakfast

● **Blue Bird Run Farm.** 2460 Norton Avenue, Logan, Iowa; (712) 644-3102.

Dining

■ **Pisgah, Iowa**

■ **Mondamin, Iowa** (multiple facilities)

■ **Magnolia, Iowa** (multiple facilities)

■ **Woodbine, Iowa** (multiple facilities)

■ **Logan, Iowa** (multiple facilities)

■ **Missouri Valley, Iowa** (multiple facilities)

■ **Blair, Nebraska** (multiple facilities)

DeSoto National Wildlife Refuge

DeSoto National Wildlife Refuge is part of a network of refuges devoted to preserving and restoring increasingly scarce habitat for migratory waterfowl and other wildlife. The refuge is comprised of 8,358 acres in Iowa and Nebraska and lies in the Missouri River Valley floodplain surrounding an ox-bow lake.

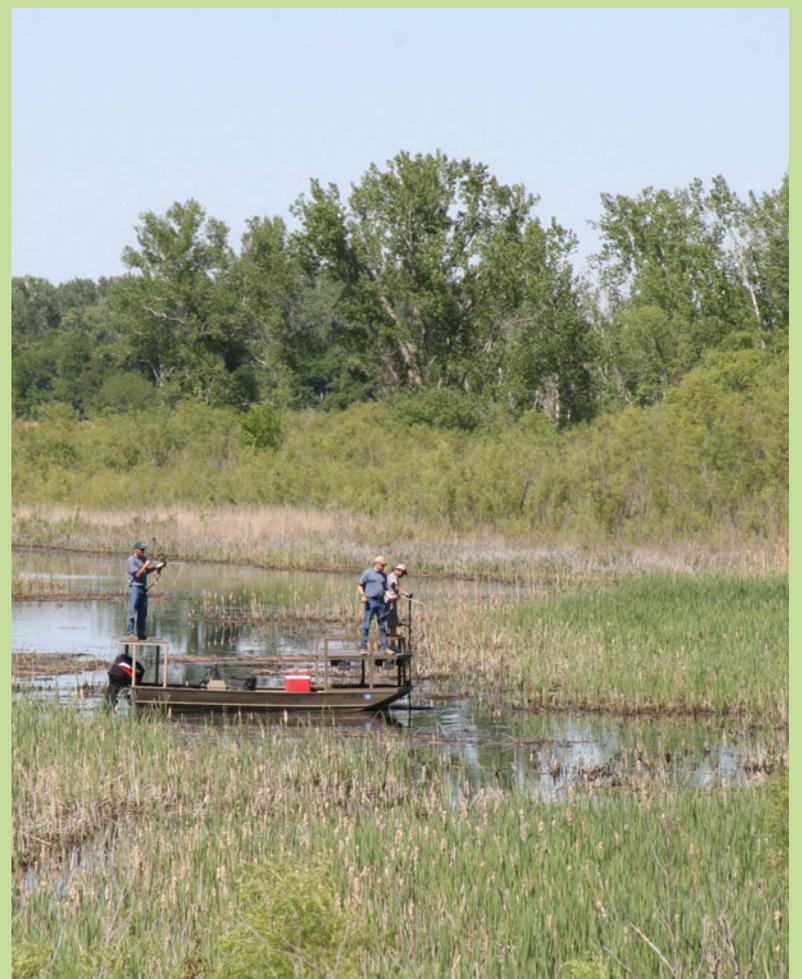
The lake provides recreational use for up to 250,000 visitors annually. The DeSoto Visitor Center provides an introduction to the refuge, exhibits of the Bertrand Steamboat Collection, and contains interpretive displays on the historical development of the Missouri River Basin, the ecological impacts of that development.



Once a wide and meandering river, the Missouri River channel is only a fraction of what it once was. Channelization projects in the 1870s, and the later construction of flood control dams have altered the landscape of the river. The above aerial is overlaid with one of the maps created during the Corps of Discovery's Expedition. The present-day river channel is located in the lower-left corner.

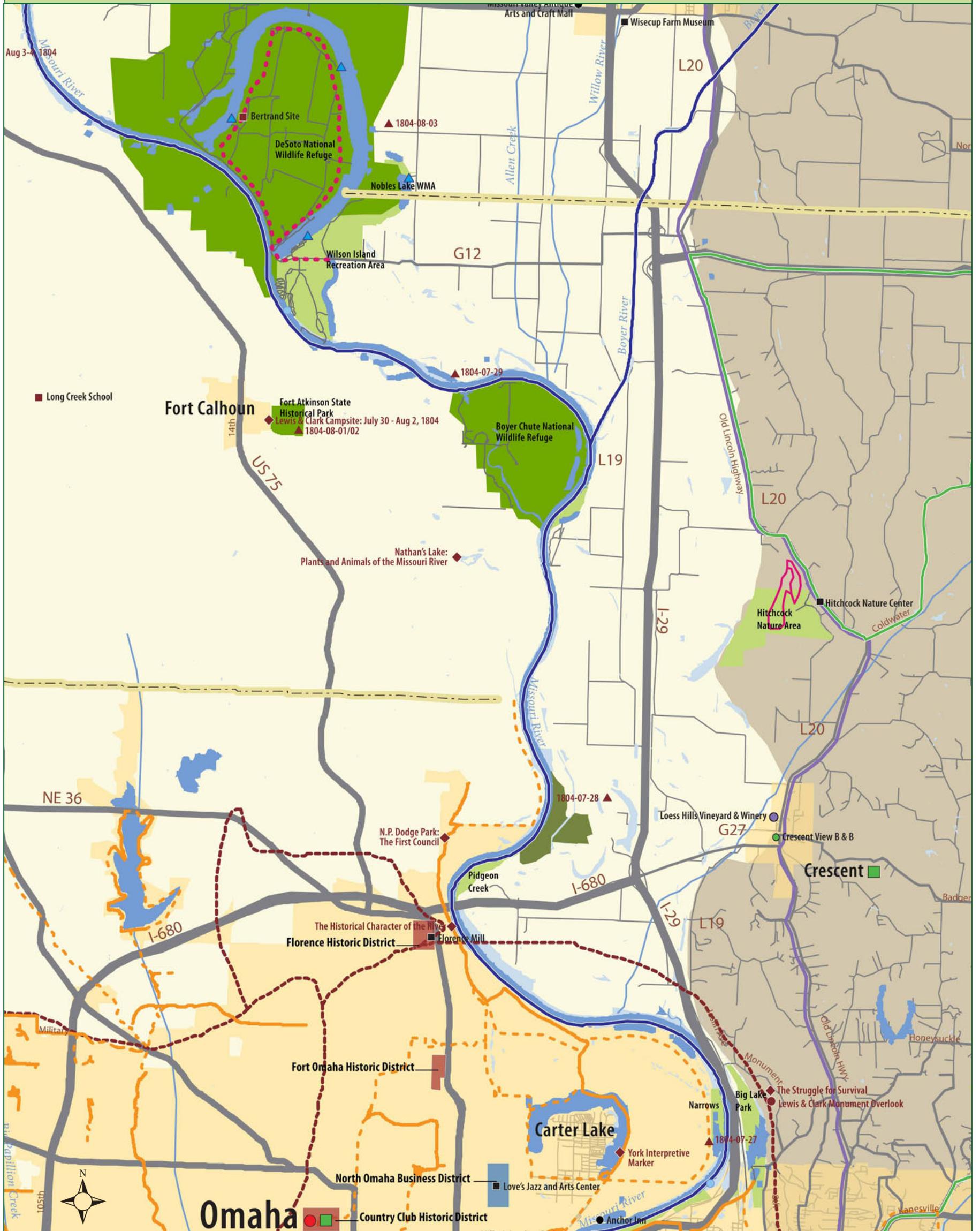


Lake DeSoto

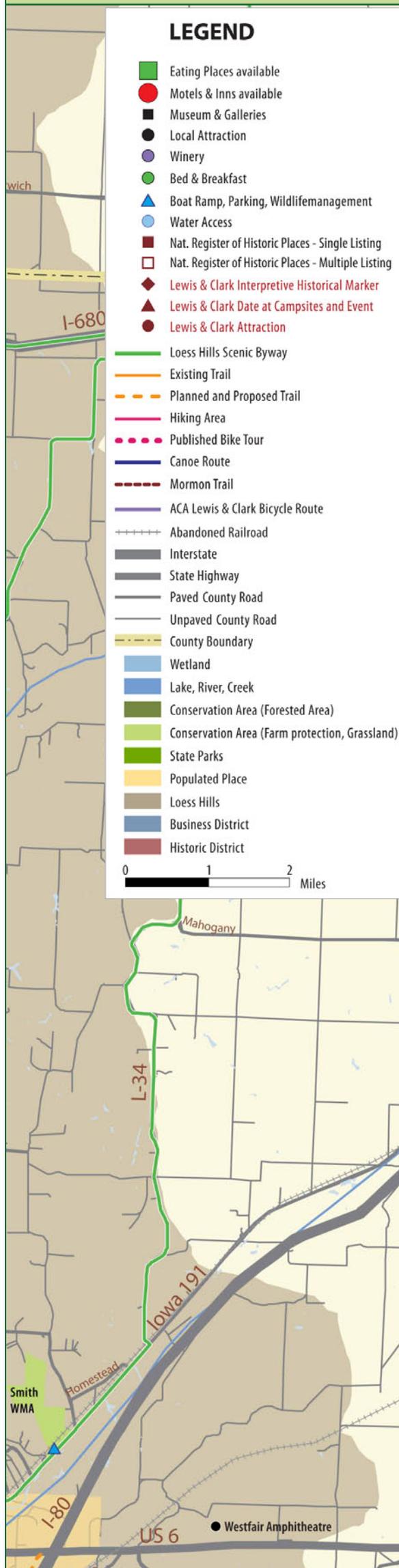


Recreational fishing on Lake DeSoto.

POTTAWATTAMIE COUNTY - North



POTTAWATTAMIE COUNTY - North



HISTORIC RESOURCES

National Register Districts and Other Concentrations of Historic Resources

■ **100 Block of West Broadway Historic District (NRHP District).** District comprises 40 acres and 22 buildings, most of which are two to three-story commercial structures dating from the second half of the 19th century. The Broadway United Methodist Church at 1st and West Broadway is a distinctive landmark. The 100 Block presents the best preserved remnant of the historic downtown, and escaped the redevelopment that occurred farther to the west during the 1970s. The district also includes buildings near the 4th and Broadway intersection.

■ **Bennett Building.** High-rise building, designed by John and Alan McDonald. An adaptive reuse project converted the building to its current residential use.
Address: 405 West Broadway, Council Bluffs, IA; 712-323-0684.

■ **Ogden House.** Built as a hotel in mid 19th century, designed by A.A. Cook. Address: 169 West Broadway, Council Bluffs, IA.

■ **Haymarket Square Historic District (NHRP District and Environs).** The Haymarket National Register District itself incorporates 20 buildings on South Main Street between Willow and 9th Avenues. The majority of these buildings are two stories in scale and date from the last half of the 19th century. The broader environment extends along the parallel South Pearl Street, and includes historic buildings in the city's civic subdistrict. "Haymarket Square" itself is formed by the confluence of Pearl and Main Street north of 7th Avenue.

■ **Original Pottawattamie County Jail.** Known as the Squirrel Cage Jail for its unique cylindrical design, the jail has three floors of pie-shaped cells, originally designed to be rotated by a hand crank. Taken out of service because of safety concerns, the site is now open to the public.
Address: 226 Pearl Street, Council Bluffs, IA; 712-323-2509 (see Union Pacific Railroad Museum).

■ **Council Bluffs Public Library.** Constructed by the Andrew Carnegie Foundation in 1903, this neoclassical building has been restored as the Union Pacific Railroad Museum. It was replaced as the city's library by the new facility at 400 Willow Avenue.
Address: 200 Pearl Street, Council Bluffs, IA; 712-329-8307.

■ **Willow-Bluff-3rd Street Historic District (NHRP District).** A predominately residential district of 156 homes and 56 other structures, at the foot of the loess hills immediately east of Downtown. The district includes a range of house styles, from examples of modest 19th century architecture to the Grenville Dodge House, a National Historic Landmark. The district is associated with the historical development of residential Council Bluffs and the personalities of many of the city's early civic leaders.

■ **Martin Hughes House.**
Address: 903 Third Street, Council Bluffs, IA.

■ **General Dodge House.** Built in 1869, it was the home of the noted Civil War General and railroad builder Grenville M. Dodge. Dodge is credited with convincing Abraham Lincoln to bring the first intercontinental railroad through Council Bluffs. Address: 605 S. Third Street, Council Bluffs, Iowa. For additional information and tours call 712-322-2406.

■ **Beresheim House.**
Address: 621 Third Street, Council Bluffs, IA.

■ **St Peter Church.**
Address: 1 Bluff Street, Council Bluffs, IA.

■ **Wickham De-Vol House.**
Address: 332 Willow Avenue, Council Bluffs, IA.

■ **Thomas Jefferis House.**
Address: 523 Sixth Avenue, Council Bluffs, IA.

■ **Lincoln/Fairview Historic District (NHRP District).** Largely residential district on a south-facing hillside rising above the traditional city core, including 274 contributing structures. This area was associated with the hilltop development of Fairview Cemetery. Abraham Lincoln is said to have surveyed the city from this bluff top in making the decision to designate Council Bluffs as the eastern terminus of the Union Pacific Railroad.

■ **Ruth Anne Dodge Memorial.** Known as the "Black Angel", this work in solid bronze was created by the noted American sculptor Daniel Chester French. Located at Fairview Cemetery, Council Bluffs, IA.

■ **Park/Glen Avenues Historic District (NHRP District).** Largely residential district encompassing 185 contributing structures along two parallel streets extending southeast from Downtown Council Bluffs. These streets extend up a valley that drains a bluff overlooking Downtown, and terminate at the Glendale Reservoir and Fairmount Park. Development here was largely complete by 1930 and is characterized by small lot, dense single-family homes.

■ **Thomas E Cavin House.**
Address 150 Park Avenue, Council Bluffs, IA.

Other National Register Sites with Significance to the Trail

■ **YMCA Building.**
Address: 628 First Street, Council Bluffs, IA.

■ **Reverend Little's Young Ladies Seminary.**
Address: 541 Sixth Avenue, Council Bluffs, IA.

■ **Chicago, Rock Island & Pacific Railroad Depot.** Constructed in 1899 on the south edge of downtown Council Bluffs and today is operated as a museum and model railroad display. Address: 1512 South Main Street, Council Bluffs, Iowa. For additional information, contact the Rails West Railroad Museum at 712-323-5182.

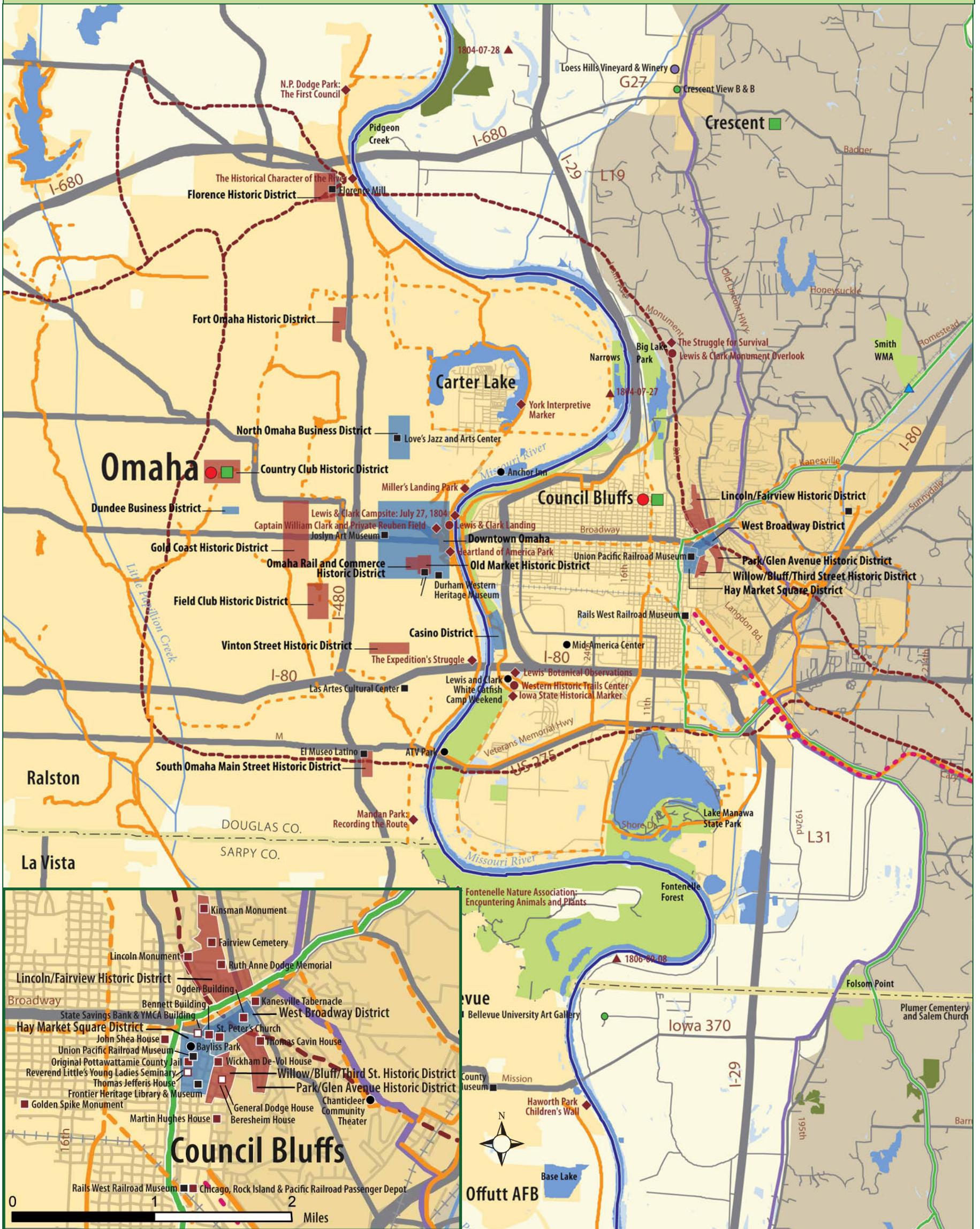
■ **John Shea House.** Currently operated as the Historic Shea House Bed & Breakfast.
Address: 309 South 8th Street, Council Bluffs, IA; 712-328-1872.

■ **State Savings Bank.**
Address: 509 W. Broadway, Council Bluffs, IA.

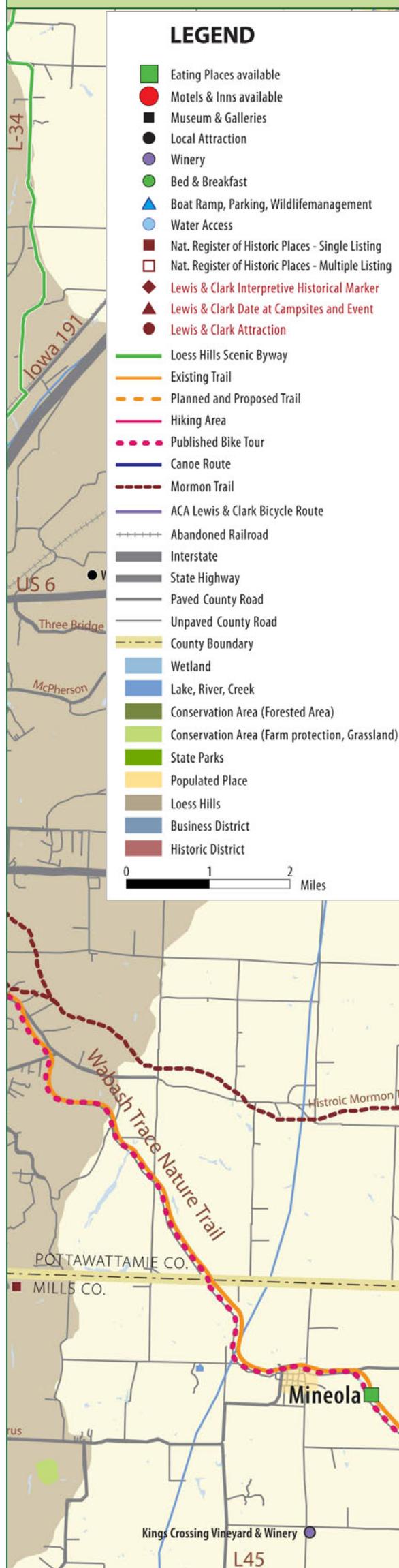
Related Nebraska Resources

■ **Old Market Historic District (NHRP District).** The Old Market Historic District, now Omaha's most distinctive arts and entertainment district, was part of the wholesale jobbing area of the city, growing dramatically in the 1880s and operating well into the twentieth century. This area was the distribution center for goods shipped on the Union Pacific Railroad and its branch lines. The district is comprised of former light industrial and warehouse buildings and wholesale jobbing houses. Its adaptive reuse over the last 50 years is almost as significant a story as its original development.

POTTAWATTAMIE COUNTY - South



POTTAWATTAMIE COUNTY - South



Lewis & Clark Interpretive Trail

The Lewis & Clark Interpretive Trail tells the story of the Corps of Discovery through a series of interpretive markers and Icon sculptures. The sites are located in 16 parks and public spaces along the Missouri River in Council Bluffs, Iowa and Omaha, Nebraska.

Icon sculptures are embellished with original artwork by local artists that tell the story of the expedition and the Middle Missouri region.



"Past & Present"

■ Omaha Rail and Commerce Historic District (NHRP District).

This downtown district, south and west of the Old Market, is related to the importance of the railroad in overland trade, particularly during the period between 1887 and 1945. Situated along the UP main line of the original transcontinental railroad, this district included the large scale warehouses needed to support the jobbing trade, as well as manufacturing warehouses, and service oriented properties. The district's industrial, commercial, and warehouse buildings were vital to the development of the commercial and industrial economy of the city of Omaha during the late nineteenth and early twentieth centuries. Many of its historic buildings, also individually listed on the Register, have been converted to other uses, including housing, art studios, retail, and restaurants. Major developments include such nationally noted arts resources as the Bemis Project and the Kaneko; housing developments such as the Macaroni Building (Skinner Macaroni Building) and Old Market Lofts (Ford Warehouses), and many others.

■ South Omaha Main Street Historic District (NHRP District).

Originally the vital commercial core of the City of South Omaha, developed by the Union Stockyards Company during the 1880s. The district is noted for its progression of ethnic and cultural influences, as Greeks, Russians, Poles, Czechs, and most recently Latinos have left their mark. Today the district is the center of Omaha's vibrant Hispanic community and retains its original role as a pulsing commercial marketplace. The new Veterans Memorial Bridge helps link South Omaha to the Iowa Riverfront.

■ **Downtown Omaha.** While not an NHRP District, Omaha's traditional center encompasses both the Old Market and the Rail and Commerce Historic Districts, and includes the city's largest concentration of Register listed structures. It is linked to the Iowa Riverfront by the iconic Bob Kerrey Pedestrian Bridge. Some key historic structures in Downtown Omaha include:

- Aquila Court** (Holabird and Root, 1923)
- Burlington Headquarters Building** (1879, remodelling designed by Thomas R. Kimball, 1899)
- City National Bank Building.** (Holabird and Root, 1910)
- First National Bank Building.** (Graham, Burnham & Co., 1916-17)
- J.L. Brandeis & Sons Store.** (John Latenser, 1906)
- Nash Block.** (Thomas R. Kimball, 1905-07)
- Omaha Central High School.** (John Latenser, 1900-1912)
- New York Life Insurance Building.** (McKim, Mead and White, 1888-89)
- Omaha Public Library.** (Thomas R. Kimball, 1891-92)
- Redick Tower.** (Joseph McArthur, 1930)
- Union Passenger Station (now Durham Museum).** (Gilbert S. Underwood, 1931)

■ Vinton Street Historic Commercial District (NHRP district).

Significant for its association with commercial development in South Omaha. The district is an intact collection of late nineteenth and early twentieth century commercial buildings that developed to serve the needs of area residents brought about by the development of Omaha and South Omaha. Vinton Street was originally a ridge top trail that evolved into a significant transportation and commercial corridor.

■ **North Omaha Business District.** North Omaha has been home to a number of ethnic groups during its long history, but is most strongly associated with the city's African-American community. The vicinity of 24th and Lake was the traditional cultural and commercial center of North Omaha and has a concentration of buildings that help tell the story of African-Americans in Omaha. These sites include:

■ **St. John's AME Church (NHRP site).** (Frederick Stott, 1921 with later additions), the Prairie style home of one of the neighborhood's anchor congregations.

■ **The Omaha Star Building (NHRP site).** (1938) Home of the print voice of the city's black community and strongly associated with its founding publisher Mildred Brown who declared the newspaper "dedicated to the proposition that no good cause shall lack a champion and evil shall not thrive unopposed."

■ **Jewell Building (NHRP site).** (1923) Built for James Jewell and including the Dreamland Ballroom, venue for the greatest names in jazz. Now home to the Omaha Economic Development Corporation.

■ **Webster Telephone Exchange (NHRP site).** (Thomas Kimball, 1907).

■ **Florence.** Far north Omaha neighborhood, once an independent town annexed in about 1915. Florence was the winter quarters site for the Mormon westward migration to Utah, and currently includes both a Mormon visitors center and Tabernacle at 33rd and State. The Florence Business District features the historic Bank of Florence building (NHRP site), built in 1857 and Omaha's oldest extant building.

■ **Dundee/Happy Hollow Historic District - Omaha, NE.** Platted as an independent suburb that was later annexed by the City of Omaha, the district as a whole is a notable example of late-nineteenth and early -twentieth century suburban development. Collectively, the district's high style, architect-designed homes along scenic boulevards is an historically significant area.

Council Bluffs

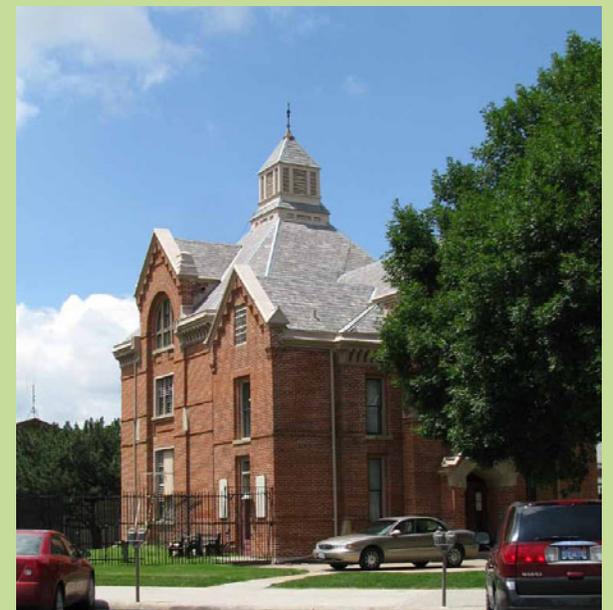
Visions of the Past

In the years preceding the Corps of Discovery's journey, trading posts began to crop up in the valleys and plains along the foot of the Loess Hills. The trading post known as Miller's Hollow, eventually grew into the present-day City of Council Bluffs. Located at the heart of what is today the West Broadway Historic District, the trading post quickly became a bustling commercial strip where settlers and gold prospectors were outfitted before beginning their journey across the American West.

Many other existing historic sites tell the story of the influence Council Bluffs had on the early development of the nation. Lincoln Park, located to the north of downtown, marks the spot where General Grenville Dodge took Abraham Lin-

coln to survey the possible eastern terminus for the Union Pacific Railroad. The well preserved Squirrel Cage Jail tells of early criminal justice on the Great Plains, and the Union Pacific Railroad Museum in the historic Carnegie Library explores the history of the nation's first railroad.

The area was also important in the development of the Mormon faith. It was from here and from sites in Florence, Nebraska that many Mormon Pioneers wintered before continuing on their journey to Utah. Located at the eastern edge of the West Broadway Historic District, the Kanessville Tabernacle marks the site where Brigham Young was elected the first head of the Church of Jesus Christ of Latter-day Saints in December, 1847.



Squirrel Cage Jail

■ **Gold Coast Historic District - Omaha, NE.** This district covers approximately a thirty-block area from 36th to 40th Streets, and Jones to Burt Streets. The area consists of large mansions and single family houses of the middle and upper class citizens of Omaha, dating from 1880 to 1946. The district physically demonstrates demographic changes in the area as the economy of Omaha changed and as the city began its suburban movement into West Omaha.

■ **Country Club Historic District, Omaha, NE.** The Country Club Historic District is significant as an early 20th century Omaha subdivision that was planned and marketed to attract home buyers who expected an exceptionally high level of quality and consistency in neighborhood layout, amenities, home design, and environment. The district has a large concentration and variety of fine period revival houses, many of them designed by local architects.

■ **Fort Omaha Historic District.** Former United States Army installation and current home of Metropolitan Community College, that once supplied numerous forts along the Platte River Road. The Fort was also the site of the 1879 trial of Chief Standing Bear that found that Native Americans are "persons within the meaning of the law" and have the rights of citizenship.

LEWIS & CLARK HERITAGE SITES

Pottawattamie County

Lewis and Clark Trail Interpretive Markers

◆ **Past & Present.** Interpretive icon of concrete, clay and bronze examining the changing landscape of the Missouri River region. *Located at the Lewis & Clark Monument, 19962 Monument Road, Council Bluffs, IA.*

◆ **Missouri River Transit.** Ed Fennel's "Missouri River Transit" constructed of glass tiles illustrates the various types of vessels the Corps of Discovery used on their travels up the Missouri River. *Located outside of the Club House for Dodge Riverside Golf Club, Council Bluffs, IA.*

◆ **Iowa State Historical Marker.** Lewis & Clark Expedition marker along the Missouri River through present day Nebraska and Iowa. *Located along the trail west of the Western Historic Trails Center, at 3434 Richard Downing Avenue, Council Bluffs, IA.*

◆ **The Journey.** Designed by Nan Wilson, interprets the Corps' struggle for survival. *Located at the Western Historic Trails Center, 3434 Richard Downing Avenue, Council Bluffs, IA.*

Attractions

● **Lewis & Clark Monument Overlook.** Bluff top monument offers vistas of the metropolitan area and Missouri River Valley, and Lewis and Clark interpretation. *19962 Monument Road, Council Bluffs, IA.*

● **Western Historic Trails Center.** The Center interprets the travels of Lewis and Clark and those who journeyed on the Oregon, California and Mormon Trails. Commemorates the White Catfish Camp and includes an Iowa Welcome Center and extensive gift shop. Lewis and Clark programming includes the annual White Catfish Encampment Living History Weekend the last weekend of July. *3434 Richard Downing Drive, Council Bluffs, accessed from the 24th Street interchange of I-29/80 and by the Riverfront Trail. (712) 366-4900.*

Nebraska Resources

Lewis and Clark Trail Interpretive Markers

◆ **Restoring River Habitat.** A clay relief interpretive icon designed by artist Liz Verduyse examining the restoration of Missouri River habitat. Located at the Boyer Chute National Wildlife Refuge in Washington County, Nebraska.

◆ **Nathan's Lake Wetlands Overlook.** Historical marker describing Lewis & Clark's study of the plant and animal species of the Missouri River region. *Located south of Boyer Chute, on Washington County Road P51 at Nathan's Lake.*

◆ **The First Council.** Interpretive icon regarding the first council of the Lewis & Clark Expedition with the Native American tribes of the Missouri River region, designed by artist Liz Langon. *Located at N.P. Dodge Park, 11005 J.J. Pershing Drive, Omaha, NE.*

◆ **Riverfront Trail Overlook.** Historical marker tracing the historical changes that have occurred in the character of the Missouri River. *Park at the J.J. Pershing Memorial .8 miles south of the I-680 Bridge.*

◆ **York.** Hydraulic concrete icon regarding the themes of slavery and the contributions of York to the Lewis & Clark Expedition, designed by Littleton Alston. *Located in Levi Carter Park near the fishing pier, between Locust Street and Carter Boulevard.*

◆ **A Panoramic Rendering of the Journey of Discovery.** Designed by John Mossman, marker interprets the expedition's encounters with Native American tribes and the challenging conditions that the Corps of Discovery had to overcome along the Missouri River. *Located at Miller's Landing near intersection of Abbott and Gallup Drives, Omaha, NE.*

◆ **Visionary Launch into the Horizontal World.** Stainless steel installation, designed by Susan Knight, highlights important events of the expedition. *Located across from the Lewis & Clark Landing west of the parking lot.*

◆ **Heartland of America Park.** Traces history of life along the Missouri River. *Located in Heartland of America Park at 8th and Douglas Streets, Omaha, NE.*

◆ **Discovery of Native Vegetation.** Designed by Kristin Pluhacek, this icon interprets the native plants that were discovered by the expedition on their journey up the Missouri River. *Located at Lauritzen Gardens, 100 Bancroft Street, Omaha, NE.*

◆ **Recording the Route.** Interprets methods used by the Expedition in recording the geography of the surrounding landscape. *Located halfway to the summit of Mandan Park, 6300 South 13th Street, Omaha, NE.*

◆ **Encountering Animals and Plants.** Exhibit on the plants and animal species discovered along the journey. *Located outside of the Buffett Learning Center, Fontenelle Association, 1111 North Bellevue Boulevard, Bellevue, NE.*

◆ **Children's Interpretive Art Wall.** The wall features almost 700 art tiles designed by children from 10 different states along the Lewis & Clark Trail, interpreting Missouri River trading and contacts with western Indians. *Hawthorn Park, Highway 370 & Payne Drive, Bellevue, NE.*

Attractions

● **Lewis & Clark Landing.** Near this site the expedition explored a series of mounds, composed of sand and earth that covered nearly 200 acres of land along the riverfront. These mounds are assumed to be the remains of earth lodges that once were home to the nearby Otoe Indian tribe. The present day Landing is a major open space and riverfront plaza and performance space, and an integral part of Omaha's redeveloped Riverfront. Paths and bridges connect the Landing to the Gene Leahy Mall, and continue north to Miller's Landing and eventually to Dodge Park and Boyer Chute National Wildlife Refuge. It is connected to the Council Bluffs Riverfront and trail system by the Bob Kerrey Pedestrian Bridge. *Located along Riverfront Drive, Omaha, NE.*



West Broadway Historic District



Bob Kerry Pedestrian Bridge, linking the Council Bluffs and Omaha Riverfronts.



Ruth Ann Dodge Memorial

NATURAL FEATURES AND TRAILS

Pottawattamie County

State Parks & Conservation Areas

Lake Manawa State Park. This 1,529 acre state park contains a 660 acre oxbow lake, the channel of the Missouri River during the time of the Lewis & Clark expedition. The park provides a popular beach, natural areas, camping, picnic shelters, and other facilities. The Lake Manawa Trail connects to the Wabash Trace Nature Trail, Western Historic Trails Center, Council Bluffs Sports Complex, and eventually to the Bob Kerrey Pedestrian Bridge. *Primary park access is from Shore Drive. (712) 366-0220.*

Wilson Island State Recreation Area. 547 acre, DNR property, (712) 642-2069. Missouri River bottomland and woodlands environments, with camping, showers, trailer dump station, cabin rental, hiking trails, river fishing, boat ramp, hunting in designated areas.

Boyer Bend. 81 acre, DNR property. Wooded environment, access by river only.

Hitchcock Nature Area. Pottawattamie County Conservation Board property with 1,003 acres of scenic Loess Hills environments. Facility includes an interpretive education center, hiking trails, camping, lodge available for rentals, observation tower. Access from L20 (old Lincoln Highway) north of Crescent.

Pigeon Creek. 110 acre, DNR property. Wooded environment, access by river only.

Narrows Park. 36 acres along Missouri River north of Council Bluffs. Facility provides drinking water, picnicking, hiking trails, and Missouri River access.

Smith WMA. 260 acre DNR property. Wildlife refuge with bird watching and hiking.

Blackbird Marsh. 14 acre habitat area.

Council Bluffs Trail Network

Valley View Trail. 3.2 miles from Iowa Western Community College along Valley View Drive to Iowa West Trailhead Park, trailhead for the Wabash Trace and Lake Manawa Trails.

Lake Manawa Trail. 5.4 miles between Iowa West Trailhead Park though Lake Manawa State Park, part of the Council Bluffs riverfront trail system.

Indian Creek Trail. 3.5 miles from Lake Manawa along Indian Creek to Sunset Park on 16th Avenue.

Western Historic Trail Center Link. 2.8 miles from Indian Creek Trail to the Iowa Riverfront Trail and Western Historic Trails Center via the Council Bluffs Recreation Complex to the Iowa Riverfront Trail.

Iowa Riverfront Trail. 7 miles, much of which is along the Missouri River levee, from the Western Historic Trails Center Link to Big Lake Park. Connects to Lewis & Clark Landing and Heartland of America Park via the Bob Kerrey Pedestrian Bridge.

Nebraska Resources

State Parks & Conservation Areas

Fort Atkinson State Historic Park. The first US military post west of the Missouri River, Fort Atkinson was established in 1820 on recommendation of the Lewis and Clark Expedition. Living history demonstrations are staged periodically at the fort during summer months. Park is located on the east side of Ft. Calhoun, Nebraska.

Boyer Chute National Wildlife Refuge. 3,350 acre National Wildlife Refuge comprised of floodplain woodland, tallgrass prairie, and wetlands environments. While largely protected habitat, Boyer Chute provides nature observation areas, hiking trails, and interpretive facilities. Also serves as the northern terminus of the Nebraska Riverfront Trail system, connected to Downtown Omaha when existing gaps are filled.

Omaha/Bellevue Trail Network

Omaha Riverfront Trail. 19 miles at completion from Downtown Omaha to Boyer Chute National Wildlife Refuge. Several gaps, requiring use of shared roadways or shoulders. Interpretive markers help interpret the Lewis and Clark story. Trail serves Downtown riverfront open spaces, including Lewis and Clark Landing, Heartland of America Park, and Miller's Landing.

Keystone/Bellevue Loop Trails. Longest continuous metropolitan region trail at 24.12 miles, currently connects Haworth Park along the Bellevue riverfront with Democracy Park at 90th and Fort in Northwest Omaha. Trail intersects Big Papio Trail to West Omaha, and the Field Club Trail with completion of the east-west Keystone East Trail.

Other Regional Trails. These facilities, which will eventually be interconnected and will provide a continuous link to Lincoln, Nebraska include the:

West Papio Trail, now extending from the Big Papio Trail at near 36th Street in the Twin Creek development to Walnut Lake Recreation Area in Papillion.

144th Street Trail, nearly complete along 144th Street from Standing Bear Lake to the Highway 31 Trail at the Platte River in Sarpy County. The Highway 31 Trail, currently under development, continues to the Lied Platte River Crossing, and will eventually continue to Lincoln along the MoPac East Trail.

Big Papio Trail. Approximately 10 miles between Hefflinger Park and Seymour L. Smith Park, connecting to the Keystone/Bellevue Loop system at Harrison and Q Streets.

Field Club Trail. 1.7 mile central Omaha facility between 40th and Leavenworth and the future Keystone East Trail.

Pottawattamie County

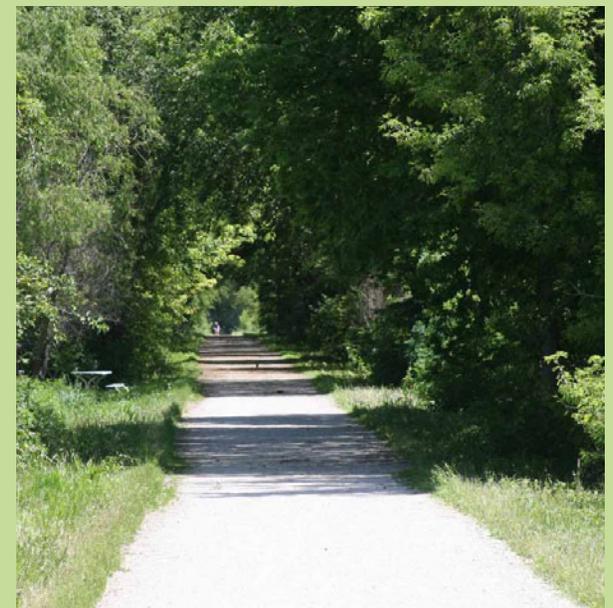
The Wabash Trace Nature Trail

Established in 1988 the Wabash Trace Nature Trail is a converted railroad right-of-way that runs for 60 miles to the Missouri/Iowa border at Blanchard. The trail is open year round to a variety of trail users including bicyclists, pedestrians, and equestrian enthusiasts.

Starting in Council Bluffs at the Iowa West Trailhead Park, the trail winds its way through the Loess Hills towards the community of Mineola. The Mineola Steakhouse here, has become a favorite stopping point for bicyclists. In part a Thursday night tradition has developed around the steakhouse, with bicyclist traveling to Mineola in droves for steakhouse's Thursday night dollar tacos.



Mineola Trailhead



Wabash Trail between Council Bluffs and Mineola

ATTRACTIONS & MUSEUMS

Pottawattamie County

● **Mid-America Center.** Council Bluff's premier convention center and arena, hosting a variety of major community events, concerts, and other programs. 1 Arena Way, Council Bluffs, IA; www.midamericacenter.com.

● **Union Pacific Railroad Museum.** Located in the historic Free Public Library building, featuring one of the oldest corporate collections in the nation, including artifacts, photographs and documents that trace the development of the railroad and the American West. The museum collection includes original editions of survey reports investigating the transcontinental railroad alignment, surveying equipment, early rail equipment, and construction artifacts among its many resources. 200 Pearl Street, Council Bluffs, IA.

● **Rails West Railroad Museum.** Operated by the Pottawattamie County Historical Society and housed in the historic Rock Island line depot. Includes displays of steam locomotives and railcars, historic exhibits, and the model railroad layout and exhibit of the Greater Omaha Society of Model Engineers. 16th Avenue and South Main, Council Bluffs, IA.

● **Squirrel Cage Jail Museum.** Operated by the Pottawattamie County Historical Society and housed in the historic Pottawattamie County Jail. Includes building tours and historical displays interpreting city history. 226 Pearl Street, Council Bluffs, IA.

● **Kanesville Tabernacle.** A replica of the log building where Brigham Young was sustained as president of The Church of Jesus Christ of Latter-day Saints. Includes a visitors center that provides information and exhibits about the Mormon westward migration. 222 E. Broadway, Council Bluffs, IA.

● **Westfair Amphitheater.** Large outdoor amphitheater outside of Council Bluffs, Iowa hosting national musical performances, and also special entertainment during the West Pottawattamie County Fair. 22984 Highway 6, Council Bluffs, IA; www.westfaireventes.com.

● **Casino District and Music Venues.** Three major casinos are located in an entertainment and attraction district along the Missouri Riverfront and adjacent to the Mid-America Center. All casinos include attached hotels and riverfront casinos are housed on a riverboat. Two casinos include significant music venues.

Ameristar Riverboat Casino.

Riverfront at 2200 River Road, Council Bluffs, IA.

● **Harrah's Council Bluffs Casino & Hotel.** Riverfront facility, also includes the Stir Cove amphitheater, a major outdoor concert venue. Riverfront at 1 Harrah's Boulevard, Council Bluffs, IA.

● **Horseshoe Casino.** Adjacent to the Mid-America Center, and includes Whiskey Roadhouse, a mid-sized concert venue. 2701 23rd Avenue, Council Bluffs, IA.

■ **The Art Gallery at Iowa Western Community College.** Gallery featuring the works of art students at Iowa Western Community College. New Student Center, 2700 College Road, Council Bluffs, IA.

● **Vineyards and Wineries.** Pottawattamie County has developed a significant group of family-owned vineyards and wineries devoted to making quality crafted wines in scenic rural settings. These attractions include:

● **Loess Hills Vineyard and Winery.** 1120 Old Lincoln Hwy, Crescent, IA.

● **Breezy Hills Vineyard.** 31735 Tamarack Rd, Minden, IA.

● **Prairie Crossing Vineyard.** 31506 Pioneer Trail, Treynor, IA.

Nebraska Resources

■ **Joslyn Art Museum.** Joslyn, Nebraska's largest art museum, includes an extensive collection that features work from antiquity to the present, with an emphasis on 19th- and 20th-century European and American art. The collection features European and American masterworks, along with a renowned collection of Western art. The building includes the original Art Deco buildings and an addition by Sir Norman Foster. 2200 Dodge Street, Omaha, NE.

■ **Durham Museum.** The Durham Museum, located in the historic Union Station, features permanent exhibits that highlight the history of Omaha and its surrounding regions, and hosts a broad variety of traveling exhibitions from national partners such as the Smithsonian Institution, the National Archives, the Library of Congress and the Field Museum. The Durham includes an extensive walk-through exhibit of rail passenger cars as well as interpretation of the history of Omaha. 801 S. 10th Street, Omaha, NE.

■ **Florence Mill.** The mill was originally constructed as the Winter Quarters for the Mormon Church, under the supervision of Brigham Young in 1846. The mill remained operational until the middle of the 20th century and today is being restored as a historic site with a museum and art gallery. 9102 North 30th Street, Omaha, NE; (402) 551-1233.

▲ **Artists Cooperative Gallery.** Member operated fine art gallery, with artists volunteering time to staff the gallery and operate the business. 405 South 11th Street, Omaha, NE; (402) 342-9617.

■ **Bellevue University Art Gallery.** Located on Bellevue University's main campus, the gallery primarily features student exhibits. Galvin Road & Harvell Drive, Bellevue, NE.

▲ **Hot Shops Art Gallery.** The Art Center, which opened in 1999 includes for "hot shop" anchor studios that use forges, welders and kilns, 50 art studios, for art galleries, and many exhibition spaces in an old mattress factory north of Downtown Omaha. 1301 Nicholas Street, Omaha, NE; (402) 342-6452.

▲ **Omaha Clayworks.** Multi-purpose facility offering classes, studio space, and a sales gallery featuring area artists. 1114 Jones Street, Omaha, NE; (402) 346-0560.

■ **Kaneko Center.** Internationally acclaimed artist Jun Kaneko has been working with community leaders to create a cultural institution that will combine the arts, sciences and philosophy. The center includes gallery space, a library, as well as a variety of programming spaces. 1111 Jones Street, Omaha, NE; (402) 341-3800.

■ **Las Artes Cultural Center.** Showcases the arts and cultural heritage of Central and South America. 3702 South 16th Street, Omaha, NE; (402) 651-9918.

■ **El Museo Latino.** The first Latino art & history museum and cultural center in the Midwest, housed in the former Polish Home in South Omaha, and one of only eleven Latino museums in the United States. The museum includes significant exhibits of Latino art and culture, and associated educational programs such as lectures, slide presentations, films, art classes, workshops, demonstrations, art history classes, gallery talks, guided visits, and dance classes. 4701 S. 25th Street, Omaha, NE.

■ **Love's Jazz and Arts Center.** Non-profit organization committed to the Arts through exhibition, collection, documentation, preservation, study and the dissemination of the history and culture of African Americans in the Arts. 2510 North 24th Street, Omaha, NE; (402) 502-5291.

▲ **Passageway Gallery.** An artists cooperative gallery, featuring works in oil, acrylic, pastel, stained glass, woodcarving, sculpture, pottery, and cast paper. 417 South 11th Street, Omaha, NE; (402) 341-1910.

■ **Bemis Center.** Aside from studio spaces and living accommodations for artists, this landmark in the Omaha arts community features 20 “cutting-edge” exhibitions annually in its three main galleries. 724 South 12th Street, Omaha, NE; (402) 341-7130.

LODGING & DINING

The Council Bluffs/Omaha metropolitan area provides a rich variety of lodging and dining opportunities. Outside of the immediate metropolitan area, lodging and dining facilities are available in or near the following communities:

Lodging

● **Underwood, Iowa**

Bed & Breakfast

● **Big Grove Country Inn.**

18807 450th Street, Oakland, Iowa; (712) 482-6840.

● **Crescent View Bed & Breakfast.**

Crescent, Iowa; (712) 227-0051.

Dining

■ **Crescent, Iowa.** (multiple facilities)

■ **Underwood, Iowa**

■ **Mineola, Iowa**



Lewis & Clark Monument Plaza



View of the Omaha skyline from the Monument

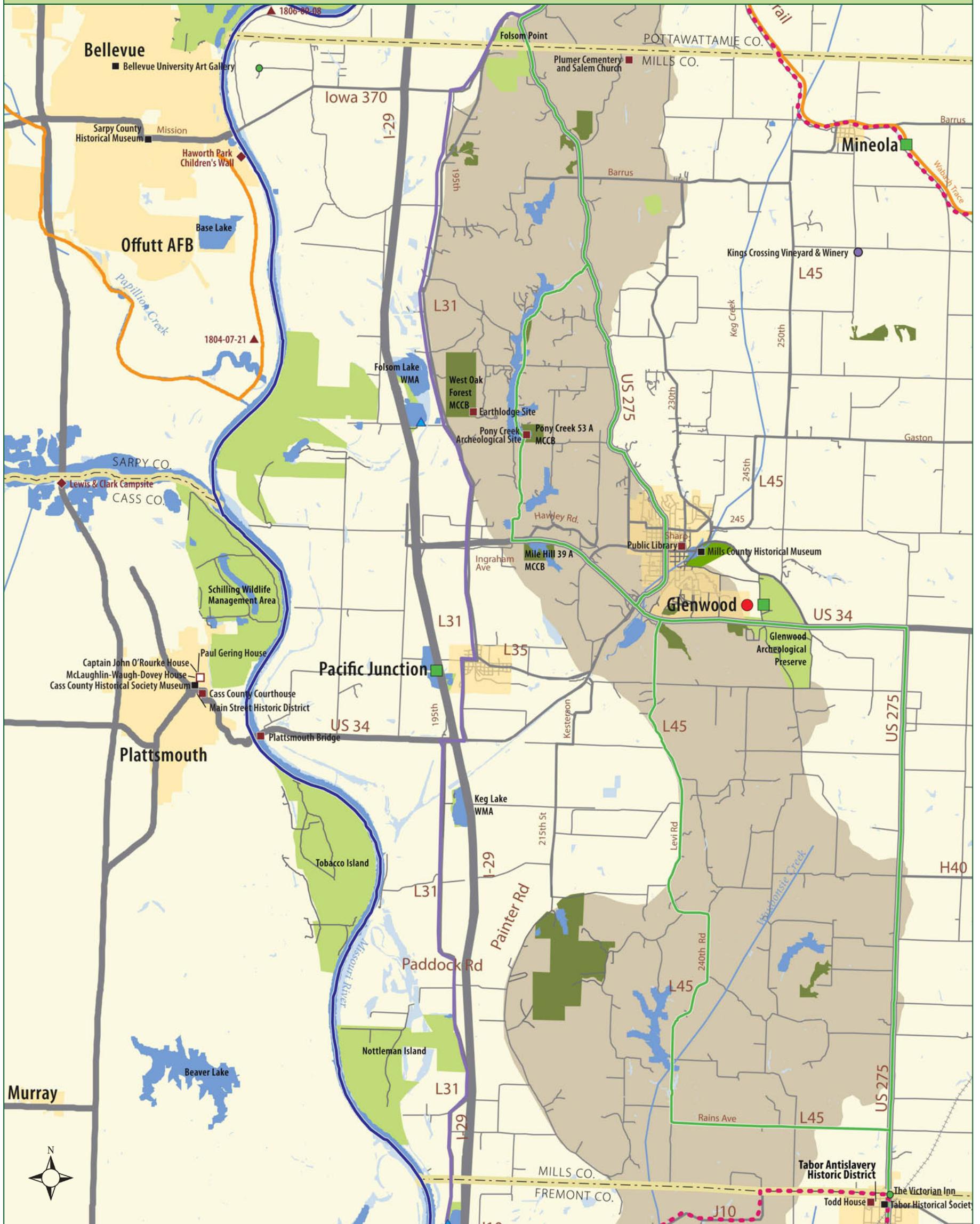
Lewis & Clark Monument

1804, “We passed a bluff on the S.S side... the first high land above the Nodaway rivelet...” The expedition passed the Nodaway twenty days earlier on July 8, 1804. The monument in Council Bluffs was funded by the Colonial Dames of America in 1935. This monument depicts in two large cement wall panels the anticipation of the coming council meeting with the Otoe and Missouri Indians at the expedition’s camp site. The city park offers the visitor the monument, an interpretive sign, the high wooded bluffs similar to the 1804 setting, foot trails, picnic tables, and a grand view of the Missouri River Valley.

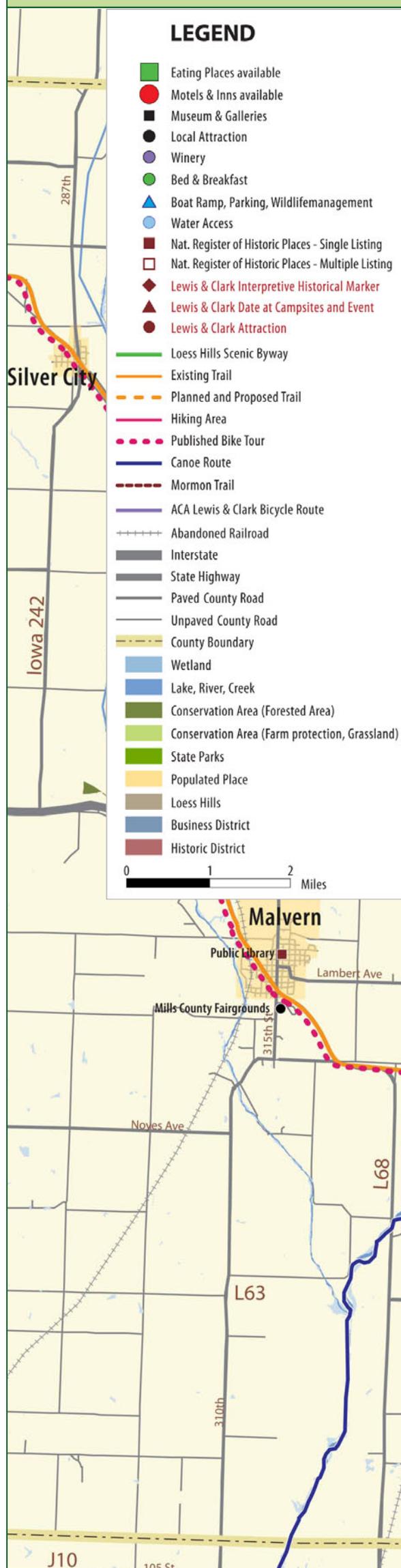
Although this memorial is located in Iowa within the present-day Council Bluffs city limits, the actual site of the “Council bluff” noted by Lewis and Clark is a few miles to the north on the Nebraska side of the Missouri River.

There are three other campsites located within the boundary of Pottawattamie County dating from July 27, 28 and 29, 1804. These campsites are located north of Council Bluffs and are not currently marked with any signs.

MILLS COUNTY - North & South



MILLS COUNTY - North & South



HISTORIC RESOURCES

Mills County

Public Library - Malvern.

502 Main Street, Malvern, IA.

Public Library - Glenwood.

109 North Vine Street, Glenwood, IA.

Pony Creek Park Archeological Site. Located to the northwest of Glenwood, within the Pony Creek Park Recreational Area is the site of two "Nebraska" phase earthen lodges. The 83-acre park also includes woods, a camping area, virgin prairie, and a viewing area for the local loess topography.

56235 Deacon Road, North of Glenwood, IA.

Plattsmouth Bridge (NRHP site). 1930s vintage truss bridge on US 34 over the Missouri River. Permits bicycle access to Plattsmouth Nebraska's Main Street historic district.

Earthen lodge Site - West Oak Forest (NRHP site). West of 202nd Street, north of Forest Avenue.

Plumer Cemetery and Salem Lutheran Church. Located on US Highway 275 just south of the Pottawattamie county line, the church was built in 1867 by German immigrants. Today the Salem Lutheran Church is one of the oldest surviving churches in Western Iowa.

Nebraska Resources

Plattsmouth Main Street Historic District (NRHP District).

This district includes 45 late nineteenth and early twentieth century buildings located along the Main Street in Plattsmouth. The district is composed primarily of two-story masonry buildings in the Italianate style. Located along Main Street between 3rd and 7th Streets.

Cass County Courthouse (NRHP site). Cass County was among the first counties organized in Nebraska Territory, and Plattsmouth, located on the Missouri River, was one of four towns established in 1854. Because of its early establishment and prosperity Plattsmouth became the county seat, however, by the 1880s increased settlement throughout the county brought calls for a more centrally located county seat. Plattsmouth countered opposition efforts by securing passage of a bond issue for a new courthouse. They hoped a new and costly courthouse would lessen the chance that the county seat would be moved. The courthouse constructed in 1891-92 is in the Romanesque Revival style and retains a high degree of its original integrity.

Address: Main Street between 3rd and 4th Streets, Plattsmouth, NE.

McLaughlin-Waugh-Dovey House (NRHP site). Built in 1883 for A.W. McLaughlin, an early cashier of the First National Bank in Plattsmouth. The property served as the home for succeeding cashiers of the bank (Samuel Waugh, Horatio Dovey) for nearly 45 years and became known as the "Banker's House."

Address: 414 B Avenue, Plattsmouth, NE.

Paul Gering House (NRHP site). Constructed in 1896, this two-and-one-half story wood frame structure designed in the Colonial Revival style retains a high degree of historical integrity.

Captain John O'Rourke House (NRHP site). An example of the Italianate style, this house was constructed for Captain John O'Rourke in 1881. O'Rourke was a tireless community booster and was intimately involved with decisions that helped to insure the Plattsmouth would grow into a modern city.

LEWIS & CLARK

Nebraska Resources

Campsites

▲ July 1804 Campsite.

Located along the Platte River at US 75 and Beach Road.

NATURAL FEATURES & TRAILS

Mills County

Keg Lake WMA. 104 acre, DNR, hunting, shallow lake, fishing, waterfowl.

Nottleman Island. 1,228 acre wildlife area with river access, shallow marsh, uplands, waterfowl, deer, pheasant, quail, hunting.

Scott WMA. 80 acres, DNR. Small lakes, fishing, upland, hunting, waterfowl, deer.

Folsom Point. 281 acre Loess Hills prairie nature preserve.

Folsom Lake WMA. 100 acre, DNR. Hunting, deep lake, fishing, waterfowl.

Schilling State WMA - Nebraska

West Oak WMA. 308 acre county conservation board property. Loess hills, hiking trails.

Pony Creek WMA. 53 acres, camping, electricity, drinking water, pit toilets, picnicking, playground, hiking trails, 82 acre pond fishing.

Glenwood Archeological Preserve.

Mile Hill Lake. 39 acres wildlife area with 10 acre scenic overlook, interpretive panels, fishing pond, hunting.

Wabash Trace Nature Trail. (See insert for Pottawattamie County) The Wabash Trace begins its 63 mile journey to Blanchard from Council Bluffs and continues north and south across Mills county. On its way, it passes through Mineola, home of the popular Taco Night ride, Silver City and Malvern. In addition to hiking, bicycling, and cross country skiing, the Trace includes a parallel equestrian path from Council Bluffs to Mineola.

ATTRACTIONS & MUSEUMS

Mills County

● **Mills County Historical Museum.** Located in Glenwood Lake Park in Glenwood, developed along the Davies Amphitheater. The museum includes a variety of exhibits, including Native American artifacts, furniture, historical items relating to the history of the area, trucks and farm machinery, and a cluster of historical structures collected from the region. These include a country schoolhouse, the Henderson jail, a Burlington Northern caboose, and a reconstructed barn.

● **Mills County Fair.** The Fairgrounds, located in Malvern hosts the annual county fair in mid-July.

● **Kings Crossing Vineyard & Winery.** Kings Crossing Vineyard features over a dozen different wines handcrafted from 100% Iowa grown grapes. This family-owned winery is located in Glenwood, Iowa, and their wines can be found at a number of establishments throughout western and central Iowa. The winery is opened year round, although business hours change during the winter months. 53086 260th St, Glenwood, IA; (712) 526-2873.

Nebraska Resources

▲ **Cass County Historical Museum.** Includes exhibits on the role of transportation in the county's growth, focusing on steamboats, railroads, and automobile transportation. Also includes exhibits on religious, cultural, and economic life in the county. 646 Main Street, Plattsmouth, NE.

LODGING & DINING

This guide provides information only on those facilities located outside of the metropolitan areas of Omaha/Council Bluffs and Sioux City. Phone numbers are listed (if available) with each entry. Please call ahead to confirm dates, hours and rates before making travel plans.

Lodging

- Pacific Junction
- Glenwood

Dining

- Mineola
- Silver City
- Glenwood. (multiple listings)
- Pacific Junction



Salem Church



Plumer Cemetery, final resting spot for many of the church's early congregants.

Salem Lutheran Church

The Mother Church

The Salem Lutheran Church nestled in a wooded highland area of the Loess Hills, just off of US 275 is one of the oldest existing structures in Western Iowa. Constructed in 1867, the church was located on land that was once part of the Johann Plumer settlement. Lutheran services and bible study courses were initially held within the Plumer family home, prior to the organization of the church.

Johann Plumer and his wife Sophia Saar-Plumer were influential members of the regions German-Lutheran community. In 1866 they donated a portion of their property for the construction of the Salem Church and Cemetery, as well as \$1,000 for materials. In total the church cost \$3,500 to construct, and was built in part with timber from surrounding glens, and bricks that were fired on site.

In 1880 the church the Western District of the Iowa Synod was organized at the Salem Church. From this meeting for than 100 parish churches throughout Western Iowa were founded, including the parish churches located in nearby Mineola and Treynor. It is from this meeting that the Salem Church became known as the "Mother Church".

In 1933 with the church's congregation dwindling the church was closed, and sat empty and neglected for the next twenty years. In 1956 after the church was nearly lost to fire, donations were raised by neighboring parishes to restore the structure.

Today the Salem Church has been restored to its former glory. The church is open to the public on Memorial Day for a memorial service honoring the settlers who founded the parish in 1867.



Archeological Preserve & Nature Area



The Mills County Historical Society Museum, is open weekdays and by appointment.



Pony Creek State Conservation Park



Reconstruction of a Glenwood Society Earthen Lodge



Pony Creek State Conservation Park

Mills County Historical Museum

Visions of a lost world

More than a ten thousand years ago a series earthen lodge settlements were founded in the Loess Hills by what archeologists refer to as the Glenwood and Mill Creek Societies. These settlements were based on agricultural economies that traded with other Native American societies located as far east as the Mississippi River. While these settlements flourished for thousands of years, by the time Lewis and Clark entered the region in 1804 these settlements had all but vanished.

Nowhere in the region is the concentration of these prehistoric dwellings denser than in the Loess Hills at the confluence of the Plate and Missouri Rivers near the town of Glenwood. These settlements were dispersed and unfortified, dotting the hilltops and valleys of the Pony and Keg Creeks. So far more than

a 1,000 earthen lodge settlements have been cataloged. Not only is the sheer number of settlements unprecedented, but also are the well-preserved layouts of dwellings and agricultural fields that offer clues to how the people of these societies lived, worked and interacted.

The Pony Creek Park Archeological Site allows visitors to experience the natural environment in which these prehistoric settlements existed along Pony Creek. In order to experience how members of these societies lived, travel to the Mills County Historical Museum, located in Glenwood Lake Park. The museum houses a number of artifacts that had been recovered during the construction of US 34. In addition, located outside of the museum is a full-size replica of a Glenwood phase earthen lodge that was constructed in 2006 in cooperation with Golden Hills RC&D.

FREMONT COUNTY - North

HISTORIC RESOURCES

Fremont County

■ **Hamburg Public Library (NRHP site).** A colonial revival building built early in the 20th century. *1301 Main Street, Hamburg, IA.*

■ **Chautauqua Pavilion.** The Chautauqua movement grew out of summer Sunday School institutes that were held throughout the United States by the Methodist Episcopal Church. The education offered at these institutes was both secular and religious, and even included live performances. Institutes were initially held in tents, but over time many communities constructed permanent pavilions, shaped like the tents that were initially used. The pavilion in Riverton is one of the few of its kind extant in Iowa. *Located in City Park on Summer Avenue, between E and F Streets, Riverton, IA.*

■ **Fremont County Courthouse (NRHP site).** Constructed in 1889, the Fremont County Courthouse is an example of Chateausque and Romanesque revival architecture. *Cass and Illinois Streets, Sidney, IA.*

■ **Todd House (NRHP site).** Built in 1853 by the Reverend John Todd, one of the founders of the community of Tabor, and a supporter of John Brown and the Kansas Free State Movement. *Park Street, between Elm and Orange Streets, Tabor, IA.*

■ **Tabor Antislavery Historic District (NRHP district).** *Park, Center, Orange, and Elm, Tabor, Iowa.*

■ **Rector House (NRHP site).** Greek Revival residence built in the mid-19th Century by Jason Rector. *2174 Bluff Road, Thurman, IA.*

Nebraska Resources

■ **Boscobel (NRHP site).** Located along the historic Steam Wagon Road, the two-story brick Italianate dwelling was built in 1879 for the prominent Nebraska City freighter and businessman Rollin M. Rolfe. Rolfe became the first wholesale “jobber” south of the Platte River and was instrumental in developing a direct route from Nebraska City to Fort Kearney. *Located North of Nebraska City on Steamwagon Road.*

■ **Arbor Lodge State Historical Park.** Home of J. Sterling Morton, the founder of the national Arbor Day movement, the original house was built in 1855. In 1903 Morton’s son Joy converted the house to the three-story, fifty-two room, Neoclassical Revival mansion of today. As a pioneer Nebraska journalist, politician, and leader in horticulture and conservation, J. Sterling Morton served as secretary of agriculture under President Grover Cleveland in 1893. *Located near Nebraska City the home and grounds were donated to the State of Nebraska in 1923, and is now a state historical park and museum.*

■ **Nebraska City Historic District.** The 58 square block Nebraska City Historic District is a major residential neighborhood and commercial district that had its beginnings in the 1850s. The historic district contains excellent examples of architectural styles popular during the mid to late nineteenth and early twentieth centuries including Greek Revival, Gothic Revival, Italianate, Queen Anne, Shingle, and Georgian Revival. These houses were occupied by some of Nebraska city’s most prominent residents including George and Robert Hawke, Alexander Majors, Williams Fulton, and Robert Payne, who were involved in commercial and freighting ventures. The district also includes a small commercial area along Central Avenue (Old Main Street). The earliest business activities of the city were concentrated along Central Avenue, which connected the Missouri River and what came to be known as Steam Wagon Road. The two-story masonry commercial buildings, which date from the 1870s and 1880s, replaced earlier structures, many of which were destroyed by fires in the 1870s.

■ **South Thirteenth Street Historic District (NRHP district).** A nine and one-half square block district of residential and industrial buildings in southwest Nebraska City, associated with some of the city’s leading business, professional, and political figures

■ **South Nebraska City Historic District (NRHP district).** A nine square block area with 90 structures most of which are homes. A good example of a nineteenth century, moderate-income neighborhood displaying various architectural styles. The Taylor-Wessel House, a one-story brick dwelling built in 1857 for William H. Taylor, is one of the state’s oldest buildings. The largest building in the district is the First Baptist Church, a simplified Romanesque Revival structure built in 1884-85 and designed by Omaha architects Fisher and Lawrie.

■ **Morton-James Public Library.** Erected in 1896-97 and designed in a simplified Richardsonian Romanesque style by the Omaha architectural firm of Fisher and Lawrie, the library was established with the financial assistance of J. Sterling Morton. *Located at the intersection of 1st Corso and S 10th Street, Nebraska City, NE.*

■ **Otoe County Courthouse.** Designed by A.G. Basset, the Otoe County Courthouse is an example of mid-nineteenth century Italianate style governmental architecture. The original two-story brick structure was completed in 1865 with additions being made in 1882 and 1936. The Otoe County Courthouse is the oldest public building in Nebraska still in use. *Central Avenue between 11th and 10th Streets, Nebraska City, NE.*

■ **Grand Army of the Republic Memorial Hall.** The Grand Army of the Republic (GAR), formed in 1866 as a nationwide movement composed of Union veterans of the Civil War. Aside from the political influence it wielded, the association worked to increase patriotism, and provided an environment of fraternity and comradeship for its members. While other halls still exist in the state, most are on second floors of commercial buildings. The Nebraska City GAR Memorial Hall, constructed in 1894 in the Richardsonian Romanesque style is one of only three free-standing halls in the state. *1st Corso between 9th and 10th Streets, Nebraska City, NE.*

■ **Kregel Wind Mill Company Building.** The Kregel Wind Mill Company began selling windmills in the Nebraska City area in 1890. This 1905 vintage building, developed as a museum, remains completely intact with equipment and parts appearing as they probably did when the firm was in operation.

■ **Jasper A Ware House (NRHP site).** Jasper Ware is noted for opening one of the first private banks in Nebraska Territory in 1859 and was city treasurer from 1864 to 1867. The property, located near Nebraska City includes the 1869 brick dwelling, constructed in the Gothic Revival style and several outbuildings. Commonly known as Wildwood Center, the property is now a museum. *Steinhart Park Road, Nebraska City, NE.*

■ **US Post Office (NRHP site).** Completed in 1889, the Nebraska City Post Office was designed in 1886 under the direction of W.E. Bell, supervising architect for the U.S. Treasury. The two-story brick structure combines elements of the Chateausque and Romanesque revival styles. *Located at the intersection of 1st Corso and S. 8th Street, Nebraska City, NE.*

■ **Nebraska City Burlington Railroad Depot (NRHP site).** Built by the Burlington Railroad Company in 1912 in response to community pressure to build a proper gateway to the city.

LEWIS & CLARK HERITAGE SITES

Fremont County

Attractions

● **Waubonsie State Park.** Upon entering Iowa Clark described in his journal the region as a “Ball pated prairie”. Today the Loess Hills are heavily wooded with only a few remnants of the original prairie that was seen by the expedition still exists. Waubonsie State Park contains portions of native prairie, along its many miles of trails. *To visit Waubonsie, exit east of I-29 at Exit 10 onto Iowa 2 and travel five miles east to the park entrance; (712)-382-2786.*

Campsites

▲ **July 18th 1804.** Pasture and woodland area at the end of MM Road, seven miles northwest of Hamburg, Iowa.

▲ **July 19th 1804.** Located at Copeland Bend Wildlife Management Area, off of 225th Street on the Iowa side of the Missouri River, four miles north of Nebraska City.

Nebraska Resources

Attractions

● **Lewis & Clark Interpretive Trail and Visitor Center.** This 12,000 square foot interpretive center focuses on the 178 flora and 222 fauna and scientific discoveries of the Lewis & Clark voyage. The center also features a life size replica of the expeditions keelboat. *102 County Road 67, Nebraska City, NE; (402)874-9900.*

Campsites

▲ **July 20th 1804 .** Located in a field along the banks of the Missouri River, 1.5 miles south of Wa Con-Da Lake on the Nebraska side.

NATURAL FEATURES & TRAILS

Fremont County

Bartlett Lake. 57 acre, DNR. Uplands, small lakes, hunting, waterfowl

Waubonsie State Park. 1,247 acres, DNR (712) 382-2786. Modern camping (22 electric campsites, 73 non-electric campsites), hiking and bridle trails, biking, snowmobile, picnicking.

Forney Lake. 1,128 acre DNR. Shallow marsh, uplands, hunting, waterfowl, pheasant, deer, quail, turkey.

Green Hollow Wildlife Area. 343 acre, DNR. Upland timber and grassland. Hunting, deer, turkey and squirrel.

Pinky’s Glen. 48 acres with camping, drinking water, pit toilets, picnicking, 15 acres pond fishing, winter sports.

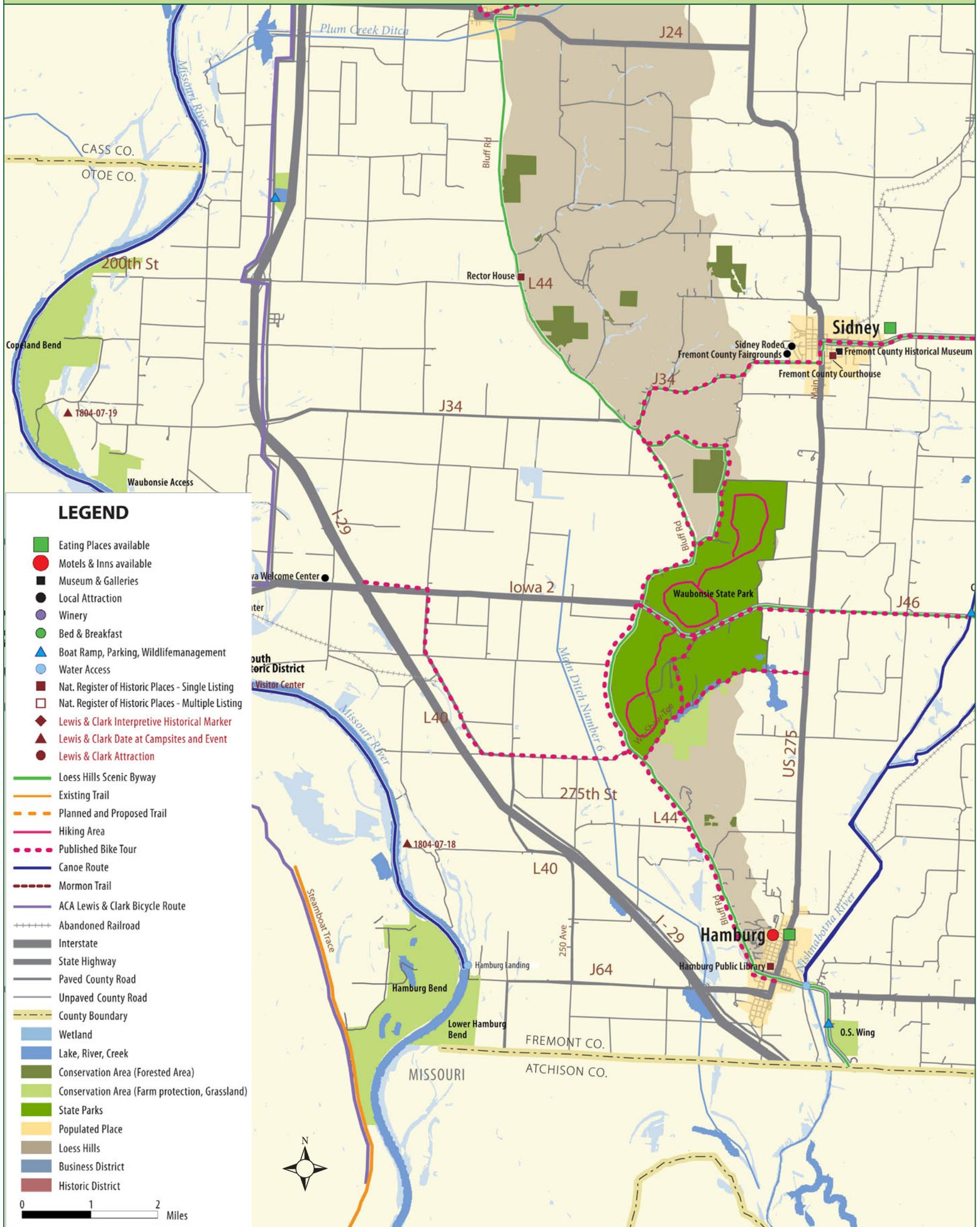
McPaul WMA. 166 acre, DNR. Small fishing lakes and uplands, hunting, waterfowl, pheasant.

Lake Shawtee. 891 acre, DNR. Uplands, hunting, pheasant, quail, rabbit, deer. Future lake site.

Copeland Bend. 1,482 acre, DNR. Missouri River, upland & timber, deer, squirrel, pheasant, waterfowl, fishing, hunting. Part of this area is only accessible from the river.

Waubonsie Access. 81 acre, DNR. Missouri River access, small lake, fishing, timber, hunting, uplands, waterfowl, rabbit.

FREMONT COUNTY - South



FREMONT COUNTY - South



Sidney Recreation Area. 150 acres with drinking water, flush toilets, picnicking, cross-country ski trails, golf, winter sports

Riverton Wildlife Management Area. 2,720 acre, DNR, shallow marsh, upland, hunting, waterfowl, pheasant, deer, quail. East Nishnabotna River access, boat ramp, fishing.

Hamburg-Mitchell Access. 2 acre DNR site with river fishing and boat ramp.

Lower Hamburg Bend Wildlife Management Area. 260 acre, DNR. Missouri River timber, deer, rabbit, hunting.

O.S Wing Wildlife Management Area. 140 acre, DNR. Uplands, timber, hunting, deer, squirrel, turkey.

Frazers Island.

Nebraska Resources

Hamburg Bend.

Steamboat Trail. A 21-mile rail-trail between Nebraska City and the historic village of Brownville. The trail provides access to areas along the Missouri River that cannot be otherwise experienced and literally replicates parts of the Lewis and Clark passage. The Steamboat Trace is the preferred route of Adventure Cycling Association's Lewis and Clark Bicycle Trail.

ATTRACTIONS & MUSEUMS

Fremont County

● **Sidney Rodeo Grounds.** One of the nation's leading rodeo facilities and home to the annual Sidney Rodeo, an Iowa Sesquicentennial Event. The rodeo grounds features parking, new pens and gates, hospital facilities, concessions, flea market, carnival and covered concrete grandstands. The Sidney Iowa Rodeo ranks in the top 12% of the nearly 800 rodeos approved by the Professional Rodeo Cowboys Association.

● **Fremont County Fair.** Held annually in mid-July. Sidney, IA.

● **Sugar Clay Winery & Vineyard.** Visitors will find Sugar Clay tucked into the rural Loess Hills among cedar trees and wildlife just northwest of Thurman, Iowa. The winery hosts a number of events year round, and is now a licensed food establishment offering light fare most weekends. Owners Frank and Amy Faust offer complimentary tastings of their handcrafted wines and invite visitors to stay and take in a true Loess Hills Wine Country experience. Sugar Clay wines can also be found at a number of retail locations within the Omaha area. 1446 240th Ave, Thurman, IA; (712)628-2020.

Nebraska Resources

● **Arbor Day Farm and Lied Lodge.** A unique attraction developed by the National Arbor Day Foundation interprets arborism and sustainability for people of all ages. It includes a 50-foot high tree house, the Nature Explore Classroom, an interpretive Tree House Trail; films, and rides. The Apple House Market features the area's largest selection of orchard-fresh apples, and other seasonal produce, as well as wines and jams made from fruit grown on Arbor Day Farm. 2611 Arbor Avenue, Nebraska City, NE.

■ **Nebraska City Museums.** Nebraska City features an unusual collection of community museums and attractions that provide visitors with a variety of experiences. Some of these include:

■ **Museum of Firefighting.** A new museum interpreting the history of first responders in Nebraska City. 1320 Central Avenue, Nebraska City, NE

■ **River Country Nature Center.** Displays of specimens of flora and fauna in the region. 114 S. 6th Street, Nebraska City, NE.

■ **Kimmel-Harding-Nelson Art Center.** The center supports established and emerging writers, visual artists and composers by providing working and living environments that allow uninterrupted time for work, reflection and creative growth. In addition to living and studio space, the center also houses a gallery that features exhibitions by regional visual artists, and features periodic public talks and performances by resident artists. 801 Third Corso, Nebraska City, NE.

■ **Mayhew Cabin and Historical Village.** Once part of the Underground Railroad, the Mayhews were staunch supporters of the abolition of slavery before and during the Civil War. 2012 4th Corso, Nebraska City, NE

LODGING & DINING

This guide provides information only on those facilities located outside of the metropolitan areas of Omaha/Council Bluffs and Sioux City. Phone numbers are listed (if available) with each entry. Please call ahead to confirm dates, hours and rates before making travel plans.

Lodging

- **Hamburg, Iowa.**
- **Percival, Iowa.** (multiple listings)
- **Shenandoah, Iowa.** (multiple listings)

Dining

- **Tabor, Iowa.** (multiple listings)
- **Imogene, Iowa.**
- **Essex, Iowa.**
- **Shenandoah, Iowa.** (multiple listings)
- **Sidney, Iowa.** (multiple listings)
- **Thurman, Iowa.**
- **Riverton, Iowa.**
- **Percival, Iowa.**
- **Hamburg, Iowa.** (multiple listings)

Lewis & Clark Features

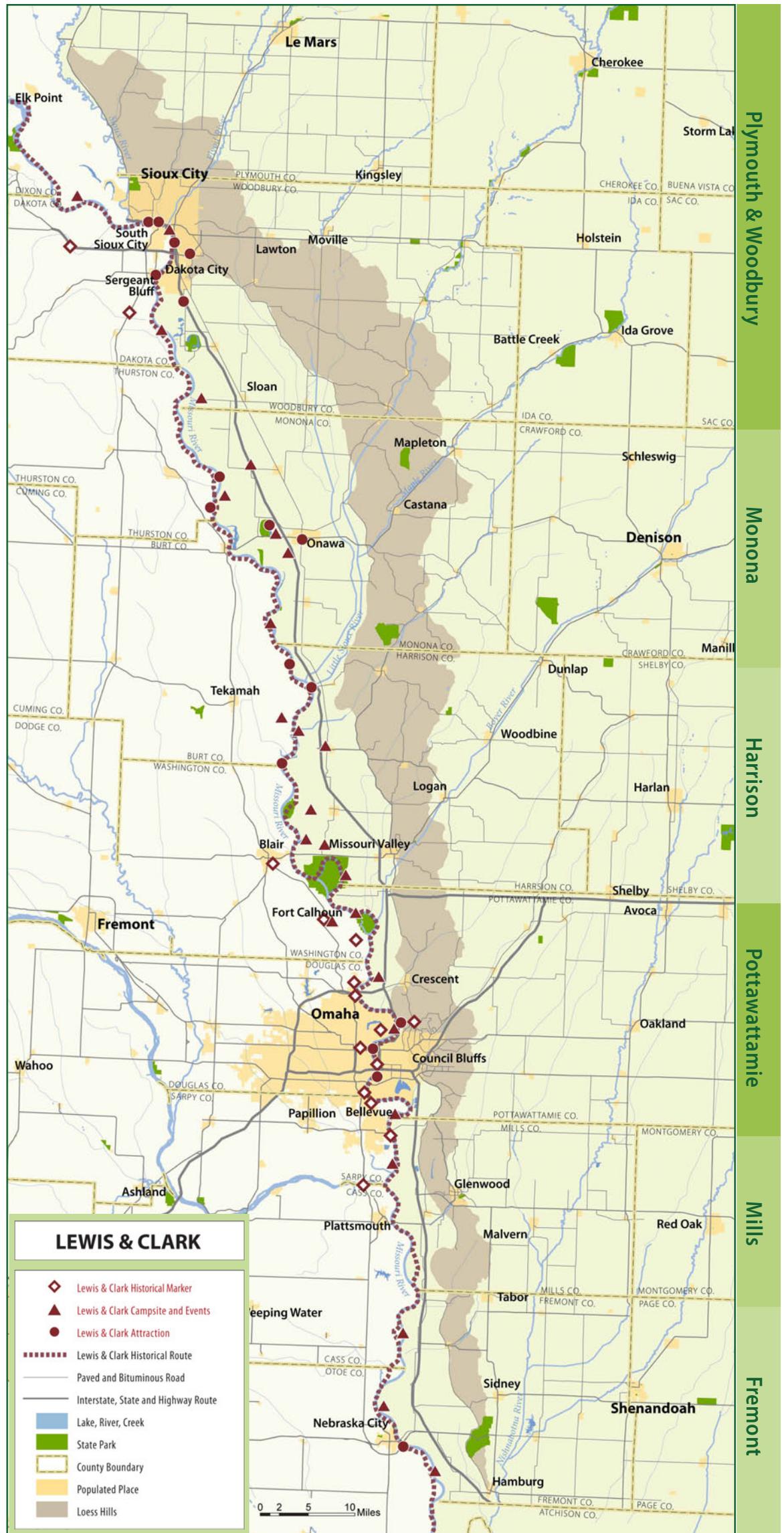
Today, many of the native environments that Lewis and Clark recorded in their journals have been lost to the forces that their expedition set in motion. It is difficult today to imagine what the region looked like before westward settlement. However, through the monuments and sites associated with their journey, it is still possible for us to gain an understanding of the worlds that they experienced on their journey.

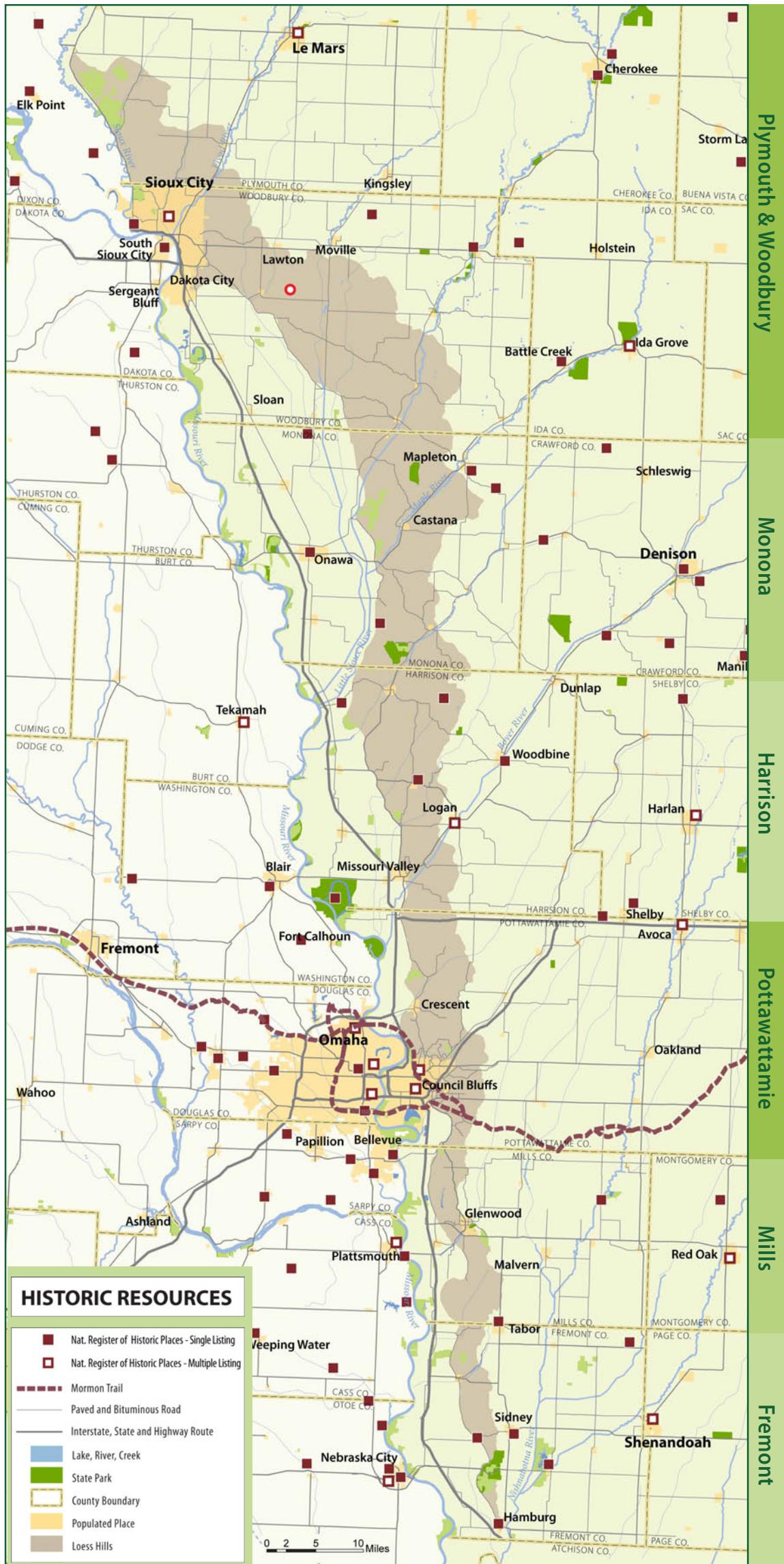
This atlas provides an overview of the historical sites that are associated with Lewis and Clark, and the Corps of Discovery. In addition, the numerous museums and attractions that have been developed over the years, celebrate the accomplishments of their journey, and educate us about their extraordinary mission.

The map at right displays the general distribution of Lewis and Clark related features. In addition to helping determine trail routing, they give a general ideal of the shifting channel of the Missouri River.



"Spirit of Discovery"





Other Historic Resources

More often than not the story of our communities is shared through the structures that we build and choose to save for future generations. The map at left shows the overall distribution of sites and districts listed on the National Register of Historic Places in the LCT study area.



Lewis & Clark Monument Plaza

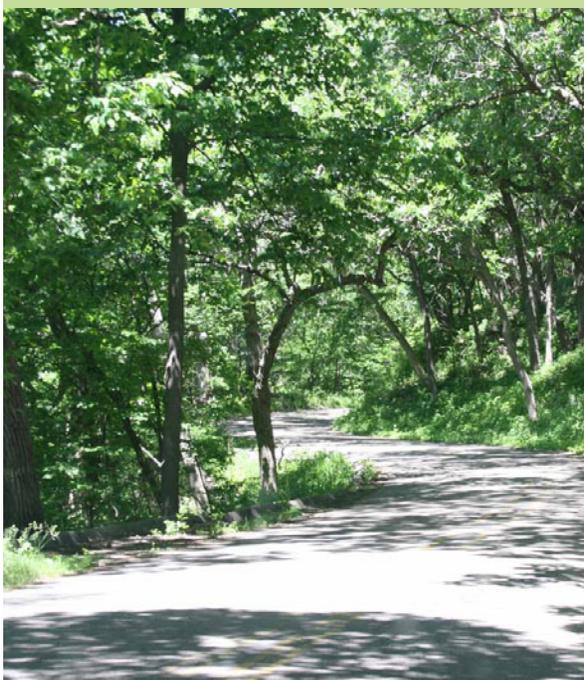
Natural Features & Trails

The Missouri River corridor in the time of Lewis and Clark was a vast tallgrass prairie, home to numerous Native American tribes. While largely devoid of trees, the region boasted a rich variety of flora and fauna as yet undiscovered by western explorers. Today the “ball pated” prairies described by Lewis and Clark are gone, replaced by farmland, and dense woodlands.

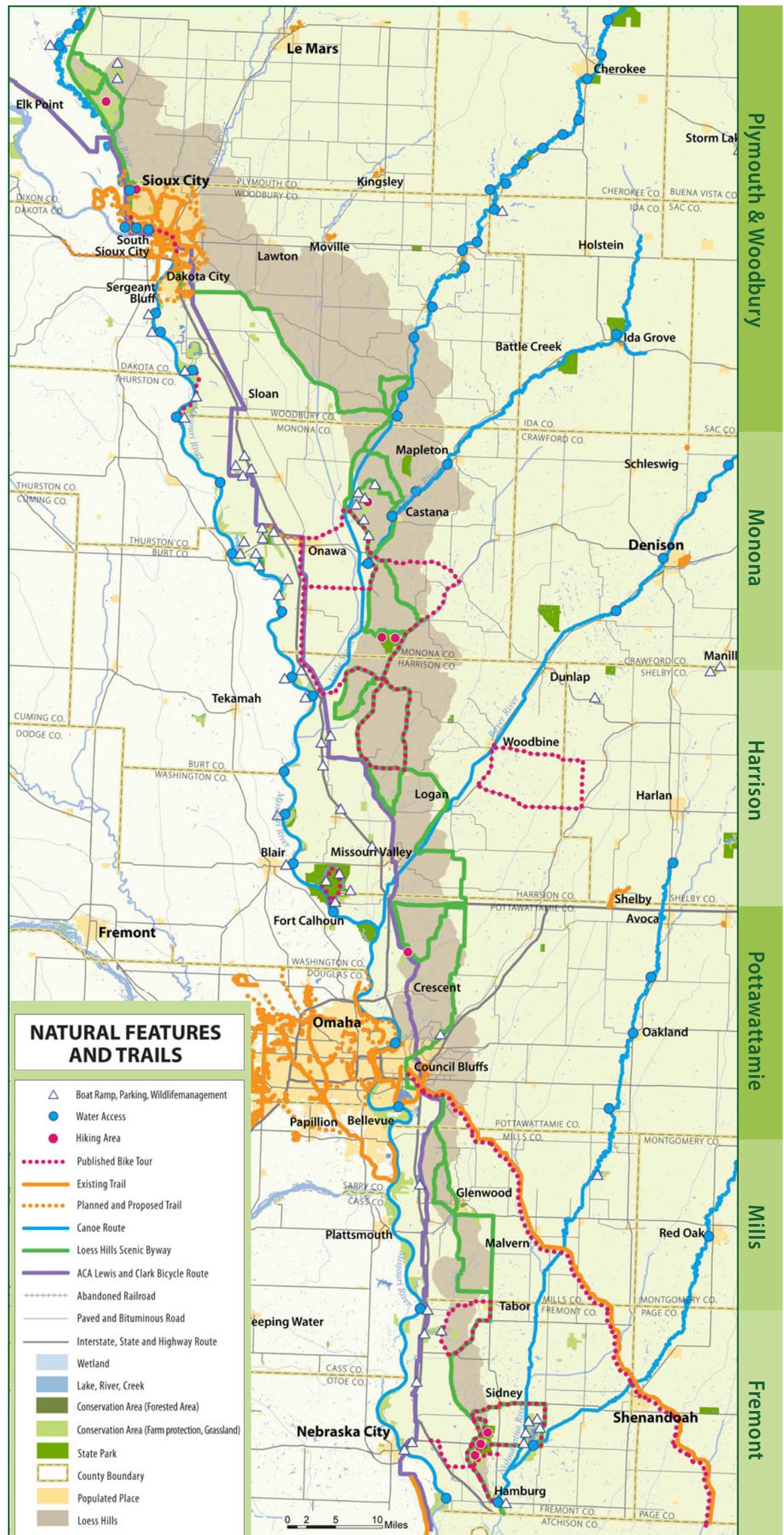
Today, the region is enriched by a series of state parks, wildlife management areas, and national wildlife refuges that preserve many of the environments seen by the expedition. The Loess Hills for years were unappreciated as a valuable natural resource, are today experiencing a renaissance of interest. Vineyards dot the landscape, and the development of the Loess Hills Scenic Byway helps motorists to experience and understand this special environment.

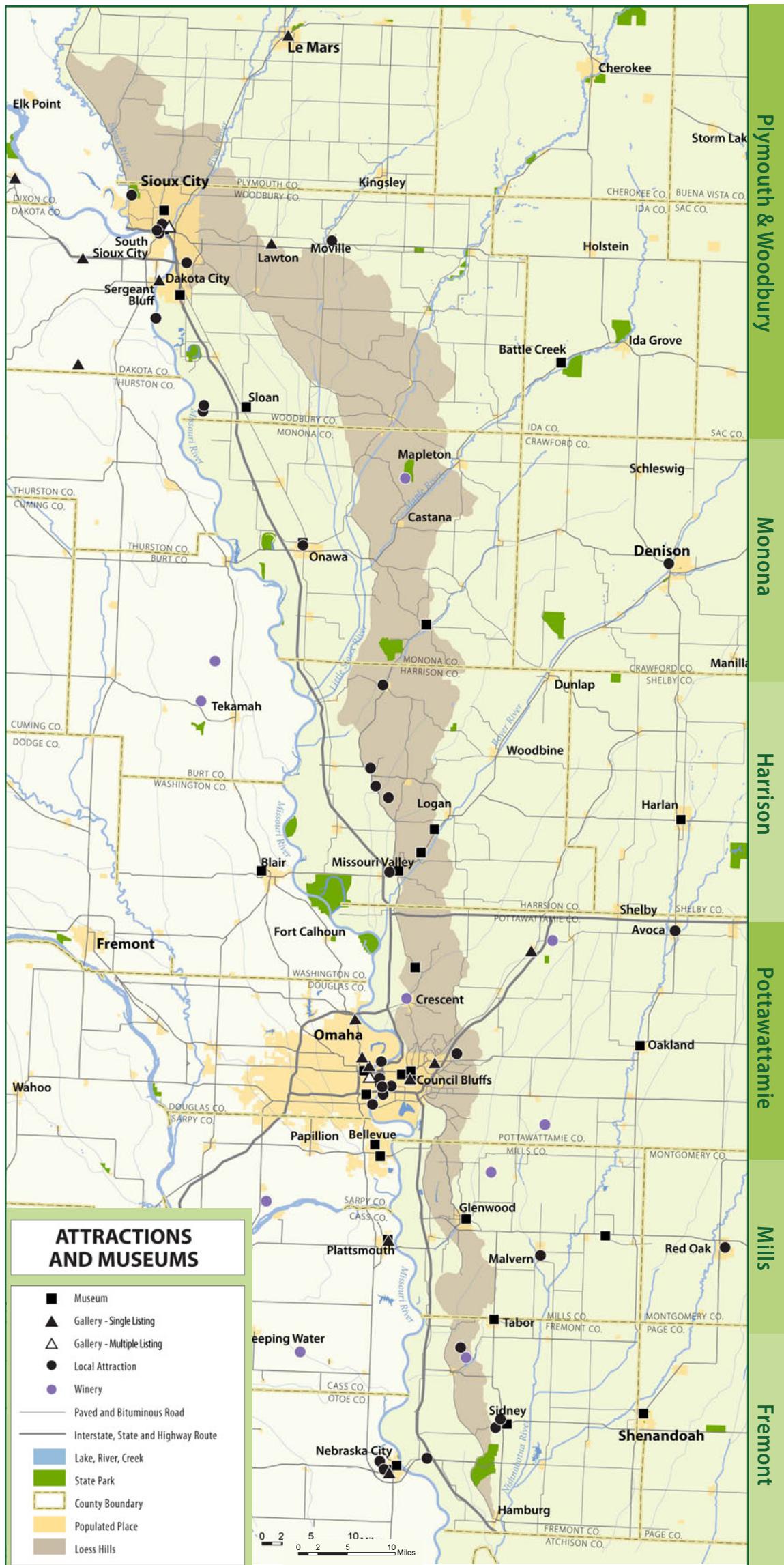
While state and county roads cross the study area, trails are far more limited in scope and coverage. Still, they are by no means absent. The two metropolitan areas have extensive systems, and the Wabash Trace Nature Trail has been praised as one of America’s great rails-to-trails. Hiking and cycling tour loops have also been published that use the regions scenic roads and resources.

The map at right displays the distribution of public lands, existing and future trails, canoe routes, and byways in the region. It also shows support facilities that could be a part of a future trail system.



Stone State Park





Attractions & Museums

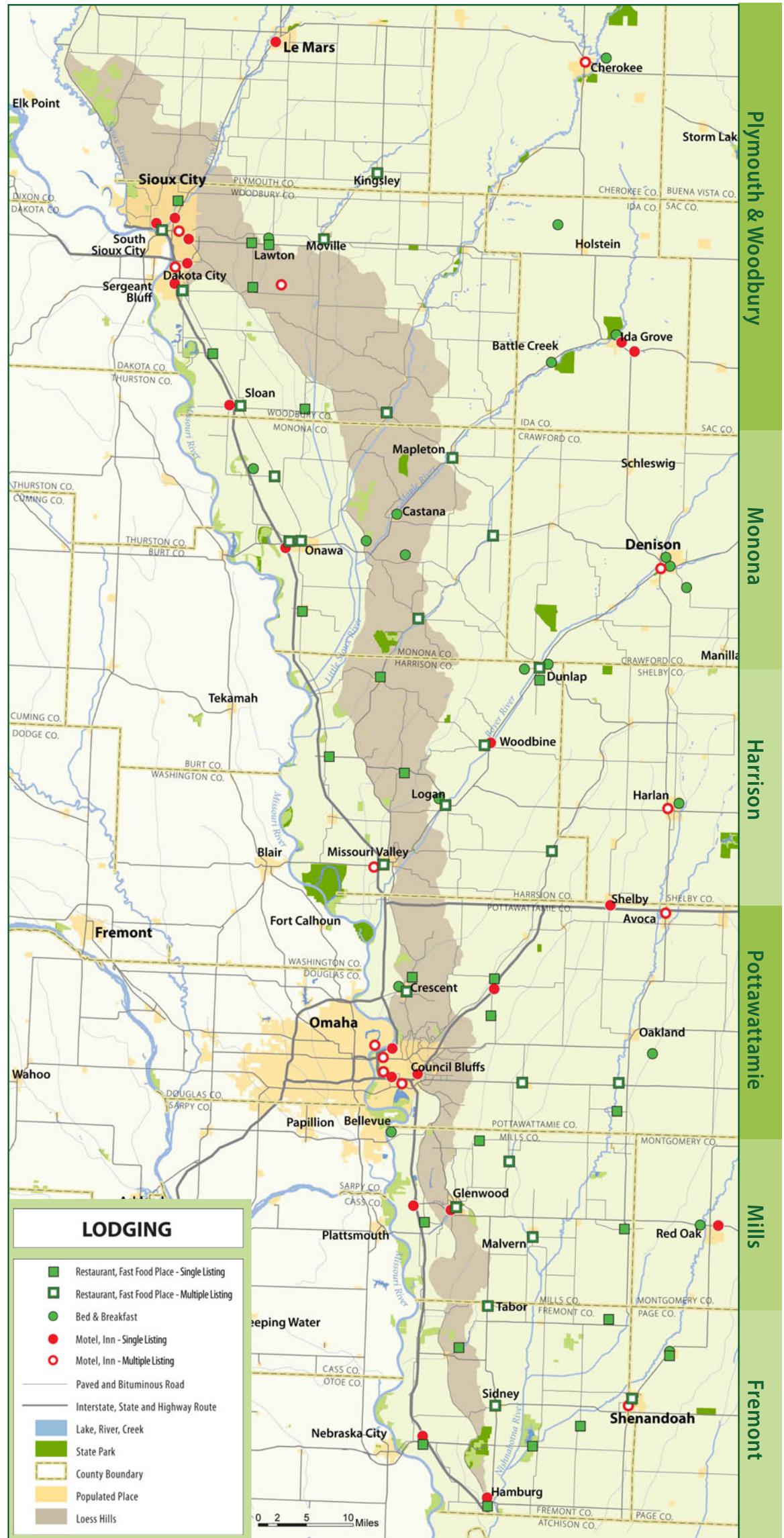
Local and regional museums tell the story of the region and its communities, while regional attractions provide travelers with ways to engage with the land and its people. The map at left summarizes the location patterns of these features.



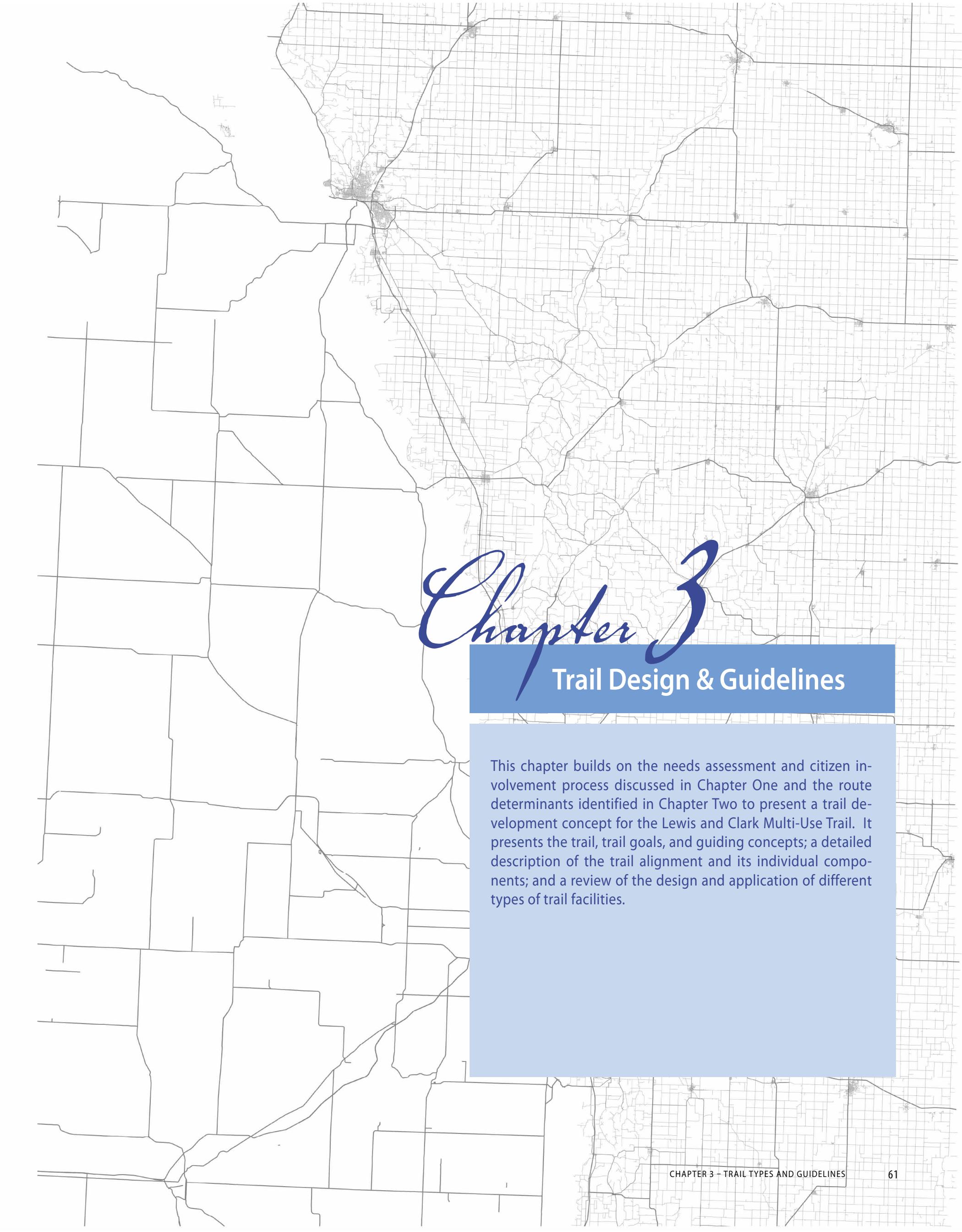
Hitchcock Nature Center

Lodging

Support facilities, such as lodging and restaurants, are both important to the user experience and provide employment and business opportunities to the people of the region. While these facilities are most concentrated in metropolitan areas and larger towns, they are scattered throughout the region. An unusual cafe or distinctive business provides trail users with another way to discover the quality and fabric of the region. The maps at right summarizes the general distribution of support facilities in the LCT study area.



West Broadway Historic District



Chapter 3

Trail Design & Guidelines

This chapter builds on the needs assessment and citizen involvement process discussed in Chapter One and the route determinants identified in Chapter Two to present a trail development concept for the Lewis and Clark Multi-Use Trail. It presents the trail, trail goals, and guiding concepts; a detailed description of the trail alignment and its individual components; and a review of the design and application of different types of trail facilities.



280th Street and Snyder Bend Road

Trail Design Objectives and Principles

This chapter builds on the needs assessment and citizen involvement process discussed in Chapter One and the route determinants identified in Chapter Two to present a trail development concept for the Lewis and Clark Trail. The introduction to this plan identifies five basic objectives to guide this concept:

1. The trail will satisfy recreation and transportation needs of a variety of user groups.
2. The trail concept should recognize different levels of user abilities with appropriate features and facilities.
3. The trail should use existing facilities and resources to the maximum degree possible.
4. The trail should tell the story of this unique part of the state, and direct users to features that advance the narrative.
5. The trail should promote economic development.
6. The trail should have integrity and continuity at all stages of its incremental development process.

In addition to these, the concept proposed in this section is guided by the following principles:

- *The LCT should offer a facility that can be used almost immediately, or at least with minimum short-term capital investment.* This provides a facility that will change and improve over time, as new projects are completed incrementally, but which has point to point integrity from the installation of the first signs to the completion of the last mile of trail.
- *The trail should be a network rather than a single point-to-point route.* As such, it should offer the possibility of different experiences to users each time they visit the trail. Unlike a commuter trail, the premise of the LCT is experience and exploration. In the spirit of the Corps of Discovery, it invites its users to investigate region's wetlands, hills, valleys, and communities at their liberty.

- *To the maximum degree possible, the trail concept should avoid contentious property acquisitions, and should also provide benefits to people who are not necessarily trail users.* Trail alignments that cut through or otherwise significantly affect private land often generate vociferous opposition. Often, this abates over time and the experience of the Wabash Trace Nature Trail shows that strong trail opponents often become strong trail supporters as they understand the maximum benefits and minimum effects of these facilities. But broader acceptance evolves over time as people increasingly view the trail as a natural and beneficial part of the landscape. Trail development can also benefit non-trail users, making allies of former opponents. For example, county road improvements like shoulders and occasional hard-surfacing create better facilities for farmers as well as safer routes for bicyclists, and reduce traffic conflicts and mutual frustrations. The Lewis and Clark environment is big enough to be shared by all.

Route Resources for the LCT

Certain types of existing facilities provide trail development opportunities that help define the actual route. Design criteria for each of these facilities are described later in this chapter. These opportunities include:

- *Low-volume paved county roads.* These roads, with volumes below 1,000 vehicles per day (vpd), and in many cases far lower traffic loads, serve the entire LCT study area and are already a staple for bicyclists traveling in this region. In many cases, these roads can safely accommodate shared use with very few, low-cost improvements, such as share-the-road signs. Woodbury County has already implemented such a program on parts of its country road system south of Sioux City. In cases of higher traffic volumes or limited visibility, shoulders or minor widening can improve safety for both motorized and non-motorized users.
- *Very low-volume gravel roads.* These facilities typically have traffic volumes below 100 vpd and are adaptable to certain types of trail users, including mountain bicyclists, OHV's, and even hikers and equestrians. In strategic cases, the use of these corridors can be expanded by hard-surfacing or the construction of parallel pathways.

- *Moderate to high-volume county roads and state highways.* These facilities, with volumes above 1,000 vpd, can be adapted to trail use, and are used by cyclists who are comfortable with riding in mixed traffic. However, they generally require major modifications, such as shoulders or parallel pathways, to be comfortable for a wider variety of users. These higher volume corridors are used sparingly because of the cost of adaptation or the nature of the road environment.
- *Future regional highway corridors.* New highway corridors or major reconstruction projects offer opportunities for incorporating LCT segments, consistent with new US DOT policies to include bicycle and pedestrian transportation in major projects. According to the US Department of Transportation, "DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT has the responsibility to improve conditions and opportunities for walking and cycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide".

Study area opportunities include the connection between the existing US 34 interchange with Interstate 29 near Glenwood with a new Missouri River crossing north of Plattsmouth, Nebraska; and the Interstate 29 reconstruction project in Sioux City. The most probable facility here would be a pathway within the highway right-of-way corridor, with safety fencing or barriers between the path and the road.

- *Missouri River levees.* These federal levees are most prevalent in the southern part of the study area and already have developed maintenance roads or paths on the levee top. Levees provide excellent river views and access to otherwise inaccessible riverfront areas. Parts of the Riverfront Trail in Council Bluffs uses Missouri River levees. However, access to levees requires permission by the US Army Corps of Engineers and may require approval of property owners when the levee transects private property.
- *Other waterways.* Other study area streams, such as the Boyer River and creeks, often have flood control levees that could accommodate trails. The Boyer connects the Missouri Valley area with Logan and could be an especially valuable trail link. However, in most cases, these facilities are owned and man-



Wabash Trace Nature Trail



Rural Fremont County

aged by local or regional drainage districts whose perspective is limited to flood control rather than inviting multiple uses of levees. As a result, this trail concept does not propose using levees other than segments along the Missouri River. If, at some point in the future, circumstances change, these resources should be included in an evolving LCT network. The Keg Creek corridor from Glenwood to Mineola has often been discussed as a regional connection to the Wabash Trace, and is included here as a possible trail resource.

- **Existing trails.** Existing multi-use trails are integral parts of the LCT concept, and are incorporated into the system whenever they exist. Primary trail resources include the Wabash Trace, the Council Bluffs Riverfront Trail and other elements of the city's trail and bike route network, and the Sioux City Riverfront Trail. Other significant resources on the Nebraska side of the river include the Steamboat Trace Trail from Nebraska City to Brownville and the Omaha Riverfront Trail.
- **Iowa Department of Natural Resources (DNR) properties, State Parks, National Wildlife Refuges, and other public properties.** The DNR owns a number of properties within the LCT study area, most of which are along the Missouri River. Most of these properties were acquired for preservation of habitat or other natural environments, but some offer river access and limited public use facilities. The perimeter of these sites provides possibilities for trail alignments without disturbing their primary preservation purposes, and properties with public river access can also provide this option to trail users. When the terms of DNR's initial acquisition do not permit public use, a strip of property immediately adjacent to the refuge perimeter, acquired by purchase or easement, can both accommodate the trail and provide a buffer. The study area also includes a variety of other substantial public properties, including a National Wildlife Refuge (DeSoto), State Parks (Waubonsie, Lewis and Clark), County Conservation Board parks, and other facilities.
- **Railroad right of ways or abandonments.** Nationally, railroad abandonments and low-volume active rights-of-way have been staples of the trail movement, but they are limited in the LCT corridor. The active north-south BNSF line between Hamburg and Pacific Junction is largely paralleled by low-volume roads that provide an easier alternative for the trail. Most abandonments in the area have long been

subsumed by agricultural uses and retain little integrity. One intriguing possibility is a Union Pacific acquisition along the Harrison/Monona County line between County Road K45 and the Missouri River.

- **Tribal Lands.** Lands owned by tribes with trust holdings in the area, primarily the Omaha and Winnebago Nations, could provide significant trail opportunities, along with economic and tourism development possibilities. Tribal lands can provide new connections between the paved road system and the riverfront, expand use of the WinneVegas complex, and open new use possibilities for the closed Casino Omaha facility.

Trail Concepts

Relating the trail objectives and principles described above with the contexts and opportunities of the study area produces an innovative and evolving concept for the Lewis and Clark Trail. The concept envisions a trail (or route) that can be put in place with relatively little capital cost, but grows over time into a network of interlinked facilities that meets a variety of user needs. This concept in both geography and time includes the following components:

The "LCT Today," a trail route that uses facilities already in place, consisting mostly of low-volume paved roads and existing trails. Initial capital investment in the "today" system is minimal, focused primarily on signage and pavement markings. The "Today Route" uses portions of the Adventure Cycling Association's existing Lewis and Clark Bicycle Route, with substantial modifications that provide a more complete experience with the study area's environment. This concept is the starting point for an evolving system.

The LCT Explorers Route. This is the final route of the LCT, offering a rich and varied experience to the user of all or part of the trail. The Explorers Route builds on the base of the LCT Today route, and evolves as localities, counties, and other entities develop individual projects. It presents users with the opportunity to explore the area in the spirit of Lewis and Clark on its path from Hamburg to Sioux City. The Explorers Route has features to attract a variety of user groups – bicyclists of all types, hikers, naturalists, equestrians, and others. It places a premium on experience of adventure over directness and speed.

The Explorers route follows paved and county roads, Missouri River levees, Department of Natural Resources properties, state and county parks, existing trails, and new corridors; as it knits hills, valleys, the Missouri Riverfront, communities, and natural resources into a true discovery network. Along the way, it employs a number of facility types including, shared or adapted roads, sidepaths, and trails.

Express Segments. The final LCT Explorers Route is a meandering 150 mile path that as mentioned above, values experience over directness. However, some users, most notably road cyclists, seek a direct point to point path through the Lewis and Clark corridor that nevertheless offers options. The Express segments provide more direct alternatives between two specific points along the LCT. Contrasting with the more relaxed and scenic main trail. The express alternate segments together offer road cyclists a direct route between Sioux City and Hamburg, but also provides the option of diverting to the experience-laden Explorers Route. The Express segments assure a continuous hard-surfaced route for entire length of the LCT.

Tour Loops. The "Loops" create a series of day-trip experiences on the LCT, appealing to users who are looking for short trips that present different aspects of the Western Iowa experience. In most cases, the main Explorers Route and the Express segments form major legs of the loops, which are completed by scenic or functional connecting paths.

The loop routes are especially designed for families and individual bicyclists who may be apprehensive about cycling in mixed traffic. Consequently, significant segments are either sidepaths, or offroad trails and paths.

Regional Connections. Regional connections provide access to other features in the larger area around the main Lewis and Clark trail route. These connections include parts of the Loess Hills Scenic Byway, allowing bicyclists using the LCT to venture deeper into this unique environment. They also provide access to Missouri River crossings and adjacent states, encouraging potential users from Missouri, Nebraska, and South Dakota to visit Iowa's LCT's and trail communities; and extending the reach of the trail into other states with bordering trails and historic towns.



West Oak Forest - Mills County



DeSoto Bend National Wildlife Refuge - Harrison County

Special User Groups

Equestrian Trails. While bicyclists and pedestrians are likely to be the principal users of the LCT, equestrian facilities should be integrated into the ultimate project. Equestrian trails can complement other trail uses, but present some compatibility issues. For example, horses can damage the surface of granulated stone trails. Conversely paved pathways while popular with cyclists and pedestrians are very uncomfortable for horses. Equestrian uses are adaptable to single track trails, roadside paths, and even gravel roads. Currently the study area includes one example of dedicated equestrian trails adjacent to a multi-use facility – the Wabash trace between Council Bluffs and Mineola. The experience of this facility has been decidedly mixed. Other equestrian trails are found at Waubonsie State Park.

This plan concept identifies several potential equestrian routes including:

- A route on state park property and unpaved roads, linking a trailhead north of Iowa 2 at Waubonsie to the rodeo facilities at Sidney. This could lead to outfitting business opportunities in that community.
- A Missouri River trail using DNR property and gravel roads between Tyson Bend and Mondamin.
- The possibility of parallel equestrian tracks in areas proposed for multi-use trail development. Examples of suitable settings include corridors on the periphery of DNR properties or in new rural corridors such as Keg Creek between Glenwood and Mineola. By linking to the Wabash Trace Trail at Mineola, such a facility could revitalize equestrian use of the existing track along the Wabash Trace Trail.

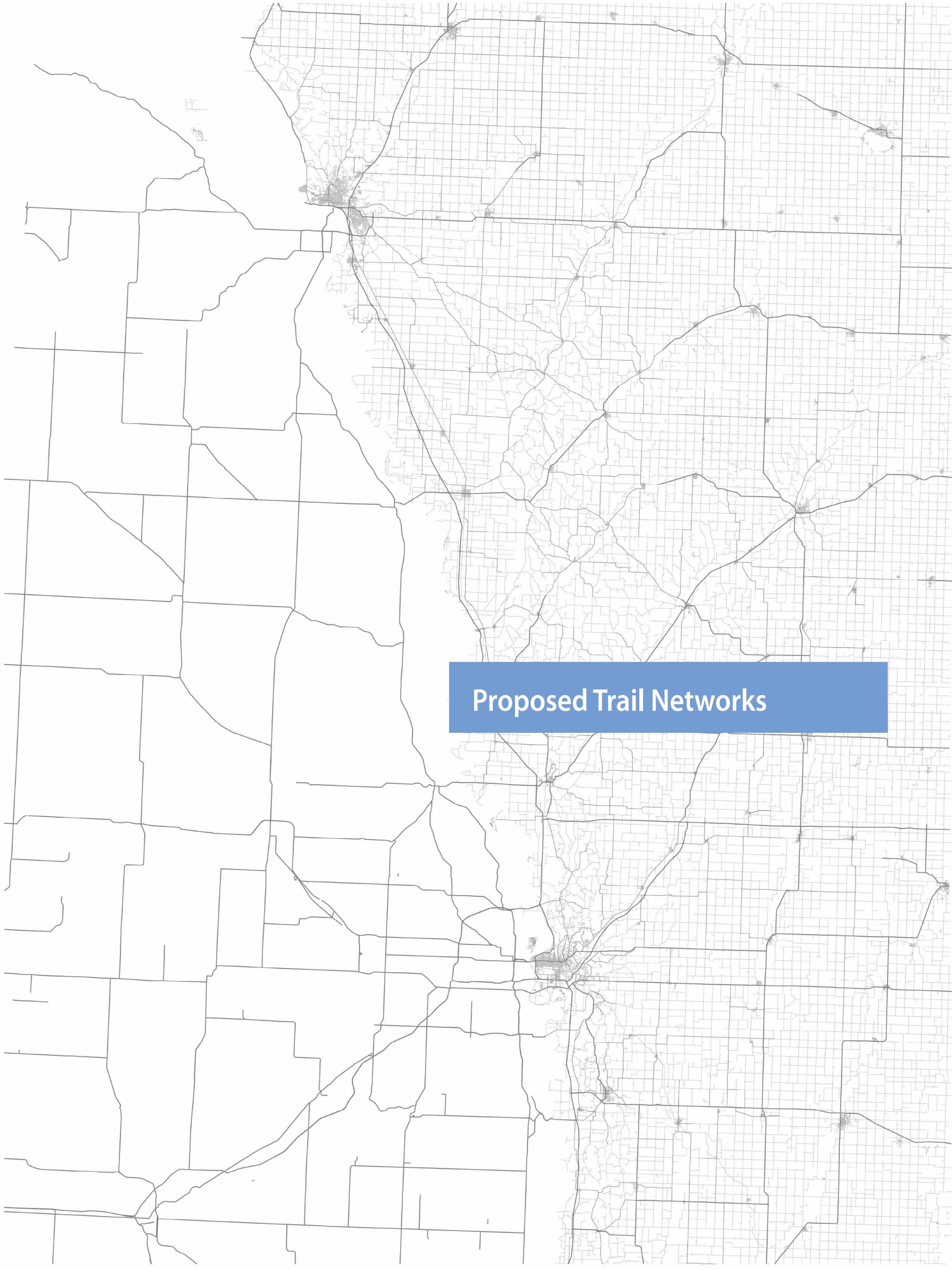
ATV Trails. While motorized recreationalists were not a primary user target for the LCT, the planning process revealed a significant demand for facilities. While recreational ATV use often occurs within parks designed for that purpose, users also expressed interest in a point to point facility, especially south from the Sioux City metropolitan area. The best solution is defining a route that utilizes existing county gravel roads south of Sioux City, potentially extending to Snyder Bend and the Onawa area. Current Iowa State statutes appear to exclude ATV use of county roads. This plan concept recommends that ATV user groups work with the Woodbury

and Monona County engineers, and property owners to define a specific web of roads legally accessible to ATV's. Opening this route to ATV use may require special state legislation, but could open the Lewis and Clark corridor to this *significant user group*.

The LCT as an Evolving Trail

A key objective of this plan is the designation of a complete and continuous LCT through all stages of the trails development. Initially, the LCT will be the "LCT Today Route", implemented by such low-capital methods, as signage and pavement markings on low and medium traffic volume hard-surfaced roads. The route's utility is largely limited to one pioneer user group – bicyclists who are reasonably comfortable on shared roads with motor vehicles. However, projects completed consistent with this plan will incrementally transform the "Today Route" into the overall LCT system. As these segments are completed, the LCT network will serve more people with increasingly diverse interests and capabilities.

The Today Route is by no means a finished product. While it serves road-comfortable cyclists, it does not offer enhancements necessary to meet the system's objectives or potential. As the system grows and new projects are completed, some segments of the LCT Today Route will be enhanced, while others will become parts of Loop Tours or be "decommissioned" by removing route identifying graphics. Yet, at every point of its implementation, the LCT will provide a continuous route between its two endpoint cities.



Proposed Trail Networks

LCT Today Route - N

The LCT Today Route can be put in place between Hamburg and Sioux City in the short term with minimal capital investments, primarily of sign installation and pavement markings. It represents the first phase of implementation for the overall trail corridor, and is the starting point for full implementation of the trail plan. This route uses existing infrastructure, mostly paved, low-volume roads and existing trails. Signage proposed along the route includes the trail designators and basic information system described in Chapter Four, and standard signs (such as Share the Road cautionary signs) specified by the Manual of Uniform Traffic Control Devices.

The LCT Today Route's primary user group is bicyclists who are reasonably comfortable riding on low to medium volume roads. However, the route has significant shortcomings, including some segments with traffic volumes that exceed 1,000 vehicles per day (noted in the table on the opposite page). With full implementation of the LCT master plan, some segments of the LCT Today route will be incorporated into the ultimate system in their current condition; others will be enhanced to provide better accommodations for trail users; and still others will become secondary connections, replaced by new segments that offer better experiences to more people. As the trail evolves, the LCT will grow to serve more diverse users, fulfilling its potential as a multi-purpose facility that gives many more people the chance to explore its unique and historical environment.

TODAY ROUTE

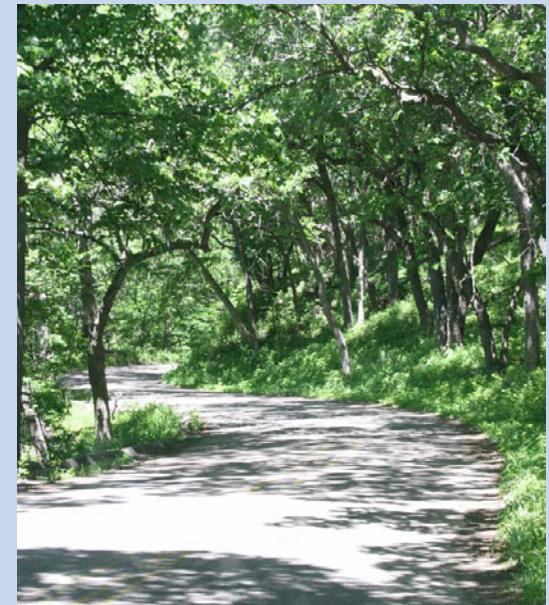
- Today Route
- Alternate Route
- Interstate
- State Highway
- Paved County Road
- Unpaved County Road
- County Boundary
- Wetland
- Lake, River, Creek
- Conservation Areas (Forested Areas)
- Conservation Areas (Farm protection, Grassland)
- State Parks
- Populated Places
- Loess Hills



KEY FOR TABLE: Seasonal Alternative Segments Alternative Route for Access to a Major Feature

Segment	Mileage	Existing Context	LCT Today Design Treatment
Woodbury County			
Sioux City Riverfront Trail from Riverside Park (existing terminus) to Floyd Boulevard	4.8	Existing paved multiple-use path	Paved multiple-use path
Floyd Boulevard, Riverfront Trail to Dace Avenue	0.1	4-lane urban street with adjacent sidepath	Paved sidepath
Dace Avenue, Floyd Boulevard to Cunningham Avenue	0.3	4-lane urban street	Shared route with pavement markings and signage
Cunningham Avenue, Dace Avenue to Transit Avenue	0.8	2 and 3-lane urban street	Shared route with pavement markings and signage
Transit Avenue, Cunningham to St. Aubin Street/Morningside Avenue	1.5	Sidepath along the edge of city parks, wide 2-lane urban street east of Cecilia Street	Paved sidepath to be implemented by the City of Sioux City between Cunningham and Cecilia Streets; Shared route with pavement markings and signage between Cecilia and St. Aubin Street
St. Aubin Street from Transit Avenue to Sergeant Road	0.7	2-lane urban street	Shared route with pavement markings and signage
Sergeant Road, St. Aubin Street to Juniper Court	0.9	2-lane urban street	Shared route with pavement markings and signage
Juniper Court/Hickory Lane/Southern Hills Drive from Sergeant Road to Lancelot Lane	0.9	2 to 4-lane urban street	Shared route with pavement markings and signage
Lancelot Lane, Southern Hills Boulevard to Singing Hills Boulevard	0.2	3-lane urban street	Shared route with pavement markings and signage
Singing Hills Boulevard, Lancelot Lane to Harbor Drive	1.6	Sidepath	Paved sidepath
Harbor Drive, Singing Hills to 8th Street	2.0	2-3 lane urban street with significant industrial traffic	Shared route with pavement markings and signage. Harbor Drive is scheduled for realignment as part of the I-29 reconstruction project. Any realignment should include the configuration recommended for the ultimate facility
8th Street, Harbor to D Street	0.5	2-lane urban street	Shared route with pavement markings and signage
D Street, 8th to Topaz Drive	0.8	2-lane urban street, divided boulevard through traditional town center	Shared route with pavement markings and signage
Topaz Drive, D to Port Neal Road	0.3	Wide 2-lane urban avenue	Shared route with pavement markings and signage
Port Neal Road (K25), Topaz Drive to K45 at Salix	10.3	Paved 2-lane industrial and county road. (ADT>1,000 vpd immediately south of Sergeant Bluff)	Shared route with pavement markings and signage
K45, K25 (Salix) to Iowa 141 (Sloan)	6.3	Paved 2-lane county road (ADT > 1,000 vpd)	Shared route with pavement markings and signage
Iowa 141, K25 to K42	1.3	Paved 2-lane state highway (ADT>2,000 vpd)	Shared route with pavement markings and signage
Monona County			
K42, Iowa 141 to Cherry Street	15.1	Paved 2-lane county road	Shared route with pavement markings and signage
K42, Cherry Street to K53	1.9	Paved 2-lane county road	Shared route with pavement markings and signage
Cherry Street, K42 to Iowa 175	2.0	Paved 2-lane county road	Shared route with pavement markings and signage; route provides access to Blue Lake and Lewis and Clark State Park
Iowa 175, K42 to Dogwood Avenue	1.8	Paved 2-lane state highway, (ADT>1,500 vpd)	Shared route with pavement markings and signage; route provides access to Blue Lake and Lewis and Clark State Park
Dogwood Avenue, Iowa 175 to K42	1.6	Paved 2-lane county road	Shared route with pavement markings and signage; route provides access to Blue Lake and Lewis and Clark State Park
K42, Dogwood Avenue to 10th Street (K45) in Onawa	3.1	Paved 2-lane county road, shared route.	Shared route with pavement markings and signage
K45, K42 to Harrison County Line	12.2	Paved 2-lane county road, shared route (ADT>1,000 vpd between Blencoe and Onawa)	Shared route with pavement markings and signage

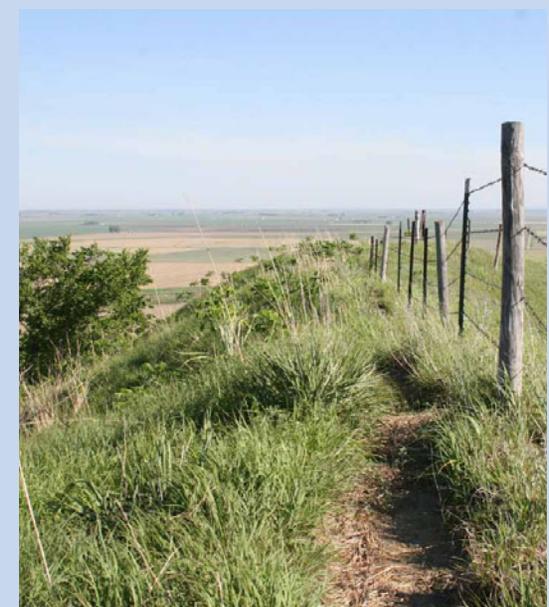
LCT Today Route - N



Stone State Park



Blue Lake; Lewis & Clark State Park



Murray Hill Scenic Overlook

LCT Today Route - S



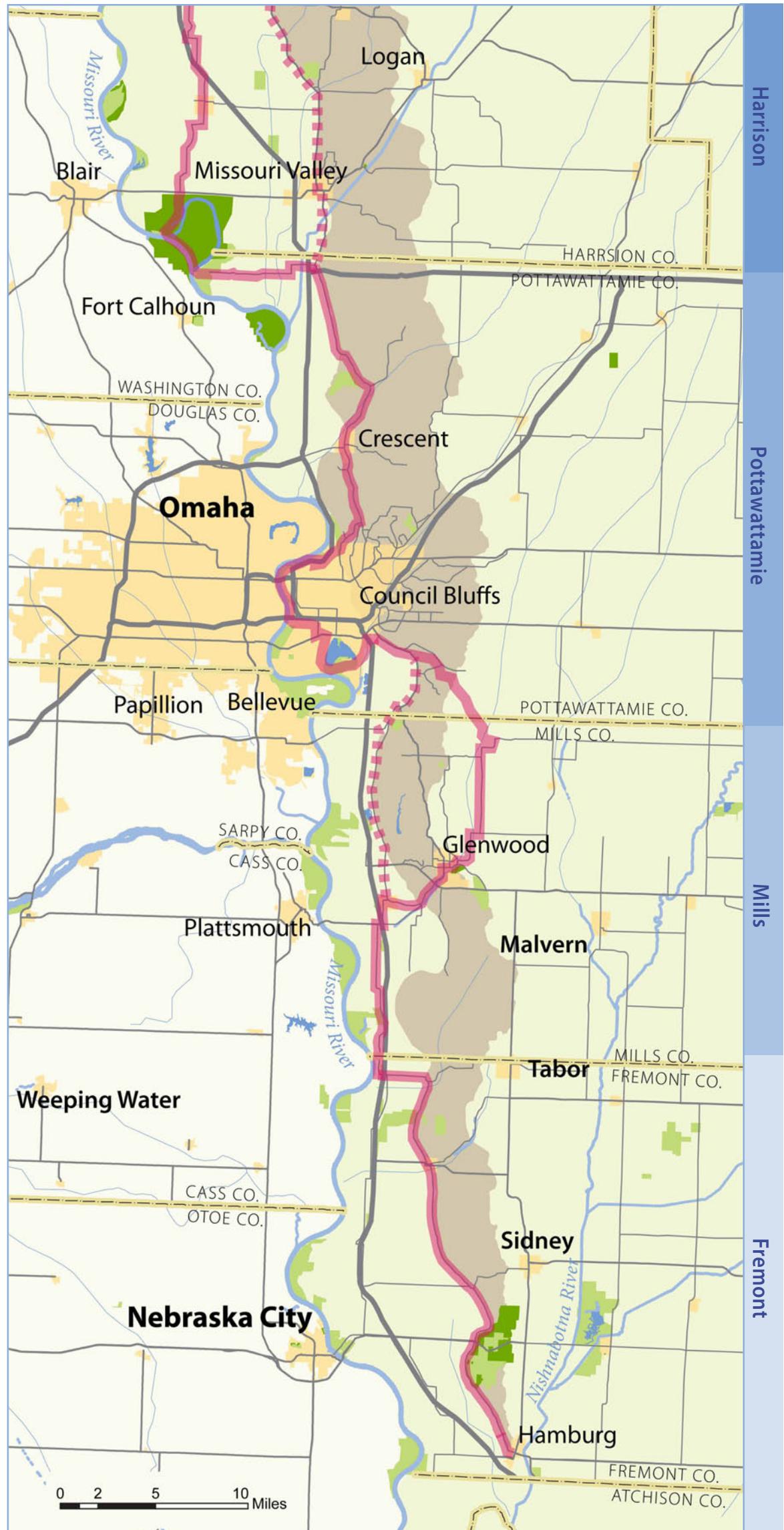
DeSoto Bend National Wildlife Refuge



Hitchcock Nature Center

TODAY ROUTE

- Today Route
- Alternate Route
- Interstate
- State Highway
- Paved County Road
- Unpaved County Road
- County Boundary
- Wetland
- Lake, River, Creek
- Conservation Areas (Forested Areas)
- Conservation Areas (Farm protection, Grassland)
- State Parks
- Populated Places
- Loess Hills



Segment	Mileage	Existing Context	LCT Today Design Treatment
Harrison County			
K45, County Line to F20	4.8	Paved 2-lane county road	Shared route with pavement markings and signage
F20, K45 to Iowa 183	8.3	Paved 2-lane county road	Shared route with pavement markings and signage
Iowa 183, F20 at Pisgah to Iowa 127	9.3	Paved 2-lane state highway, (ADT just below 1,000 vpd)	Shared route with pavement markings and signage
Iowa 127, Iowa 183 to K45 at Mondamin	3.4	Paved 2-lane state highway, (ADT>1,000 vpd)	Shared route with pavement markings and signage
K45, Iowa 127 to US 30	14.4	Paved 2-lane county road	Shared route with pavement markings and signage
De Soto NWR road system, US 30 to G12	5.7	Paved 2-lane park road, shared route	Shared route with pavement markings and signage; south refuge access is closed during bird migration seasons.
L20, Iowa 127 to G12	16.7	Paved 2-lane county road, shared route	Shared route with pavement markings and signage; alternative route during seasonal closures of the G12 access to De Soto NWR.
Pottawattamie County			
G12, De Soto NWR to L20 (Old Lincoln Highway)	7.0	Paved 2-lane county road	Shared route with pavement markings and signage; does not provide route continuity during closures of the De Soto NWR entrance
L20, G12 to G27 junction in Crescent	11.0	Paved 2-lane county road	Shared route with pavement markings and signage
L20 (North Broadway), Crescent to Kanesville Boulevard (US 6)	6.8	Paved 2-lane county road with rural section; 2- and 3-lane city street within Council Bluffs corporate limits	Shared route with pavement markings and signage
Pierce Street, Kanesville to 1st Street	0.6	2-lane urban street	Shared route with pavement markings and signage
1st Street, Pierce to West Broadway	0.1	2-lane urban street	Shared route with pavement markings and signage
West Broadway, 1st Street to Main Street	0.4	2-lane downtown street on 100 block, 4-lane, relatively low-volume street between 2nd and Main	Shared route with pavement markings and signage
Main/Washington Street to 6th/7th Street pair	0.3	2-lane downtown street along Main and Washington	Shared route with pavement markings and signage
6th/7th Street one-way pair with Avenue G to 8th Street	0.6	2-lane, one-way urban streets (6th Street NB, 7th Street SB); sidepath along 7th Street from 8th Street to Mill Street	Sidepath where available north of Mill Street; shared route with pavement markings and signage
8th Street, Avenue G to Big Lake Park	1.5	2-lane urban street	Shared route with pavement markings and signage
Big Lake Park and Drive, 8th to 16th	0.8	Park trail and sidepath	Existing facility
Nash Boulevard Sidepath, 16th to 25th	1.0	Paved sidepath connects to Big Lake Trail; bike lanes connect under I-29 to Riverfront Trail	Existing facility
Riverfront Trail, 25th Street to Nebraska Avenue at Ameristar Casino	4.1	Paved multi-purpose path on levee top; sidepath at Ameristar Casino	Existing facility
Access Drive, Nebraska Avenue to I-80 Bridge	0.6	Bike lanes	Existing facility
Riverfront Trail, I-80 to Indian Creek Trail	3.0	Paved multi-purpose path, with sidepath segments along 25th Street and US 275	Existing facility
Indian Creek/Lake Manawa Trails, US 275 to Wabash Trace Trailhead	6.6	Paved multi-purpose path	Existing facility
Wabash Trace Nature Trail, Lewis Central Trailhead to Mineola	9.2	Granulated stone, multi-purpose path	Existing facility
Mills County			
L45, Mineola to Sharp Street in Glenwood	8.0	2-lane county road, ADT>1,000 vpd north of Glenwood	Shared route with pavement markings and signage
Sharp Street, L45 to Locust Street (L35)	0.8	2-lane urban street	Shared route with pavement markings and signage
Locust Street (L35), Sharp to US 34 interchange	1.1	4-lane urban street. ADT>1,000 vpd	Shared route with pavement markings and signage; City should consider lane diet along commercial corridor, with 3-lane section and bike lanes.
L35, US 34 interchange to L31 in Pacific Junction	3.8	2-lane rural section highway, ADT>1,000 vpd	Shared route with pavement markings and signage
L31, L35 at Pacific Junction to J10, south of Mills/Fremont County line	14.8	2-lane low-volume county road	Shared route with pavement markings and signage
Fremont County			
J10, L31 to L44	2.6	2-lane moderate-volume county road	Shared route with pavement markings and signage
L44 (Bluff Road), J10 to Hamburg	22.6	2-lane low-volume county road, shared route	Shared route with pavement markings and signage

LCT Today Route - S



The Garden Grove; Crescent



City Jail from Henderson; Glenwood Historical Museum



Waubensie State Park

LCT Explorers Route and Express Segments - N

The Explorers Route is the ultimate concept for the fully realized LCT. Its design presents users with a full range of experiences, and the continuous path winds through riverfront, valley, and Loess Hills environments. As the ultimate trail evolves, and segments of the Explorers Route are implemented incrementally, the trail will be a hybrid of "LCT Today" and "Explorers" segments, but always maintain continuity from Sioux City to Hamburg.

The excursion nature of the Explorers Route provides a superior interaction with the many-faceted Missouri River valley and Loess Hills environments, but does not meet the needs of through bicycle tourists. The express segments provide a more direct alternative between points along the way, and can be used in connection with the regular route to create a variety of trail experiences.

Detailed, county-by-county descriptions of the elements and features of the Explorers Route are presented later in this chapter.

LCT & EXPRESS ROUTE

-  Lewis & Clark Trail (LCT)
-  LCT Express Route
-  Interstate
-  State Highway
-  Paved County Road
-  Unpaved County Road
-  County Boundary
-  Wetland
-  Lake, River, Creek
-  Conservation Areas (Forested Areas)
-  Conservation Areas (Farm protection, Grassland)
-  State Parks
-  Populated Places
-  Loess Hills





LCT Explorers Route and Express Segments - S



B&R's Pizza Post; Sloan, Iowa



Kiwanis Museum Complex; Onawa, Iowa

LCT & EXPRESS ROUTE

- Lewis & Clark Trail (LCT)
- LCT Express Route
- Interstate
- State Highway
- Paved County Road
- Unpaved County Road
- County Boundary
- Wetland
- Lake, River, Creek
- Conservation Areas (Forested Areas)
- Conservation Areas (Farm protection, Grassland)
- State Parks
- Populated Places
- Loess Hills

LCT Tour Loops - N

Community and regional stakeholders expressed a strong interest in touring loops - day trips with great appeal to regional residents that also help support "internal" tourism.

The LCT Tour Loops organize the Explorers and Express segments into loops, with varying lengths that adapt to day trips. In some cases, the loops are connected by additional route segments. The loops are themed around interpretive narratives, adding an educational dimension to the LCT experience. The loops favor off-road facilities to accommodate a wide variety of users. Segments of the tour loops that are part of the primary LCT route should be given greater priority with regards to funding.

LOOPS & LINKS

-  Loops
-  Link (LCT Route)
-  Link (Express Route)
-  Interstate
-  State Highway
-  Paved County Road
-  Unpaved County Road
-  County Boundary
-  Wetland
-  Lake, River, Creek
-  Conservation Areas (Forested Areas)
-  Conservation Areas (Farm protection, Grassland)
-  State Parks
-  Populated Places
-  Loess Hills



LCT Tour Loops - S



Sugar Clay Vineyard



The Wilds RV and Golf Resort; Bartlett

LOOPS & LINKS

-  Loops
-  Link (LCT Route)
-  Link (Express Route)
-  Interstate
-  State Highway
-  Paved County Road
-  Unpaved County Road
-  County Boundary
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-  Conservation Areas (Forested Areas)
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-  State Parks
-  Populated Places
-  Loess Hills

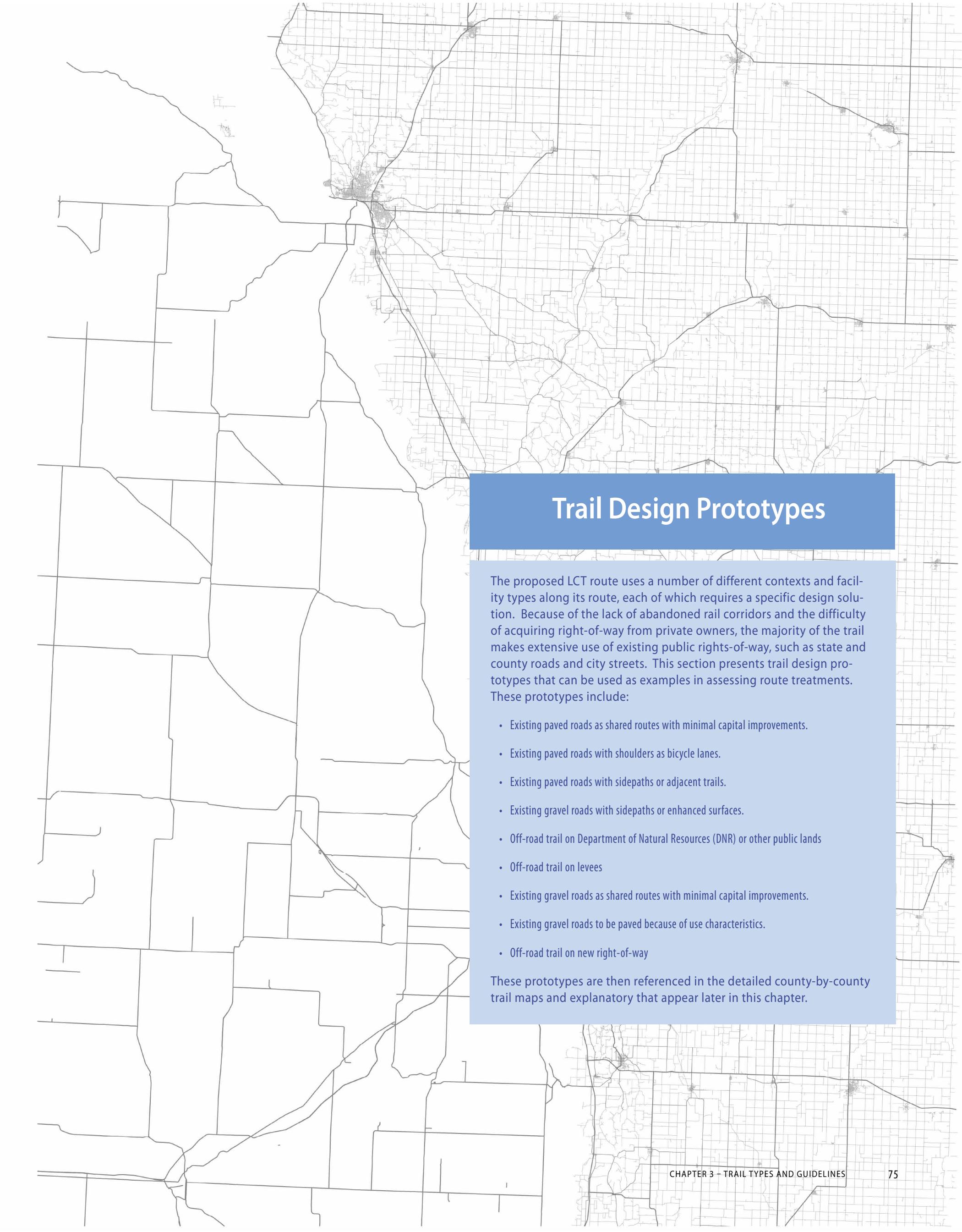


Harrison

Pottawattamie

Mills

Fremont



Trail Design Prototypes

The proposed LCT route uses a number of different contexts and facility types along its route, each of which requires a specific design solution. Because of the lack of abandoned rail corridors and the difficulty of acquiring right-of-way from private owners, the majority of the trail makes extensive use of existing public rights-of-way, such as state and county roads and city streets. This section presents trail design prototypes that can be used as examples in assessing route treatments. These prototypes include:

- Existing paved roads as shared routes with minimal capital improvements.
- Existing paved roads with shoulders as bicycle lanes.
- Existing paved roads with sidepaths or adjacent trails.
- Existing gravel roads with sidepaths or enhanced surfaces.
- Off-road trail on Department of Natural Resources (DNR) or other public lands
- Off-road trail on levees
- Existing gravel roads as shared routes with minimal capital improvements.
- Existing gravel roads to be paved because of use characteristics.
- Off-road trail on new right-of-way

These prototypes are then referenced in the detailed county-by-county trail maps and explanatory that appear later in this chapter.



Existing Paved Road: Shared Route



Design Prototype	Opportunity Context	Typical Design Treatment	Features and Variations
Existing Paved Road Shared Route	Low and Medium Volume Paved Roads (under 1,000 vpd) With normal visibility and truck traffic	<ul style="list-style-type: none"> Trail identification graphics and shared road signage. Periodic shared route pavement markings (sharrows) 	<ul style="list-style-type: none"> Paved shoulders or minor road widening on segments with limited horizontal or vertical visibility. Paved or granulated stone sidepaths (separated trails parallel to road) on segments that invite family travel or should accommodate multiple user groups. Minor road widening on segments with higher traffic volumes or substantial truck traffic

Existing Paved Road: Shared Route



Existing Paved Road: Shared Route





Paved Road with shoulder/bike lane



Design Prototype	Opportunity Context	Typical Design Treatment	Features and Variations
Existing Paved Road with shoulder/bicycle lane	<p>Low and medium- volume paved roads (under 1,000 vpd) with limited horizontal or vertical visibility and/or significant truck traffic</p> <p>High-volume paved roads and highways (1,000-2,000 vpd)</p>	<ul style="list-style-type: none"> Trail identification graphics and shared road or bike lane signage Paved shoulders with a minimum clear width of four feet (6 feet preferred minimum) Buffered shoulders should be considered where adequate space exists and traffic conditions (volume, speed, truck traffic) warrant. Painted bike lane symbols 	<p>In situations where drainage channels are close to the roadway edge, regrading may be necessary to accommodate shoulders.</p>

Paved Road with shoulder/bike lane before development

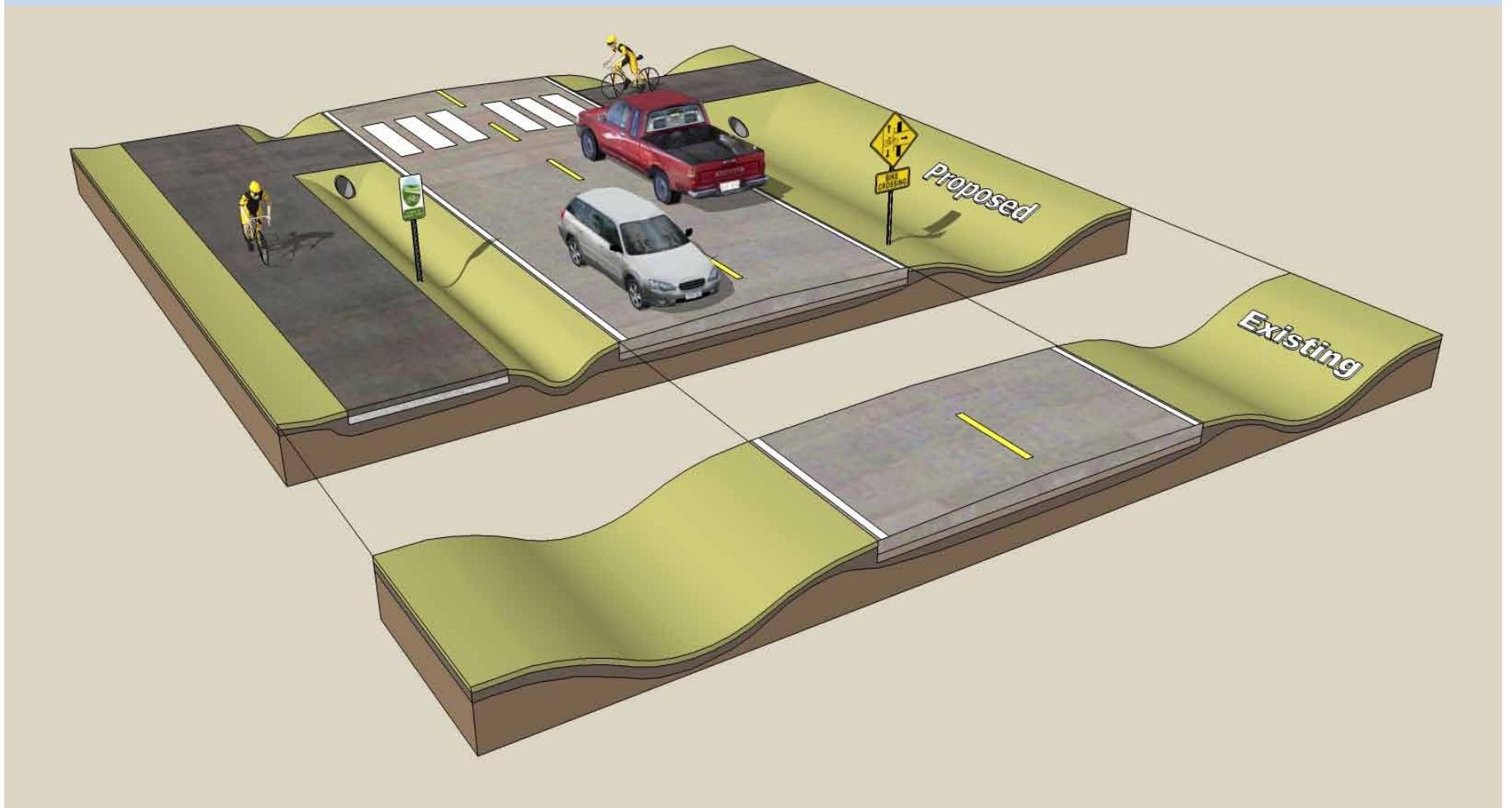


Paved Road with shoulder/bike lane after development





Existing paved road with sidepath



Design Prototype	Opportunity Context	Typical Design Treatment	Features and Variations
Existing Paved Road with sidepath or adjacent trail	<p>Very high-volume paved roads and highways (typically over 2,000 vpd)</p> <p>Other paved roads with conditions that create a potentially uncomfortable or unsafe condition for on-road cyclists</p> <p>Road segments and such as tour loops that invite family use, including significant use by inexperienced cyclists or children; accommodate multiple user groups, including pedestrians; or serve community functions, such as linking a town to a major recreational feature.</p>	<ul style="list-style-type: none"> Trail identification graphics Typically paved (possibly granulated stone) sidepaths or pathways with a minimum width of 8 feet (10 feet preferred) Sidepaths are most appropriately placed on roadsides with infrequent interruptions from driveways or intersecting roads. 	<ul style="list-style-type: none"> Sidepaths may be located either on the far side of drainage ditches or adjacent to the road with sufficient separation. Sidepaths should never provide two-way circulation adjacent to the edge of a road without buffering or separation. Guardrails may be used in situations without adequate space for pathway separation. Typically sidepaths or roadside trails require acquisition of additional right-of-way At intersections, design should include trail crossing signs for motorists, and crossing markings for trail users (see illustration above).

Existing paved road with sidepath before development

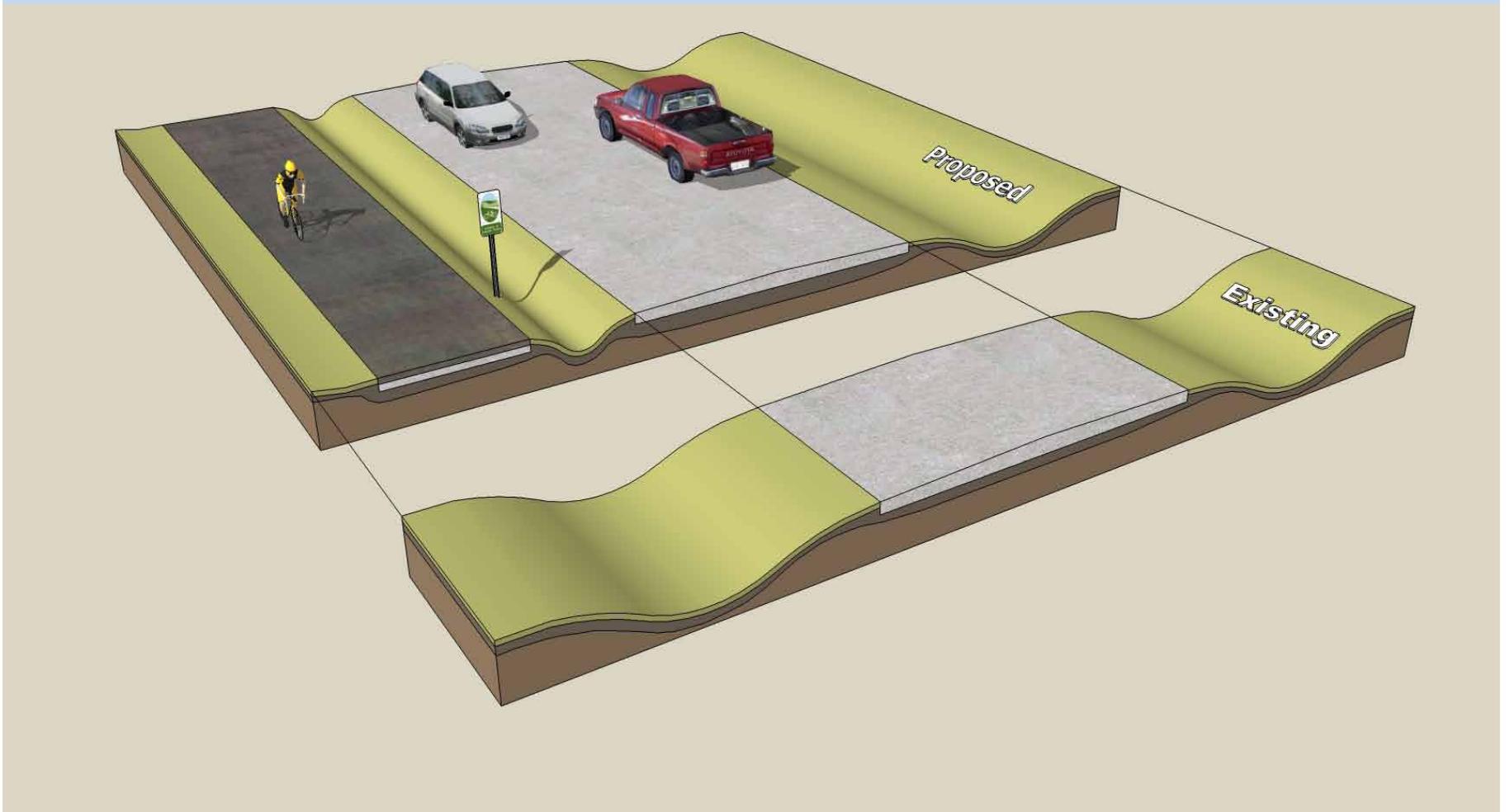


Existing paved road with sidepath after development





Existing gravel road with sidepath or enhanced surface



Design Prototype	Opportunity Context	Typical Design Treatment	Features and Variations
Existing gravel road, sidepath or enhanced surface	Low-volume gravel roads that connect the major through route to major features, such as off-road segments through DNR properties or along the river.	<ul style="list-style-type: none"> • Trail identification signage with shared road signage when sidepaths are not provided. • Surface enhancement using relatively fine gravels and sufficiently compressed tire tracks to permit comfortable use of hybrid or mountain bicycles, or short distance use by road bikes, with potential equestrian use. • Typically granulated stone sidepaths or pathways with a minimum width of 8 feet. Granulated stone should provide a surface sufficiently firm to accommodate short distance use by road bikes. 	<ul style="list-style-type: none"> • Sidepaths may be located either on the far side of drainage ditches or adjacent to the road with sufficient separation. • Sidepaths should never provide two-way circulation adjacent to the edge of a road without buffering or separation. Guard-rails may be used in situations without adequate space for pathway separation. • Typically sidepaths or roadside trails require acquisition of additional right-of-way

Existing gravel road with sidepath or enhanced surface before development

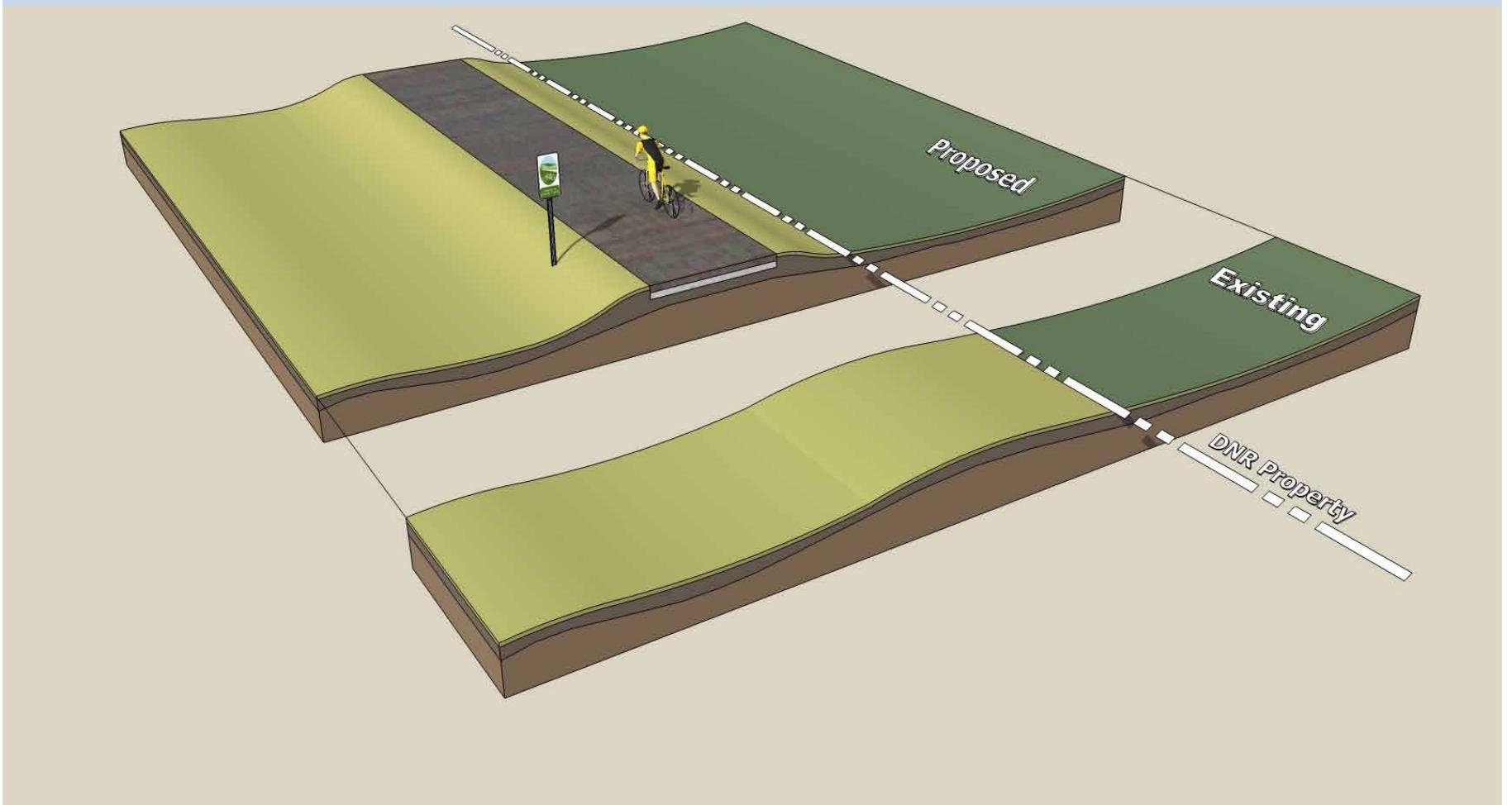


Existing gravel road with sidepath or enhanced surface after development





Off-road trail on DNR property or other public lands



Design Prototype	Opportunity Context	Typical Design Treatment	Features and Variations
Trail on DNR or other public lands	Sites, public spaces, and wildlife areas owned and/or managed by the Iowa Department of Natural Resources, the National Park Service, county conservation boards, or other public agencies	<ul style="list-style-type: none"> • Trail identification signage. • Off-road, ten-foot wide granulated stone trails, sited for minimum impact, typically on the periphery of conservation areas to minimize habitat disturbance. • Paved trails may be used in public parks and recreation areas. • Detailed alignments should provide river access where public access is available and may be routed through interior of sites. 	Public use of some DNR lands may be limited by terms of acquisition, wildlife habitat, or use conflicts. In these cases, a buffer strip on the periphery of DNR sites may be acquired through the use of a 28E agreement for construction and maintenance. These strips would both accommodate the trail and provide a buffer between wildlife conservation areas and private property.

Off-road trail on DNR property or other public lands before development

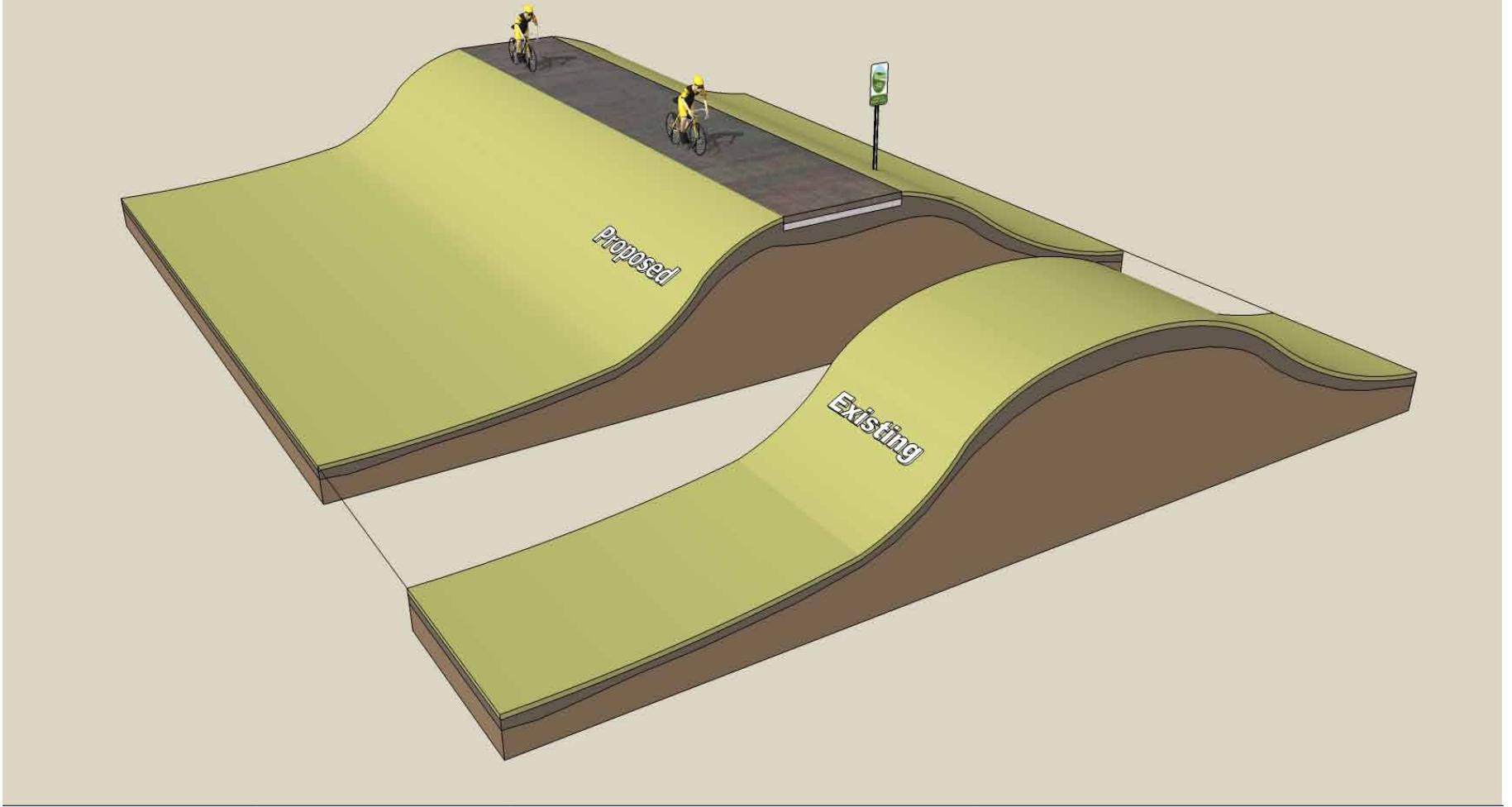


Off-road trail on DNR property or other public lands after development





Off-road trail on levee



Design Prototype	Opportunity Context	Typical Design Treatment	Features and Variations
Trail on levees	Levees along major waterways, primarily the Missouri River and a short segment of the Boyer River.	<ul style="list-style-type: none"> • Trail identification signage if permitted. If signage is not allowed, directional signage would be provided on intersecting roads. • Off-road, ten-foot wide granulated stone trail. Trail also serves as a maintenance path. Width may vary depending on geometry of the levee. • Paved trails are appropriate in areas of high potential public use. 	<p>Use of levees requires permission by the US Army Corps of Engineers and may require agreement by a private property owner, depending on the status of title to the land. In some cases, the underlying land may be private and the right to build and maintain the levee covered by an easement.</p> <p>Levee-top trails are already used in the Council Bluffs and Sioux City metropolitan areas.</p> <p>Other levees may be incorporated into the system with the agreement or at the initiative of governing levee districts.</p>

Off-road trail on levee before development

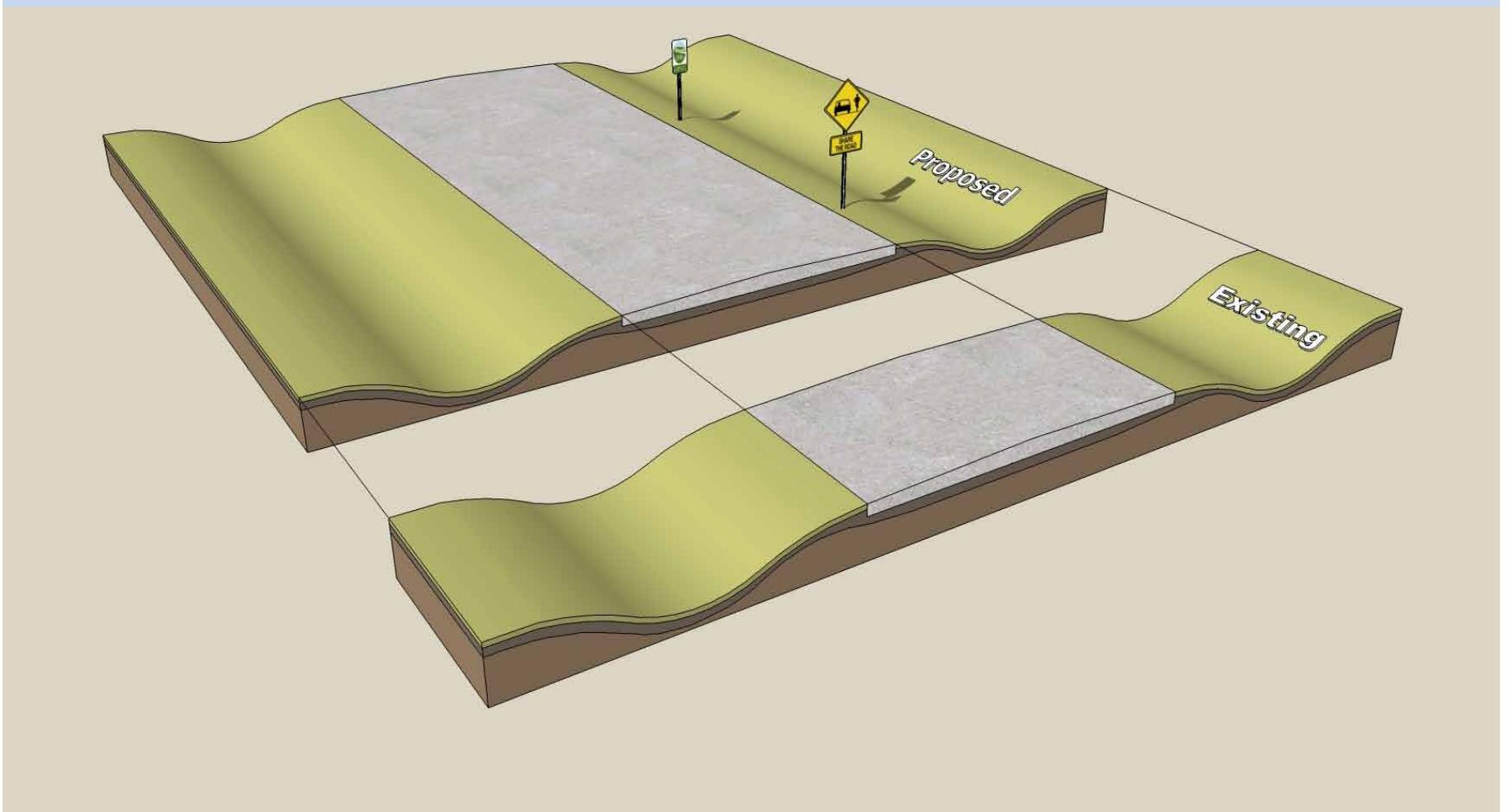


Off-road trail on levee after development





Existing gravel road with shared route

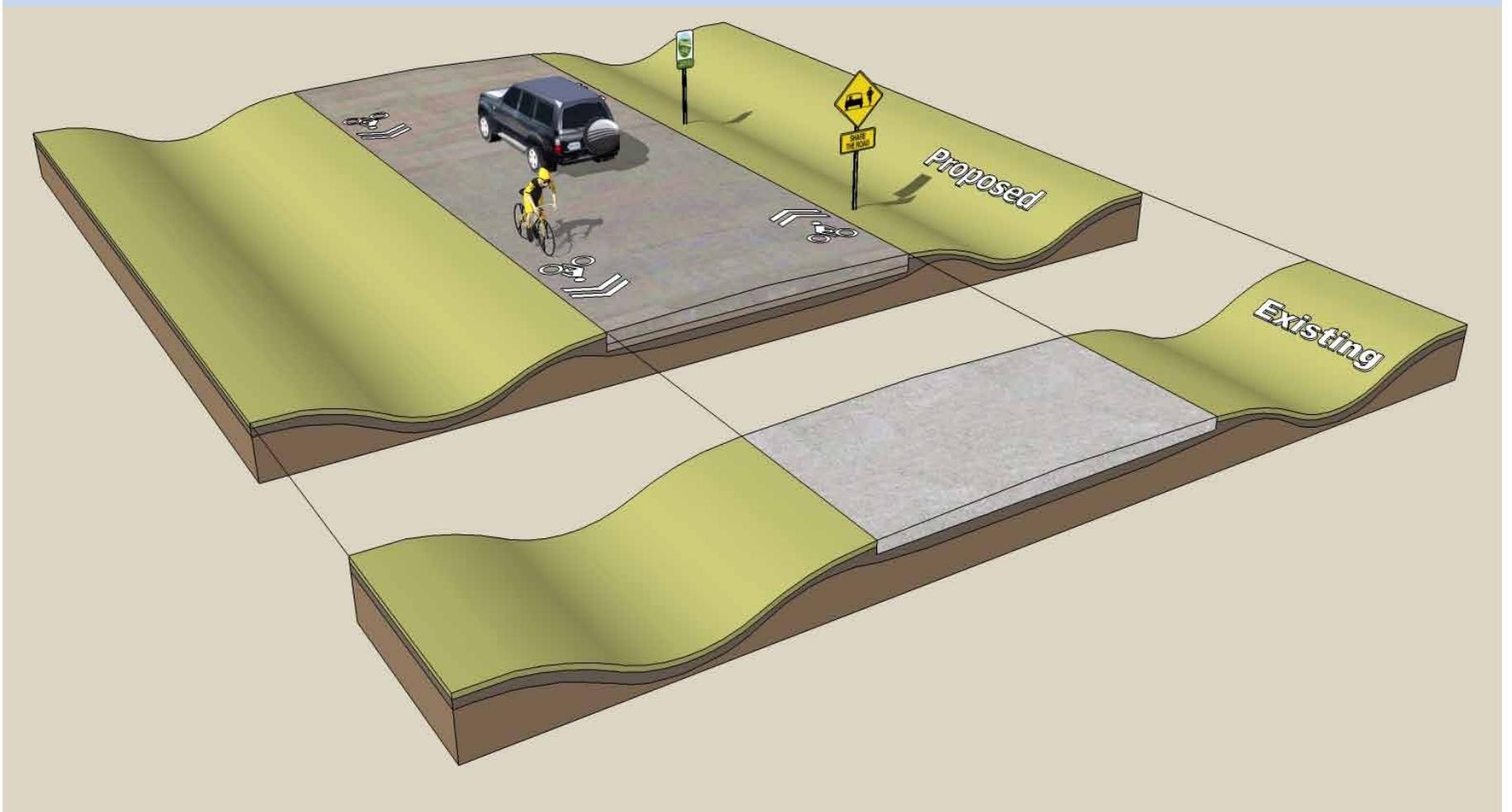


Design Prototype	Opportunity Context	Typical Design Treatment	Features and Variations
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Existing gravel road, shared route	Very low-volume gravel roads with light projected trail use	<ul style="list-style-type: none"> • Trail identification and shared route signage. • Ideally, maintain with relatively fine gravels and sufficiently compressed single tracks to permit comfortable use of hybrid or mountain bicycles, along with potential equestrian use. 	
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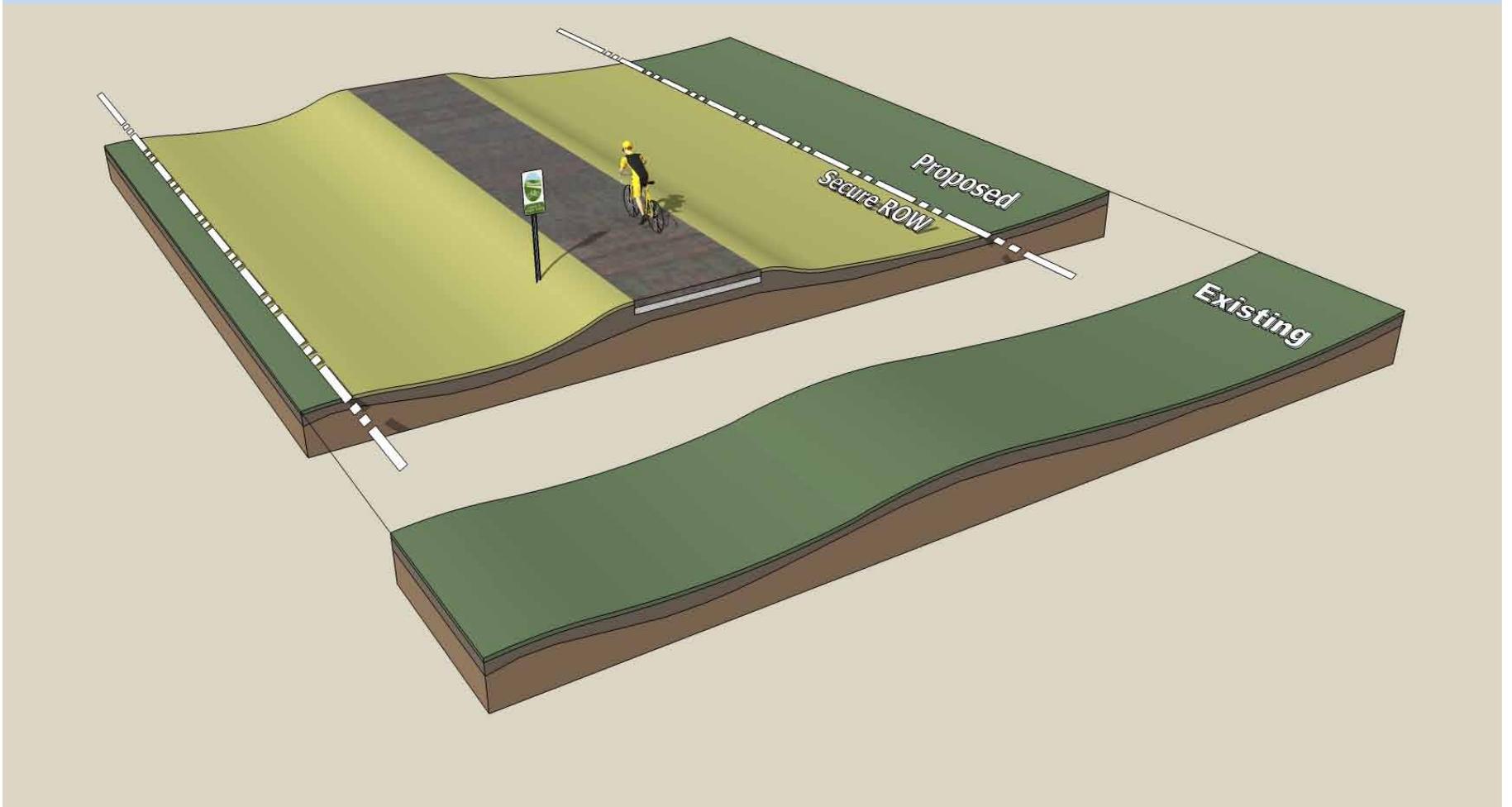
Existing gravel road with paving or other hard-surface



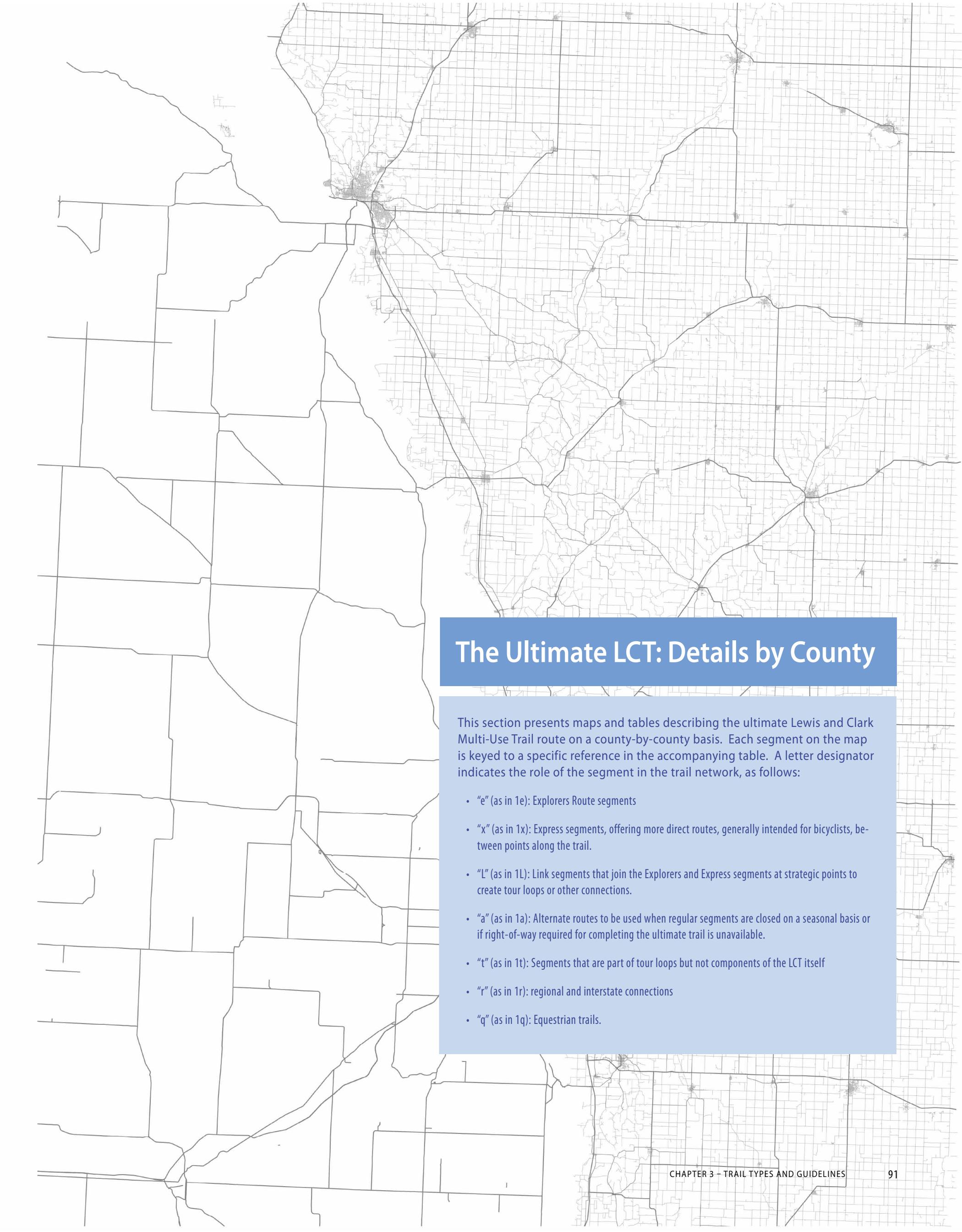
Design Prototype	Opportunity Context	Typical Design Treatment	Features and Variations
Existing gravel road to be paved or otherwise hard-surfaced	<p>Low-volume gravel roads that connect the major through route to major features that are likely to attract heavy use, such as off-road trail segments through DNR properties or along the river.</p> <p>Low- to medium volume gravel roads that are major linear segments of the proposed trail;</p> <p>Gravel road corridors that parallel major highways and serve major regional functions, such as providing safe, low-traffic connections between destinations</p> <p>Gravel roads with use characteristics that generate significant dust</p>	<ul style="list-style-type: none"> • Trail identification and shared road signage • Various road sections depending upon current and potential traffic volumes. Options include: <ul style="list-style-type: none"> » Conventional road section (22-24 foot cartway) with bicycle shoulders. » Conventional road section (22-24 foot cartway) with sharrows or advisory bicycle domain striping. » Single track roadway (20-foot cartway) with advisory bicycle domain striping. 	



Off-road trail on acquired right-of-way



Design Prototype	Opportunity Context	Typical Design Treatment	Features and Variations
Trail on new right-of-way	Trail corridors that connect roads or roads and public lands that involve acquisition of property or easement rights.	<ul style="list-style-type: none"> • Trail identification signage. • Off-road, ten-foot wide granulated stone or paved trails. • Paved trails are appropriate in areas of high potential public use, such as connections of tourist facilities to the riverfront or tour loop segments. 	The trail master plan indicates alternative routes should acquisition of property or easements prove impossible.



The Ultimate LCT: Details by County

This section presents maps and tables describing the ultimate Lewis and Clark Multi-Use Trail route on a county-by-county basis. Each segment on the map is keyed to a specific reference in the accompanying table. A letter designator indicates the role of the segment in the trail network, as follows:

- “e” (as in 1e): Explorers Route segments
- “x” (as in 1x): Express segments, offering more direct routes, generally intended for bicyclists, between points along the trail.
- “l” (as in 1l): Link segments that join the Explorers and Express segments at strategic points to create tour loops or other connections.
- “a” (as in 1a): Alternate routes to be used when regular segments are closed on a seasonal basis or if right-of-way required for completing the ultimate trail is unavailable.
- “t” (as in 1t): Segments that are part of tour loops but not components of the LCT itself
- “r” (as in 1r): regional and interstate connections
- “q” (as in 1q): Equestrian trails.

WOODBURY COUNTY - North

KEY FOR TABLE:

Regular LCT Route Segments

Unchanged LCT Today Route Segments

Woodbury County: Explorer's/Express Route

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Highlights/Comments
Riverside Boulevard (Iowa 12), Dorothy Picault Nature Center at Stone State Park to Riverside Park	1e	3.6	2-lane, high-volume state highway, ADT>2,000 vpd	Paved sidepath	<ul style="list-style-type: none"> Nature center and Stone State Park Milwaukee Road roundhouse and railroad museum Riverside neighborhood and city services Access to South Dakota via Military Avenue bridge
Sioux City Riverfront Trail from Riverside Park (existing terminus) to Floyd Boulevard	2e	4.1	Existing paved multiple-use path		<ul style="list-style-type: none"> Sioux City Riverfront features, including Chris Larsen Park, Lewis and Clark Interpretive Center, Anderson Dance Pavilion. Connections to Perry Creek Trail and Downtown Sioux City.
Extension of Floyd River Trail from current trail terminus to Dace Avenue.	3e	0.1	Undeveloped riverbank	Off-road trail <i>Paved multi-use path</i>	<ul style="list-style-type: none"> Trail would extend under reconstructed I-29, which should accommodate new corridor. Connection to existing Floyd River Trail north of 4th Street links to Leeds neighborhood. Proposed in Sioux City DesignWorks urban design guidelines.
Dace/Leech Avenue, Floyd River Trail to old channel	4e	0.7	4-lane urban street with adjacent sidepath	Off-road Trail or paved sidepath <i>Adaptation of existing Floyd River bridge and street through reduction to 3-lanes with bike lanes, or construction of a parallel bridge and sidepath.</i>	
Old Floyd channel from Leech Avenue to riverfront	5e	0.9	Unused concrete channel	Off-road Trail <i>Conversion of channel to greenway with multi-use path</i>	<ul style="list-style-type: none"> Major recommendation of Sioux City DesignWorks urban design guidelines. Greenway conversion becomes of a significant element of a Stockyards redevelopment program
Riverfront Trail extension from mouth of old channel to terminus of existing trail south of railroad bridge	6e	0.5	Undeveloped riverbank	Off-road Trail <i>Paved</i>	<ul style="list-style-type: none"> Major recommendation of Sioux City DesignWorks urban design guidelines. Probably requires a bridge over the mouth of the old channel. Should be coordinated with reconstruction of Interstate 29.
Riverfront Trail from existing terminus to Chautauqua Park	7e	1.9	Existing multi-use path along riverfront		<ul style="list-style-type: none"> Peters Point neighborhood and business district around the Morningside Avenue intersection. Morningside College
Harbor Drive, Chautauqua Park to Singing Hills Boulevard	8e	0.9	2-lane urban street	Paved sidepath or off-road trail <i>Optional shared on-street route</i>	<ul style="list-style-type: none"> Route requires a crossing of an industrial railroad spur, taking path from west to east side of Harbor Drive. Shared use of Harbor Drive should also be permitted.
Harbor Drive/I-29 right-of-way, Singing Hills Boulevard to 8th Street	9e	2.1	2/3-lane urban industrial street	Paved sidepath or off-road trail <i>Optional shared on-street route or bike lanes</i>	<ul style="list-style-type: none"> North of Blvd. of Champions, path should be developed with realignment of Harbor Drive and located in area between Harbor and I-29, with adequate barrier fencing from the freeway. Path of south could either continue along Harbor Drive or follow the edge of the I-29 right-of-way. Any reconstruction or relocation of Harbor Drive should include shoulders, which can also serve as bike lanes.
8th Street, Harbor to D Street	10e	0.5	2-lane urban street, shared route	Shared route	
D Street, 8th to Topaz Drive	11e	0.8	2-lane urban street, divided boulevard through traditional town center; shared route	Shared route	<ul style="list-style-type: none"> Sergeant Bluff's traditional town center. Services near I-29/Sergeant Bluff interchange Middle school campus
Topaz Drive, D to Port Neal Road	12e	0.3	Wide 2-lane urban avenue, shared route	Shared route	<ul style="list-style-type: none"> Middle school and high school campus
Port Neal Road (K25), Topaz Drive to 225th Street	13e	1.2	Paved 2-lane county road, shared route.	Paved shoulders as bike lanes	
Port Neal Road (K25), 220th Street to Brown's Lake	14e	4.6	Paved 2-lane county road, shared route.	Paved shoulders as bike lanes	<ul style="list-style-type: none"> Shoulder treatment would merge into shared lane at I-29 overpass. Provide invited access to I-29 Lewis and Clark/Siouxland Welcome Center.
Brown's Lake to Snyder-Winnebago Bend (330th Street)	15e	6.9	County recreation and state DNR properties	Off-road trail <i>Granulated stone path for most users; opportunity for parallel equestrian trail</i>	<ul style="list-style-type: none"> Path on appropriate alignment through Brown's Lake/Bigelow Park, Brown's Lake/Snyder Bend connecting corridor, and Snyder/Winnebago Bends to line of 330th Street.
330th Street Alignment, Winnebago Bend to WiineVegas Casino	16e	0.6	Open land	Off-road trail <i>Granulated stone or paved path</i>	<ul style="list-style-type: none"> Construction on tribal land, providing riverfront recreational access from the casino area.
K35/Iowa 141(330th Street), WinneVegas Casino to Sloan	17e	4.4	Paved 2-lane high volume county road	Sidepath to Sloan	<ul style="list-style-type: none"> Completes a trail connection between Sloan and the Missouri Riverfront

WOODBURY COUNTY - South



LEGEND

- Segment Key on the Bluffs & Bottoms Trail
- Segment Key on the Express Segment
- Segment Reference Point
- Existing Paved Road, Shared Route
- Existing Paved Road, Shoulder/Bicycle Lane
- Existing Paved Road or Adjacent Trail
- Existing Gravel Road, Shared Route
- Existing Gravel Road, Sidepath or Enhanced Surface
- Existing Gravel Road, Paving or Hard-Surfacing
- Existing Offroad Trail
- Existing Trail in Nebraska or South Dakota
- Off-Road Trail on DNR or Other Public Property
- New separated Trail, ROW to be Secured
- New Trail on Levee, ROW to be Secured
- Connecting Route
- Potential Equestrian Route
- 1,100 Average Daily Traffic (ADT)
- Abandoned Railroad
- Interstate
- State Highway
- Paved County Road
- Unpaved County Road
- County Boundary
- Wetland
- Lake, River, Creek
- Conservation Area (Forested Area)
- Conservation Area (Farm Protection, Grassland)
- State Park
- Populated Place
- Loess Hills

0 1 2 Miles

WOODBURY COUNTY - South

KEY FOR TABLE: Explorers Segments Express Segments Unchanged LCT Today Route Segments

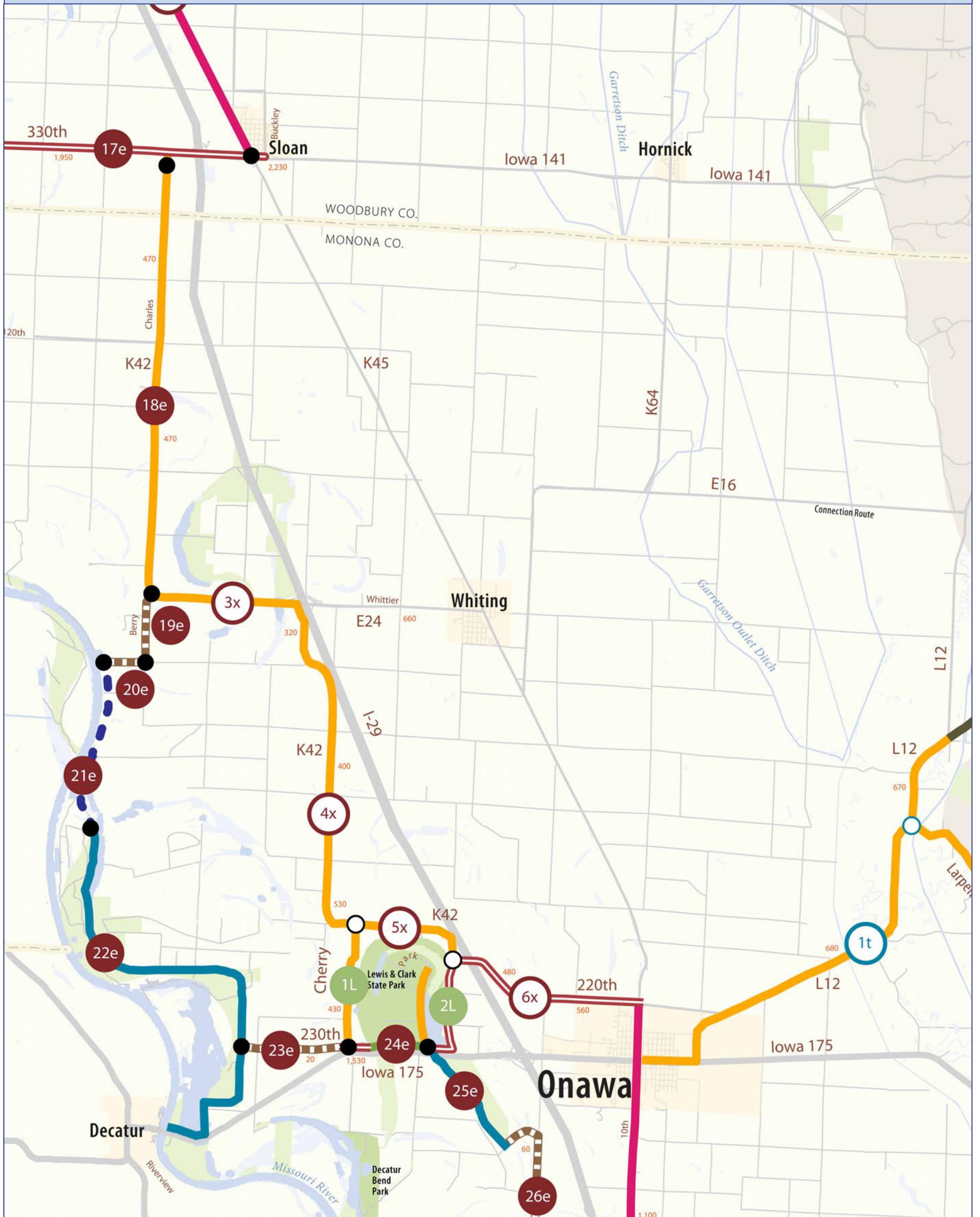
Woodbury County: Explorer's/Express Route

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Highlights/Comments
Express K25, Brown's Lake to Salix	1x	2.5	Paved 2-lane moderate volume county road	Shared route	<ul style="list-style-type: none"> Continuation of LCT Today route Links Salix to Brown's Lake. Could be upgraded to sidepath as a local trail connection between town and recreational resources.
	K45, Salix to Sloan	2x	6.2	Paved 2-lane high volume county road	Paved shoulders as bike lanes

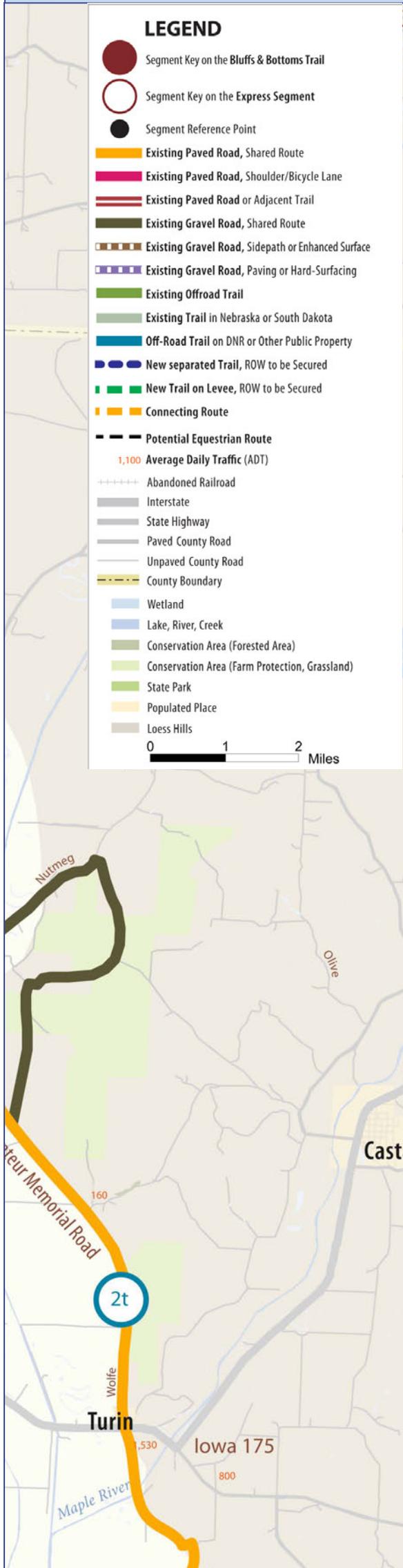
Tour Loops: Snyder Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
K25, Brown's Lake to Salix	1x	2.5	Paved 2-lane moderate volume county road	Shared route	
K45, Salix to Sloan	2x	6.2	Paved 2-lane high volume county road	Paved shoulders as bike lanes	
Brown's Lake to Snyder-Winnebago Bend (330th Street)	15e	6.9	County recreation and state DNR properties	Off-road trail <i>Granulated stone path for most users; opportunity for parallel equestrian trail</i>	<ul style="list-style-type: none"> Path on appropriate alignment through Brown's Lake/Bigelow Park, Brown's Lake/Snyder Bend connecting corridor, and Snyder/Winnebago Bends to line of 330th Street.
330th Street Alignment, Winnebago Bend to WiineVegas Casino	16e	0.6	Open land	Off-road trail <i>Granulated stone or paved path</i>	<ul style="list-style-type: none"> Construction on tribal land, providing riverfront recreational access from the casino area.
K35/Iowa 141(330th Street), WinneVegas Casino to Sloan	17e	2.5	Paved 2-lane high volume county road	Sidepath to Sloan	<ul style="list-style-type: none"> Completes a trail connection between Sloan and the Missouri Riverfront

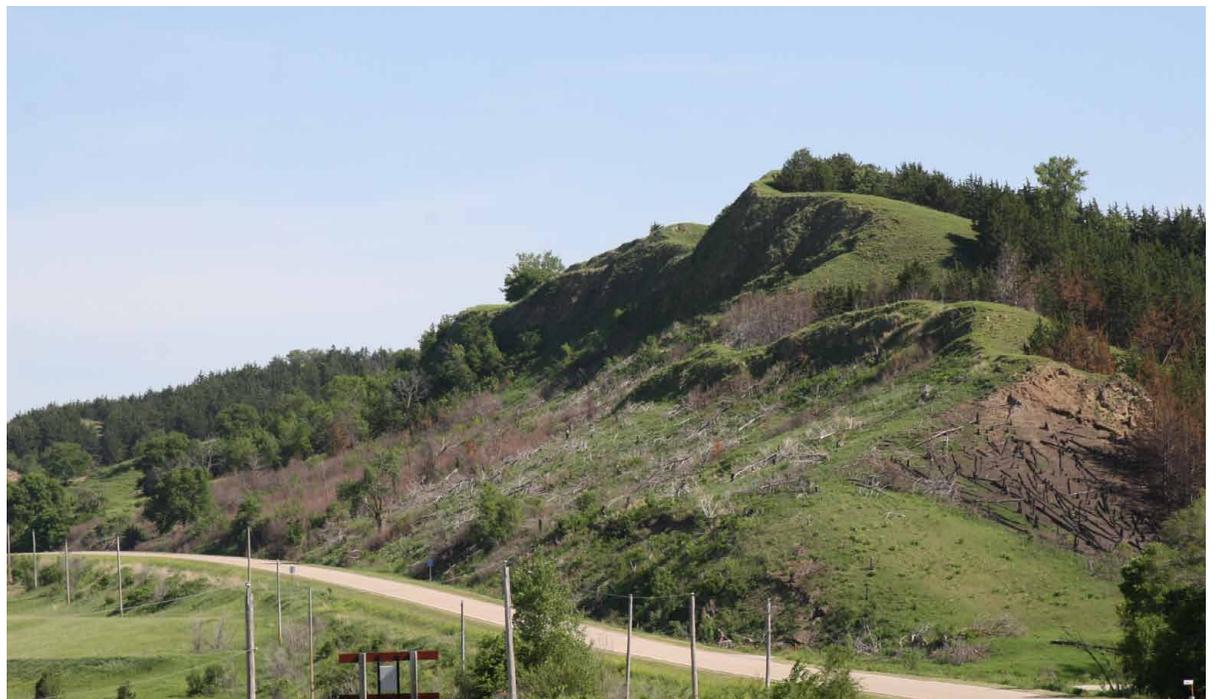
MONONA COUNTY - North



MONONA COUNTY - North



Onawa Public Library



Larpenteur Memorial Road



Country Homestead Bed & Breakfast

MONONA COUNTY

KEY FOR TABLE:

Regular LCT Route Segments

Unchanged LCT Today Route Segments

Monona County: Explorer's/Express Route

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Highlights/Comments	
K42, Iowa 141 to 160th Street	18e	6.6	Paved 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Continuation of LCT Today Route 	
Berry Avenue, 160th to 170th Street	19e	1.1	Gravel, very low-volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> Predicated on acquisition of riverfront right of way or easement 	
170th Street, Berry Avenue to riverfront	20e	0.6	Gravel, very low-volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> Predicated on acquisition of riverfront right of way or easement Existing dead-end at riverfront 	
Riverfront, 170th to Blackbird Island	21e	2.6	Private property	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Requires acquisition of riverfront right of way or easement. Several alternative routes exist, all of which involve dedication of right-of-way or easements. 	
Blackbird/Ivy Island WMA (DNR land) to 230th Street.	22e	5.2	DNR wildlife management area	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Path on periphery of DNR property Right of way acquisitions required for continuity to the north. Without secure ROW, this becomes an out and back trail through these WMA's. 	
230th Street, Blackbird/Ivy Island WMA to Iowa 175	23e	1.5	Gravel, very low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> Links Lewis and Clark S.P. and Onawa to riverfront. Provides a more direct connection than Iowa 175 alignment. 	
Express	K42, Berry Avenue to I-29 Whiting interchange	3x	2.2	Paved 2-lane low-volume county road	Shared route	<ul style="list-style-type: none"> Continuation of LCT Today Route Also accommodates Explorer's Route if acquisition is unfeasible
	K42, Whiting interchange to 210th Street	4x	5.4	Paved 2-lane low-volume county road	Shared route	<ul style="list-style-type: none"> Continuation of LCT Today Route Also accommodates Explorer's Route if acquisition is unfeasible
	K42 (210th Street), Cherry Avenue to Dogwood Avenue	5x	1.8	Paved 2-lane low-volume county road	Shared route	
Iowa 175, Cherry Avenue to Dogwood Avenue	24e	1.3	Paved high volume 2-lane state highway (ADT > 1,500 vpd)	Sidepath <i>transition to multi-use path on south edge of Lewis and Clark State Park</i>	<ul style="list-style-type: none"> Lewis and Clark State Park Interpretive Center and keelboat display Blue Lake Recreation Area with camping Highway commercial services 1.5 miles east on Iowa 175. Sidepath could be continued to the east to access these services. 	
Link	Dogwood Avenue, Iowa 175 to K42	2L	1.7	Paved 2-lane moderate volume county road	Sidepath	<ul style="list-style-type: none"> Off-road path part of a protected trail link between Onawa and Lewis and Clark State Park.
	Blue Lake WMA, Iowa 175 to Filbert Avenue	25e	2.0	DNR property	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Alignment along peninsula of park, following an old channel of the Missouri River.
	Filbert Avenue, Lewis and Clark State Park to Louisville Bend WMA	26e	2.9	Gravel, very low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	
	Louisville Bend WMA and riverfront, between north and south segments of Filbert Avenue	27e	3.8	DNR and private property	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Predicated on acquisition of property or easement between south edge of Louisville Bend WMA and south segment of Filbert Avenue. Alternative route if ROW acquisition proves impossible uses 284th Street, Hazel Avenue, and 305th Street, all gravel roads.
	Filbert Avenue/320th Street/Gum Avenue from north terminus of Filbert to Monona-Harrison County line	28e	4.1	Gravel, very low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> Without riverfront ROW acquisition, segment begins at 305th Street on the north.
Express	K42, Dogwood Avenue to 10th Street (K45) in Onawa	6x	3.0	Paved 2-lane county road, shared route.	Sidepath	<ul style="list-style-type: none"> Off-road path part of a protected trail link between Onawa and Lewis and Clark State Park.
	K45, K42 to E60 at Blencoe	7x	7.4	Paved 2-lane county road with 2-lane urban street section through Onawa	Bicycle shoulders on rural sections, bike lane within Onawa.	<ul style="list-style-type: none"> Monona County Historical Museum Onawa Community Center Main Street Onawa Blencoe
	K45, Blencoe to Monona/Harrison County Line	8x	4.3	Paved 2-lane low-volume county road	Shared route	<ul style="list-style-type: none"> Connection to riverfront with trail on railroad property along Monona/Harrison line
Link	Union Pacific property, K45 to Gum Avenue	3L	1.7	Undeveloped railroad corridor	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Connects Explorers Route with Express option along county line. Grade separation under I-29

MONONA COUNTY

KEY FOR TABLE: New Loop Segments Express Segments Explorers Segments Links

Tour Loops: Blackbird Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
Berry Avenue, 160th to 170th Street	19e	1.1	Gravel, very low-volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> Predicated on acquisition of riverfront right of way or easement
170th Street, Berry Avenue to riverfront	20e	0.6	Gravel, very low-volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> Predicated on acquisition of riverfront right of way or easement Existing dead-end at riverfront
Riverfront, 170th to Blackbird Island	21e	2.6	Private property	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Requires acquisition of riverfront right of way or easement. Several alternative routes exist, all of which involve dedication of right-of-way or easements.
Blackbird/Ivy Island WMA (DNR land) to 230th Street.	22e	5.2	DNR wildlife management area	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Path on periphery of DNR property Right of way acquisitions required for continuity to the north. Without secure ROW, this becomes an out and back trail through these WMA's.
230th Street, Blackbird/Ivy Island WMA to Iowa 175	23e	1.5	Gravel, very low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> Links Lewis and Clark S.P. and Onawa to riverfront. Provides a more direct connection than Iowa 175 alignment.
K42, Berry Avenue to I-29 Whiting interchange	3X	2.2	Paved 2-lane low-volume county road	Shared route	<ul style="list-style-type: none"> Continuation of LCT Today Route Also accommodates Explorer's Route if acquisition is unfeasible
K42, Whiting interchange to 210th Street	4X	5.4	Paved 2-lane low-volume county road	Shared route	<ul style="list-style-type: none"> Continuation of LCT Today Route Also accommodates Explorer's Route if acquisition is unfeasible
K42 (210th Street), Cherry Avenue to Dogwood Avenue	5X	1.8	Paved 2-lane low-volume county road	Shared route	
Cherry Avenue, K42 to Iowa 175	1L	1.8	Paved 2-lane low-volume county road	Shared route	

KEY FOR TABLE: New Loop Segments Express Segments Explorers Segments Links

Tour Loops: Blue Lake Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
Iowa 175, Cherry Avenue to Dogwood Avenue	24e	0.4	Paved high volume 2-lane state highway (ADT>1,500 vpd)	Sidepath <i>transitioning to multi-use path on south edge of Lewis and Clark State Park</i>	<ul style="list-style-type: none"> Lewis and Clark State Park Interpretive Center and keelboat display Blue Lake Recreation Area with camping Highway commercial services 1.5 miles east on Iowa 175. Sidepath could be continued to the east to access these services.
K42 (210th Street), Cherry Avenue to Dogwood Avenue	5x	1.8	Paved 2-lane low-volume county road	Shared route	
Cherry Avenue, K42 to Iowa 175	1L	1.8	Paved 2-lane low-volume county road	Shared route	
Dogwood Avenue, Iowa 175 to K42	2L	1.7	Paved 2-lane moderate volume county road	Sidepath	

MONONA COUNTY

KEY FOR TABLE: New Loop Segments Express Segments Explorers Segments Unchanged Segments

Tour Loops: Larpenteur Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
Dogwood Avenue, Iowa 175 to K42	2L	1.7	Paved 2-lane moderate volume county road	Sidepath	
K42, Dogwood Avenue to 10th Street (K45) in Onawa	6x	3.0	Paved 2-lane moderate volume county road	Sidepath	<ul style="list-style-type: none"> Off-road path part of a protected trail link between Onawa and Lewis and Clark State Park.
L12, Iowa 175 to Larpenteur Memorial Road	1t	6.3	Paved 2-lane moderate volume county road	Shared route	<ul style="list-style-type: none"> Sylvan Runker State Preserve and Loess Hills Wildlife Management Area Approach to the loess hills landscape
Larpenteur Memorial Road, L12 to E54	2t	9.4	Paved 2-lane moderate/low volume county road	Shared route	<ul style="list-style-type: none"> Turin Preserve Town of Turin Connection back to K45 and express route via E54
Larpenteur Memorial Road, E54 to Iowa 183 at Moorhead	3t	6.6	Paved 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Moorhead town center, the "capital" of the Loess Hills. Visitor center and Loess Hills Association headquarters
Iowa 183, Moorhead to F20 at Pisgah	4t	7.2	Paved, 2-lane moderate volume county road	Shared route	<ul style="list-style-type: none"> Preparation Canyon State Park Pisgah
F20, Iowa 183 at Pisgah to K45	33e	7.9	Paved, 2-lane low to moderate volume county road	Shared route	<ul style="list-style-type: none"> Little Sioux and Little Sioux City Park Murray Hill Overlook, with steep climb on southbound route Loess Hills State Forest Pisgah Loess Hills Scenic Byway Continuation of LCT Today route
K45, K42 to E60 at Blencoe	7x	7.4	Paved 2-lane county road with 2-lane urban street section through Onawa	Bicycle shoulders on rural sections, bike lane within Onawa.	<ul style="list-style-type: none"> Monona County Historical Museum Onawa Community Center Main Street Onawa Blencoe
K45, Blencoe to Monona/Harrison County Line	8x	4.3	Paved 2-lane low-volume county road	Shared route	<ul style="list-style-type: none"> Connection to riverfront with trail on railroad property along Monona/Harrison line
K45, County Line to F20	9x	4.7	Paved, 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Access to Little Sioux and riverfront via F20 Continuation of LCT Today route

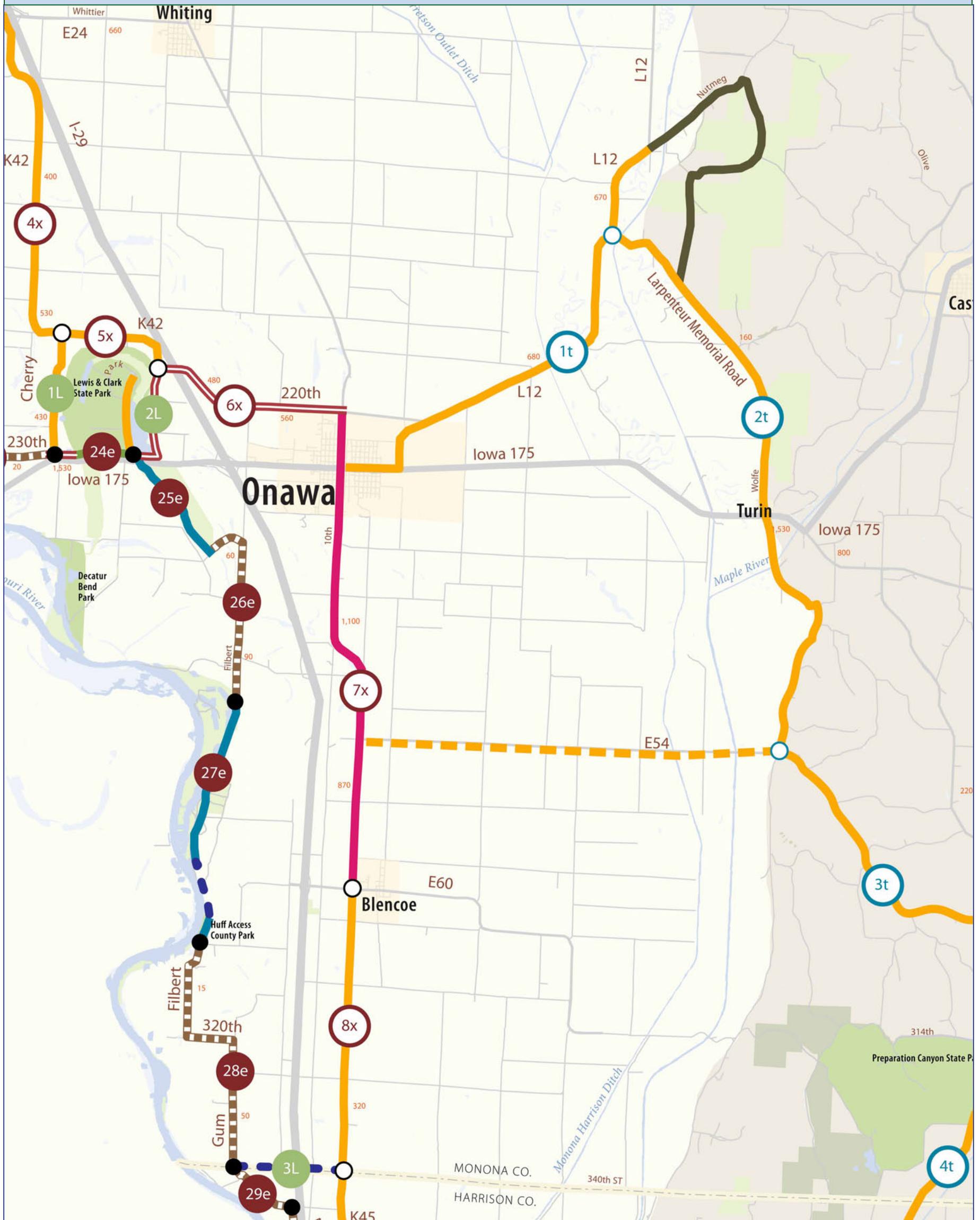
MONONA COUNTY

KEY FOR TABLE: New Loop Segments Express Segments Explorers Segments Links

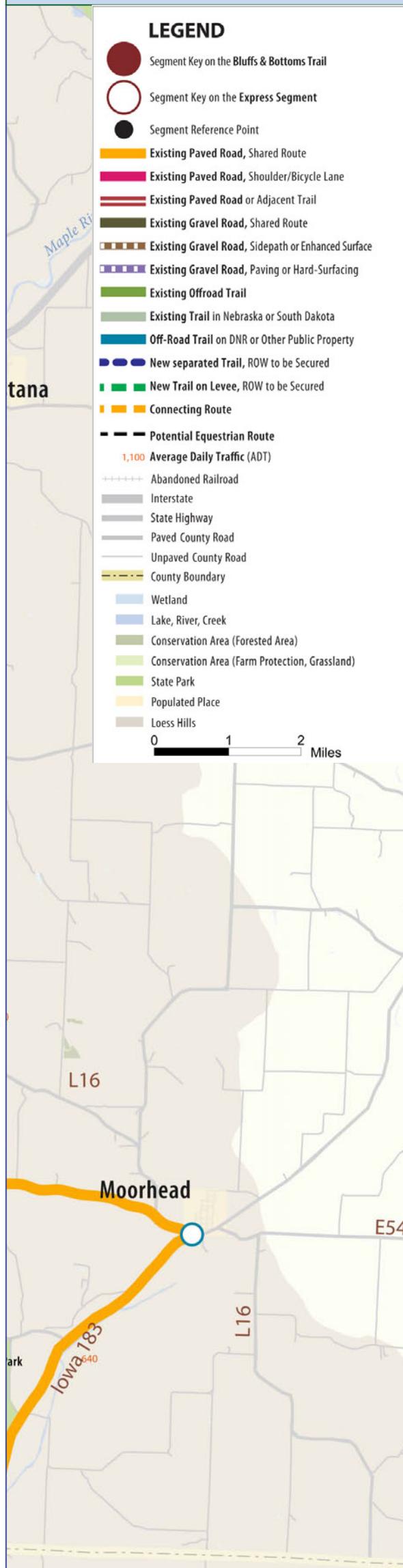
Tour Loops: Louisville Bend Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
Dogwood Avenue, Iowa 175 to K42	2L	1.7	Paved 2-lane moderate volume county road	Sidepath	
Union Pacific property, K45 to Gum Avenue	3L	1.7	Undeveloped railroad corridor	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Connects Explorers Route with Express option along county line. Grade separation under I-29
Blue Lake WMA, Iowa 175 to Filbert Avenue	25e	2.0	DNR property	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Alignment along peninsula of park, following an old channel of the Missouri River.
Filbert Avenue, Lewis and Clark State Park to Louisville Bend WMA	26e	2.9	Gravel, very low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	
Louisville Bend WMA and riverfront, between north and south segments of Filbert Avenue	27e	3.8	DNR and private property	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Predicated on acquisition of property or easement between south edge of Louisville Bend WMA and south segment of Filbert Avenue. Alternative route if ROW acquisition proves impossible uses 284th Street, Hazel Avenue, and 305th Street, all gravel roads.
Filbert Avenue/320th Street/Gum Avenue from north terminus of Filbert to Monona-Harrison County line	28e	4.1	Gravel, very low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> Without riverfront ROW acquisition, segment begins at 305th Street on the north.
106th Trail, County Line to Adams Trail	29e	1.1	Gravel, very low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	
Adams Trail, 106th Trail to north boundary of Deer Island WMA	30e	1.4	DNR property	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	
Deer Island and Three Rivers WMA/Little Sioux Delta Park, Adams Trail to F20	31e	4.4	DNR and county property	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> Path on periphery of a chain of public properties, including river access points. Southern portion of segment adjoins I-29
F20, Three Rivers to K45	32e	1.0	Paved, 2-lane moderate volume county road with I-29 interchange	Shoulder/bike lanes	<ul style="list-style-type: none"> Interchange access to I-29. Bike lane preferable to sidepath because of conflicting traffic movements.
K42, Dogwood Avenue to 10th Street (K45) in Onawa	6x	3.0	Paved 2-lane county road, shared route.	Sidepath	<ul style="list-style-type: none"> Off-road path part of a protected trail link between Onawa and Lewis and Clark State Park.
K45, K42 to E60 at Blencoe	7x	7.4	Paved 2-lane county road with 2-lane urban street section through Onawa	Bicycle shoulders on rural sections, bike lane within Onawa.	<ul style="list-style-type: none"> Monona County Historical Museum Onawa Community Center Main Street Onawa Blencoe
K45, Blencoe to Monona/Harrison County Line	8x	4.3	Paved 2-lane low-volume county road	Shared route	<ul style="list-style-type: none"> Connection to riverfront with trail on railroad property along Monona/Harrison line
K45, County Line to F20	9x	4.7	Paved, 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Access to Little Sioux and riverfront via F20 Continuation of LCT Today route

MONONA COUNTY - South



MONONA COUNTY - South



Monona County Courthouse



Preparation Canyon State Park



Loess Hills State Forest Visitor's Center; Pisgah

HARRISON COUNTY - North



HARRISON COUNTY - North



Rural Harrison County



Murray Hill Scenic Overlook



Rural Harrison County

HARRISON COUNTY

KEY FOR TABLE:

Regular LCT Route Segments

Unchanged LCT Today Route Segments

Harrison County: Explorer's/ Express Route

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Highlights/Comments
106th Trail, County Line to Adams Trail	29e	1.1	Gravel, very low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	
Adams Trail, 106th Trail to north boundary of Deer Island WMA	30e	1.4	DNR property	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	
Deer Island and Three Rivers WMA/Little Sioux Delta Park, Adams Trail to F20	31e	4.4	DNR and county property	Off-road trail <i>Granulated stone path</i>	<ul style="list-style-type: none"> • Path on periphery of a chain of public properties, including river access points. • Southern portion of segment adjoins I-29
F20, Three Rivers to K45	32e	1.0	Paved, 2-lane moderate volume county road with I-29 interchange	Shoulder/bike lanes	<ul style="list-style-type: none"> • Interchange access to I-29. • Bike lane preferable to sidepath because of conflicting traffic movements.
Express K45, County Line to F20	9x	4.7	Paved, 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> • Access to Little Sioux and riverfront via F20 • Continuation of LCT Today route
F20, K45 to Iowa 183 at Pisgah	33e	7.9	Paved, 2-lane low to moderate volume county road	Shared route	<ul style="list-style-type: none"> • Little Sioux and Little Sioux City Park • Murray Hill Overlook, with steep climb on southbound route • Loess Hills State Forest • Pisgah • Loess Hills Scenic Byway • Continuation of LCT Today route
Iowa 183, F20 at Pisgah to Iowa 127	34e	8.9	Paved 2-lane moderate (borderline high) volume state highway.	Shoulder/bike lanes	<ul style="list-style-type: none"> • Loess Hills State Forest
Iowa 127, Iowa 183 to K45 at Mondamin	35e, 11x	3.3	Paved 2-lane high volume state highway	Shoulder/bike lanes	<ul style="list-style-type: none"> • Mondamin town center • Access to I-29 at interchange
Express K45, F20 at River Sioux to Mondamin	10x	6.3	Paved 2-lane moderate volume county road	Shared route	<ul style="list-style-type: none"> • Continuation of LCT Today route • Access to Round Lake WMA
Equestrian Soldier Bend WMA, 212th to 222nd Street	1q	3.0	DNR property	Equestrian path starting at a 212th Street trailhead	<ul style="list-style-type: none"> • May require access easements to connect with county roads • Path on periphery of area, closed during hunting season
222nd Street to 260th Street	2q	6.0	Unpaved county roads	Equestrian path along county roads	
K45, Mondamin to 260th Street	36e	5.9	Paved 2-lane moderate volume county road	Shared route	<ul style="list-style-type: none"> • Continuation of LCT Today route
260th Street, K45 to Tyson Bend	37e	4.2	Gravel, low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> • Access to Horseshoe Lake area • Connection requires trail continuity linking Tyson Island and California Bend to each other and to US 30. Alternate route is K45 between 260th and 305th Street
Tyson and California Bend Wildlife Management Areas, 260th Street to US 30	38e	7.4	DNR and private property	Off-road trail <i>Granulated stone path; equestrian path generally parallel to multi-use path</i>	<ul style="list-style-type: none"> • Requires acquisition of easements or right of ways connecting Tyson and California Bend, and California Bend to US 30. • Combination with Soldier Bend route produces a 15 mile river-front equestrian trail. • Access to US 30 requires passage under UPRR Missouri River Bridge
US 30, Missouri River to De Soto NWR entrance/K45	39e	4.1	Paved, 2-lane high volume US highway	Sidepath	<ul style="list-style-type: none"> • Connection to shouldered Missouri River Bridge to Blair, Nebraska • South side sidepath is preferred, with possible access under east approaches of railroad and US 30 bridges

HARRISON COUNTY

KEY FOR TABLE:

Regular LCT Route Segments

Unchanged LCT Today Route Segments

Harrison County: Explorer's/ Express Route

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Highlights/Comments	
Alternate	K45, 260th Street to US 30	1a	5.0	Paved 2-lane moderate volume county road	Shared route/Sidepath <i>Shared route between 260th and 305th Streets; sidepath between 305th Street and US 30 to link with sidepath</i>	<ul style="list-style-type: none"> Necessary alternate route if Tyson/California Bend continuity between 260th and US 30 cannot be achieved. Continuation of LCT Today Route
	305th Street/Jewell Avenue, K45 to Huron Street	2a	6.2	Gravel, very low volume county road	Bicycle shoulders/Shared route <i>Paved road with bicycle facilities using either shared lanes or advisory bicycle lanes</i>	<ul style="list-style-type: none"> Key link as part of a system connection Blair, Nebraska with Missouri Valley. Road provides existing access over I-29. Necessary alternative access to maintain trail continuity when south gate of De Soto NWR is closed.
	Huron Street, Jewell Avenue to 6th Street (L20 South)	3a	1.0	Paved 2-lane urban street	Shared route <i>"bicycle boulevard"</i>	<ul style="list-style-type: none"> Continuous urban street one block north of US 30. Access to city park, campground, and town center of Missouri Valley
De Soto Bend National Wildlife Refuge, US 30 to G12	40e	3.2	Paved park road and existing granulated stone trail	Shared route <i>Option of shared use of park road or parallel granulated stone path; utilization of existing trail along Missouri River and road to south gateway at G12</i>	<ul style="list-style-type: none"> Trail continuity between US 30 and G12 is seasonal; south gate is closed during bird migration season. Design of pathway to be developed in concert with NWR administration and may involve shared use of existing roads. 	
Express	L20, Iowa 127 to F50	12x	6.8	Paved 2-lane moderate volume county road	Shared route	<ul style="list-style-type: none"> Access to Sawmill Hollow and Loess Hills Alternate alignment for LCT Today route, maintaining continuity when south access of De Soto NWR to G12 is closed
	L20, F50 to Huron Street	13x	5.0	Paved, 2-lane high volume county road; urban street south of Michigan Street	Shoulder/bike lanes	<ul style="list-style-type: none"> Part of alternate alignment for LCT Today route, maintaining continuity when south access of De Soto NWR to G12 is closed
	6th Street (L20 south), Huron Street to Boyer River	14x,4a	1.4	2-lane urban street to UP grade crossing; paved, 2-lane high volume county road south of city	Shared route in-city; shoulder/bike lanes south to river	<ul style="list-style-type: none"> Part of alternate alignment for Explorers route to maintain continuity when south access of De Soto NWR to G12 is closed
	Boyer River Levee, L20 to G12	15x, 5a	2.8	Levee top	Off-road trail <i>On levee top</i>	<ul style="list-style-type: none"> If levee top route is unavailable, trail continues along L20 with shoulder/bike lanes. River levee alignment avoids narrow railroad underpass just north of G12

HARRISON COUNTY

KEY FOR TABLE: New Loop Segments Explorers Segments Alternate LCT Segments

Tour Loops: Tyson Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
260th Street, K45 to Tyson Bend	37e	4.2	Gravel, low volume county road	Sidepath <i>Granulated stone sidepath or enhanced surface</i>	<ul style="list-style-type: none"> Access to Horseshoe Lake area Connection requires trail continuity linking Tyson Island and California Bend to each other and to US 30. Alternate route is K45 between 260th and 305th Street
Tyson Bend Spur, 260th Street to Tyson Bend State WMA	38e	7.4	DNR and private property	Off-road trail <i>Granulated stone path; equestrian path generally parallel to multi-use path</i>	<ul style="list-style-type: none"> While not currently available, extension south of Tyson Bend to US 30 via California Bend would be very desirable. Connecting lands should be acquired as opportunities are presented. Combination with Soldier Bend route produces a 15 mile riverfront equestrian trail.
US 30, Missouri River to De Soto NWR entrance/K45	39e	4.1	Paved, 2-lane high volume US highway	Sidepath	<ul style="list-style-type: none"> Connection to shouldered Missouri River Bridge to Blair, Nebraska South side sidepath is preferred, with possible access under east approaches of railroad and US 30 bridges
K45, 260th Street to US 30	1a	5.0	Paved 2-lane moderate volume county road	Shared route/Sidepath <i>Shared route between 260th and 305th Streets; sidepath between 305th Street and US 30 to link with sidepath</i>	<ul style="list-style-type: none"> Necessary alternate route if Tyson/California Bend continuity between 260th and US 30 cannot be achieved. Continuation of LCT Today Route

KEY FOR TABLE: New Loop Segments Express Segments Explorers Segments Alternate LCT Segments

Tour Loops: DeSoto Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
305th Street/Jewell Avenue, K45 to Huron Street	2a	6.2	Gravel, very low volume county road	Shared Route or Bicycle facilities <i>Paved road with bicycle facilities using either shared lanes or advisory bicycle lanes</i>	<ul style="list-style-type: none"> Key link as part of a system connection Blair, Nebraska with Missouri Valley. Road provides existing access over I-29. Necessary alternative access to maintain trail continuity when south gate of De Soto NWR is closed.
Huron Street, Jewell Avenue to 6th Street (L20 South)	3a	1.0	Paved 2-lane urban street	Shared route <i>"bicycle boulevard"</i>	<ul style="list-style-type: none"> Continuous urban street one block north of US 30. Access to city park, campground, and town center of Missouri Valley
6th Street (L20 south), Huron Street to Boyer River	14x,4a	1.4	2-lane urban street to UP grade crossing; paved, 2-lane high volume county road south of city	Shared route in-city; shoulder/bike lanes south to river	<ul style="list-style-type: none"> Part of alternate alignment for Explorers route to maintain continuity when south access of De Soto NWR to G12 is closed
Boyer River Levee, L20 to G12	15x, 5a	2.8	Levee top	Off-road trail <i>On levee top</i>	<ul style="list-style-type: none"> If levee top route is unavailable, trail continues along L20 with shoulder/bike lanes. River levee alignment avoids narrow railroad underpass just north of G12
De Soto Bend National Wildlife Refuge, US 30 to G12	40e	3.2	Paved park road and existing granulated stone trail	Shared route or Off-road trail <i>Option of shared use of park road or parallel granulated stone path; utilization of existing trail along Missouri River and road to south gateway at G12</i>	<ul style="list-style-type: none"> Trail continuity between US 30 and G12 is seasonal; south gate is closed during bird migration season. Design of pathway to be developed in concert with NWR administration and may involve shared use of existing roads.
G12, De Soto NWR to L20 (Old Lincoln Highway)	41e	6.4	Paved, 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Wilson Island State Park Access to I-29 at Loveland Access to Missouri Valley via L20 north Unavailable as continuous trail route during migration seasons at De Soto

HARRISON COUNTY

Regional Connection: Missouri Valley to Logan

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
US 30, 6th Street in Missouri Valley to Niagara Trail	1r	4.7	Paved, very high volume state highway	Paved sidepath	<ul style="list-style-type: none"> • Wayside features include Iowa Welcome Center and Harrison County Historical Village • Union Pacific mainline parallels highway to south. • Paved shoulders are an alternative solution • Boyer River levee would be an alternate route
Niagara Trail, US 30 to F50	2r	3.2	Gravel, low-volume county road	Paved road with bicycle facilities using either shared lanes or bicycle lanes	<ul style="list-style-type: none"> • Wayside features include Museum of Religious Art • Route continues via 260th Street to Logan

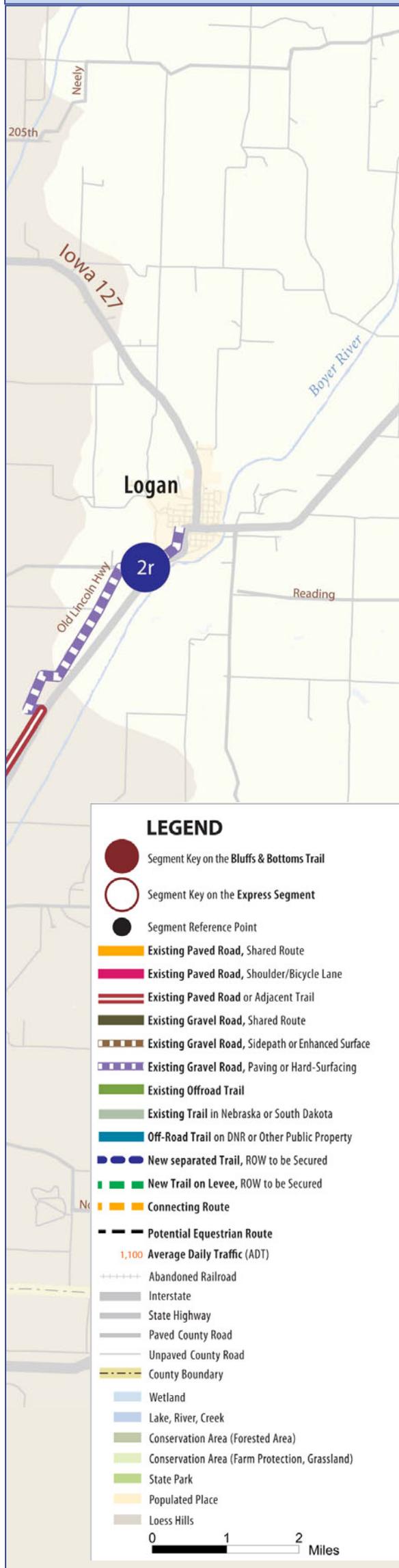


County Road L16 outside of Moorhead, Iowa.

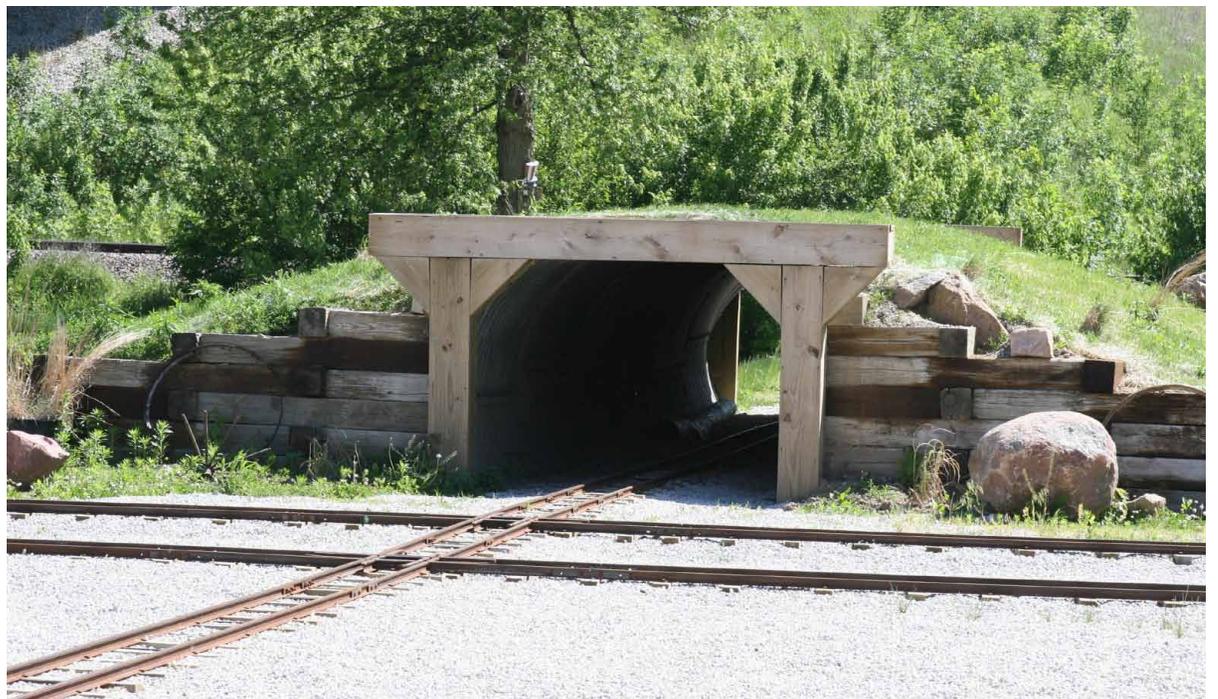
HARRISON COUNTY - South



HARRISON COUNTY - South



Wisecup Farm Museum; Missouri Valley

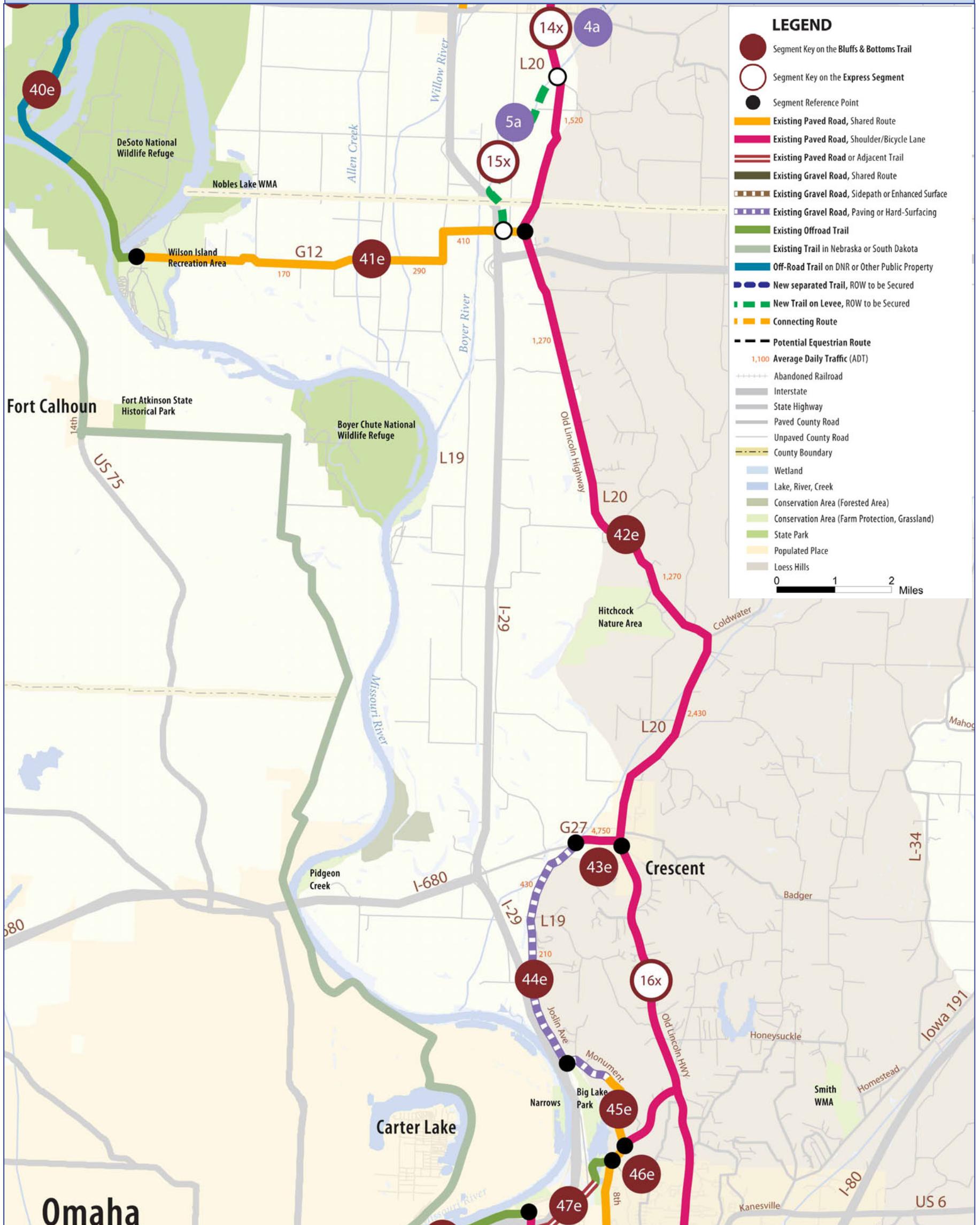


Missouri Valley Railroad Museum



Harrison County Courthouse; Logan

POTTAWATTAMIE COUNTY - North



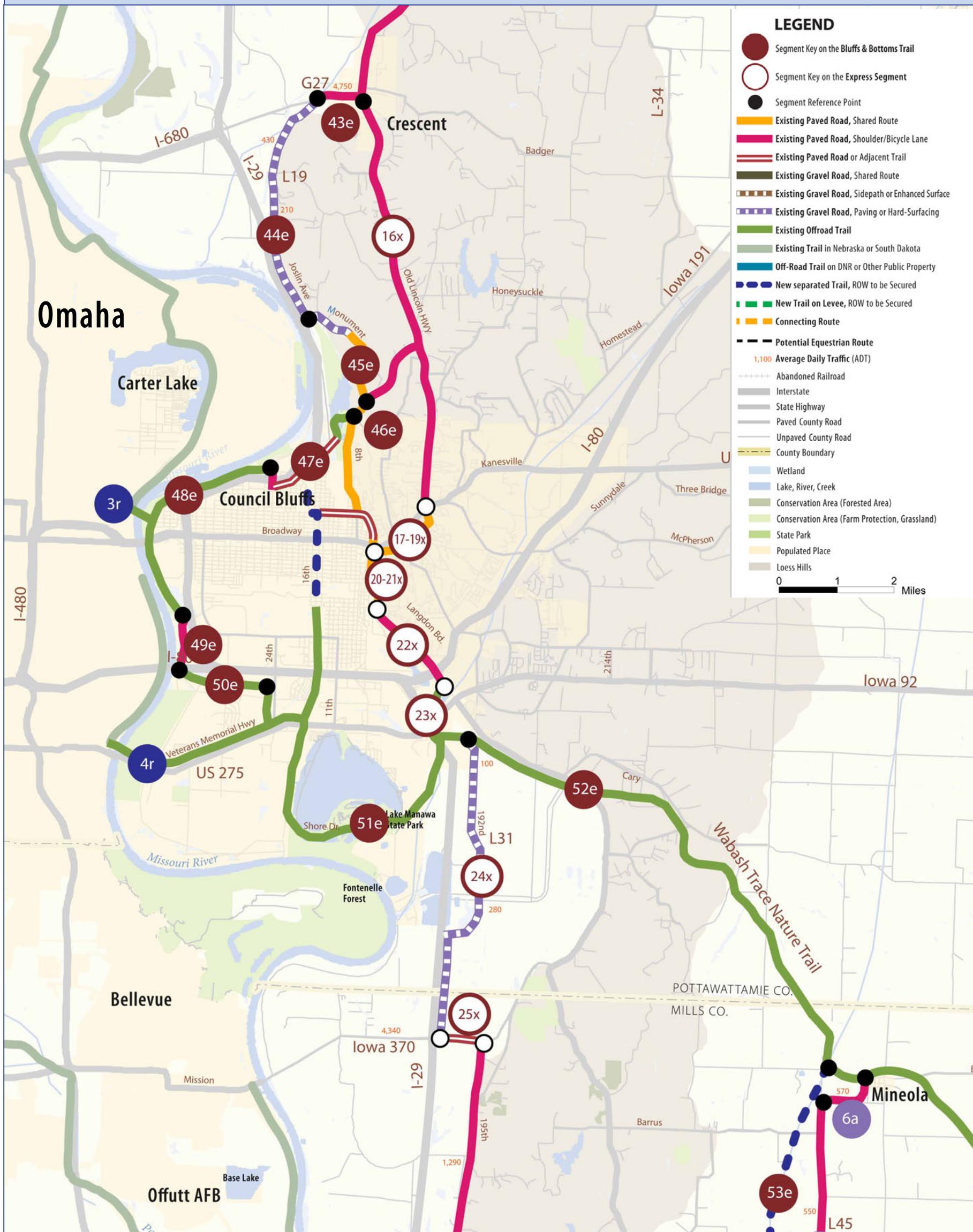
POTTAWATTAMIE COUNTY - North

KEY FOR TABLE: Regular LCT Route Segments Unchanged LCT Today Route Segments

Pottawattamie County: Explorer's/Express Route

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Highlights/Comments
G12, De Soto NWR to L20 (Old Lincoln Highway)	41e	6.4	Paved, 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Wilson Island State Park Access to I-29 at Loveland Access to Missouri Valley via L20 north Unavailable as continuous trail route during migration seasons at De Soto
L20, G12 to G27 junction in Crescent	42e	10.6	Paved 2-lane high volume county road	Shoulder/bike lanes	<ul style="list-style-type: none"> Route of Old Lincoln Highway Pottawattamie County's Hitchcock Nature Area Roadside services Loess Hills scenery Crescent town center
G27, Crescent to L19	43e	0.6	Paved 2-lane very high volume county road	Shoulder/bike lanes, or south side sidepath	<ul style="list-style-type: none"> Volume and lack of interruption makes sidepath preferable if right-of-way is available
L19 (Joslin Avenue), G27 to Monument Road	44e	3.7	Gravel, low to moderate volume county road	Paved road with bicycle facilities using either shared lanes or bicycle lanes	<ul style="list-style-type: none"> Paving reduces dust along this road, adjacent to I-29. Significant truck traffic
Monument Road, Joslin Avenue to Mynster Springs Road	45e	1.8	Gravel, low volume rural road to Lewis and Clark Monument entrance; 2-lane paved urban street from entrance to Mynster Springs Road	Shared route <i>Paved, shared use road, requiring paving from Joslin to Monument entrance</i>	<ul style="list-style-type: none"> Substantial grades, climbing southbound from Joslin and northbound from Mynster Springs. Access to Lewis and Clark Monument City of Council Bluffs includes a trail link to the Monument in its trail master plan.
Mynster Springs Road/8th Street, Monument Road to Big Lake Park Trail	46e	0.2	2-lane paved urban street	Shared route <i>May be upgraded to sidepath or bike lanes as part of city trail master plan, depending on availability of right-of-way</i>	<ul style="list-style-type: none"> Potential trail along Mynster Springs is proposed in Council Bluffs' trail master plan.
Big Lake Park/Nash Boulevard Trail, 8th to 25th Street/Riverfront Trail	47e	1.5	Paved park trail and sidepath; bike lanes connect under I-29 to Riverfront Trail	Park trail and sidepath	<ul style="list-style-type: none"> Big Lake Park Access to services on 16th Street Intersection conditions at 16th Street crossing should be improved for bicyclists and pedestrians Access on 25th Street to Narrows Park
Riverfront Trail, 25th Street to Nebraska Avenue at Ameristar Casino	48e	4.1	Paved multi-purpose path on levee top; sidepath at Ameristar Casino		<ul style="list-style-type: none"> River views, featuring views of new chute and backwaters development Playland Park redevelopment and open space Connection to Downtown Omaha and Omaha Riverfront via Bob Kerrey Pedestrian Bridge Dodge Park and Riverside Grill with bicycle parking Harrah's and Ameristar Casinos
River Drive, Nebraska Avenue to I-80 Bridge	49e	0.6	Bike lanes		<ul style="list-style-type: none"> Preferred bicycle heading over railroad tracks should be clearly marked.
Riverfront Trail, I-80 to Indian Creek Trail	50e	3.0	Paved multi-purpose path, with sidepath segments along 25th Street and US 275		<ul style="list-style-type: none"> Western Historic Trails Center Council Bluffs Recreational Complex Marketplace retail development and other services Connection to 16th Avenue via Indian Creek Trail; trail will extend north into central Council Bluffs Connection to South Omaha and Doorly Zoo via US 275 Trail and Veterans Memorial Bridge. Linkage here to Omaha Riverfront Trail and BikeOmaha system's Doorly Route
Indian Creek/Lake Manawa Trails, US 275 to Wabash Trace Trailhead	51e	6.6	Paved multi-purpose path		<ul style="list-style-type: none"> Lake Manawa State Park Lewis Central High School campus Connection to Iowa School for the Deaf, Mall of the Bluffs, and Iowa Western Community College via Valley View Trail

POTTAWATTAMIE COUNTY - South



Pottawattamie County: Explorer's/Express Route

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Highlights/Comments	
Express	L20 (North Broadway/Ridge Street), Crescent to Pierce Street	16x	6.8	Paved 2-lane high volume county road with rural section; 2- and 3-lane city street within Council Bluffs corporate limits	Shoulder/bike lanes on rural section; shared route or bike lanes within city	<ul style="list-style-type: none"> Route of Old Lincoln Highway Parallels Indian Creek corridor within Council Bluffs Popular cycling route between Crescent and Council Bluffs; upgrading with shoulders would increase safety and reduce conflicts between motorists and cyclists Route is included in the LCT Today route
	Pierce Street, Ridge to 1st Street	17x	0.6	2-lane urban street	Shared route	<ul style="list-style-type: none"> Parallels Kanesville Boulevard one block south Mormon Heritage Center
	1st Street, Pierce to West Broadway	18x	0.1	2-lane urban street, shared route	Shared route	
	West Broadway, 1st Street to Main Street	19x	0.4	2-lane downtown street on 100 block, 4-lane, relatively low-volume street between 2nd and Main; shared route	Shared route	<ul style="list-style-type: none"> Historic 100 block of West Broadway, featuring several NRHP properties
	Main/Pearl Street to 9th Avenue	20x	0.5	2-lane urban streets, one-way pair.	Shared route	<ul style="list-style-type: none"> Bayliss Park Council Bluffs Public Library City Hall and County Courthouse Haymarket District
	9th Avenue, Main to 3rd Street	21x	0.2	2-lane, urban street	Bike lanes	<ul style="list-style-type: none"> General Dodge House
	3rd Street and Harry Langdon Boulevard to Wabash Trace extension	22x	2.2	2-lane urban street (3rd Street); 2-lane divided urban street with bike lanes (Harry Langdon)	Bike lanes	
	Wabash Trace Extension, Harry Langdon Boulevard to Wabash Trace Trailhead	23x	1.1	Paved, multi-use trail	Off-road trail	<ul style="list-style-type: none"> Crossing under Highway 92.
Wabash Trace Nature Trail, Lewis Central Trailhead to Keg Creek and Mineola Trailhead	52e	9.2	Granulated stone, multi-use path		<ul style="list-style-type: none"> Loess Hills environment over former Wabash Railroad right-of-way Mineola town center 	
Express	L31, South Omaha Bridge Road (Trailhead) to Iowa 370	24x	4.3	Gravel, low volume county road	Shared route <i>Paved road with bicycle facilities using either shared lanes or bicycle lanes</i>	

KEY FOR TABLE: New Loop Segments Express Segments Explorers Segments

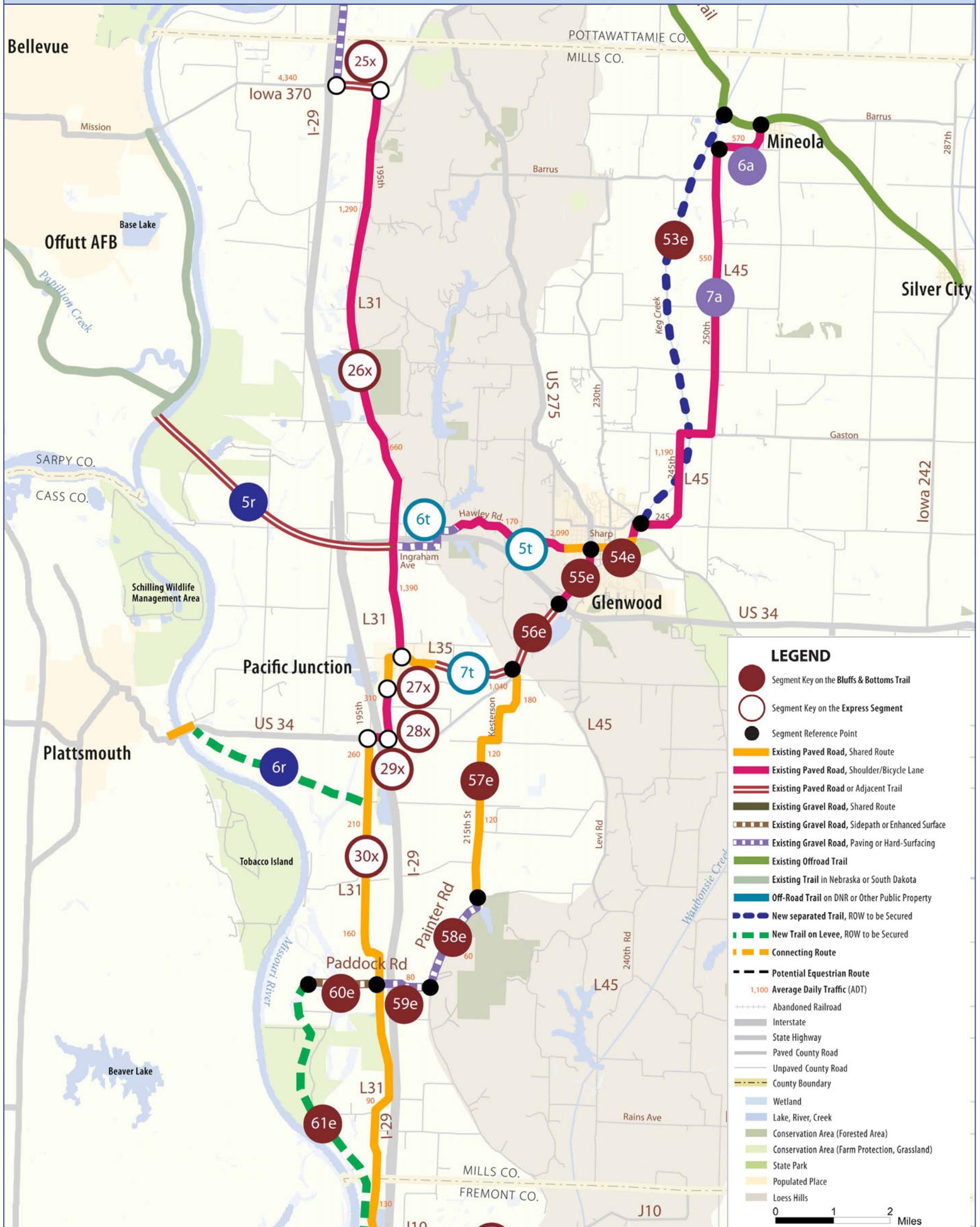
Tour Loops: Wabash Loop (Pottawattamie and Mills Counties)

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
Wabash Trace Nature Trail, Lewis Central Trailhead to Keg Creek and Mineola Trailhead	52e	9.2	Granulated stone, multi-use path		<ul style="list-style-type: none"> Loess Hills environment over former Wabash Railroad right-of-way Mineola town center
Keg Creek Corridor, Wabash Trace to Sharp Street in Glenwood	53e	6.7	Private property along creek corridor	Granulated stone, multi-use path	<ul style="list-style-type: none"> Scenic corridor requires acquisition of right-of-way along its length
Sharp Street, L45 to Locust Street (L35)	54e	0.9	2-lane urban street with sidewalks, shared route		<ul style="list-style-type: none"> Glenwood Lake Park Glenwood Courthouse Square District
Sharp Street/Hawley Road, Locust Street to Deacon Road	5t	1.2	Paved 2-lane urban street and low-volume county road	Shared route, shoulder/bike lanes where possible on rural section of road	
Deacon Road and Ingraham Avenue, Hawley Road to L31	6t	1.2	Gravel, low-volume county road	Paved or hard-surfaced road, shared route	<ul style="list-style-type: none"> Deacon Road intersection with US 34 requires substantial warning signage.
L31, South Omaha Bridge Road (Trailhead) to Iowa 370	24x	4.3	Gravel, low volume county road	Paved road with bicycle facilities using either shared lanes or bicycle lanes	<ul style="list-style-type: none"> L31, South Omaha Bridge Road (Trailhead) to Iowa 370
Iowa 370, connecting L31 north and south	25x	0.6	Paved, 2-lane, high volume state highway	Sidepath, preferably on south side of highway	
L31, Iowa 370 to L35 in Pacific Junction	26x	8.7	Paved, 2-lane moderate to high volume county road	Shoulder/bike lanes	<ul style="list-style-type: none"> Access to West Oak Forest Scenic corridor at base of Loess Hills

Regional Connections

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
Bob Kerrey Pedestrian Bridge	3r	0.4	Pedestrian and bicycle bridge	Same as existing	<ul style="list-style-type: none"> Missouri River Bridge linking Riverfront Trails in Council Bluffs and Omaha Connections to Downtown Omaha and the Bike Omaha on-street bicycle transportation system
US 275 Trail and Veterans Memorial Bridge	4r	2.7	Paved trail/sidepath, including separated sidepath over bridge	Same as existing	<ul style="list-style-type: none"> Includes Missouri River Bridge with connections to South Omaha Links to the Bike Omaha system and proposed Riverfront Trail

MILLS COUNTY - North & South



MILLS COUNTY - North & South

KEY FOR TABLE: Regular LCT Route Segments Unchanged LCT Today Route Segments

Mills County: Explorer's/Express Route

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Highlights/Comments	
Keg Creek Corridor, Wabash Trace to Sharp Street in Glenwood	53e	6.7	Private property along creek corridor	Off-road trail <i>Granulated stone, multi-use path</i>	<ul style="list-style-type: none"> Scenic corridor requires acquisition of right-of-way along its length 	
Alternate	H12, Mineola Trailhead to Keg Creek crossing at L45 intersection	6a	1.0	Paved, 2-lane moderate volume county road	Shoulder/bike lanes	
	L45, H12 to Sharp Street in Glenwood	7a	6.9	Paved, 2-lane moderate volume county road	Shoulder/bike lanes	<ul style="list-style-type: none"> Alternate to Keg Creek route, should ROW acquisition is not achievable Segments of the road and segments of Keg Creek are somewhat interchangeable, depending on length of continuous segments
Sharp Street, L45 to Locust Street (L35)	54e	0.9	2-lane urban street with sidewalks, shared route		<ul style="list-style-type: none"> Glenwood Lake Park Glenwood Courthouse Square District 	
Locust Street (L35), Sharp to US 34 interchange	55e	1.0	4-lane urban street	Shared route <i>Lane diet along commercial corridor, with 3-lane section (one lane per direction and protected center left turn lane) and bike lanes.</i>	<ul style="list-style-type: none"> Traveler services along Locust Street Glenwood Development Center Interchange with US 34 Link to express segment on L31 continues west on Sharp Street, Hilman Street and Hawley Road to US 34, crosses the highway, and paves Ingham Avenue to L31. 	
L35, US 34 interchange to Kesterson Road	56e	1.3	Paved, 2-lane high volume county road.	Sidepath on south side	<ul style="list-style-type: none"> South side alignment is located between road and adjacent railroad, minimizing intersection conflicts. 	
Kesterson Road/215th Street to Painter Road	57e	3.8	Paved, 2-lane very low-volume county road.	Shared route	<ul style="list-style-type: none"> Loess Hills landscape 	
Painter Road, 215th Street to Paddock Avenue	58e	1.6	Gravel, very low volume county road	Paved road, shared route	<ul style="list-style-type: none"> Overpass over I-29 	
Paddock Road, Painter Road to L31	59e	0.8	Paved, 2-lane very low-volume county road.	Shared route		
Paddock Road, L31 to Missouri River Levee	60e	0.9	Dirt, very low volume county road	Off-road trail <i>Granulated stone path or upgraded road surface</i>	<ul style="list-style-type: none"> Connection is predicated on acquiring rights to develop path on federal levee 	
Missouri River Levee, Paddock Road to J10	61e	3.4	Federal levee along Missouri River	Off-road trail <i>Granulated stone path on levee top</i>	<ul style="list-style-type: none"> Right to develop path on federal levee must be obtained. If this is unachievable, alternate route uses L31 from Paddock Road to Bartlett interchange (same as express segment) The Wilds golf course and campground with services River access at Bartlett I-29 interchange at Bartlett 	
Express	Iowa 370, connecting L31 north and south	25x	0.6	Paved, 2-lane, high volume state highway	Sidepath <i>preferably on south side of highway</i>	
	L31, Iowa 370 to L35 in Pacific Junction	26x	8.7	Paved, 2-lane moderate to high volume county road	Shoulder/bike lanes	<ul style="list-style-type: none"> Access to West Oak Forest Scenic corridor at base of Loess Hills
	L35 and L31 from L31 intersection to Pearl Avenue	27x	0.5	Paved, 2-lane urban street	Shared route through town	<ul style="list-style-type: none"> Pacific Junction town center
	L31, Pearl Avenue to US 34	28x	0.8	Paved, 2-lane low volume county road	Shared route	
	US 34 at I-29 interchange	29x	0.3	Paved, 2-lane high volume US highway	Shoulders at interchange	
	L31, US 34 to J10	30x	3.8	Paved, 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Levee top path connection to Plattsmouth Bridge and Plattsmouth, Nebraska Intersection with Explorers Route at Paddock Road intersection

MILLS COUNTY - North & South

KEY FOR TABLE: New Loop Segments Express Segments Explorers Segments

Tour Loops: Pacific Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
L35, Kesterson to L31 in Pacific Junction	7t	1.8	Paved, 2-lane high volume county road, urban street through town	Sidepath on south side of corridor on rural section, shared route or bike lanes through town	
L35 and L31 from L31 intersection to Pearl Avenue	27x	0.5	Paved, 2-lane urban street	Shared route through town	<ul style="list-style-type: none"> Pacific Junction town center
L31, Pearl Avenue to US 34	28x	0.8	Paved, 2-lane low volume county road	Shared route	
US 34 at I-29 interchange	29x	0.3	Paved, 2-lane high volume US highway	Shoulders at interchange	
L31, US 34 to J10	30x	3.8	Paved, 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Levee top path connection to Plattsmouth Bridge and Plattsmouth, Nebraska Intersection with Explorers Route at Paddock Road intersection
Kesterson Road/215th Street to Painter Road	57e	3.8	Paved, 2-lane very low-volume county road.	Shared route	<ul style="list-style-type: none"> Loess Hills landscape
Painter Road, 215th Street to Paddock Avenue	58e	1.6	Gravel, very low volume county road	Paved road, shared route	<ul style="list-style-type: none"> Overpass over I-29
Paddock Road, Painter Road to L31	59e	0.8	Paved, 2-lane very low-volume county road.	Shared route	

Mills County: Regional Connections

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
US 34 Extension and Plattsmouth Bridge	5r	4.3	Proposed highway corridor	Off-road trail/Sidepath <i>Trail along new US 34 alignment and shoulders or protected sidepath on bridge</i>	<ul style="list-style-type: none"> Connection to Bellevue Loop Trail with short trail extension. Extension requires a bridge over Papillion Creek. Access to Haworth Park in Bellevue and Omaha regional trail system
Plattsmouth Link	6r	0.4	Levee and medium volume historic bridge	Off-road trail <i>Paved or granulated stone trail on levee top and shared route on Plattsmouth Bridge</i>	<ul style="list-style-type: none"> Includes Missouri River Bridge with connections to South Omaha Speed limit on Plattsmouth Bridge are consistent with bicycle speeds Connection to Plattsmouth riverfront and historic downtown district



Archeological Preserve & Nature Area



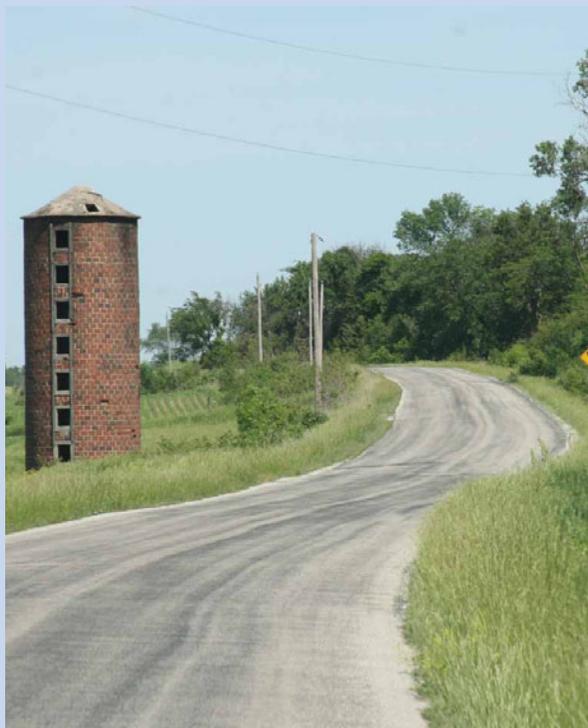
Downtown Glenwood



Pony Creek State Conservation Park



McCormick Station - Glenwood



Rural Mills County



The Mills County Historical Society Museum, is open weekdays and by appointment.

FREMONT COUNTY - North



FREMONT COUNTY - North

KEY FOR TABLE: Regular LCT Route Segments

Fremont County: Explorer's/Express Route

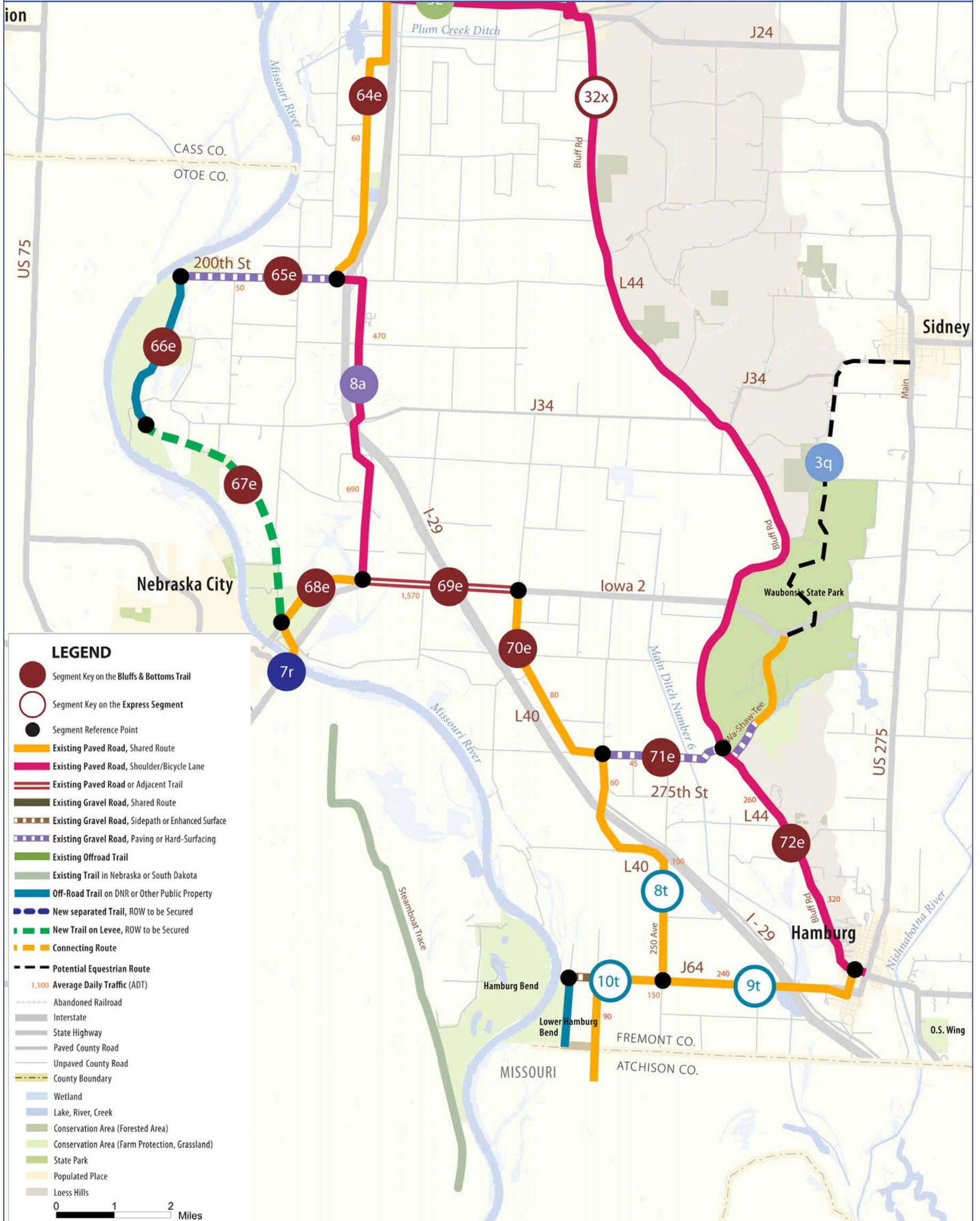
Segment	Map Key #	Mileage	Existing Context	Design Treatment	Highlights/Comments
Missouri River Levee, J10 (Bartlett access) to 135th Street	62e	2.8	Federal levee along Missouri River	Off-road trail <i>Granulated stone path on levee top</i>	<ul style="list-style-type: none"> Right to develop path on federal levee must be obtained. If this is unachievable, alternate is a shared route on L31 from Bartlett interchange to 135th Street and access to Forney Lake.
135th Street, Missouri River levee to L31	63e	1.3	Gravel, very low-volume county road	Off-road trail <i>Granulated stone path or upgraded road surface</i>	<ul style="list-style-type: none"> Forney Lake connection between Explorers Route and express segment
L31, 135th Street to 200th Street (Percival interchange)	64e	6.1	Paved, 2-lane very low volume county road	Shared route	
200th Street, L31 to Copeland Bend WMA	65e	2.4	Gravel, very low-volume county road	Shared route <i>Paved shared road access to Copeland Bend</i>	
Copeland Bend, 200th Street to south boundary of property	66e	2.5	DNR property	Off-road trail <i>Granulated stone multi-use trail on periphery of wildlife area</i>	<ul style="list-style-type: none"> Lewis and Clark campsite
Missouri River Levee, south boundary of Copeland Bend property to L31 (old Highway 2)	67e	4.1	Federal levee along Missouri River	Off-road trail <i>Granulated stone path on levee top</i>	<ul style="list-style-type: none"> Right to develop path on federal levee must be obtained. If this is unachievable, alternate is a shared route on L31 from 200th Street to Iowa 2.
L31, Missouri River Levee to Iowa 2 at 195th Street	68e	1.5	Paved, 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Repairs needed to pavement surface Connection via Highway 2 Bridge to Nebraska City, Nebraska
Alternate L31, 200th Street to Iowa 2	8a	5.1	Paved, 2-lane moderate volume county road	Shoulder/bike lanes	<ul style="list-style-type: none"> Alternative to levee route if pathway rights are not achievable Shoulder is advisable because of role of this segment in a loop
Iowa 2, L31 to L40	69e	2.4	4-lane divided high volume state highway	Sidepath	<ul style="list-style-type: none"> Major travelers' service center at I-29 interchange Loess Hills/Southwest Iowa visitors center
L40, Iowa 2 to 275th Street	70e	3.1	Paved, 2-lane very low volume county road	Shared route	
275th Street, L40 to L44 (Bluff Road) and Waubonsie west entrance	71e	1.9	Gravel, very low volume county road	Paved road, shared route	<ul style="list-style-type: none"> Access to Waubonsie State Park. Unpaved segment of Waubonsie entrance road should also be paved.
Express J10, L31 to L44	31x	2.6	Paved, 2-lane moderate volume county road	Shoulder/bike lanes	
L44 (Bluff Road), J10 to Waubonsie west entrance (275th Street)	32x	17.8	Paved, 2-lane low volume county road	Shoulder/bike lanes	<ul style="list-style-type: none"> Shoulders recommended because of narrowness and limited visibility of Bluff Road. Access to Waubonsie State Park Enhancement of LCT Today Route
L44 (Bluff Road), 275th Street to Hamburg	72e		Paved, 2-lane low-volume county road; urban street within Hamburg	Shoulder/bike lanes; shared route in city	<ul style="list-style-type: none"> Hamburg Town center

KEY FOR TABLE: New Loop Segments Express Segments Explorers Segments

Tour Loop: Bartlett Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
J10, L31 to L44	31x	2.6	Paved, 2-lane moderate volume county road	Shoulder/bike lanes	
L44 (Bluff Road), J10 to 185th Street (Forney Lake Wildlife Area)	32x	17.8	Paved, 2-lane low volume county road	Shoulder/bike lanes	<ul style="list-style-type: none"> Shoulders recommended because of narrowness and limited visibility of Bluff Road.
Forney Lake Wildlife Area, L44 to L31	4L	2.5	DNR Property	Off-road trail <i>Granulated stone path on periphery of conservation area</i>	
Missouri River Levee, J10 (Bartlett access) to 135th Street	62e	2.8	Federal levee along Missouri River	Off-road trail <i>Granulated stone path on levee top</i>	<ul style="list-style-type: none"> Right to develop path on federal levee must be obtained. If this is unachievable, alternate is a shared route on L31 from Bartlett interchange to 135th Street and access to Forney Lake.
135th Street, Missouri River levee to L31	63e	1.3	Gravel, very low-volume county road	Sidepath or Shared route <i>Granulated stone path or upgraded road surface</i>	<ul style="list-style-type: none"> Forney Lake connection between Explorers Route and express segment
J24, L31 to L44	5L	2.8	Paved, 2-lane low volume county road	shoulder/bike lanes	<ul style="list-style-type: none"> Included in Bartlett Loop in order to connect to Thurman

FREMONT COUNTY - South



FREMONT COUNTY - South

KEY FOR TABLE: New Loop Segments Explorers Segments

Tour Loop: Copeland Bend Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
Copeland Bend, 200th Street to south boundary of property	66e	2.5	DNR property	Off-road trail <i>Granulated stone multi-use trail on periphery of wildlife area</i>	<ul style="list-style-type: none"> Lewis and Clark campsite
Missouri River Levee, south boundary of Copeland Bend property to L31 (old Highway 2)	67e	4.1	Federal levee along Missouri River	Off-road trail <i>Granulated stone path on levee top</i>	<ul style="list-style-type: none"> Right to develop path on federal levee must be obtained. If this is unachievable, alternate is a shared route on L31 from 200th Street to Iowa 2.
L31, Missouri River Levee to Iowa 2 at 195th Street	68e	1.5	Paved, 2-lane low volume county road	Shared route	<ul style="list-style-type: none"> Repairs needed to pavement surface Connection via Highway 2 Bridge to Nebraska City, Nebraska
Iowa 2, L31 to L40	69e	2.4	4-lane divided high volume state highway	Sidewalk	<ul style="list-style-type: none"> Major travelers' service center at I-29 interchange Loess Hills/Southwest Iowa visitors center
L31, 200th Street to Iowa 2	8a	5.1	Paved, 2-lane moderate volume county road	Shoulder/bike lanes	<ul style="list-style-type: none"> Alternative to levee route if pathway rights are not achievable Shoulder is advisable because of role of this segment in a loop

KEY FOR TABLE: New Loop Segments Explorers Segments

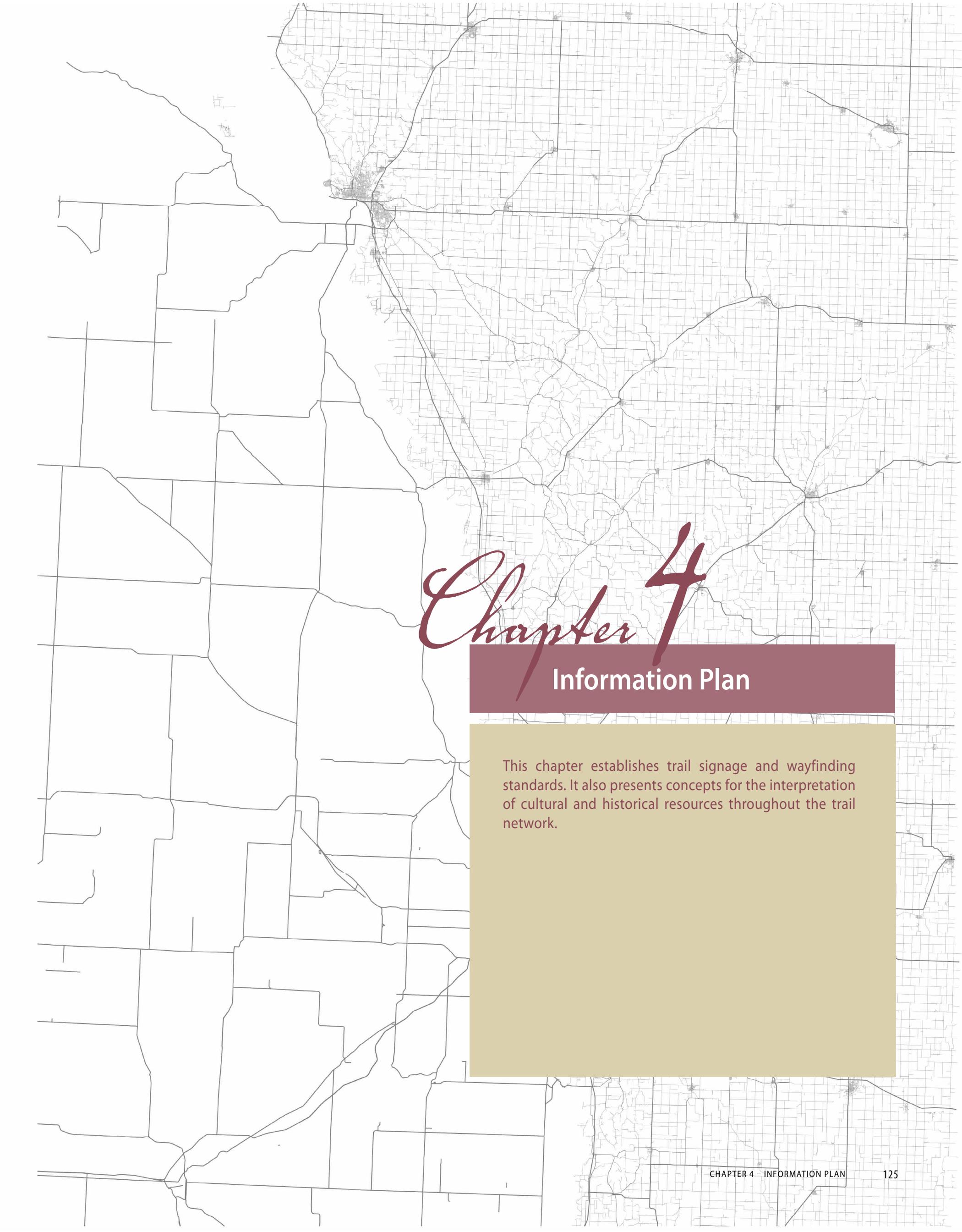
Tour Loop: Hamburg Loop

Segment	Map Key #	Mileage	Existing Context	Design Treatment	Additional Comments
275th Street, L40 to L44 (Bluff Road) and Waubonsie west entrance	71e	1.9	Gravel, very low volume county road	Paved road, shared route	<ul style="list-style-type: none"> Access to Waubonsie State Park. Unpaved segment of Waubonsie entrance road should also be paved.
L44 (Bluff Road), 275th Street to Hamburg	72e	3.8	Paved, 2-lane low-volume county road; urban street within hamburg	Shoulder/bike lanes; shared route in city	<ul style="list-style-type: none"> Hamburg Town center
L40, 275th Street to J64	8t	4.1	Paved, very low volume 2-lane county road	Shared route	<ul style="list-style-type: none"> Overpass over I-29
J64, L44 in Hamburg to L40	9t	3.2	Paved, very low volume 2-lane county road	Shared route	<ul style="list-style-type: none"> Connection to center of Hamburg
J64, L40 to Hamburg Landing	10t	1.4	Paved, very low volume 2-lane county road to 240th Avenue; gravel road between 240th and riverfront	Shared route <i>Granulated stone sidewalk or enhanced road surface to Hamburg Landing</i>	<ul style="list-style-type: none"> River access; possible nature trail through Lower Hamburg Bend wildlife area

KEY FOR TABLE: New Loop Segments

Fremont County: Regional Connections

Segment	Map Key #	Mileage	Existing Context	General Design Description	Additional Comments
Highway 2 Bridge, L-31 to Nebraska City	7r	0.8	Paved, 4-lane very high volume divided highway bridge with paved shoulders	Same as existing	<ul style="list-style-type: none"> Connection to Lewis and Clark Interpretive Center in Nebraska City, historic Nebraska City Arbor Lodge State Park and National Arbor Day Foundation, as well as many museums and attractions in Nebraska City Connection to Steamboat Trace Trail



Chapter 4

Information Plan

This chapter establishes trail signage and wayfinding standards. It also presents concepts for the interpretation of cultural and historical resources throughout the trail network.

Information Plan

Signage and graphic types

Signs and graphics should work together as a coordinated system to create an identity for the Lewis and Clark Multi-Use Trail, attract interest from the traveling public who are not familiar with the trail, and guide and inform people who intend to use and enjoy the facility and the varied experiences it provides. Signing and graphics for the Lewis and Clark Multi-Use Trail should convey information related to regulations and safety, wayfinding, and interpretation.

Regulatory and Safety Signing, Signals and Striping

Standardized designs and placement guidelines for signs, signals, pavement markings are provided in national and state guidelines adopted by the Iowa Department of Transportation and used by local agencies across the state. For instance, signs such as stop, speed, curve ahead and narrow roadway signs are nationally recognized messages conveying clear direction to all roadway users. Regulatory and warning signs, signals and striping related directly to bicycling and pedestrians include: share the road, bicycles in roadway, crosswalk ahead and other messages cautioning non-motorized roadway users, warning motorists they should expect to encounter vulnerable roadway users (Figure 1), and advising proper lane usage (Figure 2).

Placement

Guidelines for usage and placement of the standard warning and regulatory signing can be found in the Manual of Uniform Traffic Control Devices (MUTCD) and are not repeated here.

Wayfinding

Wayfinding aids such as destination signs, route markers and maps assist users in navigating a route, finding interesting features and arriving at their destinations. In contrast to a simple linear roadway connecting one place to another, the proposed Lewis and Clark Multi-Use Trail is a complex network of roadways, loops and off-road trails exploring a wide corridor over 150 miles long.

Many LCT users will use it in segments and smaller loops rather than traveling the whole length of the system at one time. Users of the trail need information on accessing distance as well as near-by destinations, details on how to get from one place to another and to find points of interest along the route. The 2009 MUTCD (mentioned above) provides useful but limited guidance on basic wayfinding, including standards for route markers (Figures 3) and destination signs (Figure 4) to direct users from place to place.

Trail and scenic byway proponents often choose to develop customized route markers and wayfinding signs to create a distinctive identity for the route and associated improvements. The Loess Hills National Scenic Byway for instance, which overlaps much of the Lewis and Clark Multi-Use Trail alignment, uses a simple pictograph (figure 5) as a recognizable logo and sign for identifying the route and designated side trips and loops.



Figure 1a-e: Some of the bicycle related signs included in the 2009 Manual of Uniform Traffic Control Devices (MUTCD), the most widely observed guideline for standardized signing, signals and roadway surface markings. See the current MUTCD, released in December 2009, for guidance related specifically to bicycles and pedestrians at: <http://mutcd.fhwa.dot.gov>.

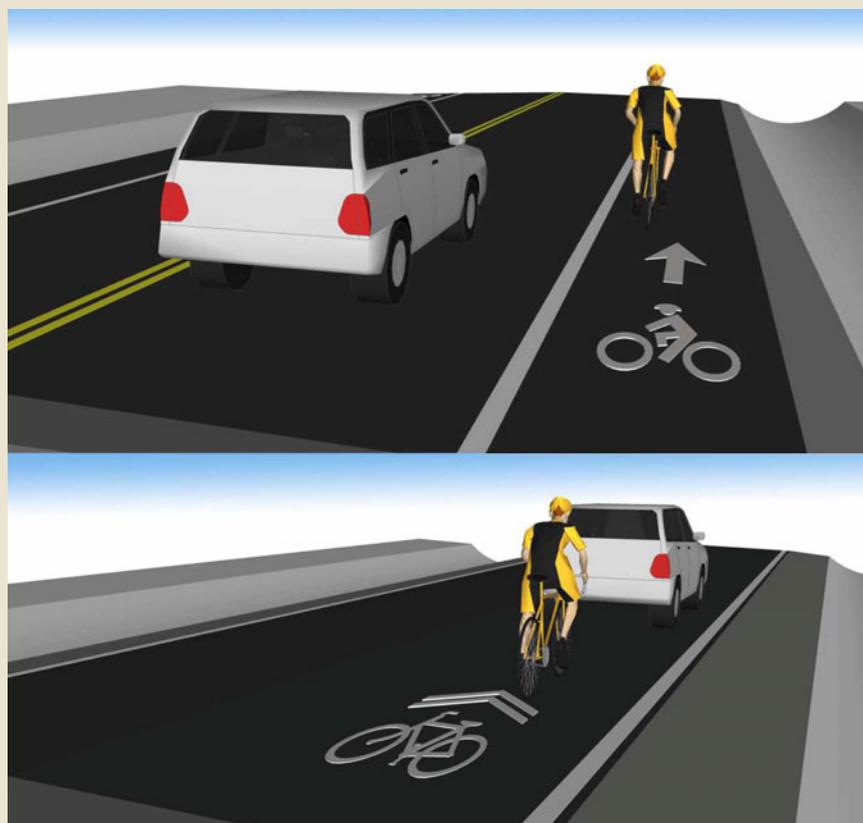


Figure 2: Pavement striping and stenciling of bicycle lanes (top) and Shared Lane Markings (bottom) as found in the latest 2009 MUTCD helps define space on the roadway and correct lane positioning for cyclist.

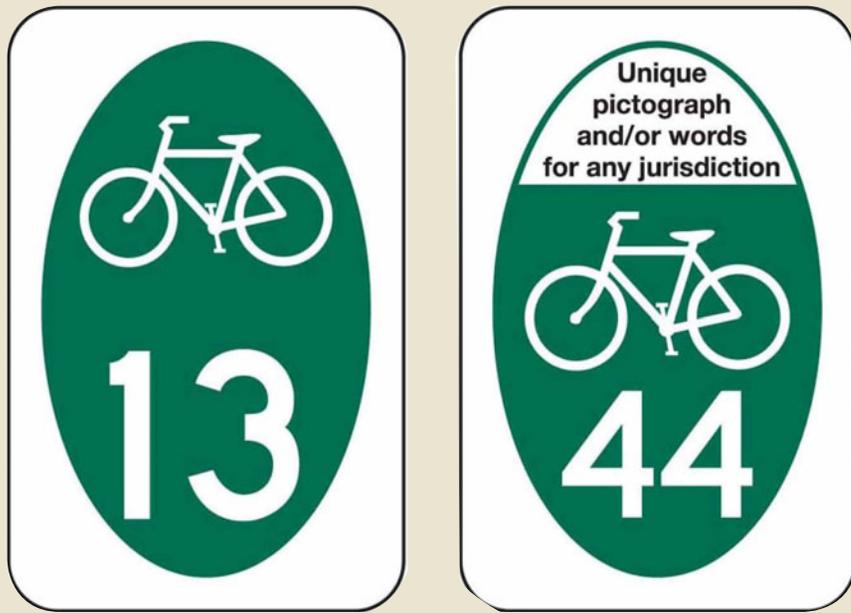


Figure 3



Figure 4



Figure 5

A distinctive Lewis and Clark Trail identifying sign should also evoke the landscape and essence of the study area. Figure 6 illustrates a concept for such a sign.

Placement and layout. Placement and layout of wayfinding signage is a more intuitive skill related to four goals: interception, redirection, reassurance, and welcoming travelers to a destination. Most wayfinding systems achieve these goals by carefully placing signs combined with directional arrows and mileage markings.

Interception Goal. To inform travelers of the presence of the Lewis and Clark Multi-Use Trail. Motorists and cyclists crossing the Lewis and Clark Multi-Use Trail may see the route and wayfinding signs and think to return to enjoy the route on a future trip. Junction signs (Figure 7) are used to intercept travelers crossing the route on state highways and major county roads and should be placed with street name signs or on posts preceding the intersection.

Redirection Goal. To inform travelers of a route decision, such as a turn at an intersection, or a choice between alternative routes. The Lewis and Clark Multi-Use Trail is a braided route that includes several loops and alternative connections. Redirection is used to help travelers stay on the route through intersections and forks in the road, and to decide between alternatives. Redirection signing will help route users decide which alternative to follow based on distances, destinations and features along the way. The wayfinding signs in combination with route markers should be placed in advance of decision points and should include distances to intermediate and distant destinations.

Reassurance Goal. To inform route users that they are on the correct road or trail. Soon after intersections and on long stretches between signs, travelers need reassurance that they are on the right road, and on their way to the correct destination. Route signs (Figure 6), or route signs with wayfinding distance signs can fulfill this basic need.

Welcoming Goal. To inform the traveler of arrival at a destination or to explore nearby sub-destinations. These symbols, and dozens of other pictogram, are standard graphics proposed by the Bureau of Land Management as a coordinated approach to identifying outdoor recreation sites and points of interest.



Figure 6: Proposed sign for the Lewis & Clark Trail.

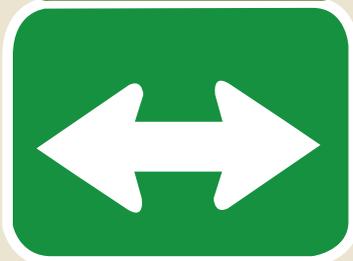


Figure 7: Route junction signs intercept travelers and inform them that they are intersecting the LCT.



Figure 8: Route turn signs inform travelers on the LCT how to stay on the route through intersections.

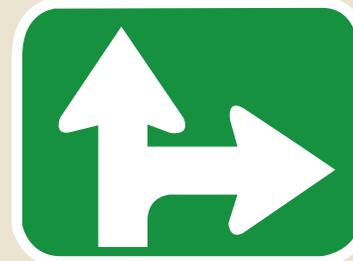


Figure 9: In combination with way-finding signs, this configuration helps travelers decide between alternative choices.

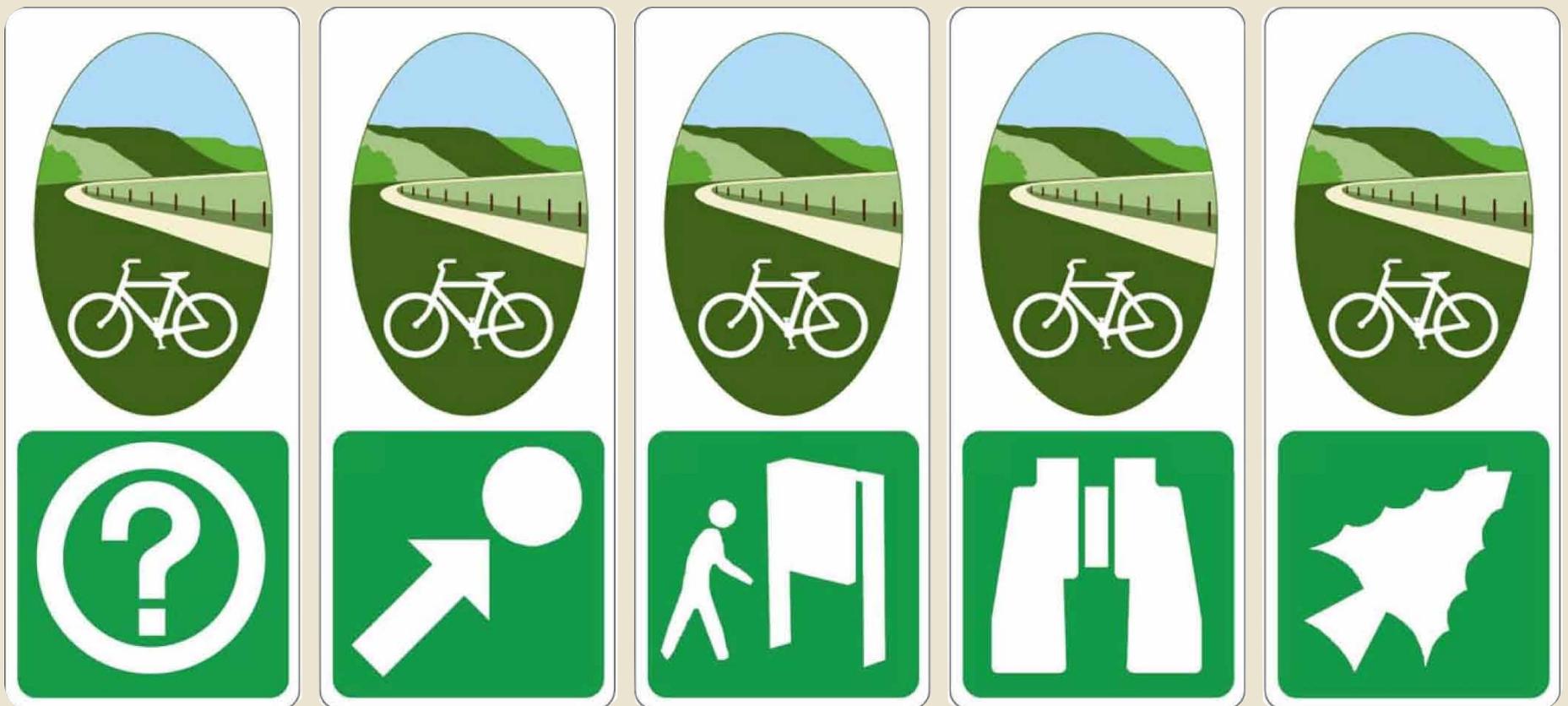
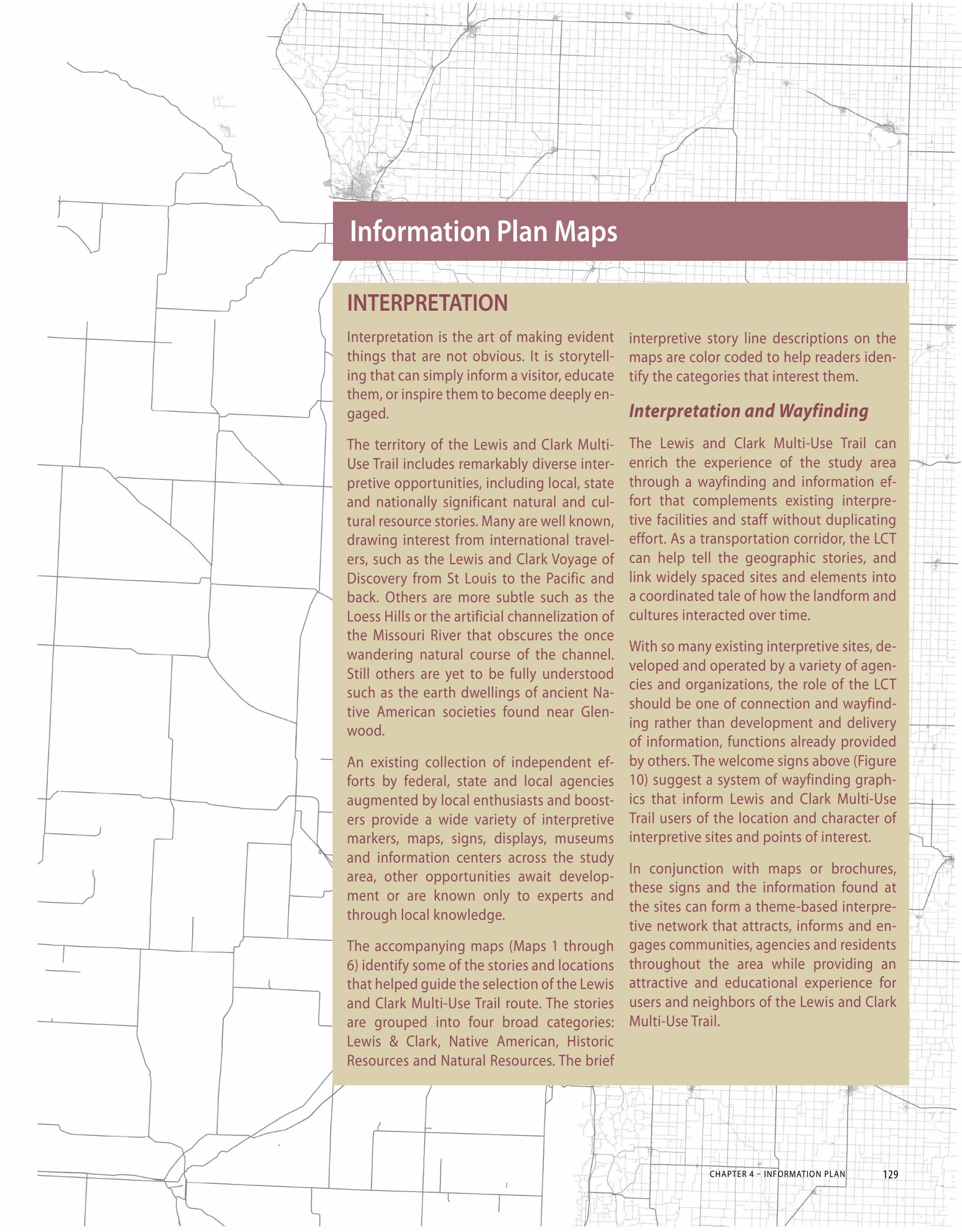


Figure 10: Welcome signs identify points of interest and other interim destinations: Information, Point of Interest, Interpretive Wayside, Viewpoint, Archeology Site (based on the International Symbol standard adopted by the Bureau of Land Management. www.blm.gov/nstc/mapstandards/intlsym.html)



Information Plan Maps

INTERPRETATION

Interpretation is the art of making evident things that are not obvious. It is storytelling that can simply inform a visitor, educate them, or inspire them to become deeply engaged.

The territory of the Lewis and Clark Multi-Use Trail includes remarkably diverse interpretive opportunities, including local, state and nationally significant natural and cultural resource stories. Many are well known, drawing interest from international travelers, such as the Lewis and Clark Voyage of Discovery from St Louis to the Pacific and back. Others are more subtle such as the Loess Hills or the artificial channelization of the Missouri River that obscures the once wandering natural course of the channel. Still others are yet to be fully understood such as the earth dwellings of ancient Native American societies found near Glenwood.

An existing collection of independent efforts by federal, state and local agencies augmented by local enthusiasts and boosters provide a wide variety of interpretive markers, maps, signs, displays, museums and information centers across the study area, other opportunities await development or are known only to experts and through local knowledge.

The accompanying maps (Maps 1 through 6) identify some of the stories and locations that helped guide the selection of the Lewis and Clark Multi-Use Trail route. The stories are grouped into four broad categories: Lewis & Clark, Native American, Historic Resources and Natural Resources. The brief

interpretive story line descriptions on the maps are color coded to help readers identify the categories that interest them.

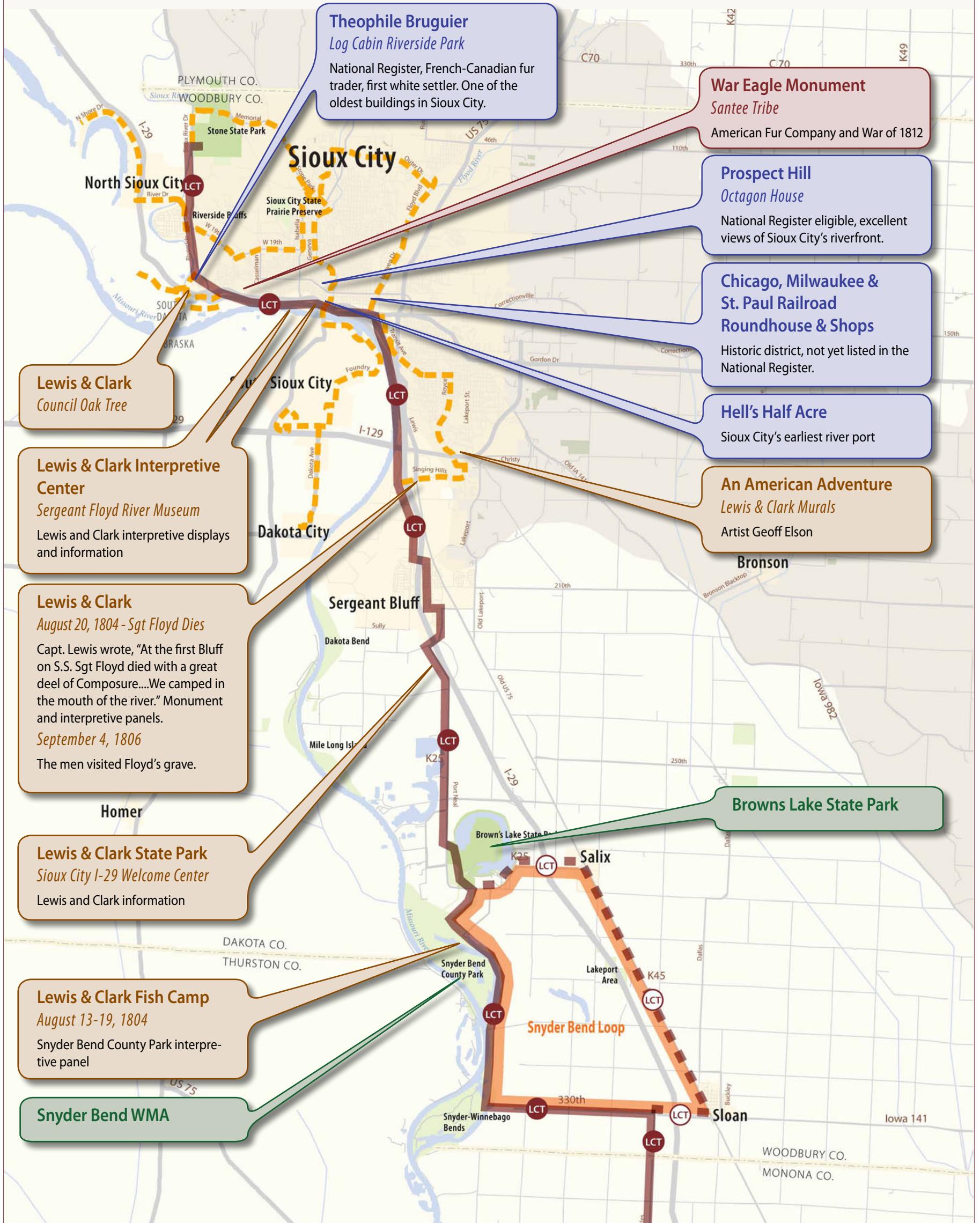
Interpretation and Wayfinding

The Lewis and Clark Multi-Use Trail can enrich the experience of the study area through a wayfinding and information effort that complements existing interpretive facilities and staff without duplicating effort. As a transportation corridor, the LCT can help tell the geographic stories, and link widely spaced sites and elements into a coordinated tale of how the landform and cultures interacted over time.

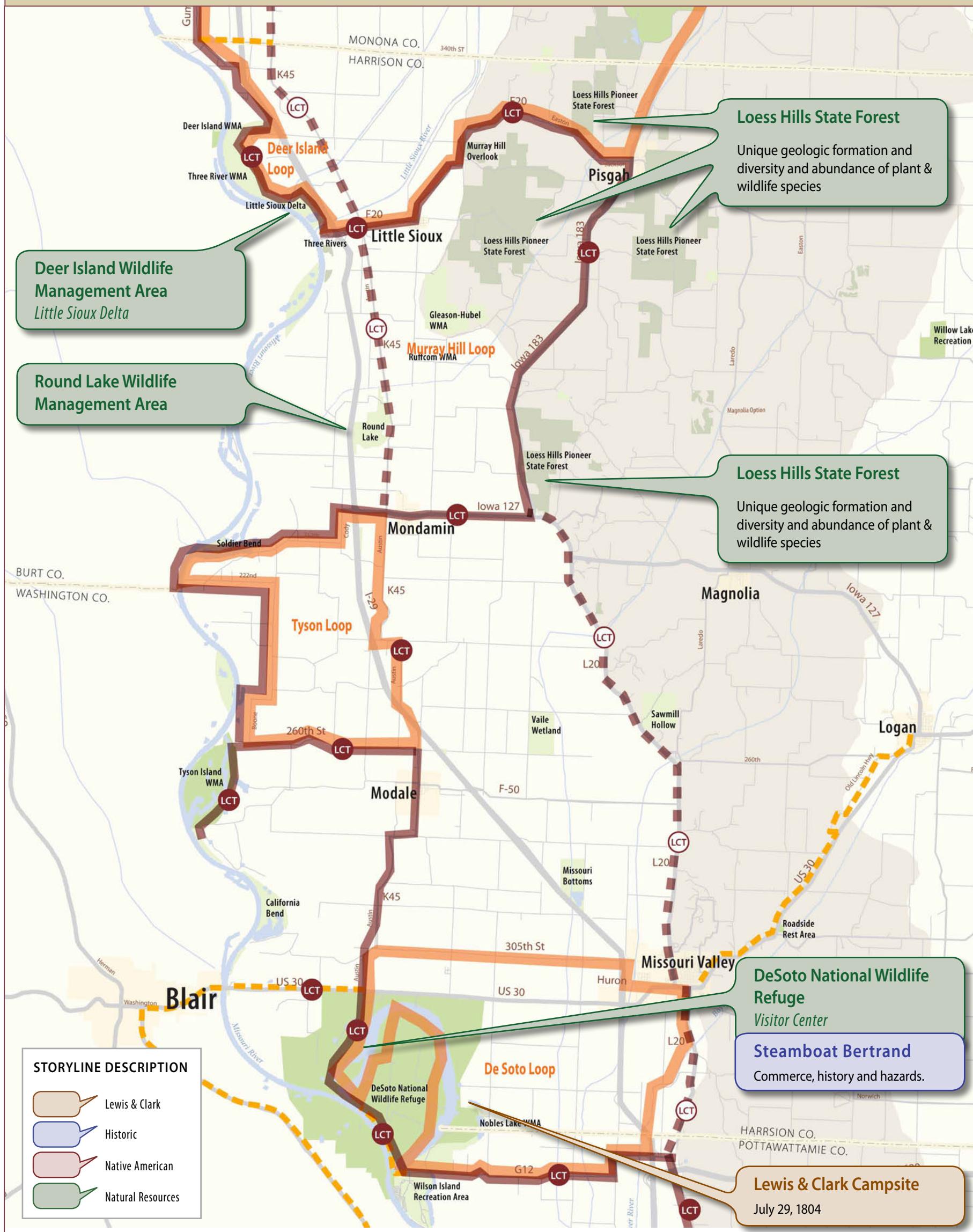
With so many existing interpretive sites, developed and operated by a variety of agencies and organizations, the role of the LCT should be one of connection and wayfinding rather than development and delivery of information, functions already provided by others. The welcome signs above (Figure 10) suggest a system of wayfinding graphics that inform Lewis and Clark Multi-Use Trail users of the location and character of interpretive sites and points of interest.

In conjunction with maps or brochures, these signs and the information found at the sites can form a theme-based interpretive network that attracts, informs and engages communities, agencies and residents throughout the area while providing an attractive and educational experience for users and neighbors of the Lewis and Clark Multi-Use Trail.

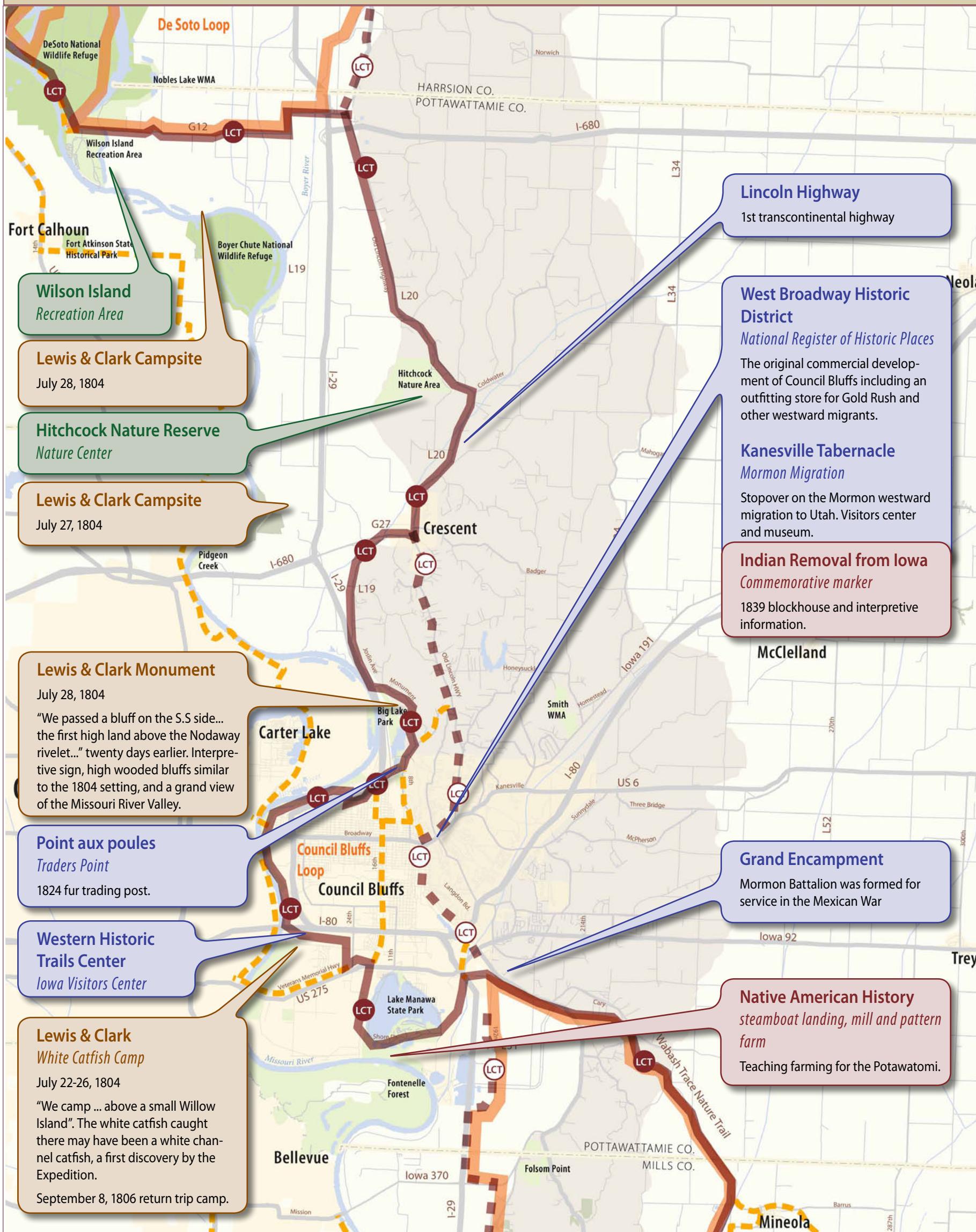
WOODBURY COUNTY



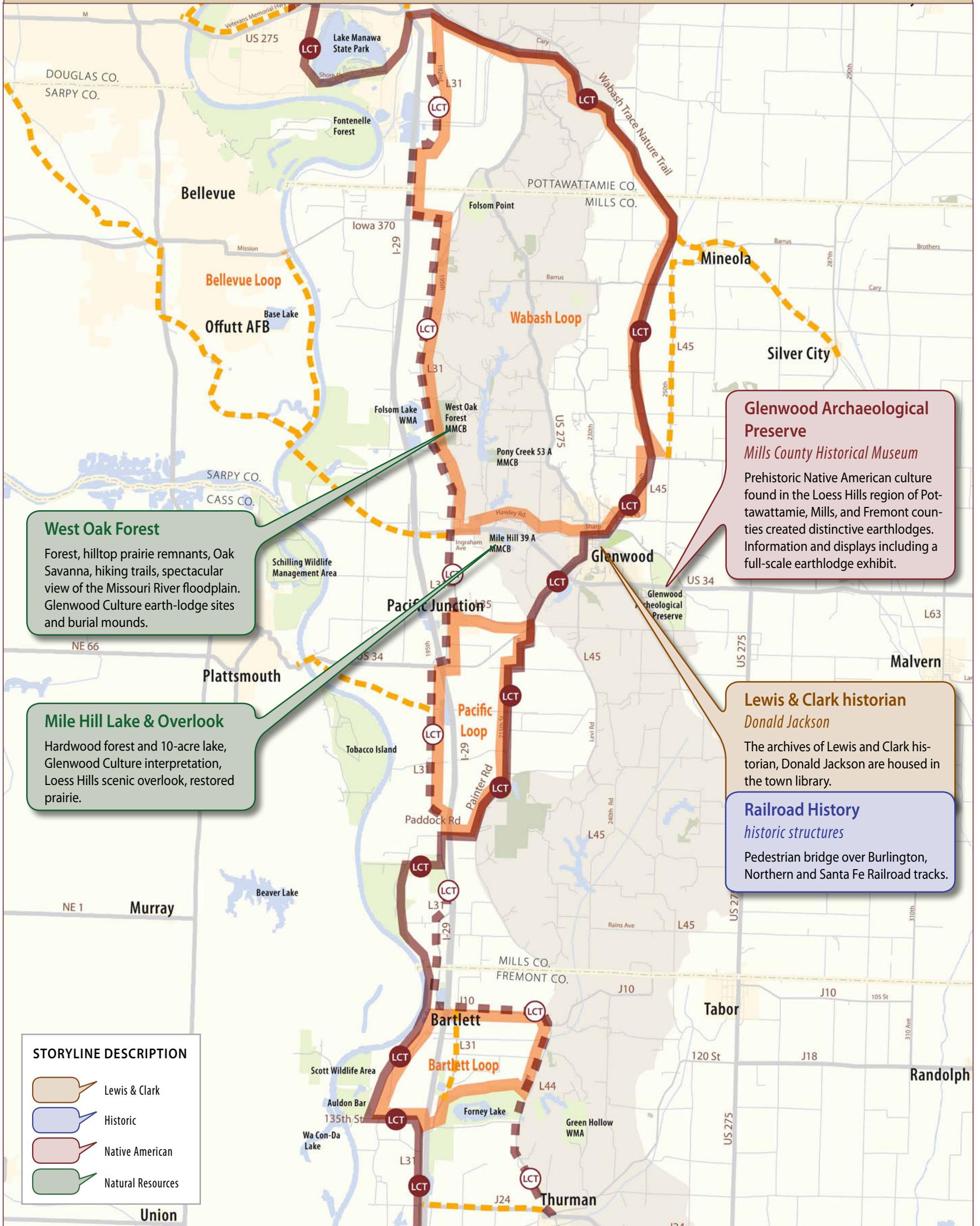
HARRISON COUNTY



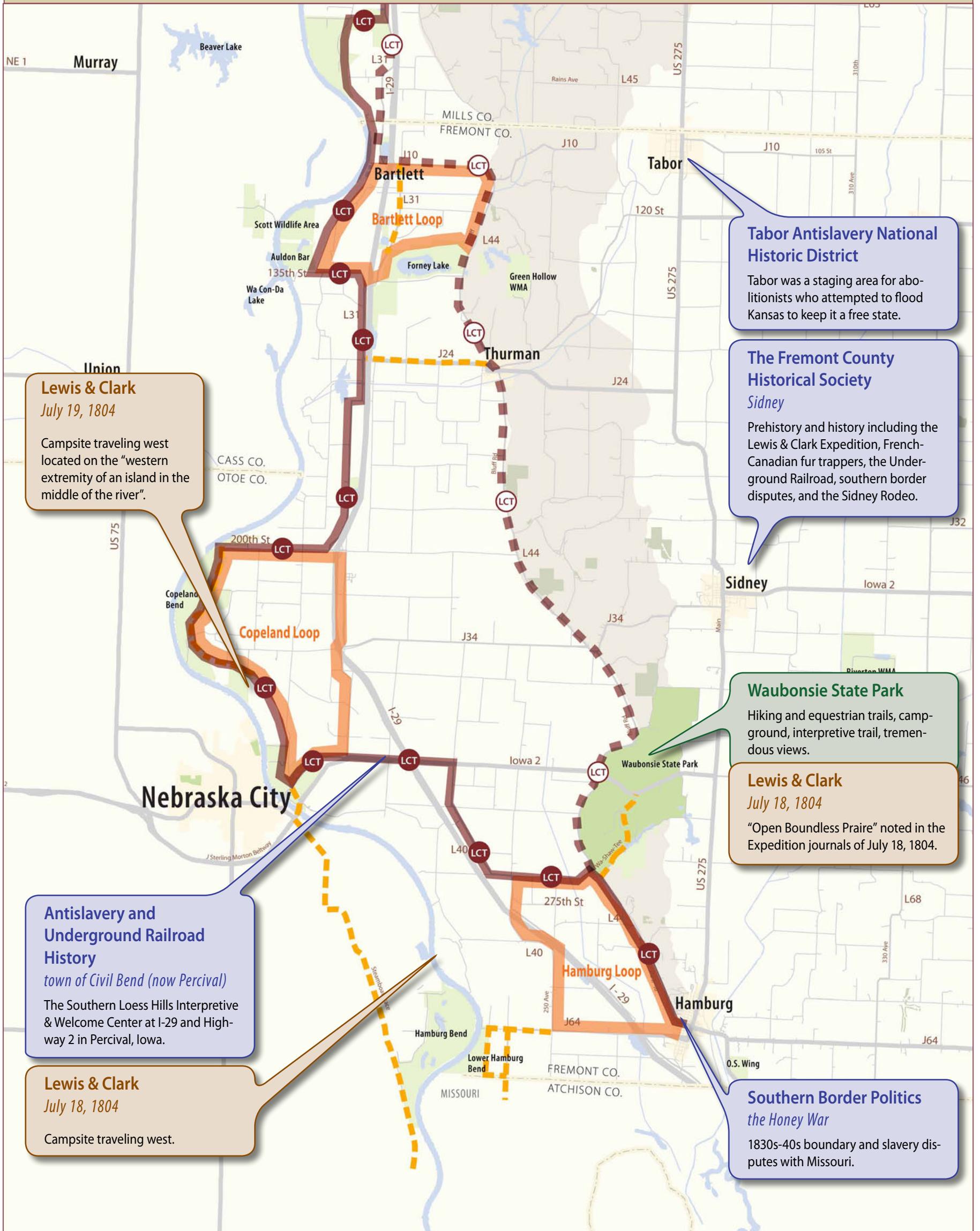
POTTAWATTAMIE COUNTY



MILLS COUNTY



FREMONT COUNTY



Lewis & Clark
July 19, 1804
 Campsite traveling west located on the "western extremity of an island in the middle of the river".

Tabor Antislavery National Historic District
 Tabor was a staging area for abolitionists who attempted to flood Kansas to keep it a free state.

The Fremont County Historical Society
Sidney
 Prehistory and history including the Lewis & Clark Expedition, French-Canadian fur trappers, the Underground Railroad, southern border disputes, and the Sidney Rodeo.

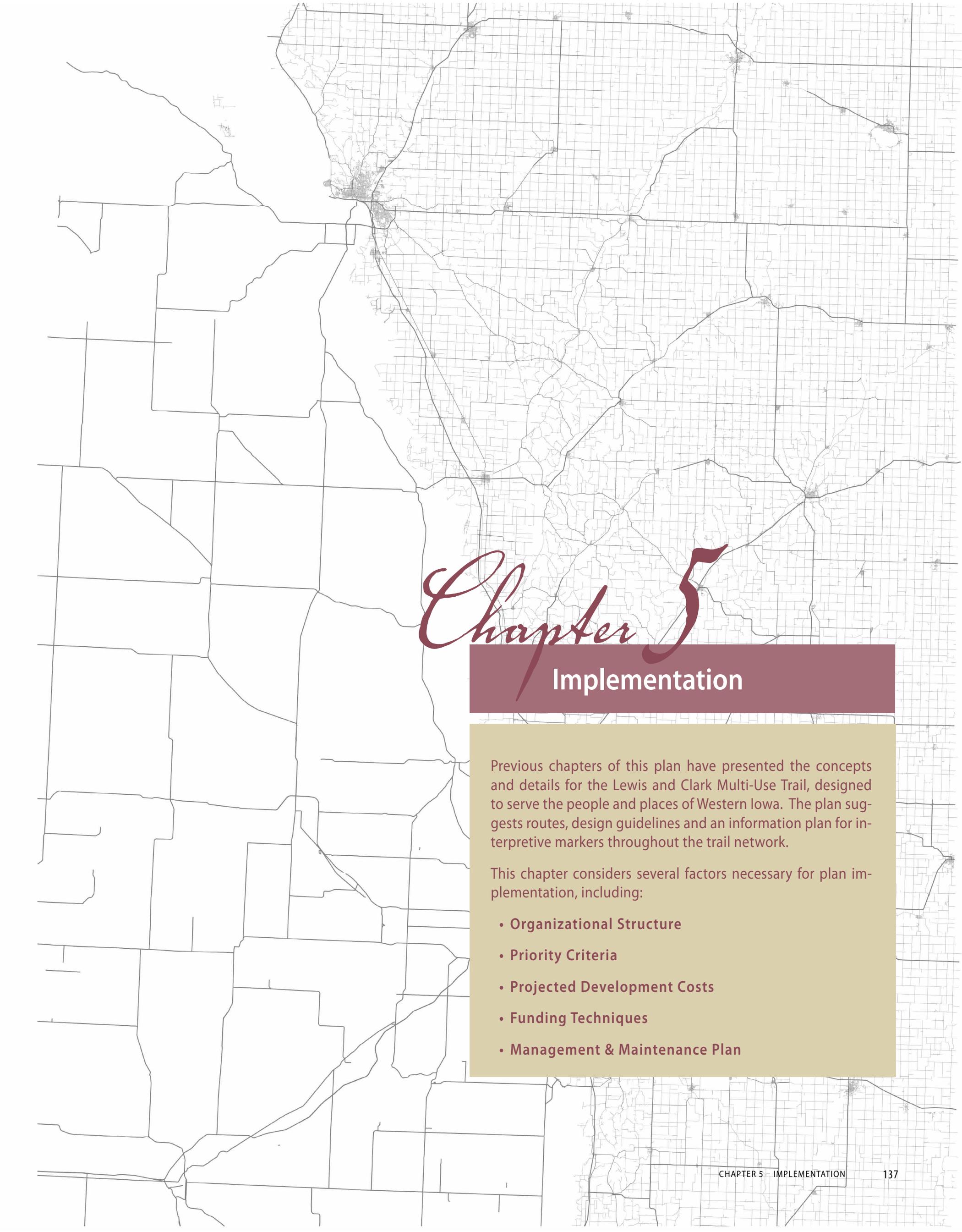
Waubonsie State Park
 Hiking and equestrian trails, campground, interpretive trail, tremendous views.

Lewis & Clark
July 18, 1804
 "Open Boundless Praire" noted in the Expedition journals of July 18, 1804.

Antislavery and Underground Railroad History
town of Civil Bend (now Percival)
 The Southern Loess Hills Interpretive & Welcome Center at I-29 and Highway 2 in Percival, Iowa.

Lewis & Clark
July 18, 1804
 Campsite traveling west.

Southern Border Politics
the Honey War
 1830s-40s boundary and slavery disputes with Missouri.



Chapter 5

Implementation

Previous chapters of this plan have presented the concepts and details for the Lewis and Clark Multi-Use Trail, designed to serve the people and places of Western Iowa. The plan suggests routes, design guidelines and an information plan for interpretive markers throughout the trail network.

This chapter considers several factors necessary for plan implementation, including:

- **Organizational Structure**
- **Priority Criteria**
- **Projected Development Costs**
- **Funding Techniques**
- **Management & Maintenance Plan**

Trail Development

Fundraising by the Foot

Buy-a-Foot-of-Trail campaigns are becoming increasingly popular. While fundraising with this method is difficult for long rural trail routes, marketing a short stretch of highly visible, trail near an urban area or point of interest is much more realistic.

The Greenway Foundation of Jackson County Oregon has integrated this approach into their usual fundraising events of membership drives, silent auctions, and direct appeals. For the last four years the Foundation has held a successful Great Bear Greenway Yard Sale, allowing a person to purchase a symbolic “yard” of the trail for \$40. A future permanent marker at each trailhead will bear the name of the donor and the section to which they contributed.



Bear Creek Greenway between Central Point and Ashland, Oregon. Courtesy www.riverwalk-ashland.com

IMPLEMENTATION

Previous chapters of this plan have presented the concepts and details for the Lewis and Clark multi-use trails, designed to serve the people and places of Western Iowa. The plan suggests routes, design guidelines, and an information plan for interpretive markers throughout the trails network. This chapter considers several factors necessary to plan implementation, including:

- Organizational structure.
- Priority criteria.
- Projected development costs.
- Funding techniques.

Organizational Structure

Successful trail implementation efforts require successful partnerships between the state agencies, local governments, and community organizations. Since the implementation of the Iowa Trails 2000 Plan, the Iowa DOT has been the catalyst for planning and initiating statewide trail projects. The Iowa DOT has led many trail development initiatives across the state, including this use master plan; however, given the economic realities, implementation must use many funding sources.

To implement the LCT Plan, local governments, county conservation boards, and non-profit organizations must work closely with the Iowa DOT and its district offices.

Role of Agencies in Trail Implementation

Developing the Lewis and Clark Multi-Use Trail will be a cooperative effort between various agencies, communities, and organizations. Different groups have specific responsibilities. Table 4.1 illustrates the potential roles that various organizations play in the implementation process.

Iowa Department of Transportation. The Iowa DOT can be a significant source of funding for trail development. The Iowa DOT offers planning and design assistance, as well as financial guidance. Final trail plans for any project that receives Iowa DOT funding must be approved by the department.

The Iowa DOT’s district offices will be the primary point of contact for county and local agencies implementing parts of the LCT. District offices can guide applicants through the department’s funding process and offer programming assistance.

For the Lewis and Clark multi-use trails, the Iowa DOT will focus on projects such as paving of shoulders and side paths along state and federal highways. Trail projects along other right-of-ways, such as county roads, will be the responsibility of local agencies and private organizations.

Iowa Department of Natural Resources. The DNR maintains a system of multi-use trails within state parks, recreation areas, and forests. The office also provides financial and management assistance to communities to build trails linking state parks to neighboring communities. Additional assistance is also provided by the DNR for the planning of additional trails projects for Off-Highway Vehicles (OHV), canoes/kayaks, and snowmobiles.

Metropolitan Planning Organizations & Regional Planning Affiliations. In many cases, MPOs and RPAs staff may assist member governments in the planning and grant writing efforts, but it is the county or city who will initiate the efforts since they are ultimately the trail owners.

County Conservation Boards. County Conservation Boards are charged with the acquisition, development, operation, and maintenance of county recreation, preservation, and interpretive facilities. As such, they often act at the primary developers and operators of local trails. Some state and federal grants for trails are specifically geared towards projects being implemented by County Conservation Boards.

Table 4.1: Implementation Matrix

	Offers funding guidance	Can provide primary funding for trail projects	Can contribute local funding match	May oversee detailed design of trail projects	Reviews trail plans	May oversee construction of trails	May perform operations & maintenance of trails	Offers design & construction guidance	Offers technical assistance
Iowa DOT	*	*		*	*	*	*	*	*
Iowa DOT - District Offices	*							*	
Iowa DNR	*	*	*	*	*	*	*	*	*
MPOs and RPAs	*			*	*			*	*
County Conservation Boards		*	*	*		*	*		
Local agencies, & organizations			*	*		*	*		
Other state agencies			*		*			*	*
Private organizations	*		*	*		*	*		*

Source: Iowa Trails 2000

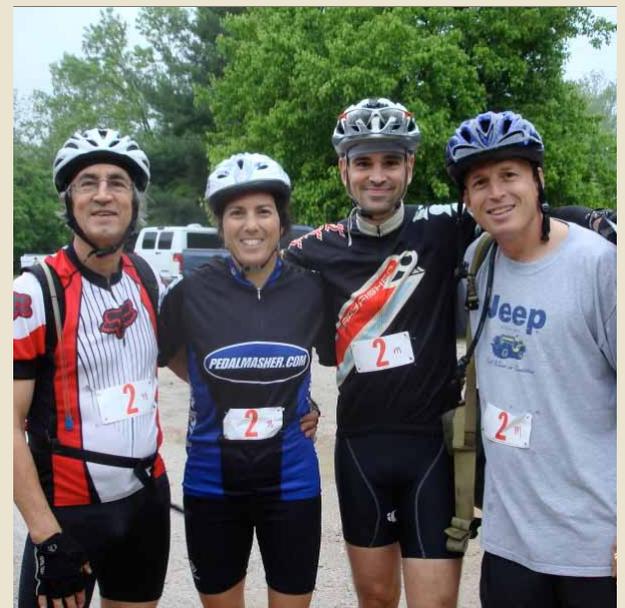
Trail Development

Adventure Racing

Holding a local adventure race is a great way to involve future trail user groups in raising funds for trail completion. Ozark Greenways Inc. of Springfield, Missouri has held the Mark Twain Forest Adventure race for four consecutive years, combining running, canoeing, mountain / trail biking and orienteering. The adventure race is unique in combining user groups – both seasoned athlete and weekend warrior - while generating excitement and allowing future users a chance to explore areas not seen from major roads.

Coordinating such an event is no small task considering volunteers, emergency personnel, and post-race food preparation and management activities, however

it provides participants with unique knowledge of the area and also allows user groups to network, leading to greater collaboration in the future. For more info on the Mark Twain Forest Adventure race visit www.ozarkgreenways.org.



Ozark Greenways Adventure Race 2009.
Courtesy of www.runningmania.com

Local Governments, Communities, Agencies, and Organizations. These are the primary local developers and owners of specific trail projects. Local projects must involve municipal governments who are the recipients of any federal or state funds. They will be responsible for local coordination, public involvement, and design and final alignment.

Other State Agencies. Other agencies such as the Iowa Department of Economic Development or Iowa Department of Cultural Affairs can offer technical assistance for specific implementation. These organizations are important assets in tourism and promotional campaigns, producing brochures and conducting research on cultural resources along the trail.

Private Organizations. The Iowa Trails Council, Iowa Natural Heritage Foundation, and special interest clubs may coordinate implementation of portions of the LCT by partnering with local government entities. They also contribute funding or in-kind services that support trail development.

Priority Criteria

The Lewis and Clark multi-use trail plan covers six counties in Western Iowa. The Iowa DOT has made it a priority for these counties to focus on establishing the "Today Route" from Hamburg to Sioux City. Counties and local communities, with aid from coordinating agencies such as the Iowa DOT, DNR, and County Conservation Boards, will lead the LCT implementation effort. Completing the entire LCT will be an incremental process that requires setting priorities and evaluating new conditions along the way.

Once the basic "Today Route" is established, a county can turn its attention to enhancements or development of additional routes. Each county should evaluate proposed routes in view of maximum benefit to the county and its people. Evaluative criteria apply questions such as the following to specific projects when they are considered.

- Does the project connect important resources, such as state parks to neighboring communities?
- Does the project generate substantial community support or consensus?
- What is the project's potential to transform the image of the area or individual communities?
- Does the project respond to a specific or high-profile need for improved trail facilities?
- Does the project incorporate and leverage outside funding sources, such as state grants or charitable contributions?
- Does the project provide a link to other sections of the LCT being implemented in neighboring counties?
- Does the project yield substantial economic development opportunities?

The key to successful implementation will be to establish priorities based on the specific benefits of the project.

Projected Development Costs

Financing construction of the LCT will require federal, state, local, and private resources. Project staging is also needed to manage the ongoing capital requirements of individual components. The following cost descriptions describe the methods and costs associated with the various LCT prototypes.

Cost Descriptions

Paved Roads as Shared Routes. Adaptation of shared routes is estimated at \$6,000 per mile, based on the following items: one “sharrow” lane marking per mile, three “Share the Road” signs and two Lewis and Clark Trail signs per mile, and one directional sign every two miles. This is also considered the base LCT sign package for the rest of the route descriptions. A 10 percent design and engineering fee is added for the placement of all signs.

Paved Road with Shoulders/Bike Lane. The cost of this treatment is estimated at \$369,000 per mile, accounted for by adding six feet of paving on either side of the roadway. A 20 percent design and engineering fee is added due to the need to extend culverts and re-grade the road corridor. Painting and striping of the shoulder, along with the addition of the basic LCT sign package, delineates the shoulder as a bicycle-friendly zone. Finally, native seeding is placed on all disturbed areas to promote healthy roadway ecosystems.

Existing Paved Road with Side Path. This treatment is estimated at \$470,000 per mile, the bulk of which comes from paving a 10-foot wide roadside concrete trail. Between 10- and 25-feet of right-of-way (ROW) acquisition is included with an average acquisition cost of \$15,000 per acre. A 20 percent design and engineering fee (of the total cost per mile) is added, along with an allowance to extend culverts and grade the site in areas where ROW acquisition is difficult. The basic LCT sign package and native seeding are also included.

Existing Gravel Road at Shared Routes. An estimated cost of \$2,000 per mile is based on three “Share the Road” signs and two Lewis and Clark Trail signs per mile, and a 10 percent design and engineering allowance.

Existing Gravel Road with Side Path. A cost of \$229,000 per mile includes a 10-foot wide granular-surface trail, 10- to 25-feet of ROW acquisition, a 20 percent design and engineering fee, culvert extensions, and grading. Acquisition is either difficult or constrained. Typical highway guardrails are used to separate the pathway from vehicular traffic. The basic LCT sign package and native seeding are also included.

Paving Existing Gravel Roads. Paving is estimated at \$584,000 per mile. Most of this cost comes from the paving of a 22-foot wide concrete roadway, along with a 20 percent design and engineering fee. Minor grading, painting/striping the new roadway, the basic LCT sign package, and native seeding are also included.

DNR Land Off-Road Trail. Costs are estimated at \$105,000 per mile, including a 10-foot wide granular-surface trail and the acquisition of 30-feet of ROW (3.6 acres of land per mile at \$15,000 per acre). As this trail will most likely be placed in areas outside of any existing ROW, a 20 percent design and engineering fee is added to plan for the eventual grading that will be needed. The basic LCT sign package and native seeding are also included.

New Separated Trail. These costs are the same as those estimated for off-road trails on or adjacent to public land.

New Trail on Levee. Cost is estimated at \$142,000 per mile, including a 10-foot granular-surface trail, acquisition of 20-feet of ROW, a 20 percent design and engineering fee, and the basic LCT sign package with native seeding.

Trail Development Costs at a Glance

The following tables review the cost of total LCT development on a county-by-county basis. Estimates are in 2010 dollars and do not account for inflation.



Today Route

	Total Mileage	Cost
Woodbury County	25.6	\$154,000
Monona County	37.7	\$178,000
Harrison County	62.6	\$376,000
Pottawattamie County	28.3	\$170,000
Mills County	28.5	\$171,000
Fremont County	25.2	\$152,000
Today Route Total:	207.9	\$1,201,000

Explorers & Express Routes

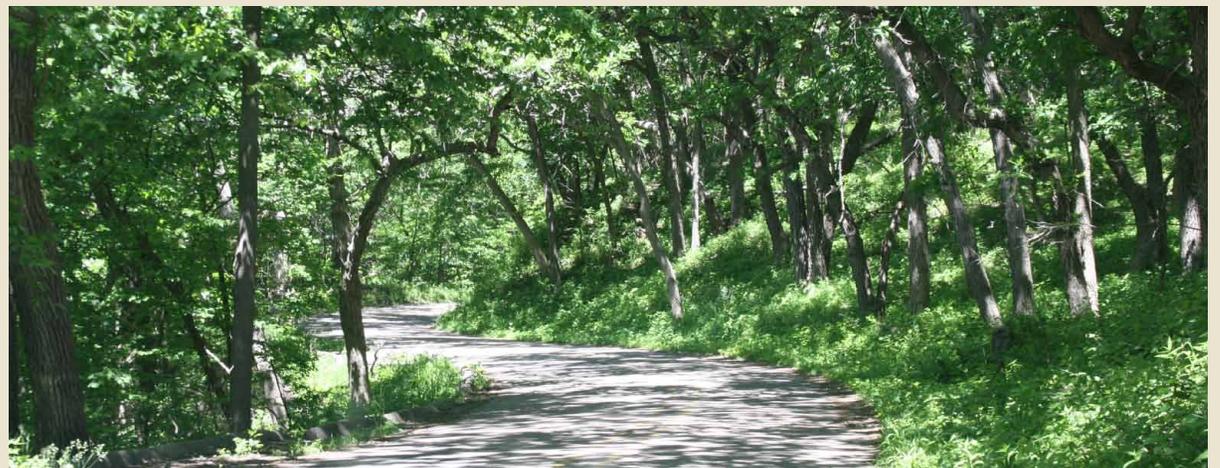
	Total Mileage	Cost
Woodbury County	34.9	\$8,912,300
Monona County	58.3	\$9,151,300
Harrison County	85.3	\$12,638,700
Pottawattamie County	39.9	\$13,266,300
Mills County	36.9	\$8,104,200
Fremont County	52.3	\$14,173,200
Explorers & Express Routes Total:	307.6	\$66,246,000

Loops

	Total Mileage	Cost
Woodbury County	-	-
Monona County	31.3	\$187,800
Harrison County	13.1	\$3,662,200
Pottawattamie County	-	-
Mills County	5.2	\$1,935,000
Fremont County	19.6	\$3,322,000
Loop Totals:	69.2	\$9,107,000

Woodbury County Development Costs

Woodbury County Summary	Total Mileage	Cost
Explorers Route	26.2	\$6,609,500
Express Routes	8.7	\$2,302,800
Snyder Bend Loop	-	Included
Woodbury County Total:	34.9	\$8,912,300



Stone State Park - Sioux City

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost
					1e	Riverside Boulevard (Iowa 12), Dorothy Picault Nature Center at Stone State Park to Riverside Park			3.6								\$1,692,000
					2e	Sioux City Riverfront Trail from Riverside Park (existing terminus) to Floyd Boulevard										4.1	\$0
					3e	Extension of Floyd River Trail from current trail terminus to Dace Avenue.								0.1			\$10,500
					4e	Dace/Leech Avenue, Floyd River Trail to old channel	0.7										\$4,200
					5e	Old Floyd channel from Leech Avenue to riverfront								0.9			\$94,500
					6e	Riverfront Trail extension from mouth of old channel to terminus of existing trail south of railroad bridge								0.5			\$52,500
					7e	Riverfront Trail from existing terminus to Chautauqua Park										1.9	\$0
					8e	Harbor Drive, Chautauqua Park to Singing Hills Blvd.			0.9								\$423,000
					9e	Harbor Drive/I-29 right-of-way, Singing Hills Boulevard to 8 th Street								2.1			\$220,500
					10e	8 th Street, Harbor to D Street	0.5										\$3,000
					11e	D Street, 8 th to Topaz Drive	0.8										\$4,800
					12e	Topaz Drive, D to Port Neal Road	0.3										\$1,800
					13e	Port Neal Road (K25), Topaz Drive to 225 th Street		1.2									\$442,800
					14e	Port Neal Road (K25), 220 th Street to Brown's Lake		4.6									\$1,697,400
					15e	Brown's Lake to Snyder-Winnebago Bend (330 th Street)							6.9				\$724,500
					16e	330 th Street Alignment, Winnebago Bend to WiineVegas Casino								0.6			\$63,000
					17e	K35/Iowa 141(330 th Street), WinneVegas Casino to Sloan			2.5								\$1,175,000
					1x	K25, Brown's Lake to Salix	2.5										\$15,000
					2x	K45, Salix to Sloan		6.2									\$2,287,800
Totals							4.8	12.0	7.0	0.0	0.0	0.0	6.9	4.2	0.0	6.0	\$8,912,300

Monona County Development Costs

Monona County Summary	Total Mileage	Cost
Explorers Route	34.2	\$4,928,500
Express Routes	24.1	\$4,222,800
Blackbird Loop	1.8	\$10,800
Blue Lake Loop	-	Included
Larpenteur Loop	29.5	\$177,000
Monona County Total:	89.6	\$9,339,100



Monona County Courthouse - Onawa

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost	
					18e	K42, Iowa 141 to 160th Street	6.6											\$39,600
					19e	Berry Avenue, 160th to 170th Street					1.1							\$251,900
					20e	170th Street, Berry Avenue to riverfront					0.6							\$137,400
					21e	Riverfront, 170th to Blackbird Island								2.6				\$273,000
					22e	Blackbird/Ivy Island WMA (DNR land) to 230th Street.							5.2					\$546,000
					23e	230th Street, Blackbird/Ivy Island WMA to Iowa 175					1.5							\$343,500
					3x	K42, Berry Avenue to I-29 Whiting interchange	2.2											\$13,200
					4x	K42, Whiting interchange to 210th Street	5.4											\$32,400
					5x	K42 (210th Street), Cherry Avenue to Dogwood Avenue	1.8											\$10,800
					24e	Iowa 175, Cherry Avenue to Dogwood Avenue		0.4									0.9	\$147,600
					1L	Cherry Avenue, K42 to Iowa 175	1.8											\$10,800
					2L	Dogwood Avenue, Iowa 175 to K42			1.7									\$799,000
					25e	Blue Lake WMA, Iowa 175 to Filbert Avenue							2.0					\$210,000
					26e	Filbert Avenue, Lewis and Clark State Park to Louisville Bend WMA					2.9							\$664,100
					27e	Louisville Bend WMA and riverfront, between north and south segments of Filbert Avenue							3.0	0.8				\$399,000
					28e	Filbert Avenue/320th Street/Gum Avenue from north terminus of Filbert to Monona-Harrison County line					4.1							\$938,900



Monona County Historical Museum - Onawa



Downtown Onawa - The widest Main Street in America.

Continued:

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost
					6x	K42, Dogwood Avenue to 10th Street (K45) in Onawa			3.0								\$1,410,000
					7x	K45, K42 to E60 at Blencoe		7.4									\$2,730,600
					8x	K45, Blencoe to Monona/Harrison County Line	4.3										\$25,800
					3L	Union Pacific property, K45 to Gum Avenue								1.7			\$178,500
					1t	L12, Iowa 175 to Larpentuer Memorial Road	6.3										\$37,800
					2t	Larpentuer Memorial Road, L12 to E54	9.4										\$56,400
					3t	Larpentuer Memorial Road, E54 to Iowa 183 at Moorhead	6.6										\$39,600
					4t	Iowa 183, Moorhead to F20 at Pisgah	7.2										\$43,200
Totals							51.6	7.8	4.7	0.0	10.2	0.0	10.2	5.1	0.0	0.9	\$9,339,100

Harrison County Development Costs

Harrison County Summary	Total Mileage	Cost
Explorers Route	52.8	\$9,772,700
Express Routes	27.0	\$2,866,000
Tyson Loop	5.0	\$35,400
DeSoto Loop	7.2	\$3,626,800
Regional Connections	7.9	\$4,077,800
Harrison County Total:	99.9	\$20,378,700



Rural Harrison County

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost
					29e	106 th Trail, County Line to Adams Trail					1.1						\$251,900
					30e	Adams Trail, 106 th Trail to north boundary of Deer Island WMA					1.4						\$320,600
					31e	Deer Island and Three Rivers WMA/Little Sioux Delta Park, Adams Trail to F20							4.4				\$462,000
					32e	F20, Three Rivers to K45			1.0								\$470,000
					9x	K45, County Line to F20	4.7										\$28,200
					33e	F20, K45 to Iowa 183 at Pisgah	7.9										\$47,400
					34e	Iowa 183, F20 at Pisgah to Iowa 127		8.9									\$3,284,100
					35e,11x	Iowa 127, Iowa 183 to K45 at Mondamin		3.3									\$1,217,700
					10x	K45, F20 at River Sioux to Mondamin	6.3										\$37,800
					1q	Soldier Bend WMA, 212 th to 222 nd Street	1.0			2.6			2.0				\$221,200
					2q	222 nd Street to 260 th Street				6.0							\$12,000
					36e	K45, Mondamin to 260 th Street	5.9										\$35,400
					37e	260 th Street, K45 to Tyson Bend					4.2						\$961,800
					38e	Tyson Bend Spur, 260 th Street to Tyson Bend State WMA							2.2				\$231,000
					39e	US 30, Missouri River to De Soto NWR entrance/K45			4.1								\$1,927,000



Loess Hills Grasslands, Harrison County



Bunk House Cafe in Logan

Continued:

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost	
					1a	K45, 260 th Street to US 30	5.0											\$30,000
					2a	305 th Street/Jewell Avenue, K45 to Huron Street						6.2						\$3,620,800
					3a	Huron Street, Jewell Avenue to 6 th Street (L20 South)	1.0											\$6,000
					4a	Same as 14x												
					5a	Same as 15x												
					40e	De Soto Bend National Wildlife Refuge, US 30 to G12							3.2			2.0		\$336,000
					12x	L20, Iowa 127 to F50	6.8											\$40,800
					13x	L20, F50 to Huron Street		5.0										\$1,845,000
					14x, 4a	6 th Street (L20 south), Huron Street to Boyer River		1.4										\$516,600
					15x, 5a	Boyer River Levee, L20 to G12									2.8			\$179,200
					1r	US 30, 6 th Street in Missouri Valley to Niagara Trail			4.7									\$2,209,000
					2r	Niagara Trail, US 30 to F50						3.2						\$1,868,800
Totals							38.6	18.6	9.8	8.6	6.7	9.4	11.8	2.1	2.8	0.0		\$20,378,700

Pottawattamie County Development Costs

Pottawattamie County Summary	Total Mileage	Cost
Explorers Route	24.8	\$7,423,300
Express Routes	15.1	\$5,843,000
Wabash Loop	-	Included
Pottawattamie County Total:	39.9	\$13,266,300



Council Bluffs viewed from the Lewis & Clark Monument

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost	
					41e	G12, De Soto NWR to L20 (Old Lincoln Highway)	6.4										\$38,400	
					42e	L20, G12 to G27 junction in Crescent		10.6										\$3,911,400
					43e	G27, Crescent to L19		0.6										\$221,400
					44e	L19 (Joslin Avenue), G27 to Monument Road						3.7						\$2,160,800
					45e	Monument Road, Joslin Avenue to Mynster Springs Road	1.1					0.7						\$415,400
					46e	Mynster Springs Road/8th Street, Monument Road to Big Lake Park Trail	0.2											\$1,200
					47e	Big Lake Park/Nash Boulevard Trail, 8th to 25th Street/Riverfront Trail		0.3	1.2								0.3	\$674,700
					48e	Riverfront Trail, 25th Street to Nebraska Avenue at Ameristar Casino											4.1	\$0
					49e	River Drive, Nebraska Avenue to I-80 Bridge											0.6	\$0
					50e	Riverfront Trail, I-80 to Indian Creek Trail											3.0	\$0
					51e	Indian Creek/Lake Manawa Trails, US 275 to Wabash Trace Trailhead											6.6	\$0
					16x	L20 (North Broadway/Ridge Street), Crescent to Pierce Street		6.8										\$2,509,200
					17x	Pierce Street, Ridge to 1st Street	0.6											\$3,600
					18x	1st Street, Pierce to West Broadway	0.1											\$600



Union Pacific Railroad Museum - Council Bluffs



Bayliss Park - Council Bluffs

Continued:

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost
					19x	West Broadway, 1st Street to Main Street	0.4										\$2,400
					20x	Main/Pearl Street to 9th Avenue	0.5										\$3,000
					21x	9th Avenue, Main to 3rd Street	0.2										\$1,200
					22x	3rd Street and Harry Langdon Boulevard to Wabash Trace extension		2.2									\$811,800
					23x	Wabash Trace Extension, Harry Langdon Boulevard to Wabash Trace Trailhead										1.1	\$0
					52e	Wabash Trace Nature Trail, Lewis Central Trailhead to Keg Creek and Mineola Trailhead										9.2	\$0
					24x	L31, South Omaha Bridge Road (Trailhead) to Iowa 370						4.3					\$2,511,200
					3r	Bob Kerrey Pedestrian Bridge										0.4	\$0
					4r	US 275 Trail and Veterans Memorial Bridge										2.7	\$0
Totals							9.5	20.5	1.2	0.0	0.0	8.7	0.0	0.0	0.0	28.0	\$13,266,300

Mills County Development Costs

Mills County Summary	Total Mileage	Cost
Explorers Route	22.2	\$4,180,200
Express Routes	14.7	\$3,924,000
Wabash Loop	3.4	\$1,367,400
Pacific Loop	1.8	\$567,600
Regional Connections	7.6	\$2,435,200
Mills County Total:	49.7	\$12,474,400



McCormick Station - Glenwood

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost
					53e	Keg Creek Corridor, Wabash Trace to Sharp Street in Glenwood								6.7			\$703,500
					54e	Sharp Street, L45 to Locust Street (L35)										0.9	\$0
					55e	Locust Street (L35), Sharp to US 34 interchange		1.0									\$369,000
					56e	L35, US 34 interchange to Kesterson Road			1.3								\$611,000
					57e	Kesterson Road/215 th Street to Painter Road	3.8										\$22,800
					58e	Painter Road, 215 th Street to Paddock Avenue						1.6					\$934,400
					59e	Paddock Road, Painter Road to L31						0.8					\$467,200
					60e	Paddock Road, L31 to Missouri River Levee					0.9						\$206,100
					61e	Missouri River Levee, Paddock Road to J10									6.1		\$866,200
					25x	Iowa 370, connecting L31 north and south			0.6								\$282,000
					26x	L31, Iowa 370 to L35 in Pacific Junction		8.7									\$3,210,300
					27x	L35 and L31 from L31 intersection to Pearl Avenue	0.5										\$3,000
					28x	L31, Pearl Avenue to US 34		0.8									\$295,200
					29x	US 34 at I-29 interchange		0.3									\$110,700
					30x	L31, US 34 to J10	3.8										\$22,800



Downtown Glenwood



Rural Mills County

Continued:

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost	
					5t	Sharp Street/Hawley Road, Locust Street to Deacon Road	0.4	1.8										\$666,600
					6t	Deacon Road and Ingraham Avenue, Hawley Road to L31						1.2						\$700,800
					7t	L35, Kesterson to L31 in Pacific Junction	0.6		1.2									\$567,600
					5r	US 34 Extension and Plattsmouth Bridge			4.3									\$2,021,000
					6r	Plattsmouth Link	0.4								2.9			\$414,200
Totals							9.5	12.6	7.4	0.0	0.9	3.6	0.0	6.7	9.0	0.9		\$12,474,400

Mills County: Alternate Routes

					6a	H12, Mineola Trailhead to Keg Creek crossing at L45 intersection		1.0										\$369,000	
					7a	L45, H12 to Sharp Street in Glenwood		6.9										\$2,546,100	
Totals							0.0	7.9	0.0		\$2,915,100								

Fremont County Development Costs

Fremont County Summary	Total Mileage	Cost
Explorers Route	31.9	\$6,646,600
Express Routes	20.4	\$7,527,600
Bartlett Loop	2.5	\$262,500
Copeland Bend Loop	5.1	\$1,881,900
Hamburg Loop	9.2	\$144,400
Regional Connections	0.8	\$4,800
Fremont County Total:	69.9	\$17,500,000



Downtown Hamburg

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost
					62e	Missouri River Levee, J10 (Bartlett access) to 135th Street									2.8		\$397,600
					63e	135th Street, Missouri River levee to L31					1.3						\$297,700
					64e	L31, 135th Street to 200th Street (Percival interchange)	6.1										\$36,600
					65e	200th Street, L31 to Copeland Bend WMA						2.4					\$1,401,600
					66e	Copeland Bend, 200th Street to south boundary of property							2.5				\$262,500
					67e	Missouri River Levee, south boundary of Copeland Bend property to L31 (old Highway 2)									4.1		\$582,200
					68e	L31, Missouri River Levee to Iowa 2 at 195th Street	1.5										\$9,000
					8a	L31, 200th Street to Iowa 2		5.1									\$1,881,900
					69e	Iowa 2, L31 to L40			2.4								\$1,128,000
					70e	L40, Iowa 2 to 275th Street	3.1										\$18,600
					71e	275th Street, L40 to L44 (Bluff Road) and Waubonsie west entrance						1.9					\$1,109,600
					31x	J10, L31 to L44		2.6									\$959,400
					32x	L44 (Bluff Road), J10 to Waubonsie west entrance (275th Street)		17.8									\$6,568,200
					72e	L44 (Bluff Road), 275th Street to Hamburg		3.8									\$1,402,200
					4L	Forney Lake Wildlife Area, L44 to L31							2.5				\$262,500



Waubonsie State Park, Fremont County



Hiking Trails at Waubonsie State Park, Fremont County

Continued:

LCT Explorers Route	Express Routes	Alternate LCT Routes	Loops	Links	Map Key #	Segment	Existing Paved Road; Add Signage	Existing Paved Road; Add Paved Shoulder	Existing Paved Road; Add Sidepath	Existing Gravel Road; Add Signage	Existing Gravel Road; Add Sidepath	Existing Gravel Road; Pave Road	DNR Land; Add Trail	New Separated Trail; Secure ROW	New Trail on Levee; Secure ROW	Existing Facilities	Segment Cost
					5L	J18, L31 to L44		2.8									\$1,033,200
					8t	L40, 275th Street to J64	4.3										\$25,800
					9t	J64, L44 in Hamburg to L40	3.5										\$21,000
					10t	J64, L40 to Hamburg Landing	1.0				0.4						\$97,600
					7r	Highway 2 Bridge, L-31 to Nebraska City	0.8										\$4,800
Totals							20.3	32.1	2.4	0.0	1.7	4.3	5.0	0.0	6.9	0.0	\$17,500,000

FUNDING TECHNIQUES

The LCT funding package uses many source. Numerous public and private grant programs exist, supplemented by a variety of innovative funding techniques. A discussion of some possible funding mechanisms follow.

NATIONAL PARK SERVICE – CHALLENGE COST SHARE PROGRAM

The Challenge Cost Share Program (CCSP) is designed to increase participation by qualified partners in the preservation and improvement of National Park Service natural, cultural, and recreational resources; in all authorized NPS programs and activities; and on national trails.

The CCSP requires a minimum 50% non-federal match in cash, goods, or services. Currently, the maximum CCSP award is \$30,000. Projects selected should be completed within one year.

One-third of CCSP funding is set aside for National Trails System projects supporting work under the National Trails System Act. National Trail System projects include those associated with National Scenic and Historic trails, National Scenic and Historic Trails in parks, National Recreation Trails, and rail-trails.

Contact:

Rachel McNamara
rachel_mcnamara@nps.gov
(202) 354-6922

NATIONAL FOREST FOUNDATION – MATCHING AWARDS PROGRAM

The Matching Awards Program (MAP) provides matching grants to organizations implementing action-oriented, on-the-ground stewardship and citizen-based science projects that benefit America's National Forests and Grasslands. By matching NFF federal funds to non-federal dollars raised by award recipients, MAP effectively doubles the resources available to nonprofit partners for implementing these projects.

A common thread connecting the National Forest Foundation (NFF) program areas is an interest in action oriented projects that enhance the viability of natural resources while considering benefits to, and the involvement of surrounding communities. For the MAP, the NFF accepts applications from non-governmental, nonprofit organizations, universities and Native American tribes working on, or adjacent to, National Forests and Grasslands in a effort to implement on-the-ground conservation, restoration and citizen-based monitoring projects.

Contact:

Adam Liljeblad
(406) 542-2805, ext. 12

BIKES BELONG COALITION GRANT PROGRAM

The Bikes Belong Grants Program was established in 1999, and helps put more people on bicycles more often by awarding grants to important and influential projects that leverage federal, state, and local money and build momentum for bicycling. These projects include bike paths, rail trails, mountain bike trails, bike parks, BMX facilities, and large-scale bicycle advocacy initiatives.

Bikes Belong accepts grant requests for funding of up to \$10,000 for facility and advocacy projects. However, the program will not consider grant request in which Bikes Belong funding would amount to 50% or more of the project budget.

Contact:

Bikes Belong Coalition
PO Box 2359
Boulder, CO 80306
mail@bikesbelong.org

TRANSPORTATION ENHANCEMENTS PROGRAM

The Transportation Enhancements (TE) Program has been a staple of trail development in Iowa and across America. It offers funding to help expand transportation choices and enhance the transportation experience through twelve eligible activities. A 20 to 30% local match is required, depending on whether the project has regional or statewide significance. TE projects must relate to surface transportation and must qualify under one or more of the following categories.

- Pedestrian and bicycle facilities
- Pedestrian and bicycle safety and education activities
- Acquisition of scenic or historic easements and sites
- Scenic or historic highway programs including tourist and welcome centers
- Landscaping and scenic beautification
- Historic Preservation
- Rehabilitation and operation of historic transportation buildings, structures, or facilities
- Conversion of abandoned railway corridors to trails
- Control or removal of outdoor advertising
- Archeological planning and research
- Environmental mitigation of highway runoff pollution, maintain habitat connectivity
- Establishment of transportation museums

Contact:

Jim Nervig
Iowa Department of Transportation
Office of Systems Planning
800 Lincoln Way
Ames, IA 50010
(515) 239-1621
jim.nervig@dot.iowa.gov

FHWA – RECREATIONAL TRAILS PROGRAM

The Recreational Trails Program (RTP) provides funds to the States to develop and maintain recreational trails and related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). Federal transportation funds benefit recreation including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles.

Contact:

Yvonne Diller
Iowa Department of Transportation
Office of Systems Planning
800 Lincoln Way
Ames, IA 50010
(515) 239-1252
yvonne.diller@dot.iowa.gov

IOWA DOT – RECREATIONAL TRAILS PROGRAM

The State Recreational Trails Program funds public recreational trails. The grant requires a 25% local match and the trail must be maintained as a public facility for a minimum of 20 years. Proposed projects must be part of a statewide, regional, area wide, or local trail plan.

Due to a lack of funding for state fiscal year 2011, funding is not available for the July 1, 2010 and January 2, 2011 application deadlines. Future funding remains in doubt.

Contact:

Yvonne Diller
Iowa Department of Transportation
Office of Systems Planning
800 Lincoln Way
Ames, IA 50010
(515) 239-1252
yvonne.diller@dot.iowa.gov

IOWA CLEAN AIR ATTAINMENT PROGRAM

The Iowa Clean Air Attainment Program funds street, transit, or trail projects which help maintain Iowa's clean air quality by reducing transportation related emissions. A 20% local match is required and application forms must be submitted with emission reduction calculations.

Contact:

Deb Arp
Iowa Department of Transportation
Office of Systems Planning
800 Lincoln Way
Ames, IA 50010
(515) 239-1681
debra.arp@dot.iowa.gov

Trail Maintenance

User Fees

User fees and even targeted local tax programs provide money for trails from the groups most likely to benefit, although payroll deductions have the potential to reach a greater number of trail supporters and a potentially more consistent funding base.

The Washington Trails Association has received over \$100,000 through voluntary payroll deductions in the last five years, allowing employees to donate to charitable organizations through payroll pledges. Through this, WTA spends less time fundraising and more time working toward a healthier trail system. WTA is a member of Earth Share of Washington, an alliance of 65 leading conservation and environmental organizations.



On the Wabash Trace Nature Trail, user fees are collected on the honor system from collection boxes at trailheads.

IOWA DNR – LAND & WATER CONSERVATION FUND

The Land and Water Conservation Fund (LWCF) Program is a federally funded grant program that provides match funds of 50% for outdoor recreation area development and acquisition. Iowa's cities and counties are eligible to participate. The program offers funding for a variety of outdoor recreational facilities including, skate parks, playgrounds, swimming pools, sports complexes, campgrounds, and multipurpose trails.

Contact:

Sandra Sampson
Department of Natural Resources
Wallace Building
502 East 9th Street
Des Moines, IA 50319
(515) 281-8004
Sandra.sampson@dnr.iowa.gov

IOWA DNR – REAP COUNTY CONSERVATION PROGRAM

The County Conservation Program provides money to counties for land easements or acquisition, capital improvements, stabilization and protection of resources, repair and upgrading of facilities, environmental education, and equipment. Expenditures are not allowed for single or multipurpose athletic fields or other organized sport facilities. The program provides 100% funding for eligible projects, so that no local match is required. Applications are accepted once a year on August 15th.

Contact:

Tammie Krausman
Iowa Department of Economic Development
200 East Grand Avenue
Des Moines, IA 50309
(515) 281-8382
Tammie.Krausman@dnr.iowa.gov

NPS – RIVERS, TRAILS, AND CONSERVATION ASSISTANCE PROGRAM

The RTCA program is part of the community assistance arm of the National Park Service, and supports community-led projects that conserve rivers, preserve open space, and develop trails and greenways. While RTCA does not provide grants for trail development, it acts as a catalyst by:

- Identifying resources
- Assisting in the planning process
- Converting ideas into actions
- Providing technical assistance

Contact:

Dave Thomson
601 Riverfront Drive
Omaha, NE 68102
402-661-1570

COMMUNITY ATTRACTION AND TOURISM PROGRAM

The Community Attraction and Tourism Program supports projects that promote recreational, cultural, educational or entertainment attractions that are available to the general public. Additional monies are available through the programs River Enhancement Community Attraction and Tourism Grant that supports projects geared specifically towards the enhancement of recreational opportunities on or near rivers or lakes within cities. There is no minimum or maximum award amounts for the program.

Contact:

Alaina Santizo
Vision Iowa/CAT Program Manager
Iowa Department of Economic Development
200 East Grand Avenue
Des Moines, IA 50309
(515) 725-3197
visioniowa@iowa.gov

CONSERVATION FUND – KODAK AMERICAN GREENWAYS PROGRAM

The Kodak American Greenways program is a “seed” grant program that provides up to \$2,500 in funding to organizations that developing new trail networks. Projects typically advance one or more of the following goals:

- Catalyze new greenway projects
- Assist grassroots greenway organizations
- Leverage additional money for conservation and greenway development
- Promote use and enjoyment of greenways

Contact:

The Conservation Fund
1655 N. Fort Myer Drive, Ste. 1300
Arlington, VA 22209
www.conservationfund.org

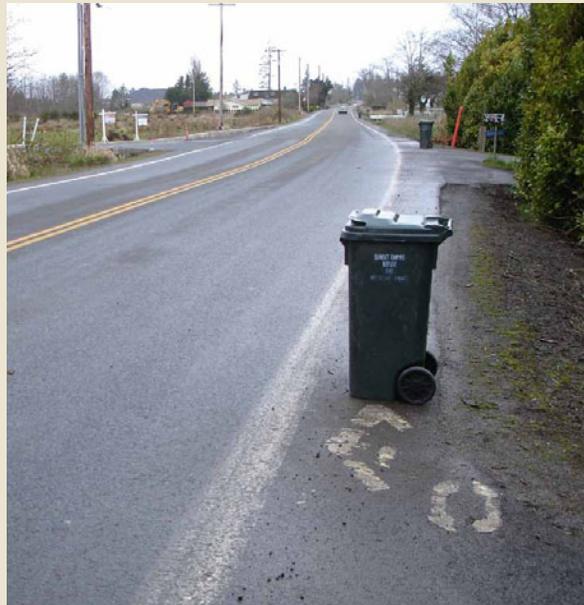
USDA/RURAL DEVELOPMENT – COMMUNITY FACILITIES LOAN

The Community Facilities Loan Program administers programs designed to develop essential community facilities for public use in rural areas. These facilities include libraries, childcare, hospitals, clinics, community centers, and transportation networks. Funding for projects is provided through one of three financial tools

- Direct Loans
- Guaranteed Loans
- Grants



Seasonal maintenance of roadways designated as bikeways should include sweeping and repair of cracks and potholes.



An education program for neighbors of the trail may reduce inappropriate use of the roadway, such as these garbage cans illegally placed in the bike lane



Grinding an inlay for striping improves adhesion and resistance to wear, especially from snow removal equipment.

Lewis and Clark Trail Management & Maintenance

This section discusses potential strategies LCT trail managers can employ to facilitate trail development and management efforts along the Lewis and Clark Multi-Use Trail in western Iowa. The strategies are based on challenges found in observing other multi-jurisdiction bicycle routes across North America. Challenges include long-term funding to support trail operations and maintenance, coordinating trail system development and management, and adopting consistent trail development and management mechanisms (e.g., adopted trail design guidelines, policies or plans) at the local level.

Typically the regional trail association or organizing agency (Iowa DOT, in the case of the LCT) does not own or manage the trail right-of-way upon which its trail is located. The following maintenance examples are gathered from the American Discovery Trail (ADT), the Mississippi River Trail (MRT) and the East Coast Greenway Alliance (ECGA). Each of these trails traverses multiple jurisdictions and each is overseen by a central organization, but developed and managed at a local level by other agencies.

These existing regional trails agencies do not own or manage trail right-of-way. Therefore, they rely on right-of-way from local roads, low volume highways and existing local trails, linking these segments to create a multi-jurisdictional right-of-way. States, counties and local municipal agencies provide the necessary on-going management. In many cases, the regional trail agency monitors the trail in an attempt to provide fundamentally consistent trail conditions for long distance trail users. The EGCA and some other regional trail organizations support the budget requests of its local agencies.

The EGCA has a long-range goal of creating an endowment fund. This endowment fund will be used to fund grants to local municipalities dealing with emergency maintenance issues and to build such trail amenities as rest areas, overlooks and other trail support features.

An organizational component unique to the East Coast Greenway is its State Committees which play an important role in building support at the state and local level, and recruiting volunteers to build and operate the trail. The Lewis and Clark Multi-Use Trail agencies

may benefit from such a committee structure, at the county level.

The EGCA also enjoys close relationships with various local trail initiatives such as the Eastern Trail Alliance in Maine and the Farmington Canal Rail to Trail Association in Connecticut. Both the ADT and the MRT rely heavily on local trail initiatives as well. These groups provide the energy to build the scores of local trail segments that the regional trail depends on for its right-of-way and provide for on-going operations and maintenance needs as well.

Recommendation. A dedicated non-profit trail organization should be established that can assist local implementation agencies with coordination of development, management and promotion of the Lewis and Clark Multi-Use Trail. The organization can act as a contracting agency for system-wide procurements, and may receive grants and other funds that public agencies are less likely to receive.

Operations and Maintenance

Importance of Proper Maintenance

Maintaining multi-use trails to a high standard is important for a variety of reasons:

Safety. Public agencies have a duty to protect the public welfare by maintaining facilities to a level that reduces potential safety hazards. This includes repairing damage on paths and bikeways that may pose a tripping or crash hazard, clearing snow in a timely manner (if snow-clearance policies are adopted), and preventing ice from forming on multi-use trails.

Universal Access. Public agencies are required by federal law to maintain public facilities so that they are accessible to people with disabilities. Small but abrupt vertical changes in level along a path or bikeway may not pose a safety hazard to able-bodied pedestrians, but may present an obstacle to people who are using wheelchairs or other mobility-assistive devices.

Attracting Use. Well-maintained facilities, with smooth surfaces, well-kept vegetation, and up-to-date signage will attract and sustain use.

Liability. Allowing hazardous conditions to exist along a path or bikeway exposes a local agency to potential lawsuits.

Protecting the Public Investment. Regular preventative maintenance on a path or bikeway (e.g. pavement preservation and periodic overlays) can extend the lifetime of the existing facility and delay the need for more expensive repairs.

Primary Maintenance Functions

Primary activities of maintaining multi-use trails include:

- Maintaining pavement quality through spot repairs, regular overlays and longer-term repaving
- Maintaining trail up to ADA standards
- Removal of litter and garbage on a timely basis
- Sweeping quarterly
- Vegetation trimming to provide clear access on a monthly basis
- Snow removal after storms
- Restriping as needed, usually annually
- Maintaining landscaping on a weekly or monthly basis
- Maintaining lighting features
- Repairing damage due to storms, floods, collisions and other unforeseen events
- Repairing and replacing wayfinding and other signing

Obstacles to Proper Maintenance

There are three main obstacles to successful multi-use trails maintenance programs. The first, and usually the most common issue, is a lack of dedicated funding. Grants are typically not available for maintenance activities, but are available for construction of new facilities. Second, proper equipment or appropriately trained personnel may not be available. For example, multi-use paths require narrow snowplows for snow removal, but these machines may not be owned by the jurisdiction. Third, there may be confusion or conflicts between different parties regarding whose responsibility it is to maintain bikeways and multi-use paths, and the exact duties that are required of the responsible party.

Maintenance Activities

Maintenance activities can be divided into basic maintenance and long-term maintenance.

Basic Maintenance

All of the agencies responsible for maintaining bikeways and trails perform activities that, at a minimum, include:

- Repairing pavement conditions on bicycle lanes or trails that pose a possible safety issue or that are not ADA compliant.
- Seasonal sweeping.
- Mud and debris removal after high water events.
- Regular clearing and trimming of vegetation.

Snow removal activities can vary significantly between agencies. In general, on-street bike facilities and community paths should be cleared after every snowstorm throughout the winter.

Agencies or districts with dedicated funding for maintenance generally provide more maintenance activities.

Long-Term Maintenance

Long-term maintenance includes major repairs, bridge replacement, slurry seals, overlays and re-paving. These activities are programmed into the local capital improvement plan and may be supported by regional or state funding. Each jurisdiction should maintain an up to date, prioritized list of current and upcoming long-term capital projects related to the development and maintenance of the facility.

Maintenance Challenges

A variety of challenges prevent agencies from maintaining trails to a high level. The primary challenge is a lack of funding, though there are some technical challenges related to clearing snow, cross-boundary coordination, and working with local property owners.

A summary of key maintenance challenges follows:

- *Most agencies pay for routine bikeway and path maintenance out of their maintenance and operations budget. Long-term replacement and major repairs due to unanticipated damage is often not included in capital improvement budgets resulting in longer facility closures and occasionally abandonment.*
- *Grant funding is often not available for maintenance activities.*
- *Snow removal.*
 - » Some agencies may not feel that path use is high enough in winter to warrant clearing snow.
 - » Snow removal from paths can be more demanding than from roadways. It must be removed far enough back from the pavement so that it does not melt, refreeze and create ice hazards. Sand and salt may not be permitted on trails because of their proximity to water increasing the costs of snow removal.
 - » Small plows, which have been purchased by some agencies, are not strong enough to clear heavy snows or densely packed snows.
 - » When clearing roads, snowplows clear snow and sand onto trails adjacent to roads. Often, the snow that is plowed onto bikeways is packed so hard that it is impossible to clear.

Maintenance Guidelines

A successful maintenance program requires continuity and a high level of citizen involvement. Regular, routine maintenance on a year-round basis will not only improve trail safety, but will also prolong the life of the trails. Maintenance activities required for safe trail operations should always receive top priority.

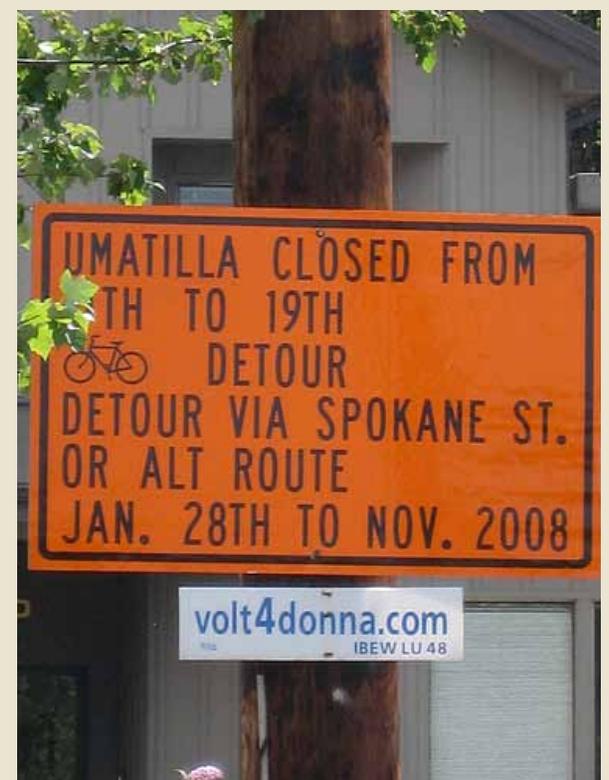
The Lewis and Clark Multi-Use Trail will consist of a variety of facility types, each with distinct maintenance requirements. The table below summarizes typical maintenance standards for regional trail systems:

Paved Multi-Use Path Maintenance

Cracks, ruts, edge erosion and water damage will need to be repaired periodically. In addition, vegetation control will be necessary on a regular basis. Where drainage problems exist along trails, ditches and drainage structures will need to be kept clear of debris to prevent wash outs. Inspections for erosion along the trails should occur immediately after storm events that bring flooding to the local area and can be coordinated with local roadway inspections. The trail surface should be kept free of debris, especially broken glass and other sharp objects, loose gravel, leaves and stray branches. Trail surfaces should be swept periodically to keep them clear of debris. Sweeping should be scheduled based on need. Path segments in forested areas will tend to accumulate surface debris such as leaves and branches at a faster rate than other path segments. These areas should be swept more frequently in order to maintain safe surface conditions on paved multi-use paths.



Maintenance Task	Suggested Frequency
Major damage response (fallen trees, washouts, flooding)	Immediate in response to need
Site furnishings; replace damaged components	As needed
Graffiti removal	Weekly; as needed
Shrub/tree irrigation for introduced planting areas	Weekly during summer months until plants are established
Trash disposal	Weekly during high use; twice monthly during low use
Litter pick-up	Weekly during high use; twice monthly during low use
Fencing repair	Inspect monthly for holes and damage, repair immediately
Pavement, striping and sign inspections	Seasonally (4 times/year)
Pavement sweeping/blowing	As needed; before high use season
Culvert inspection	Before rainy season; after major storms
Maintaining culvert inlets	Inspect before onset of wet season
Lighting repair	Annually
Waterbar maintenance (earthen trails)	Annually
Shoulder plant trimming (weeds, trees, branches)	Bi-annual (Fall and Spring), more during very high growth years.
Sign repair/replacement	1-3 years
Pavement markings replacement	1-3 years
Introduced tree and shrub plantings, trimming	1-3 years
Pavement sealing; pothole repair	5-15 years



Detours on rural bikeways can require significant out-of-direction travel for cyclist. Explicit directions and way-finding signing, comparable to the main route, should be implemented and maintained.



Thermo plastic striping has higher installation costs, offset in many applications by far superior service life.



Trail safety education and outreach are important means of reducing liability exposure and encouraging safe behavior.



Patrols encourage appropriate facility use.

On-Street Bicycle Lane Maintenance

While implementing bicycle facilities is important, keeping them in good condition is equally important. When a bicycle lane becomes filled with debris, cyclists are forced into the motor vehicle lane. Poor bicycle lane maintenance can contribute to accidents and deter potential cyclists unwilling to risk flat tires and skidding on roadways. Periodic inspections should be made of the on-street bicycle network with work being confined to spot fixes and damage response. Sweeping of on-street facilities should be coordinated with the management agency's roadway maintenance program to ensure that the roadway is cleared curb to curb. Activities are also often driven by maintenance requests from the public. Bridge sweeping is especially important where debris and litter often accumulates against the barrier obstructing the bike travel lane.

Natural Surface Trail Maintenance

In general, visibility between plantings at trail side should be maintained to give trail users clear views of their surroundings. Under story vegetation along trail corridors should not be allowed to grow higher than 36 inches. Tree species selection and placement should be made that minimizes vegetative litter on the trail. Vertical clearance along the trail should be periodically checked and any overhanging branches should be pruned to a minimum vertical clearance of 10 feet (12 feet where equestrians are anticipated). Vegetation 18-22 inches and above should be cleared to meet a 24-36 inch horizontal clearance minimum.

On soft-surface trails, the surface should be inspected and repaired to avoid erosion and tripping hazards. The management agency should correct or improve drainage to retain the integrity of the trail structure including the removal of trail edges where berms tend to build up and where uphill slopes erode onto the trails. In flat areas, the trail should be constructed to provide a surface with a crown or cross slope. Trails in hillside areas should be maintained to provide an outslope. Similar to paved multi-use paths, the trail surface should be kept free of debris, loose gravel, leaves and stray branches.

Temporary Trail Closures

Sections of the route may be closed from time to time for maintenance of the facility, or due to hazardous conditions such as

high water. Trail users should be notified and alternative routes identified during these closures. The following policies should be implemented before closing the trail:

- The management agency should post signs at all trail entrances on the impacted segments to be closed, indicating the duration of the closure.
- The management agency should keep the public informed and make every effort to keep the closure period as short as possible.
- The management agency should physically block the trail that is being closed with barriers and post "Trail Closed" signs.
- The management agency should provide detour signs and maps describing alternate routes.

The management agency should only re-open the trail upon inspection. Where obstructions remain, the management agency should provide warning signs for trail users to slow down or dismount where needed.

Trail Signage

Bike lanes, shared shoulders, bicycle boulevards and paths all have different signage types for wayfinding and regulations. Such signage is vulnerable to vandalism or wear, and requires regular maintenance and replacement as needed. A bi-monthly check on the status of signs should be performed with follow-up as necessary.

Construction signage should be placed in locations that do not obstruct the path of bicyclists or pedestrians, including bike lanes, wide curb lanes, or sidepaths. Signs may be placed at the street-side edge of sidewalks so as not to encroach onto a bike lane.

Detour and closure signage related to bicycle travel should be included on all bikeways where construction activities occur.

The East Coast Greenway Alliance provides consistent signage guidance for its local support network. The Lewis and Clark Multi-Use Trail agencies may want to fashion a similar guidance and post it on-line for use by its partners. Please see <http://www.greenway.org/signage.php> for more information.

Trail Monitoring and Safety

Properly designed and managed, the Lewis and Clark Multi-Use Trail will provide a reasonable level of safety and security. Additionally, studies have shown that high use is the most effective method of enhancing safety and security. While portions of the trail are expected to occur in rural areas, trails in isolated locations throughout Iowa have generally not had significant safety problems.

In order to maximize safety and functionality for users, and to minimize liability exposure for the management agencies, the trail design and maintenance should meet standards and guidelines identified by the Iowa DOT in the Iowa Trails 2000 Plan, MUTCD and the Americans with Disabilities Act (ADA) where feasible and appropriate.

Trail Patrols and Enforcement

Communities, neighbors and users are often very proud of their new trail facilities, especially long-distance routes and those with statewide identity. Enforcement of the rules and etiquette for most trails is self-enforcing by an engaged general public and enthusiastic user group with pride in ownership. For the first three (3) months after opening, the management agencies should patrol the trail on a daily basis, identifying enforcement and maintenance challenges and to modify adverse behaviors. After the first three months, the management agencies should patrol on an intermittent basis. The level of patrols should be based on reported incidents and problems.

Community Involvement with Trail Safety

Creating a safe trail environment goes beyond law enforcement officers and should involve the entire community. The most effective and most visible deterrent to anti-social activity on any trail is the presence of legitimate trail users. As a general pattern, introducing legitimate use on the trail right-of-way discourages undesirable behavior. Getting as many "eyes on the corridor" as possible is a key deterrent to undesirable activity on the trail. There are several components to accomplishing this as outlined in this section.

Provide Access to the Trail

Provide frequent access points to the trail. Access points should be inviting and signed to welcome the public. This includes access from trailheads, other trails, adjacent communities, at roadway crossings and destination points.

Good Visibility from Adjacent Neighbors

Neighbors adjacent to the trail provide 24-hour surveillance of the trail and can become a trail manager's ally. Though some screening and setback of the trail is often desirable, complete visual blocking of the trail from neighborhood view should be discouraged.

High Level of Maintenance

A well maintained trail sends a message to the public that the community cares about the trail. This message discourages undesirable activity along the trail.

Programmed Events

Events along the trail will help increase public awareness of the trail, and encourages good behavior, thereby bringing more people to the trail. Efforts should aim at raising public awareness while increasing support for the trail. Events might include kids' big-wheel races or a series of short walks led by long time residents or local leaders.

Community Projects

Community projects are the strongest means of creating a sense of ownership along the trail and they are perhaps the strongest deterrent to undesirable activity along the trail. Ideas for community projects include volunteer planting events, day long trail clean up and art projects.

Adopt-a-Trail Program

Many businesses and residential communities are located along the Lewis and Clark Multi-Use Trail. Neighbors of the trail often see the benefit of involvement in the trail development and maintenance. Businesses and developers may view the trail as an integral piece of site planning and thus be willing to take on some level of responsibility for the trail. Creation of an adopt-a-trail program should be explored to capitalize on this opportunity and build civic pride. The adopt-a-trail program could include an adopt-a-creek component to keep the local waterways clean from garbage and natural materials such as tree limbs and leaves.

Trail Safety Education and Outreach

On-going safety education is an important means of reducing liability exposure and encouraging safe behavior. Management agencies need to ensure that warning signs explaining the importance of staying on the authorized trail are prominently displayed and regularly maintained. Additionally, the management agencies could create trail brochures or initiate more formal education programs and engage in trail patrols.

Trail Brochures

Management agencies may consider developing, printing, and distributing brochures. Content may include: safety information, maps of existing and planned trails, walkways, bikeways, and other trail related facilities, as well as information encouraging

more local trips by foot, horse or bicycle. Maps should include transit stops to demonstrate how people might walk or bicycle to transit. Brochures should be available at trailheads, city halls, county offices, visitor centers, libraries, community centers and local cafes and bicycle shops.

Trail Patrols for User Outreach

Volunteer or professional trail patrols are also beneficial in improving trail safety. Patrols range from informal monthly clean-up and maintenance crews to daily patrols that provide maps, information and emergency assistance. The primary function of these patrols should be to educate trail users and to provide assistance when necessary. Patrols should also be equipped to alert emergency services quickly if needed. Above all, the presence of a patrol deters crime and improves users' enjoyment of the trail. Trail managers should be creative in using "friends of the trail" groups, local community organizations and law enforcement to maintain and monitor the trail.

Local Cost of Maintenance

Costs for maintaining paths vary widely, based on the level of maintenance provided by an agency, and how the agency calculates costs.

A high level of trail maintenance is critical to the overall success and safety of any trail system. Maintenance includes activities such as pavement stabilization, landscape maintenance, facility upkeep, sign replacement, fencing, mowing, litter removal, painting, and pest control. However, the benefits of a good maintenance program are not limited to the physical and biological features of the trails. Additional benefits include:

- A high standard of maintenance is an effective way to advertise and promote trails as a local and regional recreational resource.
- The psychological effects of good maintenance serve as an effective deterrent to vandalism, litter, and encroachments.
- Regular maintenance is necessary to preserve positive public relations between adjacent land owners and trail managing agencies.
- Good maintenance makes enforcement of regulations on the trails more efficient. The management agencies, local organizations and service groups will take pride in "their" trail and will be more apt to assist in protection of the trail system.
- A proactive maintenance policy will help improve safety along the trails.

Regional Funding Mechanisms

A variety of funding mechanisms have been used to different levels of success nationally. This section describes the funding associated with each.

Inclusion within Maintenance and Operations Budgets

Many agencies fund maintenance activities out of their existing maintenance and operations budget. While it is possible to structure a maintenance fund to increase with increasing facility mileage, most agencies do not do this.

Voter-Supported Bond Measures

This financial tool has been used to generate funding for the construction and maintenance of recreational facilities, including bicycle paths.

Business Improvement Districts

Business improvement districts (BIDs) are public/private partnerships used to promote individual business districts through a variety of means. A city, county or joint powers authority can establish a BID and levy annual assessments on businesses within its boundaries. To establish a BID, a majority of businesses must agree. In forming a BID, the boundaries, improvements and activities to be financed are established. These cannot be changed once the BID is formed.

Assessment Districts

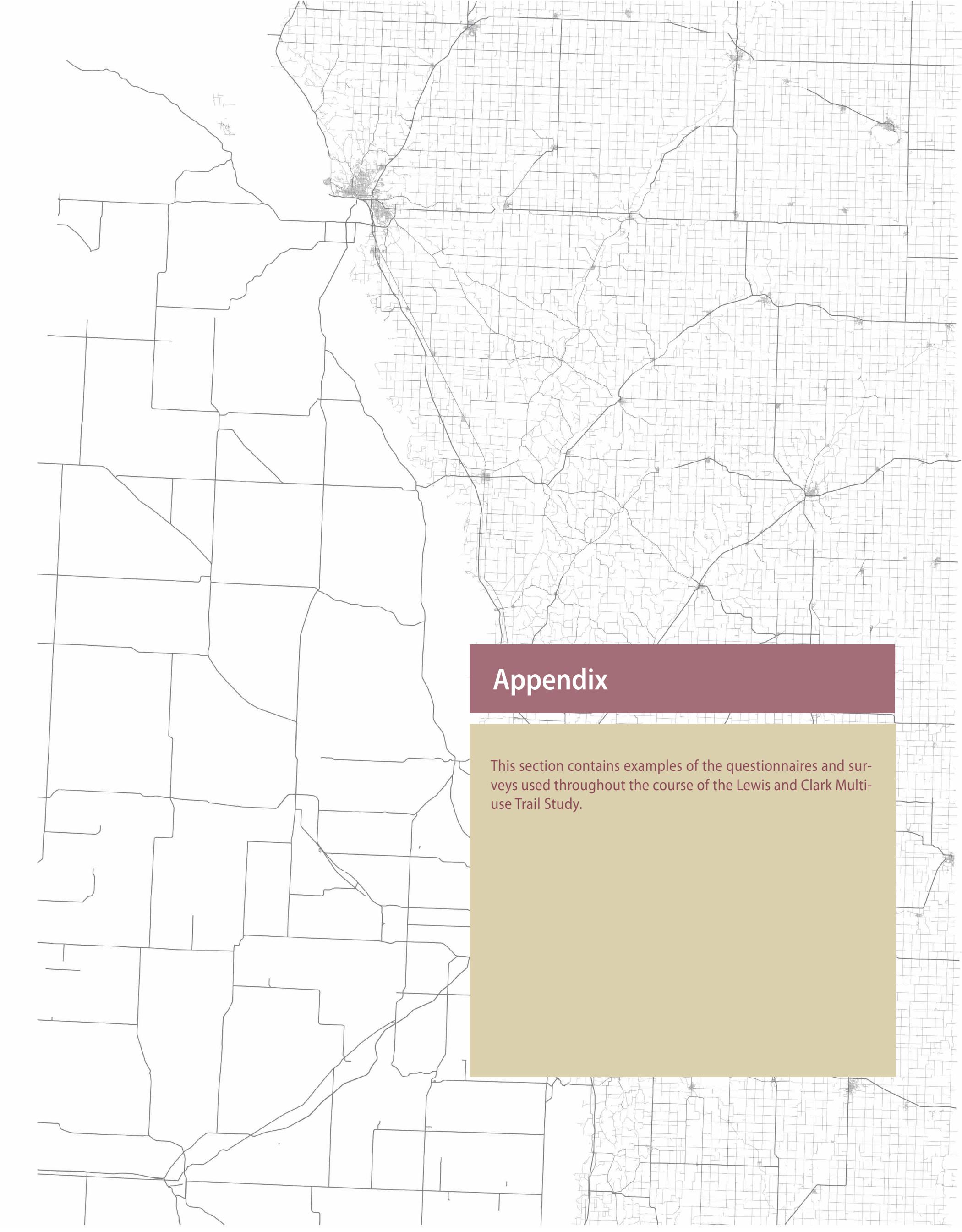
Local government entities can form an assessment district to fund the construction and maintenance of public facilities, including bikeways and paths. The process begins with property owners who want an improvement signing a petition. The proposed district will include all property owners who will benefit from the proposed improvement. A public hearing is then held, and if a majority of property owners approve, the assessment district is established. Once the assessment district is approved, property owners within the assessment district are levied a special assessment in proportion to the share of the benefit they receive from the improvement.

Grant Funding

The majority of grant funding for bicycle and infrastructure projects is limited to capital improvement projects, and cannot be used for maintenance funding.

Maintenance Requirements as Part of Trail Construction Grants

Several grant sources for constructing shared-use paths require a maintenance schedule and funding source to be established before construction money will be awarded.



Appendix

This section contains examples of the questionnaires and surveys used throughout the course of the Lewis and Clark Multi-use Trail Study.

Steering Committee Phone Survey and Welcome Call

Steering Committee Phone Survey and Welcome Call

Name:

Organization:

Did you receive your information packet regarding the project and are you planning to attend the Steering Committee Meeting on March 17th?

- a. Packet:
- b. Attendance:

1. What are your thoughts on the idea of developing a trail tracing the route of Lewis and Clark along the Missouri River through Iowa?
2. What kind of benefits do you see for either yourself or your organization coming out of the development of such a trail network?
3. What concerns if any do you have regarding the project?

General Comments

Public Participation Survey

Interests

2. Please rate the following historical and cultural areas according to your level of interest.

	1 No Interest	2	3	4	5 Very High Interest
a. Lewis and Clark history	<input type="radio"/>				
b. Life styles of the past	<input type="radio"/>				
c. Historic homes and buildings	<input type="radio"/>				
d. Natural history	<input type="radio"/>				
e. Native American history and culture	<input type="radio"/>				
f. Pre-Civil War	<input type="radio"/>				
g. Architecture	<input type="radio"/>				
h. Development of towns	<input type="radio"/>				
i. Railroading	<input type="radio"/>				
j. Agricultural history	<input type="radio"/>				
k. River and steamboats	<input type="radio"/>				
l. Archeology	<input type="radio"/>				
m. Environmental study	<input type="radio"/>				

3. Please rate your interest in each of the following types of trail facilities.

	1 No Interest	2	3	4	5 Very High Interest
a. Multi-use trails (bicycle, pedestrian)	<input type="radio"/>				
b. ATV (all terrain vehicles) facility or trails	<input type="radio"/>				
c. Equestrian trails	<input type="radio"/>				
d. Hiking/nature trails	<input type="radio"/>				
e. Mountain bike trails	<input type="radio"/>				
f. Water/canoeing trails	<input type="radio"/>				
g. Snowmobile trails	<input type="radio"/>				

Other (please specify)

Public Participation Survey

Interests

1. Please rate the following recreational activities according to your level of interest.

	1 No Interest	2	3	4	5 Very High Interest
a. Sightseeing/viewing scenery	<input type="radio"/>				
b. Bicycling	<input type="radio"/>				
c. Hiking	<input type="radio"/>				
d. Boating, canoeing, and similar water sports	<input type="radio"/>				
e. Horseback riding	<input type="radio"/>				
f. Fishing	<input type="radio"/>				
g. Shopping	<input type="radio"/>				
h. Hunting	<input type="radio"/>				
i. Birding/nature study	<input type="radio"/>				
j. Golf	<input type="radio"/>				
k. Visiting museums and historical sites	<input type="radio"/>				
l. Visiting small towns	<input type="radio"/>				
m. Camping	<input type="radio"/>				
n. Visiting casinos	<input type="radio"/>				
o. Recreational Driving	<input type="radio"/>				
p. Riding all-terrain or off-highway vehicles	<input type="radio"/>				
q. Snowmobiling	<input type="radio"/>				
r. Cross-country skiing	<input type="radio"/>				
Other (please specify)	<input type="text"/>				

Public Participation Survey

Interests

2. Please rate the following historical and cultural areas according to your level of interest.

	1 No Interest	2	3	4	5 Very High Interest
a. Lewis and Clark history	<input type="radio"/>				
b. Life styles of the past	<input type="radio"/>				
c. Historic homes and buildings	<input type="radio"/>				
d. Natural history	<input type="radio"/>				
e. Native American history and culture	<input type="radio"/>				
f. Pre-Civil War	<input type="radio"/>				
g. Architecture	<input type="radio"/>				
h. Development of towns	<input type="radio"/>				
i. Railroading	<input type="radio"/>				
j. Agricultural history	<input type="radio"/>				
k. River and steamboats	<input type="radio"/>				
l. Archeology	<input type="radio"/>				
m. Environmental study	<input type="radio"/>				

3. Please rate your interest in each of the following types of trail facilities.

	1 No Interest	2	3	4	5 Very High Interest
a. Multi-use trails (bicycle, pedestrian)	<input type="radio"/>				
b. ATV (all terrain vehicles) facility or trails	<input type="radio"/>				
c. Equestrian trails	<input type="radio"/>				
d. Hiking/nature trails	<input type="radio"/>				
e. Mountain bike trails	<input type="radio"/>				
f. Water/canoeing trails	<input type="radio"/>				
g. Snowmobile trails	<input type="radio"/>				

Other (please specify)

Public Participation Survey

Usage

4. Which of the following attractions have you visited or used?

	1 Never Visited	2 Visited, but not in last year	3 Visited in the last year
a. Waubonsie State Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Indian Cave State Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Lake Manawa State Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Hitchcock Nature Area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Wilson Island	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. DeSoto Bend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Fontenelle Forest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Boyer Chute National Wildlife Refuge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Loess Hills State Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Lewis and Clark State Park (Iowa)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Stone State Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Ponca State Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Loess Hills Scenic Byway	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Arbor Lodge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Wabash Trace Nature Trail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Bob Kerrey Pedestrian Bridge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Public Participation Survey

5. Which of the following museums have you visited?

	1 Never Visited	2 Visited, but not in last year	3 Visited in the last year
a. Union Pacific Railroad Museum (Council Bluffs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Shenandoah Historical Society Museum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Harrison County Historical Village (Missouri Valley)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Indian Creek Historical Museum (Hastings)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Loess Hills Historical Museum (Onawa)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Museum of Religious Arts (Logan)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Plymouth County Historical Museum (Le Mars)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Sioux City Public Museum (Sioux City)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Sioux City Art Center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Wisecup Farm Museum (Missouri Valley)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Bertrand Museum (DeSoto Wildlife Refuge)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Carsten Memorial Farm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. General Dodge House – Council Bluffs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Nishna Valley Museum – Oakland	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. International Harvester Museum - Avoca	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

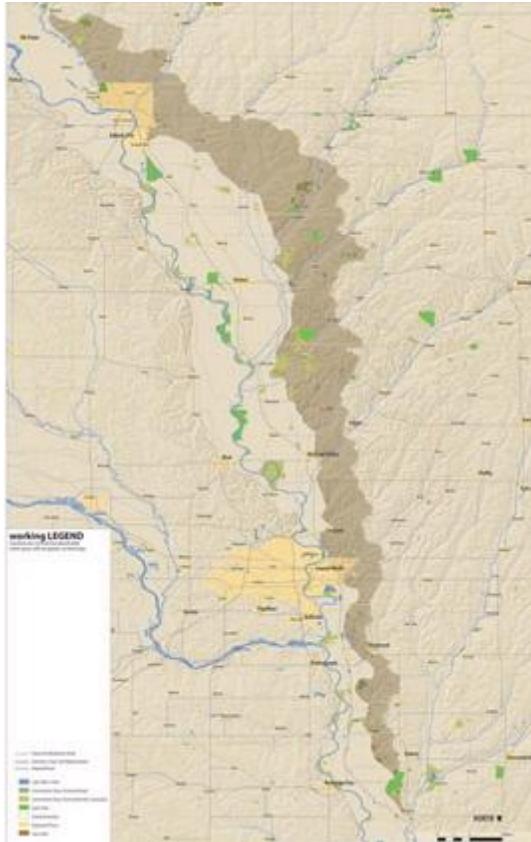
Public Participation Survey

Usage

6. Which of the following towns and cities (not your hometown) have you visited for recreation or leisure?

	1 Never Visited	2 Visited, but not in last year	3 Visited in the last year
a. Hamburg, Iowa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Glenwood, Iowa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Council Bluffs, Iowa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Missouri Valley, Iowa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Onawa, Iowa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Sioux City, Iowa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Le Mars, Iowa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Brownville, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Auburn, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Nebraska City, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Plattsmouth, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Bellevue, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Omaha, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Blair, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Tekamah, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Omaha Tribe Reservation, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Winnebago Tribe Reservation, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. South Sioux City, Nebraska	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Usage



7. During the last year, how many times have you traveled in or visited destinations outside of your hometown in the Lewis and Clark Trail study area for pleasure and/or recreation?

- a. 0
- b. 1-2
- c. 3-5
- d. More than 5

Public Participation Survey

8. Which of the following Lewis and Clark-related museums or facilities have you visited?

	1 Never Visited	2 Visited, but not in last year	3 Visited in the last year
a. Missouri River Basin Lewis and Clark Interpretive Center (Nebraska City)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Western Historic Trails Center (Council Bluffs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Lewis and Clark Keelboat Display (Lewis and Clark State Park, Onawa)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Sergeant Floyd Monument (Sioux City)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Lewis and Clark Interpretive Center (Sioux City)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Lewis and Clark Monument – Council Bluffs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. South side of Lake Manawa	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. National PS Lewis and Clark National Historic Trail Headquarters – Omaha Riverfront	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Personal Trail Needs

9. If you are a bicyclist, which of the following best describes you?

- a. I am not a cyclist and am not likely to be one.
- b. I am comfortable riding on any legal road, regardless of traffic volume
- c. I am comfortable riding on most roads with low to medium traffic levels, and sharing the road with motorists
- d. I am comfortable riding on roads with shoulders or other separation from motor vehicles
- e. I am uncomfortable sharing the road with cars, and prefer separated trails

Public Participation Survey

Personal Trail Needs



a. Paved multi-use trail



b. Paved sidepath



c. Unpaved multi-use trail



e. Paved road shoulder



f. Paved bike lanes



g. Boardwalk

10. As a potential Lewis and Clark trail user, please rate how well each of the facilities illustrated here meets your needs as a pedestrian or cyclist.

	1 Does not meet needs	2	3	4	5 Meets needs very well
a. Paved multi-use trail	<input type="radio"/>				
b. Paved sidepath	<input type="radio"/>				
c. Unpaved multi-use trail	<input type="radio"/>				
d. Unpaved nature trail or single-track trail	<input type="radio"/>				
e. Paved road shoulder	<input type="radio"/>				
f. Paved bike lanes	<input type="radio"/>				
g. Boardwalk	<input type="radio"/>				

11. If a trail through the Lewis and Clark country between Hamburg and Sioux City were developed, how likely would you be to use all or part of it?

- a. Extremely likely
- b. Very likely
- c. Probably
- d. Unlikely but not impossible
- e. Not likely

Public Participation Survey

Personal Trail Needs

12. Developing a recreational trail network for the Lewis and Clark/Loess Hills country may require many kinds of supporting features. Please rate how important you consider each of the following possible recommendations for such a network.

	1 Not Important	2	3	4	5 Extremely Important
a. Canoe trails and launching points	<input type="radio"/>				
b. Bicycle trails	<input type="radio"/>				
c. Nature trails for hiking only	<input type="radio"/>				
d. Road improvements such as shoulders for cyclists	<input type="radio"/>				
e. Snowmobile and winter sports trails	<input type="radio"/>				
f. Equestrian trails	<input type="radio"/>				
g. Trailheads with restrooms, parking, information	<input type="radio"/>				
h. Signage and directional information	<input type="radio"/>				
i. More campgrounds	<input type="radio"/>				
j. Bike and equipment rentals	<input type="radio"/>				
k. More lodging, including bed and breakfast inns	<input type="radio"/>				
l. Trailside or nearby restaurants and cafes	<input type="radio"/>				
m. Other tourist services and shops	<input type="radio"/>				
n. ATV trails and parks	<input type="radio"/>				
o. Outfitters	<input type="radio"/>				
p. Bike shops	<input type="radio"/>				
q. Snowmobile trails	<input type="radio"/>				

Other (please specify)

Benefits

13. What do you think could be the primary benefits of a Lewis and Clark multi-use trail system? Please rate the following based on your opinion of possible benefits.

	1 Trail would not produce this benefit	2	3	4	5 Trail would certainly produce this benefit
a. Rural economic development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Community economic development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. More tourism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. More things that families could do together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Attraction of new residents to the area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Higher quality of life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Educational opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Improved health and wellness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Individual recreation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Habitat conservation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Do you know of a particularly beautiful route that should be included in the Lewis and Clark Trail network?

- Yes
 No

Please Name

15. What specific features or attractions do you know of that should be served by the Lewis and Clark Trail network.

Demographic Information

16. How old are you?

- a. Under 14
- b. 15-24
- c. 25-34
- d. 35-49
- e. 50-64
- f. 65-74
- g. Over 75

17. How many people live in your household?

- a. 1
- b. 2
- c. 3-4
- d. 5-6
- e. Over 6

18. How many people under the age of 12 live in your household?

- a. 1
- b. 2
- c. 3
- d. 4
- e. More than 4

Public Participation Survey

19. Where do you live?

- a. Omaha/Council Bluffs metro area
- b. Sioux City metro area
- c. Fremont County, Iowa
- d. Mills County, Iowa
- e. Pottawattamie County, Iowa (other than Council Bluffs)
- f. Harrison County, Iowa
- g. Monona County, Iowa
- h. Woodbury County, Iowa
- i. Plymouth County, Iowa
- j. Elsewhere in Iowa
- k. Richardson or Nemaha County Nebraska
- l. Cass or Otoe County, Nebraska
- m. Washington or Burt County, Nebraska
- n. Thurston or Dakota County, Nebraska
- o. Elsewhere in Nebraska

Other State (please specify)



Lewis & Clark Multi-Use Trail Study

Comments

What should it be named?

The territory that this trail passes through includes two unique and exquisitely subtle environments: the “Bluffs,” one of the world’s two formations of windblown loess hills; and the valley formed by the shifting channel of the meandering Missouri River along with the great waterway itself, known regionally as the “Bottoms.” Both environments are already marked by scenic routes generally devoted to the automobile – the Lewis and Clark National Historic Trail with its parallel auto route and the Loess Hills Scenic Byway. The committee suggested naming a unique trail that both explores and links these two environments the “Bluffs and Bottoms Trail,” honoring both Lewis and Clark’s search for knowledge and their drive to explore all aspects of this distinctive area and local traditions. The name is also alliterative and easy to abbreviate as the “BBT.”

The steering committee would like your input on the naming of the trail, please select from one of the following names, or provide us with your suggestion.





Other _____

Additional Comments

Please provide us with your contact information below.

Name _____ Telephone _____
 Street _____ E-mail _____
 City/State/Zip _____

Would you like to be kept informed on project developments, or volunteer to be on a long-range steering committee for the Lewis & Clark Trail?

Yes No

 RDg
 PLANNING • DESIGN
 Dolores Silkworth
 dsilkworth@rdgusa.com
 900 Farnam Street
 Suite 100
 Omaha, Nebraska 68102

 Iowa Department
 of Transportation
 Milly Ortiz
 Milly.Ortiz@DOT.iowa.gov
 Office of Systems Planning
 800 Lincoln Way
 Ames, Iowa 50010

