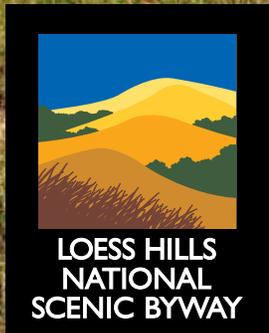


LOESS HILLS NATIONAL SCENIC BYWAY INTERPRETIVE MASTER PLAN



July 2015

Front cover: Loess Hills at Hitchcock Nature Center in Pottawattamie County, with the nature center in the background.

Facing page: Murray Hill Scenic Overlook near Pisgah.

LOESS HILLS NATIONAL SCENIC BYWAY INTERPRETIVE MASTER PLAN

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Submitted to:



**Golden Hills Resource
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Several loops, such as the Wilderness Loop in Monona County, offer side trips off the main Loess Hills Byway route.



Pasque flowers in bloom in spring 2014 at the Loess Hills State Forest Overlook near Pisgah.



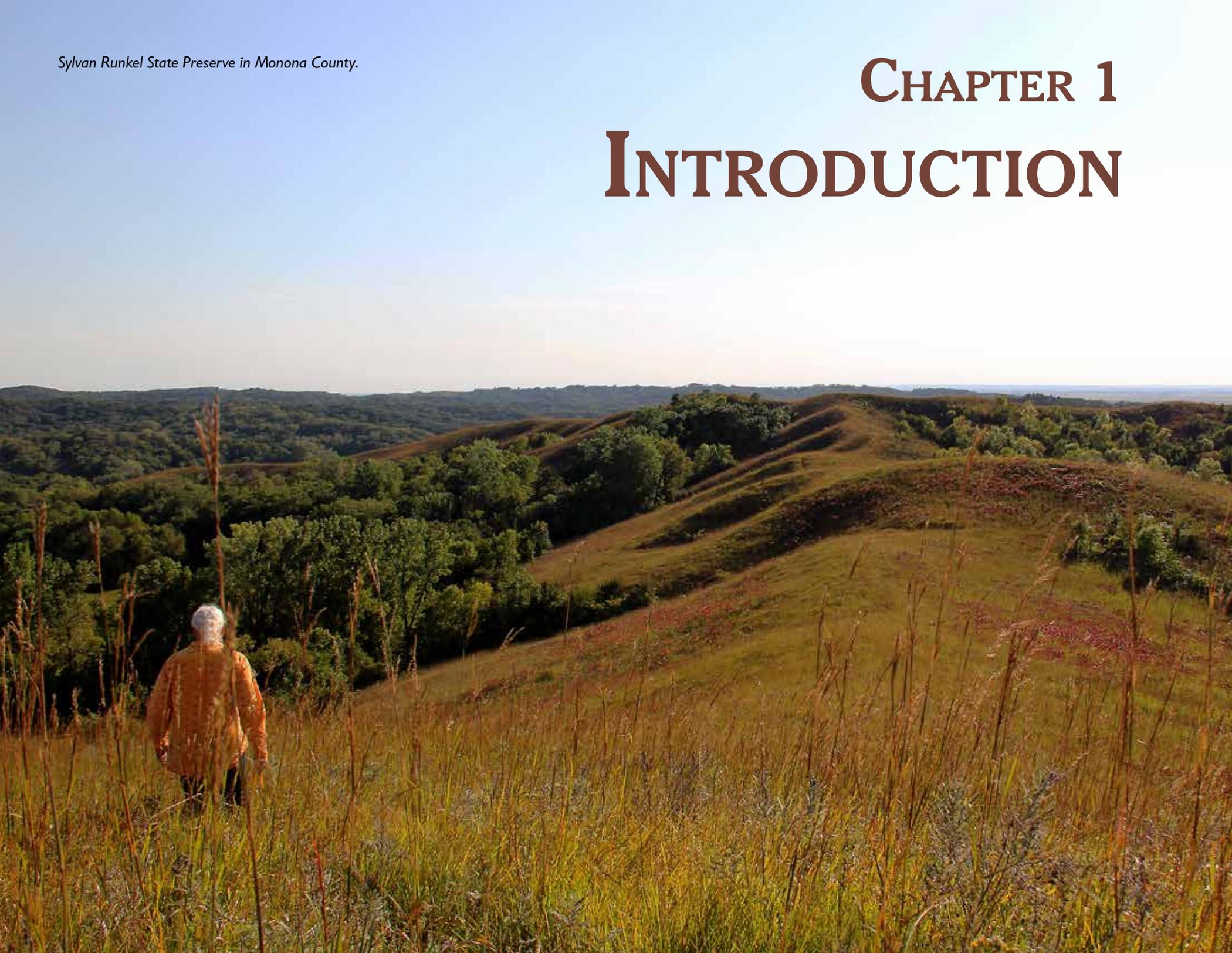
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Sylvan Runkel State Preserve in Monona County.

CHAPTER 1

INTRODUCTION



Loess Hills Landform Map



This nob hill, a rarity in the Loess Hills, stands out on the Stagecoach Trail Loop near Smithland.

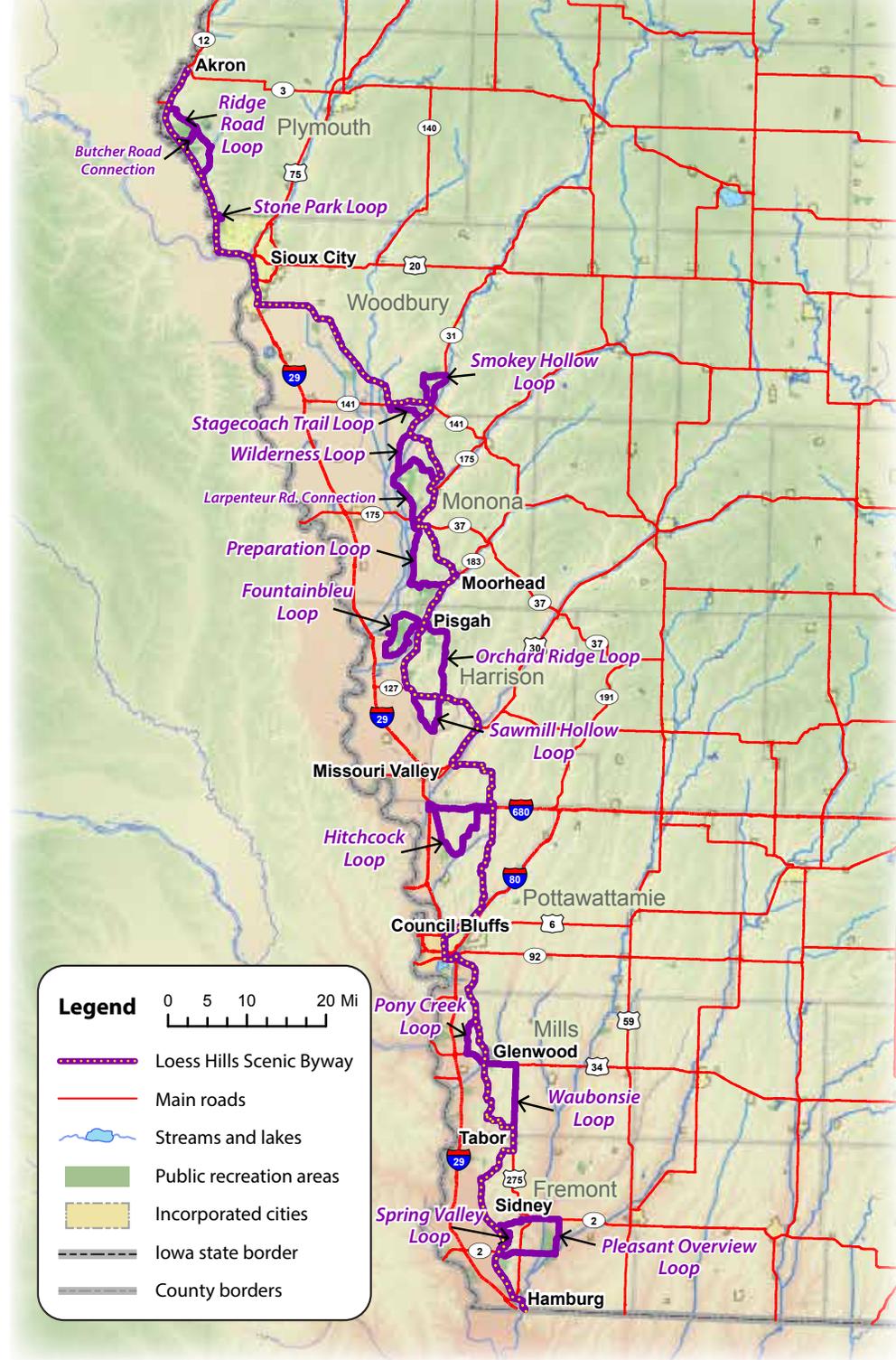
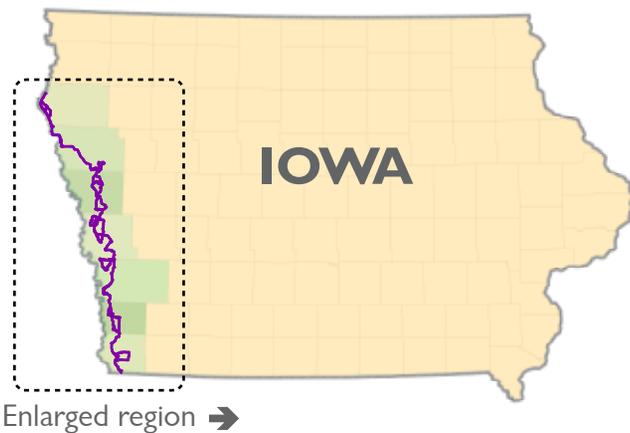
INTRODUCTION

The Loess Hills landform is an Iowa treasure that spans more than 1,080 square miles along the eastern edge of the Missouri River floodplain. This unique feature is up to 15 miles wide and 220 miles long. It has national significance as a noteworthy geological formation and for its prehistoric Mill Creek and Glenwood cultural sites. The deep loess layers and the intricately carved terrain of the hills make them a rare geologic feature. The hills shelter more than half of Iowa's remaining prairie. The region is a crossroads of American history, witnessing the Lewis and Clark expedition, the Underground Railroad, the Mormon migration, and the building of the transcontinental railroad.

These hills were formed from the accumulation of windblown silt that began as glacial flour from the continental glaciers. As temperatures warmed, the glaciers melted and enormous amounts of water and silt rushed down and were deposited along the Missouri River valley. In the winter, the mudflats would dry and westerly winds whipped the silt into dunes on the eastern edge of the valley. The process repeated itself over thousands of years of glacial advance and retreat, enlarging the dunes to depths of 60 feet to even 200 feet in places. Deposits of loess are found worldwide, but only in China are they deeper than they are in Iowa.



LOESS HILLS NATIONAL SCENIC BYWAY MAP



ESTABLISHING THE BYWAY

The Loess Hills National Scenic Byway began in 1989 as a grassroots effort by dedicated citizens in cooperation with Golden Hills Resource Conservation and Development, Inc. (RC&D) and the Western Iowa Tourism Region. A route traversing the hills became an Iowa Scenic Byway on July 8, 1998, and on June 15, 2000, it received National Scenic Byway designation.

The 220-mile byway spine traverses seven counties along the Missouri River in western Iowa with 16 excursion loops, for a total of 405 miles. The southern terminus is at the Missouri border near Hamburg. The northern terminus is in Akron north of Sioux City.



Loess hills stretch out alongside the Larpenteur Road Connection north of Turin in Monona County.

SCOPE OF WORK

In January 2012, Golden Hills RC&D, based in Oakland, Iowa, was awarded a Transportation Enhancement Grant through the Iowa Department of Transportation to complete interpretive master plans for ten Iowa byways. Additional funds were awarded for the Loess Hills National Scenic Byway plan and the Western Skies Scenic Byway plan through the Iowa West Foundation.

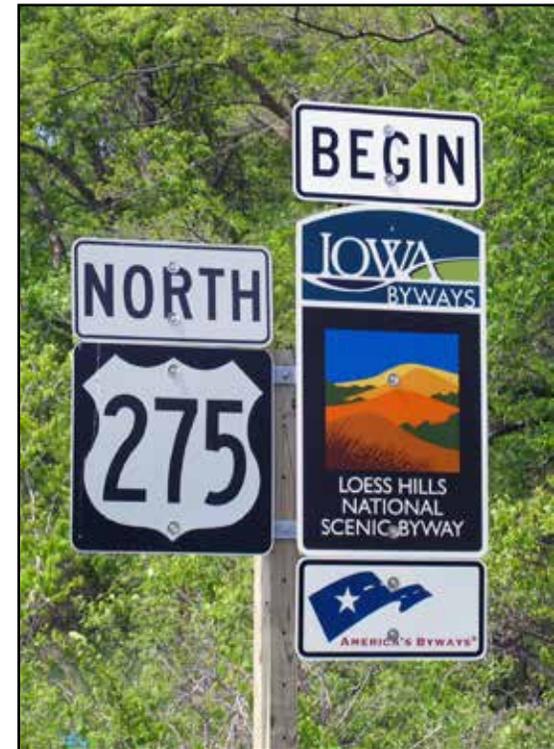
A request for proposals was issued in early 2013, seeking interest from firms to provide professional services to develop long-range interpretive master plans for Iowa's byways. Four firms were interviewed in August 2013. In February 2014, a professional services agreement for the ten interpretive master plans was entered into between Golden Hills RC&D and Schmeckle Reserve Interpreters, University of Wisconsin-Stevens Point.

Schmeckle Reserve Interpreters agreed to develop one interpretive master plan for each of the following scenic and historic Iowa Byways: Delaware Crossing, Driftless Area, Glacial Trail, Grant Wood, Historic Hills, Iowa Valley, Lincoln Highway, Loess Hills, River Bluffs, and Western Skies.

The work is divided into three phases, with Loess Hills and Western Skies to be completed in the first phase. Phase one interpretive master plans (including this plan) were scheduled for delivery in 2015.

Each interpretive master plan shall be based on the following tasks:

- Task 1: Inventory and Analysis of Byway Resources
- Task 2: Stakeholder Coordination and Public Input Process
- Task 3: Development of Interpretive Themes and Conceptual Interpretive Plan
- Task 4: Finalize Interpretive Plans with Recommendations and Design of Interpretive Elements
- Task 5: Reporting



The southern terminus of the Loess Hills National Scenic Byway in Hamburg.

THE PLANNING PROCESS

Interpretation is defined as a communication process that guides visitors in their search for meanings in objects, places, and landscapes. We adhere to the philosophy that interpretive planning is a process of consensus development—of achieving a shared perspective by all stakeholders of why interpretation is needed, who it will serve, and what significant stories it will tell. Effective planning answers the following questions, which can be illustrated by the Planning Triangle:

Who?

Determine who the byway visitors are and the experiences that they are seeking. This includes activities and visitor groups that are not currently being targeted.

Chapter 3: Byway Travelers

Why?

Confirm and/or further define the purpose, vision, and goals of developing a master plan for the Loess Hills National Scenic Byway.

Chapter 2: Vision and Mission

How? When? Where?

Who?
Audience

*Interpretive
Master
Plan*

What?
Resources

Why?
Mission

What?

Examine the significant tangible resources of the byway and describe their intangible meanings. Then, distill these tangibles and intangibles into unifying themes and messages that will serve as a framework for development and programming.

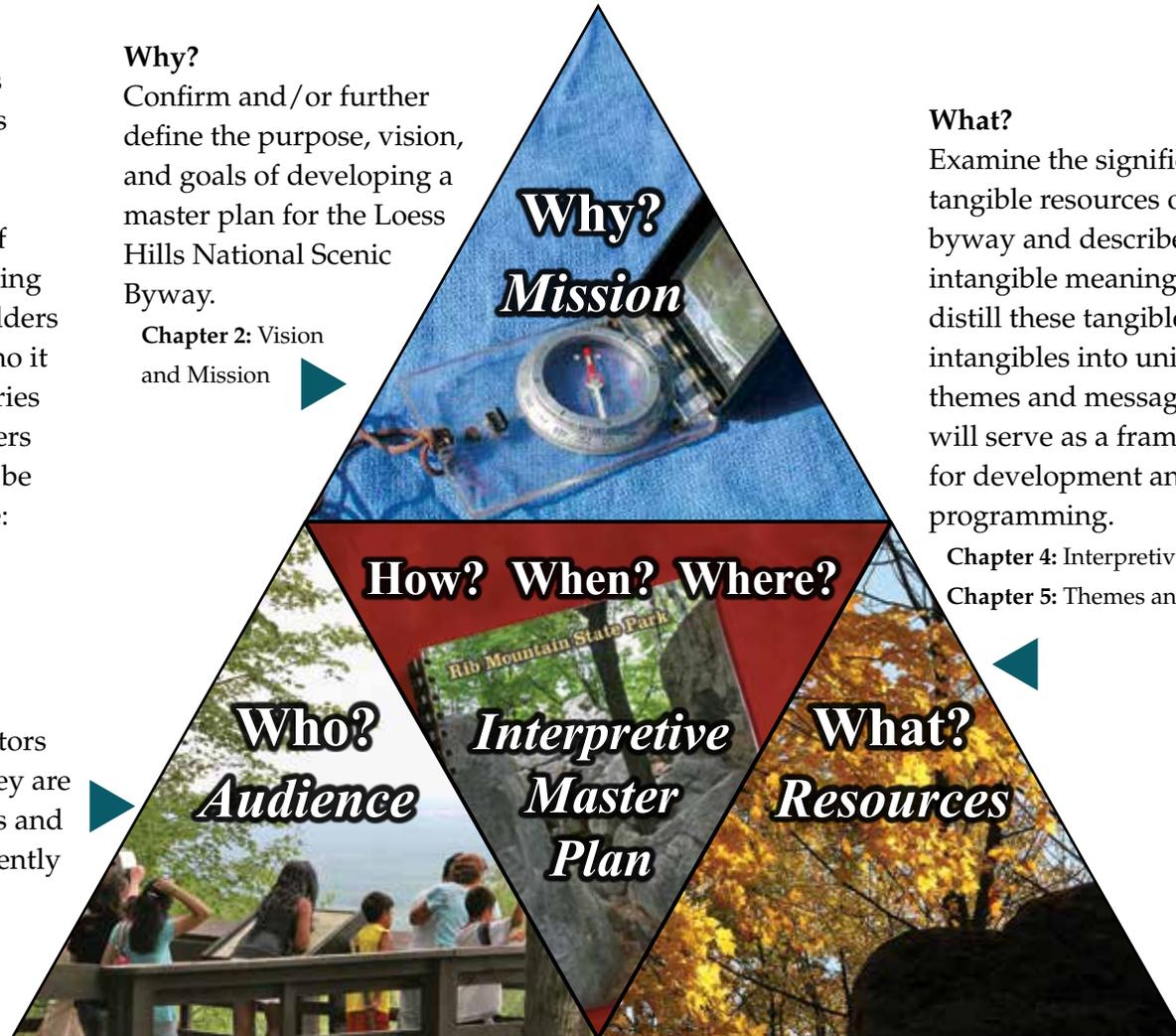
Chapter 4: Interpretive Resources

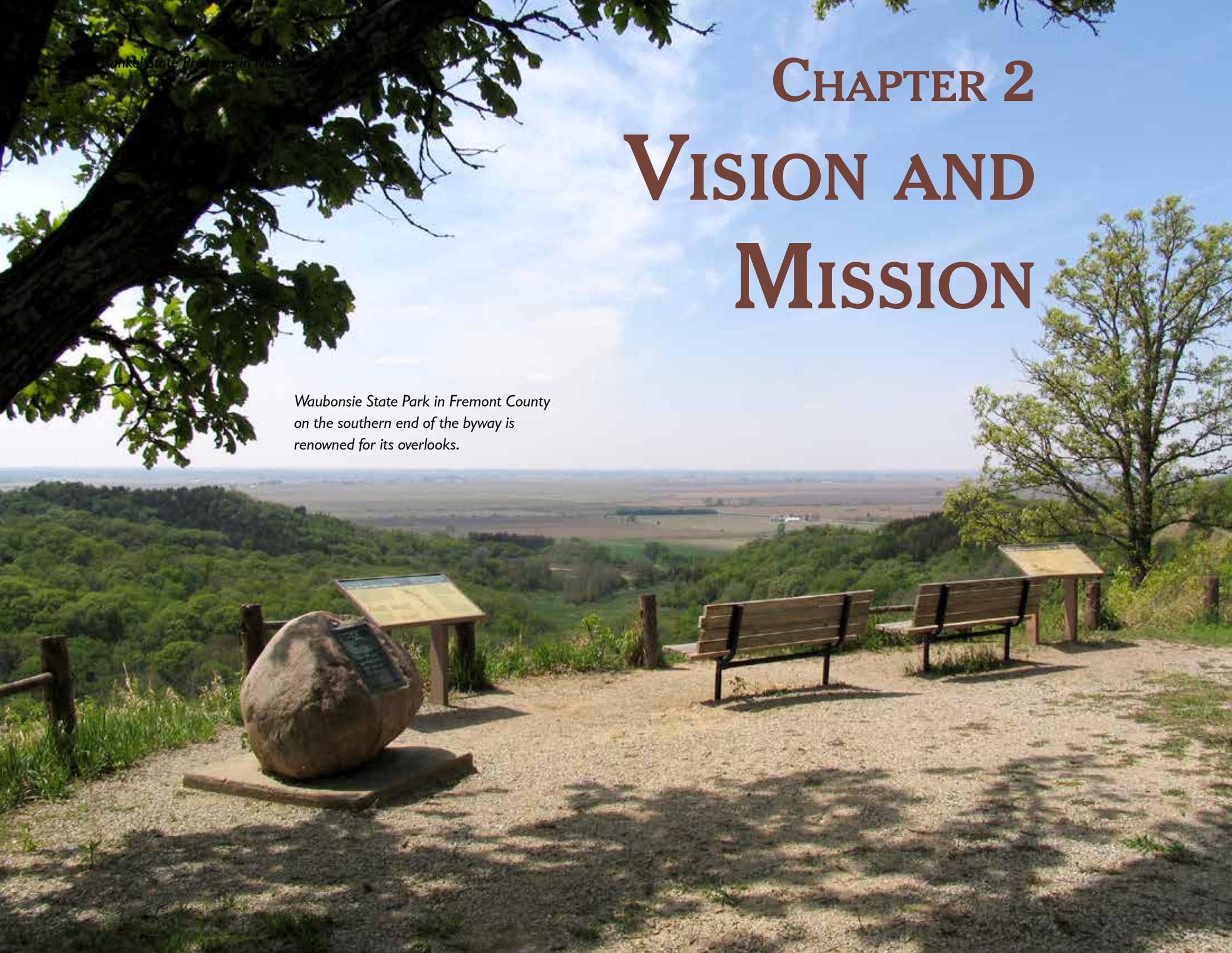
Chapter 5: Themes and Messages

Where? When? How?

Based on the why, who, and what, develop a plan for interpretive facilities, media, and programs that best facilitate visitor-resource connections within the parameters of the mission and vision of the Loess Hills National Scenic Byway.

Chapter 6: Interpretive Media





CHAPTER 2

VISION AND

MISSION

Waubonsie State Park in Fremont County on the southern end of the byway is renowned for its overlooks.



Byway stakeholders voted on vision statements at a visioning meeting led by Schmeeckle Reserve Interpreters on April 10, 2014, at the Harrison County Historical Village and Welcome Center in Missouri Valley.

VISION, MISSION, AND GOALS

A strong vision and mission statement supported by established values and goals is necessary to guide the future planning, management, and implementation efforts for the Loess Hills National Scenic Byway.

Vision, mission, and goal statements were developed from a nominal group process that involved byway leaders and development professionals (stakeholders) in an Interpretive Plan Visioning Meeting held in Missouri Valley on April 10, 2014. Additional input was provided in community meetings at the Southern Loess Hills Interpretive and Welcome Center in Percival, on June 23, 2014, and at the Sioux City Library on June 25, 2014.

Secondary sources used to guide development include two documents: *The Common Vision and Comprehensive Plan*, published by the Loess Hills Alliance in 2011, and *The Loess Hills Scenic Byway Corridor Management Plan*, published in 2008 by Golden Hills RC&D with assistance from Western Iowa Tourism Region and the Loess Hills National Scenic Byway Council.

Vision

The vision statement should answer two questions:

1. What are the values or beliefs about the significance of this place that inform your work? Why should people go there?
2. What would you ultimately hope to accomplish as a result of your efforts?

Values and Beliefs—Significance Statements

“Iowa’s loess hills are an American treasure, unique in the world —
Cornelia Mutel, *Fragile Giants: A Natural History of the Loess Hills*

The 220-mile national scenic byway traversing the hills is a portal to compelling stories about the hills’ formation, the people who have lived in them or traveled through, and the myriad life forms that inhabit them. It is a corridor to scenic vistas, pleasant villages, and vast protected landscapes that beckon the hiker, biker, or motorist. It is an opportunity to experience one of Iowa’s last wilderness areas, the

authentic Iowa of dry, loess hills cloaked in prairies and oak forests.

The Loess Hills landform spans over 1,080 square miles along the eastern edge of the Missouri River floodplain. It has national significance as a rare geological formation and for its prehistoric Mill Creek and Glenwood cultural sites. The deep loess layers and the intricately carved terrain of the hills make them a rare geologic feature. The hills shelter more than half of Iowa's remaining prairie. The region is a crossroads of American history, witnessing the Lewis and Clark expedition, the Underground Railroad, the Mormon migration, and the building of the transcontinental railroad.

The Loess Hills beckon residents of adjacent cities and towns to recreate in them and develop a sense of place encompassing the beauty, culture, and nature that they offer. But 95 percent of land in the area is privately owned, and this sense of place and love for the land must be nurtured in these landowners so economic development will not compromise the values that tourists and recreationists seek.



Byway stakeholders met for a public input meeting on June 23, 2014, at the Southern Loess Hills Interpretive and Welcome Center in Percival.

In *Fragile Giants*, Cornelia Mutel perhaps best expressed the love of this landscape that helped develop her sense of place:

“ No wonder that my love for the undulating waves of Loess Hills was instant and deep. Here it seemed that I could wander forever, thoughts of the everyday world dropping away as abruptly as sides of the knife-edged ridgelines. I seem to need pathways like

this, routes that penetrate the unfamiliar and tempt me to follow. I think that perhaps we all do. We all need to be taken by the hand, whether that hand be the suggestion of a friend, a regional guidebook, or a roadside sign, and led into worlds unknown, guided by gentle suggestions until we hear the earth's beckoning and that alone pulls us forward.



Stakeholders brainstormed about how the byway experience could be improved at a meeting on April 10, 2014, at the Harrison County Historical Village and Welcome Center in Missouri Valley.

Loess Hills National Scenic Byway Vision Statement

Interpretive media and programs will be developed to enhance the recreational experience for all byway travelers on the Loess Hills. Concerted efforts to market this enhanced byway experience will increase the number of visitors to our area and increase usage by residents along the byway. This will in turn engender a strong sense of place and love for this landscape that will motivate citizens in the seven counties encompassing the Loess Hills to maintain and preserve their unique scenic, natural, recreational, and archaeological resources.

Mission

The mission statement should answer two questions:

1. How do you plan to work toward this broad vision?
2. For whose specific benefit does the organization exist?

Loess Hills National Scenic Byway Mission Statement

Through the leadership of the Golden Hills RC&D, stakeholders in the Loess Hills National Scenic Byway will work collaboratively to develop interpretive media and programs that enhance the visitor experience and help to engender a strong sense of place in residents in and around the Loess Hills; foster stewardship and pride in the byway; and market the byway to increase tourism and economic vitality in the seven-county region.

Goals

Goals support the vision and mission. They are ambitious, broad statements of desired conditions. These are to be translated into actions (programs and projects) that the byway organization, partners, and supporters will strive to implement to achieve the values and goals. The actions following each goal statement were derived from the participants in the Interpretive Master

Plan Visioning Meeting and Interpretive Plan Community Meetings. Some of the goals and actions are beyond the scope of the interpretive master plan but are stated here verbatim.

Goals for the Loess Hills National Scenic Byway:

Goal 1

Establish a strong cadre or council of stakeholders comprised of representatives from each of the seven counties that share a common vision for the byway and responsibility for the development, improvement, and maintenance of unified interpretive media and programs as specified in this interpretive master plan.

Goal 1 Actions:

- A. Through the leadership of Golden Hills RC&D, establish a working group that seeks to fund, develop, and maintain unified, cohesive interpretation throughout the Loess Hills National Scenic Byway.
- B. Establish a byway-wide program to educate front-line interpreters (volunteers) on how to interact with and prepare visitors for their Loess Hills experience.
- C. Develop itineraries for experiencing the byway—e.g., If you have one day, where to eat, stay, stop, explore...
- D. Develop a short interpretive film to introduce the Loess Hills to visitors at welcome centers. Build a small theater at each center for visitors to watch this film.
- E. Increase and/or feature interpretation of history and pre-history on the byway, specifically Underground Railroad activities at Tabor and connections to John Brown; Mormons' migration through the byway; the establishment of the transcontinental railroad, General Dodge and President Lincoln; the Mill Creek and Glenwood cultures; the settlers and their communities, churches and cemeteries; the history of the Sidney Rodeo; the "shortest railroad" in Tabor; the Bertrand exhibit at DeSoto National Wildlife Refuge; the Lewis and Clark interpretive centers and sites.



A railroad underpass near Loveland on the Loess Hills National Scenic Byway.



Overlapping hills stretch into the horizon along the byway.



Farmstead remnants such as this old windmill can be seen along the Hitchcock Loop in Pottawattamie County.

- F. Increase interpretation of the natural history of the Loess Hills, specifically their geologic formation, the native oak/prairie communities, and the wildlife migration corridor.
- G. Each visitor/interpretive center should feature Loess Hills merchandise that provides take-home memories.
- H. Create year-round options and off-season itineraries.
- I. Interpret local agriculture—what is grown and available farm experiences for visitors. Feature specialty crops and products: wine, lavender, aronia, etc.
- J. Develop quality web-based materials to be used for planning trips or for on-site access to information using personal electronic devices.

Goal 2

Work with local governments to improve the visual and recreational experience along the byway.

Goal 2 Actions:

- A. Add a bicycle/walking trail along the byway.
- B. Improve the appearance of communities along the byway.
- C. Improve the designated byway roads for a better driving experience.
- D. Conduct tree removal, especially cedars, to improve specific views along the byway.
- E. Provide better signage to attractions, along the byway and on the interstate.

Goal 3:

Develop a plan and process for marketing the byway experience after it has been enhanced by the interpretive media and programs specified in this master plan.

Goal 3 Actions:

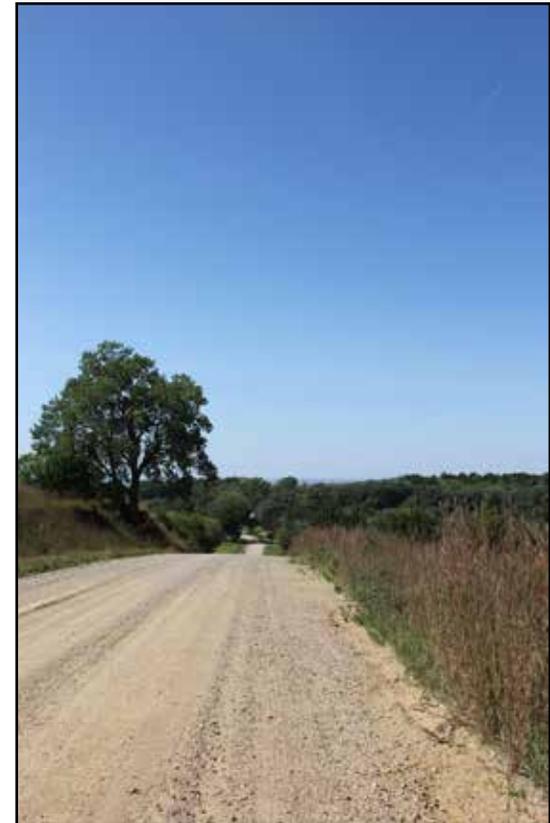
- A. Establish a working group that will update the current comprehensive plan for marketing the byway, perhaps with the assistance of a professional consultant.
- B. Increase statewide promotion and in-county promotion to instill the need for preservation.

Goal 4

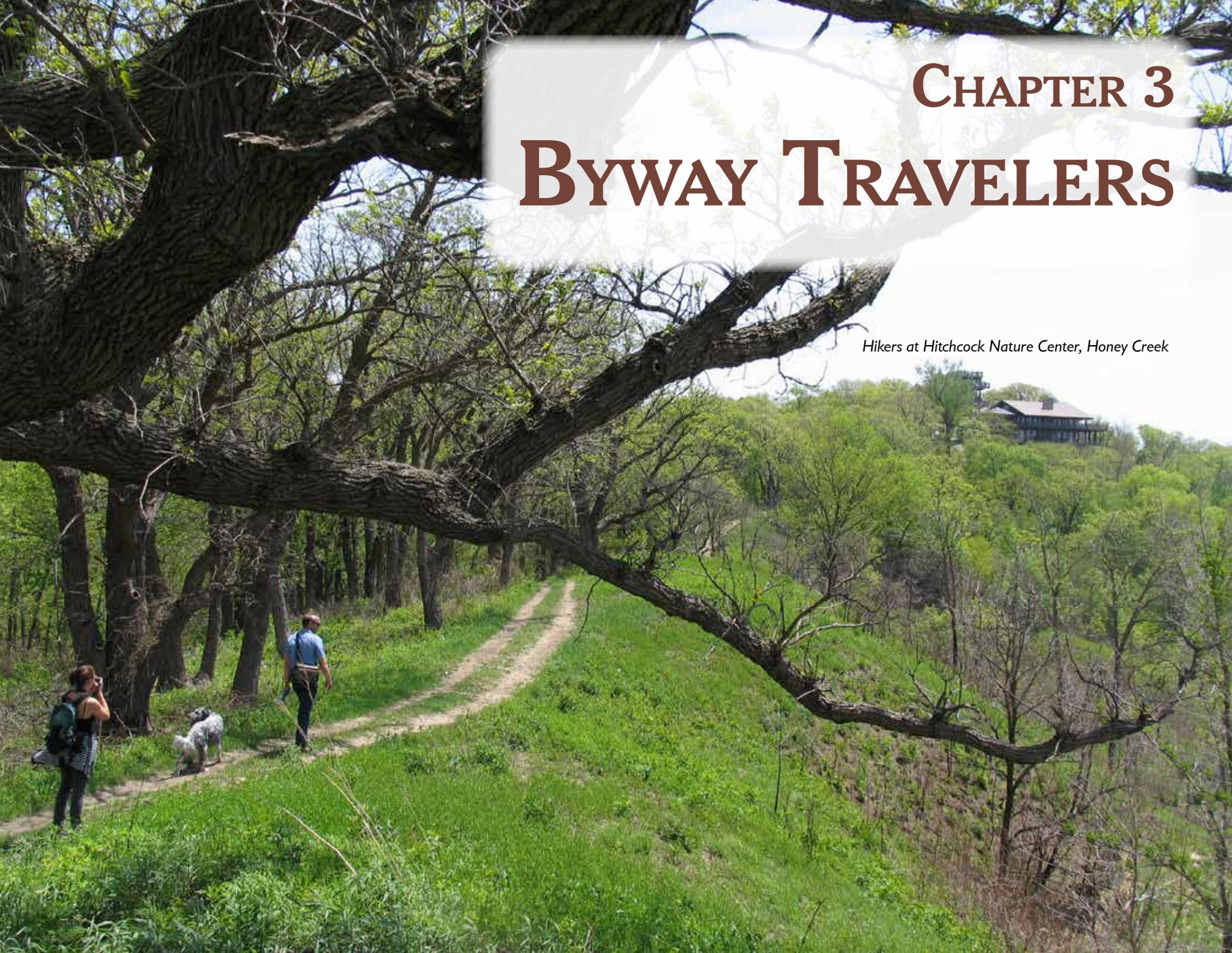
Support educational efforts to preserve and protect the Loess Hills from development or other activities that would diminish the recreational experience of tourists and residents.

Goal 4 Actions:

- A. Establish native prairie in public areas.
- B. Support land-management agencies in their missions.



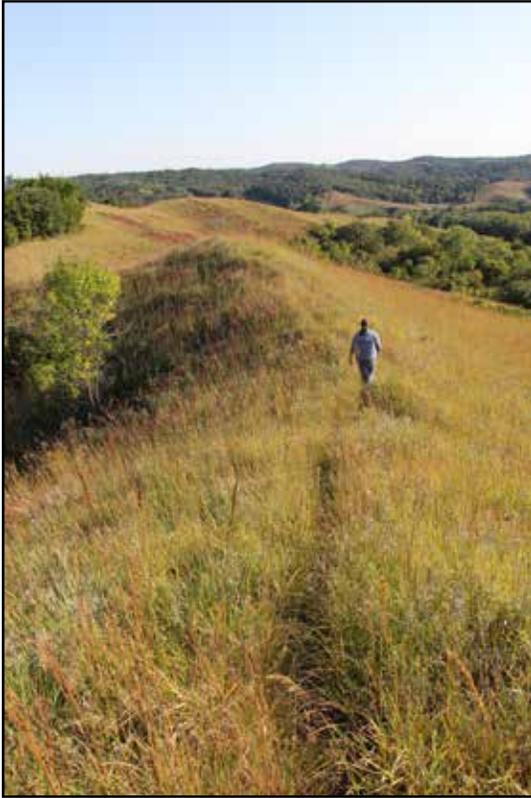
A view from the Stagecoach Loop on the byway.



CHAPTER 3

BYWAY TRAVELERS

Hikers at Hitchcock Nature Center, Honey Creek



Sylvan Runkel State Preserve in Monona County.

LOESS HILLS TOURISTS

Who tours the Loess Hills National Scenic Byway and what are they seeking? The answers to these questions are fundamental for planning products, services, and experiences. But the answers to these questions are complex and multifaceted. Tourists can enter and exit at any point along the route and choose from hundreds of opportunities along the way. Travelers on this extensive byway are extremely diverse and have multitudes of reasons to travel the routes.

The Loess Hills National Scenic Byway Visitor Survey Project report prepared by the Institute for Decision Making at the University of Northern Iowa (UNI) is the only comprehensive study of byway visitors that examined who the visitors are and what they valued as they explored the byway. The report is based on 205 surveys conducted in 2002-2003. Visitation has almost certainly increased since then as a result of better print and online byway guides and because of branding, marketing, and comprehensive signage efforts throughout the byway. However, many of the findings from that survey describing the typical byway traveler are still relevant, if not in the same proportion. Our observations

drawn from travelers, blogs, and interviews confirm many of the survey's findings.

1. About half of byway travelers reside in one of the counties within or adjacent to the byway.
2. Three out of four visitors come from Iowa and Nebraska.
3. Four out of ten come from metropolitan areas, primarily Omaha/Council Bluffs and Sioux City.
4. Byway travelers tend to be well educated, relatively affluent, and middle aged or retired. Most are traveling with spouses or partners. Fewer than two in ten parties include children.
5. Their main activities are viewing scenery/pleasure driving, watching wildlife, taking photos, and hiking. The most commonly identified purpose was for a scenic drive (53%). A significant number visit historic sites (26%) and museums (20%).
6. Two out of three limit their visit to one day (not overnight).

7. As would be expected, local travelers visit often. Only one in three reported that it was their first visit in the past 12 months. More than one in three reported six visits or more in the past 12 months.
8. Two of every three non-local travelers report that it is their first visit in the past 12 months.
9. The most frequent ways both local and non-local byway travelers learned about the byway was from family and friends; from visitor centers; and from brochures.
10. What visitors enjoyed most during their visit was scenery and beauty of the Loess Hills; the fall colors and foliage; a facility or site along the byway; and history of the area.

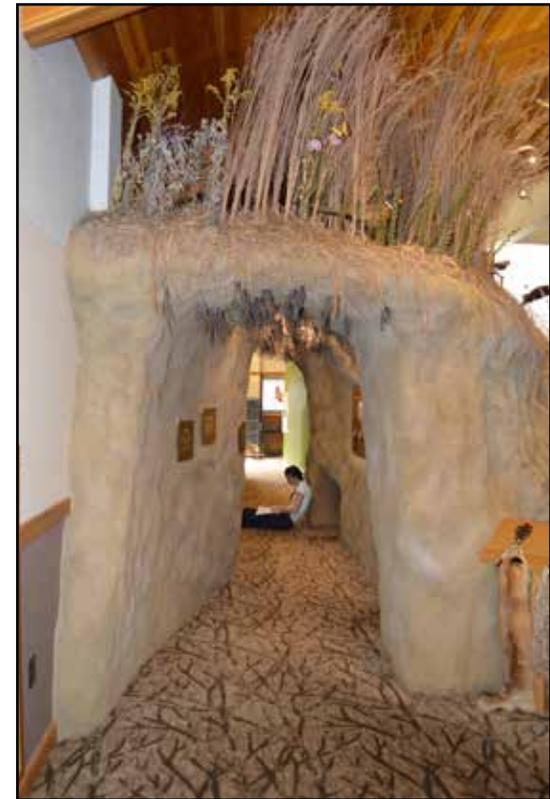
Target Markets

The UNI study documents three distinct target markets: local residents, regional getaway tourists, and serendipitous drive-through travelers. Each target group requires distinct marketing strategies, interpretive approaches, and services.

Local Residents

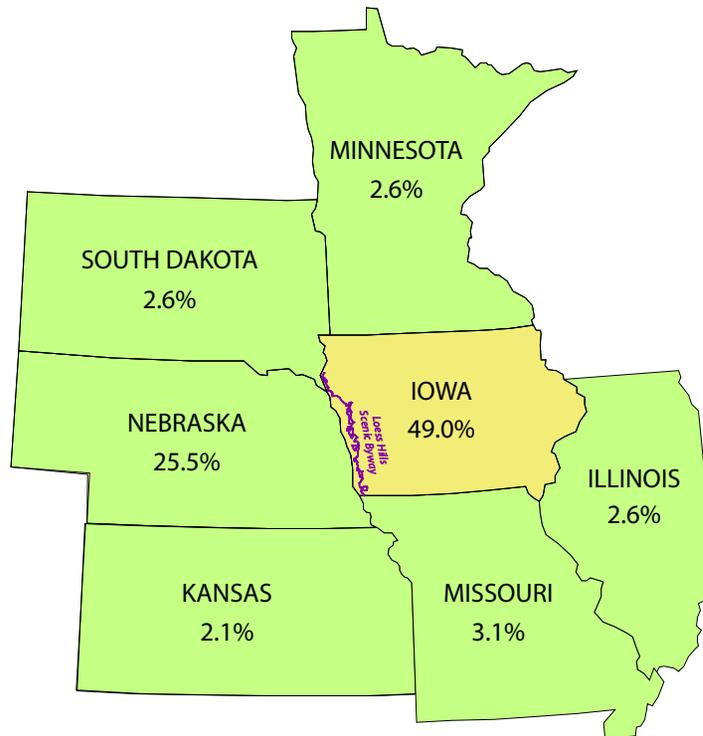
This category includes Iowa residents in the seven counties encompassing the Loess Hills and the adjacent Missouri River communities in Nebraska, including Omaha and Nebraska City. All are within a short drive of the byway. The UNI Loess Hills Visitor Survey indicates that **local residents constitute more than half of all byway visitors.** The Loess Hills are a prime recreational destination for pleasure driving, hiking, visiting public and commercial attractions, and attending special events. The planning team's observations and anecdotal evidence collected in 2014 suggest that local residents are still the primary byway travelers.

Marketing efforts that address this audience include special events and activities sponsored by Hitchcock Nature Center in Pottawattamie County and Dorothy Pecaut Nature Center in Woodbury County. Their visitor centers are often the starting point for outings. The Loess Hills Hospitality Association in Moorhead has a visitor center and gift shop and has volunteers available for local tours in Monona, Harrison, and Crawford counties.



A young visitor at Dorothy Pecaut Nature Center, Sioux City.

Origin of Loess Hills National Scenic Byway Travelers, 2002-03



Source: *The Loess Hills National Scenic Byway Visitor Survey Project*,
 Institute for Decision Making, University of Northern Iowa

“Living Loess” is a collaboration of eight public and commercial attractions in Pottawattamie and Harrison counties that targets the Omaha/Council Bluffs metro area with special programs and discounts the third Saturday of each month from May through October. This private/public coalition “was established to encourage visitors and residents to explore the Loess Hills’ uniqueness and creative culture.”

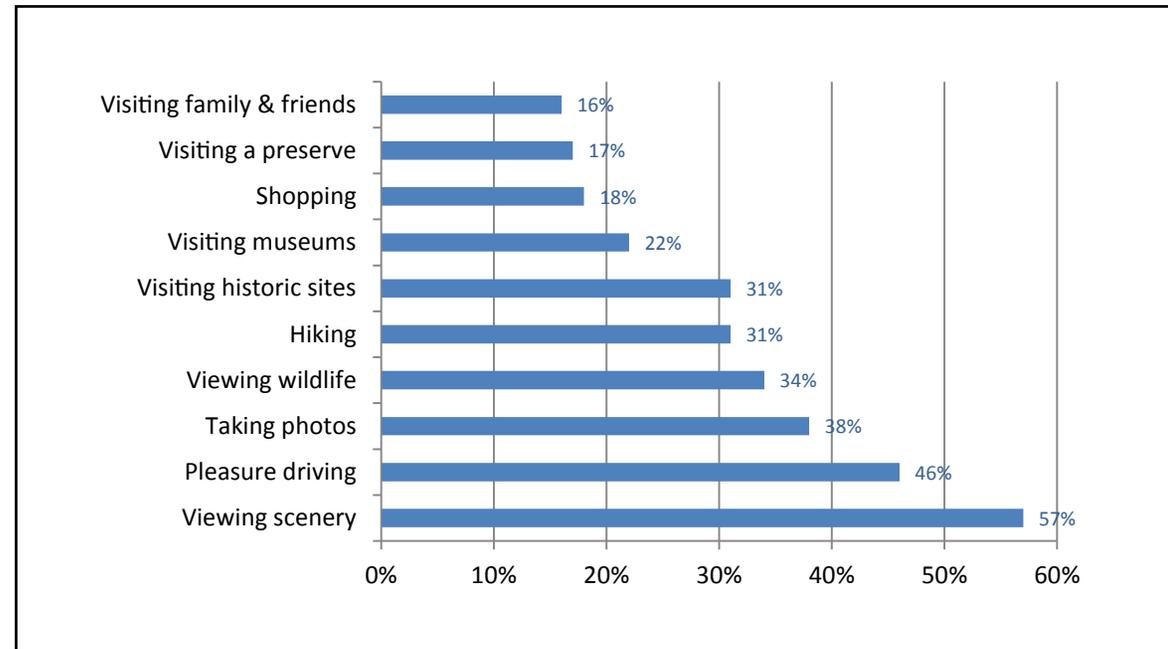
Local residents treat the Loess Hills as their “backyard in nature.” Hiking trails traverse forests and prairie on almost 30,000 acres protected by state, county, and private agencies. The spine and loops of the 220-mile-long byway invite motoring and biking through the scenic hills. The UNI study reports that viewing the fall foliage is an especially popular activity.

Regional Getaway Tourists

The UNI study reported that the largest number of regional tourists come from Iowa and Nebraska. About 30 percent of the 94 Iowa visitors who completed the survey were non-local, with Des Moines and Iowa City most represented. About 40 percent of the 49 Nebraska visitors who completed the survey were non-local, with Lincoln the most represented. The surrounding Midwestern states of Missouri, South Dakota, Minnesota, Illinois, and Kansas contributed 12 percent of the 205 total visitors who completed the survey.

These non-local respondents listed scenic drive (44%), vacation (34%), and visiting family (20%) as the main purpose of their byway visit. The activities done or planned during their visit included viewing scenery (57%), pleasure driving (46%), taking photos (38%), viewing wildlife (34%), hiking (31%), visiting historic sites (31%), visiting museums (22%), shopping (18%), visiting a preserve (17%), and visiting family and friends (16%).

Main Purpose of Byway Visit by Non-Local Respondents



Source: The Loess Hills National Scenic Byway Visitor Survey Project, Institute for Decision Making, University of Northern Iowa



Sign for the Loess Hills Hospitality Association in Moorhead.

Blogging about the Loess Hills

On the website “Iowa Girl on the Go: An Iowa Travel and Discoveries Blog,” Carole Gieseke, Iowa State University Alumni Association director of communications and editor of VISIONS magazine, wrote a post about her August 2014 visit to the Loess Hills National Scenic Byway. Her two-day weekend visit provides qualitative insight into regional travelers who make the Loess Hills a destination.

Some selected quotes from her blog:

I spent a lot of time on the loops. I think I took about 85 percent of my pictures on the loop roads—and I shot most of the others in state parks and nature preserves. The loops are awesome. They’re mostly gravel, extremely rural, and surrounded by these beautiful green hills that seem so out of place and therefore so delightful. I encountered farmland and barns, old cemeteries and churches, wildflowers and grasslands. The variety is pretty amazing. Several of the roads were like gravel roller coasters—think San Francisco-style hills. Seriously!

Both the main byway and the loops are well marked. The signage is really helpful; I would never have found many of the twists and turns just by following the map. Even with the great signs, I still managed to get lost a couple of times.

The cities (Sioux City and later Council Bluffs) are by far the least picturesque parts of the byway, and I wondered as I drove through the urban regions if there couldn’t have been a prettier way to bypass them.

The Hitchcock Loop took me to the Hitchcock Nature Center, a really wonderful place as it turns out. I paid \$2 at the entrance, parked my car, and enjoyed a pretty overview before taking a quick hike on one of the many, many trails in the area. Hitchcock features the Loess Hills Lodge interpretive facility, plus camping cabin rentals. This seems like a great getaway and not difficult to get to if you take the direct route from Des Moines (I-80) as opposed to the winding, 12-hour route I took to get there. I’m sure it’s especially lovely in the fall.

I think if I were to do this drive again, I would do it in the fall. I would do more research on hiking trails—which ones take you up through the hills? Which ones offer spectacular overlooks? Which ones are easy enough for me to actually hike? And I would probably spend three days doing the drive instead of just two.

Bring a good highway map and a detailed Loess Hills guidebook—you really need this.

Drive-Through Travelers

Two interstate highways (I-80 and I-29) bring travelers to the Loess Hills. Several state and national highways cross the byway. Information including byway guides and attractions brochures are offered at six Iowa Welcome Centers on or near the byway.

The UNI Loess Hills Visitor Survey listed 24 of 205 respondents from outside the seven-county Loess Hills region. Since

many of these respondents were visiting family and friends, the number of drive-through travelers touring the byway is quite small when compared with local and regional visitors.

The Iowa Welcome Center Survey most recently reported visitor data for 2013. Data from surveys of 209 traveler parties at the Harrison County Historical Village and Welcome Center on Highway 30 provides some insight into this audience:

- 77% were adults without children.
- Travelers came from 42 states; 7% came from abroad.
- More than half listed their destination as Iowa or Nebraska, the remainder listed 27 other states.
- The trip purpose was 60% travel and leisure, 30% to visit family and friends.
- 52% were staying at a hotel or motel, 24% at the home of family and friends.
- The average traveler age was 59.4.
- Areas of interest most frequently checked included scenic byways (65%), historical attractions (61%), museums (48%), parks (46%), and outdoor recreation (32%).
- In response to the question, “Will your stay in Iowa be extended because of the information provided?” 36% said yes: 2 hours (13%); ½ day (33%); 1 day (20%); 2 days (20%).

The data indicate that the byway can capture a significant number of drive-through travelers who are seeking experiences as they travel.



A class visits the Lewis and Clark Interpretive Center in Sioux City.

RECOMMENDATIONS TO BETTER SERVE BYWAY TRAVELERS

Visioning Meeting

An Interpretive Master Plan Visioning Meeting on April 10, 2014, at the Harrison County Welcome Center brought together byway stakeholders to respond to a series of questions in a nominal-group process. After all question responses were exhausted, participants ranked the responses they deemed most important. The following are the highest ranked responses to the question: **How could the visitor experience be improved on the Loess Hills Byway?**

- Add a bicycle/walking trail along byway (6 votes). A dedicated trail would provide for an audience that is currently underserved.
- Provide cohesive, unified interpretation throughout byway (5 votes). This includes unified graphic standards to be applied to print media, interpretive panels, and digital media.
- Educate front-line people to better interact with visitors (5 votes). Better information services are needed to help visitors plan their experiences.



Volunteers staffing the Loess Hills Hospitality Association, Moorhead.

- Tell history stories better—stories of people. Ex: Mormon stories (4 votes). One third of all visitors report that historic sites are part of their agenda.
- Improve appearance of communities along byway (4 votes).
- Provide more and better merchandise—take-home memories (4 votes).
- Provide itineraries on how to experience the byway: If you have one day, where to eat, stay, stop ... (3 votes).

Public Input Meetings

Public input meetings were held at the Southern Loess Hills Interpretive and Welcome Center in Percival on June 23, 2014, and at the Sioux City Public Library on June 25, 2014. Participants provided recommendations in response to this question:

How can interpretation and the visitor experience be improved on the Loess Hills Scenic Byway? (Percival responses):

- Cultivate positive visitor interaction at welcome centers (already doing). Place passionate senior citizen volunteers at welcome centers greeting visitors and telling the local story.
- Develop a short interpretive film to explain the Loess Hills to visitors at welcome centers. Build a small theater for visitors to watch the film, which would describe towns, history, Loess Hills.
- Create web-based materials like stories, etc. for smartphone users.
- Improve roads (roads torn up and not resurfaced, etc.).

- Document where things are located! Create a catalog of this with signs, signs, signs, but must protect the resources.
- Connect with local businesses/ artists and promote local products.
- Place signage along interstate.

How can interpretation and the visitor experience be improved on the Loess Hills Scenic Byway? (Sioux City responses):

- Loess Hills DVD.
- Signage used consistently—finding Preparation Canyon is almost impossible.
- Apps that show you gas stations, trailheads, restaurants (local economic benefit).
- Social media platform for people to interact virtually.
- Involving younger audiences in story of Loess Hills (using their technologies).
- Geocaching.
- One group considering a museum without walls for the Loess Hills, possibly with traveling exhibits that could be sent out.

- Not everything has historical value: curling, outdated exhibits, too many elk horn scrapers, not enough interpretation. Like antique stores where nothing is for sale.
- Sites need to be unique and not like the next site 20 miles away.
- Loess Hills Hospitality Association has step-on tour guides who will get in your car. They have radios for up to four cars to caravan. This is a great service that others could emulate.
- Audio tours.
- Listing of area services.
- Phone app to pull your coordinates and tell you where you are.
- Cell phone reception bad in the Loess Hills.
- Loess Hills publication in process of being put online for iPads.

Discussion of Recommendations

This discussion is based on existing survey data, visioning and community meetings input, insights gained from online sources, and observations made by the planning team while traveling the byway:

Wayfinding upgrades are needed to improve the visitor experience.

Because the byway is long and complex with multiple entrances and excursion loops, navigating the byway is a daunting task.



Many of the most popular activities involve driving and hiking on relatively unmarked routes and in obscure areas. Small museums, churches, one-room schoolhouses, trailheads, and overlooks are difficult to find without proper orientation.

Visitors need better resources to plan their Loess Hills experience.

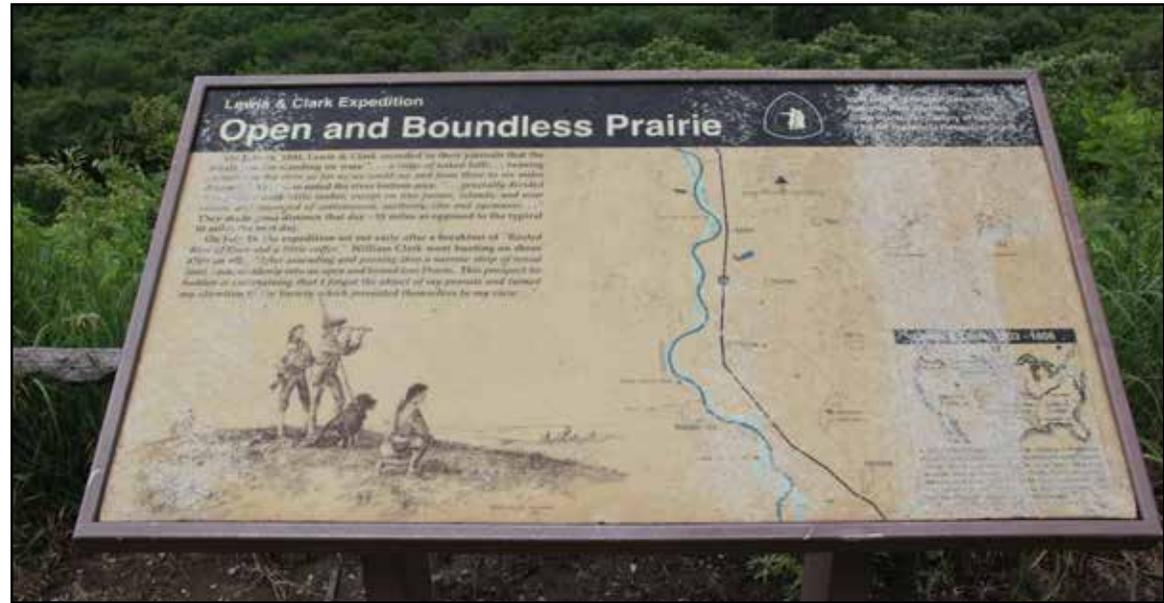
The majority of travelers commit to only a few hours or a day on the byway and are eager for suggestions for how to efficiently budget their limited time. Many visitors have specific interests that are not readily covered by the current byway guide or website. Themed itineraries that address visitor interests would provide focus to their trip-planning. In addition, divide the byway into sections that can be comfortably explored in a few hours or a day. These regional themed itineraries should be provided in the byway guide, on websites, and on experience hub kiosks strategically placed throughout the byway.

Some roads on the byway, like this optional dirt-road connection on the Sawmill Hollow Loop, can intimidate some travelers.

Cohesive, unified interpretive media is needed throughout the byway.

Kiosks and wayside exhibits should be developed for important sites to supplement and provide an alternative to online and print information. Apply unified design standards for kiosks and wayside exhibits that will aid in branding the byway. Develop a program for maintaining these media. The current Loess Hills National Scenic Byway wayside panels are fading and deteriorating from lack of maintenance and natural weathering.

A 10- to 15-minute DVD is needed to orient visitors to the major themes and stories of the Loess Hills. Good models are the orientation videos shown in the national parks. The Loess Hills DVD should be made available for showing at all visitor information and interpretive centers; should be available to download online, and should be sold as a take-home souvenir. Cohesive or unified media is not currently apparent to travelers on the byway. Wayside panels, kiosks, and other media are generally of various designs, ages, and quality. There is little uniformity or resemblance from one site to another. While the official byway guide and signs create traveler recognition, the interpretive



Many of the Loess Hills Byway wayside exhibit panels are fading due to weathering.

media does not. Traveler awareness of the byway's significance seems to come from websites and news articles. There is a great opportunity to develop byway awareness through uniform signage and other media.

Stone State Park in Sioux City.

CHAPTER 4

INTERPRETIVE

RESOURCES



INTERPRETIVE RESOURCES

This comprehensive inventory of interpretive resources documents the natural and cultural attractions along the Loess Hills National Scenic Byway. This inventory serves as the foundation for the themes and messages in Chapter 5 that connect the tangible resources to their intangible meanings. Interpretive media are then developed from these themes and messages to engage visitors in meaningful experiences on the byway.

The interpretive planning team sought input in two community meetings and in a leadership visioning session in which the following questions were posed:

- What compelling stories and meanings should visitors take away from their Loess Hills Byway experience?
- Who are some key people we should interview who know the cultural and natural history of the site?

The planning team used this input and print and electronic byway guidebooks as the basis for exploring the byway and experiencing each resource. Staff members from various attractions and knowledgeable citizens were interviewed to gain further insight.

Intrinsic Quality Categories

The U.S. Department of Transportation Scenic Byways Program identifies six intrinsic qualities that define and describe a scenic byway. This plan combines related qualities and lists each **core resource** in one of three combined categories. Core resources are located on or near the byway and offer travelers the opportunity to explore and experience the intrinsic qualities of the Loess Hills. Intrinsic quality categories are:

Scenic and Natural

Scenic Quality is the heightened visual experience derived from the view of natural and man-made elements along the scenic byway corridor. Natural Quality applies to those features in the visual environment that are in a relatively undisturbed state.

Historic and Archaeological

Historic Quality encompasses past legacies distinctly associated with physical elements of the landscape, whether natural or man-made, that are of such historic significance that they educate the viewer and stir an appreciation for the past. Archaeological Quality involves those characteristics

of the scenic byway's corridor that are physical evidence of historic or prehistoric human life or activity.

Cultural and Recreational

Cultural Quality is evidence and expressions of the customs or traditions of distinct groups of people. Recreational Quality involves outdoor recreational activities directly associated with and dependent upon the natural and cultural elements of the corridor's landscape.

Special Interest Resources

Many resources are tangential to the intrinsic qualities but have significant appeal to visitors. Others are located some distance from the byway spine or loops. These supplementary features are listed as Special Interest Resources.

Loess Hills Byway Regions

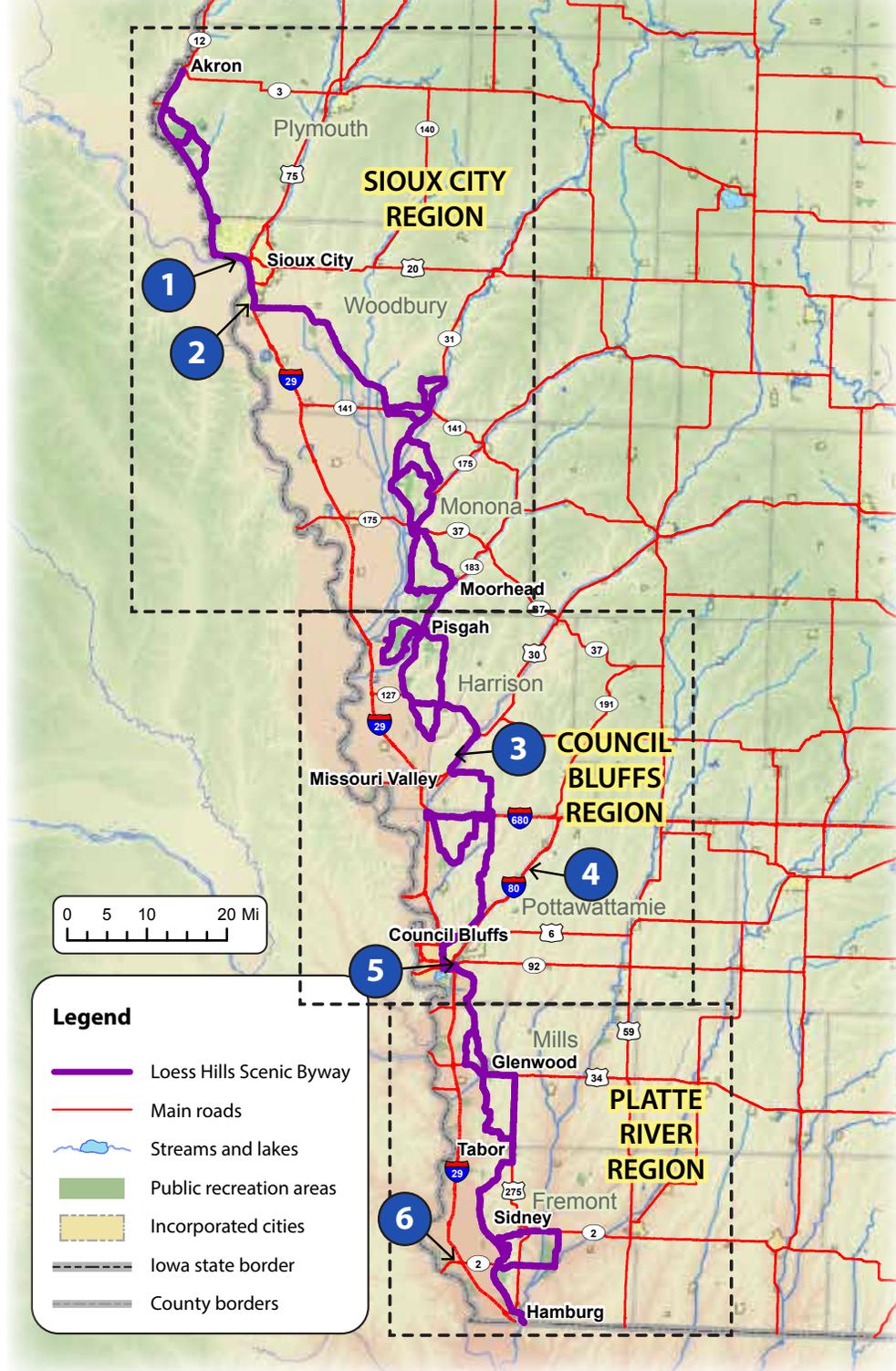
This inventory of interpretive resources is organized in three distinct regions:

- Sioux City Region (Plymouth, Woodbury, and Monona counties)
- Council Bluffs Region (Harrison and Pottawattamie counties)
- Platte River Region (Mills and Fremont counties)

Each region has local information centers and major Loess Hills portals with Iowa Welcome Centers that provide publications, interpretive media, and trip-planning assistance. Organizing the byway into three geographic regions provides visitors with locations and activities that can be accessed within a reasonably short drive because most byway visits are limited to one day or a weekend.

Iowa Welcome Centers serving the Loess Hills Scenic Byway

- 1 Sergeant Floyd River Museum and Welcome Center (Sioux City)
- 2 Sergeant Bluff I-29 Welcome Center
- 3 Harrison County Historical Village and Iowa Welcome Center (Missouri Valley)
- 4 Underwood I-80 Welcome Center
- 5 Western Historic Trails Center (Council Bluffs)
- 6 Southern Loess Hills Interpretive and Welcome Center (Percival)



INTERPRETIVE CENTERS SERVING THE LOESS HILLS BYWAY

Interpretive centers offer diverse and comprehensive media and, in some instances, staff that inform, inspire, and educate travelers about the Loess Hills.

Sioux City Region

Plymouth County

1 Akron

An Information Pavilion anchors the north end of the byway with a large interpretive panel that introduces the byway and its significance.

2 Westfield

The Loess Hills Interpretive Center has professionally fabricated exhibits interpreting the Loess Hills.

3 Broken Kettle Grasslands Preserve

The E. Kevin Kelly Visitor Center is located in a barn on a former farmstead that now serves as headquarters for this Nature Conservancy preserve. The barn is open to the elements and to public access. The exhibits consist of displays that tell the story of the grasslands.

Woodbury County

4 Sioux City

Dorothy Pecaut Nature Center, located in Stone State Park and on the Highway 12 byway spine, is operated by the Woodbury County Conservation Board. An exhibition called “Exploring Fragile Giants” offers interactive natural history experiences and an excellent introduction to the Loess Hills. An information desk is staffed when the center is open.

Monona County

5 Moorhead

The Loess Hills Hospitality Association tourist information center is housed in the historic Cover School House. Volunteers staff the center, which offers Loess Hills gifts, publications, and interpretive tour guides.

Council Bluffs Region

Harrison County

6 Pisgah

The Loess Hills State Forest Visitor Center has a professional exhibition interpreting the natural history of the Loess Hills and a staffed visitor information desk. However, due to funding cuts, the visitor center is only open in recent years Friday to Sunday afternoons from May to October.

7 Missouri Valley

The Harrison County Historical Village and Iowa Welcome Center serves three Iowa scenic byways. This popular welcome center has developed a range of interpretive media. An interpretive pavilion, trail, and a video in the center meeting room offer information specific to the Loess Hills. This staffed facility is on a centrally located access point to the byway.

Pottawattamie County

8 Honey Creek

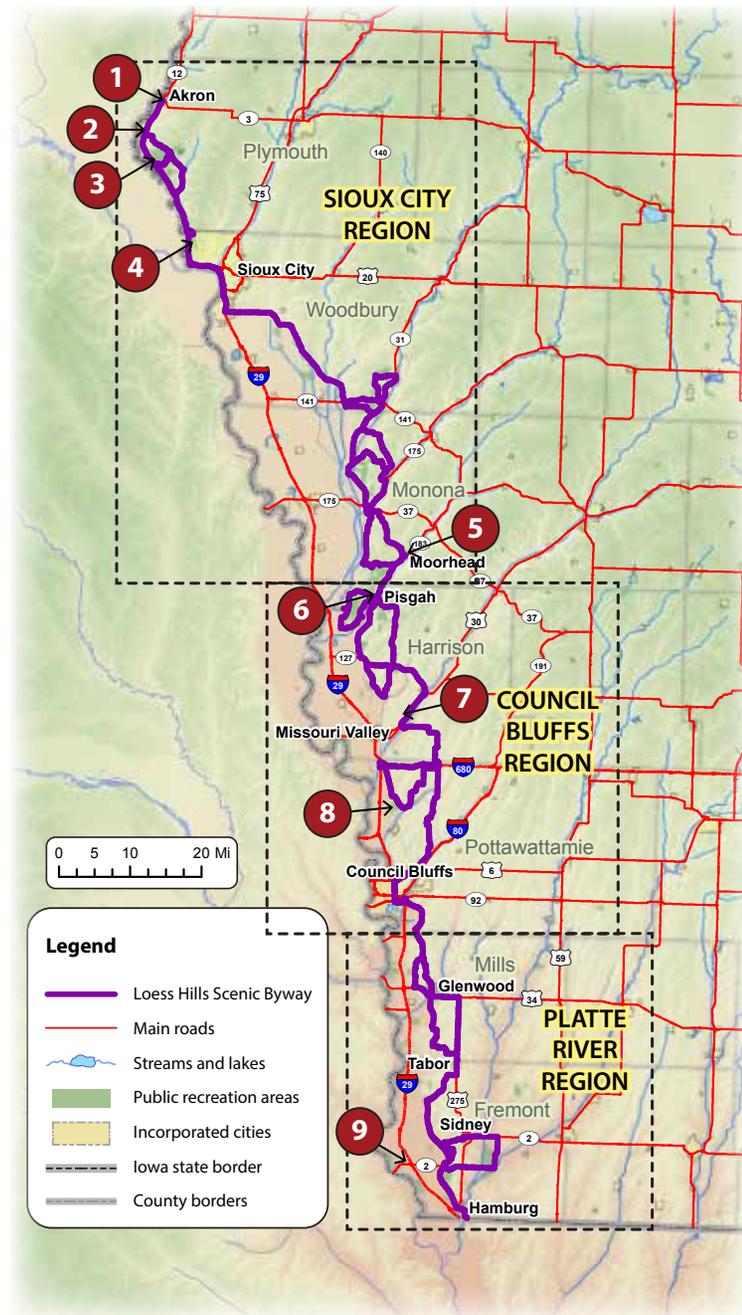
Hitchcock Nature Center, located on Ski Hill Loop in the heart of the Loess Hills, is operated by the Pottawattamie County Conservation Board. The center offers expansive views and houses professionally developed exhibits interpreting the Loess Hills and Hawk Watch. This facility is popular with Omaha and Council Bluffs residents, who hike the center's spectacular trails, which immerse them in the Loess Hills experience. Viewing decks and a tower are used by Hitchcock Hawk Watch volunteers to count migrating raptors from early September to late December.

Platte River Region

Fremont County

9 Percival

Southern Loess Hills Interpretive and Iowa Welcome Center has professional exhibits interpreting the Loess Hills, and staff that provide information about the byway. An interpretive pavilion is located behind the center.





Fountain in downtown Sioux City.



Woodbury County Courthouse, Sioux City.

SIoux CITY REGION

Feel of the West

The northern region of the Loess Hills exhibits the look and feel of the northern Great Plains. It is dry, contains large prairie remnants, and boasts many of the highest and most scenic overlooks of the Missouri River Valley.

These dry hills harbor the easternmost populations of species such as black-billed magpies, prairie rattlesnakes, Great Plains skink, and plants such as yucca and prickly pear cactus. A bison herd has been reintroduced in Broken Kettle Grasslands Preserve, and the largest tracts of remaining Iowa prairie are preserved in several large protected public areas that are open for hiking and sightseeing.

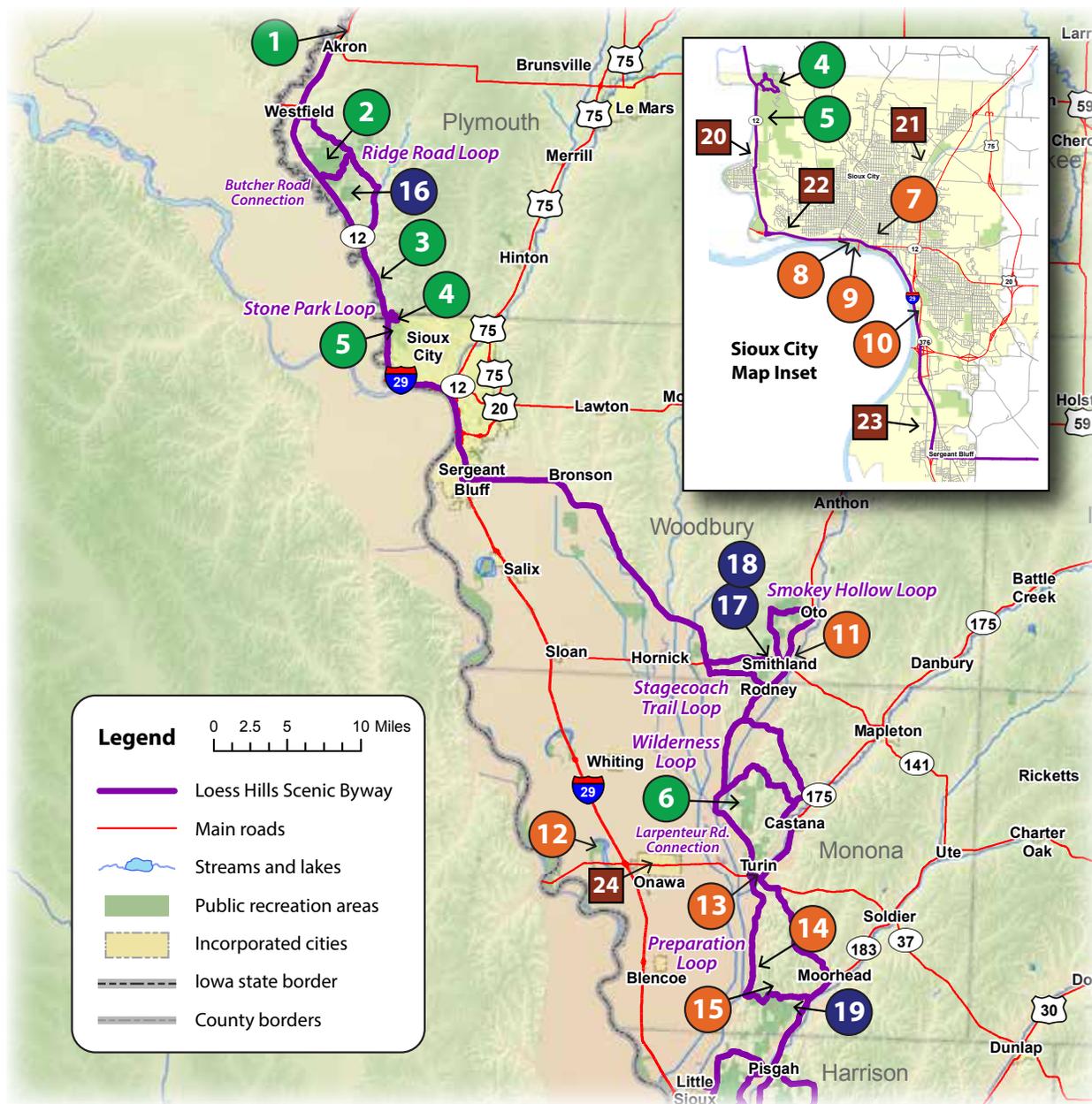
Sioux City is the navigational head of the Missouri River and was dependent on the river for early transportation and

development. The first steamboat arrived from St. Louis in 1856, loaded with ready-framed houses for the growing town. The railroad arrived in 1868, and the huge Sioux City Stockyards opened in 1884. The Great Floyd River Flood of 1892 nearly destroyed the city.

Sioux City is the economic hub of the region and offers many attractions and traveler amenities such as museums, restaurants, and hotels.

The city is nestled between the Loess Hills and the Missouri River, so many attractions interpret the history of the river and the natural history of the Loess Hills, as well as the colorful history of the community. The site of the only death in the Lewis and Clark Expedition occurred here and is marked by a national monument dedicated to Sergeant Floyd (the first National Historic Landmark).

SIoux CITY REGION



Core Byway Resources

Scenic and Natural

- 1 Dunham Prairie Preserve
- 2 Broken Kettle Grasslands Preserve
- 3 Spirit Knoll State Preserve
- 4 Stone State Park
- 5 Dorothy Pecaut Nature Center
- 6 Loess Hills Wildlife Area, Turin Loess Hills State Preserve, and Sylvan Runkel State Preserve

Historic and Archaeological

- 7 Sioux City Public Museum
- 8 Sergeant Floyd River Museum and Welcome Center
- 9 Sioux City Lewis & Clark Interpretive Center | Betty Strong Encounter Center
- 10 Sergeant Floyd Monument
- 11 Smithland Log Cabin Museum
- 12 Lewis and Clark State Park
- 13 Turin Man Archeological Site
- 14 Mann Country School
- 15 Ingemann Danish Lutheran Church

Cultural and Recreational

- 16 Five Ridge Prairie State Preserve
- 17 Fowler Forest Preserve
- 18 Preparation Canyon State Park
- 19 Preparation Canyon State Park

Special Interest Resources

- 20 Milwaukee Railroad Shops Historic District
- 21 Trinity Heights
- 22 Chief War Eagle Monument
- 23 Mid-American Museum of Aviation and Transportation
- 24 Onawa Museum Complex



Dunham Prairie Preserve.



Broken Kettle Grasslands Preserve.

Core Interpretive Resources: Scenic and Natural

1 Dunham Prairie Preserve

This 30-acre preserve on the northeast edge of Akron is open year-round to the public. About nine miles of walking trails have been established around and through Akron, including a short loop in Dunham Prairie.

2 Broken Kettle Grasslands Preserve

This is The Nature Conservancy's largest Iowa preserve with the largest remaining prairie in the state. Iowa's only known population of prairie rattlesnakes is found here, as well as prairie animals and plants typical of the Great Plains. The 3,000-acre preserve is large enough to maintain a bison herd. Butcher Road Connection to the Ridge Road Loop offers motorists spectacular Loess Hills vistas and a chance to see bison. Visitors are welcome to park and hike cross-country south of Butcher Road (opposite the bison pasture). A small exhibit in an old farm building describes the Conservancy's work.

3 Spirit Knoll State Preserve

This recently designated 220-acre preserve is accessed on Highway 12 two miles north of the entrance to Stone State Park. It has high-quality native prairie and is near Iowa's largest fortified Mill Creek Culture village.

4 Stone State Park

This 1,069-acre park is densely wooded with prairie-topped ridges. Dakota Point and Elk Point offer vistas across the Big Sioux and Missouri River to Nebraska and South Dakota. Panels interpret the Lewis and Clark Expedition and the geography of the region. Trails allow exploration of the park.



Sylvan Runkel State Preserve.

5 Dorothy Pecaut Nature Center

Operated by the Woodbury County Conservation Department, this nature center is surrounded by Stone State Park and has engaging, high-quality exhibits that interpret the Loess Hills. Trails and a nature playscape encourage families to explore.

6 Loess Hills Wildlife Area, Turin Loess Hills State Preserve, and Sylvan Runkel State Preserve

At more than 3,500 acres, these adjoining sites are among the largest native prairie preserves in the Loess Hills. Trails, although challenging to locate, offer spectacular vistas of the hills and floodplain.



Spirit Knoll State Preserve.

Iowa Natural Heritage Foundation



Dorothy Pecaut Nature Center.



Stone State Park overlook.



Sioux City Public Museum.



Sioux City Lewis and Clark Interpretive Center.



Sergeant Floyd River Museum and Welcome Center.

Core Interpretive Resources: Historic and Archaeological

7 Sioux City Public Museum

This modern museum explores the rich history of the Siouxland region. A visit begins with the “Spirit of Sioux City” orientation film in the Corn Palace Theater. A variety of hands-on experiences include the award-winning “Innovation I-Wall” and “The Big Dig,” which replicates an active fossil dig site. This is an experience for all ages, and admission is free.

8 Sergeant Floyd River Museum and Welcome Center

This riverfront museum and Iowa Welcome Center is packed full of exhibits on river boats, navigation, and the Lewis and Clark Expedition in Sioux City. It is housed in a decommissioned U.S. Army Corps of Engineers inspection boat, the *M.V. Sergeant Floyd*.

9 Sioux City Lewis and Clark Interpretive Center | Betty Strong Encounter Center

Murals, interactive exhibits, and audiovisual programs interpret the Voyage of Discovery and the history of encounters that occurred before and after the Lewis and Clark Expedition.



Sergeant Floyd Monument.



Lewis and Clark State Park keel boat and interpretive center, Onawa.

10 Sergeant Floyd Monument

An obelisk in Sioux City marks the grave of Sgt. Charles Floyd, the only death during the Lewis and Clark Expedition. Interpretive panels relate the stories of the expedition, Sgt. Floyd's death, and the creation of the monument, which is a National Historic Landmark.

11 Smithland Log Cabin Museum

Smithland Log Cabin Museum was built in 1941 as a replica of the area's first

schoolhouse in Smithland and houses a collection of artifacts from the 19th century.

12 Lewis and Clark State Park

Part of the Lewis and Clark Historic Trail, this state park features an interpretive center and a full-scale reproduction of a keel boat the Corps of Discovery used to carry supplies up the Missouri River. This park is on Blue Lake, an oxbow lake near Onawa. Interpretive panels also describe the Loess Hills Scenic Byway.



Smithland Log Cabin Museum.



Ingemann Danish Lutheran Church.



Mann Country School.

13 Turin Man Archaeological Site

Six-thousand-year-old human remains were discovered in the Turin quarry in 1955. They are among the oldest remains uncovered in Iowa. The state's 1976 burial law protecting human remains came about because of events at ancient burial sites in the Loess Hills.

14 Mann Country School

This 1885 one-room country school has been restored. The Loess Hills Hospitality Association in Moorhead includes it on its tours. Original furnishings and historic photos are displayed inside the school.

15 Ingemann Danish Lutheran Church

This picturesque 1884 church and cemetery served Danish settlers near Moorhead and is on the National Register of Historic Places. One gravestone marks the deaths of eight siblings during a diphtheria epidemic. The church is open to visitors.



Turin Man Archaeological Site.

Core Interpretive Resources: Cultural and Recreational

16 Five Ridge Prairie State Preserve and Camping Cabin

This 960-acre preserve is one of the largest road-less areas in the Loess Hills. Trails are simply fire breaks that traverse the large, hilly terrain. It is recommended for seasoned hikers who are seeking an immersive Loess Hills experience. Plymouth County Conservation Board offers a camping cabin adjacent to this site along Highway 12 that provides walk-in access to the preserve.

17 Fowler Forest Preserve

This 160-acre preserve near Smithland offers hiking trails, picnic areas, a playground, and a historical stagecoach trail monument.

18 Southwood Conservation Area

Southwood Conservation Area on the Stagecoach Loop is adjacent to Fowler Forest Preserve. This Woodbury County property features recreation opportunities such as camping, hiking and equestrian trails, fishing ponds, and a playground. Several cabins are planned for construction. The site features Loess Hills grasslands and timbered areas.



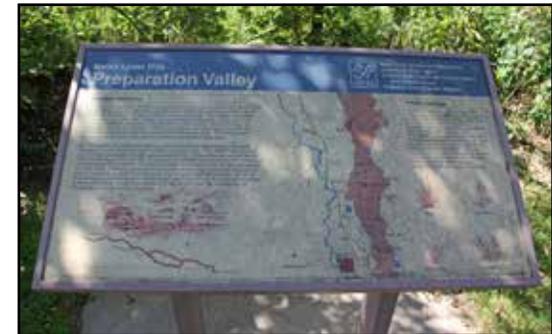
Five Ridge Prairie State Preserve.

19 Preparation Canyon State Park

This primitive park north of Pisgah offers walk-in camping, hiking, and picnicking. It is noteworthy as the location of the town of Preparation founded in 1853 by a charismatic leader named Charles B. Thompson, who broke from the Mormon wagon trail to Utah with 60 families. Interpretive panels tell this story.



Fowler Forest Preserve.



Preparation Canyon State Park.



Southwood Conservation Area on the Stagecoach Loop.



War Eagle Monument in Sioux City.



Trinity Heights in Sioux City.



Milwaukee Railroad Museum at the Milwaukee Railroad Shops Historic District.



Train cars parked at the Milwaukee Railroad Shops Historic District.

Special Interest Resources

20 Milwaukee Railroad Shops Historic District

This was the site of repair shops for the Milwaukee railroad system that operated from 1917 to 1981. The Siouxland Railroad Association purchased the site in 1995 and clean-up/restoration is on-going. It displays rolling stock and railroad memorabilia, with major exhibitions planned.

21 Trinity Heights

This Sioux City religious attraction includes 16 acres of gardens, shrines, statues, and fountains and provides a serene and calming visit. It is built on the former grounds of Trinity College and High School.

22 Chief War Eagle Monument

In 1851, War Eagle, a Dakota (Sioux) leader, was buried on top of the high bluff overlooking the confluence of the Big Sioux and Missouri rivers. Today the area is part of War Eagle Park in Sioux City. A monument depicts the chief with an eagle feather bonnet and calumet, symbolizing his leadership and love of peace.

23 Mid-America Museum of Aviation and Transportation

Artifacts and exhibits tell the story of aviation and transportation. Visitors can explore a variety of displays and exhibits of vintage aircraft and surface transportation from bicycles to automobiles. In July 2014, a 25th anniversary exhibit commemorating the United Airlines Flight 232 crash was dedicated by the captain and survivors.

24 Onawa Museum Complex

This complex includes three separate museums. The Kiwanis Museum includes the Chicago and Northwestern Railroad Depot, which houses railroad memorabilia. The site includes a country school restored to the 1900s, a blacksmith shop, a firehouse, a church, a log cabin, and a caboose. The Monona County Historical Museum has local memorabilia and features the Eskimo Pie, which originated in Onawa. The Veteran's Memorial Museum honors veterans and showcases military equipment, memorabilia, and a Freedom Rock.



Veteran's Memorial Museum, Onawa.



Mid-America Museum of Aviation and Transportation in Sioux City.



Historic Squirrel Cage Jail, Council Bluffs.



Union Pacific Railroad Museum, Council Bluffs.

COUNCIL BLUFFS REGION

Crossroads of America

This region is rich with entrepreneurial artisans, farm markets, and family businesses that have flourished in these well-traveled hills. Lavender and aronia farms, wineries, and orchards draw crowds from the cities and beyond during “Living Loess” events, a collaboration of nine artisan attractions in Pottawattamie and Harrison counties.

Council Bluffs has long served as an epicenter for travel, so it is fitting that this national crossroads is also the central hub of the Loess Hills National Scenic Byway. Interstate highways, scenic byways, transcontinental railways, waterways, and historic trails all converge at this river crossing. The population of Omaha and Council Bluffs is over a half million and, coupled with the high volume of visitors, offers a robust potential market for the scenic byway.

In 1859, Abraham Lincoln viewed the crossing proposed for the transcontinental railroad from the bluff of Cemetery Hill. Council Bluffs was being considered for the iconic rail crossing,

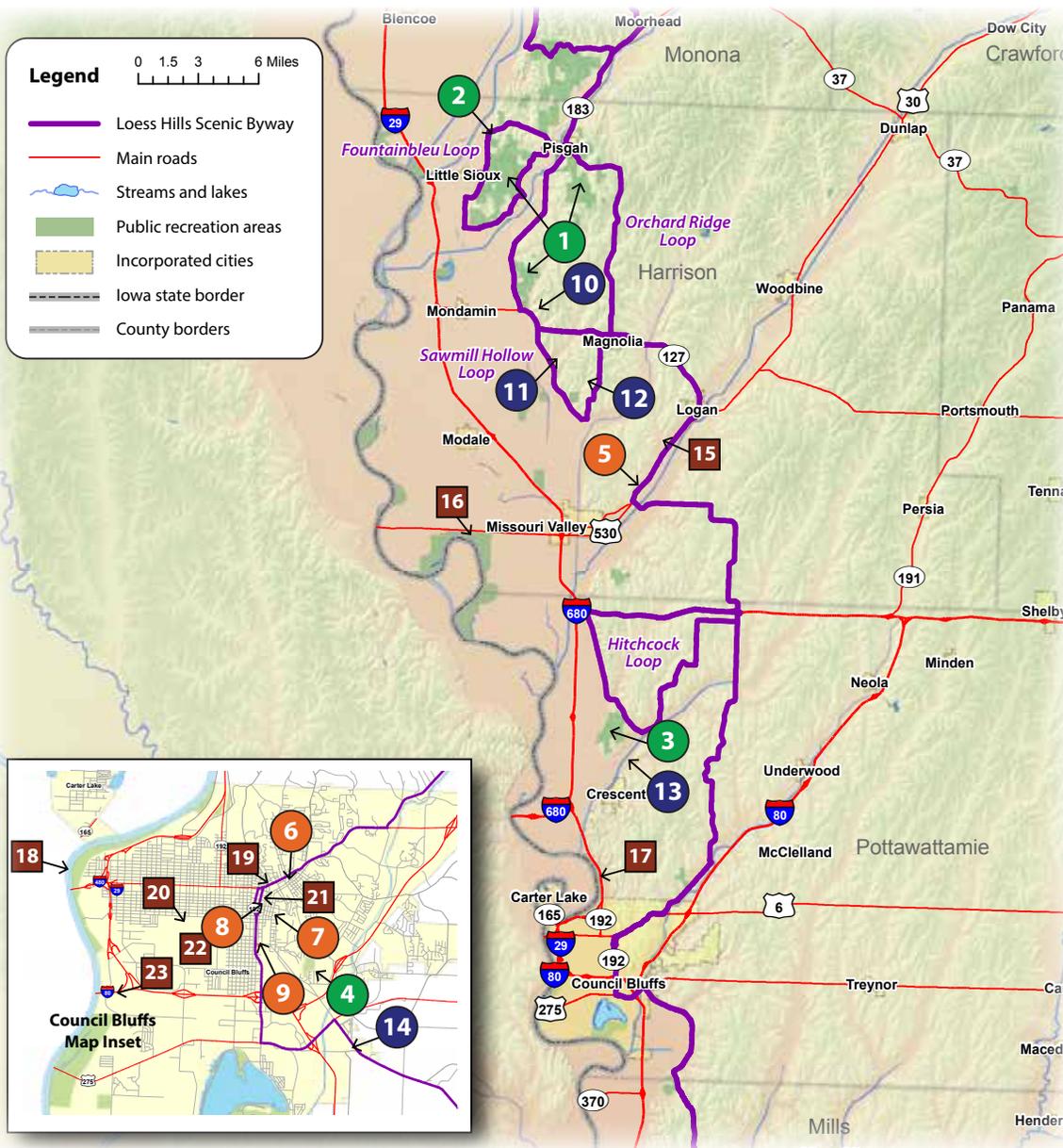
and it out-competed communities up and down the river from Kansas City to Sioux City.

In the 1840s and 1850s, the community—then known as Kanesville—had a large Mormon population. Kanesville was an important stopover for Mormons as they made the trek from the Midwest to their new home in Salt Lake City, Utah.

Even wildlife migrations pass through this important area. Raptors (hawks) are a well-known fall phenomenon, appreciated by thousands at places like Hitchcock Nature Center, where westerly winds create soaring thermals as they sweep over the Loess Hills.

Bayliss Park in downtown Council Bluffs is a good location to stage visits to many city attractions. It is within walking distance of the Squirrel Cage Jail, the Dodge House, the Union Pacific Railroad Museum, and the Veterans Plaza. Many other attractions are a short distance from this historic city center.

COUNCIL BLUFFS REGION



Core Byway Resources

Scenic and Natural

- 1 Loess Hills State Forest
- 2 Murray Hill Scenic Overlook
- 3 Hitchcock Nature Center
- 4 Vincent Bluff State Preserve

Historic and Archaeological

- 5 Harrison County Historical Village and Welcome Center
- 6 Kaneshville Tabernacle
- 7 Union Pacific Railroad Museum
- 8 Historic General Dodge House and August Beresheim House
- 9 RailsWest Railroad Museum

Cultural and Recreational

- 10 Small's Fruit Farm
- 11 Loess Hills Lavender Farm
- 12 Sawmill Hollow Family Farm
- 13 Honey Creek Creamery
- 14 Wabash Trace Nature Trail and Iowa West Foundation Trailhead Park

Special Interest Resources

- 15 Museum of Religious Arts
- 16 DeSoto National Wildlife Refuge
- 17 Lewis and Clark Monument and Scenic Overlook
- 18 Tom Hanafan River's Edge Park and Bob Kerrey Pedestrian Bridge
- 19 Lincoln Monument
- 20 Golden Spike Monument
- 21 Bayliss Park
- 22 Historic Squirrel Cage Jail
- 23 Western Historic Trails Center



Loess Hills State Forest Visitor Center in Pisgah.

Core Interpretive Resources: Scenic and Natural

1 Loess Hills State Forest

With over 11,000 acres, Loess Hills State Forest is the largest public area on the byway. The entire forest is open to hiking, nature exploration, and auto touring. The visitor center in Pisgah has exhibits that orient visitors to the forest and the Loess Hills. The Oak Avenue Scenic Overlook provides spectacular views of the hills and has a trail that traverses prairie-cloaked bluffs. Jones Creek Pond was created by the Depression-era Civilian Conservation Corps and is an excellent viewing area for waterfowl.



Loess Hills State Forest overlook and trail.



Jones Creek Pond, Loess Hills State Forest.

2 Murray Hill Scenic Overlook

Murray Hill is one of the most impressive scenic overlooks on the Loess Hills Scenic Byway. Hikers who climb up a short trail through a yucca-studded prairie are rewarded with panoramic views of the Missouri River Valley. Panels interpret the Loess Hills landscape.

3 Hitchcock Nature Center

Hitchcock is one of the most public and accessible places on the byway for an in-depth Loess Hills experience. The interpretive center features hands-on exhibits to learn about the Loess Hills and the raptors that follow the ridgeline on their annual migrations. A 45-foot tower offers vistas across the hills and the Missouri River Valley. An interpretive garden features native prairie plants. The 1,300 acres of prairie, oak savanna, and dense forest are traversed by ten miles of trails from easy ridgeline walks to difficult climbs. Camping is available, ranging from cabins, RV campsites, and walk-in primitive sites.



Trail to the Hitchcock Nature Center.

4 Vincent Bluff Prairie State Preserve

This 41-acre Loess Hills preserve is located in the heart of Council Bluffs. The prominent, west-facing bluff-top is clearly visible from both Interstate 80 and Interstate 29. The preserve is on the southern edge of Council Bluffs, at the north end of Thallas Street.



Yucca plant at Murray Hill Scenic Overlook.



Iowa Natural Heritage Foundation

Vincent Bluff State Preserve.

Harrison County Historical Village and Welcome Center, Missouri Valley.



Core Interpretive Resources: Historic and Archaeological

5 Harrison County Historical Village and Welcome Center

Located on the Lincoln Highway, the Western Skies Scenic Byway, and the Loess Hills National Scenic Byway (U.S. Highway 30), the Welcome Center provides information about each byway. The center also features an interpretive trail, exhibits, and a video about the Loess Hills. The museum complex includes buildings and artifacts from the 1800s, with an original log cabin, general store, and school.

6 Kanesville Tabernacle

This replica of the original meeting hall was where Brigham Young was sustained as second prophet and president of the Mormon faith. It includes a visitor center that interprets the migration westward. The tabernacle and the Mormon Trail Center in Omaha mark the historic winter quarters of 1846-47. The winter quarters preceded the establishment of Omaha and Council Bluffs.



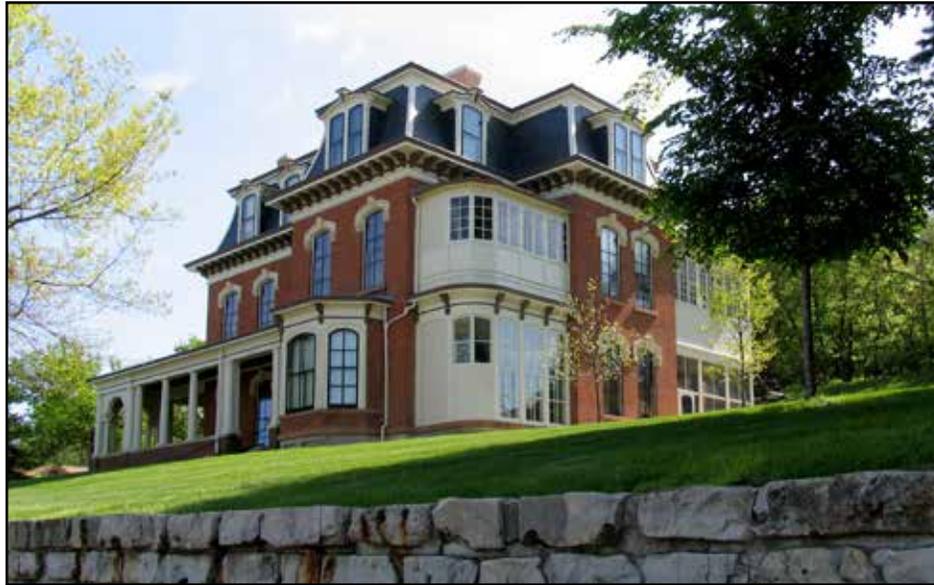
Kanesville Tabernacle.

7 Union Pacific Railroad Museum

Located in the restored Carnegie Free Library, the museum houses the corporate collections of the Union Pacific Railroad. Exhibits include “Building America,” which features an immersive experience interpreting the building of the transcontinental railroad. The Union Pacific Railroad Museum complements other local rail attractions, including the Historic General Dodge House, the RailsWest Railroad Museum, the Golden Spike Monument, and the Durham Museum (Omaha). Together, these attractions make Council Bluffs and Omaha a destination for railroad fans and history lovers.

8 Historic General Dodge House & August Beresheim House

The Historic General Dodge House was built in 1869 by Civil War General and Union Pacific railroad builder Grenville M. Dodge. This Victorian home is a National Historic Landmark dedicated to the man who built the transcontinental railroad from Council Bluffs to Promontory Summit in Utah. The Beresheims had close associations with Gen. Dodge. The Beresheim House serves as the orientation center for the Dodge House.



The Grenville M. Dodge House.



RailsWest Railroad Museum.

9 RailsWest Railroad Museum

This Chicago, Rock Island, and Pacific Railroad Passenger Depot, built in 1899, is the last remaining passenger depot in Council Bluffs. It was restored as a museum by the Historical Society of



Union Pacific Railroad Museum.

Pottawattamie County and features exhibits and a gift shop in the lobbies, a large outdoor exhibit of locomotives and rail cars, and a working HO scale model railroad. The museum pays tribute to the era of the transcontinental railroad.



Sawmill Hollow Family Farm.



Honey Creek Creamery, Honey Creek.



Loess Hills Lavender Farm.

Core Interpretive Resources: Cultural and Recreational

10 Small's Fruit Farm

Small's Fruit Farm near Mondamin is a family-run farm that grows strawberries, raspberries, and apples, as well as other produce. Small's has a retail area and offers group tours.

11 Loess Hills Lavender Farm

12 Sawmill Hollow Family Farm

13 Honey Creek Creamery

These farms are destinations for local-food enthusiasts. They are featured on the "Living Loess" tour, which for one weekend each month from May to October visits eight artisanal partners in Harrison and Pottawattamie counties. Hitchcock Nature Center and Harrison County Historical Village and Welcome Center are included in this coalition.



Small's Fruit Farm.

14 Wabash Trace Nature Trail & Iowa West Foundation Trailhead Park

The Wabash Trace Nature Trail runs 63 miles on an old railroad bed from Council Bluffs to Blanchard on the Missouri border. There is a parallel horse path from Council Bluffs to Mineola, a 9.6 mile segment that passes through the Loess Hills. Trails from the Iowa West Foundation Trailhead Park lead to the Bob Kerrey Pedestrian Bridge, Lake Manawa State Park, Big Lake Park, and other destinations.



Wabash Trace Nature Trail.



Steamboat *Bertrand* exhibit at DeSoto National Wildlife Refuge, Missouri Valley.



DeSoto National Wildlife Refuge Visitor Center.



Museum of Religious Arts.

Special Interest Resources

15 Museum of Religious Arts

Founded by a local couple who believed that new, modern churches lacked the religious tradition of the historic altars and communion rails, the Museum of Religious Arts aims to preserve and exhibit Christian religious arts, tradition, and culture, fostering an appreciation of religious history. Various exhibits include a wax-figure “King of Kings” display, Southwestern-style mission chapel, and religious paintings by child-prodigy artist Akiane.

16 DeSoto National Wildlife Refuge

Located on the Missouri River, the refuge features a visitor center with wildlife-related exhibits and a special exhibition of the sunken steamer *Bertrand*, including a trove of 1865 artifacts preserved in the muddy river and discovered a century later.

17 Lewis and Clark Monument and Scenic Overlook

This monument north of Council Bluffs commemorates the 1804 expedition of Lewis and Clark and their historic meeting with Otoe and Missouri tribesmen.

18 Tom Hanafan River's Edge Park & Bob Kerrey Pedestrian Bridge

This public green space is a venue for community events and the Iowa gateway to the pedestrian bridge that connects the cities of Council Bluffs and Omaha.

19 Lincoln Monument

Lincoln Monument commemorates the place where, in 1859, Abraham Lincoln along with Grenville M. Dodge decided on the location for the eastern terminus of the nation's first transcontinental railroad.



Bob Kerrey Pedestrian Bridge connects Council Bluffs with Omaha, Nebraska. It is named after the Nebraska senator who secured funding for the project.



Lewis and Clark Monument.



Lincoln Monument in Council Bluffs.



Bayliss Park, downtown Council Bluffs, is an excellent place from which to access several other attractions.

20 Golden Spike Monument

Golden Spike Monument, a 56-foot golden concrete spike, was erected in 1939 with the premiere of the film *Union Pacific*.

21 Bayliss Park

This downtown Council Bluffs park includes a fountain, performance space, veterans' memorials, child-activated water features, and touchable art.



Golden Spike Monument.

22 **Historic Squirrel Cage Jail**

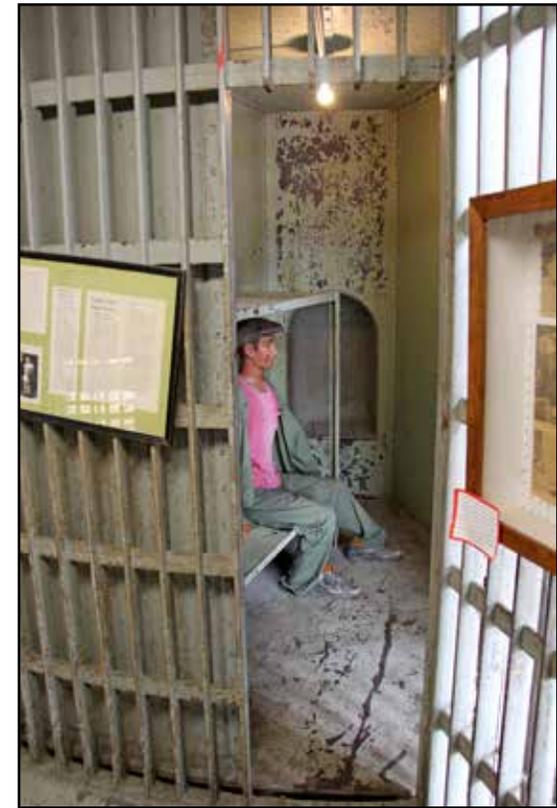
This three-story revolving jail, built in 1885, is now a museum that relates stories of incarceration and law enforcement in Council Bluffs.

23 **Western Historic Trails Center**

Western Historic Trails Center interprets the Lewis and Clark, Mormon Pioneer, Oregon, and California trails.



Western Historic Trails Center.



Squirrel Cage Jail.



Sidney Rodeo entrance.

PLATTE RIVER REGION

Prehistoric Riches, Rodeos, and the Underground Railroad

The convergence of the Platte and Missouri rivers creates a rich floodplain and accessible transportation routes.

This area was home to the prehistoric

Glenwood Culture, as evidenced by the presence of 1,000 earthen lodges within 10 miles of the river confluence. This area had easily worked soil, available water, and wood for lodges and fuel.

The rugged southern hills are cloaked in woodlands, in contrast to the northern Loess Hills prairies. This region receives more precipitation and enjoys a longer growing season than the north. Only the steepest slopes and ridges remain in prairie. The diversity of eastern forests is evident here, with southeastern species and complex forest communities.

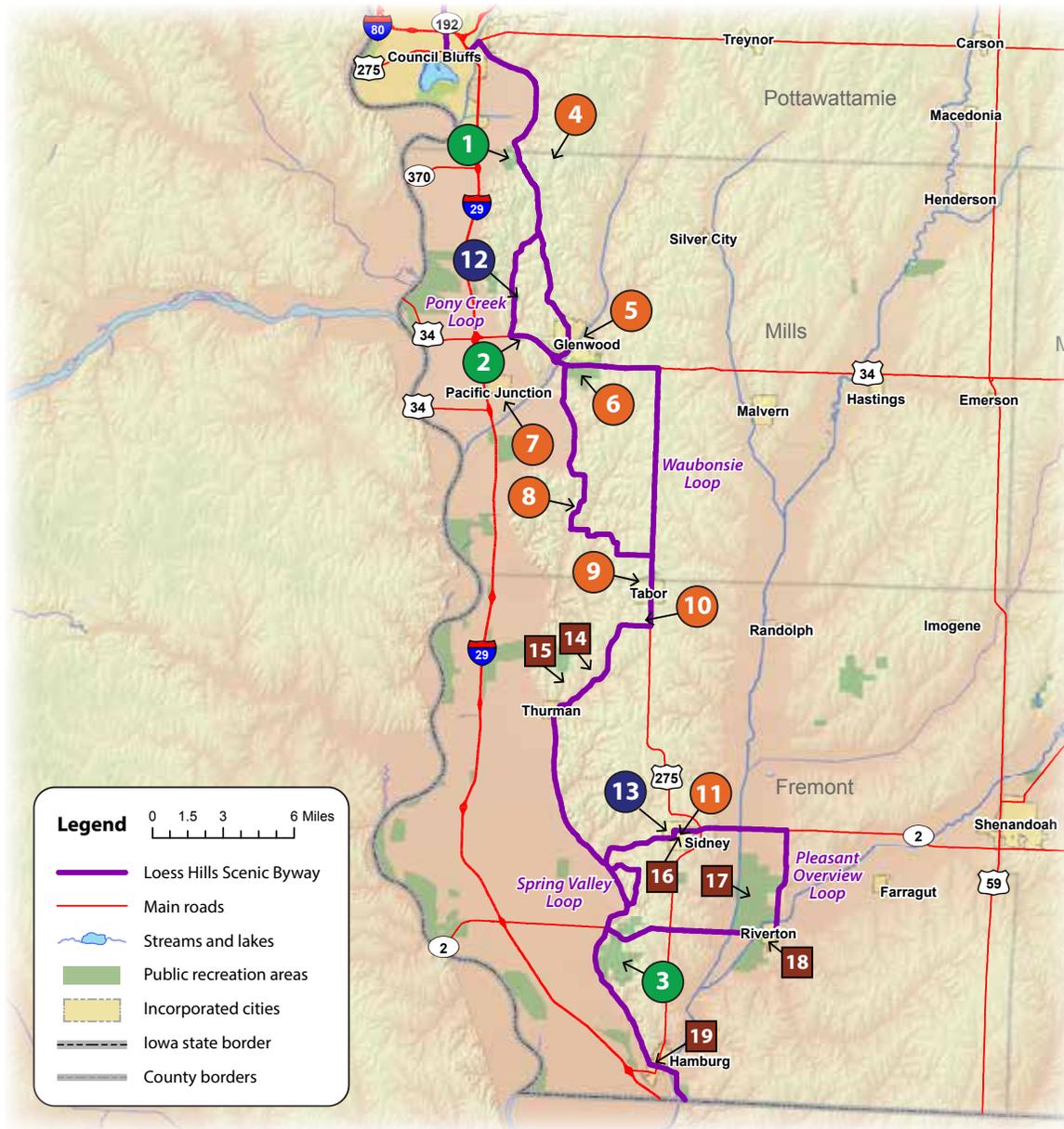
This region was a hotbed of unrest before the Civil War. Abolitionist communities in Iowa were in conflict with slave owners in Missouri and Nebraska. The Underground Railroad thrived, as major stations in towns like Tabor provided assistance as freedom seekers made their way to the safety of northern states and Canada.

Sidney hosts Iowa's largest continuous outdoor rodeo, which began in 1923. It is sanctioned by the prestigious Professional Rodeo Cowboys Association.



Fog lifting in fall near Percival and the Missouri River.

PLATTE RIVER REGION



Core Byway Resources

Scenic and Natural

- 1 Folsom Point Preserve
- 2 Mile Hill Lake Park
- 3 Waubonsie State Park

Historic and Archaeological

- 4 Salem Lutheran Church at Plumer Settlement
- 5 Mills County Historical Museum and Davies Amphitheater
- 6 Glenwood Archaeological State Preserve and Foothills Park
- 7 Pacific Junction Railroad Museum
- 8 Waubonsie Church and Cemetery
- 9 Tabor Antislavery Historic District
- 10 Hunter School
- 11 Fremont County Historical Museum and Iowa Championship Rodeo Museum

Cultural and Recreational

- 12 Pony Creek Park
- 13 Sidney Championship Rodeo Arena

Special Interest Resources

- 14 Sugar Clay Winery and Vineyards
- 15 Moonstone Lavender Farm
- 16 Penn Drug Company
- 17 Riverton Wildlife Area
- 18 Chautauqua Pavilion
- 19 Stoner Drug Company



Waubonsie State Park.



Mile Hill Lake Park.



The Nature Conservancy

Folsom Point Preserve south of Council Bluffs.

Core Interpretive Resources: Scenic and Natural

1 Folsom Point Preserve

This 280-acre preserve owned by The Nature Conservancy protects one of the largest remaining contiguous prairie remnants in the southern Loess Hills. It provides valuable habitat for grassland plants and wildlife. Open prairie ridges showcase the rugged terrain and steep slopes.

2 Mile Hill Lake Park

This county park on Highway 34 near Glenwood has a scenic Loess Hills overlook with interpretive panels. A restored prairie area is adjacent to the overlook. Trails invite exploration through the hills and to the small lake.

3 Waubonsie State Park

Named for Chief Waubonsie of the Pottawattamie tribe, the park is much the same today as it was when it was purchased in 1926. From scenic overlooks, visitors can view Nebraska, Iowa, Kansas, Missouri, and the Missouri River. Bisected by Highway 2, Waubonsie includes a large equestrian park and in 2005 added the former 642-acre Wa-Shawtee Girl Scout Camp. A full range of recreation amenities are available.

Core Interpretive Resources: Historic and Archaeological

4 Salem Lutheran Church at Plumer Settlement

This original 1867 German pioneer church closed in 1933 but has been restored. The adjacent cemetery is well kept and includes many German inscriptions.

5 Mills County Historical Museum and Davies Amphitheater

These two attractions are located in Glenwood Lake Park. Byway visitors will especially value the vast collections of Glenwood Culture artifacts and interpretive exhibits about these significant prehistoric people. Other exhibits and artifacts relate to the early history of the county, including a military room and a collection of cameras and toys. Davies Amphitheater offers entertainment throughout the summer. The structure won the 1981 Iowa Architectural Award.

6 Glenwood Archaeological State Preserve and Foothills Park

Located on Highway 34 near Glenwood, this 907-acre preserve, Iowa's largest, was created to protect the site of dozens of earth lodges, ancient villages, and ancient agricultural activities. A major



Mills County Historical Museum.



A one-room school on the grounds of the Mills County Historical Museum.



Glenwood Archaeological State Preserve.



Salem Lutheran Church.

visitor center is proposed to interpret the Glenwood Culture "earth lodge" people and Loess Hills flora and fauna. This will be a significant attraction directly on the scenic byway. Foothills Park has three miles of walking trails that begin at the parking lot.



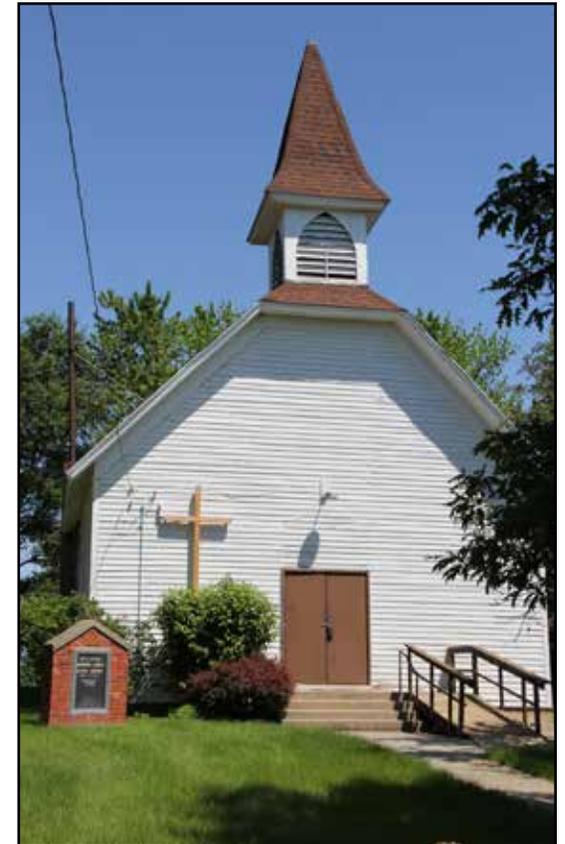
The Pacific Junction Railroad Museum explores the town's train history.

7 Pacific Junction Railroad Museum

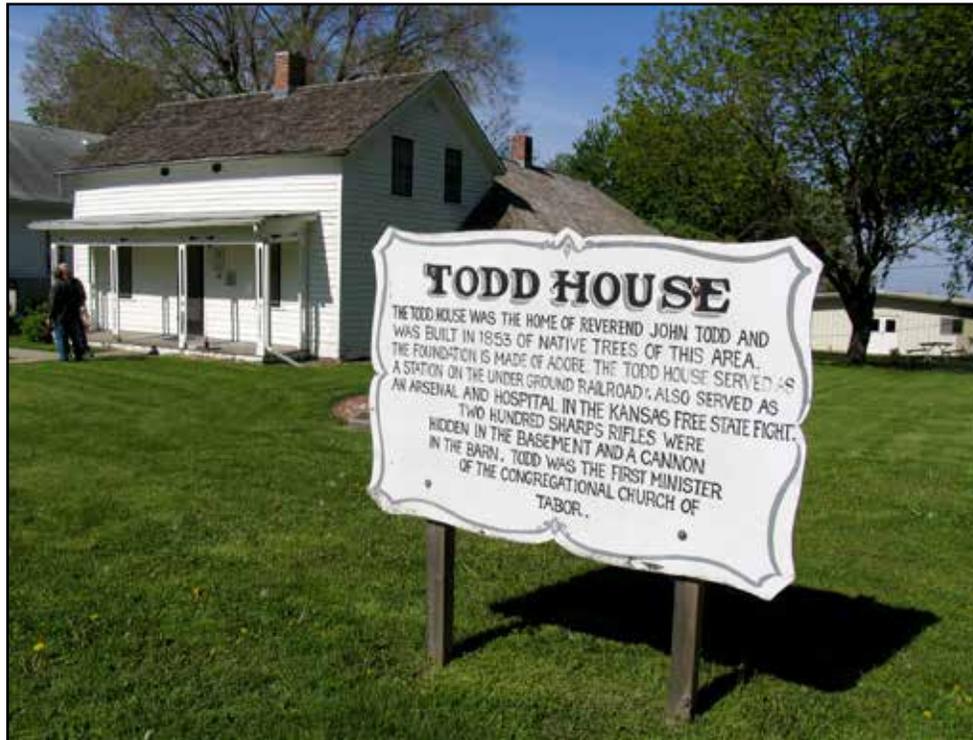
This museum just off the byway celebrates the proud history of a railroad town. Railroad companies established Pacific Junction in 1871 as a junction for the Missouri River corridor. With a dozen switch lines, it was a hub of freight-train transportation.

8 Waubonsie Church and Cemetery

Waubonsie Church, on the Waubonsie Loop, was the first organized church in Mills County. The original building was built in 1854 and the current church replaced it on the same location in 1886. The cemetery has many of the earliest graves in the county.



Waubonsie Church and Cemetery is located on the Waubonsie Loop.



Todd House in Tabor.



Rodeo exhibit, Fremont County Museum, Sidney.



Hunter School.

9 Tabor Antislavery Historic District

A Congregationalist settlement was formed in the Loess Hills to establish Tabor College, named for a mountain near Jesus' birthplace. The town of Tabor played a significant role in the 1850s as a center for the western antislavery movement, serving as a way-station in the Underground Railroad and hosting abolitionist John Brown. The public square (Tabor City Park) and Todd House have been designated by the National Park Service as the Tabor

Antislavery Historic District. Interpretive panels have been placed in the park. Other significant historic structures include the Congregationalist Church, Adams Hall, and the Music Hall of Tabor College (now closed). The Music Hall is the site of the Tabor Historical Society and has an outdoor exhibit of the Tabor and Northern locomotive bell from what Robert L. Ripley, in one of his "Believe It Or Not" cartoons, referred to as the "shortest standard-gauge railroad in the world," (8.89 miles to Malvern).

10 Hunter School

Near Tabor, this 1901 country school is on the National Register of Historic Places.

11 Fremont County Historical Museum and Iowa Championship Rodeo Museum

A museum exhibition on the Sidney Rodeo opened in 2014. Byway travelers can visit the rodeo grounds and then visit the historical museum to learn about this iconic institution that began in 1923. Other exhibits tell the history of Fremont County.



Sidney Championship Rodeo grounds.



Pony Creek Park.

Core Interpretive Resources: Cultural and Recreational

12 Pony Creek Park and Mills County Conservation Education Center

This popular county park is located on the Pony Creek Loop north of Highway 34. It has a range of recreation opportunities, including an 82-acre lake. The conservation center, under construction in 2015, will be open year-round. It will feature exhibits on natural history and interpretation of Iowa's 25th National Historic Landmark, the Davis Oriole Earth Lodge Site located nearby. The lodge is a significant site in the Central Plains tradition.

13 Sidney Championship Rodeo

Held in a modern arena on the west side of town, the Sidney Rodeo is Iowa's oldest continuous outdoor rodeo and is recognized by the Professional Rodeo Cowboys Association as one of the best small outdoor rodeos in the nation.

Special Interest Resources

14 Sugar Clay Winery

Located in the hills near Thurman, this popular byway stop includes a six acre vineyard and a tasting room.

15 Moonstone Lavender Gardens

Moonstone Lavender Gardens is a family-owned lavender farm and landscaped gardens located in Thurman. The farm grows five varieties of lavender, which is well known for its fragrance and healing qualities.

16 Penn Drug

Established in 1863, Penn Drug in Sidney is Iowa's oldest family-owned drugstore. It boasts an old-fashioned soda fountain, gift shop, and a full-service pharmacy.

17 Riverton Wildlife Area

Located on the Pleasant Overview Loop, this 4,000-acre wildlife area has a scenic overlook to view wildlife. It is best visited during spring migration and in late fall when large flocks of snow geese can be viewed. It is a popular area for fall waterfowl hunters.



Sugar Clay Winery.



Moonstone Lavender Gardens.



Penn Drug.



Riverton Wildlife Area.



Riverton Chautauqua Pavilion.

18 Riverton Chautauqua Pavilion

Built in 1897, this faithfully restored structure in Riverton City Park was built for Chautauqua assemblies that were a national movement in the late 19th and early 20th centuries. A Chautauqua assembly brought entertainment and culture for the whole community, with speakers, teachers, musicians, entertainers, preachers, and specialists of the day. This open decagon hosted presidential candidate William Jennings Bryan, who addressed topics such as temperance and populist politics. It is the oldest Chautauqua structure in Iowa.

19 Stoner Drug

Established in 1896, this drugstore with its classic soda fountain (installed in 1929) is still operated by the descendants of founder Crosby Stoner. Travelers entering Iowa on I-29 are greeted by a sign at Exit 1 that says, "Stoner Drug, 1 Mile."



Stoner Drug in Hamburg.

View of Missouri River Valley from Murray Hill Scenic Overlook, Pisgah.

CHAPTER 5

THEMES AND

MESSAGES



THEMES AND MESSAGES

Themes are the important umbrella concepts that organize the messages to be communicated to visitors on the Loess Hills National Scenic Byway. They create a framework for planning and help place resources and events into meaningful contexts for the audience. Based on these themes and their associated messages, appropriate media can be selected that most effectively communicate them.

A theme statement expresses the main idea of an interpretive opportunity. A good theme statement should contain **universal concepts**. A universal concept is an intangible meaning that has significance to almost everyone but may not mean the same thing to any two people. They are the ideas, values, challenges, relationships, needs, and emotions that speak to the human condition. **Compelling interpretive themes link a tangible resource and its intangible meanings to the interests of visitors.**

For example, the town of Tabor, located on the border of Mills and Fremont counties, was at the center of the rising tides of social change leading to the Civil War.

Tabor's founding fathers, Congregationalist missionaries George Gaston, Samuel Adams and John Todd, were inspired to found a Christian community in the western prairies and model it after their alma mater, Oberlin village and college in Ohio. Oberlin was renowned for promoting equality for women, Indians, and blacks.

Mosquitoes, floods and disease in the Missouri River community of Civil Bend drove the colony into the Loess Hills to plat Tabor in 1853. Here they established Tabor College and actively engaged in the anti-slavery Kansas Free State Movement and became a way-station on the Underground Railroad with the Todd House serving as a safe house for fleeing slaves. Abolitionist John Brown stored a cache of weapons in the basement and met with supporters to plan raids into Kansas and the ill-fated assault on Harpers Ferry, Virginia, that set the stage for the Civil War (National Park Service).

Some universal human concepts that are illustrated by this example include equality, struggle, freedom, hate, faith, family, community, compassion, and social justice. A compelling story that incorporates these concepts can be shared with byway visitors at the Tabor

town and Todd House historic sites. These ideas could be conveyed by a variety of media such as a tour guide, a pamphlet, mobile digital media, or a series of interpretive panels with audio. The essential ingredients for successful interpretation are a compelling story passionately told.

Organization of Themes and Messages

- A **primary theme** expresses the main idea that unifies the stories of the Loess Hills. To provide a cohesive visitor experience, all interpretation should relate to this holistic theme.
- **Sub-themes** split the primary theme into several more specific and workable ideas. These broad story lines guide visitors to discover deeper meanings and relationships with the resources of the area.
- **Messages** break down the broad sub-themes into specific, discrete stories that can be told with interpretive media and programming.

PRIMARY THEME

The Loess Hills are a unique landform in the world, born of ice, water, and wind, and covered by a thin blanket of prairie and oak that nurtured ancient cultures, immigrant farmers, and settlements.





A Loess Hills slump

SUB-THEME 1

The Loess Hills originated as “glacial flour” ground from bedrock under the great Pleistocene ice sheets, deposited by meltwater along the Missouri River valley, and then swept by prevailing westerly winds into 60-200 foot dunes stretching 220 miles down the valley.

Messages:

- 1.1 Loess is a word of German origin that is pronounced “luss” (rhymes with bus). It means loose or powdery. Most loess soils contain particles of quartz or other minerals that provide a binding structure in the powdery soil.
- 1.2 Continental glaciers stood just north of Iowa in present-day South Dakota. During warm periods, the sediment-laden meltwater surged down the Missouri River Valley, leaving miles of exposed mudflats.
- 1.3 In winter, these mudflats would dry out and the fine loess silt would be blown by westerly winds into enormous dunes. The coarser grains were deposited as steep ridges near the river, while finer silt blew farther east and formed gently rolling hills.
- 1.4 This cyclic deposition of loess continued for tens of thousands of years, resulting in some dunes reaching heights of 200 feet and higher.
- 1.5 The Loess Hills are comprised of three major layers. From oldest to youngest, the layers are known as the Loveland Loess, (160,000 to 120,000 years old), the Pisgah Loess (31,000 to 25,000 years old), and the Peoria Loess (25,000-12,500 years old).
- 1.6 The consistent depth and dramatic contrast between the eroding loess bluffs and the river valley make Iowa’s Loess Hills a globally significant geologic feature comparable to the region of Shaanxi, China.

- 1.7 Loess is a generally productive soil for farming and is a common soil type throughout North America. However, it is usually found in thin layers in a soil profile, unlike in Iowa's Loess Hills.
- 1.8 The unique character of the Loess Hills is largely due to their erodibility. The narrow, snakelike ridge of the bluff crests are comprised of alternating peaks and saddles. Steep slopes are prone to slumping into staircase-like steps that are known as "cat-steps."
- 1.9 Loess soil can form vertical cliff faces, as seen in many road cuts. The angular grains cling together, allowing water and people to carve vertical walls that don't slump or slide for years.
- 1.10 The Loess Hills are delicate. They are prone to erosion when native-grass cover is removed. Terracing and contour farming are important conservation practices.



Road cut on Olive Avenue off the Preparation Loop near Moorhead in Monona County.

References

- "Geology of the Loess Hills, Iowa," U.S. Geological Survey.



Lead plant in mid-summer at Hitchcock Nature Center.

SUB-THEME 2

The undulating topography of the Loess Hills harbors a rich assemblage of prairie and oak savanna communities with many rare plant and animal species.

Messages:

- 2.1 Approximately 35,000 acres of warm-season prairie grassland remain or have been restored in the Loess Hills region, representing 50 to 75 percent of Iowa's remaining prairie heritage, according to the Loess Hills Alliance.
- 2.2 The Loess Hills harbor about 700 species of herbaceous (non-woody) plants, which is more than a third of all Iowa species.
- 2.3 The Loess Hills contain 96 species that are listed by the state of Iowa as threatened, endangered, of special concern, or as species that are on the edge of their ecological range.
- 2.4 The Loess Hills contain the greatest concentration of state-listed species in Iowa (threatened, endangered etc.). The extensive prairie and rugged topography provide diverse ecological habitat.
- 2.5 Bur-oak savanna communities are rare forest/prairie transitions where a few large trees are found within a grass-dominated environment. Rare elsewhere, they are abundant in the Loess Hills.
- 2.6 Loess Hills prairies require periodic fires to remain healthy. Controlled burns are needed to push back invading shrubs and trees that can shade out sun-loving prairie and savanna plants.
- 2.7 Prairies grow well and serve to protect steep, dry slopes from erosion. South- and west-facing slopes that face prevailing winds and hot sunlight are ideal areas for prairies.
- 2.8 Some western species, rare in the rest of Iowa, thrive in the grasslands of the Loess Hills. Great Plains skinks, prairie rattlesnakes, and pocket mice are all found here. Bison have been reintroduced in some

areas to replicate the conditions essential to maintaining balanced prairie ecosystems.

- 2.9 Prairies produce a calendar of changing colors as a diversity of flowers bloom throughout the seasons. Low plants like pasque flowers hug the warm earth in early spring, while tall goldenrods and asters sway in cool autumn winds.
- 2.10 Plants that are common 100 miles west in the Nebraska Sandhills thrive on the tops of bluffs here in the northern Loess Hills. Yucca, cowboy's delight, and ten-petal blazing star are common here but are absent in the rest of Iowa.
- 2.11 Prevailing westerly winds sweep across the Missouri River Valley and rise up over the bluff faces of the Loess Hills, providing a migratory flyway for soaring raptors like hawks.
- 2.12 Every year, from September through December, birds-of-prey enthusiasts gather at Hitchcock Nature Center as part of their "Hawk Watch" program to observe and count thousands of eagles, hawks, and other raptors as they migrate south.

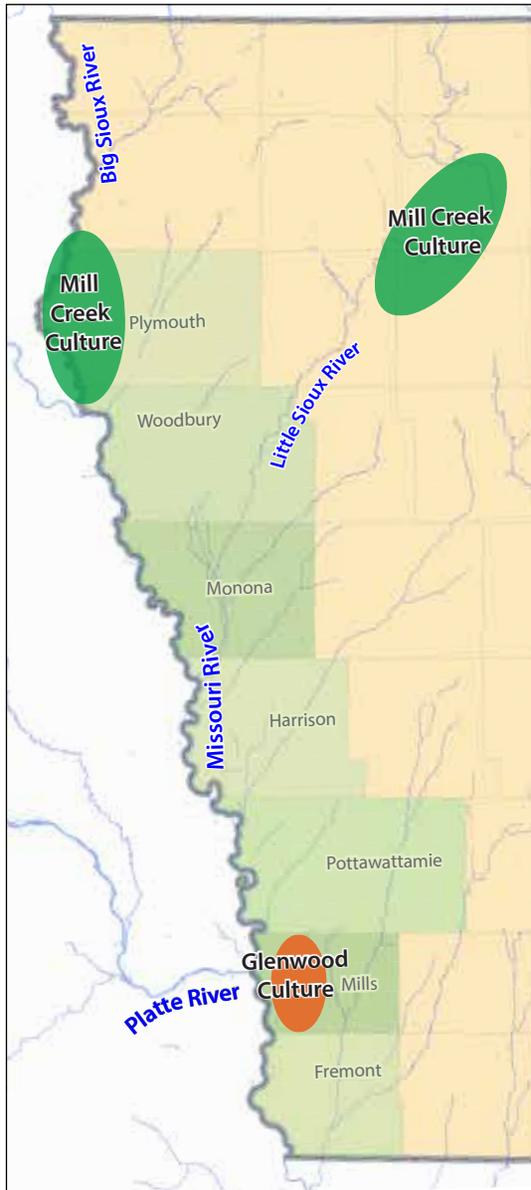


Black swallowtail on blazing star flower at Hitchcock Nature Center.

References

- *The Loess Hills of Western Iowa: Common Vision and Comprehensive Plan 2011*, Loess Hills Alliance
- Pottawattamie County Conservation

Prehistoric Cultures in the Loess Hills



SUB-THEME 3

People have been attracted to the Loess Hills for millennia, drawn by abundant game, rich soils for agriculture, high ground for dwellings, and waterways for transportation.

Messages:

- 3.1 The Loess Hills harbor abundant evidence of a rich archaeological past. The southern Loess Hills possess more than 1,000 Late Prehistoric **Glenwood** earth lodges, while in the north there are documented sites of palisaded **Mill Creek** villages and cornfields.
- 3.2 There is archaeological evidence of settlement by Great Plains people inhabiting the Loess Hills between 1100 and 1300 A.D.
- 3.3 The earth lodge is a quintessential symbol of the ancestral plains dwellers, who were the first agricultural, sedentary-based cultures in North America.
- 3.4 The prehistoric settlements are associated with the confluence of major rivers. The Big Sioux and Missouri rivers were home to the Mill Creek Culture, while

the Glenwood earth lodges are primarily found in a 10-mile arc from the confluence of the Platte and Missouri rivers.

- 3.5 Both the Glenwood and the Mill Creek cultures raised domestic plants such as sunflowers, elderberries, and tobacco, but each practiced unique farming techniques and utilized different resources.
 - 3.5.1 The Mill Creek people grew corn and a variety of other plants in a mound or ridge system of fields. Bone evidence indicates that they hunted bison frequently.
 - 3.5.2 The Mill Creek people planted large fields of raised-ridge corn crops. The Litka and Double Ditch Mill Creek sites in O'Brien County just north of the Loess Hills hold evidence of these fields.

- 3.5.3 There is evidence to suggest that the Glenwood Culture slashed and burned areas in preparation for planting and that these areas were allowed to lie fallow for years between use.
- 3.5.4 Archaeological artifacts suggest that Glenwood people depended on small mammals and fish for protein more than on large-game animals. There is speculation that large game had been depleted. Corn and cultivated crops provided more than half their calories.
- 3.6 Glenwood lodges were unfortified and pre-date the fortified Mill Creek lodges.
- 3.7 Mill Creek and Glenwood people traded with the Mississippian people who lived hundreds of miles downstream and east of them. Artifacts in the village sites document this exchange of goods.
- 3.8 Recent evidence, including earth lodges, indicate that there is a continuity between today's Plains tribes and these earlier cultures.

- 3.9 The oldest human remains found in Iowa were discovered in 1956 in the form of four 5,000-year-old skeletons at Turin, Iowa, in the Loess Hills. They are known collectively as "Turin Man."
- 3.10 These Turin skeletons date from the Middle Archaic cultural period, a time when people were less nomadic and could survive on local resources and live in a village much of the time.

References

- *The Immense Journey: Loess Hills Cultural Resources Study*, Golden Hills Resource Conservation and Development, 2010
- Visitloesshills.org



State Archaeologist, University of Iowa

Mill Creek Village illustration.



State Archaeologist, University of Iowa

Microphotography image of a prehistoric Mill Creek ridged field.



Lewis and Clark Interpretive Center exhibit, Sioux City.

SUB-THEME 4

Western Iowa and the Loess Hills were the hub of historic overland and river trails that chronicle the westward expansion of the nation.

Messages:

- 4.1 The Corps of Discovery, known as the Lewis and Clark Expedition, explored the first land route to the Pacific Ocean in 1804-1806. The Corps traveled through the Loess Hills and the Missouri River Valley, burying Sgt. Floyd, the only member who died on the expedition.
- 4.2 Many of the westward immigrant trails followed the same network of river routes that originated in the Missouri River Valley. By the 1850s, steamboats transported many more immigrants upriver to Council Bluffs rather than downriver, where fighting in "Bleeding Kansas" made travel more difficult.
- 4.3 Westward wagon trains became common by 1843, and reached a climax with the inception of the Mormon Trail in 1846 and the California Gold Rush in 1849-50.
- 4.4 The largest migration in American history occurred between the 1840s and the 1870s, as caravans of ox carts and covered wagons filed west from the Missouri River. It is estimated that up to a half a million people set out to the frontier during that time. By 1869, the transcontinental railroad provided a faster, safer mode of travel.
- 4.5 It is estimated that between 9,700 and 21,000 immigrants died on the trail from various causes associated with the hardships of the journey.
- 4.6 There were several Oregon Trail starting points on the Missouri River, including Council Bluffs. By the 1850s, travelers began to use the northern migration route in Council Bluffs to avoid the fighting between pro- and anti-slavery factions in "Bleeding Kansas." By the 1860s, virtually all migration wagon trains were originating here.

- 4.7 Mormons fleeing the violence of Nauvoo, Illinois, in 1846, found winter shelter in western Iowa along the Missouri River near present-day Council Bluffs at a site called Miller's Hollow.
- 4.8 The Missouri River Mormon settlement was soon named Kanesville in honor of military officer Thomas Kane, who helped the Mormons immigrate to the west. By 1852, the town was renamed Council Bluffs.
- 4.9 Council Bluffs grew into a major supply site for Mormon "companies" requiring outfitting for the long westward journey. There were at least 10 handcart companies in business between from 1856 to 1860.

4.10 A number of Mormon families remained in the Loess Hills of Iowa, where many descendants still reside. One of the largest communities in 1856 was a settlement named Preparation near present-day Preparation Canyon State Park. A charismatic leader broke from the wagon train to Utah and led 60 families to Preparation as their "school of preparation for the life beyond." The leader, Charles B. Thompson, convinced the settlers that a "spirit message" he received required the settlers to turn over all of their possessions to him. Believing this, the people turned over their deeds and possessions as demanded. Then quite wealthy, Thompson taught his followers to call him "Father Ephraim," a Biblical name. Soon the people realized that Thompson was a charlatan and demanded their possessions be returned. He refused. A lynch mob came after Thompson, who escaped by hiding in a friend's attic and then fled the state. Disillusioned, many settlers headed for Utah. The Iowa Supreme Court divided the land among the remaining families and the town of Preparation briefly thrived.



Kanesville Tabernacle in Council Bluffs.



Mormon pioneers traveling with handcarts through Iowa.
Illustration from "History of Iowa From the Earliest Times to the Beginning of the Twentieth Century, Volume 1."



Todd House, Tabor.

4.11 The Iowa Freedom Trail and John Brown Freedom Trail mark the route of the Underground Railroad through the Loess Hills on their way to Chicago and freedom. The Kansas struggle from 1854 to the Civil War over whether that state would be slave or free drew abolitionist settlements in western Iowa into direct conflict with slave owners in Missouri, Kansas, and Nebraska.

There, Free State forces led by John Brown into Kansas found shelter and aid by residents of Civil Bend and Tabor. With the help of Ira D. Blanchard and others, slaves found a passage north to freedom on the loosely organized Underground Railroad.

- 4.12 The Blanchard home site and cemetery in the former town of Civil Bend and the Todd House and other sites in Tabor are tangible connections to the struggle for freedom.
- 4.13 In 1859, the future chief engineer of the transcontinental railroad met with future president Abraham Lincoln and discussed the benefits of routing the railroad west from Council Bluffs along the Platte River Valley.
- 4.14 In 1862, Congress passed and President Lincoln signed the Pacific Railroad Act, which designated Council Bluffs as the eastern terminus of the transcontinental railroad.
- 4.15 The Lincoln Highway, dedicated in 1913, was the first coast-to-coast automobile road in North America. It passed through the Loess Hills and Council Bluffs on its route from Times Square in New York to Lincoln Park in San Francisco.

4.16 In 1956, Interstate 80 became the latest east-west roadway across the center of the United States. It basically replaced the Lincoln Highway and the other significant routes of the railroad, the wagon trails like the Oregon and parts of the California Trail.

References

- “Mormon Migration,” Brigham Young University, retrieved from <http://mormonmigration.lib.byu.edu/>
- “Lewis and Clark,” National Geographic, retrieved from <http://www.nationalgeographic.com/lewisandclark/>
- Tabor Historical Society, taboriowahistoricalsociety.org
- “Transcontinental Railroad,” History Channel, retrieved from <http://www.history.com/topics/inventions/transcontinental-railroad>



A pylon was erected in July 1911 to commemorate the site where Abraham Lincoln visited Council Bluffs in 1859. Later, as president, he selected the city as the eastern terminus of the first transcontinental railroad.



Rows of aronia bushes at Sawmill Hollow Family Farm.

SUB-THEME 5

The Loess Hills agricultural heritage began with the earth lodge people 1,000 years ago and evolved to the agricultural systems of today.

Messages:

- 5.1 The first evidence of farming in the Loess Hills was by earth lodge dwellers between the 10th and 14th centuries.
- 5.2 The steep ridges and powdery loess soil are subject to erosion and require non-traditional farming practices to remain productive. Soil-conservation practices such as terracing, contour-crop design, and minimal-till practices help limit erosion.
- 5.3 Today, Loess Hills farmers plant crops on gentle slopes and flat areas while utilizing hillsides as grazing pastures. Overgrazing remains a problem in many areas. Rotational grazing is a sustainable practice that replicates the feeding habits of the bison that evolved with this prairie ecosystem.

- 5.4 Today's Loess Hills agriculture includes specialty products such as fruit orchards, vineyards, aronia berry farms, and family-scale niche crops that have implications for tourism and local markets.

References

- "Farming in the Loess Hills," Iowa Public Television, retrieved from http://www.iptv.org/exploremore/land/features/fe_farmingLH.cfm



Lining up for apples at Small's Fruit Farm.



A cattle farm along the byway..



Contour farming and terraces.



Grape vines at Sugar Clay Winery and Vineyards, Thurman.



Loess Hills Hospitality Association, based in a former one-room schoolhouse.



Ingemann Lutheran Church, Moorhead.

SUB-THEME 6

The sense of place on the Loess Hills National Scenic Byway is embodied in historic villages, country schools, churches, and farms set in an exaggerated peak and saddle topography that is covered in prairie, forests, and contoured farm fields.

Messages:

- 6.1 “To anyone traveling pre-World War II rural Iowa, the country school was a familiar sight. Solitary yet reassuring, the country school marked the center of rural neighborhoods, gave identity to the community, and displayed commitment to the education of future generations. Unpretentious, like the farm families it served, the country school represented the essence of rural Iowa.” —*Country Schools for Iowa*, the State Historical Society of Iowa
- 6.2 Restored country schools on the byway can be viewed at several locations, including Mann School #2 in Monona County, the Loess Hills Hospitality Association Visitor Center in Moorhead, and the Hunter School near Tabor.
- 6.3 Among the first structures built by European settlers were country churches and cemeteries. Many of these stand as testament to their religious and ethnic origins and speak to the hardships these settlers endured.
- 6.4 Ingemann Lutheran Church near Moorhead, which was built in 1884 by Danish immigrant farmers, is open to tourists. A walk through the cemetery connects you to pioneers and their stories, including the Peter Johnson family, who lost eight children to diphtheria.
- 6.5 Salem Lutheran Church in Mills County was built in 1867 by German immigrants. It is one of the oldest buildings in western Iowa.
- 6.6 Old barns, windmills, and farmhouses document a

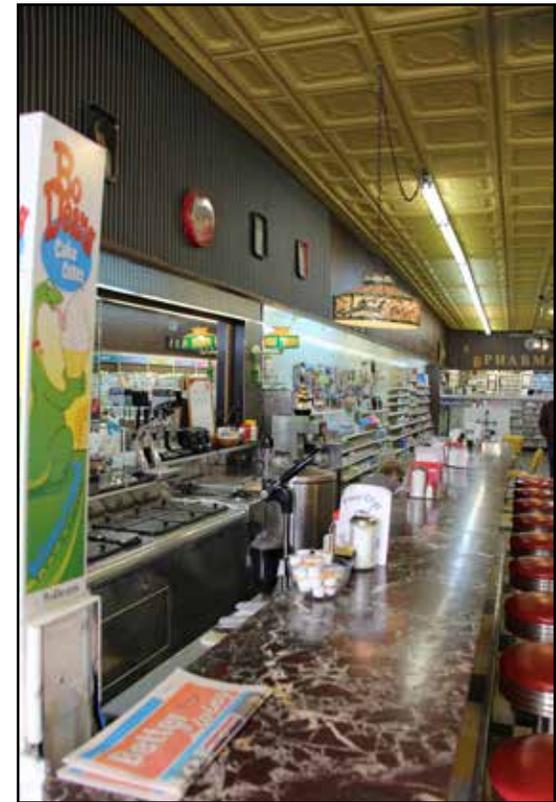
disappearing way of life in rural Iowa. They are a link to the time when farms, usually a quarter section of land, were a family endeavor, with family members tending livestock and crops and participating in a rural community centered on neighbors, church, school, and small towns.

- 6.7 The terraced and contoured farmland contrasts elegantly with the prairie- and forest-covered landscapes and provide sweeping views of people interacting with nature, engendering a sense of place. *“But what does a sense of place mean? Place, as it has been explained in philosophy or architectural history, does not occur naturally but implies a human presence. Places, even imaginary ones, are locations or things that have been made meaningful by people. But the relationship between people and place is not one-sided. Places can be said to influence us, grounding our sense of identity and experience of our surroundings, as much as we help determine them. Humanized and humanizing, places are inextricably bound to our being and how we engage with the world.”* Essay—*The making of place: David Plowden’s Iowa* by Rima Girnius

- 6.8 Small farms producing wine, lavender, aronia, and other niche crops are scattered throughout the byway and beckon byway travelers to stop and indulge in some of the “fruits of the byway.” They are a philosophical connection to self-sustaining farms of the past.
- 6.9 The byway traverses seven counties, with their county seat towns centered on the courthouse. Many of these towns boast grand architecture with several structures on the National Register of Historic Places.
- 6.10 Small villages reflect the rural charm of the byway with their small-town atmosphere and friendly residents.

References

- State Historical Society of Iowa



Penn Drug lunch counter, Sidney.

CHAPTER 6

INTERPRETIVE MEDIA

Interpretive panel at the Loess Hills State Forest Overlook.





The Southern Loess Hills Interpretive and Welcome Center features many exhibits that help visitors better understand the formation of the Loess Hills.

INTERPRETIVE MEDIA

Heritage interpretation is a communication process that guides visitors in their search for meanings in objects, places, and landscapes.

The Loess Hills National Scenic Byway has a rich natural and cultural heritage. The meanings that can be communicated to visitors are expressed in greater detail in Chapter 5: Themes and Messages. The techniques used to communicate interpretive messages to byway visitors are referred to as interpretive media.

Well-planned interpretive media can open windows of revelation to visitors who seek to find their own personal

connections and meanings in these resources. Part of the joy and reward in traveling a beautiful scenic byway is the sense of discovery in exploring a new and exciting place and the feeling of growing emotionally and intellectually in the process of this discovery.

Interpretive media takes many forms. Wayside exhibits, trail signs, brochures, websites, audio tours, apps, and visitor center exhibits are some of the ways we attempt to help visitors find their way and enjoy their experiences. Visitors' lives are enriched as they discover their own meanings regarding these resources.



Wayside panels in Turin tell the story of the importance of the 5,000-year-old skeletons discovered nearby in the Loess Hills.

BUILD ON THE LOESS HILLS' SENSE OF PLACE

Iowa's Loess Hills have been marketed as a truly unique landform in the world. It is often noted that the only other loess landform of comparison size is in China. While this is mildly overstated and simplistic, it demonstrates the success of earlier campaigns to celebrate the significance of the landform and its nationally important status.

The Loess Hills exhibit a powerful sense of place. The following are a partial list of core elements that help define the hills as a distinct entity. Some of these qualities can be easily overlooked when designing media but are an important part of the visitor experience.

- The eroded faces of the western bluffs create a dramatic contrast between the hills and the long views of the flat Missouri River bottom lands.
- Serpentine ridges with narrow peaks and saddles are thinly blanketed with prairie and woods that cover the prehistoric dunes.
- Quiet, remote nature preserves lure even hesitant hikers to enjoy the peace and tranquility of a prairie-cloaked ridge and to catch commanding views of distant valleys.

- Gravel loop roads offer a unique experience as they traverse through vertical road cuts and past isolated farmsteads and sunny, windswept rural vistas.
- The byway spine is punctuated with quiet villages nestled into loess valleys.

This sense of place must be reflected in the design of all interpretive media.



Fremont County Courthouse in Sidney.

Sylvan Runkel State Preserve.





A Loess Hills interpretive panel at the Information Pavilion in Akron.

PLAN MEDIA HOLISTICALLY

A trip through the Loess Hills is an opportunity to discover meaningful cause and effect relationships between natural and cultural events that have influenced the land and people. While most visitors enjoy their casual journey, many more appreciate understanding the forces and stories that create the sense of place found in the Loess Hills.

By their physical presence, signs and structures and other media along a roadway command attention. They offer immediate information and orientation. Several things should be considered

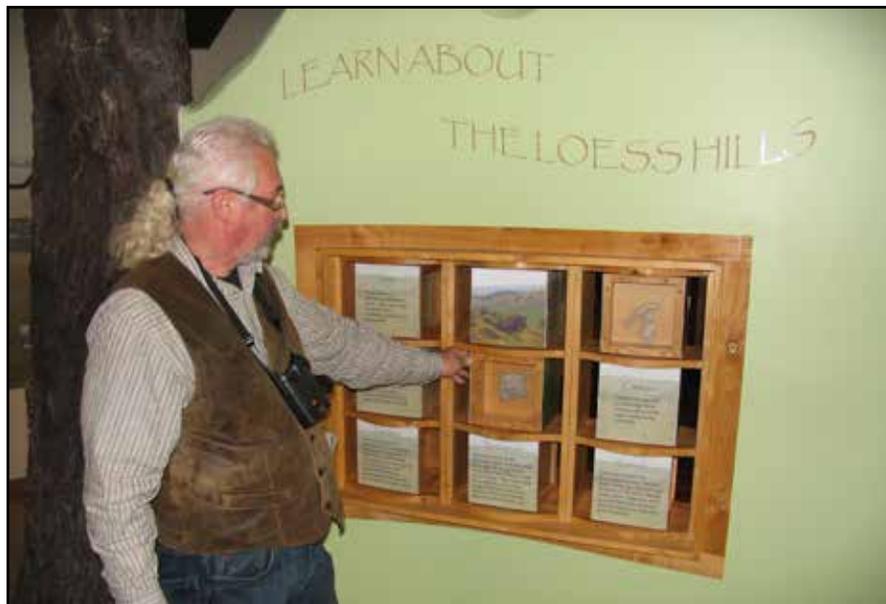
in order to develop a comprehensive approach to media:

Brand and Unify the Experience:

Visually coordinate the color palette, type fonts, and other design elements to create immediate recognition by travelers. All media should be cross-referenced so a reader can access information that will connect them to related stories, resources, and media. For instance, paper publications should direct readers to websites, wayside exhibits, and audio tours.

Diversify Delivery Techniques: Multiple delivery approaches are required to communicate successfully with travelers of many ages, interests, backgrounds, and motivations. Weather and seasons require that alternative forms of media be offered.

Be Accessible: To communicate with the greatest number of people possible, incorporate a full spectrum of learning styles such as auditory, visual, and tactile. Media should be developed to connect with a variety of travelers including tourists, bus tours, resident commuters, and families.



Loess Hills exhibits at Hitchcock Nature Center, Honey Creek.

PREPARE THE TRAVELER

Some of the challenges of organizing traveler experiences and creating an understanding of the byway include the route's rather long corridor with countless entry and exit points. This challenge is further compounded by the multiple loops that are available. Visual repetition and unity on signs and interpretive media can help orient and guide visitors along the entire route.

Travelers' expectations need to be set before they head out on braided roadway loops. There is a stark contrast between a paved highway with wide shoulders and graceful curves and a "rock road" where narrow eroded loess walls enclose the roadway and prairie grass creeps up from the ditches. While the gravel roads invite a leisurely speed, they also puncture tires, chip paint, and intimidate some travelers.

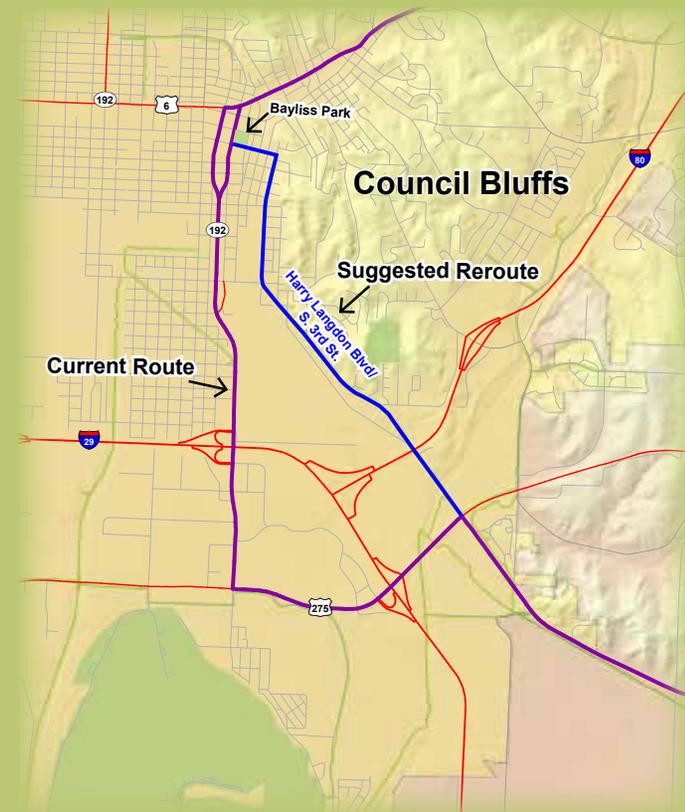
Prepare travelers for loops. There are equally rewarding but contrasting experiences of driving the main route or meandering along the more intimate but challenging gravel roads on loops. This disclosure should be repeated in all forms of communications such as websites, brochures, and signage.

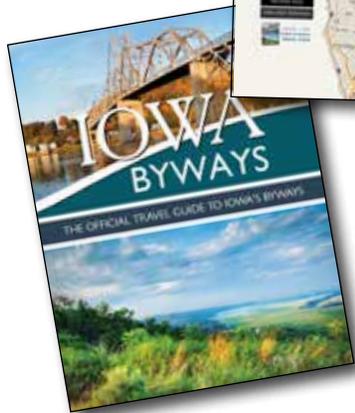
The other striking contrast on this byway is the difference between the restful, rural countryside and the fast pace of urban centers such as Council Bluffs and Sioux City. It can be disconcerting to the

traveler to be directed from a meandering country lane into surging freeway traffic. Visitors need to be prepared to fully embrace the experience.

Alternate route through Council Bluffs

An alternate byway route through south Council Bluffs would avoid congested traffic areas and commercial development. Use Harry Langdon Boulevard when entering the downtown Council Bluffs area instead of turning west off Wabash Avenue onto Highway 92, going over I-29, and then taking a rather abrupt and easily missed turn north on S. Expressway Street to the downtown area. The proposed route offers a gentler entry into the downtown area and stays closer to the Loess Hills, the main attraction of the byway.





Following a set of design guidelines, as has already been done for the Iowa Byways, creates a family of media that is instantly recognizable as belonging to the state's scenic routes.

CREATE A DISTINCTIVE VISUAL IDENTITY

The complex landscape of any road corridor has conflicting visual components that distract travelers from the byway experience. To be successful, interpretive efforts should capitalize on the recognizable icons and strong features of the area's sense of place.

The colors and curves of the media graphics, the selected construction materials, and even the type fonts of the messages need to be unified to each other and reflect the character of the ridges, valleys, and villages of the byway (See "Unified Design Standards"). What may seem like redundant design elements to the planning team will be reassuringly

familiar to a byway traveler.

The Iowa Department of Transportation already has developed a strong identity for the Loess Hills National Scenic Byway and the Iowa Byways program. New road signs installed a few years ago are unified across the state in their artistic style. An accompanying Iowa Byways guide creates a unified family of byways. The website follows with the same look, reassuring travelers that the Iowa Byways program is well planned and executed. The media recommendations that follow aim to build on the pre-existing design work to further the byway's interpretive goals.

Visual Identity Through Design

- The colors used on the byway logo should serve as the palette for other media.
- The Loess Hills and Iowa Byways logos should be replicated on all publications, interpretive signs, and online media for optimal exposure and recognition.
- Apply unified design standards for all frames and supports for signs, hubs, and wayside exhibits.
- Apply consistent graphic elements such as type style and sizes, color palette, and artistic approaches.

Unified Design Standards

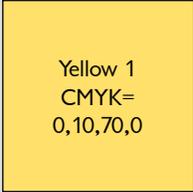
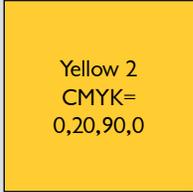
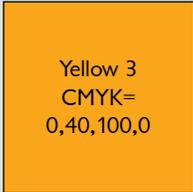
To increase recognition and to provide a more cohesive experience for travelers, all media should be graphically and visually unified. The use of unified and repeated colors, fonts, logos, and other graphic elements will combine media into a “family” of recognizable byway features. The following suggestions should be considered in the design of future media.

Color Palette

A standard set of colors unites media, highlights important messages, and evokes feelings about a site or an organization.

In 2010, the Iowa Department of Transportation Office of Media and Marketing established logos and color palettes for all Iowa byways and for the overall Iowa Byways brand. Brand descriptions and regulations are described in the “Iowa Byways Brand Guidelines” documents prepared for each byway. “The brand is ultimately the program’s public identity intended to create awareness of the program and its benefits and to encourage and enhance the visitor’s experience on Iowa’s scenic byways,” according to the document.

Loess Hills National Scenic Byway Color Palette

 <p>Blue CMYK= 100,60,0,0</p>	 <p>Green CMYK= 80,60,100,0</p>	 <p>Yellow 1 CMYK= 0,10,70,0</p>	 <p>Yellow 2 CMYK= 0,20,90,0</p>	 <p>Yellow 3 CMYK= 0,40,100,0</p>
Semi-transparent backgrounds with a gradient.	Tint boxes, sub-message titles.	Curved header.	Alternative option for headers, tint boxes.	Alternative option for headers, tint boxes.
 <p>Yellow 4 CMYK= 20,50,100,0</p>	 <p>Dark Red CMYK= 70,90,100,0</p>	 <p>Black CMYK= 0,0,0,100</p>	 <p>White CMYK= 0,0,0,0</p>	
Curved header, tint boxes.	Curved header, titles, and subtitles.	Lettering on large blocks of text over light backgrounds.	Text over dark backgrounds, picture borders.	

The color palette established as part of the logo designs should be repeated in byway media. The four shades of yellow and the dark red reflect the colors of the loess soil itself and the subtle hue differences in prairie landscapes. The green represents the forested hills, while the vibrant blue highlights the contrast between the landscape and the color of the sky on a clear day.

Recommended Typography

CHELTENHAM BT

Main titles and headings

Brushtiptravis

*Headings and subheadings,
handwriting (quotes, photos)*

Garrison Sans

Main text

Garrison Sans Italic

Photo captions

Garrison Sans Italic

Photo credits

Typography

The design and selection of letter forms creates the personality and readability of blocks of type on interpretive media. Each typeface expresses personality and sets a tone that reflects the organization or the message that is being interpreted, so it should be selected purposefully.

Combinations of various styles can add an interesting hierarchy to the media design and help create specific personalities for each message. Fonts can appear lighthearted and fun, informal, businesslike, old-fashioned, rustic, or legalistic. They can seem difficult to wade through or look easy to read.

Stylized fonts attract attention for titles and short headings but can be burdensome to read in longer texts.

On the Iowa Byways logo, the typeface for “IOWA” is a derivation of Cheltenham BT set in all caps. The original typeface was manipulated to blend with the abstract graphic representations of hills and valleys. The recommended font for main titles and headings on Loess Hills National Scenic Byway media is **Cheltenham BT Bold**, evoking the timeless nature of the Loess Hills and creating consistency between media.

Brushtiptravis is an informal script

font that provides contrast to the more formal Cheltenham BT. It serves a similar purpose as the script font used alongside the curving line on each page of the Iowa Byways guide. The Loess Hills guidebook pages say, “Shaped by Nature” and “Touched by Beauty” in a white script font. These types of fonts welcome viewers and invite them to explore interpretive media. Brushtiptravis is recommended for some headings such as on wayside exhibits, for subheadings, and to emulate handwriting. It can add style to photographs or quotes where handwritten messages may be appropriate.

Simple, familiar fonts work best for longer texts that require more reading. **Garrison Sans Regular** is recommended for the main text on Loess Hills media. Garrison Sans is used in the Iowa Byways publication, and it is also similar to Gill Sans, which is the font used on the byway logos. It is a sans serif font that is easy to read. Garrison Sans also works well for photo captions and credits.

A **hierarchy of type sizes** is also important to emphasize the relative significance of various messages. Typically, a main title is the largest size, followed by subheadings, main text, captions, and credits.

Repeating Graphic Elements

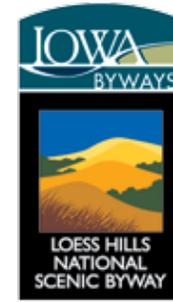
Another important factor that contributes to a unified design style is the use of repeating graphic elements. These elements, in combination with the color and typography schemes, develop a unique identity for the byway.

The Loess Hills National Scenic Byway and Iowa Byways logos are essential graphic elements that should be included on all byway media, from interpretive signs and publications to digital websites and apps. They provide a unified brand for the byway and for the Iowa Byways program.

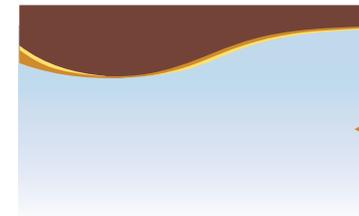
According to the Iowa DOT, “the colors and curves in the Iowa Byways logo are an abstraction of the undulating Iowa landscape. Individual logos for the individual byways in the Iowa Byways program were developed in an intentionally simple graphic style so as to appear as a recognizable and memorable graphic theme, descriptive of the character and experience of the byway, and as a safe and effective wayshowing tool when displayed on signage.”

Other repeated graphic elements on future interpretive media will reinforce the already existing design identity. These may include:

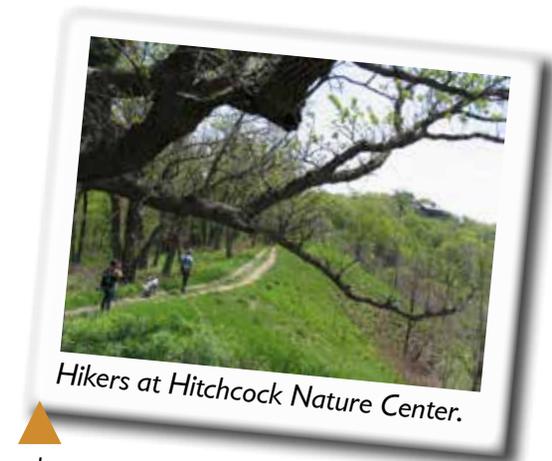
- Curving header bars comprised of gently interwoven contrasting dark, medium, and light colors from the Loess Hills color palette. The curve is reminiscent of the wave pattern in the Iowa byways logo and the overlapping hills in the Loess Hills byway logo.
- Faded light blue backgrounds with a gradient on interpretive media.
- White, snapshot-style borders for photos, with feathered edges, tilted slightly, and with drop shadows.
- Tint boxes with feathered edges, rounded corners, and drop shadows.
- Large focal point images to draw attention.
- Byway website addresses and QR codes that link to the Iowa Byways website.



The Loess Hills and Iowa Byways logos are essential graphics elements to include on all media.



Curved header with faded blue background.



Hikers at Hitchcock Nature Center.

Snapshot photo effect with white feathered borders, caption, tilt, and shadow.



Tint box with feathered edge, rounded corners, and shadow.

INTERPRETIVE EXPERIENCE HUBS

The long, narrow corridor of the Loess Hills Scenic Byway can be accessed at numerous entry points. Therefore, it is important to welcome and orient travelers at various places along the route.

Although visitors rely on GPS or maps to assist them in orientation, kiosk structures—also known as experience hubs—that are easily seen on the landscape are reassuring orientation guides. They have enough mass and character to attract attention and to support the byway identity. Unlike staffed visitor centers, they are available 24 hours a day throughout the year. Experience hubs present an opportunity to introduce the byway to motorists who pass by serendipitously.

Experience hubs orient travelers to the attractions and stories of a byway. They consist of multiple signs that provide maps, information, and interpretation. They should be prominently sited at key byway entry points and at areas of high traveler use such as welcome centers, visitor centers, and significant attractions.

Experience Hub Design

A strong visual identity should be created throughout the byway. The structures and their signage are an opportunity to create an artistic repetition that unifies and identifies the byway experience. The planning team proposes an experience hub design for the Loess Hills National Scenic Byway that represents the undulating landscape of the hills with graceful curves and muted colors that mirror the prairies and wooded ravines. Each kiosk structure should:

- Exhibit a unified design with all other wayside exhibits and interpretive media.
- Reflect regional themes through unique graphics cut into the steel frame and through the messages included on each panel.
- Be highly visible to travelers but not overpower existing agency and site entry signs at welcome centers, parks, and attractions.
- Appear rustic and durable in rural sites but be formal enough to fit into urban settings.

- Appear elegant but be economically produced.
- Be easily replaced, modified, or repaired.
- Be vandal-resistant.
- Provide concise orientation information.
- Provide compelling stories about the surrounding attractions.

Construction elements are stylish yet durable and affordable. Wooden timbers and iron brackets bring a substantial feel and authenticity to the structure. The strong combination of wood and steel appears organic but is vandal-resistant and maintenance-free.

Loess Hills National Scenic Byway Experience Hub Concept Design: Sioux City Region (front view)



Weathering steel filigree can present an ageless look with enough detail to allow symbols and scenes to interpret the stories of the Loess Hills. For example, each of the three byway regions can develop its own design for the curving steel pieces:

- **Sioux City Region:** Bison running and hoof prints are representative of the herd at Broken Kettle Grasslands Preserve and the feel of the west present on this part of the byway.
- **Council Bluffs Region:** Cattle drives, wagon trains, and trains are representative of the “Crossroads of America.”
- **Platte River Region:** Escaping slaves and rodeo riders are representative of the importance of the Underground Railroad and the Tabor stories in this region.

Interpretive Panels

The full-color, high-density laminate panels require minimal attention and are reasonably resistant to damage and vandalism. A 10-year warranty against fading and delaminating is standard with any panel fabricator.

The panels should be dramatic and concise, as viewers generally have a limited amount of time and patience to invest in viewing the hubs. These panels compete for attention with birds singing, fog, rain, sunlight, wind, and traffic sounds. Keeping messages short and exciting and telling the story visually will help grab and keep visitors’ interest.

Each experience hub will contain four interpretive panels (two panels on each side of the structure):

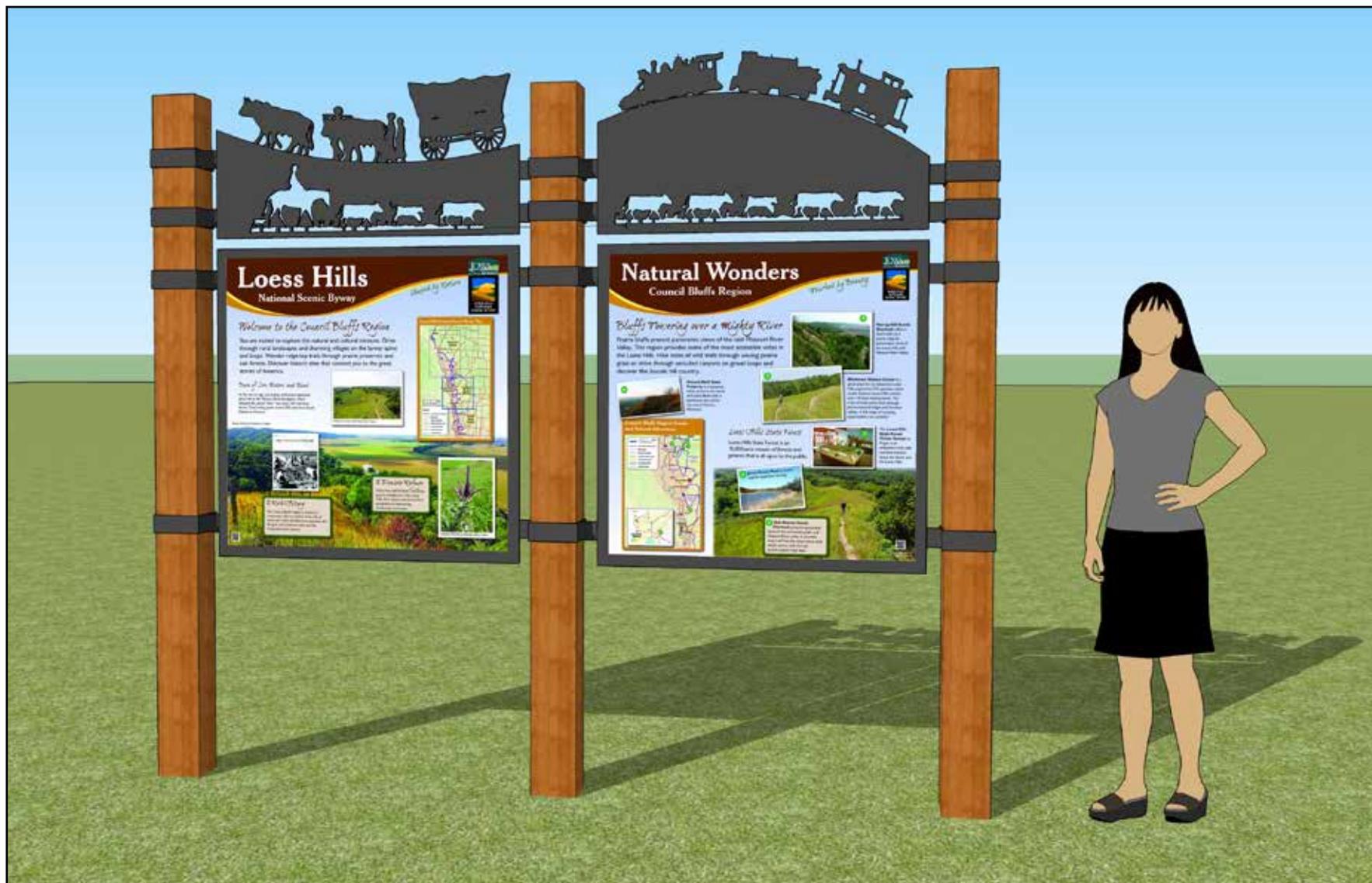
- An **overview map panel** with general information about the Loess Hills National Scenic Byway.
- Three panels to present **regional attractions** with detailed map and description of the core resources that offer travelers the opportunity to explore and experience the intrinsic qualities of the Loess Hills. The “Special Interest Resources” listed for each region in Chapter 4 will be identified on the map but will not be described in detail.

- A **historical and archaeological panel** interprets the significant historical and archaeological stories and events of each region with an accompanying map.
- A **scenic and natural history panel** interprets the geology and natural history themes of the region with a map identifying scenic overlooks and sites (parks, preserves, etc.) where visitors can explore nature.
- A **cultural and recreational panel** that interprets the towns, agriculture, and recreational opportunities in the region.

Experience Hub Concept Design: Sioux City Region
(back view)



Experience Hub Concept Design: Council Bluffs Region (front view)



Experience Hub Concept Design: Platte River Region (front view)



Loess Hills

National Scenic Byway

Shaped by Nature



Welcome to the Council Bluffs Region

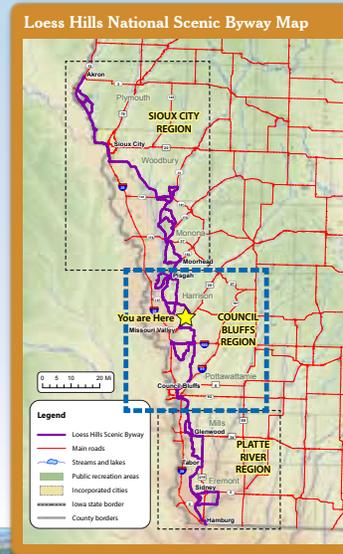
You are invited to explore this natural and cultural treasure. Drive through rural landscapes and charming villages on the byway spine and loops. Wander ridge-top trails through prairie preserves and oak forests. Discover historic sites that connect you to the great stories of America.

Born of Ice, Water, and Wind

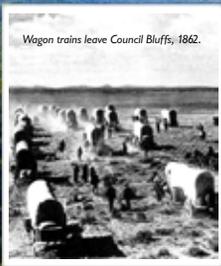
As the last Ice Age was ending, meltwaters deposited glacial silt on the Missouri River floodplain. Wind whipped the glacial "flour" into steep 200 foot loess dunes. These rolling giants stretch 200 miles from South Dakota to Missouri.



Hiking in the Loess Hills State Forest, Pisgah.



Murray Hill Scenic Overlook near Pisgah.



Wagon trains leave Council Bluffs, 1862.

A Rich History

The Council Bluffs region is America's crossroads. Tales are told in these hills of Lewis and Clark, the Mormon migration, the Oregon and California trails, and the transcontinental railroad.

A Prairie Refuge

More than half of Iowa's remaining prairie is sheltered in the Loess Hills. Rare plants and animals find protection in these sunny, wind-swept landscapes.



Leadplant blooming at Hitchcock Nature Center.

Experience Hub Overview Panel Concept Design (Council Bluffs Region)

Each kiosk would include a panel that provides an overview of the region and its unique characteristics. The panel also would include an introduction to the Loess Hills and the byway.

35.5"



35.5"

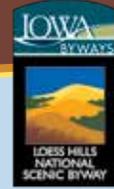
Experience Hub Scenic and Natural Attractions Panel Concept Design (Council Bluffs Region)

The scenic and natural attractions panel would interpret the geological and natural history themes of the region, with a map identifying scenic overlooks and sites such as parks and preserves where visitors can explore nature. The Council Bluffs Region panel features the Loess Hills State Forest, noteworthy scenic overlooks, and other natural sites.

Natural Wonders

Council Bluffs Region

Touched by Beauty



Bluffs Towering over a Mighty River

Prairie bluffs present panoramic views of the vast Missouri River Valley. This region provides some of the most accessible vistas in the Loess Hills. Hike miles of wild trails through waving prairie grass or drive through secluded canyons on gravel loops and discover this bucolic hill country.



Murray Hill Scenic Overlook offers a short walk up a prairie ridge to picturesque views of the Loess Hills and Missouri River Valley.



Hitchcock Nature Center is a great place for an immersive Loess Hills experience. The spacious visitor center features Loess Hills exhibits and a 45-foot viewing tower. Ten miles of trails invite treks through prairie-covered ridges and forested valleys. A full range of camping opportunities are available.



Vincent Bluff State Preserve is a treasured urban prairie in the heart of Council Bluffs with a prominent view of the city and of Omaha, Nebraska.

Council Bluffs Region Scenic and Natural Attractions



Loess Hills State Forest

Loess Hills State Forest is an 11,000-acre mosaic of forests and prairies that is all open to the public.



The Loess Hills State Forest Visitor Center in Pisgah is an orientation hub with excellent exhibits about the forest and the Loess Hills.



Jones Creek Pond provides superb waterfowl viewing.

Oak Avenue Scenic Overlook presents spectacular views of the surrounding hills and Missouri River valley. A one-mile loop trail from the observation deck invites you to walk through prairie-capped ridge tops.

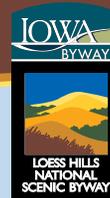


www.iowabyways.org
www.visitloesshills.org

Culture and Recreation

Council Bluffs Region

Shaped by Nature



Artisan Farms of the Loess Hills

The Loess Hills near Council Bluffs are home to several artisan shops, markets, and specialty farm products. These are part of the “Living Loess” tours offered the third Saturday of the month from May to October.

Living Loess Tours



1 Small's Fruit Farm offers over 30 varieties of apples, plus jellies, jams, cider, and pies.



3 Sawmill Hollow Family Farm is the first aronia berry farm in North America. Products include wine and a wide variety of food products from aronia berries.



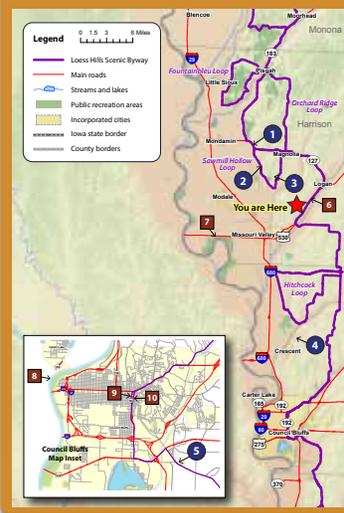
At **Loess Hills Lavender Farm**, pick your own bouquet or visit the sales area to select any number of products created from this mystical herb.



5 Wabash Trace Nature Trail: The Iowa West Foundation Trailhead Park is the starting point for this 62-mile hiking and biking trail that traverses the Loess Hills and continues to Missouri. An equestrian trail parallels the “Trace” for the first nine miles.

www.iowabyways.org
www.visitloesshills.org

Council Bluffs Region Cultural and Recreational Attractions



Special Attractions

- 6 Museum of the Religious Arts** fosters an appreciation for traditional religious arts and history. It features walk-through murals, and displays the paintings of child-prodigy artist Akiane.
- 7 DeSoto National Wildlife Refuge** invites you to tour the wildlife drive or tour the fascinating exhibits about the discovery of the Steamship Bertrand with its trove of 1865 artifacts.
- 8 Tom Hanafan River's Edge Park and Bob Kerry Pedestrian Bridge** invites breezy views of the Missouri River as you stroll from Council Bluffs, Iowa, to Omaha, Nebraska.
- 9 Bayliss Park** is a relaxing location in the heart of town to grab a meal at a restaurant or have a picnic while deciding which local attractions to visit next.
- 10 Historic Squirrel Cage Jail** is an opportunity to tour a three-story revolving jailhouse full of stories of criminals.

Experience Hub Cultural and Recreational Attractions Panel Concept Design (Council Bluffs Region)

The cultural and recreational panel would interpret the towns, agriculture, and recreational opportunities in the region, with an accompanying map. The Council Bluffs Region panel interprets sites on the “Living Loess” tour and various recreational and unique cultural sites.

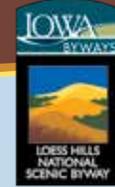
Experience Hub Historic and Archaeological Panel Concept Design (Council Bluffs Region)

The historic and archaeological panel interprets the significant historical and archaeological stories of the region, with an accompanying map showing resource locations. The Council Bluffs Region panel interprets the area's importance in cross-country train and travel routes.

Historical Attractions

Council Bluffs Region

Touched by Beauty



Crossroads of America

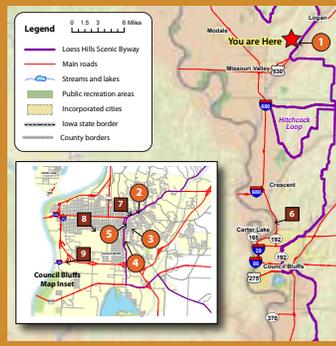
American history comes to life here. Council Bluffs is named for the 1804 meeting between Lewis and Clark and the Otoe tribe on bluffs north of the city. Immigrants on the Mormon, Oregon, and California trails started here for their long trek west. The transcontinental railroad rolled west to its rendezvous in Utah.

Historic General Dodge House was built in 1869 by Civil War general and transcontinental railroad builder Grenville Dodge.



4

Council Bluffs Region Historic Sites



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3

Union Pacific Railroad Museum features an immersive multi-storied exhibition on the building of the transcontinental railroad.



1

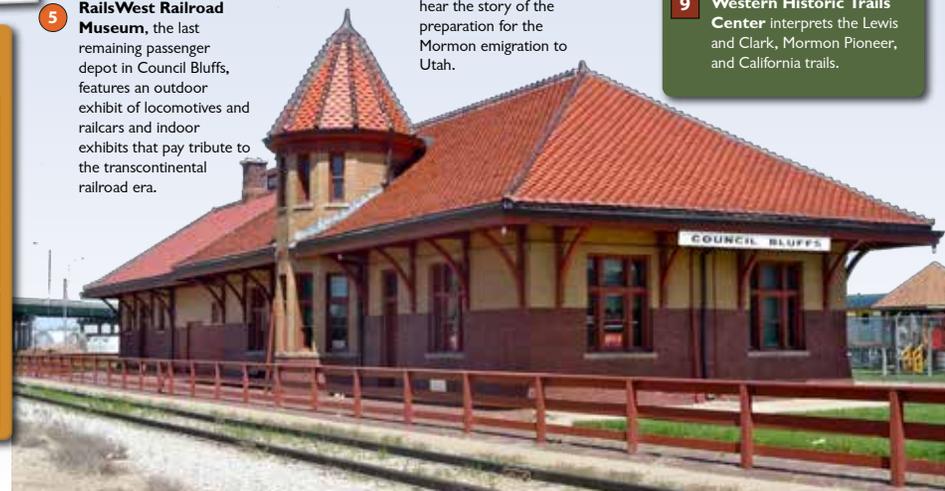
Harrison County Historical Village and Welcome Center: The Lincoln Highway and the Loess Hills and Western Skies scenic byways converge at this popular museum complex, where visitors can explore historic buildings and exhibits.



2

Kanesville Tabernacle is a replica of the original log cabin meeting hall with an adjacent visitor center where you can hear the story of the preparation for the Mormon emigration to Utah.

5 RailsWest Railroad Museum, the last remaining passenger depot in Council Bluffs, features an outdoor exhibit of locomotives and railcars and indoor exhibits that pay tribute to the transcontinental railroad era.



Special Attractions

- 6 Lewis and Clark Monument and Scenic Overlook** honors the 1804 expedition of Lewis and Clark and their historic meeting with Otoe and Missouri tribesmen.
- 7 Lincoln Monument** commemorates where in 1859, Abraham Lincoln along with Grenville M. Dodge decided on the location for the eastern terminus of the nation's first transcontinental railroad.
- 8 Golden Spike Monument**, a 56-foot golden concrete spike, was erected in 1939 with the premiere of the film "Union Pacific."
- 9 Western Historic Trails Center** interprets the Lewis and Clark, Mormon Pioneer, and California trails.



Experience Hub Concept Design at Mile Hill Lake Park

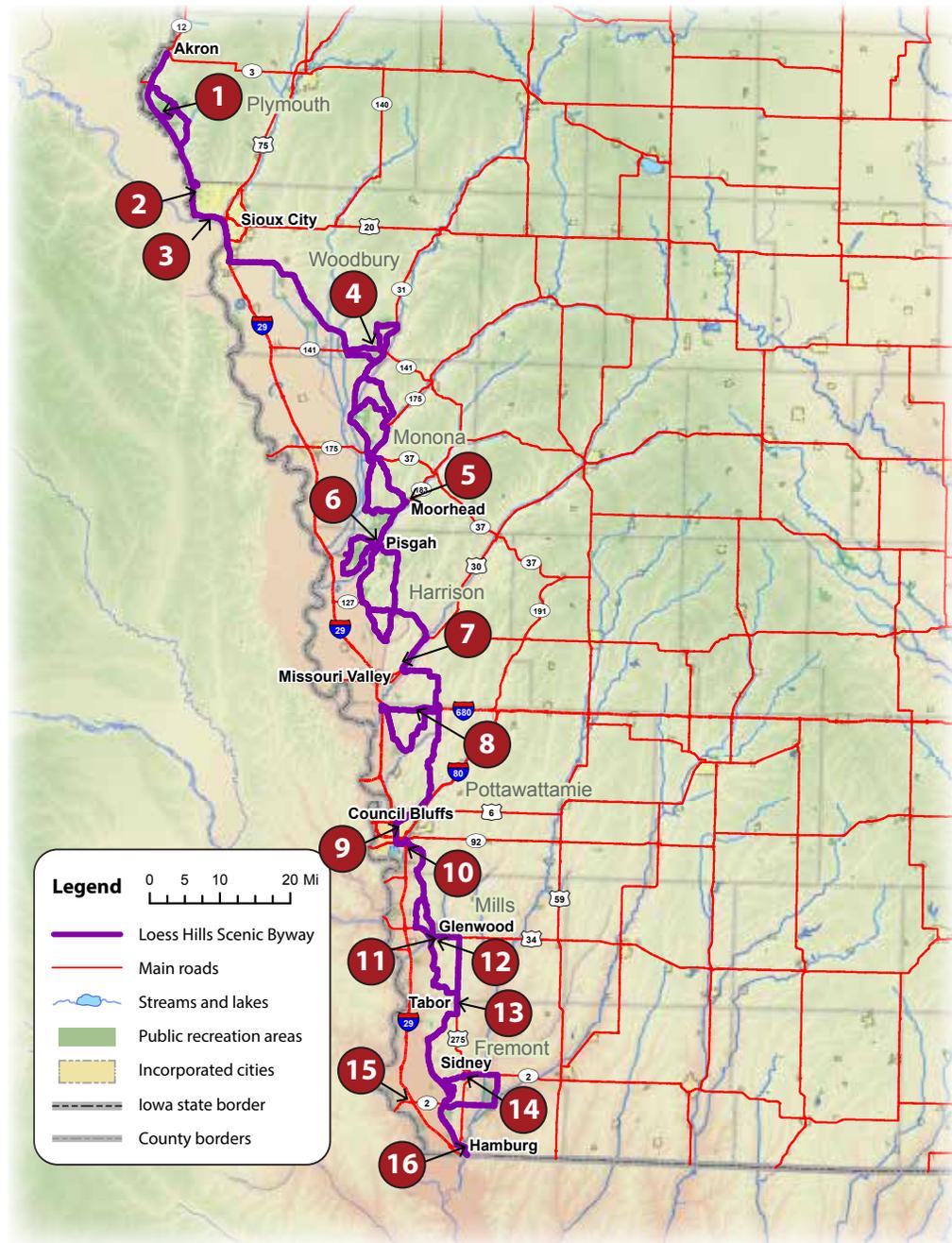
Recommended Experience Hub Sites

There should be an adequate number of experience hubs in each of the three regions to offer orientation for travelers as they explore the region. These hubs and other interpretive media should be dispersed along the route rather than concentrated in a few locations.

These hubs should be placed where travelers already gather—where they look for amenities and at sites where there are significant stories and historic structures, which entice visitors to stop. All communities along the byway should eventually develop interpretive media concerning their unique history and association with the byway. This philosophy of media dispersal is intended to help capture new audiences, such as Iowa commuters and local residents who are potential byway travelers and supporters.

Recommended Sites for Experience Hub Kiosks

- 1 Broken Kettle Grasslands Preserve
- 2 Dorothy Pecaut Nature Center
- 3 Sergeant Floyd River Museum and Welcome Center
- 4 Fowler Forest Preserve
- 5 The Loess Hills Hospitality Association of Moorhead
- 6 Loess Hills State Forest Visitor Center
- 7 Harrison County Historical Village and Iowa Welcome Center
- 8 Honey Creek Scenic Overlook, I-680 westbound
- 9 Bayliss Park
- 10 Wabash Trace Nature Trail and Iowa West Foundation Trailhead Park
- 11 Mile Hill Lake Park
- 12 Glenwood Archaeological State Preserve
- 13 Tabor City Park
- 14 Downtown Sidney
- 15 Southern Loess Hills Interpretive and Welcome Center
- 16 Downtown Hamburg



Sioux City Region (Plymouth, Woodbury and Monona counties)

The three regional-attraction panels would feature the following topics:

Scenic and natural history panel: The region contains the largest Loess Hills preserves on the byway, which welcome visitors to explore this unique Iowa wilderness of prairie- and oak-covered hills.

Historical and archaeological panel: This region is archaeologically significant because of the confluence of the Big Sioux and Missouri rivers that supported the corn fields of the Mill Creek Culture earth-lodge people. It is historically significant as the Sgt. Floyd burial site and for accounts from the Lewis and Clark Expedition.

Cultural and recreational panel: Travelers on the loops are surrounded by terrace and contour agriculture. The region is anchored by Sioux City with its many urban attractions. County and state parks offer many recreational activities.

Recommended Experience Hub Sites

- 1 Broken Kettle Grasslands Preserve**
An experience hub at the Highway 12 entrance would be prominently located on the byway and would provide easy access to travelers. The possibility of seeing bison is a motivation for travelers to stop here.
- 2 Dorothy Pecaut Nature Center**
An experience hub in the parking lot of this popular Sioux City nature center would be viewed by area residents and travelers seeking a natural experience.
- 3 Sergeant Floyd River Museum and Welcome Center**
This center currently has limited information and interpretation about the Loess Hills. This is an ideal kiosk location to introduce the byway to I-29 travelers and Sioux City visitors.

Dorothy Pecaut Nature Center in Sioux City is popular among residents. An experience hub in the entry to the parking lot could interpret the Loess Hills.

4 Fowler Forest Preserve

An experience hub here would capture Highway 141 travelers in the Smithland area because it is a very accessible recreational site right on the byway with good parking and restroom facilities.

5 The Loess Hills Hospitality Association of Moorhead

An experience hub adjacent to the parking area should provide maps and directions to sites in Monona County that are currently difficult to find (Sylvan Runkel, Preparation Canyon, Ingemann Danish Lutheran Church, Mann School). This experience hub will provide information when the visitor center is closed.



Council Bluffs Region (Harrison and Pottawattamie counties)

The three regional-attraction panels would feature the following topics:

Scenic and natural history panel: The Loess Hills State Forest and Hitchcock Nature Center beckon urban residents to explore the ridge-top prairies and wooded valleys.

Historical and archaeological panel: This region was the hub of historic overland and river trails that chronicle the westward expansion of the nation. Here the Loess Hills were traversed by the first transcontinental railroad and the Lincoln Highway. This area bore witness to Lewis and Clark, the great Mormon migration, and Oregon Trail travelers.

Cultural and recreational panel: Artisanal farms and vineyards dot the region, adding to the sense of place. This is celebrated each summer with the “Living Loess” weekend events.

Recommended Experience Hub Sites

6 Loess Hills State Forest Visitor Center

An experience hub could include a brochure rack with maps showing trails and overlooks in the forest. This kiosk would be available when the visitor center is closed.

7 Harrison County Historical Village and Iowa Welcome Center

This busy tourist welcome center has a Loess Hills interpretive pavilion. Kiosk panels could be placed in the pavilion to supplement the generalized information on the existing panels.

8 Honey Creek Scenic Overlook, I-680 westbound

Place an experience hub in the vicinity of the tower and restroom to interpret the Loess Hills for interstate travelers.

9 Bayliss Park

This experience hub will orient visitors to downtown Council Bluffs attractions and provide guidance to the Hitchcock Loop and Ski Hill Loop attractions, especially Hitchcock Nature Center and the Lincoln Highway. This is a highly visible park with adequate parking that is close to major tourist attractions.



View from the scenic overlook on I-680.



Existing interpretive signs at the Harrison County Historical Village and Iowa Welcome Center.

10 Wabash Trace Nature Trail and Iowa West Foundation Trailhead Park

An experience hub on this south-side park will orient visitors to downtown Council Bluffs attractions and the region since it is highly visible, has lots of parking, and attracts recreationists who enjoy byway activities.



Glenwood Archaeological State Preserve parking area.



View from Mile Hill Lake Park overlook.

Platte River Region (Mills and Fremont counties)

The three regional-attraction panels would feature the following topics:

Scenic and natural history panel:

Waubonsie State Park provides some of the greatest vistas from the Loess Hills. The Sunset Ridge Nature Trail highlights the heart of the park and takes visitors through long stretches of pristine hardwood timber, opening suddenly to native prairie ridges that offer sweeping views of the Missouri River Valley.

Historical and archaeological panel:

Archaeologists estimate that as many as 1,000 earth lodge dwellings of the Glenwood Culture once covered the hills and valleys within a 10-mile radius of the confluence of the Platte and Missouri rivers. The Glenwood Archaeological State Preserve protects and will interpret this nationally significant site. The area's proximity to Missouri, Kansas, and Nebraska brought abolitionist communities in direct conflict with slave holders in those states. The John Brown Trail and Iowa Freedom Trail lead through the Loess Hills community of Tabor as a major station on the Underground Railroad. The Sidney Iowa Championship Rodeo operated by

American Legion Post No. 128 since 1923 claims to be Iowa's oldest continuous outdoor rodeo.

Cultural and recreational panel: With the recent addition of the Wa-Shawtee Unit, Waubonsie State Park offers 2,000 acres of diverse recreational opportunities and quiet beauty to enjoy.

Recommended Experience Hub Sites

11 Mile Hill Lake Park

This developed Highway 34 site could be an alternative kiosk location to the Glenwood Archaeological State Preserve one mile east.

12 Glenwood Archaeological State Preserve

An experience hub kiosk that orients visitors to Mills and Fremont County attractions could interpret the Glenwood Culture and the prehistoric and historical significance of the Platte River confluence with the Missouri River four miles west. This is a highly visible parking area in a proposed tourist attraction and is adjacent to the intersection of the Highway 34 byway spine and the Waubonsie Loop.

13 Tabor City Park

An experience hub at Tabor City Park would orient visitors to Mills and Fremont County attractions and provide unifying interpretation about Tabor's historical significance. Include a statue, perhaps inspired by the Underground Railroad Monument in Battle Creek, Michigan, showing a group of slaves holding possessions, one passing a child to a conductor in a wagon.

16 Downtown Hamburg

The byway passes through Hamburg on E Street, then continues to the terminus at the Missouri border, two miles south. A kiosk and mural could be placed at or near the intersection of E Street and Main Street near Stoner Drug, a popular attraction that is marked on I-29. This would introduce the byway to northbound I-29 travelers.



Fremont County Historical Museum, Sidney.

14 Downtown Sidney

The downtown area attracts byway travelers and visitors to the Sidney Rodeo. A kiosk could be placed near the Fremont County Historical Museum, perhaps on the vacant lot on Indiana Street across from the county courthouse.

15 Southern Loess Hills Interpretive and Welcome Center

An experience hub at the Southern Loess Hills Interpretive and Welcome Center would orient visitors to the interpretive resources of Mills and Fremont counties. This could be placed in the southwest corner of the center parking lot, which would add visibility to the center and provide after-hours orientation to the byway.



The Underground Railroad Sculpture in Battle Creek, Michigan, can provide inspiration for a sculpture to accompany an experience hub kiosk in Tabor.



Wayside exhibits, like this one on the Great River Road in Prescott, Wisconsin, connect visitors to site-specific stories.



This wayside exhibit along a trail at Crowley's Ridge Nature Center in Arkansas involves visitors through tactile elements and push-button audio clips of frog calls.

WAYSIDE EXHIBITS

Wayside exhibits are interpretive panels placed along roads and trails to help visitors understand stories and meanings behind a resource or landscape. Photos, illustrations, and concise messages attract and hold a viewer's attention as they learn the stories of a site.

Wayside exhibits are an effective medium to communicate with travelers because they are always available regardless of time of day or weather. When installed next to the objects or sites that they interpret, they can immediately answer a viewer's questions. They are a straightforward, non-intimidating way to connect visitors with significant stories on the byway.

Wayside exhibits can visually convey a byway's personality. Historic photos can show what a place looked like in the past. Wayside exhibits can share site-specific stories of a community, placing them into a broader context and connecting with universal meanings. They can show views from space or magnify tiny objects. They can showcase flowers blooming through a prairie summer or rarely seen wildlife.

Today's technology offers a range of

opportunities to enhance interpretive panels. Panels can be cut into different shapes. Digital audio recordings can be incorporated to add dramatic first-person stories, bird calls, or other audio. Touchable and interactive elements can be affixed to the panels for added visitor involvement. QR codes can connect visitors to websites, video, and audio.

Existing Wayside Panels

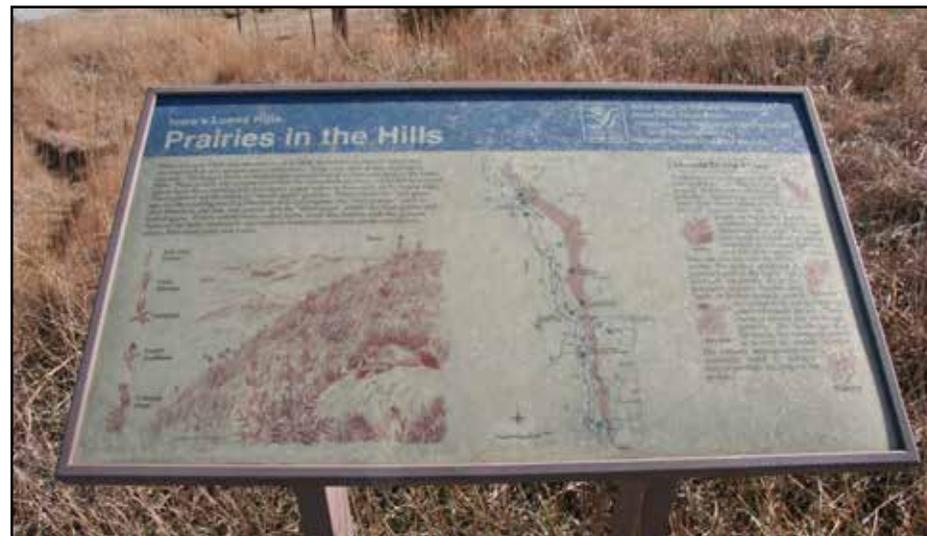
Under the sponsorship and support of the Iowa Department of Natural Resources, the Iowa West Foundation, Golden Hills RC&D, and the Western Iowa Tourism Region, 42 interpretive wayside panels were installed along the byway. The planning team documented panels at nine locations. Two general panels—"Prairies in the Hills" and "An American Treasure"—were repeated at each site. These panels provide an overview of the geological and ecological significance of the Loess Hills. Other site-specific panels interpret Preparation Valley and the Turin archaeological site in Monona County, and the Glenwood Culture in Mills County. In addition, many sites also display Lewis and Clark bicentennial panels.

Recommendations

1. Until replacement panels are available, it is important that the existing fiberglass embedment panels are maintained. Most are weather-checked, faded, and dirty. The manufacturer of these panels, Pannier Graphics, recommends the following:
 - Wash the panel, frame, and base with a mild liquid detergent such as Original Green or Palmolive or other dish soap to remove dirt and debris.
 - Apply a coating of 3M Ultra Performance Paste Wax 09030 after cleaning.
2. Develop panels and frames that apply the new design standards in this plan to replace the “An American Treasure” and the “Prairies in the Hills” panels. The current wayside panels are accurate and well-written. However, the text is longer than travelers are prepared to read. Studies show that visitors prefer concise messages illustrated by visually appealing graphics.
3. Develop additional panels that are site-specific for other locations.



“An American Treasure” panel at Murray Hill Scenic Overlook near Pisgah.



“Prairies in the Hills” panel at Murray Hill Scenic Overlook.

Wayside Exhibit Design Recommendations

New wayside exhibit panels developed for the Loess Hills National Scenic Byway should incorporate the following design elements.

- **Unified design elements:** Structures should match the same style of the experience hubs and site orientation signs so they can be readily identified as part of the byway’s family of signs. This should include:
 - Weathering steel supports with cut-out graphics similar to the experience hubs.
 - Loess Hills and Iowa Byways logos.
 - Replication of colors, font styles, and graphic elements used on experience hub and site-orientation panels.
 - Website addresses and QR codes to connect visitors to online content.
- **Keep messages short:** As a rule of thumb, use no more than 60-70 words for the main message of a panel. See the “Creating an Effective Message” tips in the tint box for more recommendations for interpretive writing.
- **Panel materials:** High-pressure laminate material is a durable plastic material that allows for full-color, high-quality images and text. It is resistant to graffiti and scratches. Fabrication companies typically offer a 10-year warranty against UV fading and delaminating.
- **Size:** Wayside exhibit panels should be large enough to be noticeable and easily read but not too large that they detract from the landscape. A recommended size of 24-by-36 inches will facilitate non-framed and framed support styles.
- **Installation:** Wayside exhibit panels should be installed at a 30 to 45 degree angle to the ground, which offers the best view to a standing person. They should be placed high enough above the ground (a minimum of 30 inches on the lowest edge) to allow a person in a wheelchair to get close.

Creating an Effective Message

1. Communicate visually with photos and graphics.
2. Most visitors will look at an interpretive panel for only a few seconds. Apply the 3-30-3 Rule, a hierarchy that provides 3-second, 30-second and 3-minute message levels.
3. Use simple words, concise sentences, and short paragraphs.
4. Describe with concrete nouns and active verbs. Avoid adverbs and adjectives.
5. Relate to the reader with familiar terms, personal pronouns, metaphors, and quotes.
6. Provide multisensory involvement with tactile and audio devices.

Concept design of "An American Treasure" replacement wayside panel

An American Treasure

Born of Ice, Water, and Wind

Continental glaciers ground bedrock into floury silt. Meltwater deposited these sediments on the Missouri River floodplain for over 150,000 years. Westerly winds whipped the powdery dust into steep loess dunes. The extreme thickness and eroded terrain establish these hills as a gem of nature stretching for 220 miles. Only in China are there loess hills as deep and extensive.



A vertical road cut on Olive Avenue near Preparation Canyon State Park in Monona County.

What's in a Name?

Loess, which rhymes with bus, is German for "loose soil." Because the grains are angular, loess often stands in steep or vertical faces for years without slumping. When saturated, it turns into "sugar clay" and erodes dramatically.



Terraced Hillsides

Cat-steps are natural terraces that form when hillside loess slumps into step-like ledges.



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Peak-and-saddle hills at Sylvan Runkel State Preserve, Monona County.

36"

Concept design of “Prairies in the Hills” replacement wayside panel

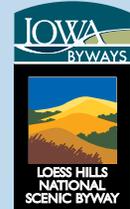
Ridge-Top Prairies

The Loess Hills were described as bald prairie knobs by Lewis and Clark in 1804. Iowa’s largest tracts of native grasslands survive here but are under siege. Juniper, sumac, and other woody invaders creep up from the canyons and threaten to choke out the sun-loving prairie grasses and wildflowers.



Sustaining Forces

Wildfires and grazing animals like bison controlled woody plants before settlement. Most of a prairie grass or flower grows below the soil. If burned or grazed, it resprouts quickly. These natural controls no longer exist, so today prairie managers must either cut or burn woody intruders.



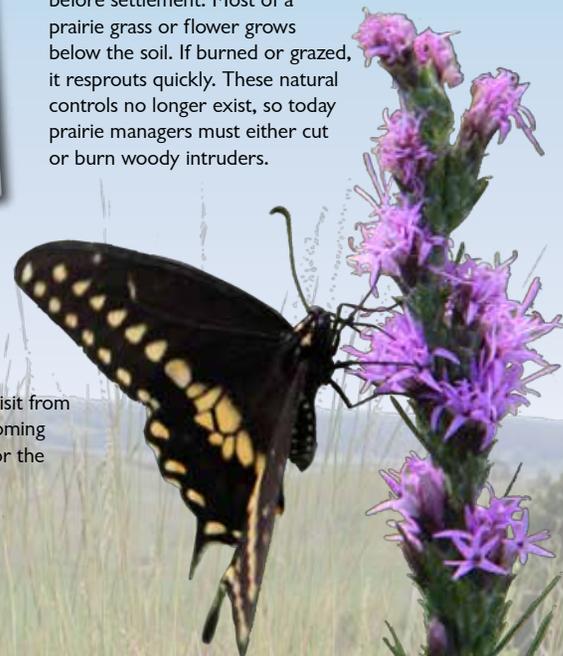
Fall brings out goldenrods and sunflowers swarming with soldier beetles feeding on insects attracted to the blooms.

A Calendar of Color

Prairies are a mosaic of plants and animals. Visit from spring to fall to see a changing parade of blooming flowers. Listen for the song of the bobolink or the buzz of pollinating insects.



Early bloomers, like pasque flowers, hug the warm ground and are protected from frost by hairy stems and leaves.



Mid-summer flowers are taller to rise above growing grasses in view of pollinating insects, like this black swallowtail on blazing star.

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Concept design of a site-specific wayside panel (Broken Kettle Grasslands Preserve)

Thunder in the Hills

Listen and you may hear bison hooves echoing through the hills. Gone for 150 years, bison have returned to Broken Kettle. The herds are an essential ingredient in a healthy prairie ecosystem. They roam widely and, unlike cattle, travel far from water to graze mostly on grasses, which allows a mosaic of prairie flowers to flourish.

Photo courtesy of Chris Helzer/The Nature Conservancy



Cowboy's Delight is a rare Iowa prairie flower that benefits from bison soil disturbance.

An Ecological Niche

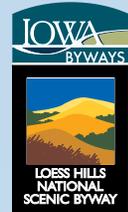
This area is the last refuge for the prairie rattlesnake in Iowa. In fact, the closest population lives 30 miles west in South Dakota. They hibernate for six months in the broken limestone bedrock found here. In spring and summer they hunt mice in pastures grazed short by bison.



Prairie rattlesnakes add a rattle to their tail every time they shed their skin.



Black-billed magpies, which are common to the western plains, nest only here in Iowa.



Grassroots Movement

Herds of bison and hordes of mice and grasshoppers munching on grass stimulate it to shoot out succulent new sprouts because grass actually grows from the base of its stem rather than from the tip of its blade.

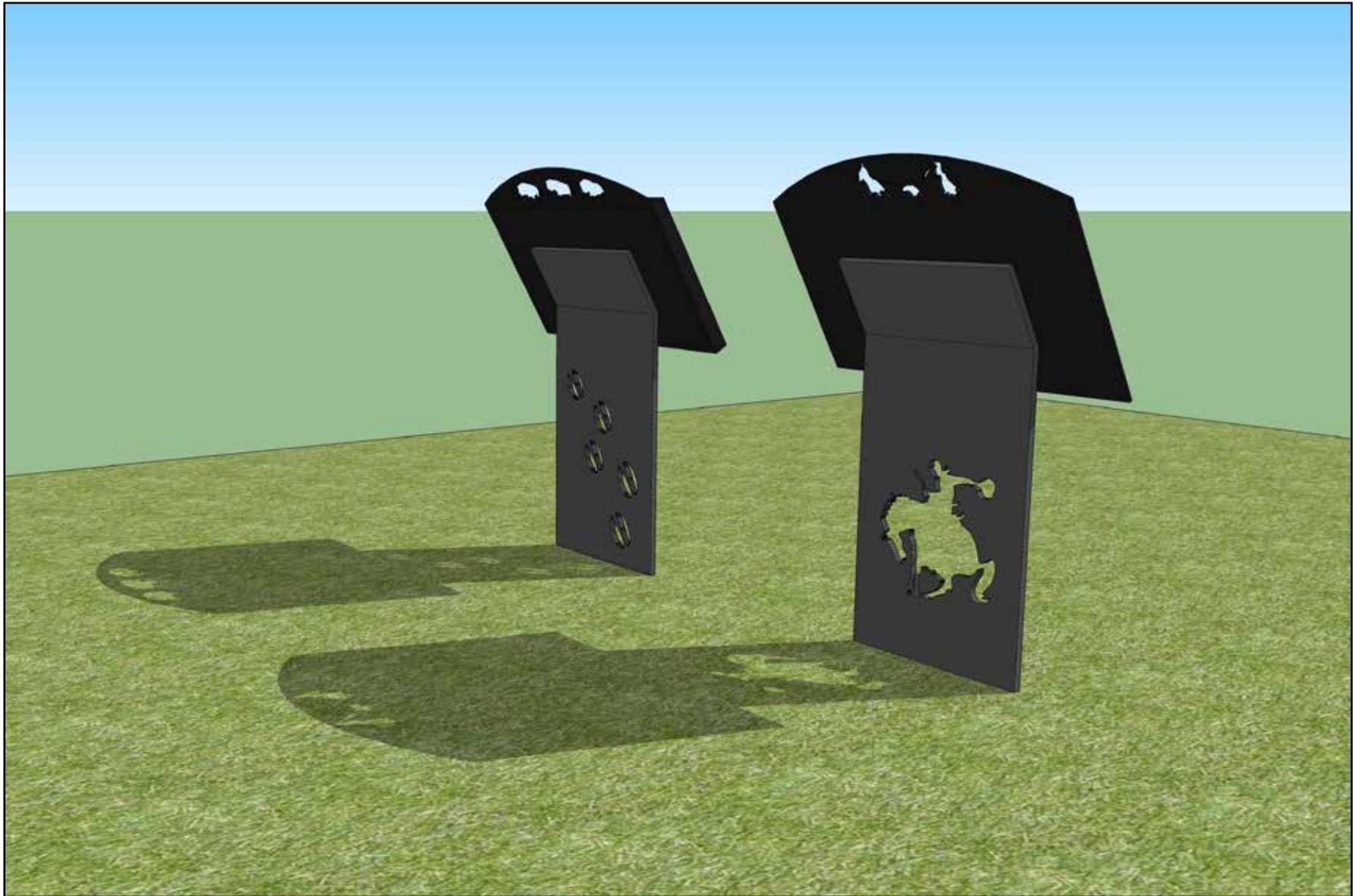
www.iowabyways.org
www.visitloesshills.org

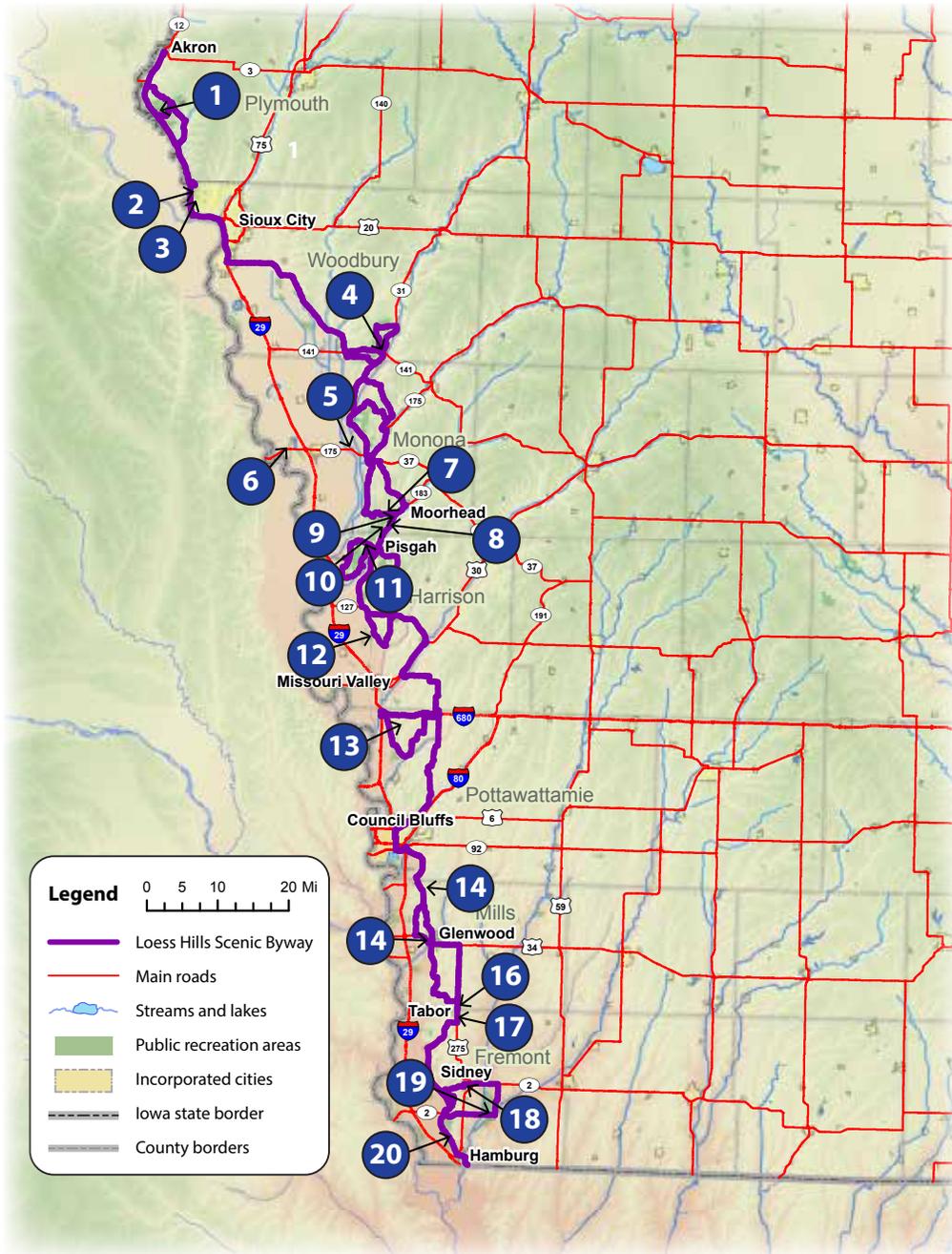


Wayside Exhibit Panel and Support Concept Design



Wayside Exhibit Support Concept Design (*back view*)





Recommended Sites for Wayside Exhibits

Sioux City Region

- 1 Broken Kettle Grasslands Preserve
- 2 Stone State Park
- 3 Dorothy Pecaut Nature Center
- 4 Smithland Pioneer Log Cabin Museum
- 5 Turin Man Archaeological Site
- 6 Lewis and Clark State Park
- 7 Ingemann Danish Lutheran Church
- 8 Preparation Canyon State Park
- 9 Mann Country School
- 10 Loess Hills State Forest
Oak Avenue Scenic Overlook

Council Bluffs Region

- 11 Murray Hill Scenic Overlook
- 12 Loess Hills Lavender Farm, Sawmill Hollow Family Farm, and Honey Creek Creamery
- 13 Hitchcock Nature Center

Platte River Region

- 14 Salem Lutheran Church at Plumer Settlement
- 15 Mile Hill Lake Park
- 16 Hunter School
- 17 Tabor Music Hall Museum
- 18 Sydney Rodeo entrance
- 19 Riverton Chautauqua Pavilion
- 20 Waubonsie State Park

Recommended Wayside Exhibit Sites

Sioux City Region

- 1 **Broken Kettle Grasslands Preserve:** Overlook on Butcher Road—Wayside exhibit on bison pasture/management; consider wayside panels as a durable exhibit alternative within the barn visitor center.
- 2 **Stone State Park:** Overlook facing Big Sioux River—Wayside panel on Mill Creek Culture; replace old byway interpretive panels.
- 3 **Dorothy Pecaute Nature Center:** Trail panels that address Loess Hills National Scenic Byway themes.
- 4 **Smithland Pioneer Log Cabin Museum:** Panel that gives insight to the cabin as a replica log cabin school from the 19th century and interprets the historic Stage Coach Trail.
- 5 **Turin Man Archaeological Site:** Replace old byway interpretive panels.
- 6 **Lewis and Clark State Park:** Replace old byway interpretive panels.
- 7 **Ingemann Danish Lutheran Church:** Panel with historic photos and text, including the story of the family that lost all their children to diphtheria.

- 8 **Preparation Canyon State Park:** Replace old byway interpretive panels.
- 9 **Mann Country School:** Panel with historic photos, text and a statue of children playing.
- 10 **Loess Hills State Forest Oak Avenue Scenic Overlook:** Panels along the loop trail that interpret restoration efforts and prairie species through the seasons. Trail markers are needed to guide visitors along the loop; replace old byway interpretive panels.



Oak Avenue overlook in the Loess Hills State Forest, Pisgah.



Overlook on Butcher Road, Broken Kettle Grasslands Preserve



Existing wayside exhibit at Murray Hill Scenic Overlook near Pisgah.

Council Bluffs Region

- 11 **Murray Hill Scenic Overlook:** Replace old byway interpretive panels.
- 12 **Loess Hills Lavender Farm, Sawmill Hollow Family Farm, and Honey Creek Creamery:** Identical panels placed in or near the parking area of each of these “Living Loess” partners. The panel will have an inset describing the “Living Loess” program and a description of each artisanal farm.
- 13 **Hitchcock Nature Center:** Designate a trail as “interpretive” and use panels to interpret restoration efforts and prairie species commonly seen through the seasons; replace old byway interpretive panels.

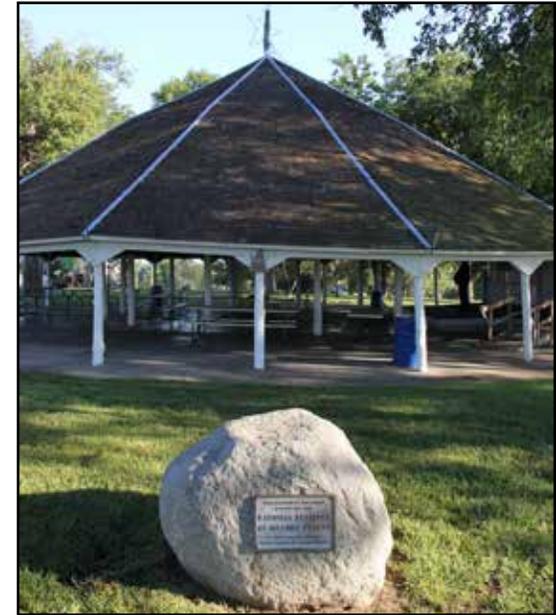


Trails at Hitchcock Nature Center.

Platte River Region

- 14 **Salem Lutheran Church at Plumer Settlement:** Panel to interpret the history of the church and German settlement.
- 15 **Mile Hill Lake Park:** Replace old byway interpretive panels (an experience hub kiosk could be considered as an alternative to panels if one is not constructed at Glenwood Archaeological State Preserve).
- 16 **Hunter School:** Panel with historic photos and text, and metal statues of children playing.
- 17 **Tabor Music Hall Museum:** Interpretive panel about the “shortest railroad” next to the locomotive bell.
- 18 **Sidney Rodeo entrance:** Set of panels interpreting the history of the rodeo and a statue of a bucking horse and rider.

- 19 **Riverton Chautauqua Pavilion (Pleasant Overview Loop):** A panel interpreting the historic significance of this impressive 1897 structure and the Chautauqua movement. A steel silhouette statue of William Jennings Bryan with ladies sweeping in front of him would emphasize the importance of this pavilion (William Jennings Bryan’s motto was to “Make a clean sweep of Washington,” so ladies from the town swept the road in front of the candidate as he rode into town and up to the Chautauqua building on the hill.
- 20 **Waubonsie State Park:** Replace old byway interpretive panels.



Riverton Chautauqua Pavilion.



Entrance to the Sidney Rodeo.



Weathered, bullet-hole laden kiosk in the parking lot at Sylvan Runkel State Preserve.



Kiosk at the entrance to Five Ridge Prairie State Preserve. It contains only rules and restrictions but no information to let travelers know where they are.

SITE ORIENTATION SIGNS

Some byway attractions can be difficult to locate and access. Several state and county natural areas in particular offer superb hiking experiences but are difficult to find. Trailheads and trail-less preserves lack identification and adequate wayfinding signs and maps. Visitors have expressed frustration at being unable to find access points to several sites identified in the visitor guide.

Some areas are set aside for multiple uses that include hunting, or they are in remote locations where vandalism and target practice take a toll on the longevity of maps and panels. Many of these conservation areas lack funds to replace and repair signage. Site signs that are vandal-resistant are proposed as a durable alternative to solve wayfinding problems.

Site signs are tall, narrow 3/8-inch flat steel structures with a colorful byway logo, site map, and an informational panel on the back. Their purpose is to identify, attract, and orient visitors to remote or easily missed resource sites on the byway.

At 8 feet tall and 20 inches wide, these easy-to-find structures will greatly aid wayfinding and site orientation. These steel structures are resistant to bullets and shot.

The maps and informational panels can be constructed from colored vinyl adhesive that is more economical and more easily replaced than high-pressure laminate material. It also presents an unrewarding target because it is relatively nonreactive to the effects of bullets.

Site Orientation Sign Concept Design (front view)





Site Orientation Sign Interpretive Panel Concept Designs

Front panel

Loess Hills

National Scenic Byway

Shaped by Nature

A National Scenic Byway

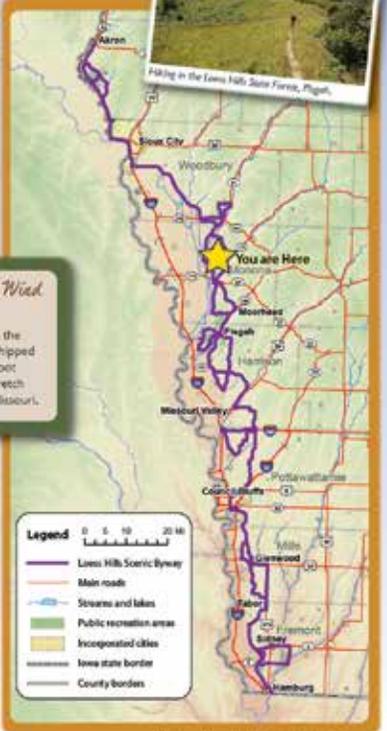
You are traveling the Loess Hills National Scenic Byway, a 220-mile route spanning nearly the entire western border of Iowa, with an additional 185 miles of excursion loops. Enjoy majestic views of loess-covered ridges and the broad Missouri River Valley.

Born of Ice, Water, and Wind

As the last ice Age was ending, meltwaters deposited glacial silt on the Missouri River floodplains. Wind whipped the glacial "flour" into steep 200 foot loess dunes. These rolling giants stretch 200 miles from South Dakota to Missouri.



Hiking in the Loess Hills State Forest, Piquet.



You are Here

Local plant growing in the Loess Hills.



Legend

- Loess Hills Scenic Byway
- Main roads
- Streams and lakes
- Public recreation areas
- Incorporated cities
- Iowa state border
- County borders

View from Murray (I-80) near: Overlook, Piquet.



30"

16"

Back panel

Sylvan Runkel

State Preserve

Touched by Beauty

This 330-acre preserve is named for the late Sylvan Runkel, an influential forester, naturalist, and conservation educator across Iowa. Climb saddle-back ridged and hike breezy prairie trails with spectacular views of the Missouri River Valley.



Faint, undeveloped trail; lead hikers through the prairie-dotted hills.



You are Here

A Calendar of Color

Sylvan Runkel State Preserve is home to more than 200 plant species, including some that aren't found anywhere else in Iowa. Visit from spring to fall to view a changing parade of wildflowers.



Spring
Pasque flowers in bloom.



Fall
Soldier beetles on showy goldenrod.

View from Sylvan Runkel State Preserve's ridges.



Summer
Black swallowtail butterfly on rough-leaved blazing star.



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Dunham Prairie Preserve near Akron on the north end of the byway.



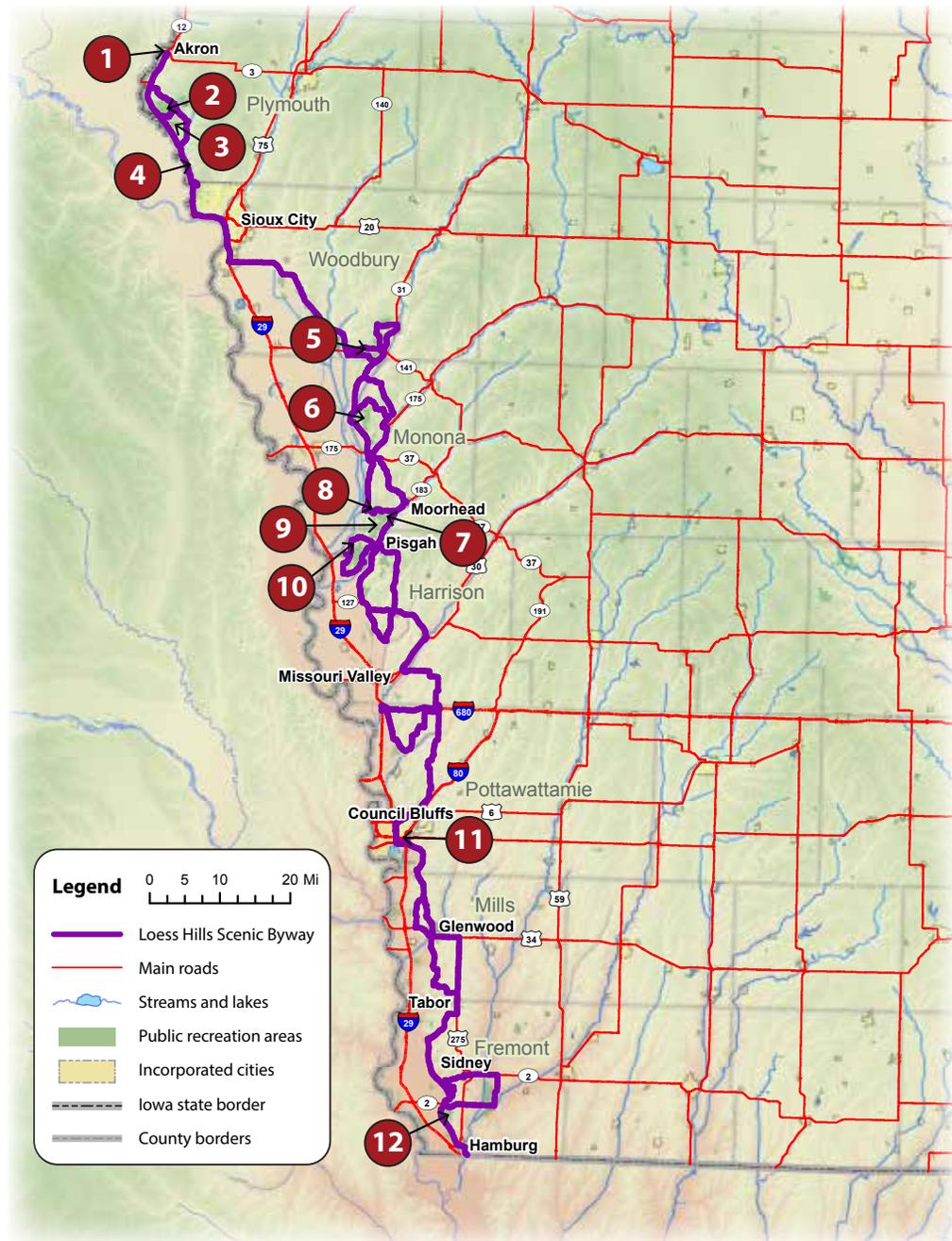
Entrance to hiking trails at Five Ridge Prairie State Preserve.

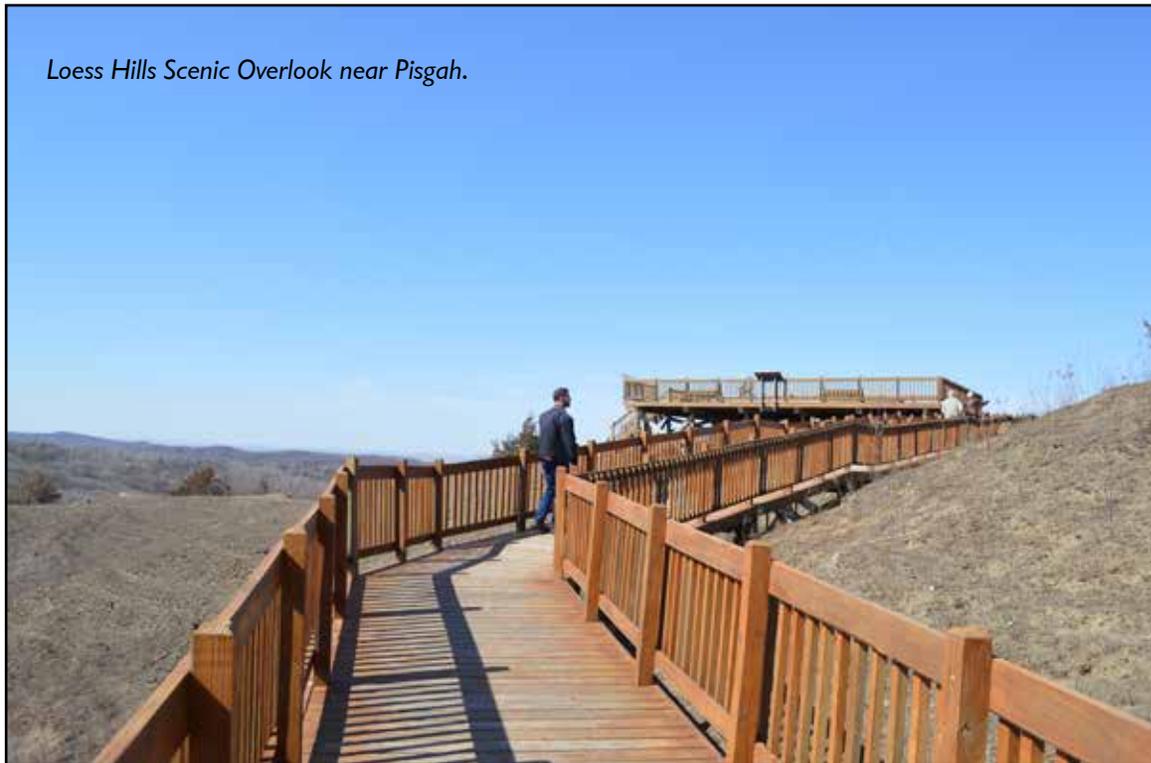
Recommended Orientation Sign Sites

- 1 **Dunham Prairie Preserve:** Install a site sign that includes a map and information about the preserve and the trail system.
- 2 **Broken Kettle Grasslands Preserve:** Install a site sign at the Butcher Road parking area. Hike-in access is proposed to offer visitors a hiking area in the preserve. No marked trail is planned for this access. Panels should include photos of views from the high hill feature to serve as a motivation to climb to the destination.
- 3 **Five Ridge Prairie State Preserve:** Install site signs at both the east and west entrances that include maps and photos of views at this site. Other trail orientation markers may be needed in this expansive area.
- 4 **Spirit Knoll State Preserve:** An orientation sign could serve as the identification marker for this 222-acre site located near the entrance to Stone State Park on Highway 12. Site managers expressed a concern about vandalism at this site, so the solid steel structure is ideal to resist damage.
- 5 **Southwood Conservation Area:** This county conservation area on the Stagecoach Loop is a multi-use destination that would benefit from a sign located at a central access point to orient users to trailheads and other recreational areas.
- 6 **Loess Hills Wildlife Area, Turin Loess Hills State Preserve, and Sylvan Runkel State Preserve:** Site signs with maps may be needed at all trail entry points. Panels would include photographs of dramatic views from these sites.
- 7 **Preparation Canyon State Park:** An orientation sign at the park entrance will orient visitors to the park and to the Preparation Loop and Settlement site. Map should include Olive Road to allow visitors to experience the deep road cut and see the exposed tree roots.

Recommended Sites for Site Orientation Signs

- 1 Dunham Prairie Preserve
- 2 Broken Kettle Grasslands Preserve
- 3 Five Ridge Prairie State Preserve
- 4 Spirit Knoll State Preserve
- 5 Southwood Conservation Area
- 6 Loess Hills Wildlife Area, Turin Loess Hills State Preserve, and Sylvan Runkel State Preserve
- 7 Preparation Canyon State Park
- 8 Loess Hills State Forest: Loess Hills Scenic Overlook and Loop Trail
- 9 Loess Hills State Forest: Jones Creek Pond and Trails
- 10 Murray Hill Scenic Overlook
- 11 Vincent Bluff Prairie State Preserve
- 12 Waubonsie State Park





Loess Hills Scenic Overlook near Pisgah.



Parking lot at Jones Creek Pond in the Loess Hills State Forest.

- 8 Loess Hills State Forest: Loess Hills Scenic Overlook and Loop Trail:** A site sign at the parking lot entrance to the overlook will include a trail map and introduction to the trail experience through the seasons.
- 9 Loess Hills State Forest: Jones Creek Pond and Trails:** Install a site sign at the parking lot. A panel will have historic photos and information on the development of this site by the Civilian Conservation Corps.
- 10 Murray Hill Scenic Overlook:** Install a site orientation sign at the parking lot entrance to the overlook.
- 11 Vincent Bluff Prairie State Preserve:** Install a site sign at the entrance. A panel will include a site map and explain the importance of preserves. A panel will show photos of prairie flowers and pollinators through the seasons.

- 12** **Waubonsie State Park:** A site sign in the main parking lot from the Highway 2 park entrance is needed to guide first-time visitors to the trails and overlooks. At present there is no information to explain the site's significance or where to go. A rustic wooden trailside exhibit case is located there but there is no information on it.



*Empty kiosk panels at
Waubonsie State Park.*

BYWAY ARTWORK

Art appeals to our emotions and can convey thoughts and feelings to all ages. It can be enjoyed at various levels—casually or in a more introspective way. Stylish artwork can capture attention and imagination and add an additional interpretive dimension to visitors' experiences.

Murals

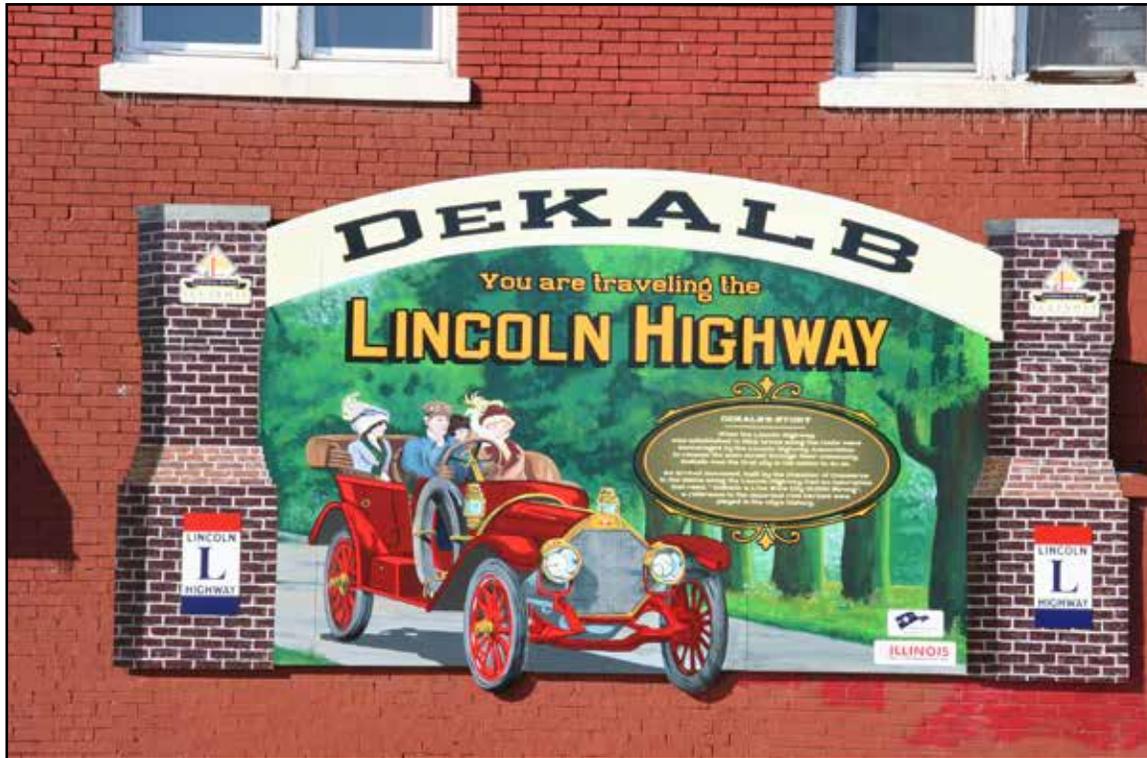
Murals are highway-scale media that motorists can experience as they drive through the landscape of a byway. These huge paintings can be seen even at 55 miles per hour and can introduce ideas and create moods that other media can

address in greater detail. These “through-the-windshield” interpretive pieces are a great way to make the past come alive or to introduce the unique personality of a community.

Many towns and villages have buildings with unfinished walls where an adjoining structure was razed. These large, unsightly exteriors can be converted to artistic expressions of the community's sense of place.

For example, in Riverton there are several large windowless walls on old commercial buildings that could serve as “billboards” for historical murals such as one depicting the famous evangelist Billy Sunday or statesman William Jennings Bryan surrounded by enthusiastic crowds at the Chautauqua building in Riverton Park. A mural depicting when the James Gang robbed the Sexton Bank in 1881 could serve as a reminder of a time when downtown Riverton had a faster pace.

Moorhead could tell its story of moving the whole town in 1900 to the Chicago Northwestern Railroad, with a historic mural depicting teams of horses pulling the buildings to the present site.

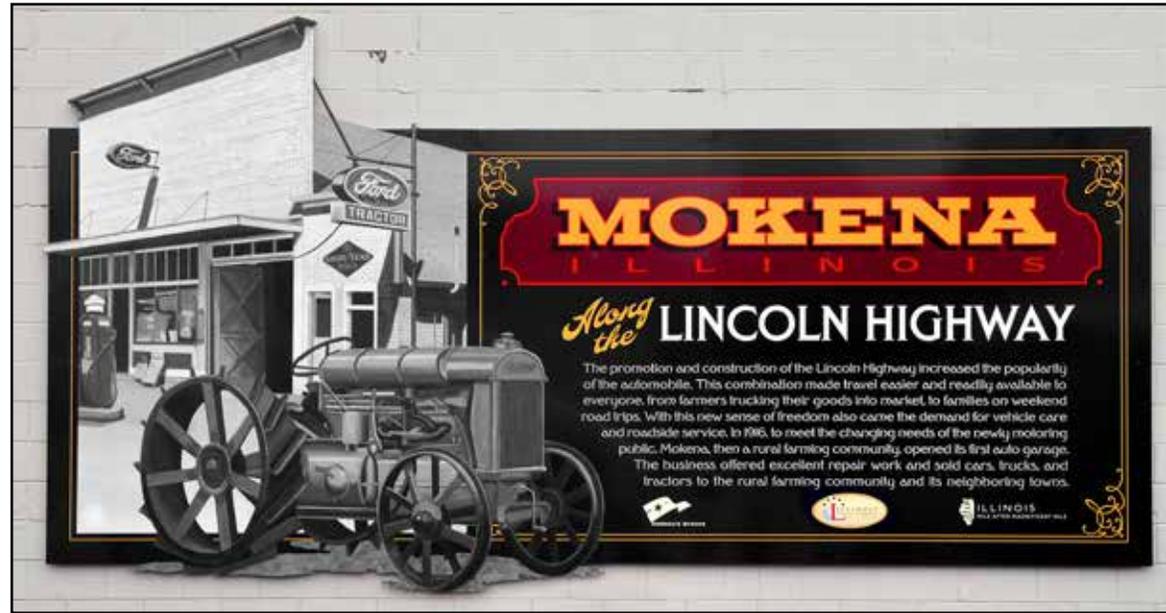


A mural along the Lincoln Highway in Illinois.

Hamburg has some excellent empty “canvas walls” at the intersection of E and Main streets where a flagpole now occupies the center of the intersection. The byway passes through on E Street to its terminus at the Missouri border. An experience hub is proposed for this intersection to introduce the byway to travelers who have been lured off Interstate 29 by the “Stoner Drug: 1 Mile” sign. The mural could depict the exterior of the drugstore as it might have appeared in 1900, with horse-drawn buggies and farm wagons on the street. Another mural could depict “Popcorn Days” celebrating Vogel Popcorn as a major business in the community.

Murals are a great way of calling attention to events that most travelers may not be able to see for themselves. An apple orchard in luxuriant spring bloom or the bustling activity of harvest time can show what a community looks like even after the season ends and activities slow down.

There have been some excellent examples of mural projects sponsored on scenic byways. The Illinois Lincoln Highway has some outstanding thematic murals that help tell the story of each town along the byway.



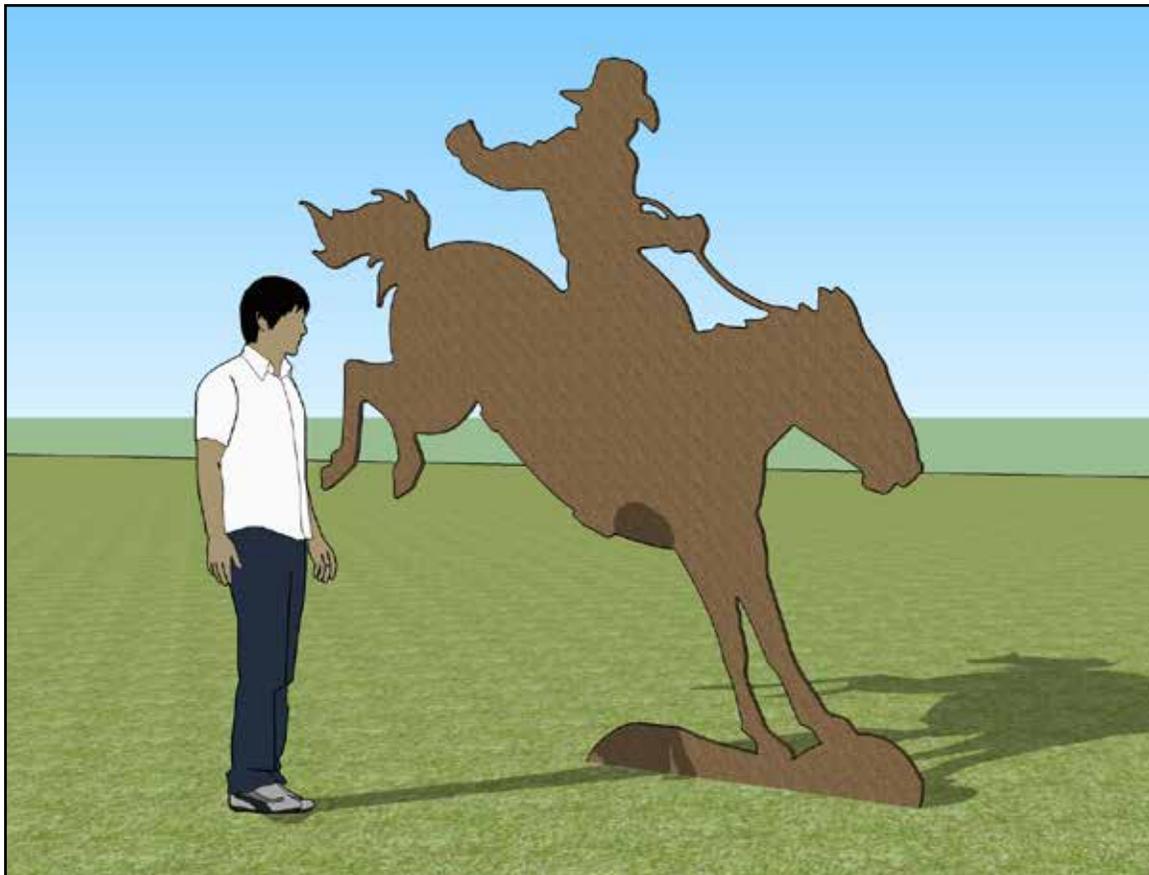
A mural along the Lincoln Highway in Illinois.

Organizations such as The Walldogs specialize in creating murals. When an organization commissions The Walldogs, a network of artists converges on the site, using leaders and local volunteers to paint the mural. For more information, visit www.thewalldogs.com.



A mural along the Lincoln Highway in Illinois.

Metal Statue Concept Design, Bucking Bronco for Sidney Rodeo Arena



Statues

Three-dimensional works of art have an attractive power that panels and flatwork lack. They can bring a story to life, create photo opportunities, and heighten participation. They have a strong physical presence that causes viewers to pause long enough to be motivated to view a nearby interpretive wayside

for insights. Statues can convey a strong visual message that can be supplemented with wayside exhibits.

For example, a steel cutout of a full-size bull bison at Broken Kettle Grasslands Preserve has a presence that commands attention. It demonstrates the size of a 1-ton creature better than a small photograph. It is durable and vandal resistant.

An old empty country schoolhouse such as Hunter School seemingly comes to life when statues of children playing in the schoolyard are introduced.

The Sidney Rodeo arena is an iconic but lonely location during the 360 days of the year that the rodeo is not going on. The rodeo grounds can be brought alive with a steel silhouette of a bucking bronco or bull. Because the arena has electricity, a digital recording can be included with the wayside panel proposed for this site so visitors can hear the sounds of an event and maybe listen to the stories of a former rodeo rider.

Metal Statue Concept Design, Hunter School





Information Pavilion containing interpretive wayside panels in Akron.



Loess Hills Interpretive Center, Westfield.



E. Kevin Kelly Visitor Center, Broken Kettle Grasslands Preserve.

WELCOME/VISITOR CENTER EXHIBITS

Interpretive centers offer diverse and comprehensive media and, in some instances, staff that inform, inspire, and educate travelers about the Loess Hills. This section describes current welcome and visitor centers and provides recommendations for future development of these facilities.

Sioux City Region

This region is archaeologically significant because of the confluence of the Big Sioux and Missouri rivers that supported the Mill Creek Culture earth-lodge people.

The region also contains the largest preserves on the byway, which welcome visitors to explore this unique Iowa wilderness of prairie- and oak-covered hills.

Plymouth County

- **The Information Pavilion in Akron** anchors the north end of the byway with a large interpretive panel that introduces the byway and its significance.

- **The Loess Hills Interpretive Center, Westfield**, has professionally fabricated exhibits that interpret the Loess Hills.

Recommendations: Provide directional signs to guide visitors from Highway 12 to the center. Keep the door unlocked during regular hours during the tourist season. Visitors are not likely to “contact the Westfield City Hall for admission” as directed in the visitor guide.

- **The E. Kevin Kelly Visitor Center in Broken Kettle Grasslands Preserve** is located in a barn on a former farmstead that now serves as headquarters for this Nature Conservancy preserve. The barn is open to the elements and to public access. The exhibits consist of flatwork displays of photos and text that tell the story of the grasslands.

Recommendations: Travelers are excited about the possibility of seeing a herd of bison, a motivation to stop at Broken Kettle. The visitor center is adjacent to the Highway 12 byway spine for easy accessibility. Broken Kettle staff are committed to providing better access to and

information about the preserve. A walk-in access is planned on Butcher Road (see Site Orientation Signs), and another access point on the road has a bench for enjoying a grand vista where a wayside exhibit is proposed (see Wayside Exhibits). The staff welcome the possibility of professional quality exhibits to replace the current signs, and an exhibit proposal is included in this Interpretive Master Plan. When the exhibition is installed, signs on Highway 12 will be needed to direct visitors to the center.

An experience hub is proposed for the intersection of Highway 12 and the entrance road to the E. Kevin Kelly Visitor Center to orient visitors to the Ridge Road Loop as well as other regional attractions.

Woodbury County

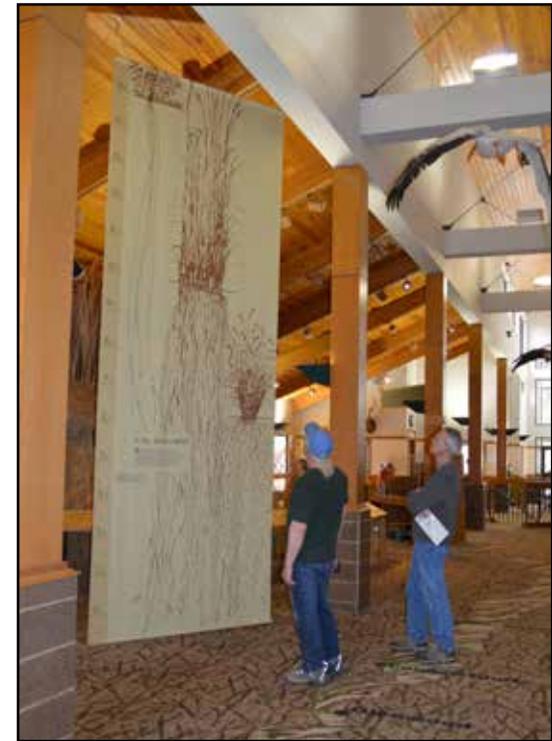
- **Dorothy Pecaut Nature Center**, located in Stone State Park and on the Highway 12 byway spine just north of Sioux City, is operated by the Woodbury County Conservation Board. The exhibition “Exploring Fragile Giants” offers interactive natural history experiences and an excellent introduction to the Loess Hills. An information desk is staffed when the center is open.

Recommendation: An experience hub kiosk that highlights regional and Sioux City attractions is proposed for the Highway 12 entrance to the nature center. This is an ideal site since southbound travelers pass by as they enter Sioux City. A kiosk can orient visitors to these sites even when the center is closed.

Monona County

- The **Loess Hills Hospitality Association** tourist information center in Moorhead is housed in the historic Cover School. Volunteers staff the center, which offers Loess Hills gifts, publications, and interpretive tour guides.

Recommendation: An experience hub kiosk is proposed for the center to serve an interpretive/educational function similar to exhibits found at other centers and to orient visitors to regional attractions when the building is closed.



A display explains prairie grass growth at Dorothy Pecaut Nature Center, Sioux City.



Loess Hills Hospitality Association information center, Moorhead.



Loess Hills State Forest Visitor Center, Pisgah.



Harrison County Historical Museum and Iowa Welcome Center, Missouri Valley.

Council Bluffs Region

Western Iowa was the hub of historic overland and river trails that chronicle the westward expansion of the nation. Here the Loess Hills were traversed by the first transcontinental railroad and the Lincoln Highway. This area bore witness to Lewis and Clark, the great Mormon migration, and immigrants on the Oregon Trail.

Loess Hills State Forest and Hitchcock Nature Center beckon urban citizens to explore ridge-top prairies and wooded valleys. Artisan farms and vineyards dot the region, adding to the sense of place.

Harrison County

- **Loess Hills State Forest Visitor Center, Pisgah**, has professional exhibits interpreting the natural history of the Loess Hills and a staffed visitor information desk. However, due to funding cuts, the visitor center is open in recent years only Friday to Sunday afternoons from May to October.

Recommendation: Seek funding to increase the hours that this excellent visitor resource is open. An experience hub is proposed for the center to highlight attractions

and orient travelers in the forest and region when the building is closed.

- **Harrison County Historical Village and Iowa Welcome Center, Missouri Valley**, serves three Iowa scenic byways. This popular welcome center has developed a wide range of interpretive media. An interpretive pavilion, trail, and a video in the center classroom offer information specific to the Loess Hills. This staffed facility is located on a centrally located tourist access point to the byway.

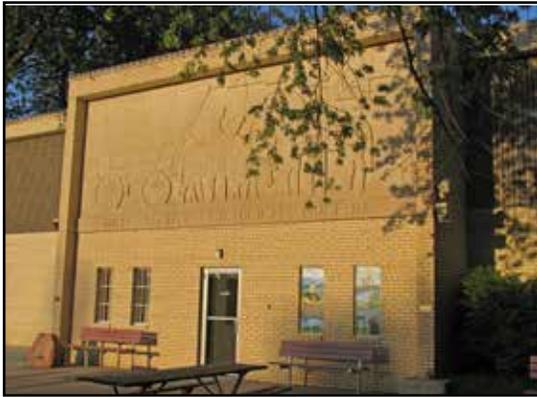
Recommendation: An experience hub kiosk has been proposed for the center to serve a function similar to exhibits found at other centers and to highlight regional themes and attractions. Rather than a separate structure, perhaps this could consist of additional panels that are placed in the interpretive pavilion that will complement and expand on the information already there.

Pottawattamie County

- **Hitchcock Nature Center** located on Ski Hill Loop in the heart of the Loess Hills is operated by the Pottawattamie County Conservation Board. The staffed center commands expansive views and houses professionally developed exhibits interpreting the Loess Hills and raptors. This facility is popular with Omaha and Council Bluffs residents, who hike the center's spectacular trails. Viewing decks and a tower are used by Hitchcock Hawk Watch volunteers to count migrating raptors from early September to late December.



Hitchcock Nature Center, Honey Creek.



Mills County Historical Museum, Glenwood.



Southern Loess Hills Interpretive and Welcome Center, Percival.

Platte River Region

Archaeologists estimate that as many as 1,000 earth lodge dwellings of the Glenwood Culture once covered the hills and valleys within a 10-mile radius of the confluence of the Platte and Missouri rivers. The Glenwood Archaeological Preserve protects and will interpret this nationally significant site.

The proximity to Missouri, Kansas, and Nebraska brought abolitionist communities in direct conflict with slave holders in those states. The John Brown Trail and Iowa Freedom Trail lead through the Loess Hills community of Tabor, which was a major station in the Underground Railroad.

Mills County

- **Mills County Historical Museum, Glenwood**, has artifacts and exhibits about the Glenwood Culture earth lodge people who lived in the Loess Hills near the confluence of the Missouri and Platte rivers.

Recommendation: Create a poster that directs visitors to the Glenwood Archaeological Preserve. An experience hub kiosk is proposed at the preserve parking lot at the intersection of the Highway 34

byway spine and County Road L45 entrance to the Waubonsie Loop. This kiosk will interpret the Glenwood Culture and highlight regional attractions. A visitor center is planned and eventually will serve this site.

Fremont County

- **Southern Loess Hills Interpretive and Iowa Welcome Center in Percival** has professional exhibits interpreting the Loess Hills and staff who provide information about the byway. An interpretive pavilion is located behind the center.

Recommendation: An experience hub kiosk proposed for the parking area will serve after-hours visitors and feature regional attractions, including the Sidney Rodeo, Waubonsie State Park, and Tabor. Unfortunately the pavilion and entire welcome center are obscured from highway view by other more prominent commercial establishments. This kiosk, if placed on the southwest corner of the parking lot along with a more prominent highway sign, will draw travelers' attention.

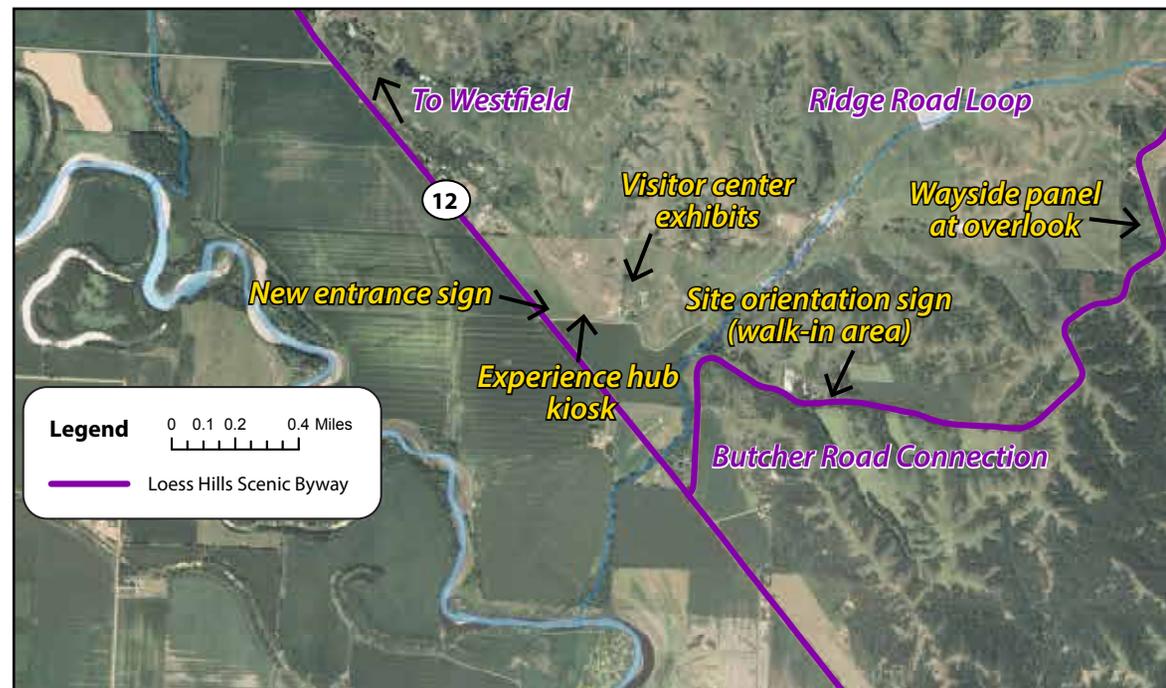
RECOMMENDED MEDIA FOR SIGNIFICANT INTERPRETIVE SITES

There are several sites on the byway that have natural and cultural importance in the Loess Hills. Two of these places are ideal for developing meaningful visitor experiences with a modicum of effort. Broken Kettle Grasslands Preserve has a compelling natural history story to share with a deep ecological message. It also has the allure of the possibility of viewing bison. Tabor is rich in human stories of escaping slavery on the Underground Railroad and features historic characters like John Brown.

Broken Kettle Grasslands Preserve

The planning team proposes that the Loess Hills National Scenic Byway partner with The Nature Conservancy at Broken Kettle to develop interpretive media and signage that orients, informs, and educates visitors about the preserve and the Loess Hills. The rationale is:

- Broken Kettle's E. Kevin Kelly Visitor Center is right on the main byway with good visibility for drivers and few competing distractions.
- The non-staffed interpretive center is easy to find and always accessible.



Map of Proposed Broken Kettle Interpretive Media

- The bison herd has high visitor appeal.
- The ecological story of restoring the prairie ecosystem is fundamental to understanding the Loess Hills.
- Broken Kettle staff have expressed interest in providing improved interpretive media and access to the preserve and are eager to partner with the byway.



Concept Design for Broken Kettle entrance sign



Butcher Road walk-in area, the site of future hiking access to a scenic hilltop. A site orientation sign is proposed here.



Overlook area at the Aalf's Family Preserve. A wayside exhibit is proposed here.

Recommendations

Create a welcoming entrance: This site offers a great opportunity to capture byway travelers' attention. There is strong interest in the bison herd. Currently, however, there is no obvious public entry to the property. A small, wooden sign on Highway 12 identifies Broken Kettle but there is no signage to indicate that visitors are welcome. A large, high-quality entrance sign should be developed that visually announces this as the entrance to a rewarding experience.

Develop an experience hub kiosk turnout: A short distance up the entrance lane, create a turnout for vehicles. Install an experience hub kiosk at the turnout that provides information about Sioux City Region attractions, including Broken Kettle Grasslands Preserve. Include a brochure rack on the structure and develop a small rack card that shows a map of Broken Kettle and highlights the interpretive nodes on Butcher Road.

Develop a site orientation sign for the Butcher Road walk-in area. The Nature Conservancy is planning hike-in access here to offer visitors a hiking area in the preserve. Panels should include photos of views from the high hill feature to

serve as a motivation to climb to the destination.

Develop wayside exhibits for the Butcher Road vista near the Aalf's Family Preserve sign:

A wayside will interpret the bison pasture and the role of bison in prairie restoration. An inset will honor the family for whom this memorial preserve was created. A second panel will interpret significant plants and animals that benefit from restoration (see concept design on page 111).

Redevelop the entrance at the E. Kevin Kelly Visitor Center:

The barn visitor center has a rustic, authentic appeal. An enticing invitation is needed to reassure visitors that it is open to the public.

- A sign on the split-rail fence identifies the structure as a visitor center.
- A stained concrete walkway imprinted with bison hoof prints and other wildlife prints will guide visitors to the exhibits. A hard surface makes the facility accessible to wheelchair users and baby strollers.
- A life-size silhouette of a bison made of weathering steel standing in the planted prairie grasses in front of the entry is thematic and reassures visitors about the nature of the facility.



- Replace the current interpretive panel at the walkway entrance with one that follows the byway standards developed in this plan.

Redevelop visitor center exhibits:

The current exhibits consist of eclectic flatwork posters about various topics. They should be replaced with professionally designed and fabricated thematic exhibits that interpret Broken Kettle Grasslands Preserve.

- The exhibits should include three-dimensional objects and artifacts that invite discovery and serve as focal points for big ideas.
- The interpretive panels that accompany these themed exhibits should be graphically unified. Consider using the byway design standards described in this plan.



Concept Design for E. Kevin Kelly Visitor Center (*interior view*)

- The exhibits' structures should complement the rustic farm building. This might include old barn boards and beams for tables and supports for other exhibits.
- The exhibits must be able to withstand the elements in this open structure.

Thematic Basis for Interpretation

The following proposed themes and exhibit ideas are presented as a starting point for a more comprehensive exhibit plan.

Theme 1: American bison have been introduced to Broken Kettle Grasslands Preserve to benefit the prairie through grazing, re-creating a landscape that has almost vanished.

Messages:

- More than 150 years ago, bison were a natural and integral part of the prairie ecosystem before Europeans settled the vast central tallgrass prairie. Bison grazing provides a disturbance, which allows for a more diverse mix of prairie species and a diverse structure critical for the survival of the animals dependent on prairie habitat. Bison improve habitat for butterflies, grassland birds, and other animal and plant species.
- Twenty-eight genetically pure bison from South Dakota were introduced to Broken Kettle in 2008.
- Each summer the grazing area will expand until The Nature Conservancy meets its goal: a herd of 250 bison grazing 2,500 acres.
- Less than 1 percent of the original tallgrass prairie survives. Broken Kettle has the largest tract of contiguous native prairie in Iowa.
- Fire was a natural force in maintaining prairie, and Broken Kettle uses prescribed burns to remove woody vegetation and improve soil fertility.

Exhibit Concepts:

- A touch table will feature bison-related objects such as skulls, bones, a buffalo robe, and buffalo chips.
- A button-operated outdoor TV monitor mounted on the wall will show the four-minute bison-release video that is available on the Broken Kettle website. An additional video could be produced that interprets how bison grazing behavior improves the prairie and about the ultimate goal of 250 bison on 2,500 acres.
- Interpretive panels adjacent to the touch table will illustrate the original range of mid-continental grasslands and range of the great bison herds. A map of Iowa will show the original extent of tallgrass prairie and compare that to a map of what remains. Another panel will describe The Nature Conservancy's management efforts to restore native prairie at Broken Kettle as the largest contiguous native prairie in Iowa.

Theme 2: Diverse species of plants and animals, many of which are rare or at the western edge of their range, make up the Broken Kettle Grasslands Preserve

Messages:

- The prairie rattlesnake is found nowhere else in Iowa except Broken Kettle. The broken limestone bedrock is essential for their overwintering dens, or hibernacula.
- Animals such as the black-billed magpie, bobolink, grasshopper sparrow, and Great Plains skink also call Broken Kettle home.
- The preserve provides critical habitat for many species of prairie butterflies, including the dusted skipper, regal fritillary, Ottoe skipper and Pawnee skipper.

Exhibit Concepts:

- A model of a prairie rattlesnake is placed on a pedestal in front of the cretaceous limestone with fossil clams. A small panel on the pedestal will interpret the prairie rattlesnake, including a photo of one in the exposed limestone.
- Fence posts serve as mounting surfaces for models of representative grassland birds. An interpretive panel describes these species.
- Another interpretive panel with tactile representations of selected butterfly species will show the



Prairie rattlesnakes should be interpreted in the visitor center, as they are found nowhere else in Iowa outside the Loess Hills.



Limestone pieces currently on display in the visitor center.

relationship of these important pollinators and a continuous parade of flowering plants through the growing season.



Todd House Concept Design: Escaping Slaves Silhouette Statue and Wayside Panel

Tabor: Todd House and Tabor College

This site offers a nationally significant story about the Underground Railroad and the Abolitionist Movement in America that is not currently accessible to travelers. The Loess Hills National Scenic Byway should assist in telling this story to travelers because:

- This site is located right on the byway.
- The buildings are still intact, such as the Tabor House, Music Hall, and the park where John Brown trained his militia, which adds an authentic setting to tell the story.
- This history has significance to the Platte River Region and the nation and is told nowhere else.

Recommendations

- **Develop wayside exhibits** at several locations to tell the intertwining stories of the Underground Railroad, the Rev. Todd, and Tabor College. Panels should include photographs of the interior of the Todd House and historic photographs of Tabor College when it was operating. Locations for wayside panels should include the historic Music Hall (now Historic

Society), the park, and the Todd House.

- **Develop an audiovisual tour** of the interior of the Todd House, perhaps in the form of a mobile app, so that visitors can satisfy their desire to see what the interior of the home looks like when tours are not available. An app also could interpret Tabor College and the Rev. John Brown. The wayside exhibit panel could provide information regarding the availability of this app.
- **Weathering steel statues** of slaves escaping on the Underground Railroad with an accompanying wayside exhibit near the Todd House but an appropriate distance from the home to satisfy National Historic Site policy that the view of the structure not be obscured by signage or other objects. A digital audio recording should be considered for helping tell the story from the wayside panel at the Todd House.
- **Weathering steel silhouette statue** of John Brown training his militia in the park with an accompanying wayside exhibit. This site should interpret his connection to Tabor and his involvement with Harpers Ferry and the course of national history.



Tabor City Park Concept Design: John Brown Silhouette Statue and Wayside Panel

AUDIOVISUAL PRODUCTIONS

Every national park in America offers an audiovisual production. The National Park Service uses audiovisual media “to inform and inspire the public. Voices from the past can speak, inaccessible peaks can be climbed, and complex processes can be revealed through this powerful medium.” The NPS Harpers

Ferry Center, which produces interpretive media for the parks, describes the advantages of audiovisual media:

- Well suited to the presentation of chronological and sequential material.
- Can capture realism and provide emotional impact.

- Provide opportunities for dramatization.
- Can be portable for off-site use.
- Provide views of places, animals, plants, and seasons otherwise unavailable or inaccessible.
- Can create a mood or atmosphere.
- Can reach many visitors at one time.
- Can illustrate before and after effects.

Attendees at the public input meetings conducted by the planning team identified an audiovisual production as an effective way to introduce the Loess Hills at visitor centers throughout the byway. A video has the added advantage in that it can be downloaded from the byway’s websites. Visitors can view it before and after a visit and teachers could use it in the classroom.

This production should provide a concise but dramatically compelling testimony as to why the Loess Hills are significant and explain how they were created. It should touch viewers’ emotions and provide accurate facts and useful information. This production should inspire viewers to want to experience the byway.



Still Shot Concept Design for Loess Hills Video

Proposed Production Narrative: *Iowa's Loess Hills: A National Treasure*

Introductory sequence:

The video begins with a soaring flyover from a “vulture’s view” to show a holistic perspective of this unusual landform. (Vultures are the most common raptor that travel the Loess Hills’ thermals.) A continuous series of shots of the long, narrow grassy ridges should be viewed as they flow beneath the gliding bird. The wide, flat Missouri River Valley also should be seen to contrast the peaks and saddles that loom over the valley like a range of mountains. An early morning or evening light will serve best to highlight the topography of the hills. Spring grasses and the softness of young leaves on trees might be desirable but autumn colors of rusts and reds are also striking. Deep cut ravines and cat-step slopes should be seen. The important thing is that the hills be visually striking and seen as a complete landform and not as single or unrelated parts. The entire sequence should be fluid and graceful. Wind and soft instrumental music should add to the peaceful overview.

With this sequence we see some of the

dynamic activities that occur in the hills, like grazing bison herds at Broken Kettle; hikers striding along the ridge at the state forest overlook (perhaps they point up at the camera and focus their binoculars on us); and a train rumbling along the base of the hills to symbolize the transportation aspects of the ridge and valley. The hills and ravines should be alive with activity.

Geologic sequence:

Many viewers will ask, “If these hills are so special, how did they form and what makes them so rare?”

Shots of the muddy Missouri during peak floods are a visual testament to the capacity of the river to carry huge sediment loads. Footage of glacial ice and silt-laden meltwater gushing from an active Alaskan glacier will help the viewer appreciate the power of these natural forces to change the landscape. Computer animation is required to convey the sequential building of the Loess Hills. The animation will eliminate the need for a lot of descriptive narration. To keep the feel

of this sequence dynamic, the sounds of rushing water and howling wind should accompany the limited narration.

Personal testimonials:

A long-time resident reflects on why they love living here (the isolated rural nature of the hills and ravines, one-room schoolhouse memories, the smell of wet or parched “sugar clay”).

A historian narrates a series of historic reenactments of Mormon immigrants, the Underground Railroad, and the transcontinental railroad.

A biologist leads a prairie tour and shows rare western plants and animals that find refuge in this dry, unusual place. Broken Kettle, Loess Hills State Forest, and Hitchcock Nature Center staff members show their efforts to restore prairies, bison, and butterflies.

Conclusion:

A happy family walks out of a Loess Hills visitor center and drives off through the hills. Shots through the windshield and cuts to stops show them enjoying the scenic byway.



Effective byway websites, like the Sandhills Journey Scenic Byway in Nebraska and the Coastal Connection Scenic Byway in Alabama, convey a thematic personality. They provide attractive design, obvious navigation, dramatic focal-point images, and concise writing.

ONLINE MEDIA

About 65 percent of leisure travelers begin researching online when deciding where to go, according to a 2014 survey commissioned by Google that polled 3,500 U.S. respondents.

A strong, well-developed online presence is imperative for sharing information and interpretive messages about the Loess Hills National Scenic Byway.

Loess Hills National Scenic Byway Website

The Loess Hills National Scenic Byway has two main website presences: visitloesshills.org and iowabyways.org. The first is specific just to the Loess Hills National Scenic Byway, while the Iowa Byways homepage links to a separate section about each of Iowa's byways, including the Loess Hills.

Visitloesshills.org

This site offers a solid introduction to the byway. The homepage explains the significance of the Loess Hills landform. It also includes a prominent link to view the byway travel guide booklet online.

A lefthand navigation pane links to major sections on hiking and biking, dining

and lodging, history, photo galleries, and more specific explorations by county and city or by excursion loop, which all provide identical content and maps as the byway travel guide.

Development and Design Recommendations

The Visit Loess Hills website would benefit from a redesign and refreshed content to allow potential travelers to glimpse the stories and experiences they can encounter on the byway, heightening their expectations.

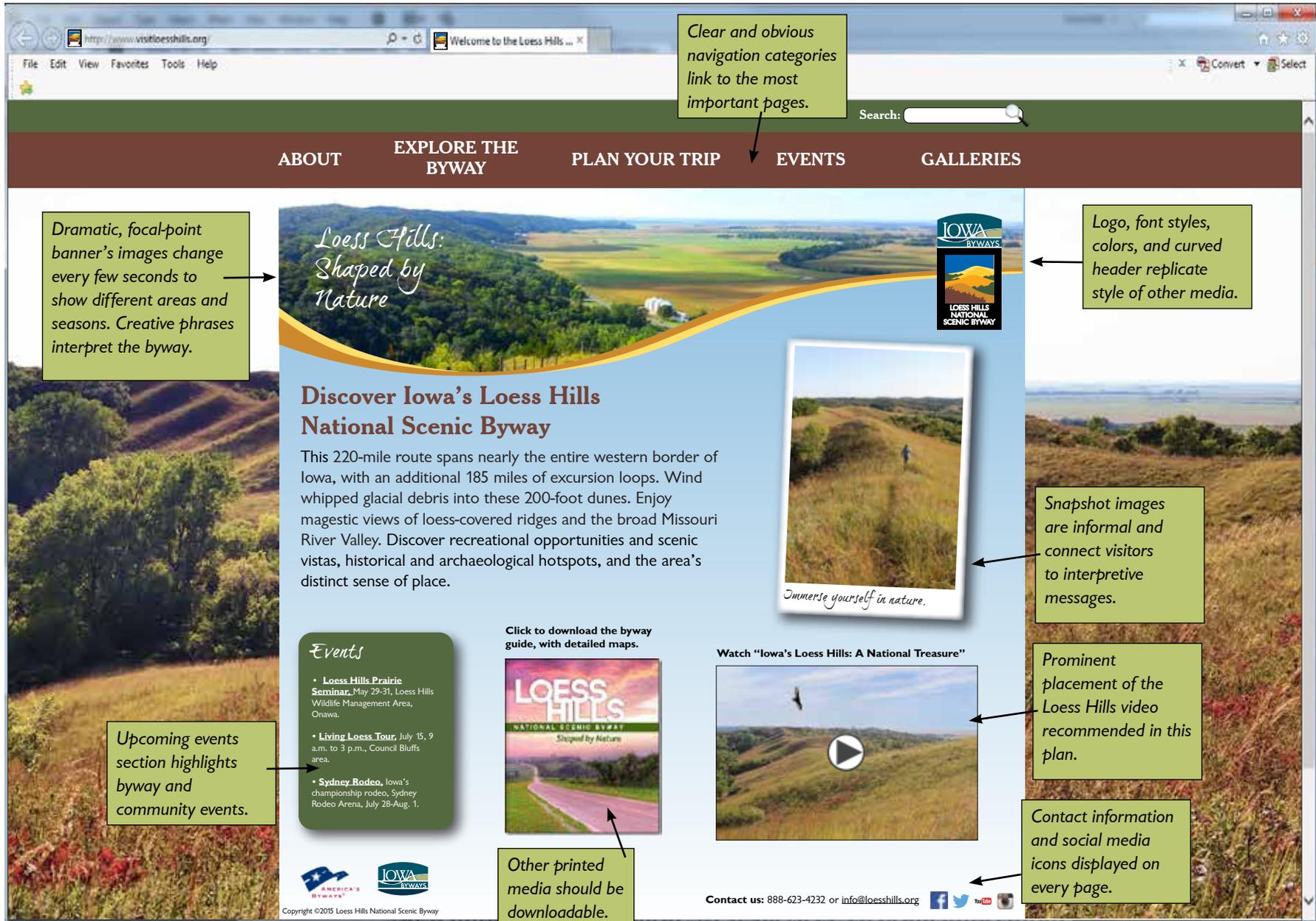
The current website employs a separate frame within a page for each attraction. Each frame has three tabs to see descriptions, maps, and photos for each attraction, which makes it cumbersome to navigate. Further, most photo tabs say, "Photo not available at this time."

A redesigned website also can create opportunities to interpret the natural and cultural history of the Loess Hills, using the themes presented in this master plan.

Design Recommendations

The **website navigation** should be obvious and directly link to pages that are most important to visitors planning their trip. Main navigation links would include:

Loess Hills National Scenic Byway Website Concept Redesign



Clear and obvious navigation categories link to the most important pages.

Dramatic, focal-point banner's images change every few seconds to show different areas and seasons. Creative phrases interpret the byway.

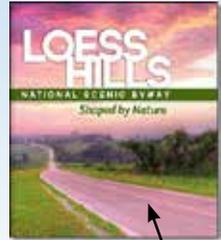
Logo, font styles, colors, and curved header replicate style of other media.

Snapshot images are informal and connect visitors to interpretive messages.

Prominent placement of the Loess Hills video recommended in this plan.

Upcoming events section highlights byway and community events.

Click to download the byway guide, with detailed maps.



Other printed media should be downloadable.

Contact information and social media icons displayed on every page.



A redesigned Loess Hills Byway website should accommodate mobile devices' smaller screens. The messages and photos are reduced to a single column. To reduce clutter, the navigation menu is hidden under the maroon and white-line icon in the upper left, which is familiar to smartphone users. Clicking that icon brings up a menu with large buttons showing different navigation categories.

- **About:** Drop-down menu items under About can include a **general overview** of the byway, a **brief history** of its development, a list of **council members**, and **contact information** for more information.
- **Explore the Byway:** Drop-down menu items under this heading can include links to explore more about each of the **three byway regions**; and the intrinsic qualities **attraction categories** (natural and scenic, cultural and recreational, historic and archaeological).
- **Plan Your Trip:** Includes an interactive **byway map** to be used for planning and while driving the byway. Different icons can show the location of attractions and categorize them by topic (hiking trails, scenic vistas, historical sites, cultural destinations, etc.) When a user clicks on an icon, they see a concise description of the attraction, with a link to a more detailed description elsewhere on the site or directly to the attraction's website. This section also can include **suggested itineraries** based on byway regions and available time and suggested itineraries based on topics (intrinsic qualities categories). It also should offer options to download the **Byway Guide**, **Request Information**, **Iowa Road Conditions**, **Iowa Welcome Centers**, **Lodging Options** (hotels, motels, cabins, camping), and **Dining Options**.
- **Events:** Includes news stories and events that are specific to the byway or its communities. It is important to keep this updated to show that the byway is actively supported.
- **Gallery:** This heading links to various **photo albums** showcasing the byway's regions and attractions by category. Photo albums should be navigated by clicking an arrow to quickly view photos instead of having to scroll down a long page, as the current website offers. On smartphones and other handheld devices, pictures would be viewed by swiping.

The **website design** should be updated to encourage discovery and to reflect the unified design standards recommended in this plan. This would include:

- Unified font styles, colors, and graphic elements (like the curved header) reinforce the visual identity of byway media.

- Incorporate dramatic and engaging photographs of byway scenery and attractions.
- On the home page, a rotating banner can switch photos every few seconds, representing different regions and seasons along the byway. A creative phrase superimposed over each image can reinforce the interpretive themes.
- Social media options, such as Facebook, Twitter, YouTube, and Instagram, should be available in the same place on each web page on the site. This encourages sharing and interaction.
- Contact information also should be available on every page of the site, providing opportunities for travelers to ask questions.
- Other engaging media, such as videos, experience hub locations, and travel guides should be highlighted to encourage exploration.
- Design for viewing on mobile devices, which are increasingly used by travelers, both at home and on the road.

Social Media

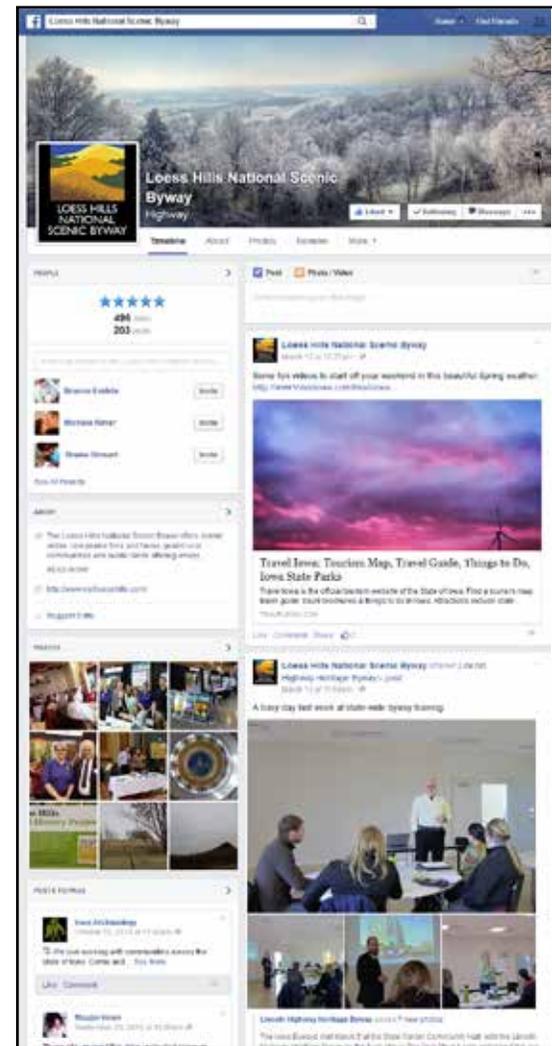
Along with using more traditional travel sites to research destinations, tourists are turning to social media.

In the 2014 Google travel survey, about 83 percent of the respondents said they use social networking, video, and photo sites to be inspired about travel destinations.

An active social media presence allows the Loess Hills National Scenic Byway to spread the word about current events and to interpret the byway's resources, while also serving as an information-gathering tool for the byway committee to stay in tune with travelers' needs.

Social media opportunities for the Loess Hills byway include Twitter (sharing text messages limited to 140 characters), YouTube (sharing videos), Instagram (sharing square photos with filters applied), and Pinterest ("pinning" images to themed bulletin boards).

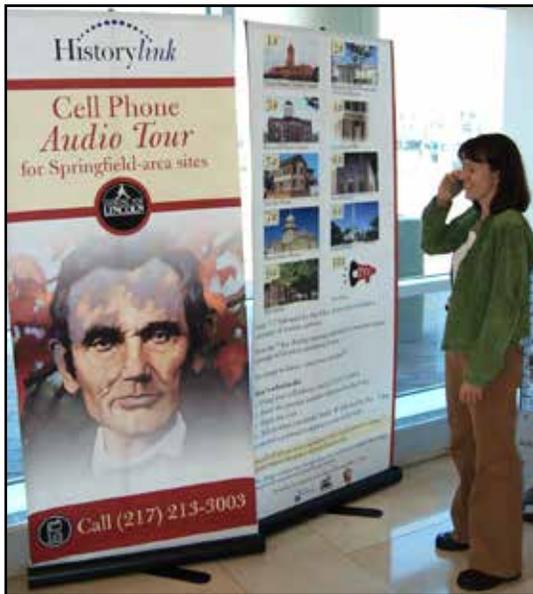
The major challenge with social media sites is keeping them updated and pertinent, but they can be well worth the time invested. They are inexpensive to communicate through, are instantaneous, and are easy to change or alter.



The Loess Hills National Scenic Byway Facebook page includes regular postings and updates.



Trail users on a bike trail in Rapid City, South Dakota use smartphones to scan QR codes on interpretive panels.



Cell phone tour for “Looking for Lincoln” sites in the Springfield, Illinois area.

MOBILE DIGITAL MEDIA

The number of people who own mobile devices such as smartphones and tablet computers continues to increase exponentially in the U.S. According to a 2014 Pew Research Center survey, 58% of adults now own a smartphone, up from just 35% in 2011. For those between the ages of 18-29, 83% own a smartphone. About 42% of adults own a tablet computer, up from 10% in 2011.

Travelers on the road expect to stay connected and find information through social media sites, Internet searches, GPS navigation, apps, and other technologies that are constantly evolving. Scenic byways like the Loess Hills should plan innovative solutions for connecting with visitors who are using mobile technologies. The proliferation of personal mobile devices opens up a vast world of opportunities for sharing interpretive messages.

Audiovisual Tours

Audio tours have always been an effective method for interpreting messages along a scenic byway. Interpretive audio provides short clips of narration, sound effects, and music themed to specific sites along the byway.

Benefits of audio tours:

- Hearing a human voice adds a personal character to the tour, something difficult to accomplish with other forms of media.
- Music and sound effects are powerful connections to different places and times.
- Travelers on scenic byways often have long stretches of time driving from one point to another, an ideal situation for listening to interpretive audio messages.

Audio tours have evolved from cassette tapes and CDs, with the Internet now providing a means for sharing audio (and even video) tours with a much wider audience through the use of mobile devices. Several forms of distribution are available, each with its own advantages and disadvantages.

Cell Phone Audio Tours

Developed before the increase in smartphone ownership, a traditional cell phone tour is a system where visitors call into a centralized phone number, punch in a specific tour code, and listen to the interpretive message.

Benefits of a cell phone tour:

- The vast majority of U.S. adults today own a cell phone, 90% according to the 2014 Pew Research Center survey. The technology is very accessible to most people.
- It is easy to update audio messages in a centralized database as resources and events along the byway change.
- It allows for tracking visitors for marketing purposes. How many people are accessing messages? Which messages are they accessing? Where are they accessing them from?

Limitations of a cell phone tour:

- It requires a cell phone signal in order to work. Rural areas away from cell towers are not the best candidates for inclusion in the tour.
- Requires monthly hosting fees (average of \$175 per month).

Podcasting/Downloadable Tours

Another distribution method is to offer the digital message files online for users to download. This can be done through a podcasting feed (user subscribes to a feed for automatic downloads and updates of the files) or posted on a website for manual downloading. These files are

then transferred to a personal audio device, like an iPod or MP3 player, or a mobile device that plays sound (or video), like a smartphone or tablet.

Benefits of a downloadable tour:

- Messages can be downloaded before the trip for planning purposes.
- Depending on the size, files can usually be provided on an existing website for free (no monthly maintenance fee beyond normal web-hosting costs).
- Messages can be recorded in-house and easily updated on the website.

Limitations of a downloadable tour:

- Users must own a personal audio device (just over 50% of Americans) and be knowledgeable about how to transfer files from a computer to the device.
- Audio and video files can take up large amounts of precious space on a mobile device, which may limit their use.



The Freedom Trail Audio Tour in Boston, Massachusetts can be downloaded to a mobile device prior to the visit.

The Illinois River Road mobile tour website at illinoisriverroad.org/mobile includes customizable searches for interests by community and a GPS-enabled “What’s Near Me?” feature.



Visitors to J.N. “Ding” Darling National Wildlife refuge scan QR codes on signs to view videos along an innovative “iNature Trail.”

Mobile Website Tours

Mobile websites are similar to regular websites but designed specifically for the smaller touch screens of mobile devices. As tours, they can incorporate both visual and audio components, enhancing the sensory experience for visitors. They are also interactive—when a visitor touches a button, the website responds, providing an engaging experience.

Benefits of a mobile website tour:

- Encourages interactive participation.
- Works with all brands of mobile devices; just requires an Internet browser.
- Does not require any downloading of files; all pages, sound, and video are streamed directly through the Internet when viewed.
- Easy to create and update using common website editing tools.
- Services can be added to the website to track visitor usage.

Limitations of a mobile website tour:

- Requires access to the Internet. A strong cell phone signal or Wi-Fi connection is needed.
- Website programming has some limitations in terms of visual layout, responsiveness, and tools. They don’t look or react as slick as apps.

Byway Tour Apps

Mobile apps are convenient programs that are downloaded to a smartphone or tablet, providing quick and easy access to interpretive messages. Like mobile websites, apps incorporate both visual and audio components and encourage interactive participation. An app can tell a story through historic photos, narration and music, video, games, demonstrations, and other techniques.

Benefits of a byway tour app:

- Encourages interactive participation.
- Provides nearly unlimited options for design and techniques.
- Can use the GPS feature of a mobile device to automatically trigger site-specific messages or show attractions near the user’s current location.
- Typically much faster and responsive than web-based media.
- Does not require Internet access to run (although some features of the app may require this).

Limitations of a byway tour app:

- App must be downloaded and installed onto mobile device. Depending on content, this may take up a considerable amount of space.

- Apps are more difficult to program and update. Apps are specific to a mobile device's operating system. For example, Apple apps are different than Google Android apps. This requires multiple apps to be developed to reach the largest number of users.

QR (Quick Response) Codes

QR (Quick Response) codes are matrix bar codes that quickly link mobile devices to online media such as websites, audio clips, and videos. QR codes can be incorporated into publications, interpretive panels, and even artifacts along the byway. A traveler uses the camera on their smartphone or tablet to scan the QR code with an app, which decodes the information and uses other apps on the device to show the interpretive content. Stone masons in Japan have even engraved QR codes on tombstones so visitors can see information about the deceased person.

Benefits of QR Codes:

- Quickly connects mobile devices to online resources without the need to carefully type in a URL address.
- Can be created and printed on media for free. Multiple websites provide

services that create personalized QR codes.

- Since QR codes link to online resources, the resources can easily be developed, changed, or updated at minimal cost. The website also can track visitor usage.
- Different QR codes can be generated to link to different messages. For example, a wayside exhibit might have one QR code that links to messages for adults, and a second QR code that links to messages for children.

Limitations of QR Codes:

- QR codes require access to the Internet. A strong cell phone signal or Wi-Fi is needed.
- Traditional QR codes are composed of black and white squares, not always an attractive addition to a media design.
- Once created, the QR code will always point to the URL address that it is encoded with. If the online resource address changes, the QR code on all media will also need to be changed.



Alabama's Coastal Connection Scenic Byway has a free app that includes videos, events, a list of attractions, and a byway map.



Each iNature Trail panel at Ding Darling National Wildlife Refuge is thematic and features two QR codes: one that links to a video geared toward adults and the other geared toward children.



Conceptual rendering of a Loess Hills tour app that would provide a flexible way of sharing audio and visual interpretive messages with travelers.

Recommendations for the Loess Hills Byway

The byway has great potential for tapping into the mobile devices that the majority of travelers bring with them on their byway journey. Cell phone and data coverage can be spotty in the Loess Hills, but fortunately there are digital media options that can be downloaded ahead of time and do not require Internet access to use.

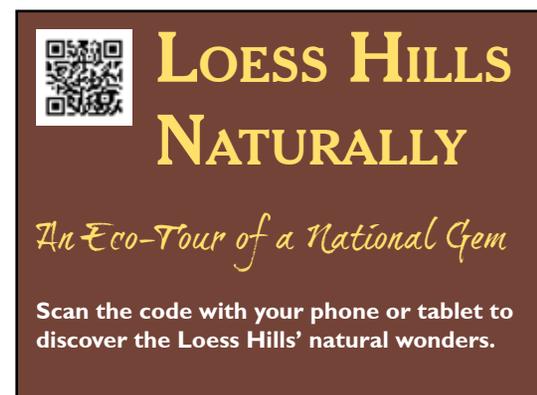
Our team recommends the development of a professional audiovisual byway tour that can be distributed to travelers in multiple ways. This would include:

- **Set a clear theme for the tour,** which will assist in the collection of stories and interviews. “Orchards to Vineyards” could be a video story of food, drink, and sustainable crops grown in the Loess Hills. “The Loess Hills Naturally” might be a video themed to the unique natural history of select sites along the byway such as prairie preserves for grassland ecology hikes, Hitchcock and Dorothy Pecaut nature centers, and Waubonsie State Park for grasslands, woods, and birds, and the state forest at Pisgah for fire ecology and scenic views of grasslands and

river bottoms. “Passing Through” could be a video themed about all of those travelers who used this great crossroads of the continent to escape from slavery, avoid religious persecution, or find new lives in the West. It could include the story of Lewis and Clark, riverboats, and transcontinental railroads. It would highlight visits to the Corps of Discovery visitor centers, the Bertrand exhibit at DeSoto National Wildlife Refuge, Tabor, and Mormon sites.

- **Record oral histories and interviews** with people who lived and worked along the byway, and those who have special expertise based on the theme. High-quality video recordings will provide the most flexibility for producing an audiovisual tour.
- **Edit the messages down to their essence.** Choose messages that relate to universal concepts, those beliefs and ideas that mean something to all of us (love, family, tragedy, survival, etc.). These make the most interesting and engaging stories for visitors. Keep the messages short. Travelers will likely not listen to anything more than 3 minutes long. Short, intriguing messages will encourage visitors to choose more messages.

- **Create a narrative storyline.**
Narrators are often necessary to tell the story in a concise way and introduce the various oral histories and interviews. Narration should be concise, active, and friendly. More than one narrator, a male and female for example, provides variety. They should provide oral directions to the next stop. Sound effects can be added to enhance the audio experience.
- **Develop a Loess Hills Tour App** that ties the narration and stories together into a holistic tour. An app provides a great deal of flexibility for presenting interpretation. Messages can be offered in an audio or video format. If only audio is available, photos can be shown to enhance the message (for example, historic photos of the community). The app should provide a map with tour locations indicated, and be linked to the user's current GPS location. It also can be programmed to read a GPS location to automatically offer site-specific messages. However, the user also should have the ability to listen to any of the messages when and where they want to.
- **Develop a Loess Hills Tour Web Page** that provides the ability to download or stream audiovisual messages. Once an app is developed, it will be easy to take the audio from specific messages and make them available in other formats. A web page with links to the audio or video files provides options for users to either download the tour before their trip onto a mobile device or stream the messages directly through a mobile device while at the site itself (as long as a cell signal is available).
- **Add QR Codes to different media** that link to the audio/visual tour files. When audio or video files have been added to a web page, QR codes can be created that link directly to the messages. A user can simply scan a QR code with their mobile device, and that specific audio or video file will be streamed automatically to the device (as long as a cell signal is available). QR codes can be added to experience hub or wayside exhibit panels, travel guide and map publications, or welcome center exhibits.



QR codes, like the sample above, can be added to existing media or made into separate signs. They link directly to the byway tour website.



Several excellent brochures address the needs of select target audiences: *RVing in the Loess Hills*; *Birding in the Loess Hills*; *Roll Me Away! Loess Hills*. Each brochure is designed in a similar attractive, user-friendly format.

PUBLICATIONS

While most travelers prepare for their trips using the Internet, there are many reasons to develop printed publications:

- They have a physical presence more permanent than a digital screen.
- A publication can be taken everywhere and is not limited by spotty cell phone signals.
- They have take-home value as a souvenir of the experience to share with others and plan for future trips.

Golden Hills RC&D and the Western Iowa Tourism Region, along with several partners and sponsors, have produced excellent special interest brochures and a recently updated byway guide.

General Byway Brochure

Brochures are a cost-effective primary marketing tool for byways because they reach casual travelers who are unaware of the byway until they enter the area. There are many travelers who do not plan a road trip in advance but who look forward to a serendipitous adventure as they travel a new route.

Although smartphone use is increasing, not everyone uses them or prefers to use

one as their primary means of planning a trip and navigating. A significant number of people like to have a printed publication that can be tucked in their pocket and is not limited by spotty cell phone coverage or low batteries.

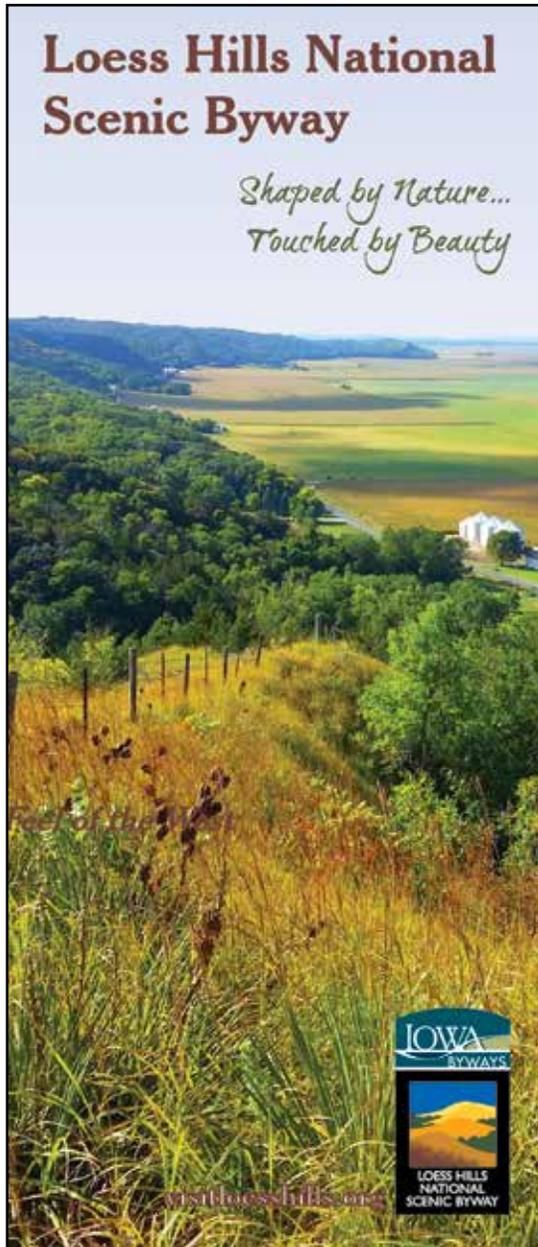
Publications have take-home value and serve as placeholders and keepsakes of an adventure. They often are shared with others and have a longer life than digital communications that pass fleetingly over a screen.

A basic byway brochure should not attempt to do more than stimulate people to access more in-depth information online or at welcome centers. It should be bold and concise with a simple, clean design and dramatic images that highlight significant attractions and other byway media.

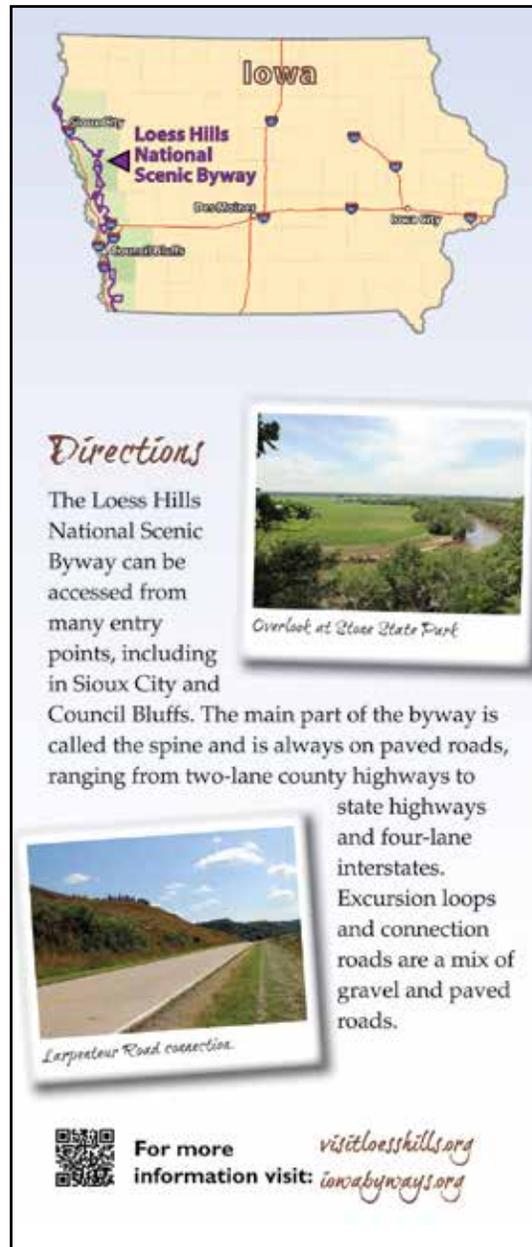
Design Recommendations:

- **Size and folds:** an 11-inch-by-17-inch panel leaflet brochure is an effective layout for introducing the byway.
- **Design elements:** Colors, font styles, and graphic styles should be unified with other byway media (see “Unified Design Standards”).

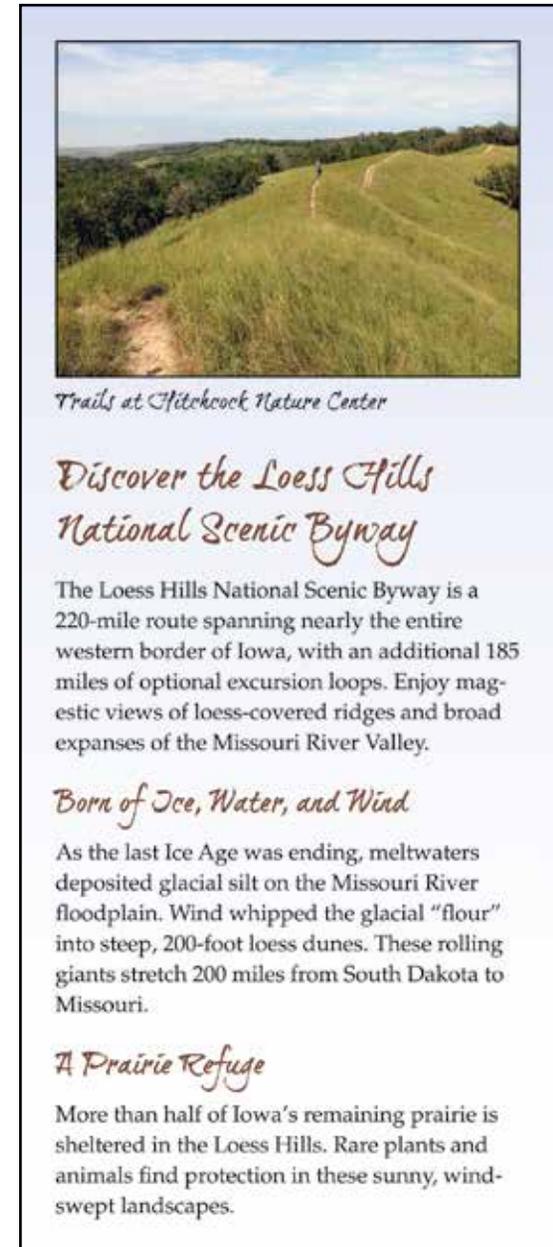
Loess Hills National Scenic Byway Brochure Concept Design



Front Cover



Back Cover



First Reveal

Sioux City Region

Feel of the West

The northern region of the Loess Hills exhibits the look and feel of the Great Plains. It is dry, contains large prairie remnants, and boasts many of the highest and most scenic overlooks of the Missouri River Valley.

Sioux City is nestled between the Loess Hills and the Missouri River, so many attractions interpret the history of the river and of the Loess Hills. The site of the only death in the Lewis and Clark Expedition is marked by

a national monument dedicated to Sergeant Floyd.



Pasque flowers in bloom at Loess Hills State Forest.



Sylvan Rucker State Preserve

Council Bluffs Region

Crossroads of America

Council Bluffs has long served as an epicenter for travel, so it is fitting that this national crossroads is also the byway's central hub. Interstate highways, scenic byways, transcontinental railways, waterways, and historic trails converge at this river crossing.

Raptors are the highlight at Hitchcock Nature Center, where westerly winds create soaring thermals.

This region also is rich with entrepreneurial artisans such as lavender and aronia farms, wineries, and orchards.



Hiking at Hitchcock Nature Center

RailWest Museum, Council Bluffs



Platte River Region

Prehistoric Riches, Rodeos, and Underground Railroads

The rugged southern hills are cloaked in woodlands. The convergence of the Platte and Missouri Rivers provided a rich floodplain and



Waubesaie State Park

transportation routes for the prehistoric Glenwood Culture, as evidenced by 1,000 earthen lodges.

This region was a hotbed of unrest before the Civil War. The Underground Railroad thrived, as major stations in towns like Tabor ushered slaves to safety.

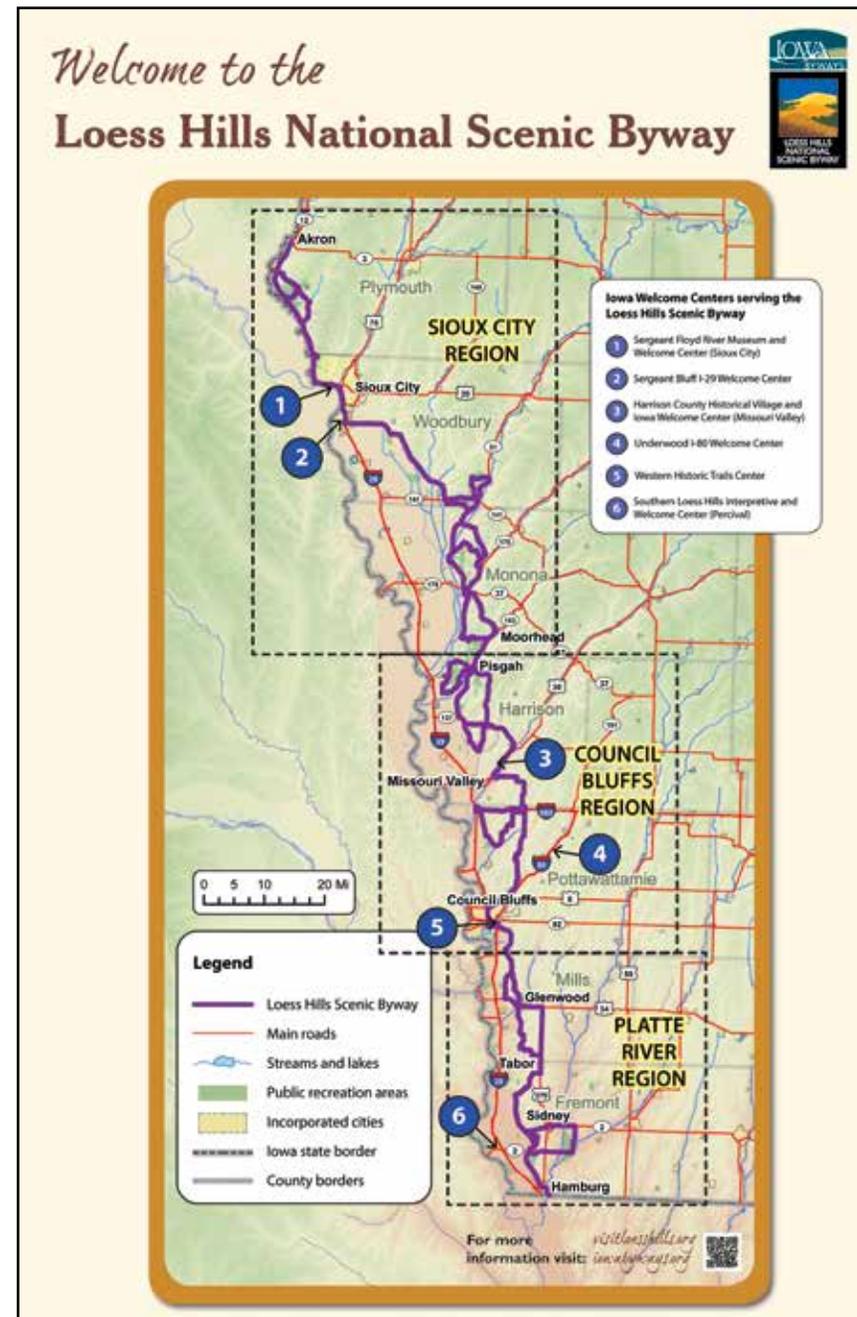
At the southern end of the byway, Sidney hosts Iowa's largest continuous outdoor rodeo.



The Rev. Todd House, Tabor

- **Front Cover:** Needs to be designed to be noticed in a rack with other brochures. An obvious “Loess Hills National Scenic Byway” title should be visible above the rack holder. A dramatic focal-point photograph that represents the byway, like the stretch of road below Murray Hill Scenic Overlook, encourages readers to open the brochure. The byway logo should be added to unify with other media.
- **Back Cover:** The back cover would be an ideal place to include a map of Iowa showing the location of the byway. Contact information will also be important here.
- **First Reveal:** When a reader first opens the brochure, another dramatic image draws the eye to a concise and active description of the byway.
- **Second Reveal (3 panels):** As the reader continues to open the brochure, three adjacent panels will highlight the three regions of the byway. A description of the characteristic features of each region and some key attractions will pique the visitor’s interest.
- **Full Reveal Inside (6 panels):** The inside of the brochure features a map of the byway with the byway route clearly marked. Iowa Welcome Centers along the byway are clearly indicated, guiding travelers to places for more information.

Full Reveal Inside:
Byway Map



Loess Hills National Scenic Byway Guide

This printed guide is an essential resource for byway travelers. It is also available in digital format at visitloesshills.org, the byway's website.

The guide is organized by county with a user-friendly format:

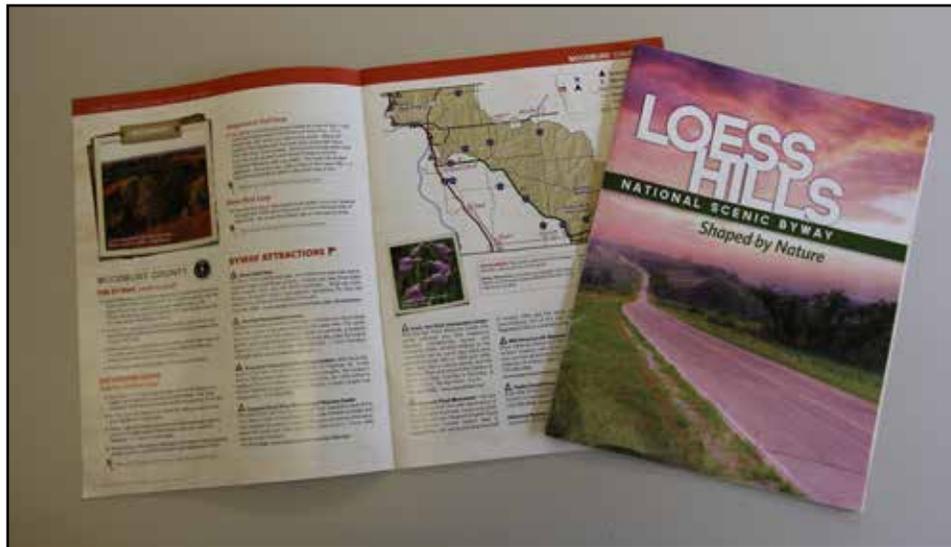
- It describes the byway from north to south.
- Excursion loops are detailed.
- Byway attractions are described and located on a map of the byway on a county-by-county level.
- Area attractions are listed.

Recommendations

This excellent guide could be improved in several ways:

Organize the guide by region rather than by county: As discussed earlier in this plan, most visits to the byway are limited to a few hours or a day. Few visitors drive the entire byway, but they are still interested in a Loess Hills experience that immerses them in the region's natural and cultural significance—to experience the “sense of place.” Each of the three regions—Sioux City, Council Bluffs, and Platte River—has Iowa Welcome Centers and interpretive centers where visitors can seek orientation and information to plan their trip in the Loess Hills. The attractions in each region are easily accessible within a day's drive.

Theme the attractions within the region: Many visitors have specific interests that are not readily covered by the current byway guide or website. Themed itineraries that address visitor interests would provide focus to their trip-planning. The need for themed itineraries was expressed by participants at the visioning and community meetings. As described earlier, the interpretive resources (byway attractions) are categorized thematically based on



The Loess Hills National Scenic Byway travel guide.

Guide Booklet Concept Design

(two pages interpreting Council Bluffs Region scenic and natural attractions)

Natural & Scenic Attractions

Hitchcock Nature Center, Cloney Creek

View from Murray Hill Scenic Overlook

Council Bluffs Region

Bluffs Towering over a Mighty River

Prairie bluffs present panoramic views of the vast Missouri River Valley. This region provides some of the most accessible vistas in the Loess Hills. Hike miles of wild trails through waving prairie grass or drive through secluded canyons on gravel loops and discover this bucolic hill country.

Loess Hills State Forest
Loess Hills State Forest is an 11,000-acre mosaic of forests and prairies that is all open to the public. Info: www.iowadnr.gov/Destinations/StateForests/LoessHillsStateForest.aspx or 712-456-2924.

4 Murray Hill Scenic Overlook
Murray Hill offers a short walk up a prairie ridge to picturesque views of the Loess Hills and Missouri River Valley. Info: www.harrisoncountyparks.org

1 Loess Hills State Forest Visitor Center, Pisgah: This interpretive center is an orientation hub with excellent exhibits about the forest and the Loess Hills.

2 Oak Avenue Scenic Overlook: This scenic overlook offers spectacular views of the surrounding hills and Missouri River valley. A one-mile loop trail from the observation deck invites you to walk through prairie-capped ridge tops.

3 Jones Creek Pond: This waterway is a superb place to see waterfowl.

5 Hitchcock Nature Center
This nature center is a great place for an immersive Loess Hills experience. The spacious visitor center features Loess Hills exhibits and a 45-foot viewing tower. Ten miles of trails invite treks through prairie-covered ridges and forested valleys. A full range of camping opportunities are available. Info: www.pottcoconservation.com/parks-and-habitat-areas/hitchcock-nature-center/ or 712-545-3283.

6 Vincent Bluff State Preserve
This treasured urban prairie in the heart of Council Bluffs has a prominent view of the city and of Omaha, Nebraska. Info: www.loesshps.org.

www.loesshills.org
www.iowadnr.org

“intrinsic qualities” categories. These categories will aid visitors in selecting attractions that meet their interests.

Redesign the guide to be consistent with Iowa Byways design standards:

This revision would include adding the Iowa Byways logo to the cover and using fonts and colors consistent with other interpretive media.

Include maps of attractions that are more than approximations of their locations: This would require adding specific roads that lead to each attraction.

Currently, travelers must use an Iowa road map or GPS in addition to the guide to locate many of the attractions, and even then it can be difficult.

In the revised guide, each region should be developed in the following format:

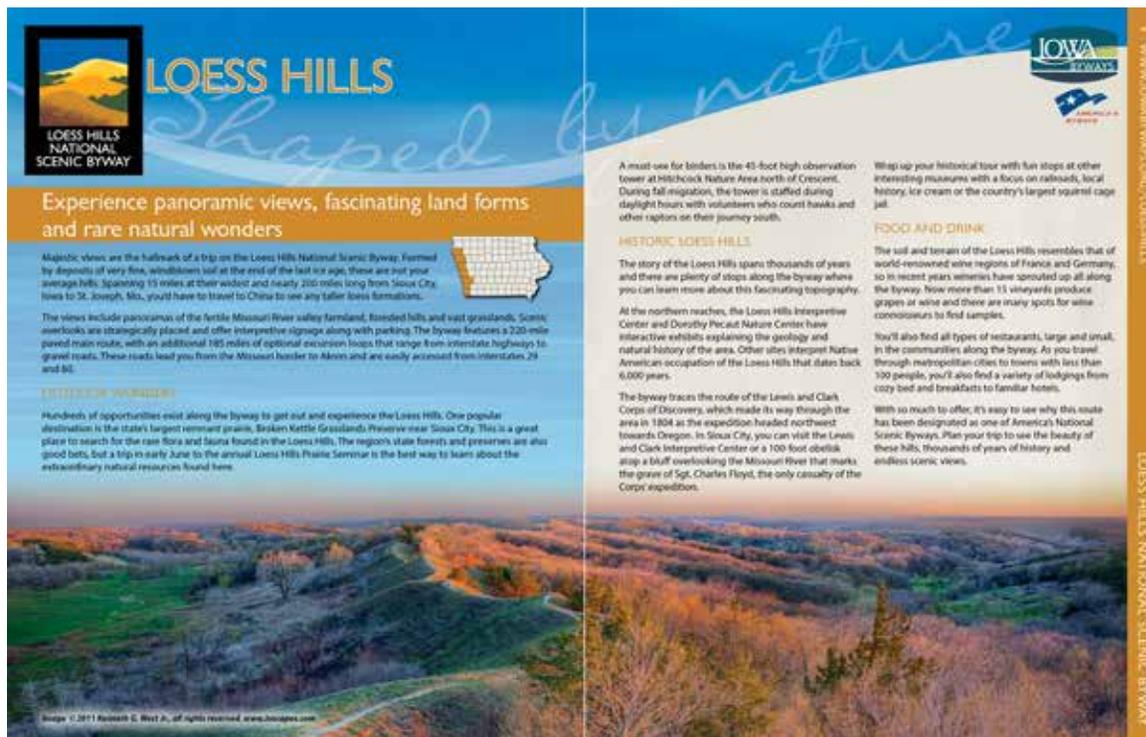
- An introduction to the region that expresses its unique natural and cultural character (see page 32, Sioux City Region, “Feel of the west”; page 42, Council Bluffs Region, “Crossroads of America”; page 54,

Platte River Region, “Prehistoric Riches, Rodeos, and Underground Railroads”).

- A map of the Welcome and Interpretive Centers and Experience Hub Kiosks in the region.
- A narrative description of the special features of the spine and excursion loops within the region. Currently, loops are described only with turn-by-turn directions. These descriptions should paint pictures of the driving experience to let drivers know what to expect and to build anticipation.

For example: *The Butcher Road Connection provides travelers with an intimate pastoral drive on remote, gravel roads where prairie grows to the road edge. High ridges provide long views of prairie pastures dotted with grazing cattle and bison.*

- A map of the attractions in the region identified in themed categories: Scenic and Natural; Historic and Archaeological; Cultural and Recreational; Special Interest.
- Concise, lively descriptions of each attraction.



Loess Hills National Scenic Byway pages in the Iowa Byways guide.

FAMILY ACTIVITIES

Identifying and developing family activities should be considered for the Loess Hills National Scenic Byway. Excellent family and children's activities abound at nature centers and interpretive centers. The recommendations listed below will help engage entire families as they travel the byway.

Byway Kids' Discovery Kit

A children's discovery pack or box can be made available for checkout or for purchase at key locations on the byway such as welcome centers. These kits can be filled with fun tools that entice kids to learn more about the Loess Hills.

A kit can contain authentic tactile objects as simple as a kindchen, a vial of loess soil, bison hair, or yucca fibers. The kits also could contain such items as:

- A magnifying bug box for close observation of prairie grass seeds or insects.

- Themed coloring books depicting historical events along the byway like the transcontinental railroad, the Underground Railroad, rodeos, covered wagons, the Lewis and Clark Expedition, or one featuring birds of the hills like vultures, meadowlarks, and magpies.
- A simple songbook of historic songs about building the railroad, rodeos, or western wagon trains.
- Photos and drawings of things to look for on the byway, like cat-steps, cattle, orchards, and eroded cliffs.



Louisiana's Creole Nature Trail All-American Road has developed a thematic children's travel kit with toys, binoculars, crayons, and an activity booklet.



Children have opportunities to explore the Loess Hills at the many nature and interpretive centers along the route, including Dorothy Pecaut Nature Center in Sioux City.



An audio tour targeted specifically to children can help them connect with the byway's stories.

Children's Byway Audio Tour

A kid's view of the byway could be enhanced by using children to narrate using stories and subjects that interest kids. A girl might tell what it was like to walk to her one-room country school, where all eight grades studied in one room, a pump was used for water, and an outhouse was the school bathroom. A child could tell the story of living in a loess dugout with a sod roof and having farm chores to do, or a kid could tell of competing in "mutton busting" (sheep riding) at the Sidney Rodeo.

Sound effects such as a prairie thunderstorm, wind on the ridge, a train, coyotes howling, cattle mooing, or a school yard bell ringing could all add excitement to these stories.

Scavenger Hunt

We all like to explore and discover surprises. Scavenger hunts provide an immediate motivation for discovering things. Everybody has an equal chance to compete regardless of age. Incentives can be added for completing a scavenger hunt card, like an apple or an ice cream at a participating orchard or vendor or one entry fee with at least one or more paid entries at a museum or other attraction, which stimulates sales for many small businesses.

Some scavenger hunt items to find might include:

- A one-room country school
- A white-faced Hereford cow
- A turkey vulture
- Cat-steps
- An on-grade railroad crossing
- Terraced crops
- A cattle guard

MEDIA COST ESTIMATES

These estimates were established on in January 2015 based on quotes from Barking Dog Exhibits for frames and bases and from iZone Imaging for panel fabrication quotes. **These price estimates do not include writing and**

design costs. Mobile tour and website costs are based on actual costs of similar byways. Cost estimates for each category are considered broad estimates for the purpose of seeking funds.

Media Type	Info	Rationale	Cost Estimate
Experience Hubs	pg. 90	Highly visible way to orient travelers to regional attractions. Cost-effective where attractions are not routinely staffed.	Supports and frames: \$2,850 Panels: \$2,300 Total fabrication: \$6,000 each
Wayside Exhibits	pg. 106	Best way to communicate must-tell stories at significant sites along byway where no other tools are available.	Bases: \$500 Panels: \$350 plus shipping Total fabrication: \$900 each
Site Orientation Signs	pg. 118	To assist visitors in finding locations and to interpret the byway and that specific site.	\$1,300 each
Byway murals	pg. 126	Desirable way to call attention to the byway and help communities share their unique sense of place.	Highly variable based on artists and substrates
Steel silhouette statues	pg. 128	Highly visible way to focus attention on a significant story or event on a roadside scale.	\$1,500 average
Website design and social media development	pg. 144	Reaches a large audience; is easily updated.	\$35,000-\$50,000
Byway audiovisual tour development	pg. 148	A great tool for incorporating sound and visuals to make stories come alive.	\$35,000
General byway brochure	pg. 154	To promote awareness of the byway.	\$3,000 per 15,000 copies
Travel guide booklet	pg. 158	A traditional way for many visitors to negotiate the byway.	\$12,500 per lots of 10,000 booklets

APPENDIX

Ridge Road Loop through Broken Kettle Grasslands Preserve.



LOESS HILLS BYWAY VISIONING MEETING RESULTS

On April 10, 2014, Schmeeckle Reserve Interpreters conducted a visioning meeting with Loess Hills National Scenic Byway stakeholders at the Harrison County Historical Village and Welcome Center. The purpose of the meeting was to gather information about the places, activities, and stories that should be interpreted along the byway.

During this meeting, participants were asked to respond to the following questions by using a nominal-group process.

1. How could the visitor experience be improved on the Loess Hills Byway?
2. Who are the primary target audiences for interpretive media on this byway?
3. What compelling stories and meanings should visitors take away from their Loess Hills Byway experience?

Participants were then asked to vote on the responses. Vote totals are listed in parentheses to the first three questions. If no total is given, the response received no votes.

The responses were recorded, organized,

and sent to Golden Hills RC&D for review and dissemination. The final results are included below.

How could the visitor experience be improved on the Loess Hills Byway?

- Add bicycle/walking trail along byway (6 votes)
- Cohesive interpretation throughout byway, unified (5 votes)
- Educate front-line people interact with visitors (5 votes)
- Tell history stories better – stories of people Ex: Mormon stories (4 votes)
- Improve appearance of communities along byway (4 votes)
- Merchandise – take-home memories (4 votes)
- Itineraries on how to experience byway – If you have one day, where to eat, stay, stop ... (3 votes)
- Alternatives for fill dirt (3 votes)
- Better tree removal – cedars – to improve views (2 votes)
- Restore native prairie in public areas (2 votes)
- Increased statewide promotion and in-county promotion – to instill need for preservation (2 votes)
- Better roads – rock roads (2 votes)
- Scenic pull-offs on byways – identified on maps (2 votes)
- Promotion to children – contest, activities (1 vote)
- More hands-on, interactive media (1 vote)
- Proper signs/entrance signs for communities (1 vote)
- Getting the personal stories and sharing (1 vote)
- Year-round options – off-season itineraries
- Online maps and printing for use
- Access and promotion of “hidden gems” – smaller sites with less funding
- Visitor center in Mills County
- Share story of unique plants and animals
- Clean up junkyards along byway loops – enforce ordinances
- Archaeology, native people – work with archaeological center

Who are the primary target audiences for interpretive media on this byway?

- Motorcycle and car clubs (8 votes)
- Outdoor recreation enthusiasts – campers, bikers (7 votes)
- Baby Boomers (money and time) (7 votes)
- Drive-by travelers – on their way elsewhere (6 votes)
- Wildlife enthusiasts (4 votes)
- Foodies and wine aficionados (4 votes)
- City families (2 votes)
- Out-of-state travelers (2 votes)
- Visitors of local families (2 votes)
- Geocachers (2 votes)
- Agri-tourists (1 vote)
- In-depth travelers – immersion – 3-4 days (1 vote)
- History buffs (1 vote)
- Antique collectors/flea market people (1 vote)
- Coach bus tours
- People traveling to a specific event or program
- Senior groups/road scholars
- School groups: K-12, college

- Urban hipsters
- Local residents
- International tourists or tour groups

What compelling stories and meanings should visitors take away from their Loess Hills Byway experience?

- Importance of Loess Hills to cultures: Glenwood, Mormon (9 votes)
- Odd facts unrelated to Hills (9 votes):
 - Old Home Café
 - Eskimo Pie
 - General Dodge
 - Amelia Bloomer
 - Black cemetery
 - Al Capone in Sioux City
 - Hitchcock still
 - William Jennings Bryant spoke in Riverton
- Lewis and Clark expedition (5 votes)
- Geologic story – how Hills were created (4 votes)
- Living with Loess, farming methods, building (3 votes)
- Remnant landscapes – prairies (2 votes)
- Iowa Rodeo, 1923, Sidney, Rodeo Museum (2 votes)

- Underground Railroad (2 votes)
- Settler story and their churches and cemeteries (2 votes)
- Use of prescriptive burns, channelization of rivers (2 votes)
- Fire story (2 votes)
- Migration corridor – Missouri River, Hawk Highway (2 votes)
- Malvern 4th of July – drew big crowds, auto push ball game (1 vote)
- Big flood (1 vote)
- Significance of flora and fauna (1 vote)
- POW camps
- Eastern/western crossover zone for flora/fauna
- Transcontinental railroad – Council Bluffs, General Dodge and Lincoln
- Steamboat Bertrand sinking
- Uncle Tom’s cabin theater group – Little Sioux
- Significant grape-growing region in south/orchards
- Local farming – fields, crops, methods, monoculture
- Story of reburying Native American bones – national ordinance
- Turin Man

- Hobos living in the Hills/Great Depression era
- Story of the diverse barn structures
- Use of Loess, bricks
- Town histories
- Aronia berry plantations
- Women's plane organization – 1940s, 1950s

COMMUNITY MEETING RESULTS

In June 2014, Schmeckle Reserve Interpreters held two community meetings on the Loess Hills National Scenic Byway. Stakeholders and interested community members were invited to share input for the interpretive planning process.

Meetings were held June 23 at the Southern Loess Hills Interpretive and Welcome Center in Percival and June 25 at the Sioux City Public Library.

During these meetings, participants were asked to respond to the following questions.

1. What are some “must see” places, things, or activities that a Loess Hills tourist should experience when they visit your region?
2. What stories about your community would you share with byway travelers?
3. How can interpretation and the visitor experience be improved on the Loess Hills Scenic Byway?

Percival

June 23, 2014

What are some “must see” places, things, or activities that a Loess Hills tourist should experience when they visit your region?

- Feel the Loess Hills soil
- Waubonsie State Park
- Scenery and wildlife
- Tabor anti-slavery project (Blanchard cemetery at Max Bebout farm near Percival on National Historic Register, Tabor cemetery, Todd House, Tabor Park)
- Tabor Underground Railroad station
- Broken Kettle Grassland bison herd
- Sidney Rodeo Museum and Fremont County Historical Museum
- Farrell House in Randolph
- Chautauqua in Riverton (William Jennings Bryant speech location)
- Riverton Wildlife Area (birding, hunting)
- Wearins native prairie in Hastings
- Fremont County Courthouse

- Hunter School House by Tabor (on original site)
- Small farms, wineries such as Sugar Clay, Honey Creek Creamery, small agribusinesses, farmers markets, B&Bs, lavender. Living Loess marketing effort (Harrison County)
- Old hardware store
- High water marks of floods – flood stories
- Loess Hills Prairie Seminar in Monona County
- Road cuts to see hills up close: one in southern Mills County and one in Monona County
- Natural landscape, changeable – hills to river bottom

What stories about your community would you share with byway travelers?

- Changing landscape and what makes the Loess Hills, cat steps, trees growing up
- Sugar clay: Geological story
- Uses for Loess – making bricks for construction in the 1800s (Pat Hume’s family)
- Changing use of fire, historically, then suppression, then prescribed burns

- John Brown trained his men in Tabor Park to go to East Coast to take over arsenal and get guns
- Otha Wearin: Bought Todd House
- Fremont County Courthouse, rebuilt several times ... originally was level, now raised 6 feet, dirt hauled in with horses
- Stories of how towns got their names: Percival, Ferry Junction, Knox (name mix-up in getting a post office), Riverton originally Smithtown
- Settlement stories – Fremont County settled 1854, settlers coming up the Missouri River, hills more desirable for wood and protection than soggy bottom land
- Mount Tabor biblical, how Mount Tabor was named
- Tabor had the shortest full-scale railroad, went from Tabor to Melbourne, was 8.79 miles. In Guinness Book as shortest railroad. Tabor College built it to transport prospective students coming from East Coast.
- Abandoned towns: Payne, Walkerville
- Ferry crossings: one north of Percival, Brownville, Nebraska City.

Supposedly six ferries between bluffs and Nebraska City (Max Bebout)

- History of Sidney Rodeo. Started in 1923 by five men who came back from World War I who rounded up wild horses. Original arena was old Model Ts. 91st rodeo this year.
- Archaeological history: Glenwood, Mill Creek cultures
- Prominent local families and their industries: vegetable canning at Hamburg
- Penn Drug in Sidney: First owner was in Civil War and same family ever since
- Riverton Bank robbed by Jesse James’ best friend
- Baylor Farm history
- Smith Lake in Monona County – Sioux uprising/massacre

How can interpretation and the visitor experience be improved on the Loess Hills Scenic Byway?

- Positive visitor interaction at welcome centers (already doing) Passionate senior citizen volunteers at welcome center greeting visitors and telling the local story.
- Short interpretive film to explain the

Loess Hills to visitors at welcome centers. Build a small theater for visitors to watch the film, which would describe towns, history, Loess Hills. (RC&D film that was supposed to be shown?)

- Web-based materials for smart-phone users like stories, etc.
- Road improvements (roads torn up and not resurfaced, etc.)
- Document where things are located! Catalog of this with signs, signs, signs, but must protect.
- Connect with local business/artists and promote local products
- Signage along interstate

Sioux City

June 25, 2014

What are some “must see” places, things, or activities that a Loess Hills tourist should experience when they visit your region?

- Dorothy Pecaut Nature Center
- Stone State Park
- Broken Kettle Grasslands with bison herd, Nature Conservancy property and easternmost location of prairie rattlesnake

- Loess Hills State Forest overlook
- Ingemann Danish church, built in 1864, original to that timeframe. On front page of Midwest magazine.
- Preparation Park, started as town as Preparation by LDS church and its renegade leader
- Lavender farm
- Aronia farm
- Apple orchards
- Lewis and Clark keel boat experience
- Lewis and Clark Interpretive Center, Sioux City
- Sargent Floyd Monument
- Wife swapper, wife stealer
- Mormon community split
- Bertrand steamboat at De Soto National Wildlife Refuge
- Museum of the Religious Arts, Missouri Valley
- Hitchcock Nature Center
- German house barn at Manning, built in 1860, then torn down and brought from Germany to Iowa and reassembled
- Wineries
- De Soto Wildlife Refuge geese migration? Not coming through

anymore?

- Dunlap life-size wax nativity at Christmas
- Trinity Heights, 30-foot statue of Mother Mary, gardens – Sioux City
- Mapleton Mission Central
- Missouri Valley steamboat

What stories about your community would you share with byway travelers?

- Renegade LDS leader had all land put in his name. Community went to Iowa Supreme Court. Leader was to be hanged. Leader hid in Onawa courthouse and left for Utah and was never heard from again. Women sewed jewelry into clothing or pickled it into jars to keep it from leader.
- Sioux Indians came to lake by Little Sioux that was good hunting ground. Got into a fight with Tonka and Sioux were sent back home.
- Catfish spirit in lake, Sioux story
- Geological history, only one other formation like the Loess Hills in the world
- Native American history
- Lewis & Clark
- River boats

- Flight 232 crash in Sioux City history
- Sioux City's role in westward expansion
- Little Chicago side of Sioux City. Al Capone lived here.
- Templeton Rye – farmers in Templeton raised rye and were suppliers for best rye for Capone
- Black cemetery – blacks who came after Civil War, local farmer hired a lot of blacks. North of Moorhead a couple of miles.
- History of the Sioux City stockyards, once a major hub
- Huge train wreck at Logan. Big train day and thousands were there. When attendees were ready to leave, a small work train came through. When they got ready to leave town, two trains collided on blind corner. Took days to pull people from the wreck. Around 1878.
- Tornado that hit Boy Scout camp, southwest of Preparation Park. 2008.
- Chief War Eagle, friend of white settlers who came to Sioux City. Statue built in 1976. Statue had to be moved.
- Winter of 1856, Inkpaduta camped near Smithland. Spirit Lake Massacre

followed. Interpretive site near campsite.

- Tom Murphy ran with gangs such as Jesse James and is buried in Dunlap
- Chief YellowSmoke: Was drunk and killed and it almost led to a massacre.
- Bison reintroduction at Broken Kettle Grassland
- Clay mining for brick factories in Sioux City and Sergeant Bluff

How can interpretation and the visitor experience be improved on the Loess Hills Scenic Byway?

- Loess Hills DVD
- Signage used consistently – Finding Preparation Canyon is almost impossible.
- Apps that show you gas stations, trailheads, restaurants (local economic benefit)
- Social media platform for people to interact virtually
- Involving younger audiences in story of Loess Hills (using their technologies)
- Geocaching
- One group considering a museum without walls for the Loess Hills,

possibly with traveling exhibits that could be sent out

- Not everything has historical value – curling, outdated exhibits, too many elk horn scrapers, not enough interpretation. Like antique stores where nothing is for sale.
- Sites need to be unique and not like the next site 20 miles away.
- Loess Hills Heritage group has step-on tour guides who will get in your car. Radios for up to four cars to caravan.
- Audio tours
- Listing of area services
- Phone app to pull your coordinates and tell you where you are
 - Cell phone reception bad in the Loess Hills
 - Loess Hills publication in process of being put online for iPads

