Final Report and Feasibility Study

Granger, Iowa

Program Partners:

Iowa Department of Transportation
Trees Forever
Iowa State University

Iowa's Living Roadways community visioning

Participants

Town Steering Committee

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Kerry Loge
Anita Meiners
Joseph Watznauer
Steve Klocke
Sharon Wiese
Kristy Trzeciak
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Cathy Fuson
Tom Stahowick
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Fan-Kai Lin
Landscape Architecture Intern
Affiliation (e.g., Iowa State University)

Table of Contents

About Genus Landscape Architects

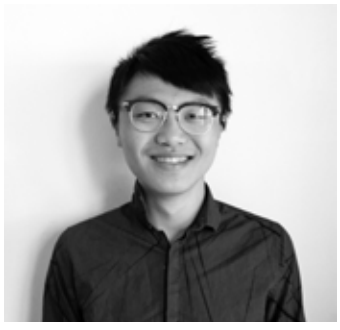
Located in the East Village of Des Moines, Iowa, gēnus is an award-winning professional consulting firm specializing in landscape architecture, planning, project management, and visual design services for clients throughout the Midwest. Our team has provided planning leadership and design excellence for Universities across the Midwest and East Coast.

Established in 2005, gēnus is focused on enhancing the quality of people's lives and the condition of the built environment through the discipline of landscape architecture. The foundation of our practice lies in the pursuit of creating artful landscapes that function: places which inspire lasting memories while meeting the needs of clients, user groups, and harmonizing with the larger ecological systems in which they exist. A commitment to innovative design, stakeholder involvement, and client satisfaction is demonstrated throughout our portfolio.

Eric Holt is the project manager for the Granger Visioning Project. He lead the team through the entire process, leading research, designs and managing tasks. Eric brings a level of experience and practicality to the project to deliver solid designs and concepts to the City of Granger.

Jordan Garvey is an Associate Landscape Architect working on the Granger Visioning Project. He was able to work with the Visioning Committee to help translate desires and needs in the community into the project designs to achieve the desired result.

Fan-Kai Lin is an intern with Genus and is a student at Iowa State University. He brought a great graphic hand and hardworking attitude to the team. He was primarily involved in the documentation and design.



Program Overview

Granger is one of 10 communities selected to participate in the 2017 Iowa's Living Roadways Community Visioning Program. The program, which selects communities through a competitive application process, provides professional planning and design assistance along transportation corridors to small Iowa communities (populations of fewer than 10,000).

Goals for the Visioning Program include:

- Developing a conceptual plan and implementation strategies with local communities
- Enhancing the natural, cultural, and visual resources of communities
- Assisting local communities in using external funds as leverage for transportation corridor enhancement

Each visioning community works through a planning process consisting of four phases of concept development:

1. Program initiation
2. Needs assessment and goal setting
3. Development of a concept plan
4. Implementation and sustained action

Each visioning community is represented by a steering committee of local residents and stakeholders who take part in a series of meetings that are facilitated by field coordinators from Trees Forever. Iowa State University organizes design teams of professional landscape architects, design interns, and ISU faculty and staff. The program is sponsored by the Iowa Department of Transportation.

Community Goals

The Granger visioning committee identified a number of goals and priority areas during the visioning process, which are included below:

Goals:

- Improve Pedestrian Safety at Highway Crossings
- Develop Local Trail System
- Enhance Regional Trail Connectivity
- Enhance Community Identity and Character

Priority Areas:

- Highways 141 and 17, Sycamore Street, & State Street - best practices for pedestrian safety and traffic calming in new crosswalks proposed at high-traffic highways and local streets.
- Local Trails - new loop trail system along Oxley Creek and Highway 141 to connect downtown, parks, and schools to neighborhoods, can be expanded per future development
- Regional Trail Connections - suggested trail routes and on-road bicycle facilities to provide direct access between Granger and Jester Park, the Raccoon River Valley Trail, High Trestle Trail, Beaver Avenue trail, and cities in the north metro area.
- Downtown / Main Street - Enhanced wayfinding to downtown and aesthetic character of Main Street
- Community Gateways - iconic gateway monuments and park space along Highway 141 to attract passersby and welcome them to visit Granger

Capturing the Granger Vision

Based on the needs and desires of the local residents, as well as a detailed inventory of community resources, the design team developed a conceptual transportation enhancement plan. This plan, as well as the inventory information, is illustrated in the following set of presentation boards.

Visioning Committee Brainstorming Goals
at the Performance Objectives Meeting

Design Workshop Site Assessment
Along State Street and Oxley Creek

Granger
Program Overview

Community Visioning Program Overview

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1. Program Overview
2. Bioregional Assessment
3. Transportation Assets and Barriers Assessment
4. Transportation Behavior and Needs Assessment
5. Transportation Inventory and Analysis
6. Historical Resources
7. Concept Plan Overview
8. Regional Connectivity Plan
9. Creek Crossing + Trail Hub
10. Downtown Gateway + Streetscape
11. Sycamore Gateway + Trail Hub
12. 141 Crossing + Gateway
13. Identity and Signage

Visioning Committee Voting on Priority Study
Areas at the Performance Objectives Meeting

Design Workshop Charrette Discussion on
Preferred Routes for Community Trail System

Genus Landscape Architects
LA's: Eric Holt, ASLA, PLA | Jordan Garvey, Associate ASLA
Intern: Fan-Kai Lin
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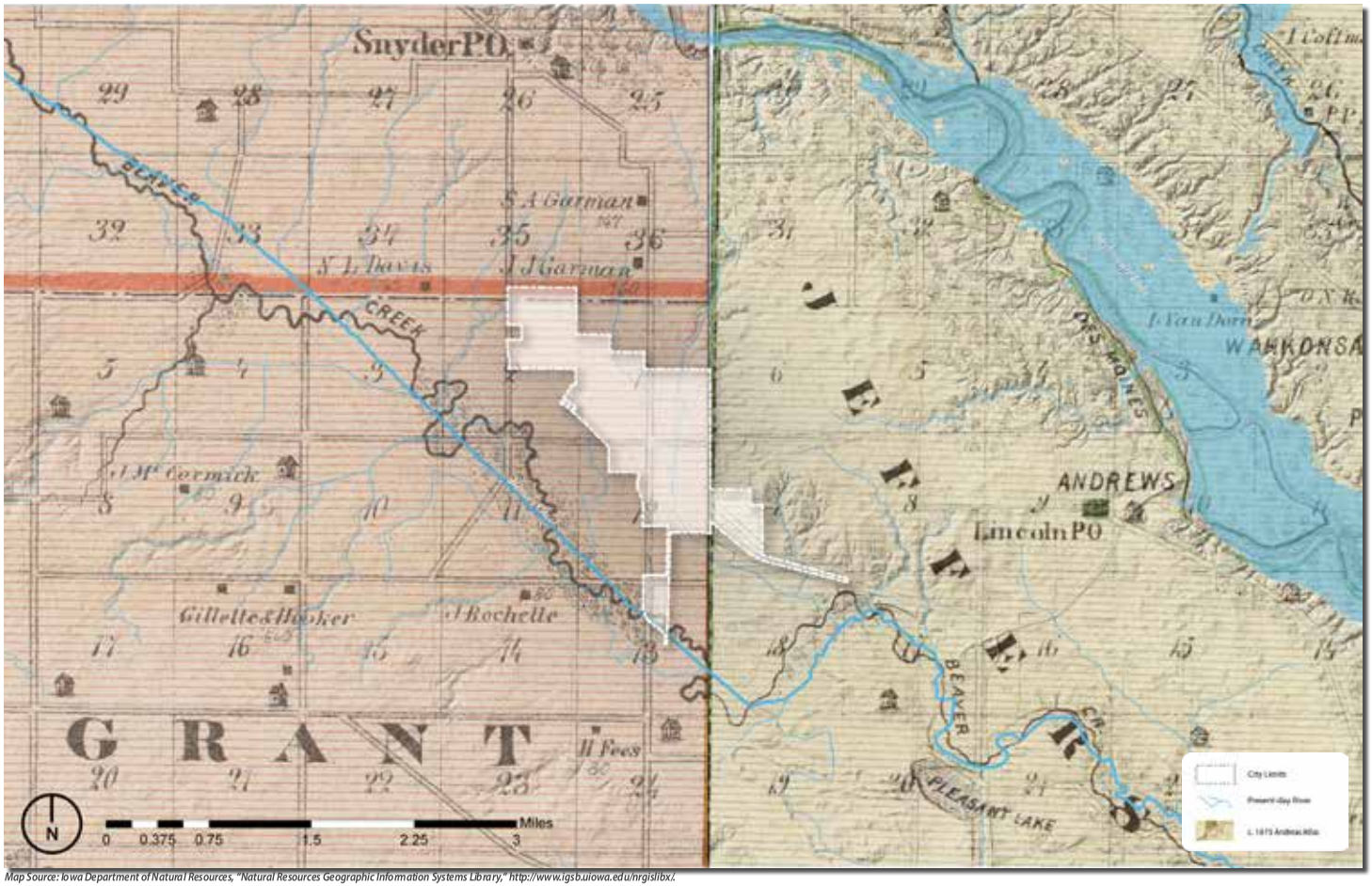
Bioregional Assessment

Settlement Patterns

This board uses maps from A.T. Andreas' Illustrated Historical Atlas of the State of Iowa, 1875 overlaid with present-day town boundaries and water bodies. Published in 1875, Andreas' Atlas is an extraordinary resource showing the post-Civil War landscape of Iowa including settlement features (towns and villages, churches, schools, roads, railroads, etc.) and landscape features (water bodies, vegetated patches such as "timber" and "swamp," and major topographic features.) High-quality scans of the Atlas have been arranged to correspond closely with present-day maps revealing major landscape changes as well as features that have persisted, such as railroad rights-of-way and in some cases remnant vegetation patches.

Granger in Context

Compare the 1875 boundaries of Granger to the current boundaries. How much has Granger grown? Compare the course of the rivers in 1875 to their current course, are there major changes in alignment or location? Are there vegetation patches shown in the 1875 map still in existence?



Map Source: Iowa Department of Natural Resources, "Natural Resources Geographic Information Systems Library," http://www.igsb.uiowa.edu/nrgislibx/.

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Granger

Settlement Patterns

Bioregional Context

Julia Badenhope, Matthew Gordy, Colby Fangman, Zoey Mauck

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Historical Vegetation

The vegetation information shown here is derived from township maps made by the General Land Office (GLO) surveys beginning in 1836 through 1859. The vegetation information was digitized in 1996 as a resource for natural resource management and is useful "...for the study of long term ecological processes and as baseline data for the study of present day communities."1

The plant communities mapped by the GLO surveyors varied in classification and the terminology from the original maps has been preserved.

The vegetation types are defined[2]:

1. Field: Cultivated lands of early pioneers.
2. Grove: Isolated dense young stand of trees.
3. Marsh: Perennial wetlands, basins of irregular shape.
4. Prairie: Dominated by prairie grasses with individual or few scattered trees.
5. Thicket: Impenetrable blocks of young trees, often thorny.
6. Timber: Contiguous blocks of trees extending to the horizon in at least one direction.
7. Slough: Like marsh but more linear in shape.

1 J.E. Ebinger, "Presettlement Vegetation of Coles County, Illinois," Transactions of the Illinois Academy of Science (1987): 15-24, quoted in Michael Charles Miller, "Analysis of historic vegetation patterns in Iowa using Government Land Office surveys and a Geographic Information System" (master's thesis, Iowa State University, 1995), 8.

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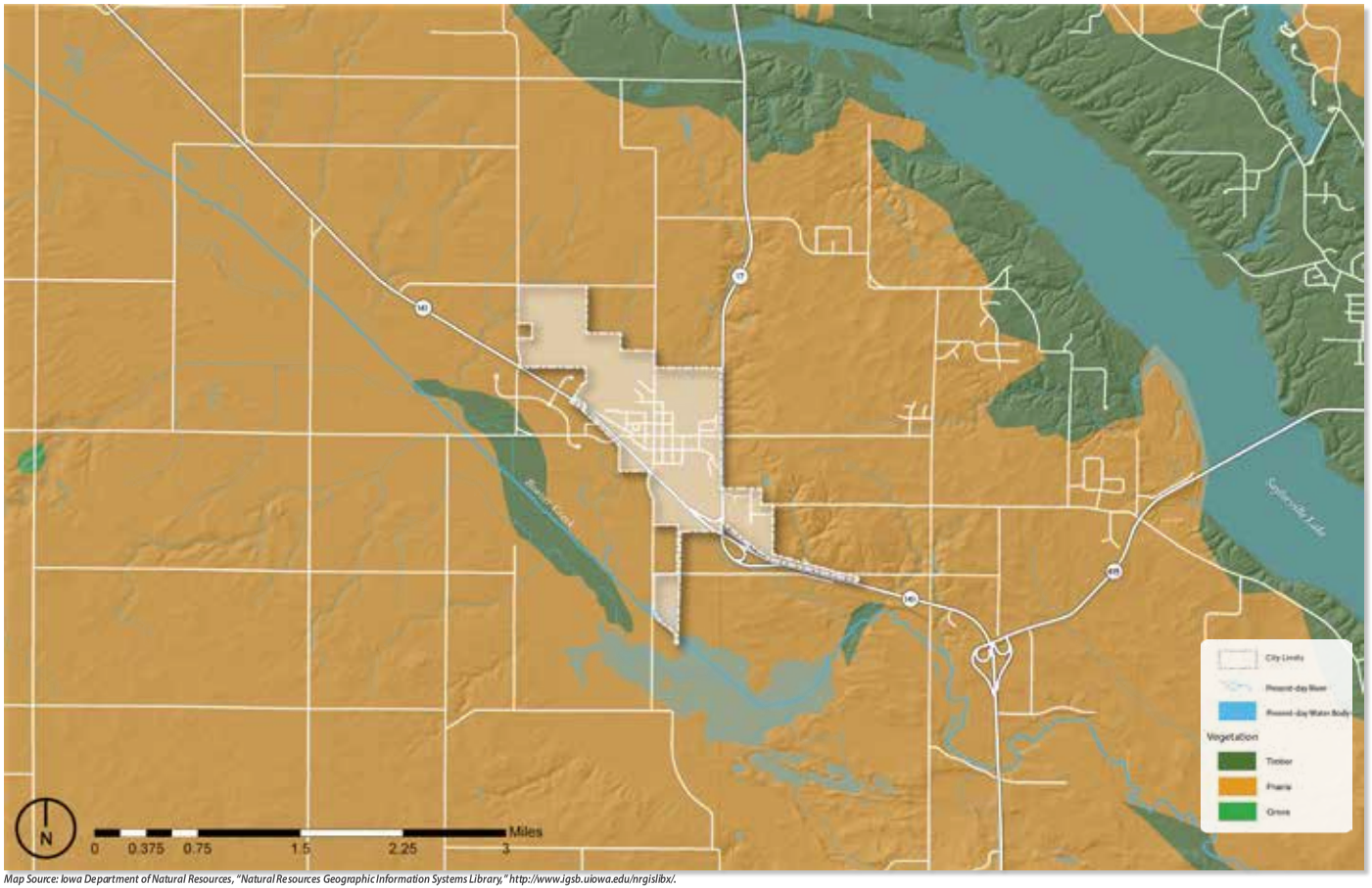

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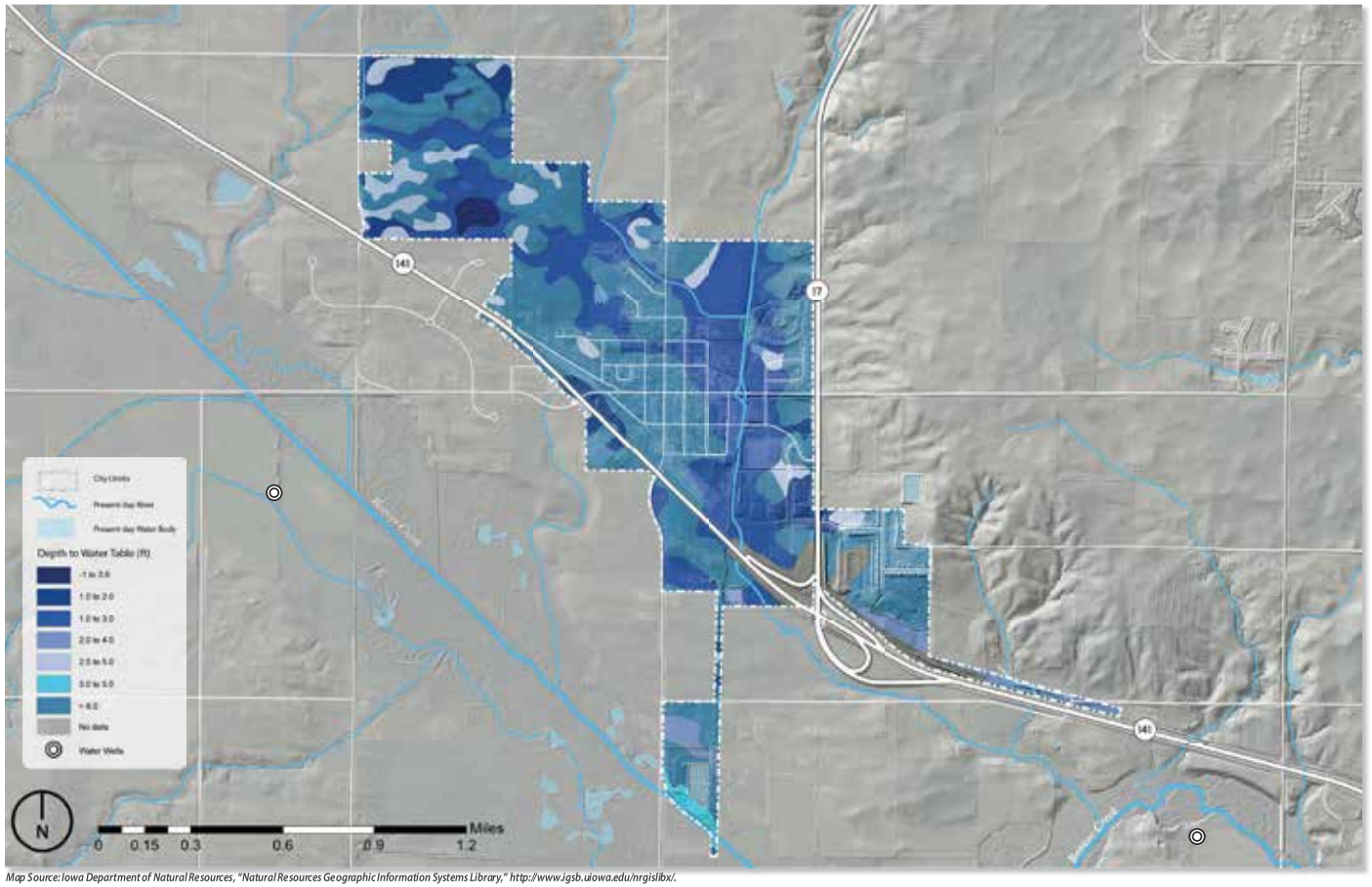
Depth to Water Table

The water table is defined as the level below which the ground is saturated with water. The water table generally mimics surface topography, but there are differences depending on localized conditions such as the permeability and porosity of soils and depth to bedrock. Depth to water table is represented as a range because it varies due to seasonal changes and precipitation volumes. For example, following spring snow-melt an area with a depth to water table ranging from one foot to three feet is likely to be at or near one foot depth. Impermeable layers such as concrete also affect the depth to water table by preventing precipitation from infiltrating into the soil which could result in a lowered water table.



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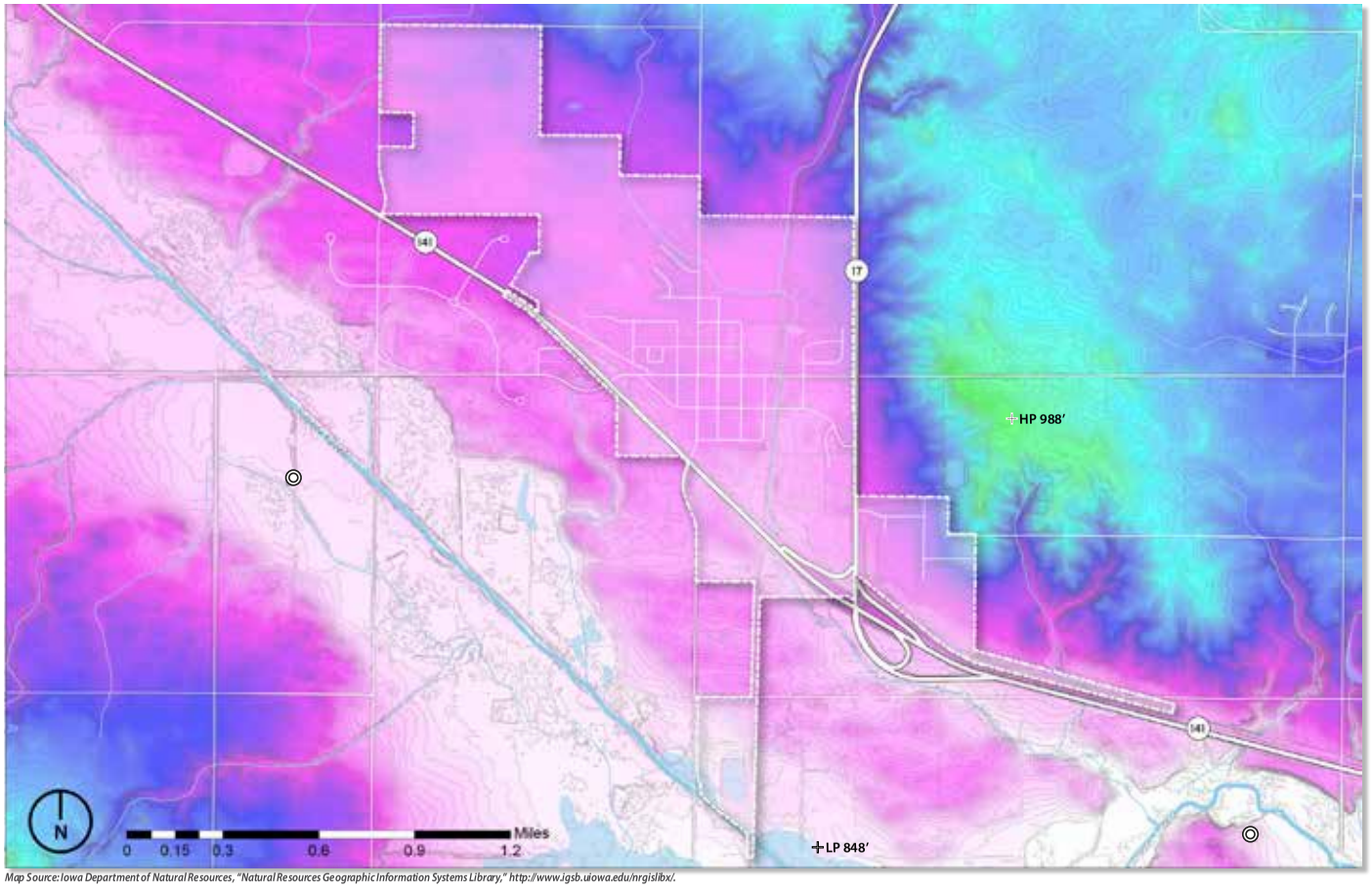
Elevation and Flood Risk

The map to the left displays topographic differences in elevation using a combination of contour lines and the color gradient depicted in the legend. The high points and low points have also been located.

Note the relationship of your community to the surrounding elevation; is it located in a valley or on high ground, or is it split between the two? Flood risk is correlated to low-lying land, this map also shows your community's flood risk as defined by the Federal Emergency Management Agency (FEMA) Flood Map Service Center. This map shows the two most important flood zones, the Base Flood and the Regulatory Floodway (consult legend.) Base Flood is the zone having a one percent chance of being equaled or exceeded in any given year, also referred to as the "100-year floodplain." The Regulatory Floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% flood discharge can be accommodated without increasing the base flood elevation.



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Elevation and Topographic Features

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Granger
Elevation

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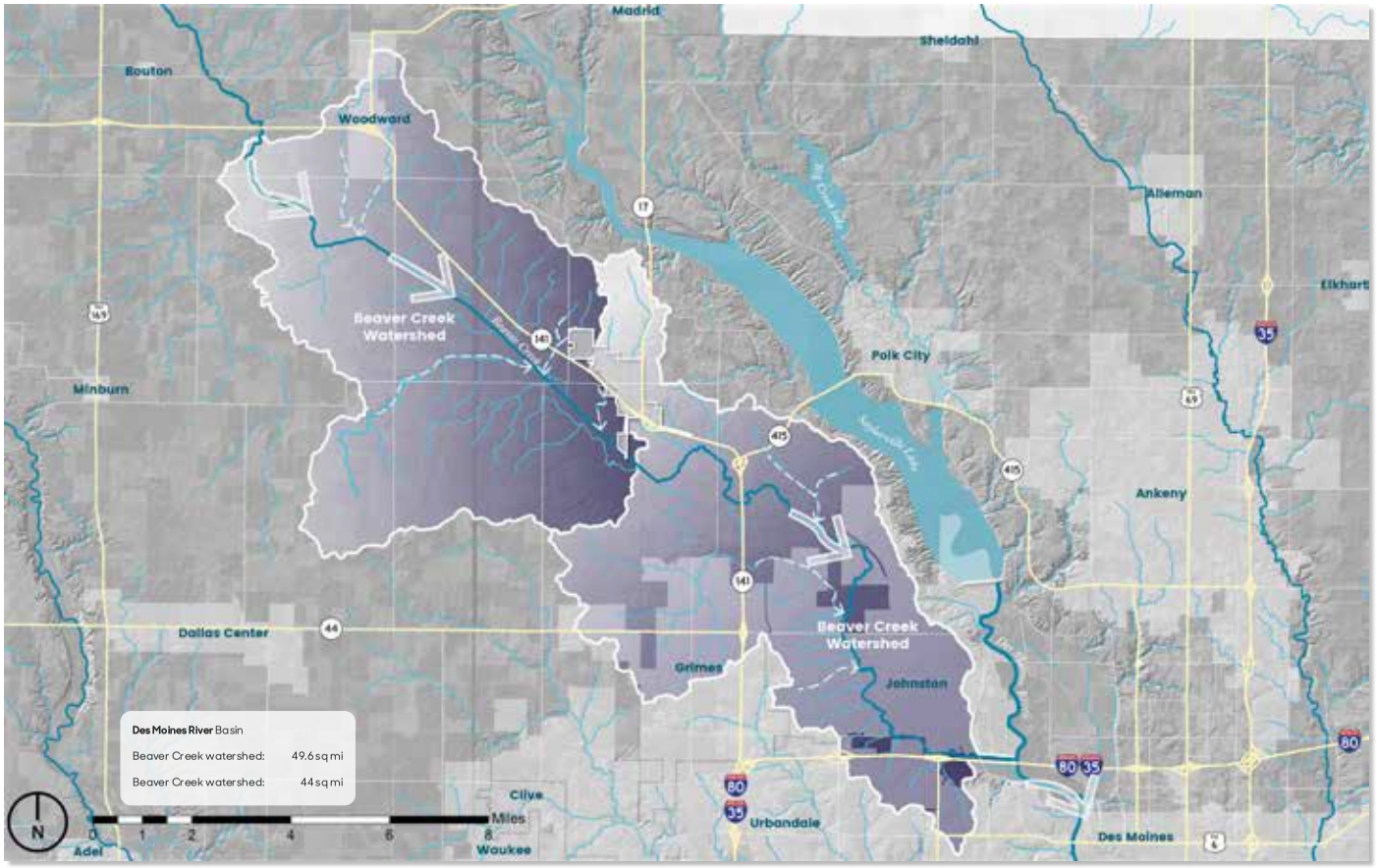
Regional Watershed

A watershed is a defined area or ridge of land with a boundary that separates waters flowing to different rivers, creeks, or basins. Watershed boundaries show the extent of a drainage area flowing to a single outlet point, and determines whether precipitation is directed into one watershed or an adjacent watershed. It is important to note that there are multiple levels of watersheds, for instance the Iowa River watershed has a dozen smaller watersheds, and the Iowa River watershed is a sub-basin of the Mississippi River watershed.

Where a community is located in relation to its surrounding watershed(s) determines its capacity to manage regional watershed issues such as flooding. For example, a community located near the end of a watershed (close to the outlet point) will have little capacity to reduce the amount of water draining toward it from upland areas.



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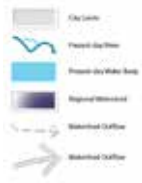

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Regional Watershed

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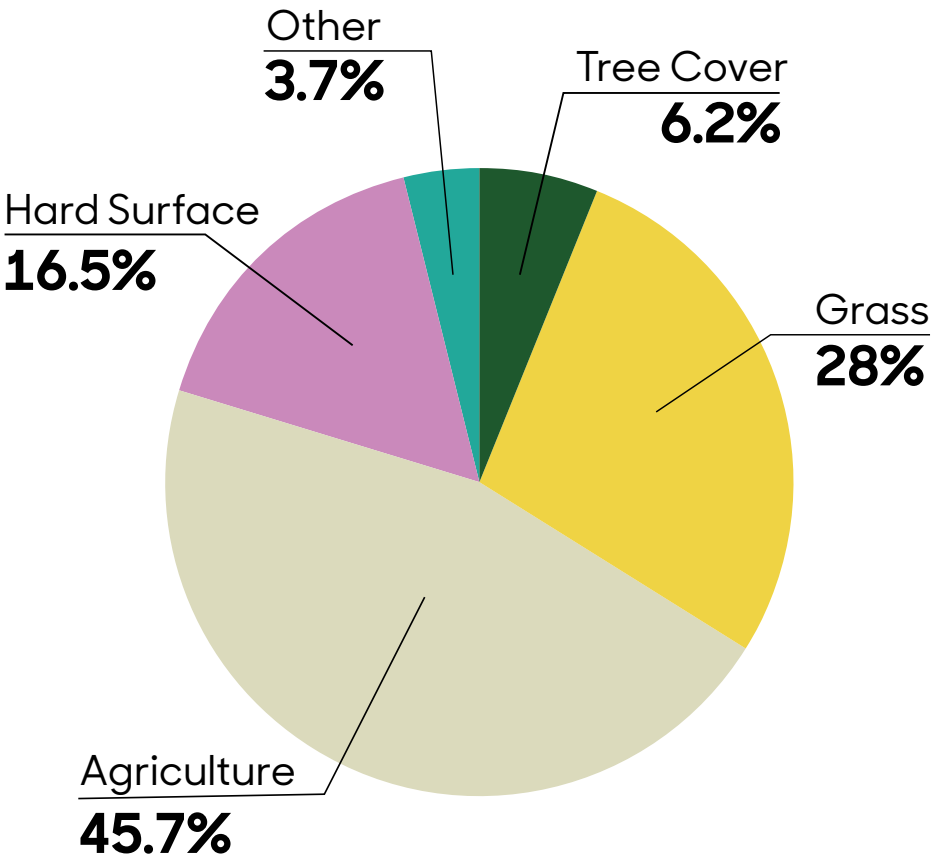
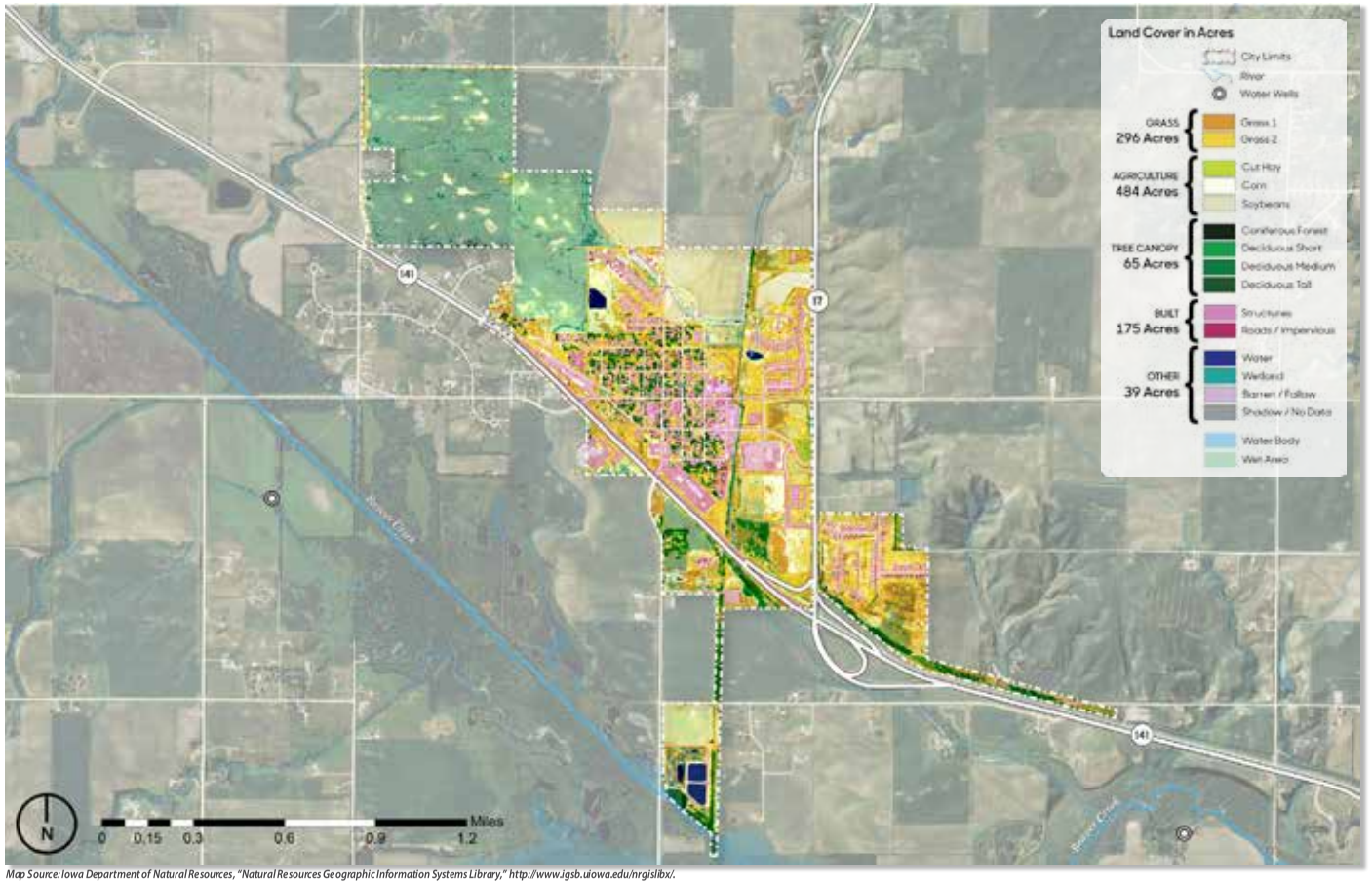
Present Day Land Cover

The land cover map depicts both natural and man-made land cover types with aerial imagery. The Iowa DNR created 15 unique classes for this dataset to differentiate land covers. Refer to the legend for a breakdown of land cover types.

What do you observe about the dominant land cover types in your community? Where is the tree canopy most concentrated? Compare the amount of impervious surfaces (e.g., parking lots, roads, buildings) to the other surfaces (e.g, water, grass, and agriculture.) What parts of town are covered with the most impervious surfaces and what patterns do you observe about these locations?

Percent Land Cover Type





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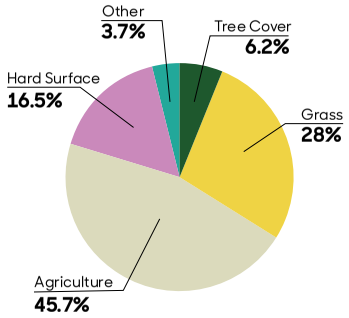

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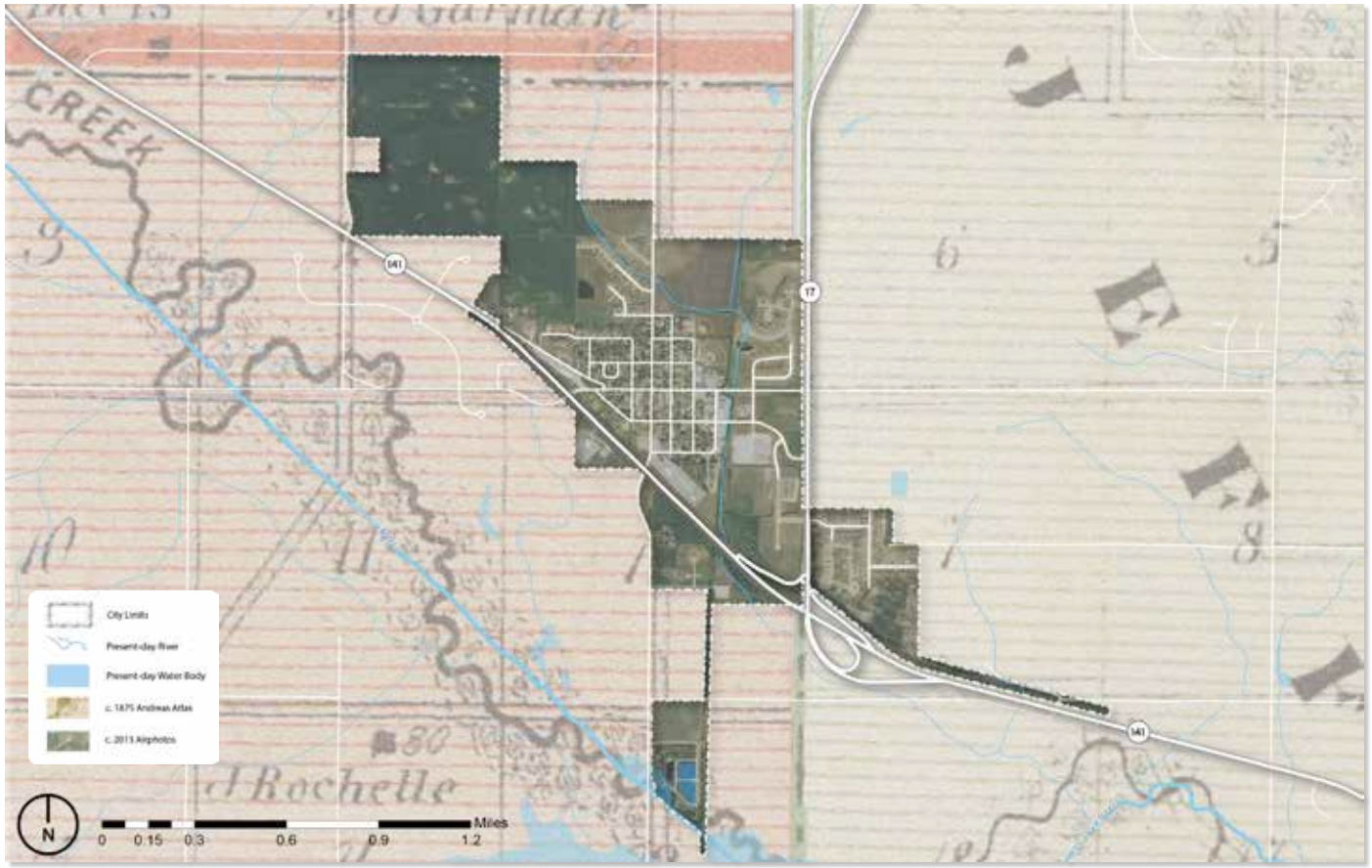
Present Day Vegetation

Overlaying a present-day aerial image on the 1875 Andreas Atlas shows how management of the land over several decades has changed the locations of trees and other native vegetation in the landscape.

Historic canopy coverage has been altered due to development and expansion of communities. Comparing these maps can lend knowledge as to what types of vegetation existed previously and where those places were located in relation to present day landmarks.

Notice how rivers have shifted or vegetation has been eliminated in certain areas. How does this affect the future development patterns?



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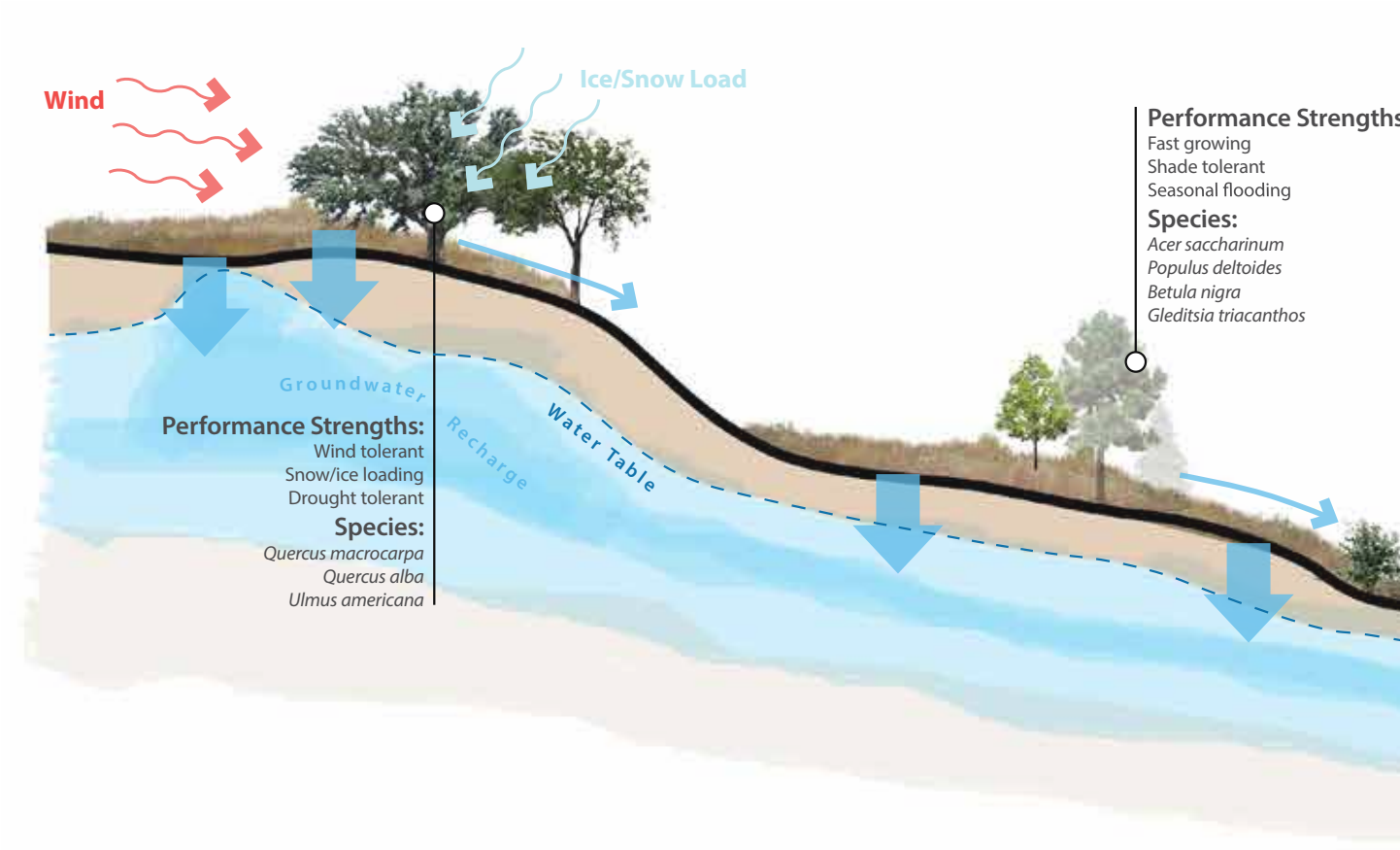
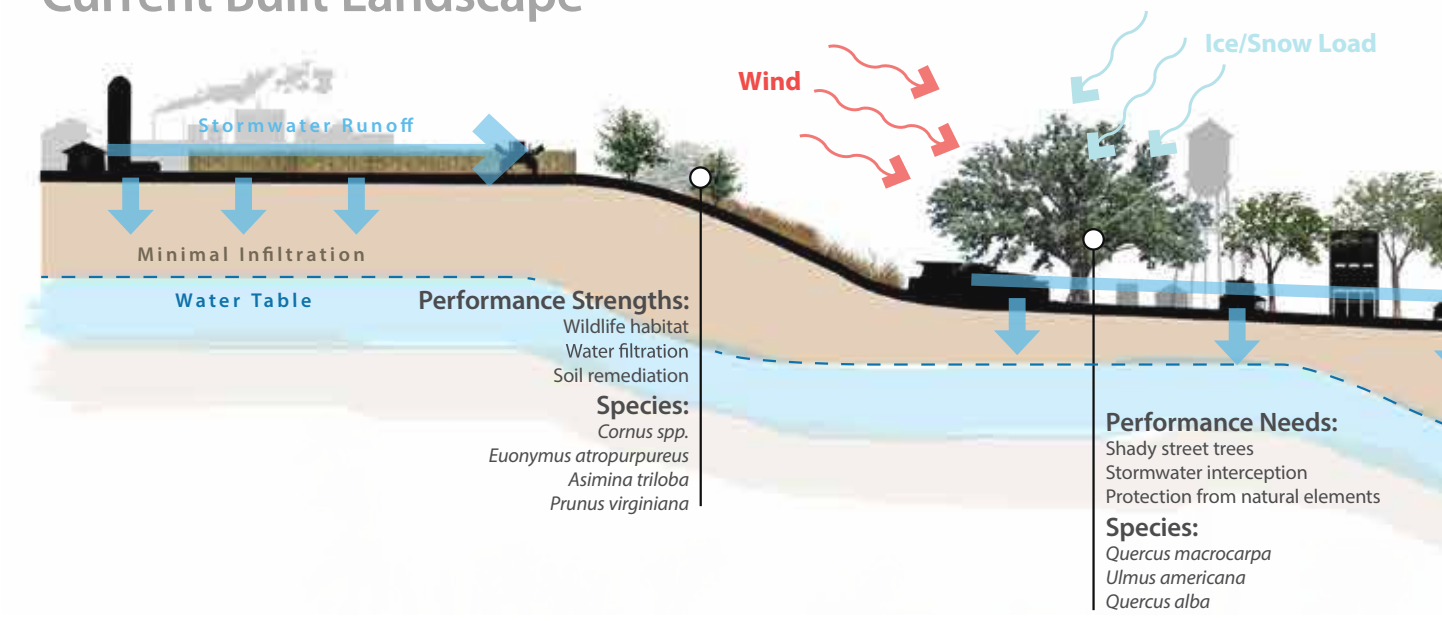
Using Native Plants



Current Built Landscape



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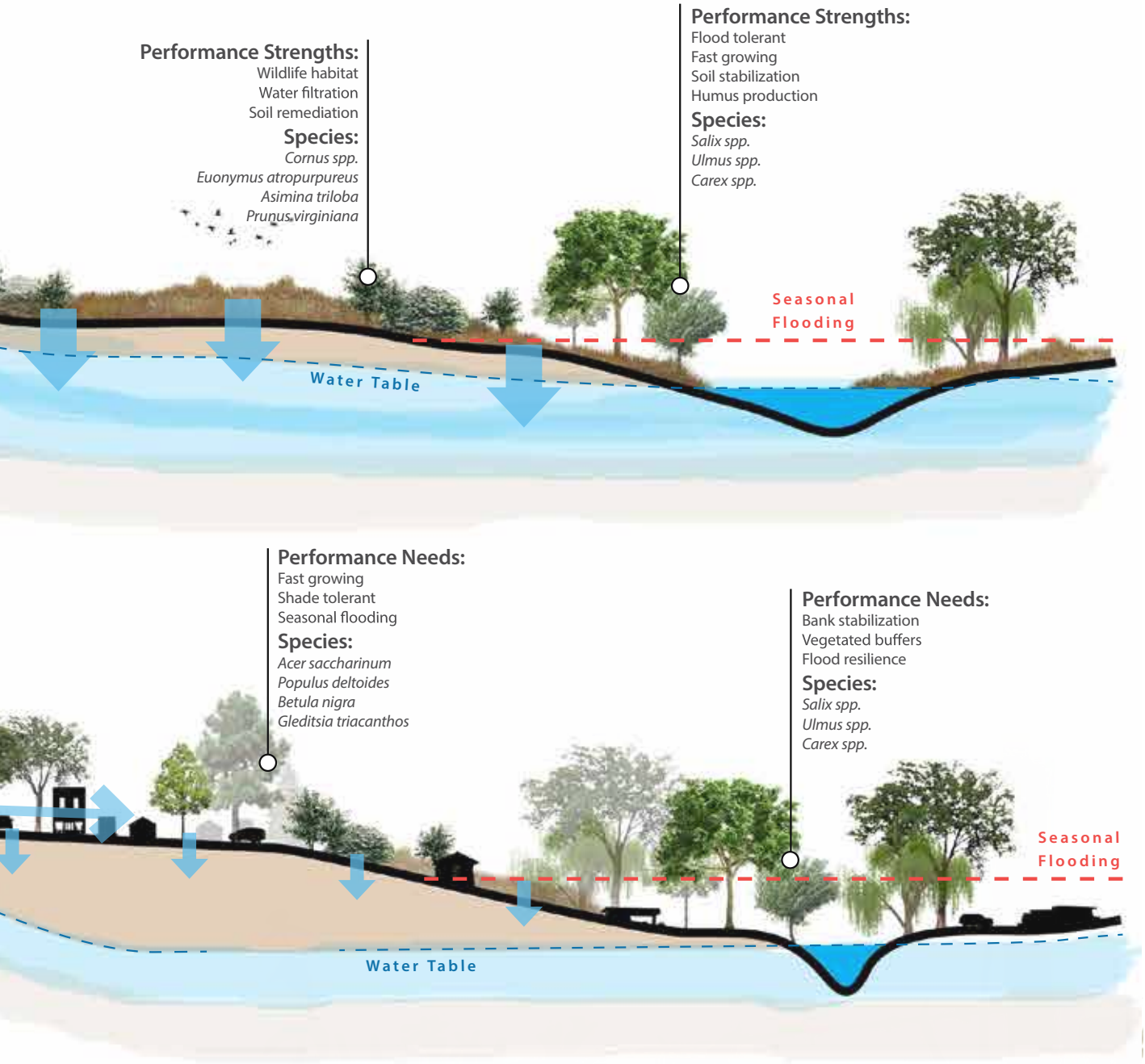
Pre-Settlement Landscape



Transportation Assets and Barriers

Overview

Transportation is integral to small-town life and a vibrant economy. In the context of the Community Visioning Program, we recognize walking, biking, and driving as quintessential modes of travel to various destinations important to residents and visitors. Access to these destinations is crucial for many everyday activities—getting to work and school, participating in community events, and providing for basic needs such as food, health care, and healthy activity.

In this participatory assessment, we want to find out which factors and conditions affect transportation use in Granger, where these factors and conditions are most prevalent, and how they influence route and transportation choices locally. Because residents have the best knowledge of how Granger's transportation system works, we use focused, small-group conversations, mapping, and photos of the best and worst places taken by residents to understand local transportation.

Different Users = Different Needs

To capture insights about transportation from a variety of perspectives, we invited Granger residents with different transportation needs to participate in focus groups. A total of 58 residents attended Granger's workshop. Participants were separated into five user groups and the Granger steering committee.

Actives

This user group represents those in the community who engage in outdoor recreation, including cycling, walking, running, swimming, skiing, etc. The availability of multiple venues for outdoor recreation matters to this group.

Mobility Impaired

This user group is directly affected by accessibility barriers such as high curbing and uneven sidewalks that make it difficult to operate mobility-aiding equipment effectively. Handicapped parking, curb ramps, and smooth surfaces are critical transportation features.

Older Adults

Accessibility—both in terms of physical access and proximity—is a major concern for this user group. Because some people in this user group do not or are unable to drive, having goods and services within walking distance is important.

Youth

This group uses primarily non-motorized modes of transportation, so pedestrian- and bike-friendly streets and sidewalks are important. These users value the ability to get to destinations on foot or via bicycle and having goods and services within walking distance.

Parents

Safety of their children is a primary concern of this user group. Access to safe and easy routes to school activities is another significant factor to this group. Parents of young children desire smooth, wide surfaces for strollers.

Steering Committee

The common denominator for this user group is that their observations are influenced by special knowledge of the transportation system acquired during the Community Visioning assessment process. As a result, this group is more representative of decision makers.

Asset: Windcrest Pond.

Barrier: No connection over Oxley Creek.

Asset: Centennial Park benches.

Barrier: Highway 17 intersections.

Asset: Centennial Park.

Barriers: No sidewalks.

What Factors Affect Transportation in COMMUNITY?

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(12 participants): This user group represents those in the community who engage in outdoor recreation, including cycling, walking, running, swimming, skiing, etc. The availability of multiple venues for outdoor recreation matters to this group.

Mobility Impaired

(5 participants): This user group is directly affected by accessibility barriers such as high curbing and uneven sidewalks that make it difficult to operate mobility-aiding equipment effectively. Handicapped parking, curb ramps, and smooth surfaces are critical transportation features.

Older Adults

(14 participants): Accessibility—both in terms of physical access and proximity—is a major concern for this user group. Because some people in this user group do not or are unable to drive, having goods and services within walking distance is important.

Youth

(8 participants): This group uses primarily non-motorized modes of transportation, so pedestrian- and bike-friendly streets and sidewalks are important. These users value the ability to get to destinations on foot or via bicycle and having goods and services within walking distance.

Parents

(8 participants): Safety of their children is a primary concern of this user group. Access to safe and easy routes to school activities is another significant factor to this group. Parents of young children desire smooth, wide surfaces for strollers.

Steering Committee

(11 participants): The common denominator for this user group is that their observations are influenced by special knowledge of the transportation system acquired during the Community Visioning assessment process. As a result, this group is more representative of decision makers.

Granger
Overview

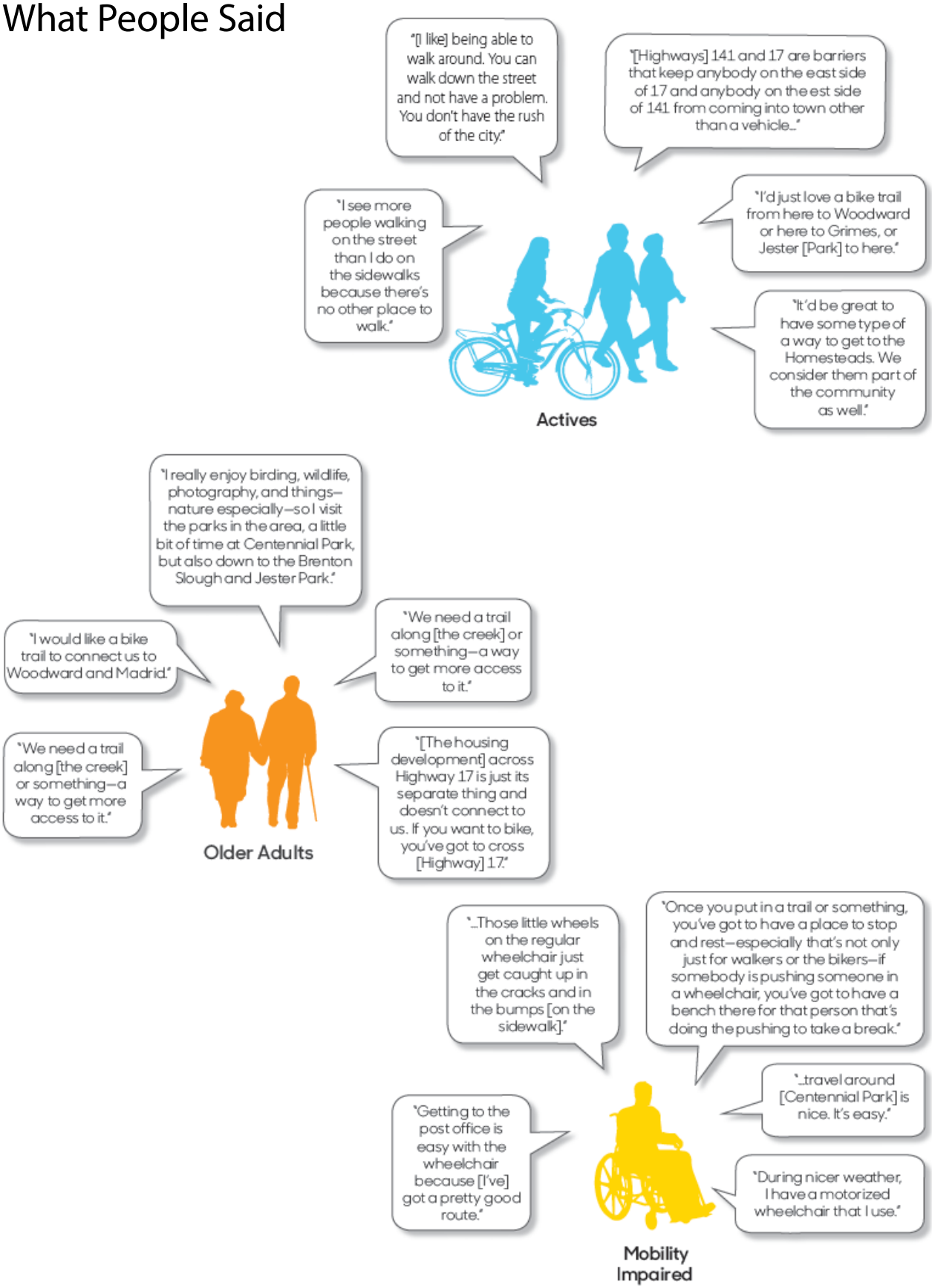
Transportation Assets and Barriers

Julia Badenhope, Sandra Oberbroeckling, Matthew Gordy, Miao Fangzhou

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

What People Said



"If you get people on foot...I think that's what builds communities. You're interacting with folks on the sidewalk...I think it's just connections at this point—making those connections."

"...we feel cut off by [Highway] 17. We can't get our kids...across the highway in a safe manner, so we always have to get into the car and come to Centennial Park or something like that in town."

"People use [the old county road] all the time. I see people jogging. I see deer. It's a beautiful nature trail..."

"We use [Centennial Park] all the time. All summer long and spring long we're at the park."

Parents

"It would be nice if the sidewalks were better for our children to walk to get to friends' houses or wherever they're going—to the baseball field or to the park."

"It'd kind of be nice to get to the Trestle Trail somehow from Granger. It would kind of be a long bike ride, but it'd be worth it."

"With the trail connecting other towns, that'll help boost Granger's visitors."

"When I'm trying to cross the creek, it's kind of hard because we have to find somewhere to hop over on the rocks."

"At Windcrest they have the bike trail around the pond, which is nice."

"At night it's scary. Along Sycamore there [are] hardly any street lights. The ones there...don't work."

Youth

"There's no stop sign on [Highway] 17 [at Oak Creek Parkway]. No stop sign, no stoplight. There's no way for [children] to get across that road safely without really watching for traffic, so all these kids [in Twin Eagle] need a safe route to get into Granger."

"It would be nice to connect to some trails at some point, whether it's Grimes or whether it's [the] High Trestle Trail."

"In the summertime you see a lot of kids along the creek. Historically, it attracts the kids."

"Right now, we walk on the street, but we're in the middle of traffic when we walk."

"To connect to any of the trails, you have to drive to them, so you have to take your bike for a ride in order to ride it."

Steering Committee

Emerging Themes

Discovering themes and consistencies among user groups helps the steering committee to identify solutions to address the needs of all. The chart on the opposite page displays each user group's collective thoughts on particular issues in comparison with the other user groups in the community.

Actives walk, drive, and bike regularly, either as part of a daily commute or as recreational/sports training. This group would like better connections within Granger as well as with other communities and trails in the area.

Mobility-impaired individuals often rely on motorized scooters and wheelchairs to get around. Therefore, smooth, wide surfaces that are accessible are important. Because of the inconsistent sidewalk system, this group often travels in the streets.

Older adults primarily drive and walk to destinations. They also bike and occasionally ride the DART bus. This group enjoys the natural areas in and around Granger and would like access to them improved.

Youth mainly walk and bike to get around the community. Some ride the bus to school. This group would like a trail system, as well as more recreation opportunities in town.

Parents drive, walk, and bike. They are concerned about their children's safety as they travel throughout town. Of particular concern is the lack of a safe way for pedestrians and cyclists to cross Highways 17 and 141.

Steering committee members walk, drive, bike, and run. This group is interested in making connections between Granger and the regional trail system, as well as other communities.

User Types
Destinations and Activities
Desirable Qualities and Features
Undesirable Qualities and Features
Most Desired Improvements and Activities
Active
Mobility Impaired
Older Adults
Youth
Parents
Steering Committee

Analysis of Barriers

The analysis of barriers synthesizes the feedback we received from the five transportation user groups. Although not shown on an individual map, input from the steering committee is incorporated into the maps of all five user groups.

Many of the barriers identified by focus-group participants are related to Highways 17 and 141, including speeding traffic, difficult crossings, lack of pedestrian access, and poor lighting. Lack of connectivity is a barrier all user types experience, both within Granger and with other communities and with regional trails. This sense of disconnect is attributed to poor sidewalks, no sidewalks, difficult crossings, as well as Oxley Creek. Some users perceive the lack of certain amenities in Granger's parks as a type of barrier as well.

Actives

Active recreationists enjoy outdoor amenities available in Granger. Specifically, they appreciate the trees and benches in Centennial Park, Windcrest Park, and Windcrest Pond. Actives value the views of both wildlife and the city of Des Moines available in Granger. Cyclists like to use NW 110th Avenue as a training route.

Mobility Impaired

Smooth surfaces on which to travel via wheelchair or motorized scooter, such as the sidewalk in front of the post office, are important features to mobility-impaired persons. They also value the shaded benches and shelter house at Centennial Park, as well as the trail and benches at Windcrest Park.

Older Adults

Older adults enjoy outdoor assets such as Centennial Park and the pollinator garden in town and Brunten Slough south of town. They also appreciate the new sidewalks in the new development north of Lowell Street. The new developments on the east side of Highway 17 are also considered assets.

Youth

Youth like the hill on Linden Street for sledding during the winter. They enjoy Oxley Creek and the woodland are year-round. Some youth appreciate the new play equipment in Centennial Park, and some value the ball fields. The alley between the library and the school is convenient for bikers.

Parents

Parents value the outdoor recreation opportunities available to their kids, such as the sledding hills, the ball fields, and the play equipment in Centennial Park. They also like the "arboretum feel" of the trees in the park. The new school and the Twin Eagle housing development are also important to parents.

Granger's Barriers: Common Factors

The analysis of barriers synthesizes the feedback we received from the five transportation user groups. Although not shown on an individual map, input from the steering committee is incorporated into the maps of all five user groups.

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Actives

Connectivity is important to active recreationists, who noted the lack of trail access to Woodward and Jester Park and how Windcrest Park trail is disconnected. Deficiencies in the built environment such as no drinking fountains or benches at the ball fields and the lack of dog facilities at Centennial Park are also issues for the active group.

Mobility Impaired

Poor and disconnected sidewalks create problems for mobility-impaired individuals who navigate the community in wheelchairs or on motorized scooters. This group pointed out the need for more benches and drinking fountains in town, as well as the inefficient parking on Main Street.

Older Adults

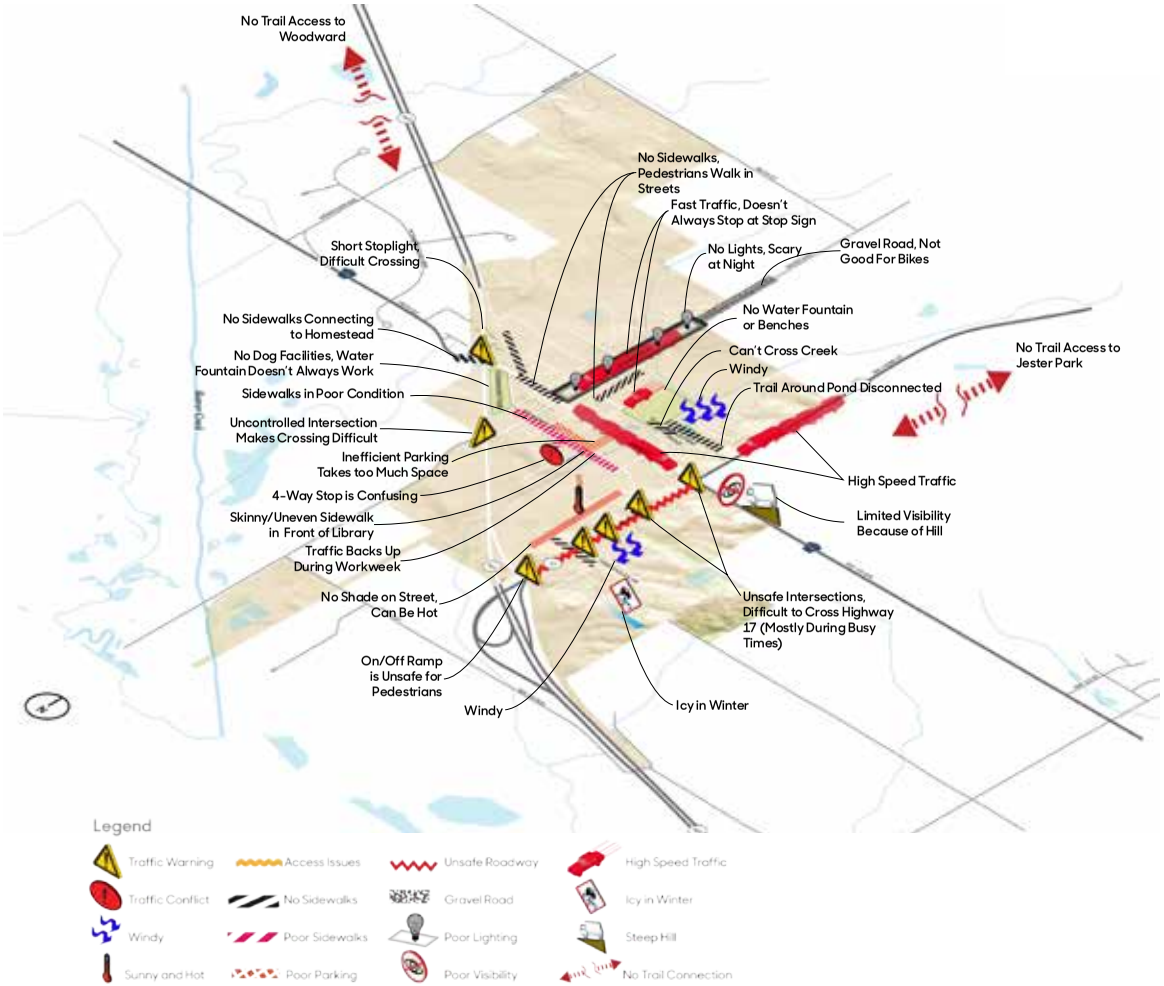
Older adults perceive deficiencies in the built environment as barriers, such as the lack of shade on Main Street and disconnected and/or broken sidewalks. Speeding traffic in town and limited visibility at Highway 17 and NW 100th Avenue are also concerns of this group.

Youth

Disconnected and broken sidewalks are an issue among youth, who tend to walk and bike to most places. Speeding traffic in town is also a concern. Some youth are afraid to use Sycamore Street at night because it is dark. They noted that the drinking fountain at Centennial Park doesn't always work.

Parents

Parents are most concerned with perceived safety issues, such as crossing Highways 17 and 141 and speeding traffic. They also pointed out that the new developments are windy because of a dearth of trees, and that there is no way to cross Oxley Creek.



Granger Barriers

Transportation Assets and Barriers

Julia Badenhope, Sandra Oberbroeckling, Matthew Gordy, Miao Fangzhou

Iowa State University | Trees Forever | Iowa Department of Transportation

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Analysis of Assets

The analysis of assets synthesizes the feedback we received from the five transportation user groups. Although not shown on an individual map, input from the steering committee is incorporated into the maps of all five user groups.

Granger residents highly value their outdoor recreation opportunities, including the ball fields, Centennial Park, Oxley Creek, Brunten Slough, and Jester Park. Their reasons range from the aesthetic, such as scenic views, shade, and wildlife to the practical, including benches, smooth sidewalks, and convenient routes.

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Active recreationists enjoy outdoor amenities available in Granger. Specifically, they appreciate the trees and benches in Centennial Park, Windcrest Park, and Windcrest Pond. Actives value the views of both wildlife and the city of Des Moines available in Granger. Cyclists like to use NW 110th Avenue as a training route.

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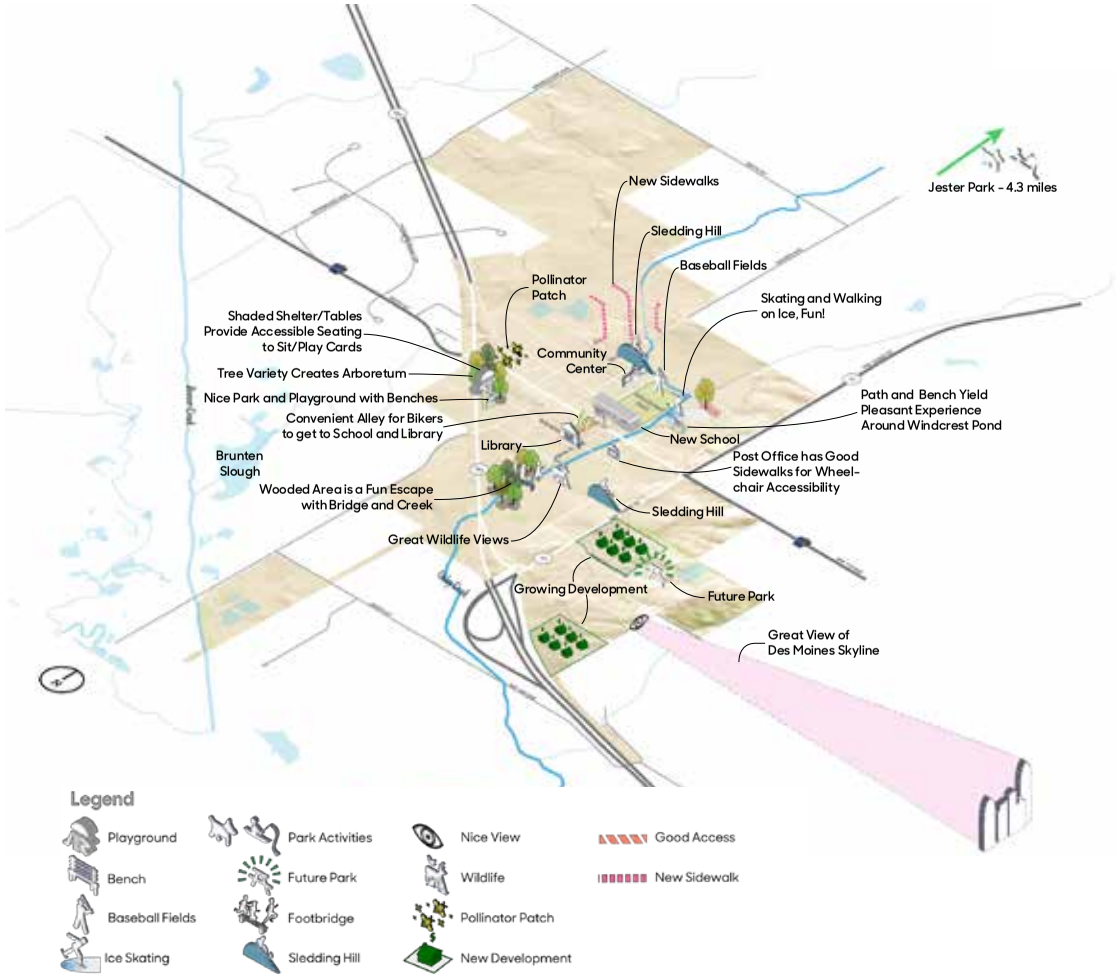

Granger Assets

Transportation Assets and Barriers

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Desired Improvements

The analysis of desired improvements synthesizes the feedback we received from the five transportation user groups. Although not shown on an individual map, input from the steering committee is incorporated into the maps of all five user groups. Connectivity is an overarching theme among the desired improvements for Granger. Residents feel disconnected both within the community and from surrounding communities, trails, and amenities. Other enhancements address the conditions of the built environment, such as benches downtown and at the ball fields, better lighting, more shade, and drinking fountains. The following list shows specific barriers and which user group(s) identified them:

Actives

Active recreationists are interested in expanding opportunities for cyclists by adding bike lanes to Highway 141, NW 121st Street, and F31. They would also like better lighting at Broadway and Highway 17, as well as a flashing bike crossing light at Highway 141 and NW 121st Street. New parks, including a dog park, are also desired.

Mobility Impaired

Mobility-impaired individuals would like more benches throughout town, specifically near the library and at the ball fields. This group also wants drinking fountains at the ball fields, near the post office, and at the intersection of Broadway and Highway 17.

Older Adults

Improving connectivity both in town and with other destinations in the area is a priority among older adults. They are also interested in "greening up" the community with shade trees, more vegetation at Windcrest Park, a new park on Linden Street, and an expanded pollinator garden.

Youth

Making pedestrian- and bike-friendly connections in town is important to youth. They would like trails along Oxley Creek and around the pond off Maple Street, as well as a pedestrian overpass on Highway 141. Trail connections to other towns and the High Trestle trail are also desired.

Parents

Parents would like a bridges over Oxley Creek to connect the ball fields and Windcrest Park and to connect the school with the rest of town. They also want a connection between town and the Twin Eagle development. Other improvements they suggested are slowing traffic on F31 near the post office and building a trail to Woodward along Highway 141.

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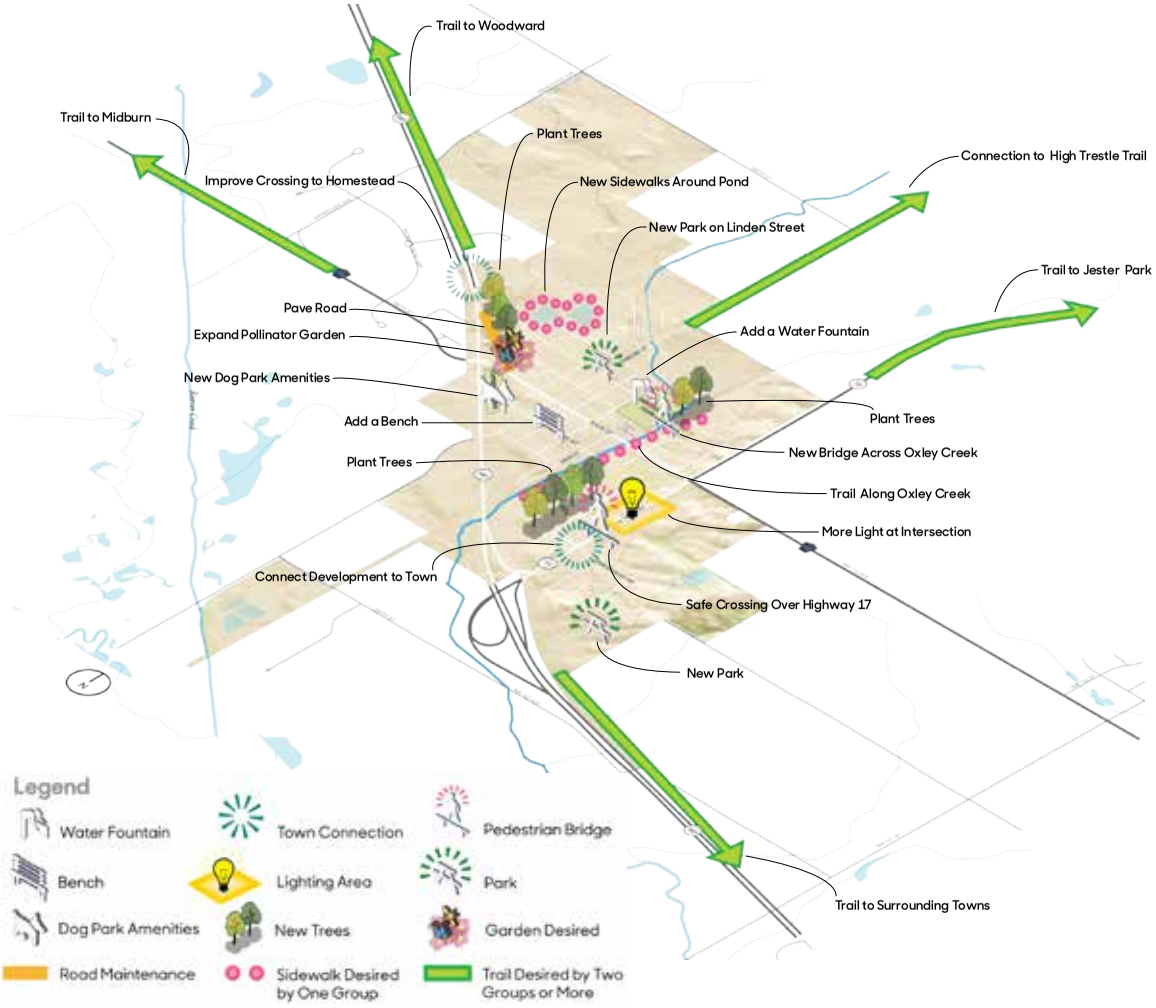

Granger
Desired Improvements

Transportation Assets and Barriers

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Transportation Behaviors and Needs

Overview

The survey gives the visioning steering committee objective, representative information for the goal-setting phase of community visioning. The quantitative data collected from survey responses complements the qualitative information gathered from the focus groups at the transportation assets and barriers workshop.

The modes of transportation that residents use and the routes they take suggest suitable types of transportation enhancements in these areas. Having a sense for people's willingness to help either financially or with their time is important because many transportation enhancements are funded from multiple sources, including grants, private donations, in-kind contributions, and volunteers. Understanding what types of improvements are important to residents gives the committee insight into how to prioritize projects.

With assistance from Iowa State University's Survey Research Services staff in the Center for Survey Statistics and Methodology (CSSM-SRS), ISU visioning program staff conducted a survey to better understand the transportation patterns and behaviors, needs and desires of Granger residents. Surveys were mailed to 400 randomly selected residents living in Granger and the surrounding area. To increase the response rate, the study was publicized through the local media and follow-up packets were mailed to nonrespondents. With adjustments for ineligible respondents (e.g., incorrect addresses, no longer living in the community), the final sample size was 372. A total of 204 people returned surveys, for a response rate of 54.9% (A response rate of 20% is considered valid.)

We asked survey recipients what routes they used most often for going to work, walking, and biking. We also asked whether or not residents would like a recreation trail and where they think it should be. We also discovered what residents think is most important in terms of transportation enhancements that address issues such as accessibility, mobility, and safety. Finally, we learned whether or not residents are willing to contribute their time or their financial resources to making enhancements to Granger. This series of boards summarizes the results of the survey as follows:

- Willingness to Help
- Enhancement Priorities
- Commuting Routes
- Walking Routes
- Biking Routes
- Desired Trail Routes

Why Do A Survey?

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What Did We Find Out?

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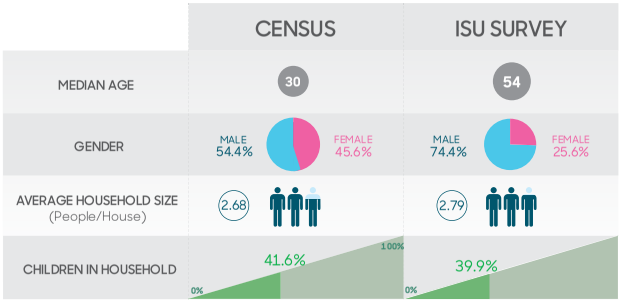
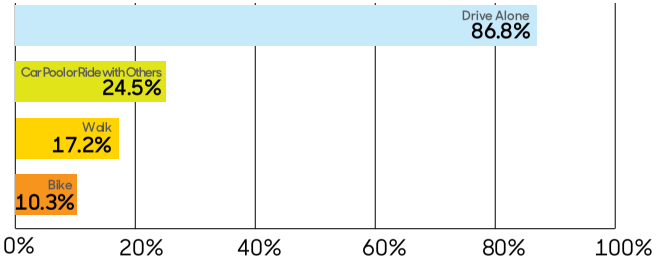
How Did We Do?

The demographics of the respondents are somewhat different from those obtained from the 2015 American Community Survey Five-Year Estimate. For example, the survey respondents median age of 54 is significantly older than the 2015 estimated average age for Granger residents of 30. In terms of gender, males are overrepresented in the survey sample. While the number of children in the household of the survey sample is close to that of the 2015 estimated average, the average household size is somewhat higher.



How Do Granger Residents Travel?

Most survey respondents drive to important destinations such as the convenience store, the post office, school, and church (86.8%). Nearly 25% car pool or ride with someone else. Some people indicated that they walk or bike, but the primary mode of transportation in Granger is by vehicle.



*Please note that some respondents indicated that they use more than one mode of transportation to get to work; therefore, percentages add up to more than 100%.

Granger
Overview

Transportation Behavior and Needs Survey

Julia Badenhope, Sandra Oberbroeckling, Matthew Gordy, Miao Fangzhou

Iowa State University | Trees Forever | Iowa Department of Transportation

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Willingness to Help

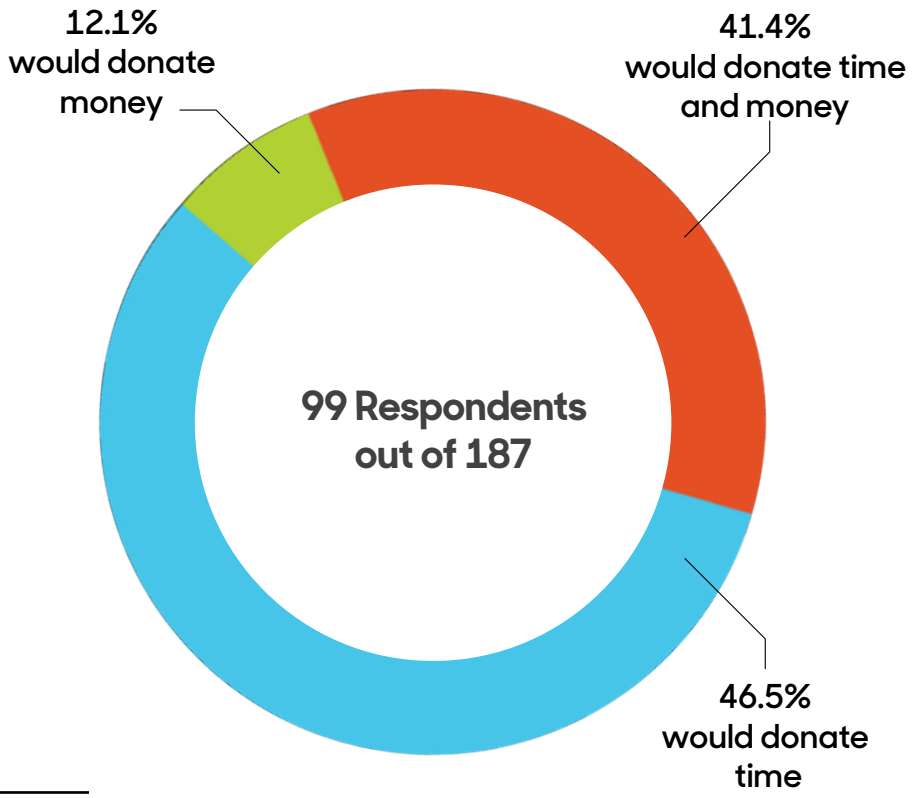
Are People Willing To Help?

Most survey participants who answered this question are willing to contribute their time and talent to community improvements (46.5%), while just over 40% would contribute both time and talent and financial help. More than 12% of respondents indicated that they would be willing to contribute financially. Compared to other small towns in Iowa, Granger residents are more willing to become involved in improving their community. In 2014, on average, 43% of residents in small, rural towns volunteered to help with a community project.[1]

How Do You Get People To Help?

In 2014, on average, 43% of residents in small, rural towns volunteered to help with a community project.[1]

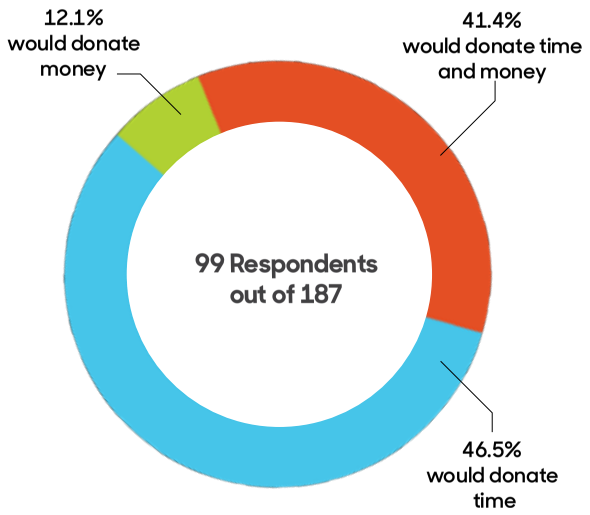
In 2014, the most common reason residents in small-town Iowa said they didn't become involved in community projects is that no one asked them (34%). Twenty-eight percent on average said that they don't have time, which is significantly lower than the 2004 average of 59%. Sixteen percent indicated that they didn't know how to become involved, and 7% said that no community project needed volunteers.[1] These results indicate that the best ways to get people involved in community projects is to simply ask, along with advertising opportunities through traditional and social media outlets.



1 **Sigma: A Profile of Iowa Small Towns 1994 to 2014** (Ames, IA: Iowa State University College of Agriculture and Life Sciences, 2015).

ARE PEOPLE WILLING TO HELP?

More than 52% said YES!



Willingness to implement change

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WHAT DID PEOPLE SAY THEY ARE WILLING TO DO?

Survey Participants Said...

"Thank you for choosing me. [I] will help in any way I can."

"This would allow Twin Eagles developments to cross Highway 17 safely. I would volunteer, contribute to make this happen."

HOW DO YOU GET PEOPLE TO HELP?

Ask, Show, and Advertise Opportunities

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Granger

Willingness to Help

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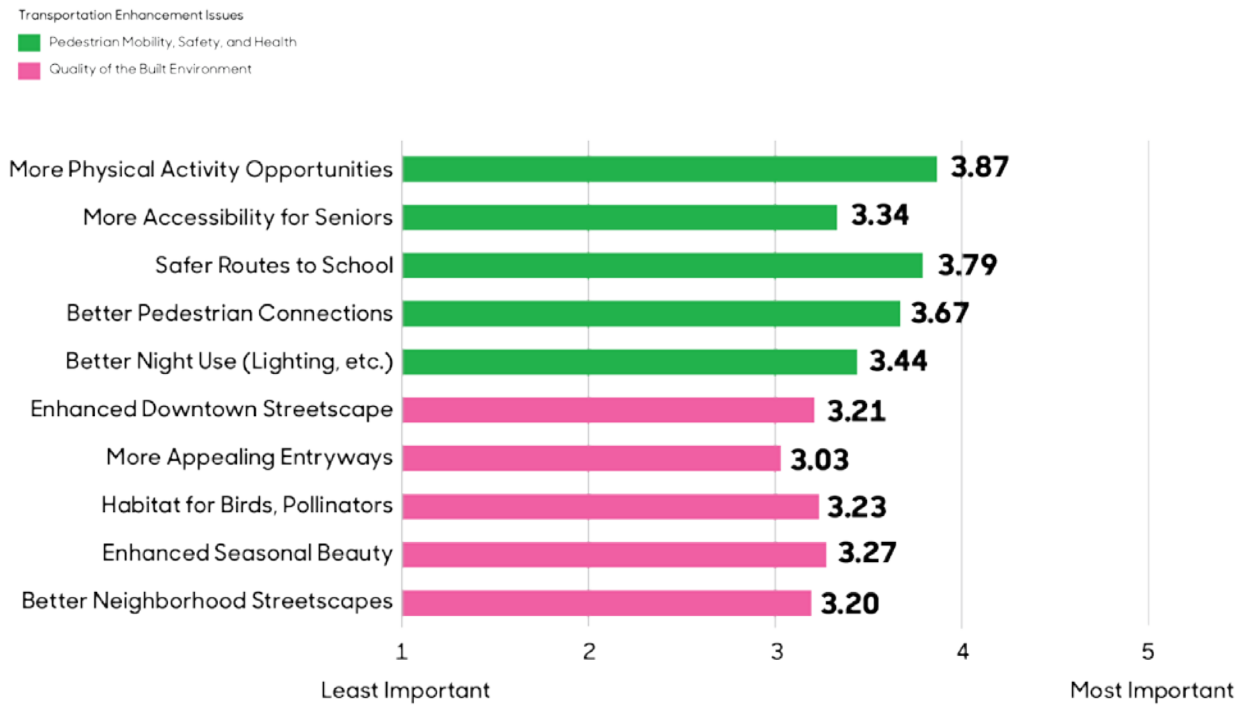
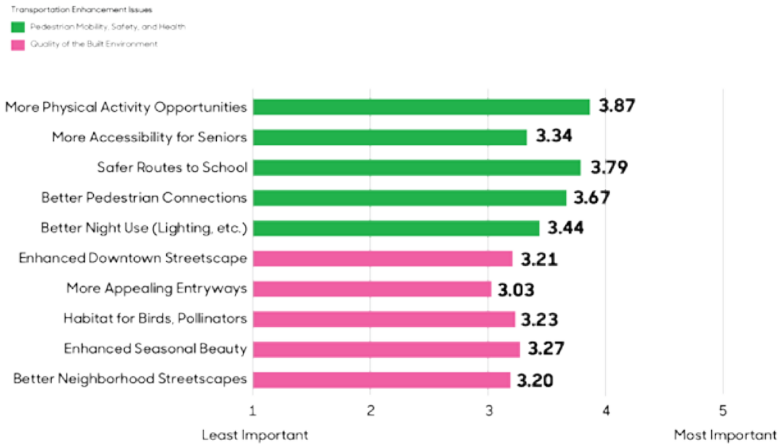
Priorities

Importance of transportation enhancement by type (176 responses)
On a scale of 1 to 5, with 5 being the most important, participants in Granger ranked creating more opportunities for physical activity as most important, with a mean value of 3.87. Other transportation enhancements that address pedestrian mobility, health, and safety are also considered important. Environmental and aesthetic issues are less important among respondents, with mean values ranging from 3.03 to 3.27. These findings are consistent with the views expressed by focus group participants during the Transportation Assets and Barriers workshop held in March 2017.



WHAT TYPES OF ENHANCEMENTS ARE IMPORTANT?

Mobility, Safety, and Health!



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WHAT DID THEY SAY?

Survey Participants Said...

"A better network of bike/pedestrian trails is needed. I live 10 miles from work, but I would not feel safe biking."

"A biking or walking trail from Jester Park to Granger would benefit the Granger community. Eventually it would be nice to connect to the other existing trail systems in the area."

"Because of my wife and my age transportation for elderly will become an issue, especially when you live in rural areas. Transportation for school-age children would be a priority also."

"What I would like to see most is a complete sidewalk system in town, as I see a lot of kids and seniors walking and biking in the streets, which could be [unsafe]."

Granger
Priorities

Transportation Behavior and Needs Survey

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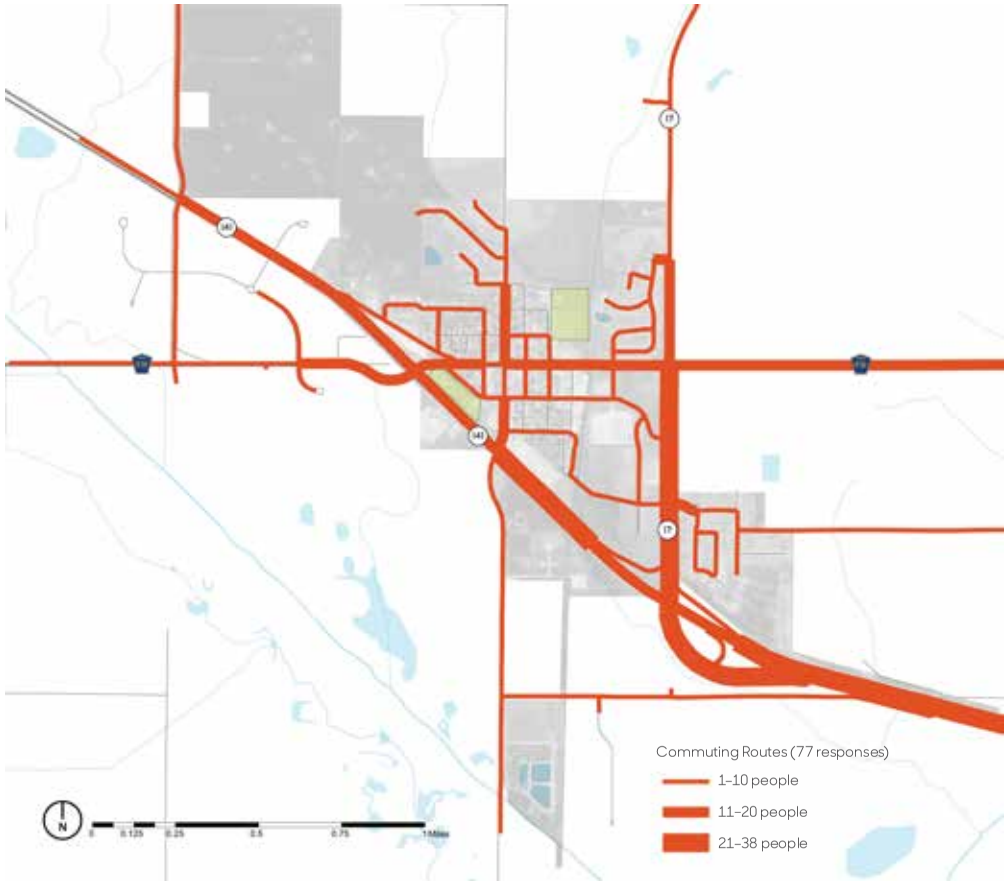
Commuting Routes

How They Get There

This map shows the commuting routes identified by 77 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. The primary commuting corridors in Granger are Highways 17 and 141 to the southeast, presumably to the Des Moines metro area. Some people also travel to the east on County Road F31. In town, State and Sycamore Streets are heavily traveled. The circulation patterns that emerge when routes for biking, walking, and commuting are overlaid suggest suitable types of transportation enhancements. For example, where pedestrian and vehicular traffic intersect, such improvements could include creating better visibility, defining crossing points, or improving signage.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that factored into their choice of commuting route. Among Granger participants, time to destination is clearly the most important factor, with a mean value of 4.6. Avoiding vehicular traffic and avoiding weather-related issues such as snow and ice are also considered important, with mean values of 4.0 and 3.9, respectively. Avoiding neighborhoods, scenic views, and seasonal beauty are not critical factors in determining commuting routes.



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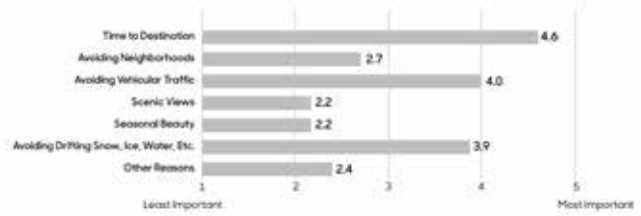


Granger
Commuting Routes

Transportation Behavior and Needs Survey
Julia Badenhope, Sandra Oberbroeckling, Matthew Gordy, Miao Fangzhou
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

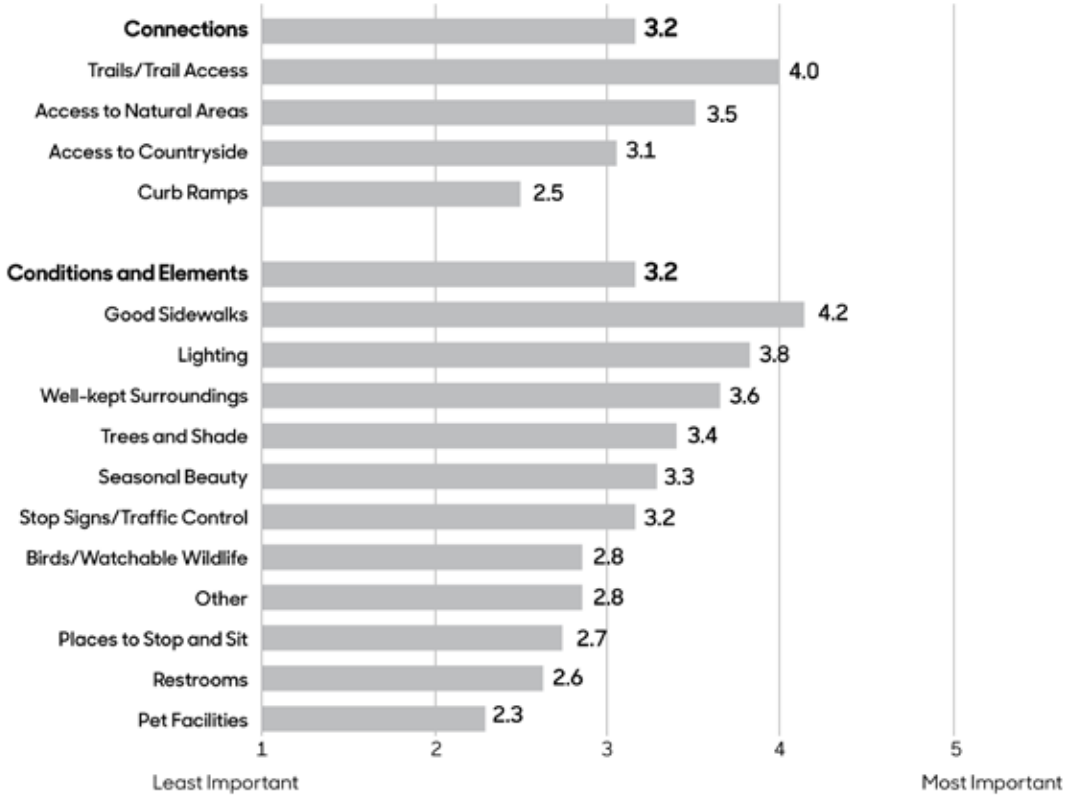
Walking Routes

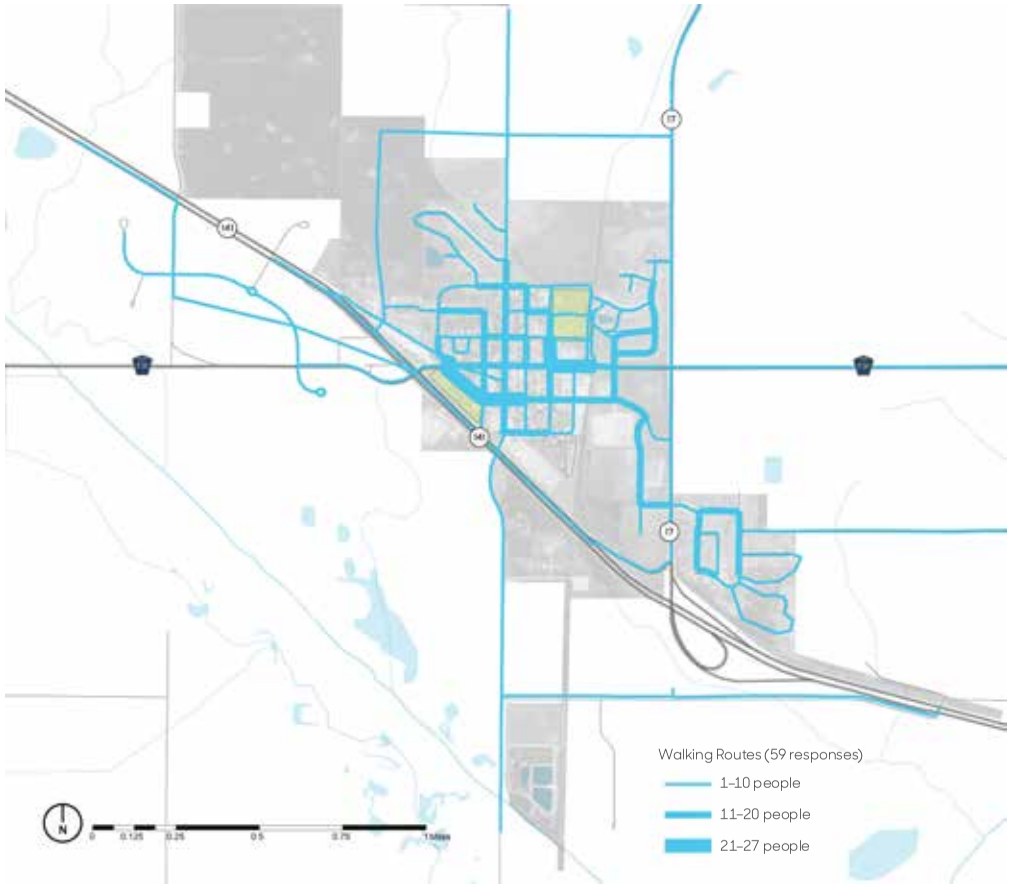
Where They Go:

This map shows the walking routes identified by 59 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. The most popular streets for walking in Granger are Rose Street, Broadway Street between West and Locust Streets, State Street between Locust and Walnut Streets, and Locust Street between State and Elm Streets. People also walk the streets in the Windcrest and Twin Eagles developments. Some people walk along Highways 17 and 141, as well as along County Road F31 and the old county road (NW 106 Avenue).

Why They Go That Way:

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their walking experience better. These features are categorized as either "connections" or "conditions and elements." Among Adel participants, connections and conditions/elements are equally importance with mean values of 3.2. In terms of connections, access to trails is most important with a mean value of 4.0. Good sidewalks are the most important element to walkers (4.2), followed by lighting (3.8) and well-kept surroundings (3.6).





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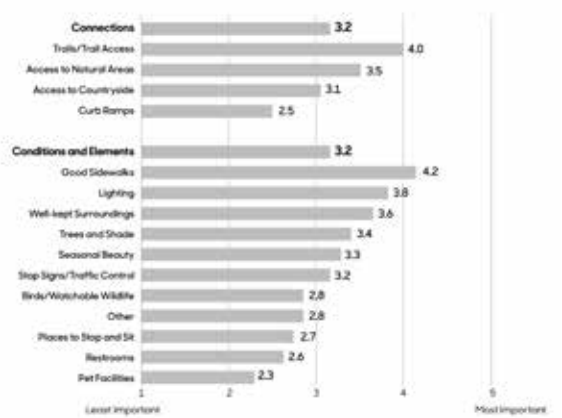

Granger
Walking Routes

Transportation Behavior and Needs Survey

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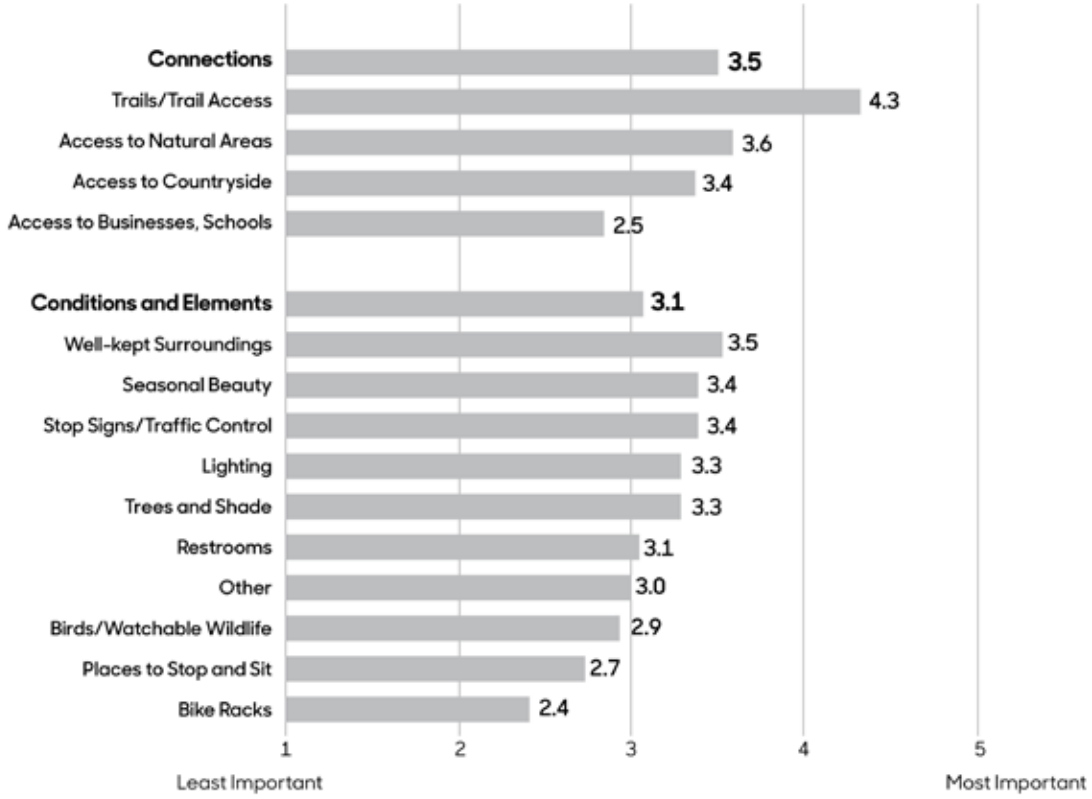
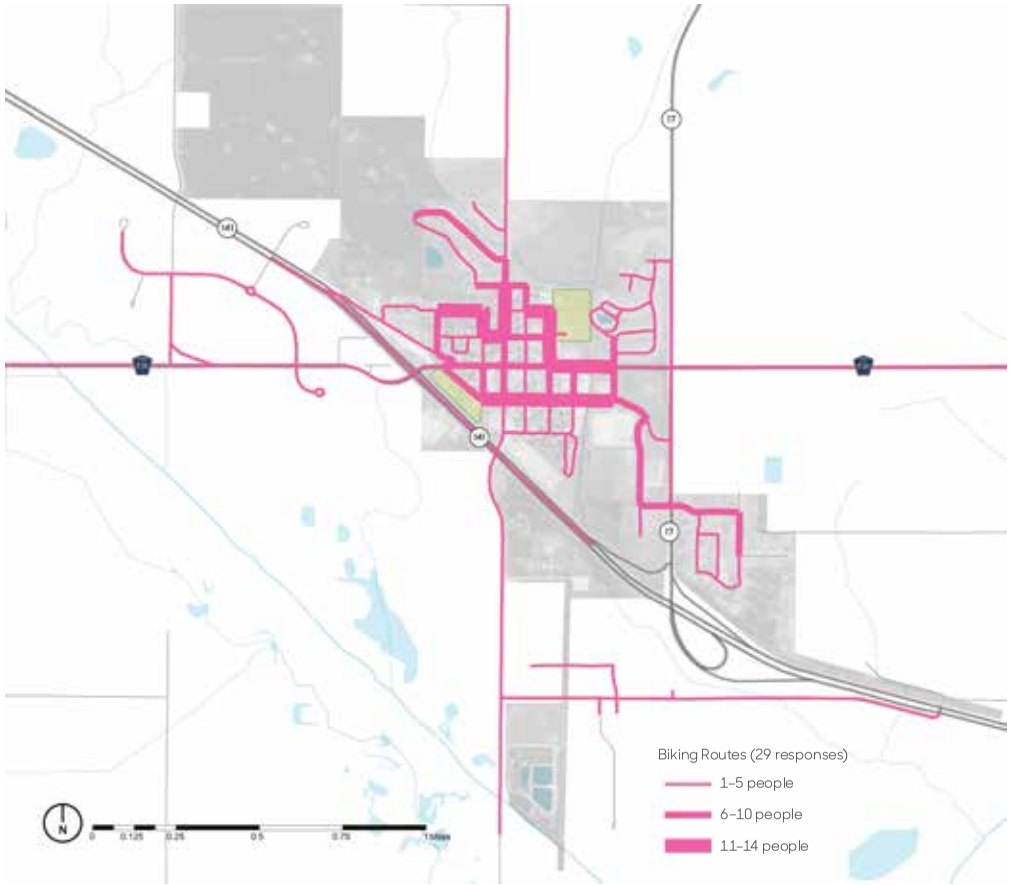
Biking Routes

Where They Go:
This map shows the biking routes identified by 29 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. Cyclists ride most often on Broadway, State, and Linden Streets, as well as portions of Sycamore, Elm, and West Streets. Some bikers ride on County Road F31, as well as Highways 17 and 141 within city limits. A few people bike out of town to the north or to the south along Sycamore Street.

Why They Go That Way:
On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their biking experience better. These features are categorized as either "connections" or "conditions and elements." Among Granger participants, connections are more important than conditions/elements with mean values of 3.5 and 3.1, respectively. In terms of connections, access to trails is most important with a mean value of 4.3. Well-kept surroundings are the most important element to bikers (3.5), followed by seasonal beauty (3.4) and stop signs and traffic control (3.4).





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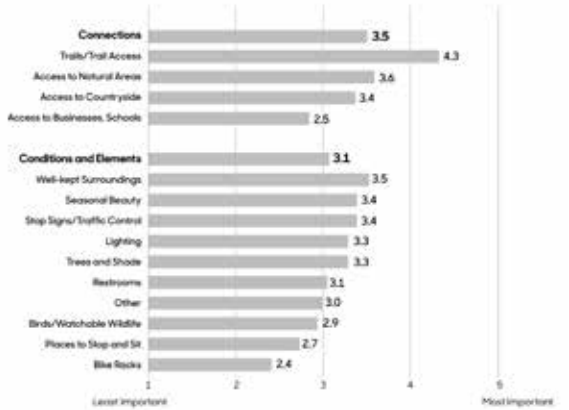

Granger
Biking Routes

Transportation Behavior and Needs Survey

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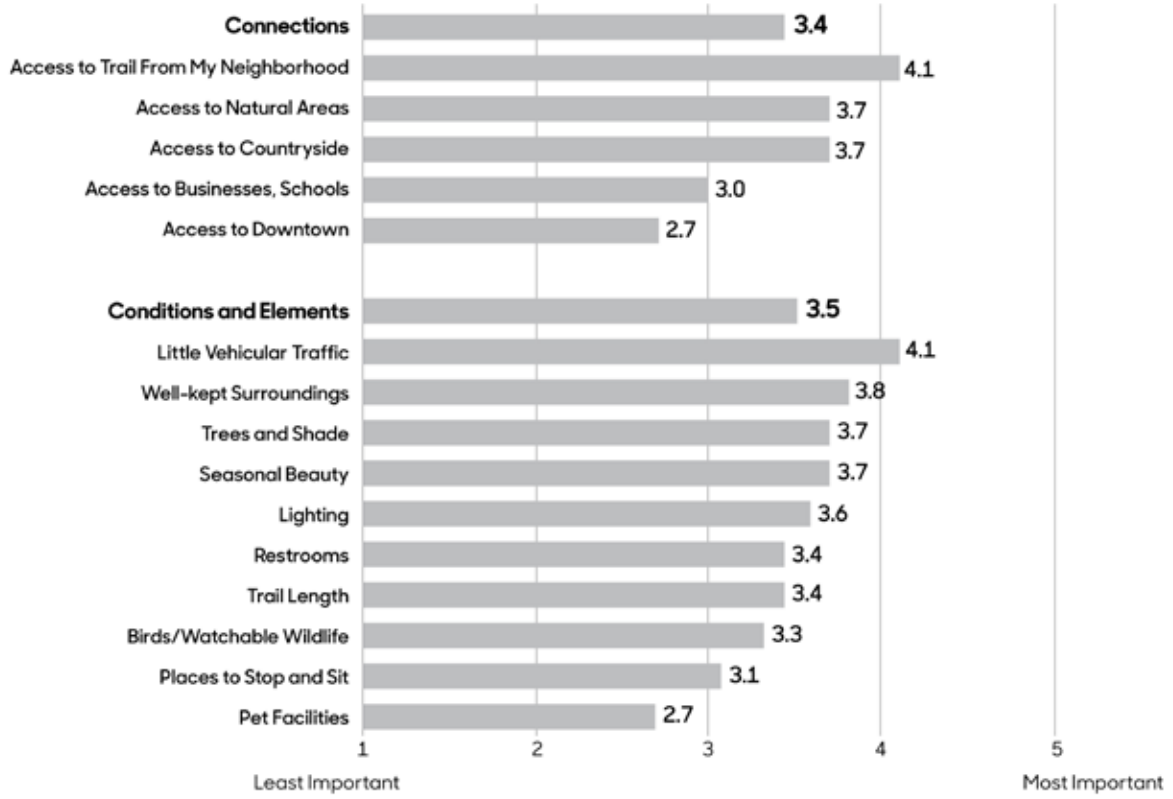
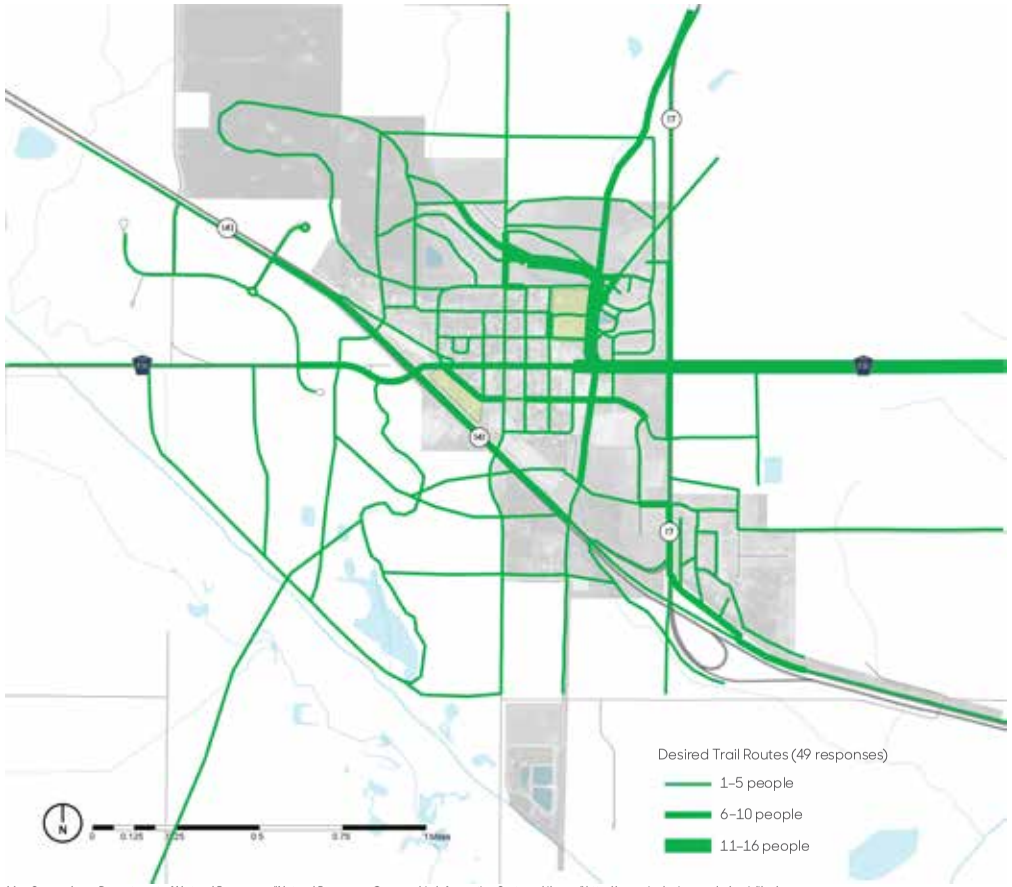
Desired Trail Routes

Where They Go:
This map shows the desired trail routes identified by 49 survey respondents. The frequency that the routes are used is depicted by their thickness, with most frequently used routes being the thickest. Most people who answered this question would like a trail along the creek that runs through town that connects to County Road F31, following that road to the east. Another route identified follows Highway 141 within city limits. Some people would like trails to connect the newer developments to the rest of the community, and some would like a trail connection to Beaver Creek and the wetlands south of town.

Why They Go That Way:
On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their trail experience better. These features are categorized as either "connections" or "conditions and elements." Among Granger participants, connections and conditions/elements have nearly equal importance with mean values of 3.4 and 3.5, respectively. In terms of connections, access to trails from my neighborhood is most important with a mean value of 4.1. Little vehicular traffic the most important element to trail users (4.1), followed by well-kept surroundings (3.8) and trees and shade and seasonal beauty (3.7 each).





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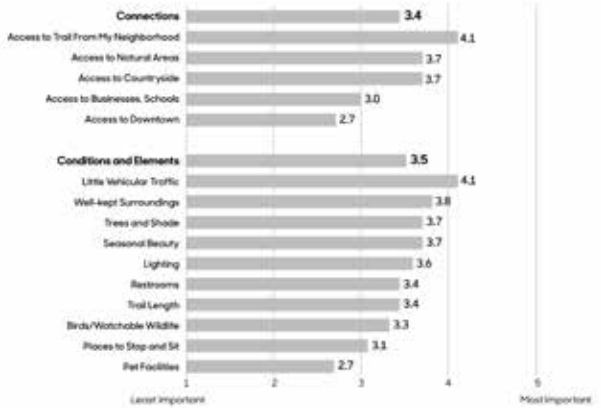

Granger
Desired Trail Routes

Transportation Behavior and Needs Survey

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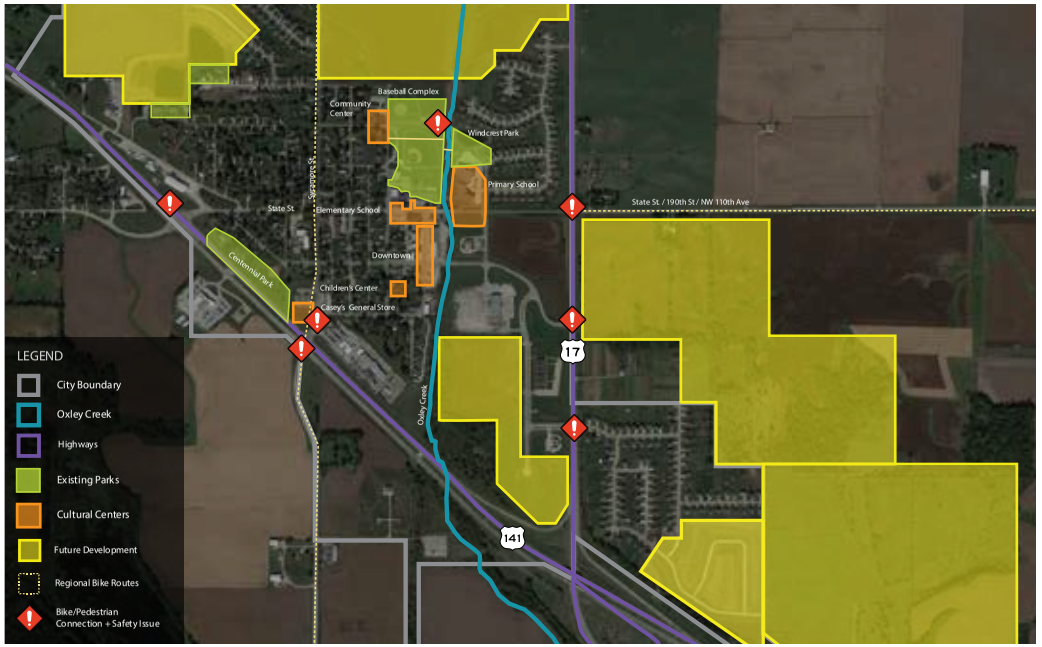
Iowa's Living Roadways community visioning

Transportation Inventory and Analysis

Local Conditions:
Through observation, anecdotal evidence, resident surveys, and discourse with City of Granger, Dallas and Polk Counties, and Iowa Department of Transportation officials, the Community Visioning team have inventoried existing transportation assets, needs and concerns throughout the community. Located within easy driving distance to Des Moines, Granger faces challenges common to exurban communities. A car-centric transportation system and cul-de-sac residential developments have resulted in poor sidewalk connectivity and a lack of pedestrian and bike corridors throughout the city. These transportation challenges are exasperated by rapid population growth and private residential development at the north and east edges of the city. Where Highway 17 and NW 110th Ave/State St pass through town, freight vehicles combine with commuter and local traffic, making it extremely difficult for pedestrians to cross the road safely. And while Highway 141 provides easy commuter access, at a local scale it acts as a dangerous barrier to pedestrian passage along the west edge of town, particularly for residents of the Homesteads development. The 141 corridor is also underdeveloped as a city gateway, with no Granger welcome signage visible from the highway. Regional travelers who may stop at the Casey's General store rarely venture further into town, and have trouble finding their way to downtown or other local destinations if they do. Granger has wisely located new schools and parks along the recently restored Oxley Creek corridor through the middle of town, but there are no direct walking or bike trails to connect these locations to the peripheral neighborhoods or Centennial Park. The projects proposed by Community Visioning seek to update and enhance safety, connectivity, aesthetic character, and community identity throughout the transportation fabric of Granger.

Regional Conditions:
Situated on a major commuting corridor, Granger is poised to become a regional hub for outdoor recreation, and a jumping-off point to the Saylorville area and the North Metro. But while the community has long been associated with Jester Park due to its close proximity, easy passage to the park and other recreation destinations such as the High Trestle Trail, Raccoon River Valley Trail, and Saylorville Lake is limited to car travel. Cyclists must brave narrow highway shoulders or gravel roads to cover the short miles between Granger and these destinations. This limits access for both residents and visitors, who may otherwise be inclined to swing through town on a weekend bike ride or while camping at Jester Park. And as more residents relocate to Granger to raise families, there is a growing demand for safe, easy connections to these regional assets.
Barriers to the creation of new trails are many, including geography, busy highway crossings, and property access, among others. And there is no silver bullet, such as an old trail-ready railroad bed leading from Granger to the lake. Instead, the Community Visioning committee explored a strategy that knits together private and public properties, utilizing city land where possible, and coordinating with both Polk County, Dallas County, other municipalities to build new trail corridors and utilize best practices for integrating bike facilities into existing roadways.



Community Transportation Inventory Diagram

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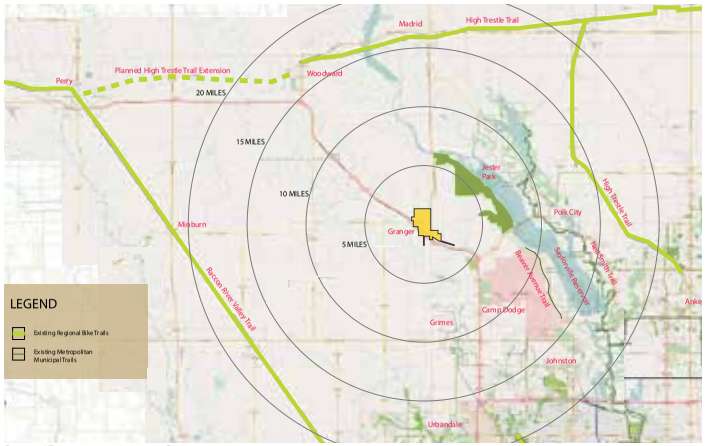

Regional Transportation Inventory Diagram

State Street Downtown

Uncontrolled Crossing at 141

Existing Welcome Sign

Regional Conditions

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Granger
Transportation Inventory

Genus Landscape Architects
LA's: Eric Holt, ASLA, PLA | Jordan Garvey, Associate ASLA
Intern: Fan-Kai Lin
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Historical Resources

Railroads, Mining Camps + Circus Camps:
As a way-point on two key railroad lines in central Iowa, and named for railroad man C. T. Granger, the city's history is intertwined with transportation infrastructure. As early as the 1880's, freight rail traveled through the area, carrying coal from local strip mines to distant cities. Impoverished coal miners and their families lived in squalid camps nearby, until the Federal government loaned money in the 1930's to build the Granger Homesteads, which still exists as an adjacent development west of town. Later, a branch of the Inter-Urban railroad connected Granger to Perry and Des Moines into the late 20th century. These rail lines shaped the economy, culture, and geography of Granger (Highway 141 parallels the old Inter-Urban route), and remained the primary lifeline connecting Granger to other communities into the 1960's. Most remarkably, the Yankee Robinson Circus, which ranged across the Midwest, was born in Granger and called it their off-season home for many decades. Local families would gather at the railroad tracks to watch the circus wagons, animals, and performers load and unload each season. The circus' winter quarters property to the southeast of town is now being developed as residential expansion has extended east of Highway 17, and elephant bones have been unearthed during the construction of these new neighborhoods! The Community Visioning projects proposed for Granger strive to pay homage to this local history, with an eye towards current and future transportation needs of the community.

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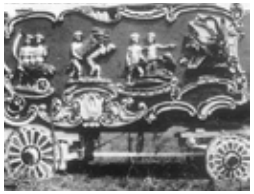
Inter-Urban Railroad Depot

Granger Homesteads



Yankee Robinson Circus Winter Quarters

Granger
Historical Resources

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Iowa's Living Roadways
community visioning

Community Concept Plan

Visioning Process + Projects:
With guidance and input from the Granger Community Visioning steering committee, local and regional government agencies, and citizens of the community over the last nine months, several transportation improvement project concepts are proposed to mitigate safety concerns at highway crossings, enhance community gateways at the city's perimeter and downtown streetscape, and create a more robust local trail system (comprised of new multipurpose trails and dedicated on-street bikeways) anchored along Oxley Creek to connect peripheral residential developments to schools and parks and improve regional trail access. These projects aim to make Granger a more connected, safe, and beautiful place for visitors and residents alike.

All projects strive to address multiple issues, so that each transportation investment provides maximum benefit to the community. These performance benefits fall into five primary categories as shown below. Graphic icons corresponding to each category are used to identify these benefits for each proposed project throughout the Granger Community Visioning documents.

Connectivity + Access

local multipurpose trail system | hub plaza trailheads | wayfinding signage | street crossings | regional trail connectons

Safety

marked street crossings and signage with RRFBs | traffic median refuge islands | streetscape plantings for traffic calming | separated trails with guardrail

Identity + History

trail hub plazas | "wheel" gateway monuments | water trough planters | streetscape plantings | Yankee Robinson Circus | interurban railroad | the Homesteads development

Ecology

prairie restoration | street trees | habitat creation + increased biodiversity | stormwater management, flood resilience + water quaility

Cost Opinion Summary

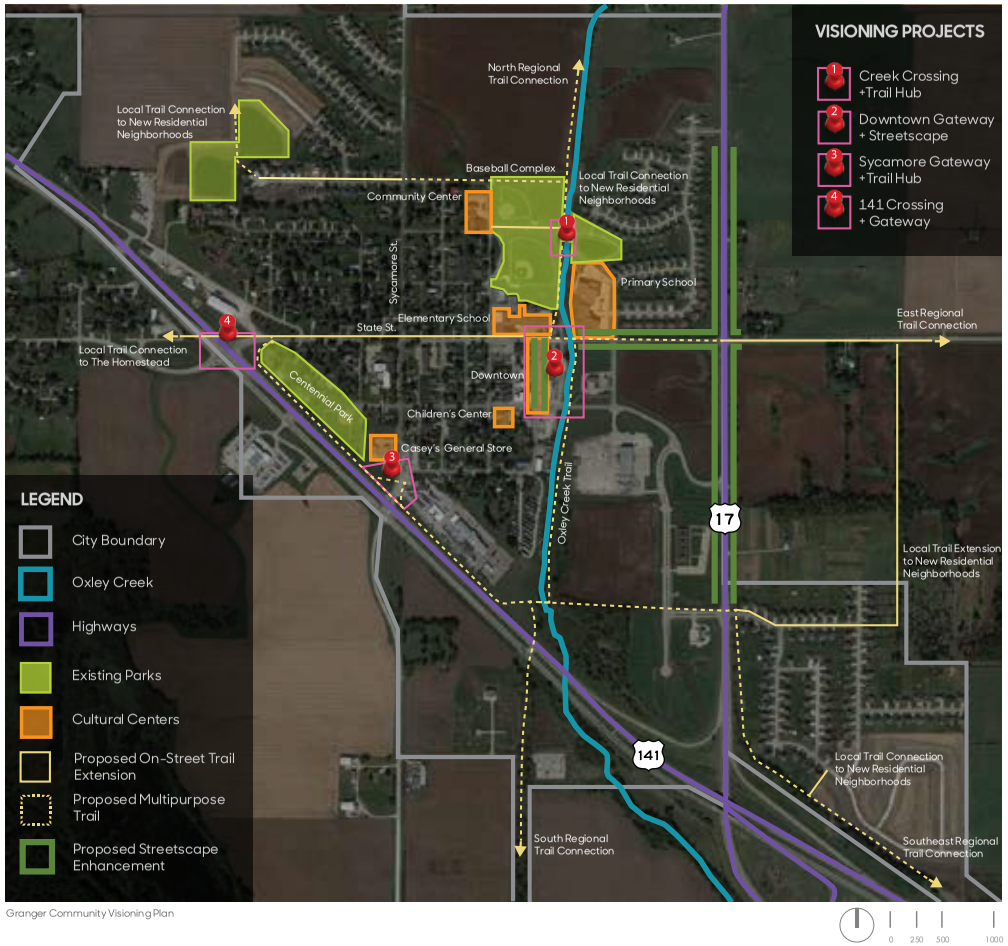
The projects and their estimated budgets are discussed in more detail in the following pages. Estimates presented here are based on industry sources, previous project bid tabulations, and research. Costs are presented in 2017 dollars and will escalate in subsequent years. Local site conditions, labor, and material costs may effect actual construction costs differently than presented in estimate.

Projects may require help beyond the capability of the visioning committee or available city staff. For all proposed improvements, the committee should expect to involve additional professional design consultants, including but not limited to landscape architects, civil engineers, geotechnical engineers, mechanical/electrical/plumbing engineers, and structural engineers for detailed design, construction documentation, bidding assistance and construction administration services.

Abbreviations used in the following opinions of probable cost include:

AL = allowance	SF = square foot	LS = lump sum	CY = cubic yard
LF = linear foot	EA = each	SY = square yard	T = ton

COMMUNITY TRAIL SYSTEM				
1	MULTIPURPOSE TRAIL SEGMENT ONE (4,500 LF)	$	677,820	*(from baseball complex south along Oxley Creek and east to Highway 17)*
2	MULTIPURPOSE TRAIL SEGMENT TWO (3,700 LF)	$	527,973	*(along Highway 141 from State Street to Oxley Creek)*
3	MULTIPURPOSE TRAIL SEGMENT THREE (3,200 LF)	$	359,408	*(along southwest edge of Twin Eagles development)*
4	MULTIPURPOSE TRAIL SEGMENT FOUR (1,300 LF)	$	157,212	*(along north side of baseball complex, community center, and Lowell Street from Oxley Creek to Sycamore Street)*
	COMMUNITY TRAIL SYSTEM TOTAL*	**$**	**1,722,413**	
				**Estimates do not include trail signage, property easements, land acquisition, or other utility modifications*
REGIONAL TRAIL CONNECTIONS				
1	NORTH REGIONAL TRAIL CONNECTION (2.5 MI)	$	1,146,599	*(multipurpose trail from baseball complex along Oxley Creek to Highway 17, and paved shoulders along Highway 17/NW 122nd/NW 120th to Jester Park Nature Center)*
2	EAST REGIONAL TRAIL CONNECTION (3.3 MI)	$	1,068,859	*(paved shoulders from Highway 17 along NW 110th/NW 121st/NW 118th to Jester Park Nature Center)*
3	SOUTHEAST REGIONAL TRAIL CONNECTION (4.6 MI)	$	1,375,867	*(multipurpose trail along Highway 141 ROW to Highway 415, and paved shoulders along Highway 415 to NW Beaver Drive/Trail)*
4	SOUTH REGIONAL TRAIL CONNECTION (3 MI)	-		*(not included in cost opinion - further study and coordination are needed to determine viable route and associated costs)*
	REGIONAL TRAIL CONNECTIONS TOTAL*	**$**	**3,591,324**	
				**Estimates do not include signage or roadway markings, property easements, land acquisition, or other utility modifications*
CREEK CROSSING + TRAIL HUB				
1	CREEK CROSSING	$	116,376	(includes prefabricated bridge allowance: $60,000)
2	TRAIL HUB	$	53,164	
	CREEK CROSSING + TRAIL HUB TOTAL*	**$**	**169,540**	
				**Estimates do not include multipurpose trail along Oxley Creek or 40' bridge over drainage way (included in previous section), property easements, land acquisition, or other utility modifications*
DOWNTOWN GATEWAY + STREETSCAPE				
1	GATEWAY ENHANCEMENTS	$	131,040	*(along State Street) (includes wheel monuments allowance:$45,000)*
2	STREETSCAPE ENHANCEMENTS	$	233,465.70	*(along Main Street and Broadway Street)*
2	TRAILHEAD + WELCOME CENTER	$	399,257	*(assumes private property on corner can be acquired)*
	DOWNTOWN GATEWAY + STREETSCAPE TOTAL*	**$**	**763,763**	
				**Estimates do not include multipurpose trail Segment 1 improvements including State Street and Broadway Street crosswalk markings or RRFB signage (included in previous section), property easements, land acquisition, or other utility modifications*
SYCAMORE GATEWAY				
1	TRAIL HUB PLAZA	$	48,614	
2	GATEWAY ENHANCEMENTS	$	54,340.00	
	SYCAMORE GATEWAY TOTAL*	**$**	**102,954**	
				**Estimates do not include multipurpose trail Segment 2 improvements including Sycamore Street crosswalk markings or signage (included in previous section), property easements, land acquisition, or other utility modifications*
141 CROSSING + GATEWAY				
1	HIGHWAY CROSSING	$	208,998	*(includes multipurpose trail extensions on both sides of Highway 141)*
2	GATEWAY MONUMENT	$	49,887.50	*(includes wheel monument allowance: $20,000)*
	141 CROSSING + GATEWAY TOTAL*	**$**	**258,886**	
				**Estimates do not include multipurpose trail Segment 2 improvements including State Street crosswalk markings or signage (included in previous section), property easements, land acquisition, or other utility modifications*
SUMMARY				
	TOTAL COMBINED PROJECT COSTS	**$**	**6,608,879**	



Granger Community Visioning Plan

Visioning Process + Projects

With guidance and input from the Granger Community Visioning steering committee, local and regional government agencies, and citizens of the community over the last nine months, several transportation improvement project concepts are proposed to mitigate safety concerns at highway crossings, enhance community gateways at the city's perimeter and downtown streetscape, and create a more robust local trail system (comprised of new multipurpose trails and dedicated on-street bikeways) anchored along Oxley Creek to connect peripheral residential developments to schools and parks and improve regional trail access. These projects aim to make Granger a more connected, safe, and beautiful place for visitors and residents alike.

All projects strive to address multiple issues, so that each transportation investment provides maximum benefit to the community. These performance benefits fall into five primary categories as shown below. Graphic icons corresponding to each category are used to identify these benefits for each proposed project throughout the Granger Community Visioning documents.

Connectivity + Access

local multipurpose trail system | hub plaza trailheads | wayfinding signage | street crossings | regional trail connectons

Safety

marked street crossings and signage with RRFBs | traffic median refuge islands | streetscape plantings for traffic calming | separated trails with guardrail

Identity + History

trail hub plazas | "wheel" gateway monuments | water trough planters | streetscape plantings | Yankee Robinson Circus | interurban railroad | the Homesteads development

Ecology

prairie restoration | street trees | habitat creation + increased biodiversity | stormwater management, flood resilience + water quality

Granger
Concept Plan Overview

Genus Landscape Architects
LA's: Eric Holt, ASLA, PLA | Jordan Garvey, Associate ASLA
Intern: Fan-Kai Lin
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Connectivity Plan

Local Community Trail System
A new in-town trail network is proposed to connect community amenities downtown with established and developing neighborhoods at the city's perimeter. This network suggests both routes that utilize existing infrastructure by adding bike lanes, pavement markings and signage to existing city streets, and proposes several segments of new multipurpose trail separate from public streets and sidewalks. These 8' wide trails follow existing corridors such as the Highway 141 right-of-way and Oxley Creek, and provide direct connections between city parks, downtown, and surrounding neighborhoods. Besides the four key trail segments identified as top priority by Community Visioning, future segments of the local community trail system could be added as the city expands outwards to the north and east.

Regional Trail Connectivity (Spokes on the Hub):
To strengthen Granger's standing as a regional recreation hub and gateway to Jester Park, four primary cycling routes have been identified to better connect Granger to Saylorville Lake, the High Trestle Trail, Raccoon River Valley Trail, and municipal trail systems throughout the greater Des Moines metropolitan area. Emanating from the proposed community trail system in town, these regional routes would be comprised of a network of both new, paved multipurpose trail corridors, and improved bike facilities on existing roads designated by signage and pavement markings such as paved shoulder bikeways. Some of these follow the preferred routes of cyclists today, such as Highway 17, State Street/NW 110th/NW 121st to Jester Park, Sycamore Street/Xavier Ave north and south for gravel riders. Others forge new connections along old unused railroad rights-of-way at the edges of town: south towards the wastewater treatment plant and through the Beaver Creek floodplain to Grimes, and east along Highway 141 and Highway 415 to the new Beaver Avenue trail, which terminates near Camp Dodge in Johnston.

Paved Shoulder Bikeways:
In response to the high costs and legal difficulties of developing new multipurpose trail corridors to connect Granger to surrounding regional trails systems, Community Visioning recommends the creation of dedicated bikeways along the shoulders of existing rural highways where possible. The Iowa Statewide Urban Design and Specifications manual describes Paved Shoulders a best practice for implementing on-street bicycle facilities into higher-speed rural road sections. This is a relatively inexpensive method of retrofitting existing road sections by paving 4' minimum gravel shoulders and adding pavement markings and rumble strips to separate and define the bikeways from drive lanes. This has been done successfully around the state, including recently along Highway 169 outside of Slater. Near Granger, these would be most effective along or Highway 17 or NW 110th and NW 121st to Jester Park, as shown below.

Costs + Feasibility Considerations

The local community trail system has been divided into four segments for planning purposes, and listed in order of suggested implementation phasing. Coordination between the City of Granger, Dallas and Polk Counties, the Iowa Department of Transportation (IDOT), and private property owners along the trail routes may be necessary for property acquisition, design review, implementation, and long term operations of each segment. The estimates shown include trail construction and street crossing improvement costs, but do not include additional wayfinding signage, land acquisition, or unforeseen utility modifications. Additional trail planning and engineering feasibility study is recommended for all routes proposed. Costs for the proposed trail extension and crossing at Highway 141 and State Street is included in a later section of this report.

COMMUNITY TRAIL SYSTEM

	Improvement Description	*Unit*	*Qty.*	*Unit Cost*	*Subtotal*
1	MULTIPURPOSE TRAIL SEGMENT ONE (4,500 LF)				
	(from baseball complex south along Oxley Creek and east to Highway 17)				
1	Site Preparation and Grading Allowance	AL	1	$ 18,000.00	$ 18,000.00
2	Concrete Trail (8' wide, 5" thick over aggregate base)	SF	36,000	$ 8.00	$ 288,000.00
3	Enhanced Crosswalk (pavement markings and 2 RRFB signs)	EA	5	$ 20,000.00	$ 100,000.00
4	Shade Trees (1.5" B&B, 80' spacing, alternating sides of trail)	EA	56	$ 400.00	$ 22,400.00
5	Restoration Seeding (hydroseed turf 5' each side of trail)	SY	5,000	$ 3.00	$ 15,000.00
6	Native Planting Allowance (prairie seeding / shrubs)	AL	1	$ 20,000.00	$ 20,000.00
7	Utilities Allowance (lighting/drainage appurtenances)	AL	1	$ 18,000.00	$ 18,000.00
8	Pedestrian Bridge (40' prefabricate steel truss with footings)	LS	1	$ 40,000.00	$ 40,000.00
				Section Subtotal	$ 521,400.00
				20% Contingency	$ 104,280.00
				10% Design & Engineering Costs	$ 52,140.00
				Multipurpose Trail Segment One Subtotal	**$ 677,820.00**
2	MULTIPURPOSE TRAIL SEGMENT TWO (3,700 LF)				
	(along Highway 141 from State Street to Oxley Creek)				
1	Site Preparation and Grading Allowance	AL	1	$ 15,000.00	$ 15,000.00
2	Concrete Trail (8' wide, 5" thick over aggregate base)	SF	29,600	$ 8.00	$ 236,800.00
3	Enhanced Crosswalk (pavement markings and 2 RRFB signs)	EA	3	$ 20,000.00	$ 60,000.00
4	Shade Trees (1.5" B&B, 80' spacing, alternating sides of trail)	EA	45	$ 400.00	$ 18,000.00
5	Restoration Seeding (hydroseed turf 5' each side of trail)	SY	4,111	$ 3.00	$ 12,333.00
6	Native Planting Allowance (prairie seeding / shrubs)	AL	1	$ 4,000.00	$ 4,000.00
7	Utilities Allowance (lighting/drainage appurtenances)	AL	1	$ 10,000.00	$ 10,000.00
8	Creek Crossing Allowance (prefabricated bridge or culverts)	AL	1	$ 50,000.00	$ 50,000.00
				Section Subtotal	$ 406,133.00
				20% Contingency	$ 81,226.60
				10% Design & Engineering Costs	$ 40,613.30
				Multipurpose Trail Segment Two Subtotal	**$ 527,972.90**
3	MULTIPURPOSE TRAIL SEGMENT THREE (3,200 LF)				
	(along southwest edge of Twin Eagles development)				
1	Site Preparation and Grading Allowance	AL	1	$ 15,000.00	$ 15,000.00
2	Concrete Trail (8' wide, 5" thick over aggregate base)	SF	25,600	$ 8.00	$ 204,800.00
3	Enhanced Crosswalk (pavement markings and 2 RRFB signs)	EA	1	$ 20,000.00	$ 20,000.00
4	Shade Trees (1.5" B&B, 80' spacing, alternating sides of trail)	EA	40	$ 400.00	$ 16,000.00
5	Restoration Seeding (hydroseed turf 5' each side of trail)	SY	3,556	$ 3.00	$ 10,668.00
6	Native Planting Allowance (prairie seeding / shrubs)	AL	1	$ 4,000.00	$ 4,000.00
7	Utilities Allowance (lighting/drainage appurtenances)	AL	1	$ 6,000.00	$ 6,000.00
				Section Subtotal	$ 276,468.00
				20% Contingency	$ 55,293.60
				10% Design & Engineering Costs	$ 27,646.80
				Multipurpose Trail Segment Three Subtotal	**$ 359,408.40**
4	MULTIPURPOSE TRAIL SEGMENT FOUR (1,300 LF)				
	(along north side of baseball complex, community center, and Lowell Street from Oxley Creek to Sycamore Street)				
1	Site Preparation and Grading Allowance	AL	1	$ 5,000.00	$ 5,000.00
2	Concrete Trail (8' wide, 5" thick over aggregate base)	SF	10,400	$ 8.00	$ 83,200.00
3	Enhanced Crosswalk (pavement markings and 2 RRFB signs)	EA	1	$ 20,000.00	$ 20,000.00
4	Shade Trees (1.5" B&B, 80' spacing, alternating sides of trail)	EA	16	$ 400.00	$ 6,400.00
5	Restoration Seeding (hydroseed turf 5' each side of trail)	SY	1,444	$ 3.00	$ 4,332.00
6	Native Planting Allowance (prairie seeding / shrubs)	AL	1	$ 2,000.00	$ 2,000.00
7	Utilities Allowance (lighting/drainage appurtenances)	AL	1	$ 6,000.00	$ 6,000.00
				Section Subtotal	$ 120,932.00
				20% Contingency	$ 24,186.40
				10% Design & Engineering Costs	$ 12,093.20
				Multipurpose Trail Segment Four Subtotal	**$ 157,211.60**
				COMMUNITY TRAIL SYSTEM TOTAL*	**$ 1,722,412.90**

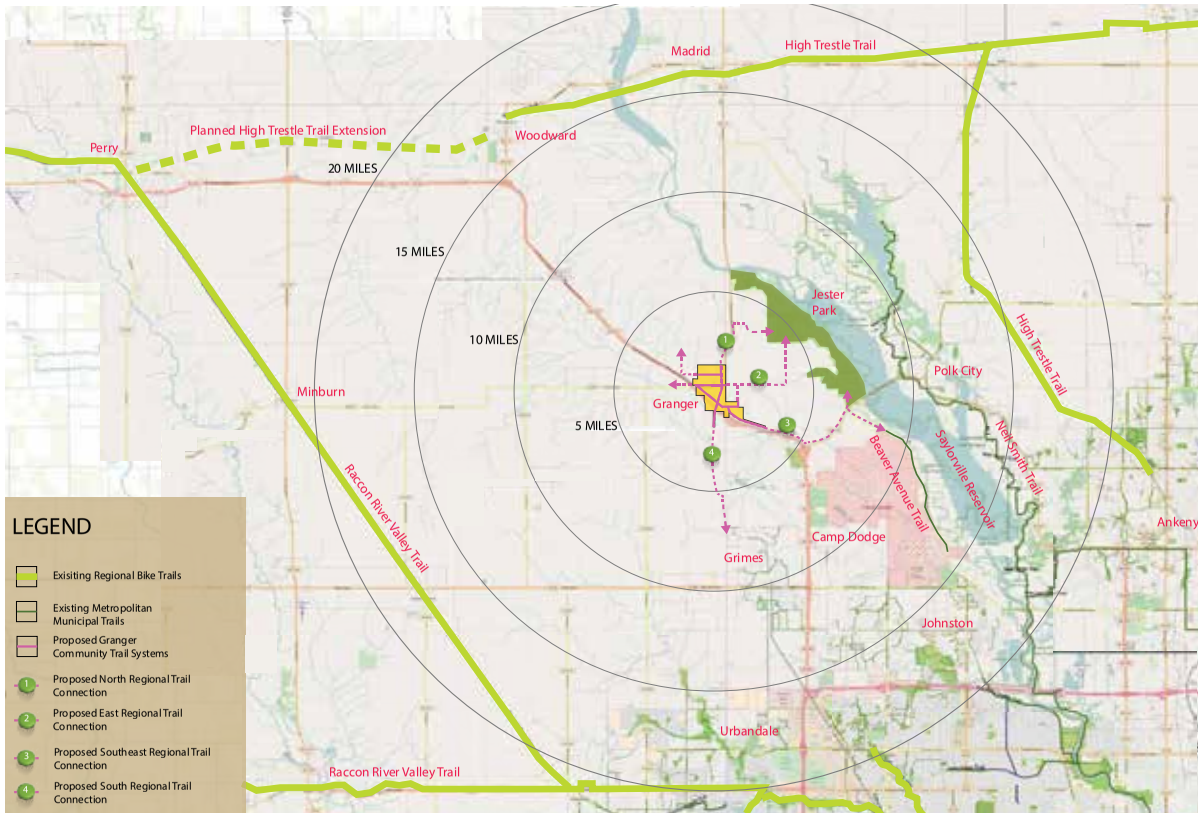
**Estimates do not include trail signage, property easements, land acquisition, or other utility modifications*

Four primary regional trail connection routes have been identified to provide dedicated trail access from Granger to Jester Park and north metro municipal trails. These routes include a combination of new multipurpose trails and paved shoulder bikeways added to exiting highways. Routes were selected for their current popularity and intensity of use, availability of public right-of-way, and avoidance of difficult terrain and private property. Coordination between the City of Granger, Dallas and Polk Counties, the Iowa Department of Transportation (IDOT), neighboring municipalities, and private property owners along the trail routes may be necessary for property acquisition, design review, implementation, and long term operations of each segment. Coordination with Jester Park staff, Polk County planners, and regional trail associations is also recommended to determine preferred routing and potential cost sharing. The estimates shown include trail construction costs, but do not include street crossing improvements, additional wayfinding and safety signage, land acquisition, or unforeseen utility modifications. Costs for the proposed south regional trail connection are not included due to the need for further study and coordination to determine a viable route through the Beaver Creek floodplain. Additional trail planning and engineering feasibility study is recommended for all routes proposed.

REGIONAL TRAIL CONNECTIONS

	Improvement Description	*Unit*	*Qty.*	*Unit Cost*	*Subtotal*
1	NORTH REGIONAL TRAIL CONNECTION (2.5 MI)				
	(multipurpose trail from baseball complex along Oxley Creek to Highway 17, and paved shoulders along Highway 17/NW 122nd/NW 120th to Jester Park Nature Center)				
1	Site Preparation and Grading Allowance	AL	1	$ 8,000.00	$ 8,000.00
2	Concrete Trail (8' wide, 5" thick over aggregate base)	SF	16,000	$ 8.00	$ 128,000.00
3	Sawcut Existing Roadway Pavement (to add paved shoulders)	LF	24,000	$ 1.50	$ 36,000.00
4	Paved Shoulders (5' wide, 5" thick asphalt-both sides of roadway)	SF	120,000	$ 5.00	$ 600,000.00
5	Shade Trees (1.5" B&B, 80' spacing, alternating sides of trail)	EA	25	$ 400.00	$ 10,000.00
6	Restoration Seeding (hydroseed turf 5' each side of trail/shoulder)	SY	13,333	$ 3.00	$ 39,999.00
7	Native Planting Allowance (prairie seeding / shrubs)	AL	1	$ 4,000.00	$ 4,000.00
8	Utilities Allowance (lighting/drainage appurtenances)	AL	1	$ 6,000.00	$ 6,000.00
9	Creek Crossing Allowance (prefabricated bridge or culverts)	AL	1	$ 50,000.00	$ 50,000.00
				Section Subtotal	$ 881,999.00
				20% Contingency	$ 176,399.80
				10% Design & Engineering Costs	$ 88,199.90
				North Regional Trail Connection	**$ 1,146,598.70**
2	EAST REGIONAL TRAIL CONNECTION (3.3 MI)				
	(paved shoulders from Highway 17 along NW 110th/NW 121st/NW 118th to Jester Park Nature Center)				
1	Site Preparation and Grading Allowance	AL	1	$ 10,000.00	$ 10,000.00
2	Sawcut Existing Roadway Pavement (to add paved shoulders)	LF	34,800	$ 1.50	$ 52,200.00
3	Paved Shoulders (4' wide, 5" thick asphalt-both sides of roadway)	SF	139,200	$ 5.00	$ 696,000.00
4	Restoration Seeding (hydroseed turf 5' each side of shoulder)	SY	19,333	$ 3.00	$ 57,999.00
5	Utilities Allowance (lighting/drainage appurtenances)	AL	1	$ 6,000.00	$ 6,000.00
				Section Subtotal	$ 822,199.00
				20% Contingency	$ 164,439.80
				10% Design & Engineering Costs	$ 82,219.90
				East Regional Trail Connection	**$ 1,068,858.70**
3	SOUTHEAST REGIONAL TRAIL CONNECTION (4.6 MI)				
	(multipurpose trail along Highway 141 ROW to Highway 415, and paved shoulders along Highway 415 to NW Beaver Drive/Trail)				
1	Site Preparation and Grading Allowance	AL	1	$ 35,000.00	$ 35,000.00
2	Concrete Trail (8' wide, 5" thick over aggregate base)	SF	80,320	$ 8.00	$ 642,560.00
3	Sawcut Existing Roadway Pavement (to add paved shoulders)	LF	14,000	$ 1.50	$ 21,000.00
4	Paved Shoulders (4' wide, 5" thick asphalt-both sides of roadway)	SF	56,000	$ 5.00	$ 280,000.00
5	Shade Trees (1.5" B&B, 80' spacing, alternating sides of trail)	EA	25	$ 400.00	$ 10,000.00
6	Restoration Seeding (hydroseed turf 5' each side of shoulder)	SY	18,933	$ 3.00	$ 56,799.00
7	Native Planting Allowance (prairie seeding / shrubs)	AL	1	$ 5,000.00	$ 5,000.00
8	Utilities Allowance (lighting/drainage appurtenances)	AL	1	$ 8,000.00	$ 8,000.00
				Section Subtotal	$ 1,058,359.00
				20% Contingency	$ 211,671.80
				10% Design & Engineering Costs	$ 105,835.90
				Southeast Regional Trail Connection	**$ 1,375,866.70**
4	SOUTH REGIONAL TRAIL CONNECTION (3 MI)				
	(not included - further study and coordination needed to determine viable route/costs)				
				REGIONAL TRAIL CONNECTIONS TOTAL*	**$ 3,591,324.10**

**Estimates do not include signage or roadway markings, property easements, land acquisition, or other utility modifications*



Regional Trail Connection Plan

Paved Shoulder Bikeway

In response to the high costs and legal difficulties of developing new multipurpose trail corridors to connect Granger to surrounding regional trails systems, Community Visioning recommends the creation of dedicated bikeways along the shoulders of existing rural highways where possible. The Iowa Statewide Urban Design and Specifications manual describes Paved Shoulders a best practice for implementing on-street bicycle facilities into higher-speed rural road sections. This is a relatively inexpensive method of retrofitting existing road sections by paving 4' minimum gravel shoulders and adding pavement markings and rumble strips to separate and define the bikeways from drive lanes. This has been done successfully around the state, including recently along Highway 169 outside of Slater. Near Granger, these would be most effective along or Highway 17 or NW 110th and NW 121st to Jester Park, as shown below.

Existing Roadway Section

Proposed Roadway Section

Spokes on the Hub

To strengthen Granger's standing as a regional recreation hub and gateway to Jester Park, four primary cycling routes have been identified to better connect Granger to Saylorville Lake, the High Trestle Trail, Raccoon River Valley Trail, and municipal trail systems throughout the greater Des Moines metropolitan area. Emanating from the proposed community trail system in town, these regional routes would be comprised of a network of both new, paved multipurpose trail corridors, and improved bike facilities on existing roads designated by signage and pavement markings such as paved shoulder bikeways. Some of these follow the preferred routes of cyclists today, such as Highway 17, State Street/NW 110th/NW 121st to Jester Park, Sycamore Street/Xavier Ave north and south for gravel riders. Others forge new connections along old unused railroad rights-of-way at the edges of town: south towards the wastewater treatment plant and through the Beaver Creek floodplain to Grimes, and east along Highway 141 and Highway 415 to the new Beaver Avenue trail, which terminates near Camp Dodge in Johnston.

Granger
Regional Connectivity Plan

Genus Landscape Architects
LA's: Eric Holt, ASLA, PLA | Jordan Garvey, Associate ASLA
Intern: Fan-Kai Lin
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Creek Crossing + Trail Hub

Creek Crossing:
A new bridge crossing over Oxley Creek is proposed to connect the Windcrest Park loop trail to the baseball complex to the west. This will supplement the existing crossing at State Street, providing direct access between the school and neighborhoods to the east of the creek with the community center and neighborhoods to the northwest. The approximately 60'-long prefabricated steel truss bridge would be similar to the one previously located along State Street prior to the recent creek stabilization project. Another 40' bridge is proposed over the tributary drainage way to the north, to accommodate the development of a new multipurpose trail along the length of Oxley Creek. Under the creek bridge, a series of limestone outcropping steps would provide access down to the water and protect the bridge embankments. Sited at the existing location of an ad hoc crossing built by local kids with riprap boulders, these limestone blocks would function as a secondary "stepping stone" creek crossing for adventure-based play, and could also be used as an outdoor classroom.

Trail Hub Plaza:
With the introduction of a local multipurpose trail system and proposed creek crossing connecting Windcrest Park and the baseball complex, this location has been identified as a key intersection at the heart of Granger's park land. To mark this location, a concrete trail node dubbed the "Hub Plaza" is proposed as a rest stop along the trail; a new park feature that includes ornamental plantings, seating, bike racks, and signage. This plaza could be replicated throughout the community as the trail system grows, and the wheel/gear form of the paving allows for flexibility in the direction of connections to trails, sidewalks, or other park amenities. Traditional park sign panels could be included to mark destinations or provide interpretation on site-specific cultural and natural resources and history. Wayfinding text could also be superimposed onto the paving to inform trail users of destinations near and far, such as "Community Center 0.5 mi", or "Jester Park 4 mi".

Costs + Feasibility Considerations

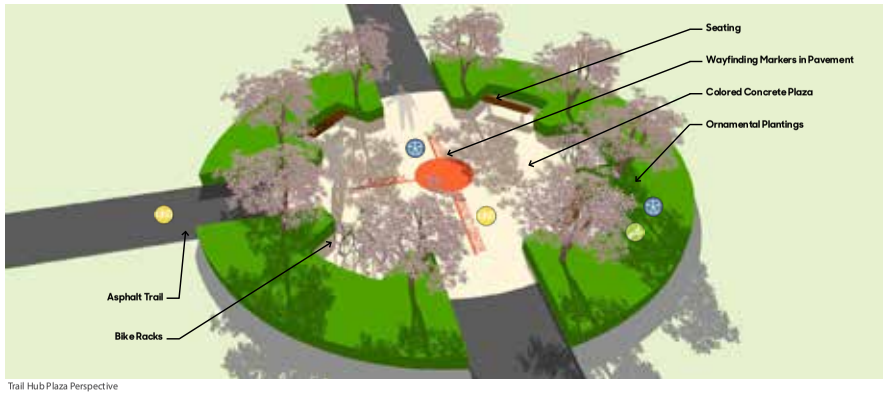
The Creek Crossing and Trail Hub are conceived of as separate but complimentary projects, and could be implemented in multiple phases. It is recommended that the pedestrian bridge be installed first to provide immediate connectivity between parks on each side of Oxley Creek. The trail hub could be built in concert with the Creek Crossing, as a stand-alone installation, or as part of the Community Trail System. Costs for the adjacent multipurpose trail and 40' pedestrian bridge over the existing drainage way are included within the previous section of this report.

CREEK CROSSING + TRAIL HUB

	Improvement Description	*Unit*	*Qty.*	*Unit Cost*	*Subtotal*
1	CREEK CROSSING				
1	Site Preparation and Grading Allowance	AL	1	$ 5,000.00	$ 5,000.00
2	Concrete Trail (8' wide, 5" thick over aggregate base)	SF	240	$ 8.00	$ 1,920.00
3	Pedestrian Bridge (60' prefabricate steel truss with footings)	LS	1	$ 60,000.00	$ 60,000.00
4	Limestone Outcropping / Stepping Stone Allowance	AL	1	$ 20,000.00	$ 20,000.00
5	Restoration Seeding (hydroseed turf 5' each side of trail)	SY	200	$ 3.00	$ 600.00
6	Native Planting Allowance (prairie seeding / shrubs)	AL	1	$ 2,000.00	$ 2,000.00
				Section Subtotal	$89,520.00
				20% Contingency	$ 17,904.00
				10% Design & Engineering Costs	$ 8,952.00
				Creek Crossing Subtotal	**$ 116,376.00**
2	TRAIL HUB				
1	Site Preparation and Grading Allowance	AL	1	$ 3,000.00	$ 3,000.00
2	Integrally Colored Concrete (5" thick over aggregate base)	SF	560	$ 12.00	$ 6,720.00
3	Wayfinding Allowance (signage and pavement text overlay/embedment)	AL	1	$ 7,500.00	$ 7,500.00
4	Site Furnishings (3 benches and 6 bike racks)	LS	1	$ 5,000.00	$ 5,000.00
5	Perennial Planting Beds (with amended soils and hardwood mulch)	SF	685	$ 15.00	$ 10,275.00
6	Ornamental Trees (2" B&B)	EA	8	$ 300.00	$ 2,400.00
7	Utilities Allowance (lighting/water/drainage appurtenances)	AL	1	$ 6,000.00	$ 6,000.00
				Section Subtotal	$40,895.00
				20% Contingency	$ 8,179.00
				10% Design & Engineering Costs	$ 4,089.50
				Trail Hub Subtotal	**$ 53,163.50**
				CREEK CROSSING + TRAIL HUB TOTAL*	**$ 169,539.50**

**Estimates do not include multipurpose trail along Oxley Creek or 40' bridge over drainage way (included in previous section), property easements, land acquisition, or other utility modifications*

Creek Crossing + Trail Hub Plan



Trail Hub Plaza Perspective

Creek Crossing Perspective

Creek Crossing

A new bridge crossing over Oxley Creek is proposed to connect the Windcrest Park loop trail to the baseball complex to the west. This will supplement the existing crossing at State Street, providing direct access between the school and neighborhoods to the east of the creek with the community center and neighborhoods to the northwest. The approximately 60'-long prefabricated steel truss bridge would be similar to the one previously located along State Street prior to the recent creek stabilization project. Another 40' bridge is proposed over the tributary drainage way to the north, to accommodate the development of a new multipurpose trail along the length of Oxley Creek. Under the creek bridge, a series of limestone outcropping steps would provide access down to the water and protect the bridge embankments. Sited at the existing location of an ad hoc crossing built by local kids with riprap boulders, these limestone blocks would function as a secondary "stepping stone" creek crossing for adventure-based play, and could also be used as an outdoor classroom.

Trail Hub Plaza

With the introduction of a local multipurpose trail system and proposed creek crossing connecting Windcrest Park and the baseball complex, this location has been identified as a key intersection at the heart of Granger's park land. To mark this location, a concrete trail node dubbed the "Hub Plaza" is proposed as a rest stop along the trail; a new park feature that includes ornamental plantings, seating, bike racks, and signage. This plaza could be replicated throughout the community as the trail system grows, and the wheel/gear form of the paving allows for flexibility in the direction of connections to trails, sidewalks, or other park amenities. Traditional park sign panels could be included to mark destinations or provide interpretation on site-specific cultural and natural resources and history. Wayfinding text could also be superimposed onto the paving to inform trail users of destinations near and far, such as "Community Center 0.5 mi", or "Jester Park 4 mi".

Performance Icons

- Connectivity + Access
- Safety
- Identity + History
- Ecology

Granger

Creek Crossing + Trail Hub

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Iowa's Living Roadways community visioning

Downtown Gateway + Streetscape

Redefining Downtown:
The Granger Community Visioning committee has identified a range of projects that can improve aesthetics, connectivity and access, and enhance community identity downtown. New street trees and prairie plantings are proposed for both beautification and traffic calming along Highway 17 and State Street to the creek , where two large "wheel" monuments become an iconic focal point. The proposed multipurpose local trail is routed along Oxley Creek, crosses the creek within the existing right-of-way of the road bridge, and includes a marked crossing at State Street with pedestrian sign and push button-activated RRFBs. This intersection becomes the primary trail node at the heart of Granger, providing access to downtown businesses and cultural amenities for both residents and regional trail users. Taking this idea further, the existing building and parking area at this corner (currently privately-owned) are re-envisioned as a regional trailhead and welcome center for visitors. This facility could include a cafe or brew pub with indoor and outdoor seating, Granger historical exhibits or other tourist information, and multidirectional wayfinding signage to direct visitors to local and regional destinations. Rain gardens buffer this development along the creek, creating a welcoming oasis and rendezvous point for locals and visitors alike.

Downtown Gateway Monuments:
To enhance the street crossing over Oxley Creek as a downtown focal point, two gateway monuments are proposed to flank State Street. These playful sculptural monuments suggest the arc of a spoked wheel over the roadway, referencing the train and circus wagon wheels of the city's past, and marking the community as a hub for regional cycling. The steel structures will be accessible from the existing sidewalk on the north and proposed multipurpose trail on the south of edge of State Street. They can also serve as rest areas along the trail system with integrated seating, gravel surfacing, bike racks, and signage. Large in scale and painted an eye-catching, signature red color, the downtown gateway monuments will be visible to both directions of travel along State Street and further up the hill on NW 110th Ave, and will become a landmark for commuters that draws visitors into downtown Granger. Decorative guardrails to match the monuments are included to separate street and trail/sidewalk traffic through this corridor.

To enhance Main Street, simple planting containers made from re-purposed animal watering troughs can be filled with flowering annuals and set along the existing parking to add seasonal color and soften the sidewalk where there is not room for permanent plantings. These large modular planters could be moved into the street and used as traffic barricades during Granger Days or other festivals. New curb, sidewalks, driveways, street trees, and boulevard plantings are proposed along the east side of Main Street to create a more urban edge condition that delineates driveway access and helps to dress up the large metal buildings along this downtown corridor. The committee has also identified this as a prime location for future municipal development, such as a new library or expanded city hall, to embrace Oxley Creek as a public green space in downtown Granger.

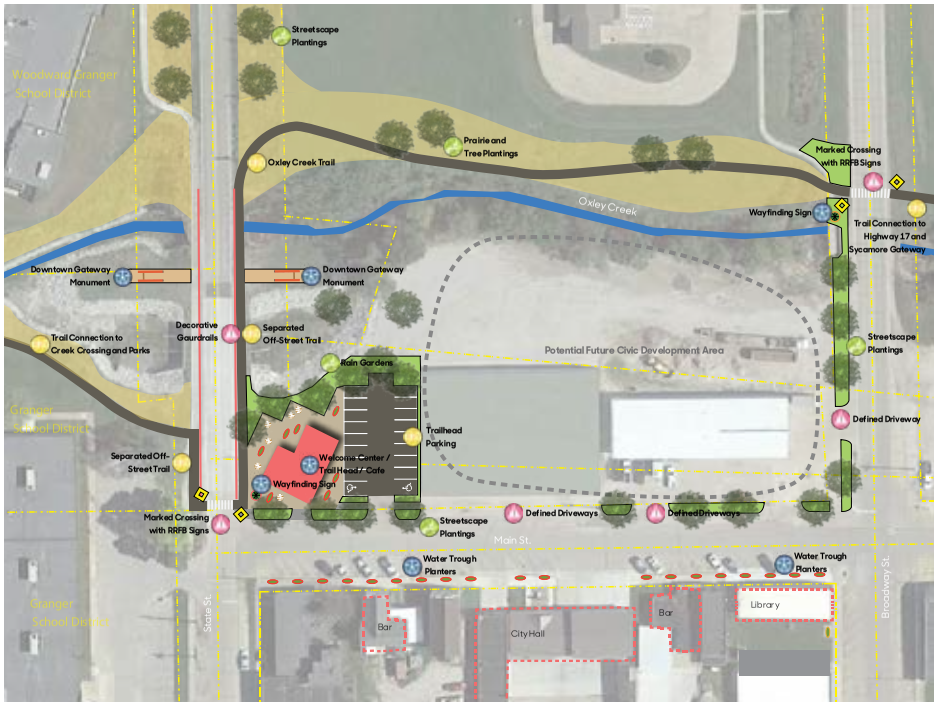
Costs + Feasibility Considerations

The proposed Downtown Gateway and Streetscape enhancements have been broken down into three separate projects to be phased out as funding and property becomes available. Coordination between the City of Granger, Dallas County, the Iowa Department of Transportation (IDOT), and private property owners along the project boundaries may be necessary for property acquisition, design review, implementation, and long term operations of these projects. The wheel monuments proposed within the Oxley Creek floodway along State Street will require additional review by a water resources engineer and structural engineer to determine implications on stream bank stabilization and hydrology. Permanent streetscape improvements along Main and Broadway Streets will require coordination with adjacent private property owners, and a commitment by Granger's public works department for ongoing maintenance, while the container planters proposed along the west side of the street could be implemented with a volunteer effort. The viability of implementing the trailhead and welcome center will depend on acquisition or leasing agreements with the private owners of that land and building. An allowance serves as a placeholder for building renovations, which could vary greatly depending on building condition and ultimate use. Costs for the adjacent multipurpose trail and street crossings are included in the previous section of this report.

DOWNTOWN GATEWAY + STREETSCAPE

	Improvement Description	*Unit*	*Qty.*	*Unit Cost*	*Subtotal*
1	GATEWAY ENHANCEMENTS (ALONG STATE STREET)				
1	Site Preparation and Grading Allowance	AL	1	$ 5,000.00	$ 5,000.00
2	Wheel Monument Allowance (2) (8" steel, galvanized + painted, w/ footings, benches)	AL	1	$ 45,000.00	$ 45,000.00
3	Decorative Guardrails/Fencing (2-4" tube steel, galvanized + painted, w/ footings)	LF	480	$ 60.00	$ 28,800.00
4	Gravel Surfacing at Monuments (3/8" crushed limestone, 4' depth, with steel edging)	SF	1,000	$ 4.00	$ 4,000.00
5	Shade Trees (in prairie along State Street to Highway 17, 50' spacing)	EA	20	$ 400.00	$ 8,000.00
6	Native Planting Allowance (prairie seeding along State Street to Highway 17)	AL	1	$ 10,000.00	$ 10,000.00
				Section Subtotal	$100,800.00
				20% Contingency	$ 20,160.00
				10% Design & Engineering Costs	$ 10,080.00
				Gateway Enhancements Subtotal	**$ 131,040.00**
2	STREETSCAPE ENHANCEMENTS (ALONG MAIN AND BROADWAY STREETS)				
1	Site Preparation and Grading Allowance	AL	1	$ 10,000.00	$ 10,000.00
2	Concrete Curb and Gutter (east side of Main Street, north side of Broadway Street)	LF	500	$ 30.00	$ 15,000.00
3	Concrete Sidewalk (5" thick over aggregate base)	SF	2,452	$ 8.00	$ 19,616.00
4	Concrete Driveways (7" thick reinforced over aggregate base)	SF	3,834	$ 9.50	$ 36,423.00
5	Trough Planters (3'x8' galvanized trough painted red, soil and drainage layer, plants)	EA	19	$ 850.00	$ 16,150.00
6	Perennial Planting Beds (with amended soils and hardwood mulch)	SF	4,000	$ 15.00	$ 60,000.00
7	Street Trees (2" B&B)	EA	8	$ 300.00	$ 2,400.00
8	Utilities Allowance (lighting / drainage appurtenances)	AL	1	$ 20,000.00	$ 20,000.00
				Section Subtotal	$179,589.00
				20% Contingency	$ 35,917.80
				10% Design & Engineering Costs	$ 17,958.90
				Streetscape Enhancements Subtotal	**$ 233,465.70**
3	TRAILHEAD + WELCOME CENTER (ASSUMES PRIVATE PROPERTY CAN BE ACQUIRED)				
1	Site Preparation and Grading Allowance	AL	1	$ 10,000.00	$ 10,000.00
2	Building Rehabilitation / Renovation Allowance	AL	1	$ 100,000.00	$ 100,000.00
3	Concrete Parking Lot (7" thick reinforced over aggregate base, includes curb)	SF	5,178	$ 9.50	$ 49,191.00
4	Integrally Colored Concrete (5" thick over aggregate base)	SF	3,765	$ 12.00	$ 45,180.00
5	Site Furnishings (benches, tables, bike racks)	AL	1	$ 12,000.00	$ 12,000.00
6	Wayfinding Sign/Planter (8' round steel trough/plants, aluminum sign post)	EA	1	$ 3,000.00	$ 3,000.00
7	Trough Planters (3'x8' galvanized trough painted red, soil and drainage layer, plants)	EA	7	$ 850.00	$ 5,950.00
8	Perennial Planting Beds (with amended soils and hardwood mulch)	SF	3,000	$ 15.00	$ 45,000.00
9	Shade Trees (2" B&B)	EA	6	$ 300.00	$ 1,800.00
10	Utilities Allowance (lighting/water/drainage appurtenances)	AL	1	$ 35,000.00	$ 35,000.00
				Section Subtotal	$307,121.00
				20% Contingency	$ 61,424.20
				10% Design & Engineering Costs	$ 30,712.10
				Trailhead + Welcome Center Subtotal	**$ 399,257.30**
				DOWNTOWN GATEWAY + STREETSCAPE TOTAL*	**$ 763,763.00**

**Estimates do not include multipurpose trail Segment 1 improvements including State Street and Broadway Street crosswalk markings or RRFB signage (included in previous section), property easements, land acquisition, or other utility modifications*



Downtown Gateway + Streetscape Plan

Redefining Downtown

The Granger Community Visioning committee has identified a range of projects that can improve aesthetics, connectivity and access, and enhance community identity downtown. New street trees and prairie plantings are proposed for both beautification and traffic calming along Highway 17 and State Street to the creek , where two large "wheel" monuments become an iconic focal point. The proposed multipurpose local trail is routed along Oxley Creek, crosses the creek within the existing right-of-way of the road bridge, and includes a marked crossing at State Street with pedestrian sign and push button-activated RRFBs. This intersection becomes the primary trail node at the heart of Granger, providing access to downtown businesses and cultural amenities for both residents and regional trail users. Taking this idea further, the existing building and parking area at this corner (currently privately-owned) are re-envisioned as a regional trailhead and welcome center for visitors. This facility could include a cafe or brew pub with indoor and outdoor seating, Granger historical exhibits or other tourist information, and multidirectional wayfinding signage to direct visitors to local and regional destinations. Rain gardens buffer this development along the creek, creating a welcoming oasis and rendezvous point for locals and visitors alike.

Downtown Gateway Monuments

Monument Perspective

Monument Perspective

Downtown Gateway Trail Perspective

To enhance the street crossing over Oxley Creek as a downtown focal point, two gateway monuments are proposed to flank State Street. These playful sculptural monuments suggest the arc of a spoked wheel over the roadway, referencing the train and circus wagon wheels of the city's past, and marking the community as a hub for regional cycling. The steel structures will be accessible from the existing sidewalk on the north and proposed multipurpose trail on the south of edge of State Street. They can also serve as rest areas along the trail system with integrated seating, gravel surfacing, bike racks, and signage. Large in scale and painted an eye-catching, signature red color, the downtown gateway monuments will be visible to both directions of travel along State Street and further up the hill on NW 110th Ave, and will become a landmark for commuters that draws visitors into downtown Granger. Decorative guardrails to match the monuments are included to separate street and trail/sidewalk traffic through this corridor.

Downtown Streetscape Perspective

To enhance Main Street, simple planting containers made from repurposed animal watering troughs can be filled with flowering annuals and set along the existing parking to add seasonal color and soften the sidewalk where there is not room for permanent plantings. These large modular planters could be moved into the street and used as traffic barricades during Granger Days or other festivals. New curb, sidewalks, driveways, street trees, and boulevard plantings are proposed along the east side of Main Street to create a more urban edge condition that delineates driveway access and helps to dress up the large metal buildings along this downtown corridor. The committee has also identified this as a prime location for future municipal development, such as a new library or expanded city hall, to embrace Oxley Creek as a public green space in downtown Granger.

Performance Icons

- Connectivity + Access
- Safety
- Identity + History
- Ecology

Granger

Downtown Gateway + Streetscape

Genus Landscape Architects
LA's: Eric Holt, ASLA, PLA | Jordan Garvey, Associate ASLA
Intern: Fan-Kai Lin
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Sycamore Gateway + Trail Hub

Sycamore Gateway:
Sycamore Street is one of the most used Highway 141 exits to Granger, due to its central location within the city and access to the Casey's General Store gas station. For many regional commuters, stopping here for gas is their primary Granger experience. Currently there is no community welcome sign or gateway features except for a memorial boulder and flag pole set back from the road. The Sycamore Gateway is proposed to improve aesthetics and bolster community identity at this location. This gateway includes native prairie with mowed paths, ornamental plantings and trees, a new Granger welcome sign, Trail Hub Plaza rest area, and a multipurpose trail along the Highway 14 1 right-of-way. Pavement markings are proposed where this trail crosses Sycamore Street and the Ford dealership entrance, along with 14'-tall bike / pedestrian crossing sign posts with push button-activated RRFB lights at both sides of the street crossing. A trail spur extends to an existing dead-end sidewalk on the west side of Sycamore Street, and a multidirectional wayfinding sign is included at that intersection, comprised of sign pole set within a circular watering trough planted with annuals to add some seasonal color at the gateway. Perennial shrub plantings and street trees dress up the east edge of Sycamore Street and help to screen the adjacent parking lot.

Trail Hub Plaza:
Located adjacent to the popular Casey's General Store, a concrete trail node dubbed the "Hub Plaza" is proposed at the center of Sycamore Gateway as a rest stop along the trail. This will be a jumping-off point to direct trail users to Casey's and further into town. This also provides access to park amenities such as mowed prairie trails, seating, and signage for highway travelers needing to stretch their legs, let the dog out, and learn about Granger. Traditional park sign panels could be included to mark destinations or provide interpretation on site-specific cultural resources and history. Wayfinding text could also be superimposed onto the paving to inform trail users of destinations near and far, such as "Downtown 1.0 mi", or "Jester Park 4 mi". This plaza can be replicated throughout the community as the trail system grows, and the wheel/gear form of the paving allows for flexibility in the direction of connections to trails, sidewalks, or other park amenities.

Costs + Feasibility Considerations

The Trail Hub Plaza and Gateway Enhancements are separated in the cost estimate below, since the miscellaneous gateway items could be implemented independently in multiple phases. The trail hub could be built as a stand-alone installation, or as part of the Community Trail System. Coordination between the City of Granger, Dallas County, the Iowa Department of Transportation (IDOT), and private property owners along the project boundaries may be necessary for property acquisition, design review, implementation, and long term operations of these projects. Costs for the adjacent multipurpose trail and street crossings are included within the previous section of this report.

SYCAMORE GATEWAY

Improvement Description	*Unit*	*Qty.*	*Unit Cost*	*Subtotal*
1 TRAIL HUB PLAZA				
1 Site Preparation and Grading Allowance	AL	1	$ 3,000.00	$ 3,000.00
2 Integrally Colored Concrete (5" thick over aggregate base)	SF	560	$ 12.00	$ 6,720.00
3 Wayfinding Allowance (signage and pavement text overlay/embedment)	AL	1	$ 5,000.00	$ 5,000.00
4 Site Furnishings (3 benches and 6 bike racks)	LS	1	$ 5,000.00	$ 5,000.00
5 Perennial Planting Beds (with amended soils and hardwood mulch)	SF	685	$ 15.00	$ 10,275.00
6 Ornamental Trees (2" B&B)	EA	8	$ 300.00	$ 2,400.00
7 Utilities Allowance (lighting/water/drainage appurtenances)	AL	1	$ 5,000.00	$ 5,000.00
			Section Subtotal	$37,395.00
			20% Contingency	$ 7,479.00
			10% Design & Engineering Costs	$ 3,739.50
			Trail Hub Subtotal	**$ 48,613.50**
2 GATEWAY ENHANCEMENTS				
1 Site Preparation and Grading Allowance	AL	1	$ 3,000.00	$ 3,000.00
2 Existing Sidewalk Extension (4' wide, 5" thick over aggregate base)	SF	150	$ 8.00	$ 1,200.00
3 Granger Welcome Sign (limestone block wall, metal letters, and lighting)	LS	1	$ 7,000.00	$ 7,000.00
4 Wayfinding Sign/Planter (8' round steel trough/plants, aluminum sign post)	EA	1	$ 3,000.00	$ 3,000.00
5 Streetscape Plantings (with amended soils and hardwood mulch)	SF	1,000	$ 15.00	$ 15,000.00
6 Shade Trees (in prairie/park space)	EA	5	$ 400.00	$ 2,000.00
7 Restoration Seeding (hydroseed turf 5' each side of sidewalk)	SY	200	$ 3.00	$ 600.00
8 Native Planting Allowance (prairie seeding / shrubs)	AL	1	$ 10,000.00	$ 10,000.00
			Section Subtotal	$41,800.00
			20% Contingency	$ 8,360.00
			10% Design & Engineering Costs	$ 4,180.00
			Gateway Enhancements Subtotal	**$ 54,340.00**
			SYCAMORE GATEWAY TOTAL*	**$ 102,953.50**

**Estimates do not include multipurpose trail Segment 2 improvements including Sycamore Street crosswalk markings or signage (included in previous section), property easements, land acquisition, or other utility modifications*

Sycamore Gateway + Trail Hub Plaza Plan

Sycamore Gateway

Sycamore Street is one of the most used Highway 141 exits to Granger, due to its central location within the city and access to the Casey's General Store gas station. For many regional commuters, stopping here for gas is their primary Granger experience. Currently there is no community welcome sign or gateway features except for a memorial boulder and flag pole set back from the road. The Sycamore Gateway is proposed to improve aesthetics and bolster community identity at this location. This gateway includes native prairie with mowed paths, ornamental plantings and trees, a new Granger welcome sign, Trail Hub Plaza rest area, and a multipurpose trail along the Highway 14 1 right-of-way. Pavement markings are proposed where this trail crosses Sycamore Street and the Ford dealership entrance, along with 14'-tall bike / pedestrian crossing sign posts with push button-activated RRFB lights at both sides of the street crossing. A trail spur extends to an existing dead-end sidewalk on the west side of Sycamore Street, and a multidirectional wayfinding sign is included at that intersection, comprised of sign pole set within a circular watering trough planted with annuals to add some seasonal color at the gateway. Perennial shrub plantings and street trees dress up the east edge of Sycamore Street and help to screen the adjacent parking lot.

Sycamore Gateway Perspective

Trail Hub Plaza Perspective

Trail Hub Plaza

Located adjacent to the popular Casey's General Store, a concrete trail node dubbed the "Hub Plaza" is proposed at the center of Sycamore Gateway as a rest stop along the trail. This will be a jumping-off point to direct trail users to Casey's and further into town. This also provides access to park amenities such as mowed prairie trails, seating, and signage for highway travelers needing to stretch their legs, let the dog out, and learn about Granger. Traditional park sign panels could be included to mark destinations or provide interpretation on site-specific cultural resources and history. Way finding text could also be superimposed onto the paving to inform trail users of destinations near and far, such as "Downtown 1.0 mi", or "Jester Park 4 mi". This plaza can be replicated throughout the community as the trail system grows, and the wheel/gear form of the paving allows for flexibility in the direction of connections to trails, sidewalks, or other park amenities.

Performance Icons

- Connectivity + Access
- Safety
- Identity + History
- Ecology

Granger

Sycamore Gateway + Trail Hub

Genus Landscape Architects
LA's: Eric Holt, ASLA, PLA | Jordan Garvey, Associate ASLA
Intern: Fan-Kai Lin
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

141 Crossing + Gateway

141 Crossing:
Addressing safety concerns is a top priority for the Granger Community Visioning steering committee, especially for pedestrians attempting to cross Highway 141 at State Street/190th Street. The 141 Crossing project proposes strategies that both improve pedestrian safety and enhance aesthetic character along this busy, high-speed commuter route. The proposed local multipurpose trail extends along the highway right-of-way, wrapping around Centennial Park with a marked crossing at State Street, and continues west to cross this highway. At these crossings, pavement markings and two-sided pedestrian signs with push button-activated RRFBs are proposed to better alert drivers. Shade trees are positioned along the trail, and painted center medians on the highway are transformed into raised, colored concrete medians with curbs. These medians and roadside plantings can be effective traffic-calming devices, signifying to drivers a change in roadway character from the open, high-speed rural highway section to a slower, more restricted urban corridor. The raised medians act as "refuge islands", or a protected midpoint in the crosswalk. This breaks up the long crossing distance into two smaller more manageable crossings.

Gateway Monument:
To draw the attention of highway travelers and announce their arrival to Granger, a gateway monument is proposed at the northwest corner of Centennial Park. This playful sculptural monument takes the form of a spoked wheel, referencing the train and circus wagon wheels of the city's past, and marking the community as a hub for regional cycling. The steel structure will be accessible from the proposed multipurpose local trail and Centennial Park, and can serve as an interactive play structure and rest stop with the addition of swings, gravel surfacing, bike racks, and signage. Large in scale and painted an eye-catching, signature red color, the gateway monument will be visible to both directions of travel along Highway 141, and will become a landmark for commuters that invites passersby to stop and explore Granger.

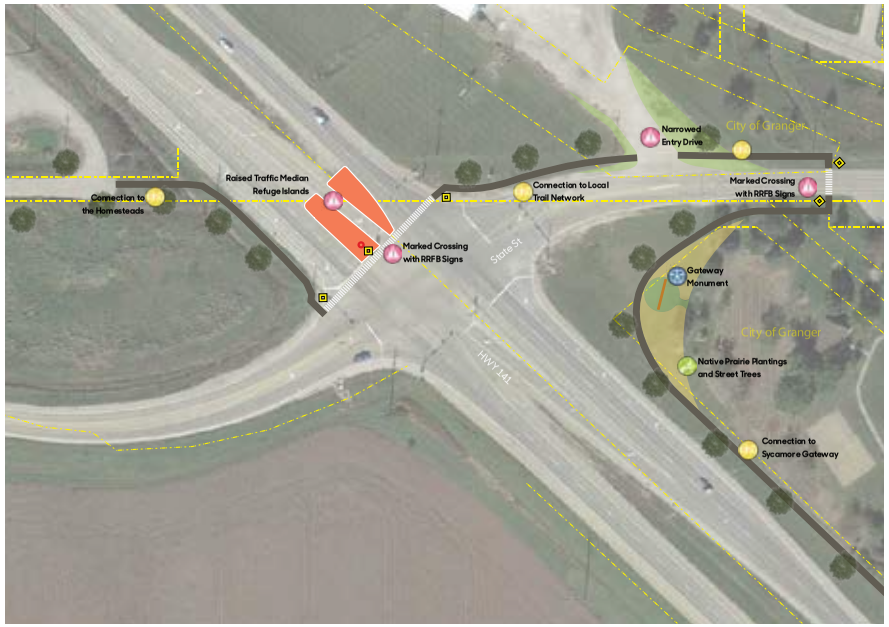
Costs + Feasibility Considerations

The Highway Crossing and Gateway Monument are separated in the cost estimate below, and could be implemented in multiple phases depending on community priorities and funding availability. Costs to extend the 8' multipurpose trail from the State Street crosswalk across Highway 141 are shown,along with highway crossing improvements. The wheel monument is conceived of as both a community gateway landmark and play amenity for Centennial Park. Further structural review is needed to develop detailed design of that monument. Coordination between the City of Granger, Dallas County, the Iowa Department of Transportation (IDOT), and private property owners project boundaries may be necessary for property acquisition, design review, implementation, and long term operations of these projects. Costs for the adjacent multipurpose trail and street crossings are included within the previous section of this report.

141 CROSSING + GATEWAY

	Improvement Description	*Unit*	*Qty.*	*Unit Cost*	*Subtotal*
1	HIGHWAY CROSSING				
1	Site Preparation and Grading Allowance	AL	1	$ 3,000.00	$ 3,000.00
2	Concrete Trail (8' wide, 5" thick over aggregate base)	SF	4,800	$ 8.00	$ 38,400.00
3	Shade Trees (1.5" B&B, 80' spacing, alternating sides of trail)	EA	40	$ 400.00	$ 16,000.00
4	Restoration Seeding (hydroseed turf 5' each side of trail)	SY	3,556	$ 3.00	$ 10,668.00
5	Pavement Removal (at raised medians)	SY	360	$ 20.00	$ 7,200.00
6	Integrally Colored Concrete Medians (5" thick over aggregate base)	SF	2,800	$ 12.00	$ 33,600.00
7	Concrete Curb at Raised Medians	LF	400	$ 30.00	$ 12,000.00
8	Crosswalk Marking (preformed thermoplastic)	SF	1,280	$ 5.00	$ 6,400.00
9	14' Crossing Sign (solar panel, push-button RRFB)	EA	3	$ 8,500.00	$ 25,500.00
10	Utilities Allowance (miscellaneous drainage, electrical and signalizations)	AL	1	$ 8,000.00	$ 8,000.00
				Section Subtotal	$160,768.00
				20% Contingency	$ 32,153.60
				10% Design & Engineering Costs	$ 16,076.80
				Highway Crossing Subtotal	**$ 208,998.40**
2	GATEWAY MONUMENT				
1	Site Preparation and Grading Allowance	AL	1	$ 5,000.00	$ 5,000.00
2	Wheel Monument Allowance (8" tube steel, galvanized + painted, w/ footings, swings)	AL	1	$ 20,000.00	$ 20,000.00
3	Restoration Seeding (hydroseed turf around monument)	SY	125	$ 3.00	$ 375.00
4	Native Planting Allowance (prairie seeding / shrubs at park edge)	AL	1	$ 8,000.00	$ 8,000.00
5	Utilities Allowance (monument uplighting and appurtenances)	AL	1	$ 5,000.00	$ 5,000.00
				Section Subtotal	$38,375.00
				20% Contingency	$ 7,675.00
				10% Design & Engineering Costs	$ 3,837.50
				Gateway Monument Subtotal	**$ 49,887.50**
				141 CROSSING + GATEWAY TOTAL*	**$ 258,885.90**

**Estimates do not include multipurpose trail Segment 2 improvements including State Street crosswalk markings or signage (included in previous section), property easements, land acquisition, or other utility modifications*



141 Crossing + Gateway Plan

141 Crossing + Gateway Perspective

Gateway Perspective

Gateway Perspective

141 Crossing

Addressing safety concerns is a top priority for the Granger Community Visioning steering committee, especially for pedestrians attempting to cross Highway 141 at State Street/190th Street. The 141 Crossing project proposes strategies that both improve pedestrian safety and enhance aesthetic character along this busy, high-speed commuter route. The proposed local multipurpose trail extends along the highway right-of-way, wrapping around Centennial Park with a marked crossing at State Street, and continues west to cross this highway. At these crossings, pavement markings and two-sided pedestrian signs with push button-activated RRFBs are proposed to better alert drivers. Shade trees are positioned along the trail, and painted center medians on the highway are transformed into raised, colored concrete medians with curbs. These medians and roadside plantings can be effective traffic-calming devices, signifying to drivers a change in roadway character from the open, high-speed rural highway section to a slower, more restricted urban corridor. The raised medians act as "refuge islands", or a protected midpoint in the crosswalk. This breaks up the long crossing distance into two smaller more manageable crossings.

Gateway Monument

To draw the attention of highway travelers and announce their arrival to Granger, a gateway monument is proposed at the northwest corner of Centennial Park. This playful sculptural monument takes the form of a spoked wheel, referencing the train and circus wagon wheels of the city's past, and marking the community as a hub for regional cycling. The steel structure will be accessible from the proposed multipurpose local trail and Centennial Park, and can serve as an interactive play structure and rest stop with the addition of swings, gravel surfacing, bike racks, and signage. Large in scale and painted an eye-catching, signature red color, the gateway monument will be visible to both directions of travel along Highway 141, and will become a landmark for commuters that invites passersby to stop and explore Granger.

Performance Icons

- Connectivity + Access
- Safety
- Identity + History
- Ecology

Granger

141 Crossing + Gateway

Genus Landscape Architects
LA's: Eric Holt, ASLA, PLA | Jordan Garvey, Associate ASLA
Intern: Fan-Kai Lin
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Identity + Signage

Downtown Gateway Monuments:
· 20' tall gateway monuments flank State Street at Oxley Creek and attract visitors toward downtown.
· Sculptural form evokes train, bike, and circus wagon wheels, and creates a playful iconic landmark and photo backdrop.
· Materials are galvanized steel or fabricated aluminum, painted red, with structural footings and architectural lighting.
· Monuments can serve as an interpretive feature and rest stop along the proposed bike trail with the addition of gravel surfacing, integrated seating, bike racks, and signage.

Wayfinding Signs / Trough Planters:
· Affordable, DIY solution for streetscape beautification, traffic barriers, and wayfinding markers can be easily replicated around town and moved as needed.
· 8' diameter and 3'x8' galvanized animal watering troughs, painted signature red and planted with flowering annuals.
· Multidirectional wayfinding sign post (painted galvanized steel) can be included at key trail intersections to indicate direction/distance to local and regional destinations, cultural amenities, and businesses.

West Gateway Monument:
· 12' tall gateway monument visible to bidirectional traffic on Highway 141 is a landmark for commuters and invites passersby to stop and explore Granger.
· Sculptural form evokes train/bike/circus wagon wheels, and creates a playful, iconic landmark and photo backdrop.
· Materials are galvanized steel or fabricated aluminum, painted red, with structural footings, and architectural lighting.
· As an extension of Centennial Park, monument can serve as an interactive play structure and rest stop along the proposed bike trail with the addition of swings, gravel surfacing, bike racks, and signage.

Crossing Sign with RRFB:
· Double-sided, 14' tall bike / pedestrian crossing sign posts with push button-activated RRFB lights proposed at each side of a crossing and on a center median if applicable.
· Rectangular Rapid Flashing Beacon (RRFB) is LED, visible during daylight; can be powered by a pole mounted solar assembly or ground wire.
· Sign placement and graphic panels conform to Federal Highway Administration Manual on Uniform Traffic Devices (MUTCD).

Downtown Gateway Monuments

- 20' tall gateway monuments flank State Street at Oxley Creek and attract visitors toward downtown.
- Sculptural form evokes train, bike, and circus wagon wheels, and creates a playful iconic landmark and photo backdrop.
- Materials are galvanized steel or fabricated aluminum, painted red, with structural footings and architectural lighting.
- Monuments can serve as an interpretive feature and rest stop along the proposed bike trail with the addition of gravel surfacing, integrated seating, bike racks, and signage.

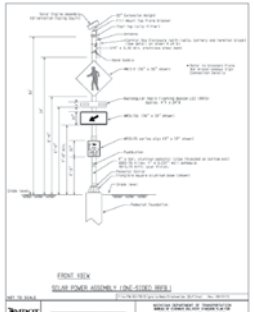
West Gateway Monument

- 12' tall gateway monument visible to bidirectional traffic on Highway 141 is a landmark for commuters and invites passersby to stop and explore Granger.
- Sculptural form evokes train/bike/circus wagon wheels, and creates a playful, iconic landmark and photo backdrop.
- Materials are galvanized steel or fabricated aluminum, painted red, with structural footings, and architectural lighting.
- As an extension of Centennial Park, monument can serve as an interactive play structure and rest stop along the proposed bike trail with the addition of swings, gravel surfacing, bike racks, and signage.

Wayfinding Signs / Trough Planters

- Affordable, DIY solution for streetscape beautification, traffic barriers, and wayfinding markers can be easily replicated around town and moved as needed.
- 8' diameter and 3'x8' galvanized animal watering troughs, painted signature red and planted with flowering annuals.
- Multidirectional wayfinding sign post (painted galvanized steel) can be included at key trail intersections to indicate direction/distance to local and regional destinations, cultural amenities, and businesses.

Crossing Sign with RRFB



- Double-sided, 14' tall bike / pedestrian crossing sign posts with push button-activated RRFB lights proposed at each side of a crossing and on a center median if applicable.
- Rectangular Rapid Flashing Beacon (RRFB) is LED, visible during daylight; can be powered by a pole mounted solar assembly or ground wire.
- Sign placement and graphic panels conform to Federal Highway Administration Manual on Uniform Traffic Devices (MUTCD).

Granger

Identity + Signage

Genus Landscape Architects
LA's: Eric Holt, ASLA, PLA | Jordan Garvey, Associate ASLA
Intern: Fan-Kai Lin
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Implementation Strategies

YEAR ONE

TASK 1	Identify and form a Community Steering Committee [which meets on a minimum of a quarterly basis]
TASK 2	Identify and rank in order of importance and priority, the community improvement project(s) that were identified in the feasibility study
TASK 3	Identify eligible and related potential grant and/or loan funding sources to finance the community improvement project(s) chosen to be implemented first.
TASK 4	Submit application(s) for eligible and related grant and/or loan programs to help finance the first improvement
MEASUREMENT OF SUCCESS	Formed a Community Steering Committee Prioritized the community improvement projects identified in the Feasibility Study. Created a list of eligible grant and/or loan funding sources for financing the first community improvement project. Submitted a grant and/or loan application and other required documentation for the first community improvement project.

YEAR TWO

TASK 1	Upon a successful grant and/or loan application: develop a schedule for contracting for design, advertising for bid, and contracting for construction of the first community improvement project.
TASK 2	Select and execute a contract with a Landscape Architect/Design Professional as your lead design consultant for the first community improvement project. [Allow to a 3-6 month Design and Construction Documentation Phase]
TASK 3	Select and execute a contract with a General Contractor as your construction manager for the first community improvement project. [Allow for a 6 month Construction Administration Phase]
MEASUREMENT OF SUCCESS	Received a successful grant and/or loan award letter notification for the first community improvement project. Selected a Landscape Architect / Design Professional to prepare the full scope of design documents and bid documents for construction of the first community improvement project. Selected a General Contractor to complete the construction of the first community improvement project.

YEAR THREE

TASK 1	Identify eligible and related potential grant and/or loan funding sources to finance the community improvement project(s) chosen to be implemented second.
TASK 2	Submit application(s) for eligible and related grant and/or loan programs to help finance the second improvement project, with the assistance and guidance from Trees Forever and a Landscape Architect.
MEASUREMENT OF SUCCESS	Created a list of eligible grant and/or loan funding sources for financing the second community improvement project. Submitted a grant and/or loan application and other required documentation for the second priority community improvement project.

YEAR FOUR

TASK 1	Upon a successful grant and/or loan application: develop a schedule for contracting for design, advertising for bid, and contracting for construction of the second community improvement project.
TASK 2	Select and execute a contract with a Landscape Architect/Design Professional as your lead design consultant for the second community improvement project. [Allow to a 3-6 month Design and Construction Documentation Phase]
TASK 3	Select and execute a contract with a General Contractor as your construction manager for the second community improvement project. [Allow for a 6 month Construction Administration Phase]
MEASUREMENT OF SUCCESS	Received a successful grant and/or loan award letter notification for the second community improvement project. Selected a Landscape Architect / Design Professional to prepare the full scope of design documents and bid documents for construction of the second community improvement project. Selected a General Contractor to complete the construction of the second community improvement project.

Repeat Years Three and Four as necessary to complete all community improvement projects.

Available Resources

There are many creative ways that communities can raise the resources necessary to fund and implement projects. The following list is a compilation of various sources and opportunities for funding the projects conceptualized during the visioning process. This list is not all-inclusive; it is meant to serve as a tool to assist in brainstorming ideas.

Funding Opportunities

- Grants
- Partnerships (private and public)
- Trusts and endowments
- Fund-raising and donations
- Memorials
- Volunteer labor
- Low-interest loans
- Implementation of project in phases

Funding Sources

- Iowa Department of Transportation
- Iowa Department of Natural Resources
- Iowa Department of Education
- Iowa Department of Economic Development
- Utility companies
- Trees Forever

Grant Programs

- Alliant Energy and Trees Forever Branching Out Program
- Federal Surface Transportation Program (STP)
- Iowa Clean Air Attainment Program (ICAAP)
- Iowa DOT/DNR Fund Iowa
- Iowa DOT Iowa's Living Roadways Projects Program
- Iowa DOT Living Roadways Trust Fund Program
- Iowa DOT Pedestrian Curb Ramp Construction Program
- Iowa DOT Statewide Transportation Enhancement Funding
- Iowa DNR Recreation Infrastructure Program
- Land and Water Conservation Fund
- National Recreational Trails Program
- Pheasants Forever
- Revitalization Assistance for Community Improvement (RACI) Grant Program
- State Recreational Trails Program
- Transportation Alternatives Program (TAP)