Final Report and Feasibility Study

Coggon, Iowa












Prepared By:

Steve Ford Landscape Architecture

MARTIN GARDNER ARCHITECTURE

Program Partners:

Iowa Department of Transportation
Iowa State University
Trees Forever

Iowa's Living Roadways community visioning

Participants

Town Steering Committee

Eric Manternach
Doug Gudenkauf
Sharon Price
Earlene Ricker
Darcy Metcalfe
JoAnn Woods
Deb Hinton
Dannette Hankins
Jenni Archibald
Raymond Archibald

Trees Forever

770 7th Avenue
Marion, IA 52302
319-373-0650
www.treesforever.org

Patty Reisinger
319-350-4185
preisinger@treesforever.org

Iowa State University

Landscape Architecture Extension
2321 North Loop Drive, Suite 121
Ames, IA 50010
515-294-3721
www.communityvisioning.org

Julia Badenhope, Program Director and Professor of Landscape Architecture
Sandra Oberbroeckling, Project Manager and Extension Program Specialist

Steve Ford Landscape Architecture

319-530-6783
http://www.sfla-bigpicture.com/index.html

Steve Ford
319-530-6783
steve@sfla-bigpicture.com

Martin Gardner Architecture

700 11th Street, Suite 200
Marion, Iowa 52302
319-377-7604
https://www.martingardnerarch.com/

Michael LeClere
319-200-8490
michaell@martingardnerarch.com

Peiming Chen
Landscape Architecture Intern
Iowa State University

Table of Contents

About Design Team

Steve Ford Landscape Architecture

Steve Ford, Professional Landscape Architect, opened SFLA | Steve Ford Landscape Architecture in July of 2016. A Landscape Architect for more than 35 years, Steve has worked for a handful of highly reputable architectural, engineering and landscape architecture firms. His wide ranging experience includes campus and master plan design, urban design, sports facilities, parks and trail design, memorials, and residential landscape design.

He received his training at Iowa State University and worked in city planning and at an architectural firm in South Dakota early in his career. Following that, he worked in the Minneapolis metro area doing residential landscape architecture for a design build firm before moving to the Iowa City area permanently. Some of his local projects include the Iowa Firefighters Memorial and the Clear Creek Trail in Coralville, the University of Iowa Credit Union headquarters and the new entries to Carver Hawkeye Arena and the Fountain Entrance at UIHC.

Steve believes the success of a design project begins early in the visioning phase where all ideas are good and unimagined design options can be explored. He calls this the big picture and uses the technique to understand and the needs of the client and discover all creative possibilities for a project.

Martin Gardner Architecture

Martin Gardner Architecture P.C. has been providing excellence in architecture, design, master planning, needs assessment, creative placemaking, and other consulting services in eastern Iowa for over 35 years. Their team is composed of artists, architects, landscape architects, interior designers, community planners, historic preservationists, graphic designers, drafts-people, and construction industry specialists to ensure that every tool is available to meet the challenges of every project. Together they have a dynamic Team with a wide-ranging portfolio of over 2,000 projects.

Michael LeClere, AIA & Assoc. ASLA | LEED GA |, CDT – Architect and Landscape Architectural Associate. Michael was born into a fourth generation farming family in NE Iowa. He went on to study design at The University of Iowa and The University of Oregon with a focus on community revitalization, creative placemaking, preservation, and sustainability. During his time at The University of Oregon he was a member of designBridge whose goal is to bring the resources and energy of design students to communities and organizations that need assistance. These interests lead him to first tackle issues of decline in his rural hometown of Coggon, IA. He currently is a member of the Linn County Historic Preservation Commission, volunteer with the Community Design Program through the IA Architectural Foundation and is involved in the Community Visioning Program run jointly through ISU, IA DOT, and Trees Forever. These experiences were fundamental to him in illustrating the effects of making design more visible and accessible as a strategy to enhance street life, stimulate local economies, and mitigate decline. He focuses professionally on utilizing the design process to educate, empower, enhance, and sustain healthy communities to make great places to live, work, and play.

Peiming Chen is a Landscape Architecture graduate student at Iowa State University since 2017. He gained a Bachelor degree of Environmental Art Design from Zhengzhou University of Light Industry, China. He focuses on studying different digital media and programs to analyze cases, and visualize design ideas and create art graphics. He believes that it's the best to utilize technology as a tool to empower the design idea to create spaces that can impact people's emotions and feelings.

Program Overview

Coggon is one of ten communities selected to participate in the 2019 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:
- Program initiation
- Needs assessment and goal setting
- Development of a concept plan
- Implementation and sustained action
- Improved access

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 Themes & Goals

The Coggon Visioning Committee identified a number of themes and goals during the visioning process, which are outlined below:

Trails

- Connect Savage park and Buffalo Creek Park
- Pedestrian/Bicycle circuit through town
- Native plantings
- Connect destinations

River

- Celebrate and promote as community feature
- Promote water trail designation

Natural Areas

- Promote and Celebrate parks and natural resources
- Vegetate trails, entrances to town, and circulation routes
- Proposed a new park near Mill Street and the historic dam site
- Accommodate all users, ages, abilities, and mobility levels

Safety

- Enhance street crossing for pedestrians and bicyclists
- Improve and add sidewalks
- Stricter standards/ordinance enforcement for sidewalk maintenance
- Replace pedestrian bridge connecting to Savage Park
- Improve ADA access

Identity Projects

- Buffalo branding along Hwy 13
- Main Street safety and streetscape improvements
- Downtown murals, art, and branding
- Improve way-finding signage throughout town
- Emphasize trail/circuit connections

Capturing the Vision

Based on the needs and desires of the local residents, as well as a detailed inventory of community resources composed by ISU, the design team developed a conceptual transportation enhancement plan. This plan, as well as the inventory information, is illustrated in a set of presentation boards to follow. For the sake of clarity and legibility, the summary text from the reduced scale map pages created by ISU have been pasted next to the map and cited with the following notation: "- ISU: 2019 Community Visioning." Additional observation notes by the design team follows this content at the bottom of the page.

It is the design team's experience, that community members themselves are the best experts to understand what their needs are and what challenges their community faces. However, many of the small cities and towns lack necessary resources, funding, time, or professional experience to utilize existing resources in order to execute desired improvements or visualize and plan for them. In addition, many of these local governments have few full time employees to take these types of projects on. Likewise, many rural government employees and citizens organizations are unfamiliar with the tools, processes, goals, and outcomes of creating a Master Plan. In this regard, your design team would like to champion all that the Community Visioning Program offers under-served communities through out Iowa. Our main goal in this program has been to provide your community with a collection of projects that can be accomplished in the next 5 - 10 years. In addition, we aim to present the community with a very abbreviated version of a long-range Master Plan and introduce the community to the processes and products of long range planning that look out past our own lifetimes. This can be a difficult task both for designers and residents to plan for what is realistic today and visualize future possibilities as best we can despite many unknowns and the constraints of the present. No one knows exactly what opportunities or challenges the future may hold, but we can plan for future growth with the understanding that over time buildings and infrastructure age and property changes hands. With this in mind, we examine the goals and challenges the community faces today, address what we can in the near future, and look for possible opportunities the future may hold. Our goal has been to provide Coggon with strong visual aids and tools to accompany future grant applications or to give future designers an ample head start in taking these concepts to construction documents in order for the project to be bid and built. It is our intent that portions of this feasibility study and images from this document and the presentation boards can help the community elevate future grant applications to stand out among other applicants. Most grant applications require a project narrative to describe the purpose and goals of a project, and adding sound data and strong visual aids to your grant application will further strengthen it when reviewers are deliberating among other applications.

Although the scope of some of the proposed design interventions may seem impossible today, their scale and complexity are intended to grow with the community through time. Additionally, each intervention can be broken down into more manageable sub-projects. For example, a streetscape improvement plan could be implemented a few blocks at a time to make the project more financially feasible in the short term. Taking into consideration

Program Overview

community input and the priorities established through the focus groups, surveys, and visioning meetings, we have attempted to start with smaller, simpler, and more cost effective design interventions that are easier to execute, and save the more complex ones for later in order to start small, gain momentum and public support, demonstrate small successes along the way, and to provide time for fund raising or grant applications in order to undertake larger improvement projects.

To make such a large undertaking and investment more manageable and realistic for a community of this size, starting on page 32, design interventions have been broken down into concepts that represent immediate goals, short-term goals, mid-range goals, and long terms goals. It should be noted that each concept, priority, goal, and time line are intended to be flexible as ultimately determined by the community themselves. Concepts and time lines are by no means static and are intended only to demonstrate how large-scale improvements and community Master Plans can be realized by implementing small scale projects strategically over time to achieve cohesive broad reaching goals. This document should not in itself be considered a complete Master Plan, but serves only as an abbreviated form of one to help demonstrate how Master Planning helps communities of all shapes and sizes achieve great things. Master Plans ultimately need brought before City Council, approved, and officially adopted. Master Plans of any kind are intended to be living documents that outline a general direction for community growth and development and must be revised periodically to address changing needs, priorities, budgets, challenges, and opportunities.

The design team would like to take this opportunity to encourage Coggon to think strategically over time and to think big! There will always be a million reasons why something can't be done, but good things do not happen by focusing on what can't be done, rather positive change happens by focusing on potential and what things can become. It is often hard and scary to make bold moves when a community is already struggling, but bold moves are necessary to help historically agricultural based economies adapt to offer more opportunities and experiences to a wider range of people, citizens, and businesses in order to remain vibrant and dynamic to enable future growth. As farming changes, technology improves, farms grow larger, become more efficient, and fewer families farm them, bold moves are necessary for communities to adapt and survive. A perfect example is Lanesboro, MN with a population of only 754 which now thrives on tourism by attracting visitors to views of the limestone bluffs surrounding the town nestled next to the Root River. A community of this size strategically adapted their local economy and planned a community vision to take advantage of the river and their location and now supports two theater companies, river and bike trails and recreation companies, over 11 bed and breakfasts, 2 resorts, 15 eating establishments, downtown camping opportunities, and a number of galleries and retail establishments to successfully fill and revitalize every Main Street building. Coggon, has equally great views and is located pleasantly along Buffalo Creek, and there are plenty of recreation opportunities, a historic downtown district, and has just as much potential as Lansboro or any other successful small community. In the end, the only thing that limits what can be done, is what one is willing to imagine possible and strategically plan for.

Community Visioning Program Overview

Coggon is one of 10 communities selected to participate in the 2019 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:

- Program initiation
- Needs assessment and goal setting
- Development of a concept plan
- 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 Themes & Goals

The Coggon visioning committee identified a number of themes and goals during the visioning process, which are included below:

Trails

- Connect Savage Park and Buffalo Creek Park
- Pedestrian/bicycle circuit through town
- Native plantings
- Connect destinations

River

- Celebrate and promote as community feature
- Promote water trail designation

Natural Areas

- Promote and celebrate parks and natural resources
- Vegetate trails, entrances to town, and circulation routes
- Propose a new park near Mill Street and the historic dam site
- Accommodate all users, ages, abilities, and mobility levels

Safety

- Enhance street crossings for pedestrians and bicyclists
- Improve and add sidewalks
- Stricter standards/ordinance enforcement for sidewalk maintenance
- Replace pedestrian bridge connecting to Savage Park
- Improve ADA access

Identity Projects

- Buffalo branding along Hwy 13
- Main Street safety and streetscape improvements
- Downtown murals, art, and branding
- Improve way-finding signage throughout town
- Emphasize trail/circuit connnections

Capturing the 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.

1. Program Overview
2 a-h. Bioregional Assessment
3 a-c. Transportation Assets and Barriers Assessment
4. Transportation Inventory
5 a-b. Concept 1-Key Signage, Street and Sidewalk Improvements, Immediate Goals
6 a-b. Concept 2-Main Street Enhancements, Mill Park, and River Route, Short-term Goals
7 a-b. Concept 3-Third Street Enhancement/N-S Loop, Mill Park Loop, and Linn Street Improvements, Mid-range Goals
8 a-b. Concept 4-Coggon Center-Casey's Connection Buffalo Creek Park Trail, Long-term Goals
9. Overall Concept Plan

Coggon

Program Overview

Design Team
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

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.

Coggon in Context

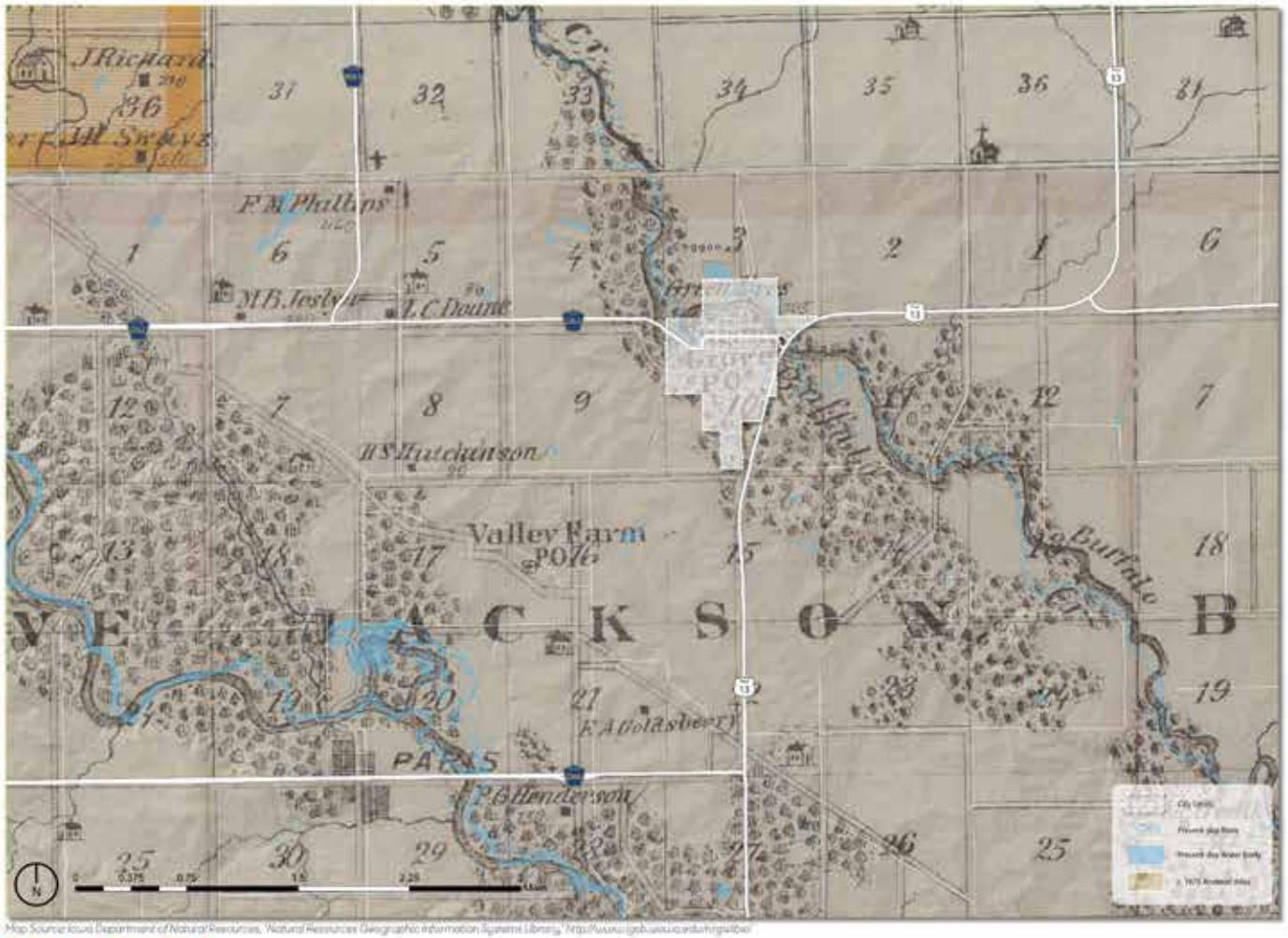
Compare the 1875 boundaries of your town to the current boundaries. How much has your town grown?

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?

- ISU: 2019 Community Visioning

Additional Notes from Design Team

It should be additionally noted how Coggon has grown through out time slightly to the north but mostly to the south. The north and east has been largely constrained by the presence of the river and more recently by Highway 13. The west side to this day still carries the remnant constraint imposed by the railroad line, but has seen some expansion west past the railroad tracks near Buffalo Creek Park. Growth has primarily occurred on the south end of town and presents the best opportunity for any future expansion.



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

Coggon
Historical Settlement Patterns

Bioregional Context
Julia Badenhope, Riley Dunn, Emma Georgeff, Timothy Kerkhove, Clare Kiboko, Alysse Kirkman, Giannis Koutsou, Zoey Mauck, Abigail Schafer
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

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.

Coggon in Context
Compare the 1875 boundaries of your town to the current boundaries. How much has your town 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?

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 names of plant communities mapped by the GLO surveyors varied. The original terminology used by the surveyors who made maps has been preserved in the original data, but we have renamed these types on this map to reflect names used to describe contemporary ecological vegetation communities.

Not all communities will have all vegetation types, because various conditions that effect vegetation—such as geology, exposure to wind, seasonally high water or groundwater, and frequency of fire—differ from place to place. Early land surveyors mapped the following vegetation types in the vicinity of your community:

1. Forest: Tree dominated, with a mostly closed canopy. Ground vegetation shade tolerant. Developed under infrequent fire.

2. Marsh: Perennial non-woody plants, water and fire dominated.

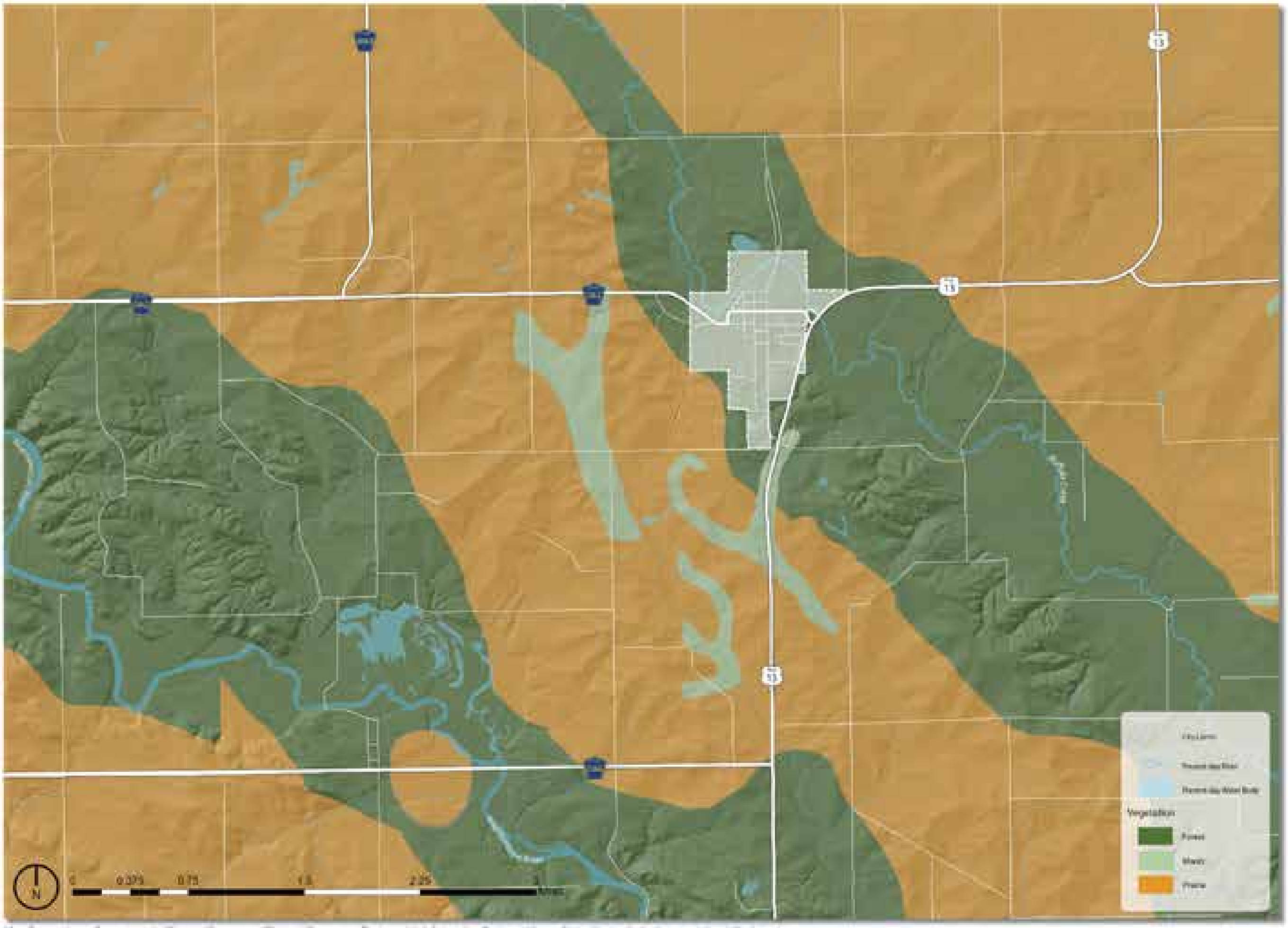
4. Prairie: Perennial non-woody plants, fire dominated.

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.

- ISU: 2019 Community Visioning

Additional Notes from Design Team

It should be noted that the historical vegetation map is largely reinforced by the previous map that depicts the Illustrated Historical Atlas of the State of Iowa (1875). These should also be contrasted with present day where the majority of the "Prairie," "Marsh," and some of the "Forest," vegetation has been replaced by agriculture or, within the city boundary, by lawn and urban development.



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

Coggon
Historical Vegetation

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 names of plant communities mapped by the GLO surveyors varied. The original terminology used by the surveyors who made maps has been preserved in the original data, but we have renamed these types on this map to reflect names used to describe contemporary ecological vegetation communities.

Not all communities will have all vegetation types, because various conditions that effect vegetation—such as geology, exposure to wind, seasonally high water or groundwater, and frequency of fire—differ from place to place. Early land surveyors mapped the following vegetation types in the vicinity of your community:

1. Forest: Tree dominated, with a mostly closed canopy. Ground vegetation shade tolerant. Developed under infrequent fire.
2. Marsh: Perennial non-woody plants, water and fire dominated.
3. Prairie: Perennial non-woody plants, fire dominated.

1 J.E. Ebinger, "Presettlement Vegetation of Coles County, Illinois," Transactions of the Illinois Academy of Science [illegible], 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, [illegible]), 8.

Bioregional Context

Julia Badenhope, Riley Dunn, Emma Georgeff, Timothy Kerkhove, Clare Kiboko, Alyssa Kirkman, Giannis Koutsou, Zoey Mauck, Abigail Schafer

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

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 is composed of a dozen smaller watersheds, and the Iowa River watershed is a sub-basin of the Mississippi River watershed.

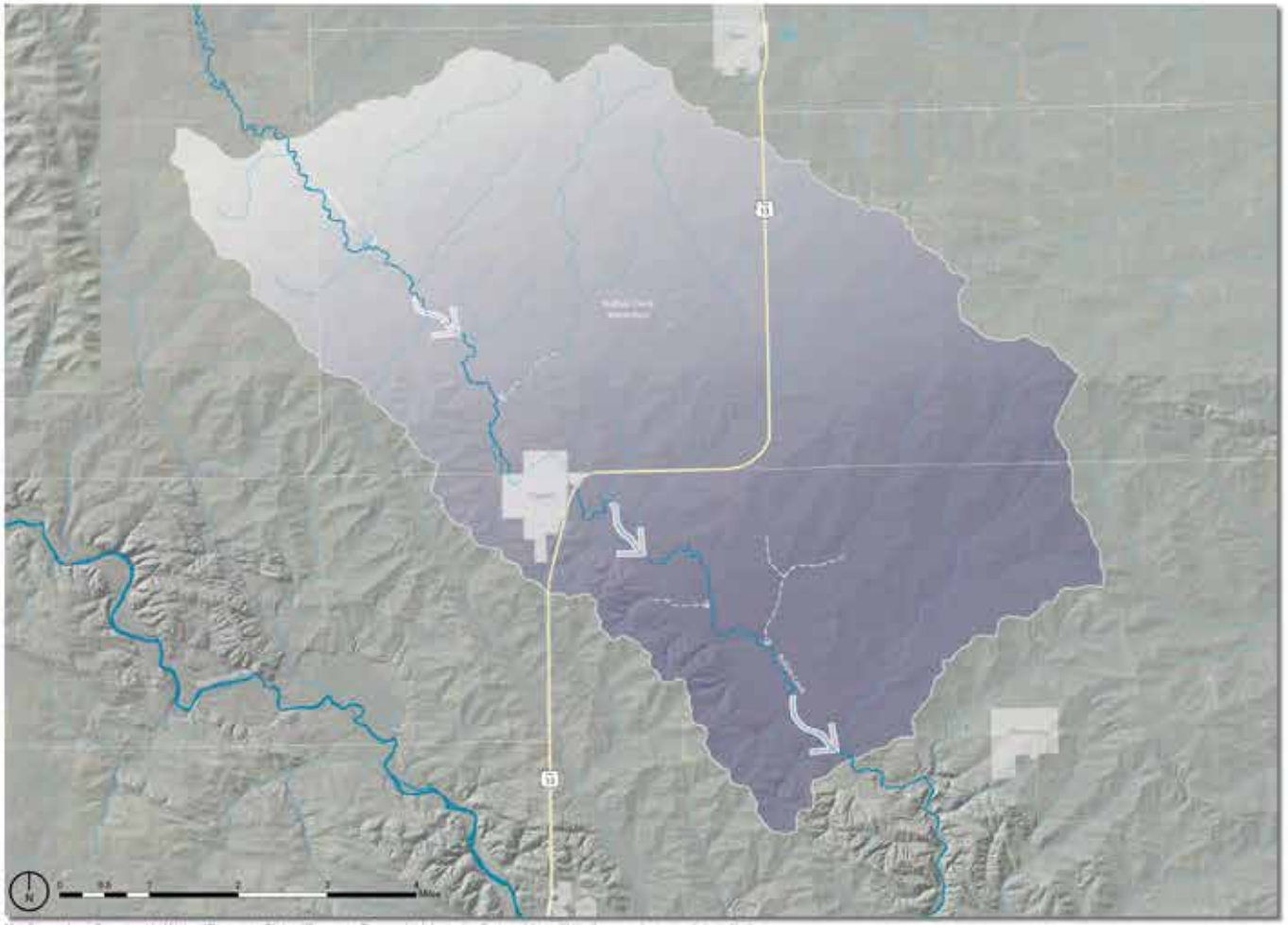
Where a community is located in relation to its surrounding watershed(s) determines its capacity to manage regional watershed issues such as flooding. For example, a community located near the end of a watershed (close to the outlet point) will have little capacity to reduce the amount of water draining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

- ISU: 2019 Community Visioning

Additional Notes from Design Team

Regional watershed data show Coggon near the western boarder of the Buffalo Creek Watershed. Coggon lies near the middle of this western watershed boarder. These conditions indicate that a lot of water is processed through the soils and waterways around Coggon. The southern end of Coggon is higher as represented in the Elevation & Flow map, which explains how the Buffalo Creek curves around the north and east edge of the community to flow around this elevation change. This is reinforced also by the Depth to Water Table map.

It is important to note that anything water flow that is processed through the soils in Coggon very shortly join the Buffalo Creek and would concentrate at the lower elevations.



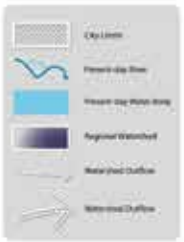
Map Source: Iowa Department of Natural Resources. "Natural Resources Geographic Information Systems Library." https://www.iowadnr.gov/Data/GIS-Library

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 is composed of 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.



Coggon

Regional Watershed

Bioregional Context

Julia Badenhope, Riley Dunn, Emma Georgeff, Timothy Kerkhove, Clare Kibeko, Alysse Kirkman, Giannis Koutsou, Zoey Mauck, Abigail Schafer

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Depth to Water Table

The water table is defined as the distance below the surface at which the ground is saturated with water. 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.

The map shows how close to the surface groundwater can be. Pavement and foundations are affected by groundwater near the surface. Freezing and thawing, and upward pressure of rising groundwater can cause cracks or "frost boils" in pavement. Foundations can be wet and require "dewatering," which can be expensive.

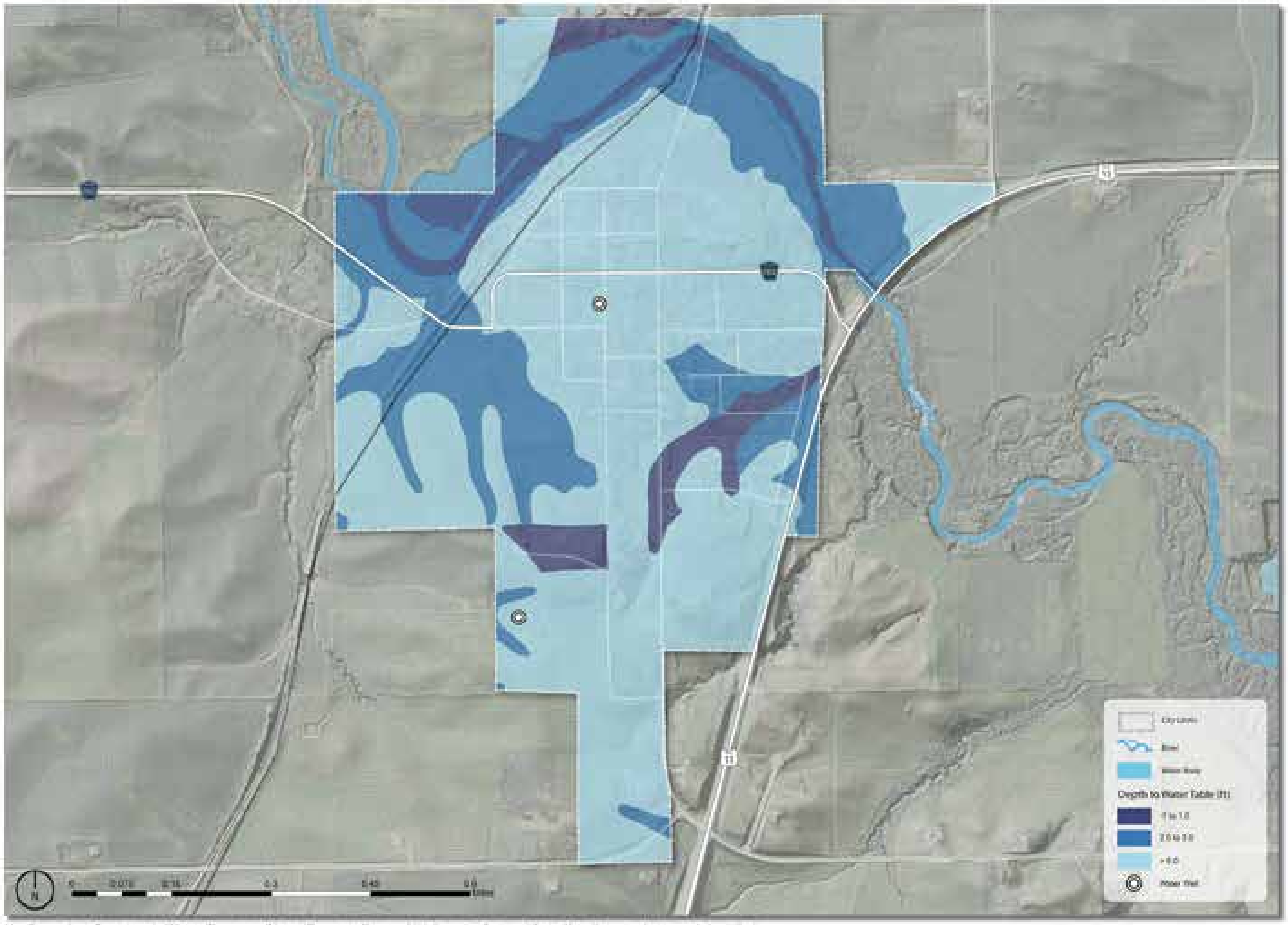
Where the value is less than 0ft, water can well up out of the ground. This causes localized flooding, even if there is no surface water draining to the area.

- ISU: 2019 Community Visioning

Additional Notes from Design Team

The majority of Coggon has a low water table ranging greater than 6 feet. Most areas of the city fall within this range with the exception of areas to the North following the path of the river where the water table rises to between 2.0 - 3.0 feet. This area remains near the Buffalo Creek and also comprises a large portion around the western boundary near the railroad tracks. There are a couple areas near the south-central portion of the town where the water table is as high as -1.0 to 1ft. This primarily occurs at near the base of the higher elevations areas of town and together comprise a drainage basin to the river.

As noted above, the high water table areas are mostly along the river and near the south-central area of town where the rolling topography levels out to flatter land. The majority of the buildings in town are built on a water table that ranges greater than 6 feet. Higher water table areas are less suitable for development and should be considered for future development of natural areas that can more easily resist flooding.



Map Source: Iowa Department of Natural Resources. "Natural Resources Geographic Information Systems Library."

Coggon
Depth to Water Table

Depth to Water Table

The water table is defined as the distance below the surface at which the ground is saturated with water. 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.

The map shows how close to the surface groundwater can be. Pavement and foundations are affected by groundwater near the surface. Freezing and thawing, and upward pressure of rising groundwater can cause cracks or "frost boils" in pavement. Foundations can be wet and require "dewatering," which can be expensive.

Where the value is less than 0ft, water can well up out of the ground. This causes localized flooding, even if there is no surface water draining to the area.

Bioregional Context
Julia Badenhope, Riley Dunn, Emma Georgeff, Timothy Kerkhove, Clare Kiboko, Alysse Kirkman, Giannis Koutsou, Zoey Mauck, Abigail Schafer
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Elevation and Flow

This map 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?

If your community lies within or near a floodplain or floodway, the map reflects these features. Not all communities will have these elements; their absence on this map indicates none are present.

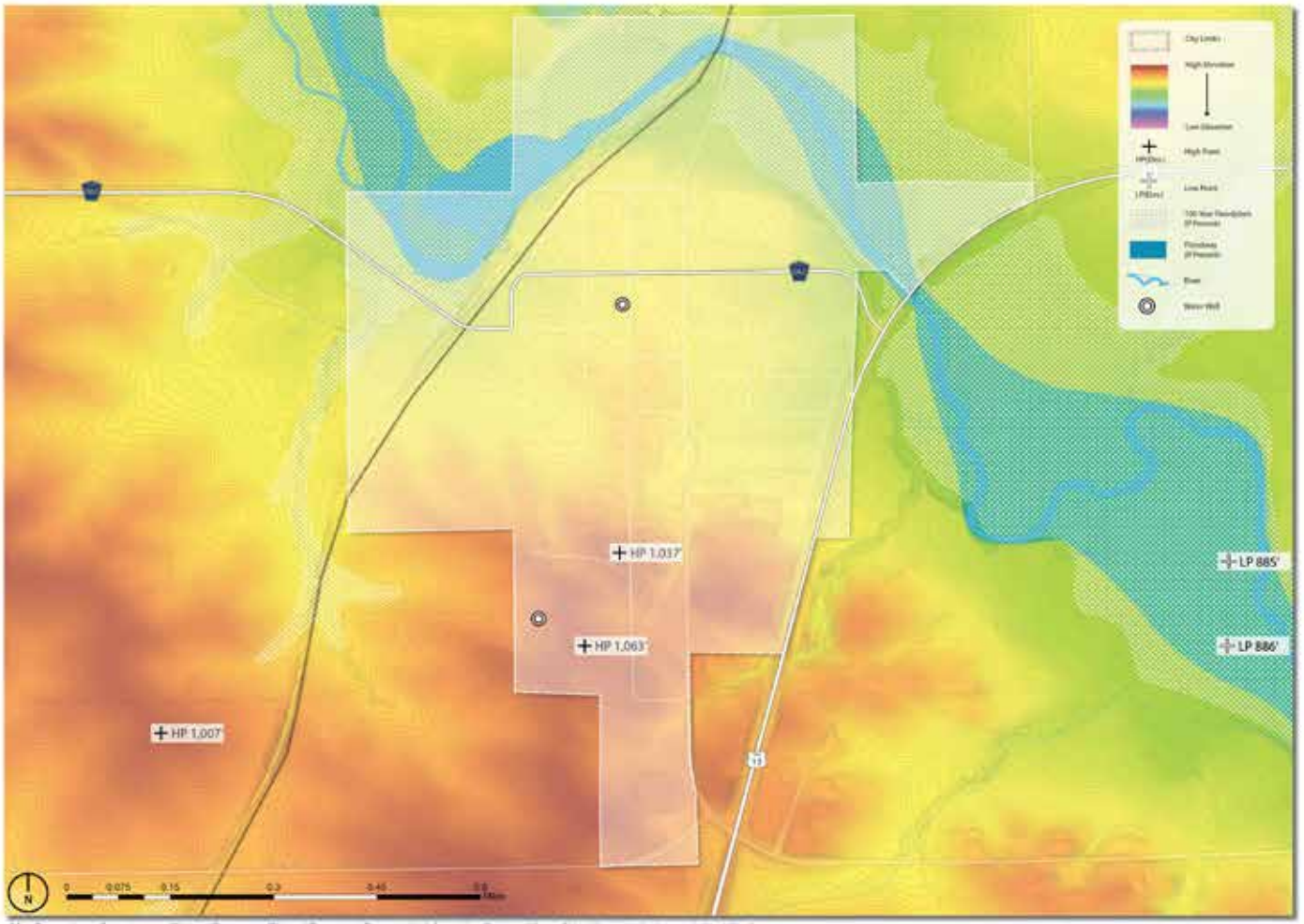
Flood risk is correlated to low-lying land, this map also shows your community's flood risk as defined by the Federal Emergency Management Agency (FEMA) Flood Map Service Center. This map shows the two most important flood zones, the Base Flood and the Regulatory Floodway (consult legend.) Base Flood 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.

- ISU: 2019 Community Visioning

Additional Notes from Design Team

The overall elevation of Coggon is descends from the South to North. The highest point in town is near the water tower and southern town boundaries causing the momentum of water to ultimately travel to the Buffalo Creek.

It it important to point out that portions of Savage Park and Buffalo Creek Park are covered in the 100-year floodplain and the bridge which connects Savage Park to Main St. is within the floodway. Combining the water table study above, this indicates most of the park will have ponding issues if heavy rainfall occurs, and the Savage Park bridge will be a safety and maintenance concern.



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

Coggon

Elevation and Flow

Bioregional Context

Julia Badenhope, Riley Dunn, Emma Georgeff, Timothy Kerkhove, Clare Kiboko, Alysse Kirkman, Giannis Koutsou, Zoey Mauck, Abigail Schafer

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Elevation and Flow

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?

If your community lies within or near a floodplain or floodway, the map reflects these features. Not all communities will have those elements; if they are absent on this map, none are present.

Flood risk is correlated to low-lying land. This map 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 if they are present: the Base Flood and the Regulatory Floodway (consult legend). Base Flood is the zone having a 1% 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.

Present Day Land Cover

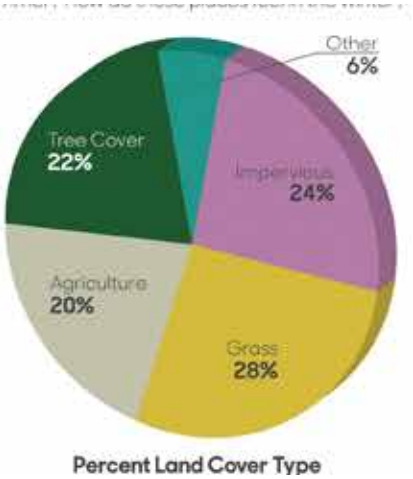
The land cover map depicts both natural and man-made land cover types with aerial imagery. The Iowa DNR created 15 unique classes for this dataset to differentiate land covers. Refer to the legend for a breakdown of land cover types within your community boundaries.

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 does this mean for surface water movement?

Tree cover affects microclimate. Are places surrounded by canopy more pleasant in the summer? How do these places feel in the winter?

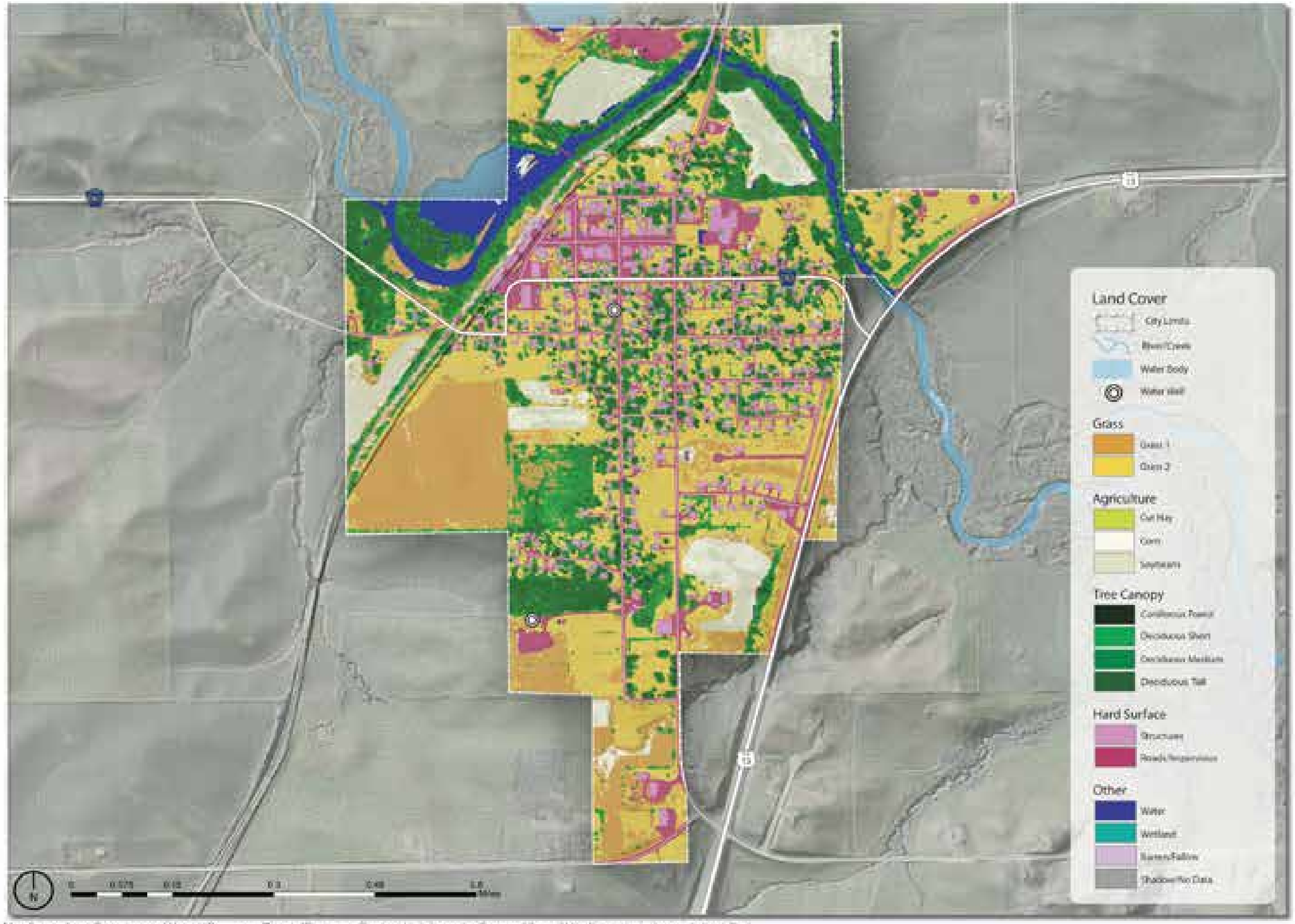


- ISU: 2019 Community Visioning

Additional Notes from Design Team

It is obvious from the map that there is not dense tree cover in a small city of this size and that it is mostly composed of grass, lawn, impervious surfaces. This means more trees and plants can be re-introduced in the future to provide more shade and making cool places for sitting and gathering.

It is also noticeable that there are almost no vegetation cover Coggon's main downtown. More trees and plants in this area will provide shades, improve pedestrian and bicyclists experiences and also enrich and beautify the Main Street experiences for businesses, citizens, and patrons.



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

Coggon
Present-day Land Cover

Bioregional Context

Julia Badenhope, Riley Dunn, Emma Georgeff, Timothy Kerkhove, Clare Kiboko, Alysse Kirkman, Giannis Koutsou, Zoey Mauck, Abigail Schafer
Iowa State University | Trees Forever | Iowa Department of Transportation

Present-day Land Cover

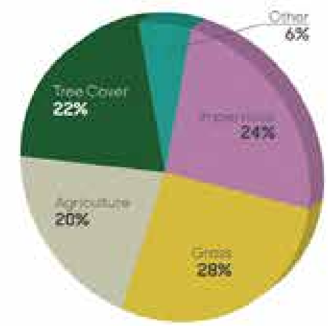
The land cover map depicts both natural and man-made land cover types with aerial imagery. The Iowa DNR created 15 unique classes for this dataset to differentiate land covers. Refer to the legend for a breakdown of land cover types within your community boundaries.

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 does this mean for surface water movement?

Tree cover affects microclimate. Are places surrounded by canopy more pleasant in the summer? How do these places feel in the winter?



Percent Land Cover Type

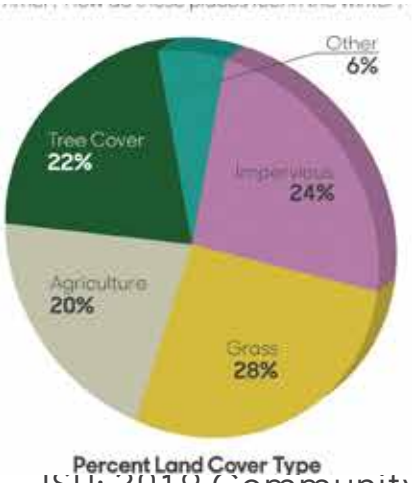
Iowa's Living Roadways community visioning

Present Day Vegetation

This map shows the present-day vegetation in an aerial image. The map indicated where trees, shrubs, and other plants create shade, line streets, buffer edges, and provide other services.

Notice how much the vegetation has been altered since the historic vegetation was mapped by the government land office surveyors. People alter vegetation to produce crops, provide shelter, and for other amenities.

Also notice how the community and its vegetation has changed since the Andrea's Atlas was drawn. Development typically removes vegetation where infrastructure is built and then re-introduces vegetation for its functional and amenity value.



- ISU: 2019 Community Visioning

Additional Notes from Design Team

Based on the Historical Vegetation map, Coggon was a forested area at one point and from this map and the Land Cover map we can see there are not much tree cover remaining. Most green areas have been converted to grass land, lawn, agricultural farms, or urban hardscape. Coggon is composed of 28% grass land and only 22% tree cover compared to 24% impervious paved surfaces. Grass lands and some impervious areas can be transformed to tree lined green areas or native flower plantings. This can not only increase the canopies in town with trees and plants, but also help fertilizing soils and help to mitigate and infiltrate storm water.

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

Present-day Vegetation

The map at the left shows the present-day vegetation in an aerial image. This map shows where trees, shrubs, and other plants create shade, line streets, buffer edges, and provide other services.

Notice how much the vegetation has been altered since the historic vegetation was mapped by the government land office surveyers. People alter vegetation to produce crops, provide shelter, and for other amenities.

Also notice how the community and its vegetation has changed since the Andreo's Atlas was drawn. Development typically removes vegetation where infrastructure is built and then re-introduces vegetation for its functional and amenity value.

Coggon

Present-day Vegetation

Bioregional Context

Julia Badenhope, Riley Dunn, Emma Georgeff, Timothy Kerkhove, Clare Kiboko, Alysse Kirkman, Giannis Koutsou, Zoey Mauck, Abigail Schafer

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Urban Forest

This map depicts city owned trees that have been surveyed by the Iowa Department of Natural Resources (Iowa DNR).[1] The trees are divided into three categories: healthy trees, hazard trees, and ash trees.

"Hazard" trees are distinguished with a yellow triangle symbol. The hazard designation reflects tree condition using the Iowa DNR's priority rating. Trees highlighted on this map are "dangerous, dead, or dying, and no amount of maintenance will increase longevity or safety;" or are infected by "insects, pathogens, or parasites."

"Ash" trees are distinguished with a purple cross. They are under imminent threat from the Emerald Ash Borer (EAB),* an invasive beetle that disrupts circulation in the tree resulting in the loss of tens of millions of ash trees in North America.[2] EAB was first discovered in Iowa in 2010 and was confirmed in 30 Iowa counties as of 2016.[3]

The graphic above shows how many of the city's trees are of the same species. There is a strong possibility that 9% (Ash trees) of Coggon's city owned trees will die once EAB is carried to the area. With proper planning and management, the city's canopy can be improved by planting suitable trees that can gradually replace hazard trees and Ash trees. Improving species diversity will create a more resilient urban forest.

1. Iowa Department of Natural Resources Community Tree Inventories, http://www.iowadnr.gov/Conservation/Forestry/Urban-Forestry/Community-Tree-Inventories

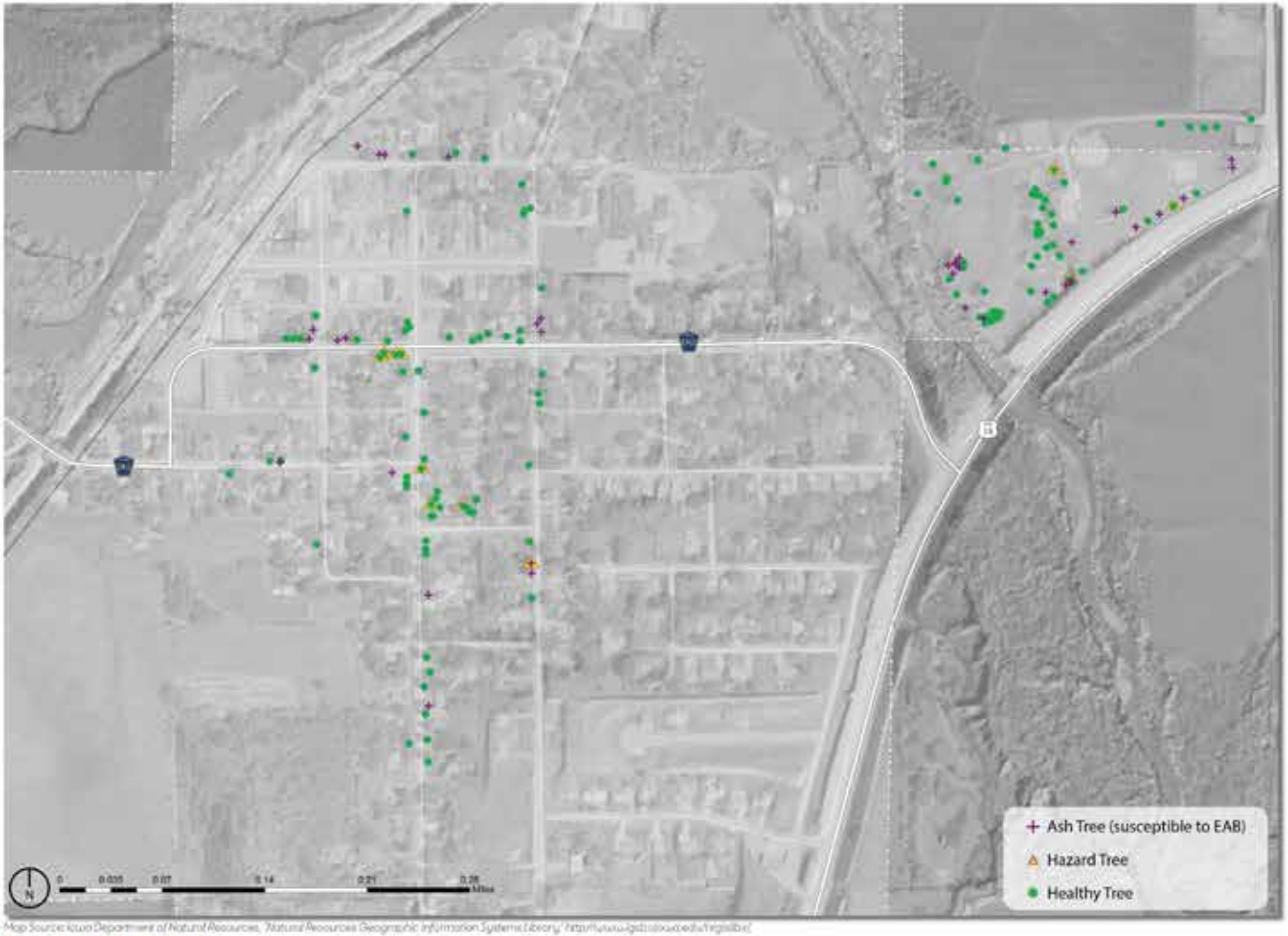
2. EAB is a significant threat to our urban, suburban, and rural forests because it kills stressed and healthy ash trees. EAB is so aggressive that ash trees may die within two or three years after they become infested. Ash trees are as important ecologically as they are economically in the forests of the eastern United States. Emerald Ash Borer the Green Menace, USDA Program Aid No. 1769, 2008, https://www.aphis.usda.gov publications/plant_health/content/printable_version/EABGreenMenace-reprint June09.pdf.

3. "Iowa Tree Pests website," Entomology and Plant Science Bureau of the Iowa Department of Agriculture and Land Stewardship (IDALS), last updated February 9, 2016, http://www.iowatreepests.com/eab_home.html.

- ISU: 2019 Community Visioning

Additional Notes from Design Team

The important issues to note with this map are the amount of hazard trees, and ash trees currently in Coggon. The hazard and ash trees already compose almost a quarter of the tree population. These trees most likely will be lost. The other two predominate species include maple and oak. It is recommended that a planting program be initiated in town that encourages planting of more diverse species so that the tree population can easily survive a blight affecting any one particular species.



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

Coggon
Urban Forest

The Urban Forest

The map on the left depicts city-owned trees that have been surveyed by the Iowa Department of Natural Resources (Iowa DNR).[1] The trees are divided into three categories: healthy trees, hazard trees, and ash trees.

"Hazard" trees are distinguished with a yellow triangle symbol. The hazard designation reflects tree condition using the Iowa DNR's priority rating. Trees highlighted on this map are "dangerous, dead, or dying, and no amount of maintenance will increase longevity or safety," or are infected by "insects, pathogens, or parasites."

"Ash" trees are distinguished with a purple cross. They are under imminent threat from the Emerald Ash Borer (EAB), an invasive beetle that disrupts circulation in the tree resulting in the loss of tens of millions of ash trees in North America.[2] EAB was first discovered in Iowa in 2010 and was confirmed in 65 Iowa counties as of 2018.[3]

The graphic above shows how many of the city's trees are of the same species. There is a strong possibility that 22% (ash trees) of Coggon's city-owned trees will die once EAB is carried to the area. With proper planning and management, the city's canopy can be improved by planting suitable trees that can gradually replace hazard trees and ash trees. Improving species diversity will create a more resilient urban forest.

1. Iowa Department of Natural Resources Community Tree Inventories, https://www.iowadnr.gov/Conservation/Forestry/Urban-Forestry/Community-Tree-Inventories.

2. EAB is a significant threat to our urban, suburban, and rural forests because it kills ash and healthy ash trees. EAB is so aggressive that ash trees may die within two or three years after they become infested. Ash trees are so important ecologically as they are economically in the forests of the eastern United States. Emerald Ash Borer. Hot Green Menace. USDA Program Aid No. 1709. 2008. https://www.aphis.usda.gov/publications/plant_health/content/printable_version/EAB-Forest-Service-report_June08.pdf.

3. "Iowa Tree Pests website." Entomology and Plant Science Bureau of the Iowa Department of Agriculture and Land Stewardship (DALS). Last updated February 9 2018. http://www.iowatreepests.com/asbi_home.html.

Bioregional Context

Julia Badenhope, Riley Dunn, Emma Georgeff, Timothy Kerkhove, Clare Kiboko, Alysse Kirkman, Giannis Koutsou, Zoey Mauck, Abigail Schafer

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

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 Coggon, 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 Coggon's transportation system works, we use focused, small-group conversations, mapping, and photos of the best and worst to understand local transportation.

Different Users = Different Needs

To capture insights about transportation from a variety of perspectives, we invited Coggon residents with different transportation needs to participate in focus groups. A total of 37 residents attended Coggon's workshop. Participants were separated into five user groups and the Coggon steering committee.

(13 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.

(8 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.

(5 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.

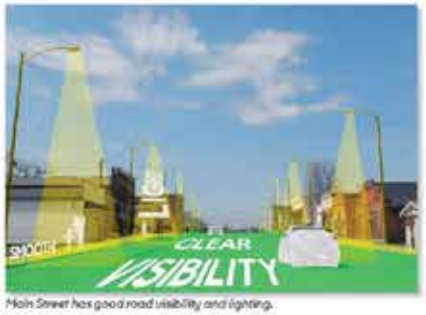
(6 participants): Safety of their children is a primary concern of this user group. Access to safe and easy routes to school activities is another significant factor to this group.

Parents of young children desire smooth, wide surfaces for strollers.

(5 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.

The community enjoys the trails and greenery at Buffalo Creek Park.

Traffic on Highway 13 makes it difficult to enter town.



Main Street has good road visibility and lighting.


D62 underpass is considered narrow and has no sidewalks for pedestrians.


D62 has a uniform, well-maintained road and accessible sidewalks.

Visibility is compromised on Railroad street.

What Factors Affect Transportation in Coggon?

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 Coggon, 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 Coggon's transportation system works, we use focused, small-group conversations, mapping, and photos of the best and worst to understand local transportation.

Different Users = Different Needs

To capture insights about transportation from a variety of perspectives, we invited Coggon residents with different transportation needs to participate in focus groups. A total of 37 residents attended Coggon's workshop. Participants were separated into five user groups and the Coggon steering committee.

Actives — **(13 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.

Older Adults — **(8 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 — **(5 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 — **(6 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 — **(5 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.

Coggon
Overview

Transportation Assets and Barriers Analysis
Julia Badenhope, Sandra Oberbroeckling, Laura Schwartz, Paola Moniller-Torres, Parmiss Sazgar, and Masha Adib
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

What People Said

"When I go biking through the town, my goal is to end up at Buffalo Creek Park, because that's a nice long route."

"I don't walk in town. I go to the park in Central City and walk because I feel safe there too, and I would feel safe in town also, but I'm not crazy about being on the streets. I'd like to do sidewalk walking, but the sidewalks in town are mostly poor and in need of repair or reconstruction."

"It would be nice to have a trail that you can ride for even a quarter of a mile without having to stop."

"I think that a lot of [the sidewalks] are bad because they're old and trees have grown up underneath them, which makes it uneven...it's easier to walk on the street than...worrying about tripping."

Actives

"It would be pretty nice to have a trail connection through Savage Park through town and out to Buffalo Creek Park."

"A lot of people do walk 2nd Street to the cemetery and around and come back down 3rd Street. That's a pretty popular walking trail for a lot of people."

"We walk in the streets when we walk usually."

"I've always wanted to see the Savage Memorial Park connected with the Buffalo Creek Park. That'd be a trail..."

"It was particularly difficult this winter because we had so much snow, so a lot of the snow had to be piled on corners...that affected the driving because you did have to pull into the street just to get around the snowbank to see if anybody was coming."

Older Adults

"It has been a problem with some of the walkers because they walk in the street, and where it's really bad is when they walk in the street on the top of the hill [up toward the cemetery] because a car coming doesn't know that they're in the street."

"There's several times...when my wife and I are walking [where] we would rather walk in the street because the sidewalks are very bad, it is too rough..."

"I would definitely use bike paths if there was more accessibility to other parks around."

"I enjoy that I can get anywhere I want in town by walking."

"It is straight up [unsafe] getting on and off [Highway] 13."

"We...have a really great city park."

Parents

"I used to drive to the bank...I could definitely see myself walking more if there was something to look at. Main Street hasn't changed in such a long time, and if there [were] flowers—just more color, just anything, it's just very bland...it's not a fun walk. It's not a pretty walk."

"I just really want the bike trail. I think that would help a lot, get people down here more, especially if we do it near the camping grounds, that'll hopefully bring in more people."

"I would like to see some nice biking trails, because we do like the trails in Cedar Rapids... but it would be cool to have them [closer]."

"I'd rather have something where I can feel comfortable running on or riding my bike on."

"[I'd like sidewalks] from the cemetery on down to the school park because that's probably the busiest road in town."

Youth

"I'd walk [my son] in the stroller and you can't walk the stroller on the sidewalks here without it just like—'*boom, boom, boom*,'—so I always walk in the road."

"There is a little pond there [on corner of 6th Street and 3rd Avenue] every time it rains."

"I enjoy walking at Buffalo Creek Park, and it's a nice trail system. It's not large, but it is maintained, peaceful."

"Thinking about walking, I would like to be able to have a safe way to walk to and from places because there aren't sidewalks on every street, and so I tend to use the middle of the road, which is not a good decision on my part."

"I'd like to be able to walk to the grocery store, but you have to walk on the road to get there."

Steering Committee

Emerging Themes

Active adults users walk, bike, and run regularly, either as a component of an activity, to commute, or for recreation/sports training. This group considers lighting, safety, and length as important elements of a recreation trail.

Older adults drive and walk to get around town. When out walking, they appreciate natural beauty and amenities such as benches and drinking fountains.

Youth walk, bike run, and longboard for recreation. They enjoy playing basketball, baseball, and football at School Park. This group is interested in having more outdoor recreation opportunities.

The parents walk, drive, and bike. They are concerned about the safety of their children. They would like improved access to Savage Park and to the camp grounds in Buffalo Creek Park.

The steering committee bikes, walks, and drives. Committee members want way-finding signage in Coggon to help visitors find their way around the community. Better connectivity is also important to this group.

Active users walk, bike, and run regularly, either as a component of an activity, to commute, or for recreation/sports training. This group considers lighting, safety, and length as important elements of a recreation trail.

Older adults drive and walk to get around town. When out walking, they appreciate natural beauty and amenities such as benches and drinking fountains.

Youth walk, bike, run, and longboard for recreation. They enjoy playing basketball, baseball, and football at School Park. This group is interested in having more outdoor recreation opportunities.

Parents walk, drive, and bike. They are concerned about the safety of their children. They would like improved access to Savage Park and to the campgrounds in Buffalo Creek Park.

The steering committee bikes, walks, and drives. Committee members want way-finding signage in Coggon to help visitors find their way around the community. Better connectivity is also important to this group.

Coggon

Emerging Themes

Transportation Assets and Barriers

Julia Badenhope, Sandra Oberbroeckling, Laura Schwartz, Paola Monllor-Torres, Parmiss Sazgar, and Masha Adib

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Transportation Inventory

Through surveys, observations and discussions, community's concerns and needs were gathered and analyzed. According to the information, the themes and problems focused on are as follows:

Trails

More accessible and well connected trails are needed. Existing trails are intermittent in town. There is a lack of connection between other trails and destinations. A trail loop that extends around town and connect to Buffalo Park and Savage Park is desired.

Street Connections

Second and Third St. S. are main walking routes in town but with inconsistent sidewalks. Establishing a wide sidewalk loop with vegetation will significantly improve walking experience and accessibility.

Safety [1]

Safe crossings are needed from downtown to the Main Street Market Grocery. The current Main Street is extra wide with limited pedestrian amenities provided. A speed-control intersection will ensure pedestrian crossing safety from all directions.

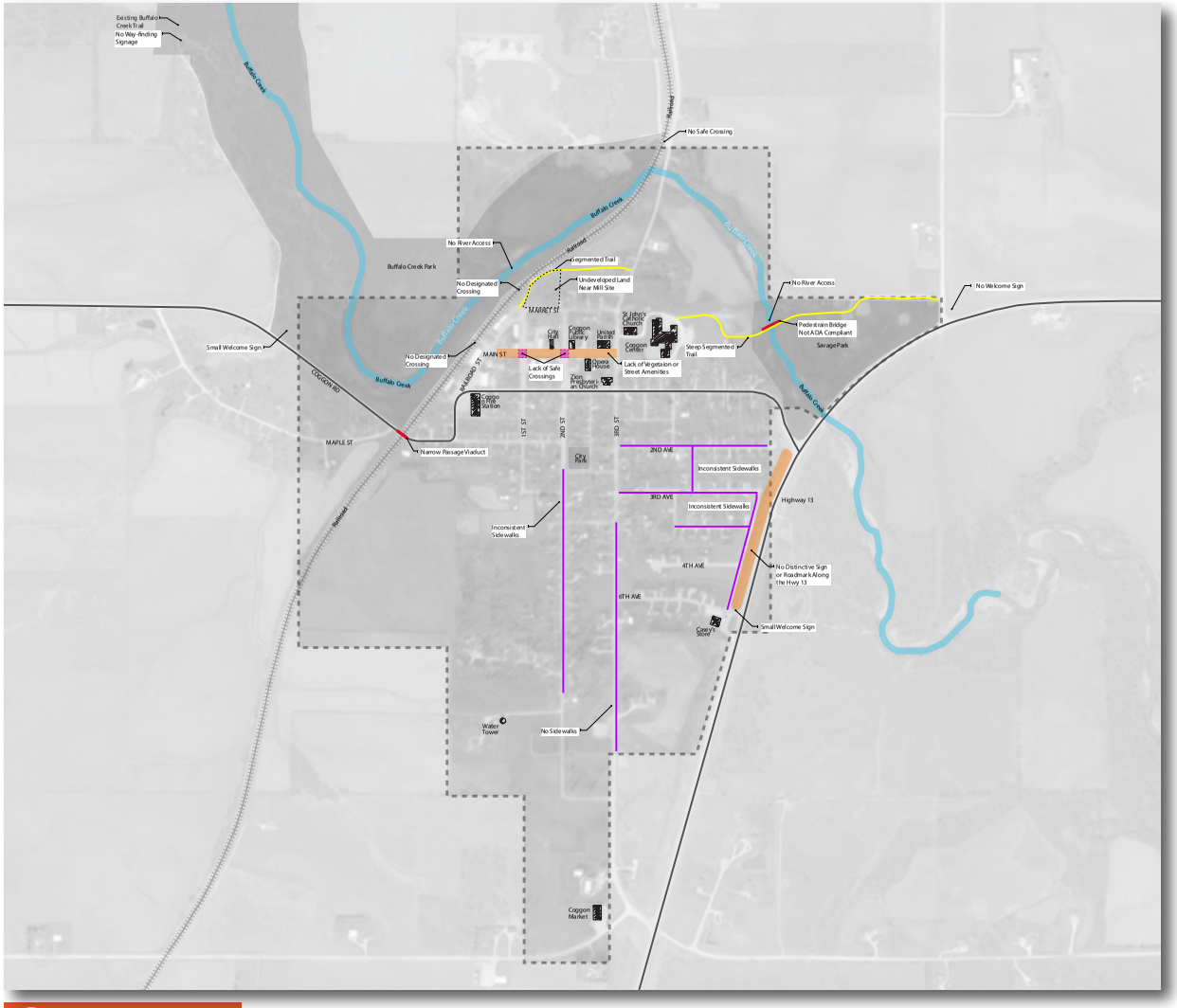
Safety [2]

An ADA-compliant pedestrian bridge and accessible trail is needed to connect to Savage Park. The current bridge and trail that leads to the Coggon Center are too steep for those with mobility impairments. Also, a more structurally stable and flood resistant bridge can lower maintenance costs in the long term.

Amenities

Coggon residents would like a river trail along Buffalo Creek. By providing access to the creek to highlight the river as a major amenity more visitors will be attracted to town.

Residents also desire a new park. This can be accomplished on the vacant land off Mill Street near the dam site. The new park would provide supplemental space for a dog park, events, or outdoor activities.



Transportation Inventory

Through meetings, observations and discussions, community's concerns and needs were gathered and analyzed. According to the information, the themes and problems focused on are as follows:

Trails

More accessible and well connected trails are needed. Existing trails are intermittent in town. There is a lack of connection between other trails and destinations. A trail loop that extends around town and connect to Buffalo Park and Savage Park is desired.

Street Connections

Second and Third St. S. are main walking routes in town but with inconsistent sidewalks. Establishing a wide sidewalk loop with vegetation will significantly improve walking experience and accessibility.

Amenities

Coggon residents would like a river trail along Buffalo Creek. By providing access to the creek to highlight the river as a major amenity more visitors will be attracted to town.
Residents also desire a new park. This can be accomplished on the vacant land off Mill Street near the dam site. The new park would provide supplemental space for a dog park, events, or outdoor activities.

Safety [1]

Safe crossings are needed on Main Street. The current Main Street is too wide with limited pedestrian ameneties provided. A speed-control intersection will ensure pedestrian crossing safety from all directions.

Safety [2]

An ADA-compliant pedestrian bridge and accessible trail is needed to connect to Savage Park. The current bridge and trail that leads to the Coggon Center are too steep for those with mobility impairments. Also, a structurally stable bridge can lower maintainance costs in the long term.

Coggon

Transportation Inventory

Design Team

Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen

Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Design Overview

This accompanying map depicts an overview of all the design strategies together. No community should try to tackle such a plan all at once, nor should it be expected that the full extent of the plan will be implemented in one lifetime. This plan is meant to provide a flexible and adaptable framework for the City of Coggon to use as a guide to prioritize, plan, revise, fund, and implement public improvement projects. No long term planning projects are executed exactly as they were originally drafted, but having a unified framework to work from helps to ensure that every improvement no matter how small or large, contributes cohesively to the greater whole.

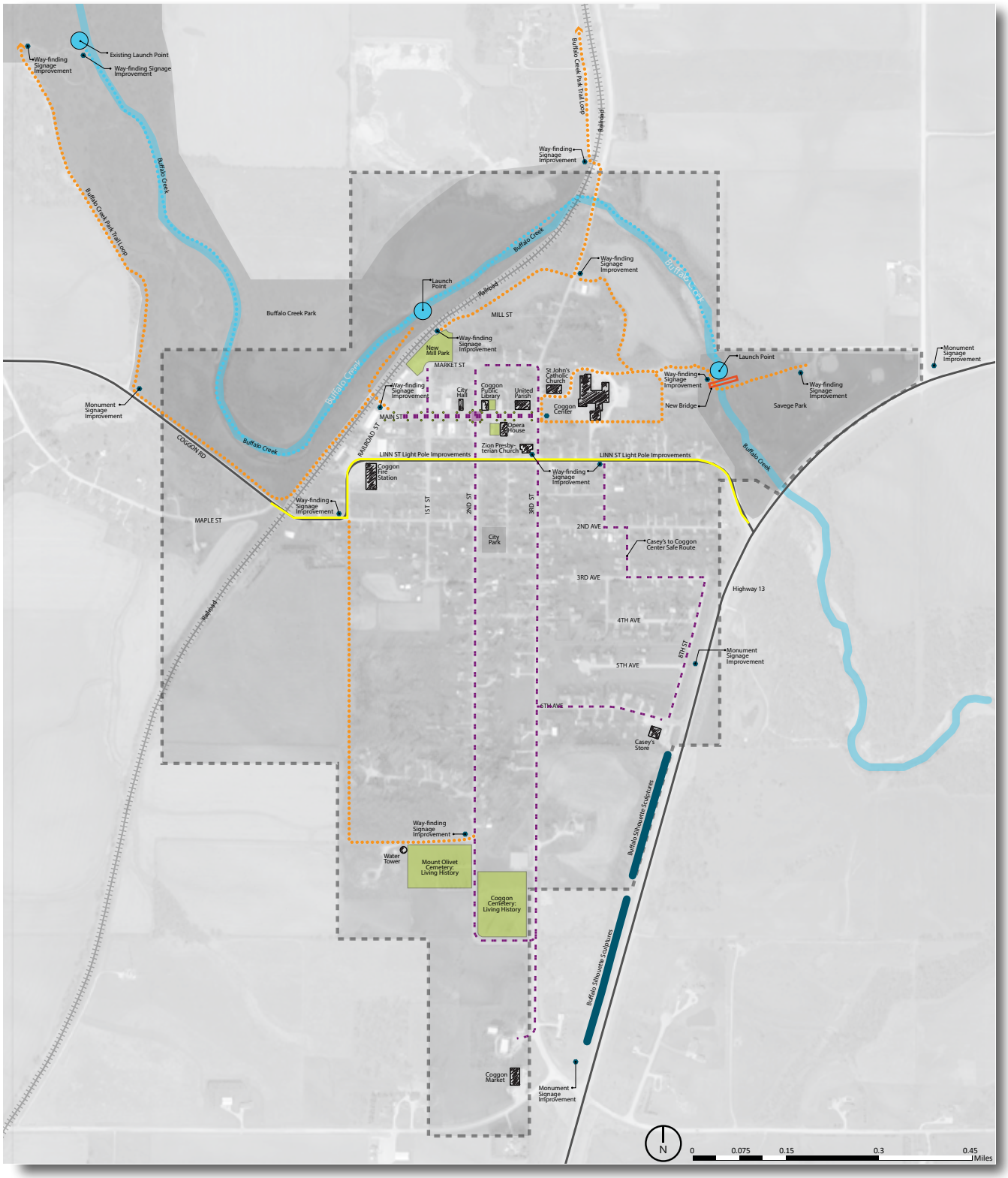
We understand that many who don't regularly work in the planning and design industry, often struggle to see the benefits of long term planning or see proposed improvements as actually feasible in their communities. By working from a cohesive framework, thinking long-term, and starting with smaller simpler projects then working up to larger ones, great things can be achieved by a community of any size. It is important to acknowledge that just because a proposed improvement may look like it affects a particular property, that improvement may not be implemented within this generation and that no proposal can infringe on individual property owner's rights. Any proposed improvements are intended only to explore future opportunities for the community taking into consideration that property changes hands every generation and that most modern construction has an average lifespan of only 70-100 yrs.

How to Use the Boards

To make such a large undertaking and investment more manageable and realistic for a community of this size, design interventions have been broken down into concepts and each assigned a conceptual time line for implementation that are categories as Immediate Goals, Short-Term Goals, Mid-Range Goals, and Long-Term Goals. Conceptual time lines purposefully overlap as some projects maybe undertaken concurrently or re-prioritized in the future as needed. Each concept is composed of two boards: Board "a" is composed with local photos and illustrations of typical conditions at the top illustrating what project areas are focused on and below that is a keyed map of the design interventions and their locations. The map is keyed to conceptual renderings and plans on Board "b", at the top of which features successful examples and precedents of similar design strategies implemented elsewhere along with renderings and illustrations of proposed projects in Coggon. The conceptual phases are broken down as follows:

Concept 1-**Key Signage, Street and Sidewalk Improvements**, Immediate Goals

Concept 2-**Main St. Enhancements, Mill Park, and River Route**, Short-term Goals



NOTE: Each concept, priority, and time line are intended to be flexible as determined by the community. Phases and time lines are intended only to demonstrate how large-scale improvements can be achieved by implementing small-scale projects strategically over time to achieve broader reaching goals.

Coggon
Overall Concept Plan

Steve Ford Landscape Architecture
Martin Gardner Architecture
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Design Overview

Concept 3- **Third Street Enhancements/N-S Loop, Mill Park Loop, and Linn Street Improvements**, Mid-range Goals

Concept 4-**Coggon Center-Casey's Connection Buffalo Creek Trail,** Long-term Goals

Future Considerations- **Connect to the Buffalo Creek Trail on the North**

Please note: Each concept, priority, and time line are intended to be flexible and revised as determined by the community. No concept, priority, or time line are static. Concepts and time lines are intended only to help demonstrate how large-scale improvements can be achieved by implementing small projects strategically over time. Design interventions are meant to be flexible and adaptable to accommodate unique opportunities or unforeseen events and conditions. Design interventions should be considered design-opportunities rather than finalized prescriptive designs. Nothing herein has been taken through design development or construction documents for bidding or construction, and each intervention within each concept is meant to be undertaken individually or even further broken down into sub-projects as required to realistically complete the overall goal. Each concept is further described detail below:

Concept 1-**Key Signage, Street and Sidewalk Improvements**, Immediate Goals

This concept focuses on way-finding signage improvements, city entrance improvements, and 2nd Street improvements.

Improved city entrance signs will replace the existing single board-printed sign at the south and west entrances and will add ones where absent to the north and east. These will emphasize the Coggon logo: "The one and only Coggon." Proposed life-sized buffalo silhouette sculptures will serve as community branding and depict native buffalo grazing on the hillside along Highway 13, creating a unique view that welcomes visitors and residents. This artwork and redesigned way-finding signs will strengthen the identity of the town and provide better guidance for future visitors. The Iowa Living Roadways Program should also be utilized for native prairie seeding in these areas. 2nd Street and 3rd Street is the main N-S street and 2nd street has been highly requested as an immediate goal to improve the use and wakability in town during community visits with the design team. The street improvements on 2nd Street will improve the conditions of existing or missing sidewalks and provide a safer and more pleasant walking experience for local residents, by introducing a 4 foot sidewalk on both side of the street where absent (width may vary depending on utilities on site). This will provide sufficient space for pedestrians and wheelchairs. In the meantime, a paved trail featuring native vegetation will be also be established in this concept. This trail circles the Coggon Center and will connect to the existing Savage Park in the future. It will provide a safe and accessible outdoor track better connecting the Coggon Center with Downtown.

Concept 2-**Main St. Enhancements, Mill Park, and River Route**, Short-term Goals

The existing Main Street is extra wide and can easily accommodate proposed bump-outs that will serve to control traffic speed, provide bench seating, and create safe crossing conditions for cars, bicycles, and pedestrians. Based on the Present-Day Land Cover Bioregional study above, there are only 22% tree cover in Coggon, compare to 24% impervious and 28% grass. This indicates a lack of shade canopy in town especially in the downtown throughout the Main Street area. Bump-outs also provide space for tree planting and vegetation so that citizens and visitors can have a shaded, colorful, and welcoming main street experience that also attracts local business.

Mill Park will highlight the local history of the first mill and dam that helped form the town of Coggon. It will be an ideal location to include a dog park or gathering space for special events. It also serves as a mid-point for kayakers or trail runners connecting Buffalo Creek Park to downtown. The proposed bridge replacement and pathway to Savage Park will be ADA compliant, include a river launch-point, and provide people with easier access to the river while maintaining a strong connection to the park.

Concept 3-**Third Street Enhancements/N-S Loop, Mill Park Loop, and Linn Street Improvements**

Mid-range Goals

This design focuses on street improvements to 3rd Street and 6th Ave to complete a safe N-S street loop between downtown, the Coggon Market Grocery, and Casey's Convenience Store. A new pedestrian/bike trail extending south off the corner of S. Railroad Street and W. Vinton Street to the water tower site and cemeteries help further enhance N-S safe route and recreational options. Local history of the town's founding fathers and mothers can further be highlighted throughout the Mt. Olivet Cemetery and Coggon Cemetery, and more areas for seating and reflection can be added at those locations to highlight those places as historic amenities.

Completing a safe connection between the new Mill Park and Savage Park can be achieved on the north end of town through Mill Street. As Linn Street is the main thoroughfare through town, lighting improvements and light pole accessories, such as flags or banners, can be added, making that main route through town more welcoming and help to draw visitors to explore Main Street.

Design Overview

Concept 4- **Coggon Center-Casey's Connection Buffalo Creek Trail,** Long-term Goals

This last concept of the design focuses on connecting loops and creating larger connections through town and growing recreational options for residents and visitors. Sidewalk and street improvements on the East side of town help to connect the Coggon Center and Main Street to Casey's Convenience Store while tying into smaller loops and safe-routes established in prior phases.

A larger trail connection can extend from the Buffalo Creek Park Trail to the North up to Linn-Delaware Road and reconnect into town via North 3rd Street on the west side of the railroad tracks. This larger loop successfully connects both Buffalo Creek Park and Savage Park on a large scale while also connecting through Main Street on a smaller scale.

This concept, establishes trail loop connections through town at both large, small, and intermediate scales providing both safe efficient access to public amenities as well as providing recreational opportunities for cyclists, walkers, joggers, and pedestrians alike.

Future Considerations- **Connect to the Buffalo Creek Trail on the North**

This long-term consideration explores future opportunities to connect trails were established in town tie in to the North Buffalo Creek Park Trail by Linn County Conservation Board. As we mentioned in the previous concepts, there will be an internal trail goes around town from Water Tower to Coggon Center. This will connect to the railroad crossing access proposed in Concept 2 and also connect to the existing Buffalo Creek Park trail. In the long-term, the future trail plan for Coggon the existing Buffalo Creek Trail that terminates South of Linn Delaware Rd eventually will connect to a future trail West of the railroad track which then comes back into town on 3rd Street. This future trail plan will help attract more regional visitors to come use the Buffalo Creek Park where there is already a successful RV camp ground, boat ramp, shelter, and bathroom amenities provided. This will help attract more flow to the parks and eventually into town as people look for foods and supplies, shopping opportunities, and they can be guided to Main Street by way-finding signage installed in Concept 1.


United States Postal Service
Mission Shop
Buffalo Creek Park
Buffalo Bay Grain Inc
Coggon
Coggon Center
E Linn St
Buffalo Creek
Casey's
Google

Existing Conditions

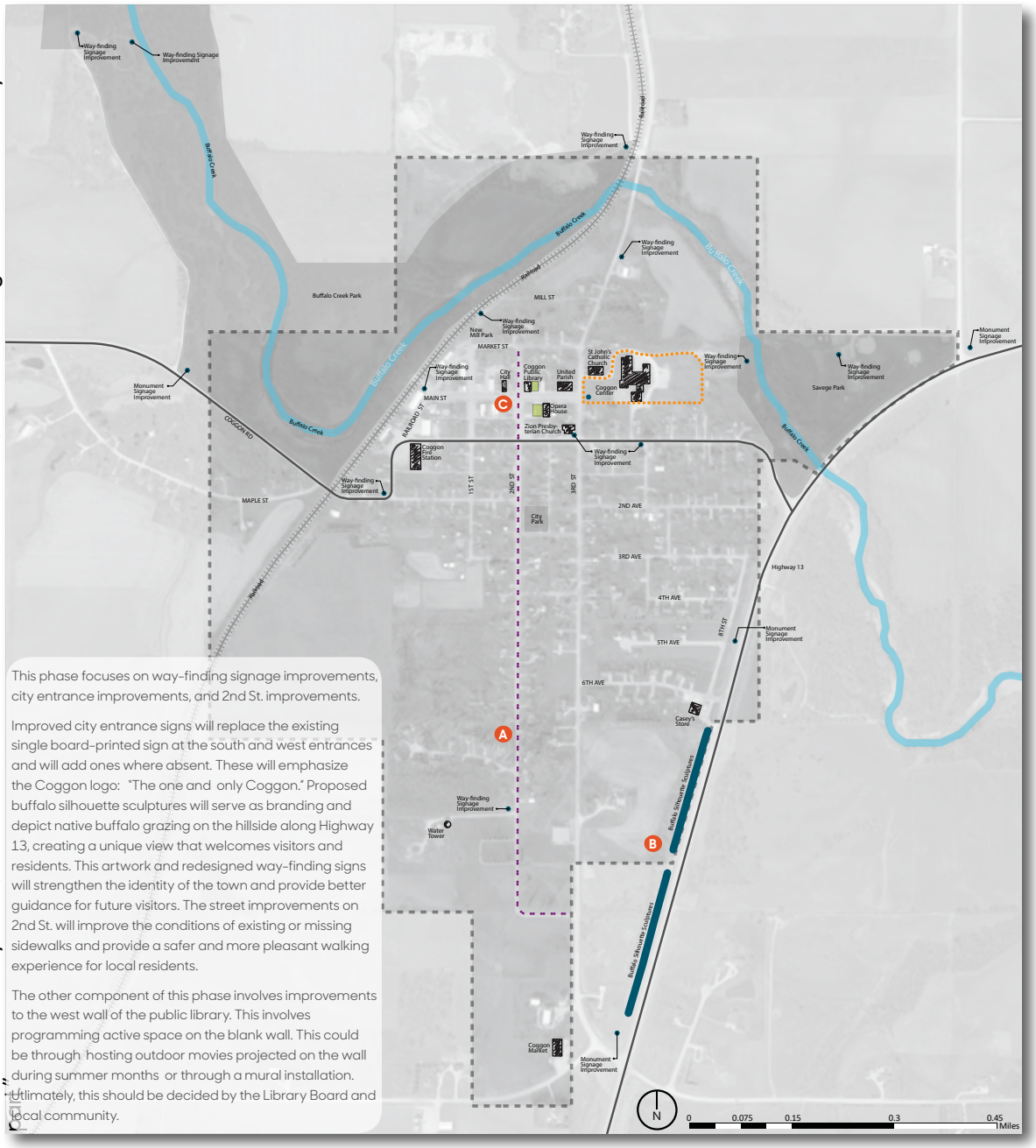
Second Street S: Inconsistent and Impaired Sidewalk

Coggon South Entrance: Current Signage is Inconspicuous

Second Street S: No Sidewalks

City Library: Facade Maintenance Req.

"For walking, I would like to be able to have a safe way to walk to and from places because there aren't sidewalks on every street, and so I tend to use the middle of the road, which isn't a good decision on my [illegible]."



This phase focuses on way-finding signage improvements, city entrance improvements, and 2nd St. improvements.

Improved city entrance signs will replace the existing single board-printed sign at the south and west entrances and will add ones where absent. These will emphasize the Coggon logo: "The one and only Coggon." Proposed buffalo silhouette sculptures will serve as branding and depict native buffalo grazing on the hillside along Highway 13, creating a unique view that welcomes visitors and residents. This artwork and redesigned way-finding signs will strengthen the identity of the town and provide better guidance for future visitors. The street improvements on 2nd St. will improve the conditions of existing or missing sidewalks and provide a safer and more pleasant walking experience for local residents.

The other component of this phase involves improvements to the west wall of the public library. This involves programming active space on the blank wall. This could be through hosting outdoor movies projected on the wall during summer months or through a mural installation. Ultimately, this should be decided by the Library Board and local community.

NOTE: Each concept, priority, and time line are intended to be flexible as determined by the community. Phases and time lines are intended only to demonstrate how large-scale improvements can be achieved by implementing small-scale projects strategically over time to achieve broader reaching goals.

Coggon

Concept 1

Immediate Goals:

Key Signage, Street and Sidewalk Improvements

Steve Ford Landscape Architecture
Martin Gardner Architecture
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Precedents: Where it has worked before

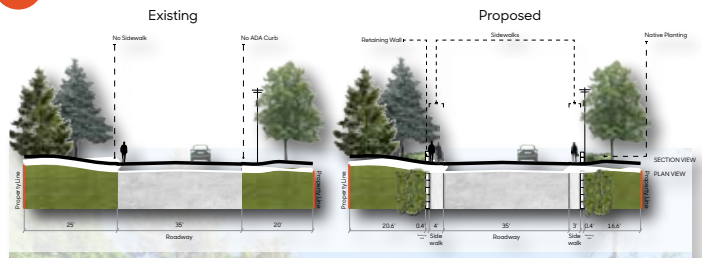

San Francisco Sidewalk Gardens (Sidewalk Improvements)

Exterior Signage


Downtown Cincinnati Mural (Facade artwork)


Sculptures of Highway 395

A 2nd Street Improvement 1:10



C City Library Facade Improvement


Option 1 - Buffalo Art Mural


Option 2 - Movie Night

B Buffalo Silhouette Sculptures and South Entrance Signage

NOTE: Each concept, priority, and time line are intended to be flexible as determined by the community. Phases and time lines are intended only to demonstrate how large-scale improvements can be achieved by implementing small-scale projects strategically over time to achieve broader reaching goals.

Coggon
Concept 1

Immediate Goals:

Key Signage, Street and Sidewalk Improvements

Steve Ford Landscape Architecture
Martin Gardner Architecture
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Existing Conditions

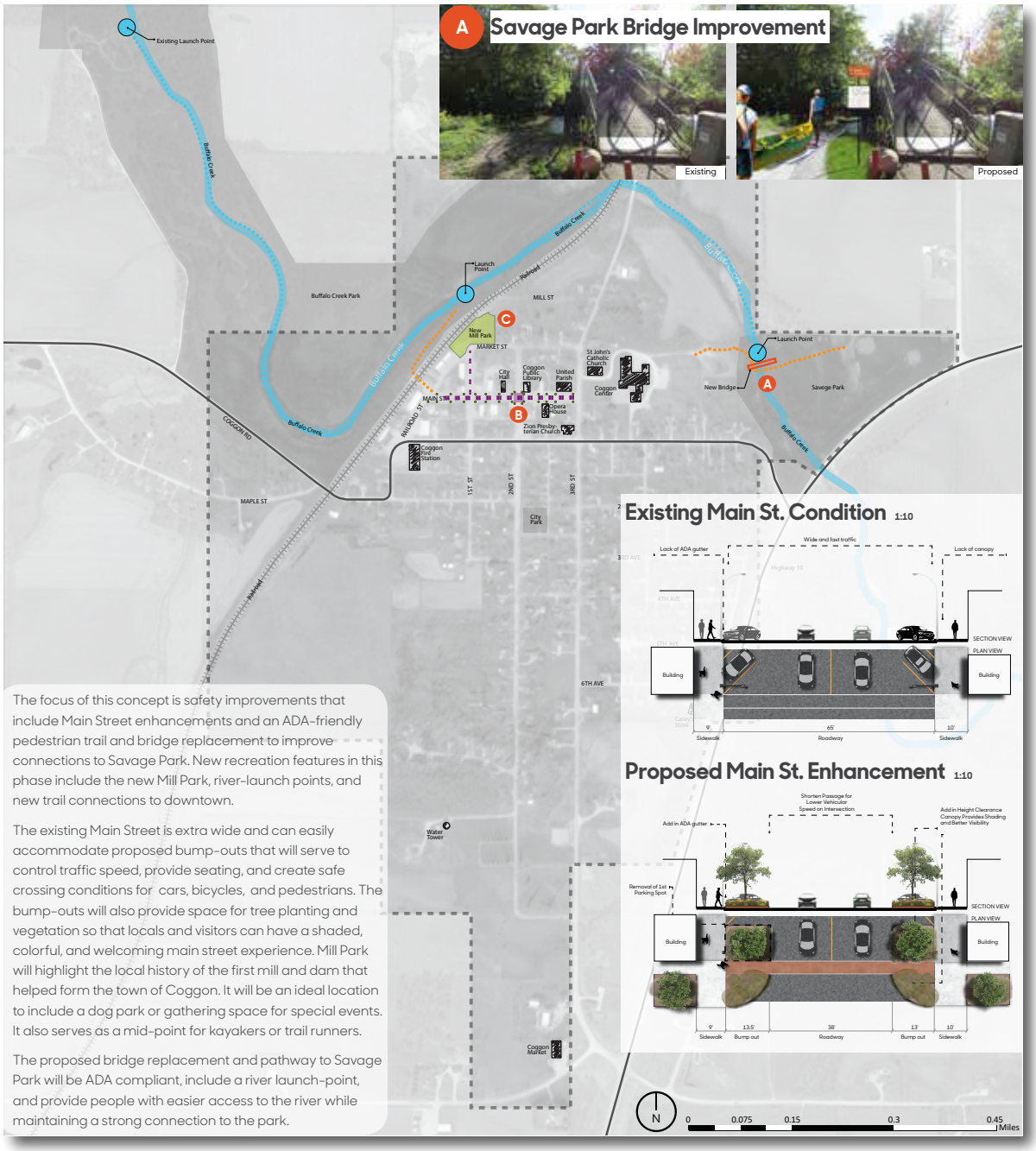
Pedestrian Bridge at Savage Park: Not ADA compliant

No Pathways or Way-finding Signage

Main Street: ADA/Pedestrian Issues

Underutilized Land Near Mill Street

"I've always wanted to see the Savage Park connected with the Buffalo Creek Park. That'd be a trail."



The focus of this concept is safety improvements that include Main Street enhancements and an ADA-friendly pedestrian trail and bridge replacement to improve connections to Savage Park. New recreation features in this phase include the new Mill Park, river-launch points, and new trail connections to downtown.

The existing Main Street is extra wide and can easily accommodate proposed bump-outs that will serve to control traffic speed, provide seating, and create safe crossing conditions for cars, bicycles, and pedestrians. The bump-outs will also provide space for tree planting and vegetation so that locals and visitors can have a shaded, colorful, and welcoming main street experience. Mill Park will highlight the local history of the first mill and dam that helped form the town of Coggon. It will be an ideal location to include a dog park or gathering space for special events. It also serves as a mid-point for kayakers or trail runners.

The proposed bridge replacement and pathway to Savage Park will be ADA compliant, include a river launch-point, and provide people with easier access to the river while maintaining a strong connection to the park.

NOTE: Each concept, priority, and time line are intended to be flexible as determined by the community. Phases and time lines are intended only to demonstrate how large-scale improvements can be achieved by implementing small-scale projects strategically over time to achieve broader reaching goals.

Coggon Concept 2

Short-term Goals:

Main Street Enhancements, Mill Park, and River Route

Steve Ford Landscape Architecture
Martin Gardner Architecture
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Precedents: Where it has worked before

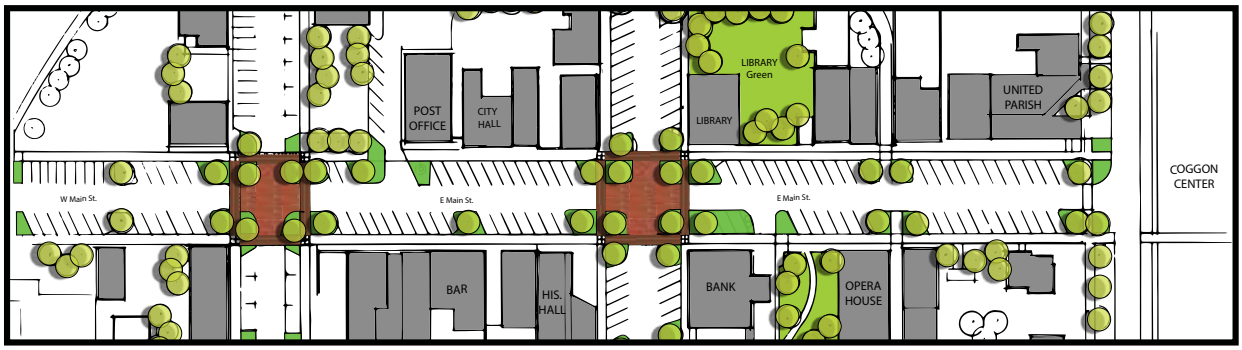
San Francisco Sidewalk Gardens (Pedestrian Improvements)

Urbana Champaign. IL: Intersection Improvements

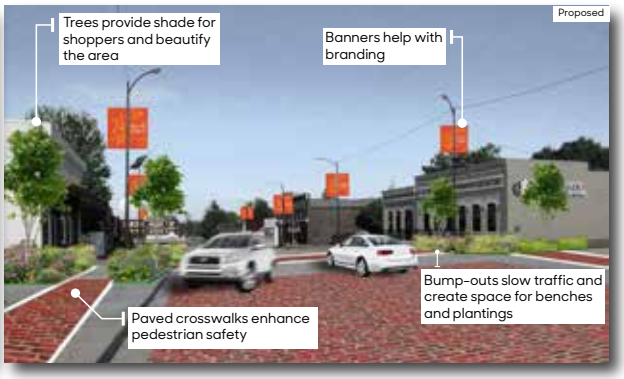
Willoughby Amphitheatre: Community Concert

Launching Dock at Chickahominy Riverfront Park

B Enlarged Main Street Plan



B Main Street Improvements



C Proposed Mill Park

NOTE: Each concept, priority, and time line are intended to be flexible as determined by the community. Phases and time lines are intended only to demonstrate how large-scale improvements can be achieved by implementing small-scale projects strategically over time to achieve broader reaching goals.

Coggon
Concept 2

Short-term Goals:

Main Street Enhancements, Mill Park, and River Route

Steve Ford Landscape Architecture
Martin Gardner Architecture
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Existing Conditions

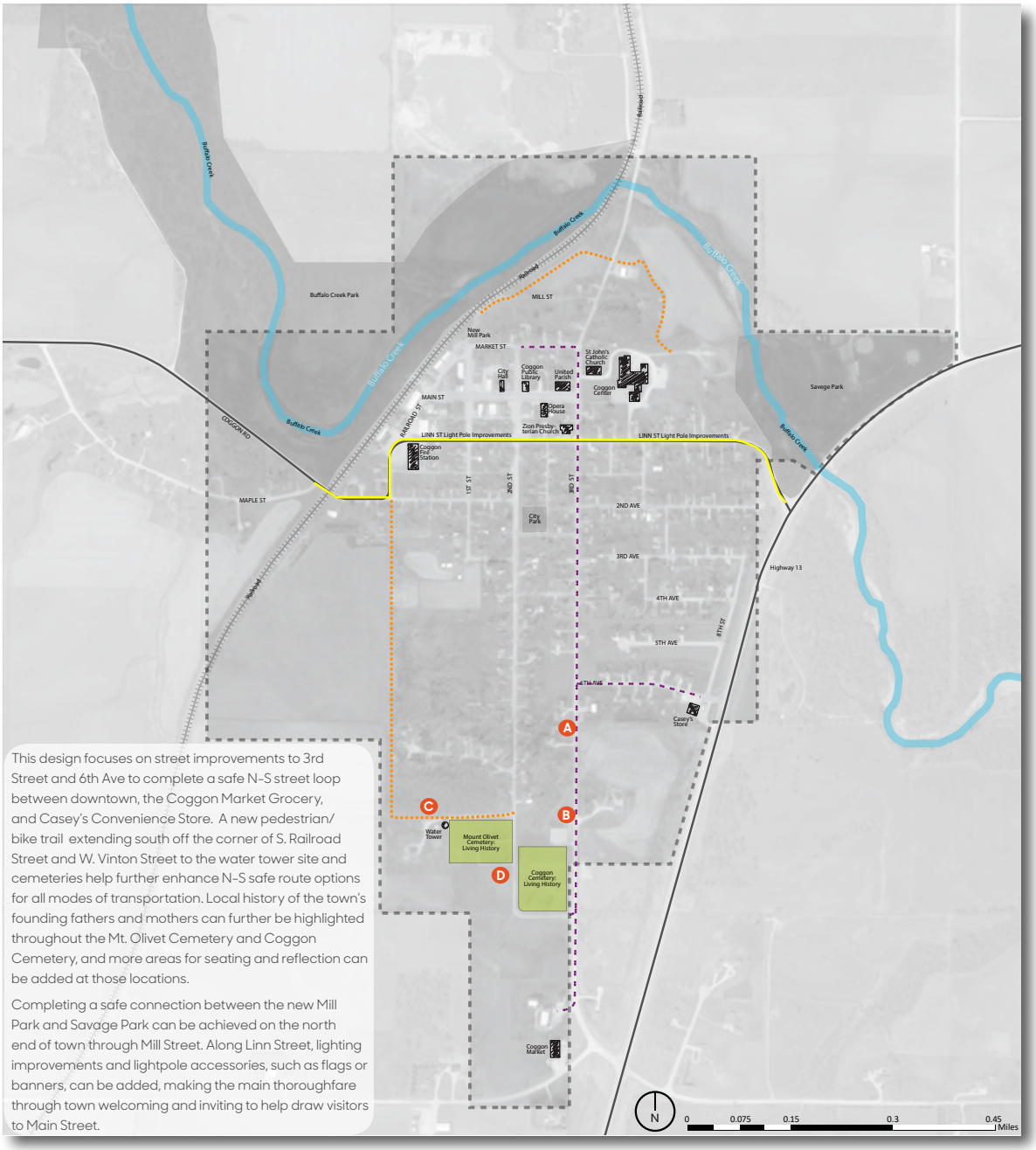

Third Street to Coggon Market: No Sidewalks


Third Street S: No Sidewalks


Coggon Cemetery: Few Benches/Paths


A Dead End Road to Water Tower

"There's several times..when my wife and I are walking, we would rather walk in the street because the sidewalks are very rough..."



This design focuses on street improvements to 3rd Street and 6th Ave to complete a safe N-S street loop between downtown, the Coggon Market Grocery, and Casey's Convenience Store. A new pedestrian/ bike trail extending south off the corner of S. Railroad Street and W. Vinton Street to the water tower site and cemeteries help further enhance N-S safe route options for all modes of transportation. Local history of the town's founding fathers and mothers can further be highlighted throughout the Mt. Olivet Cemetery and Coggon Cemetery, and more areas for seating and reflection can be added at those locations.

Completing a safe connection between the new Mill Park and Savage Park can be achieved on the north end of town through Mill Street. Along Linn Street, lighting improvements and lightpole accessories, such as flags or banners, can be added, making the main thoroughfare through town welcoming and inviting to help draw visitors to Main Street.

NOTE Each concept, priority, and time line are intended to be flexible as determined by the community. Phases and time lines are intended only to demonstrate how large-scale improvements can be achieved by implementing small-scale projects strategically over time to achieve broader reaching goals.

Coggon Concept 3

Mid-range Goals:

Third Street Enhancements/N-S Loop, Mill Park Loop, and Linn Street Improvements

Steve Ford Landscape Architecture
Martin Gardner Architecture
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Precedents: Where it has worked before


Ten-Foot Sidewalk With ADA Curb


Way-finding Signage


Well Paved and Vegetated Sidewalk with Seating


Bugline Trail at Menomonee County Park

A 3rd Street Improvement Part 1

B 3rd Street Improvement Part 2

C Water Tower Trail

D Living History Cemetery Trail

NOTE: Each concept, priority, and time line are intended to be flexible as determined by the community. Phases and time lines are intended only to demonstrate how large-scale improvements can be achieved by implementing small-scale projects strategically over time to achieve broader reaching goals.

Coggon

Concept 3

Mid-range Goals:

Third Street Enhancements/N-S Loop, Mill Park Loop, and Linn Street Improvements

Steve Ford Landscape Architecture
Martin Gardner Architecture
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

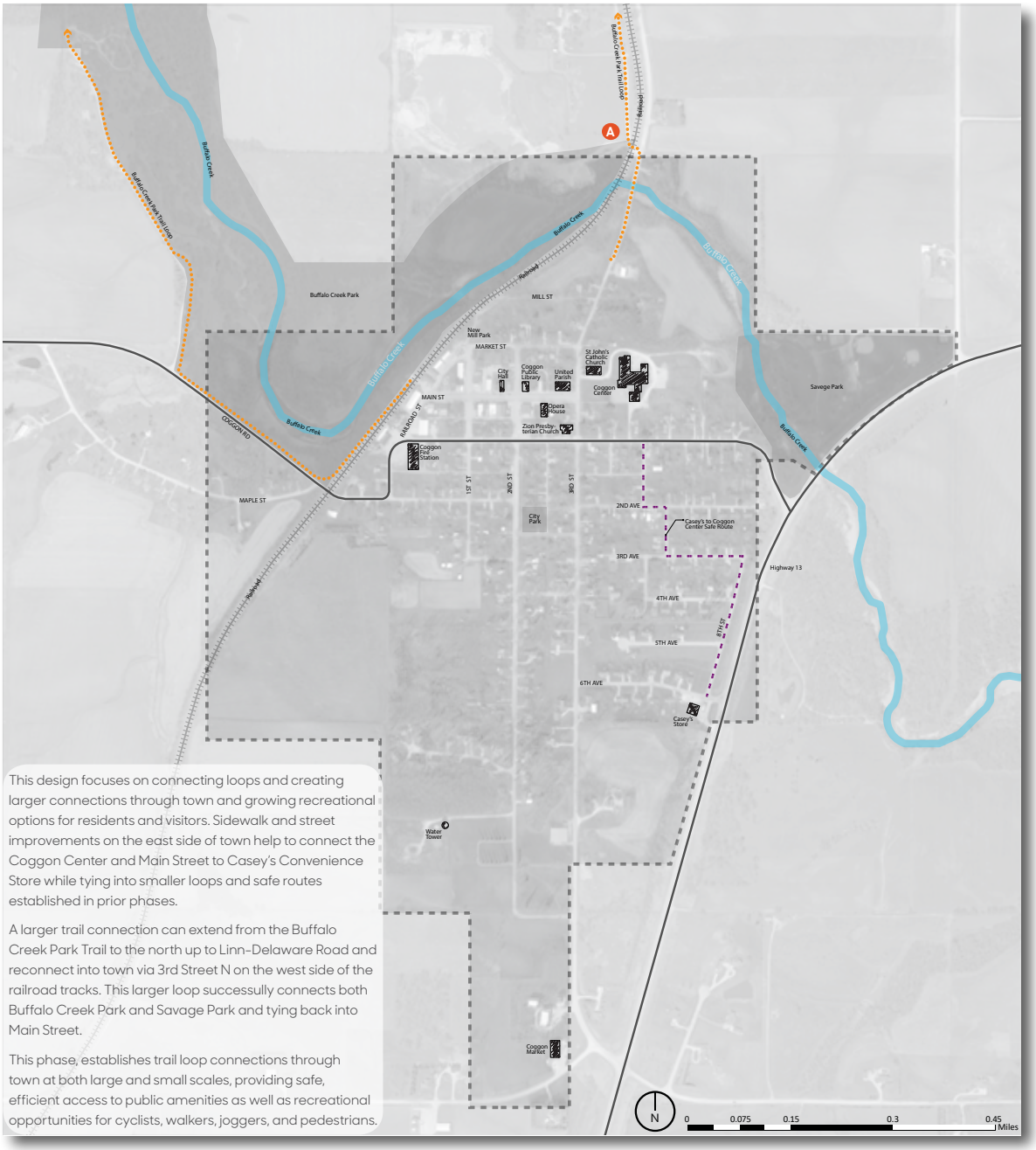
Existing Conditions

Corner of 3rd St. N and Betenbender Lane

Historic Train Trestle Bridge

Buffalo Creek Park Trailhead

"I just really want the bike trail. I think that would help a lot to get people down here more, especially if we do it near the camping grounds. That'll hopefully bring in more people."



This design focuses on connecting loops and creating larger connections through town and growing recreational options for residents and visitors. Sidewalk and street improvements on the east side of town help to connect the Coggon Center and Main Street to Casey's Convenience Store while tying into smaller loops and safe routes established in prior phases.

A larger trail connection can extend from the Buffalo Creek Park Trail to the north up to Linn-Delaware Road and reconnect into town via 3rd Street N on the west side of the railroad tracks. This larger loop successully connects both Buffalo Creek Park and Savage Park and tying back into Main Street.

This phase, establishes trail loop connections through town at both large and small scales, providing safe, efficient access to public amenities as well as recreational opportunities for cyclists, walkers, joggers, and pedestrians.

NOTE Each concept, priority, and time line are intended to be flexible as determined by the community. Phases and time lines are intended only to demonstrate how large-scale improvements can be achieved by implementing small-scale projects strategically over time to achieve broader reaching goals.

Coggon

Concept 4

Long-term Goals:

Coggon Center-Casey's Connection Buffalo Creek Trail

Steve Ford Landscape Architecture
Martin Gardner Architecture
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

Iowa's Living Roadways community visioning

Precedents: Where it has worked before

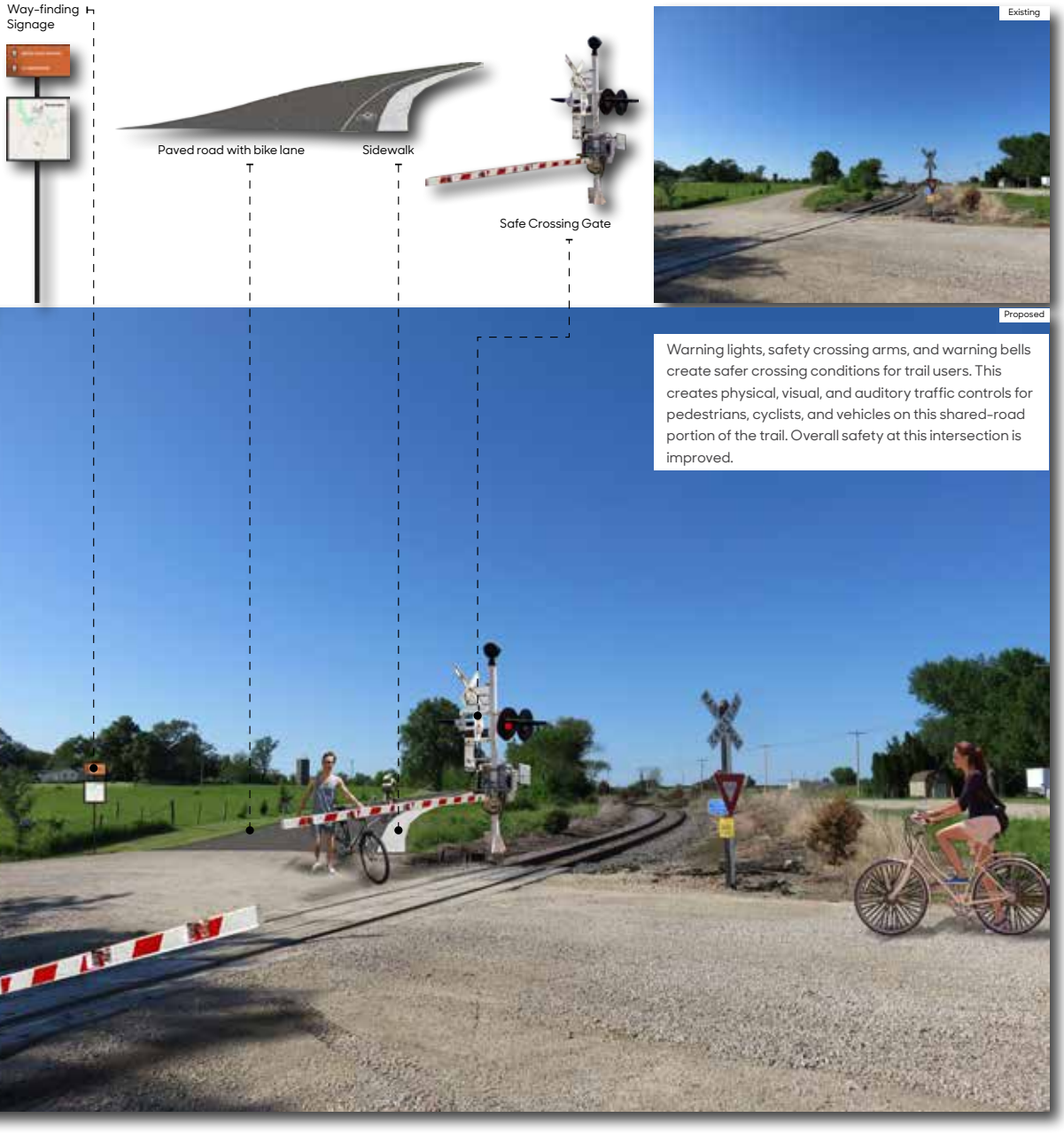

The Zilker Park Trailhead


Rail Trail Crossing


The Prairie Line Trail in Tacoma, WA


A Trail at Coyote Ridge Loop

A Proposed N 3rd Street Trail



NOTE: Each concept, priority, and time line are intended to be flexible as determined by the community. Phases and time lines are intended only to demonstrate how large-scale improvements can be achieved by implementing small-scale projects strategically over time to achieve broader reaching goals.

Coggon
Concept 4

Long-term Goals:

Coggon Center-Casey's Connection Buffalo Creek Trail

Steve Ford Landscape Architecture
Martin Gardner Architecture
Landscape Architect: Steve Ford; Designer: Michael LeClere
Intern: Peiming Chen
Iowa State University | Trees Forever | Iowa Department of Transportation

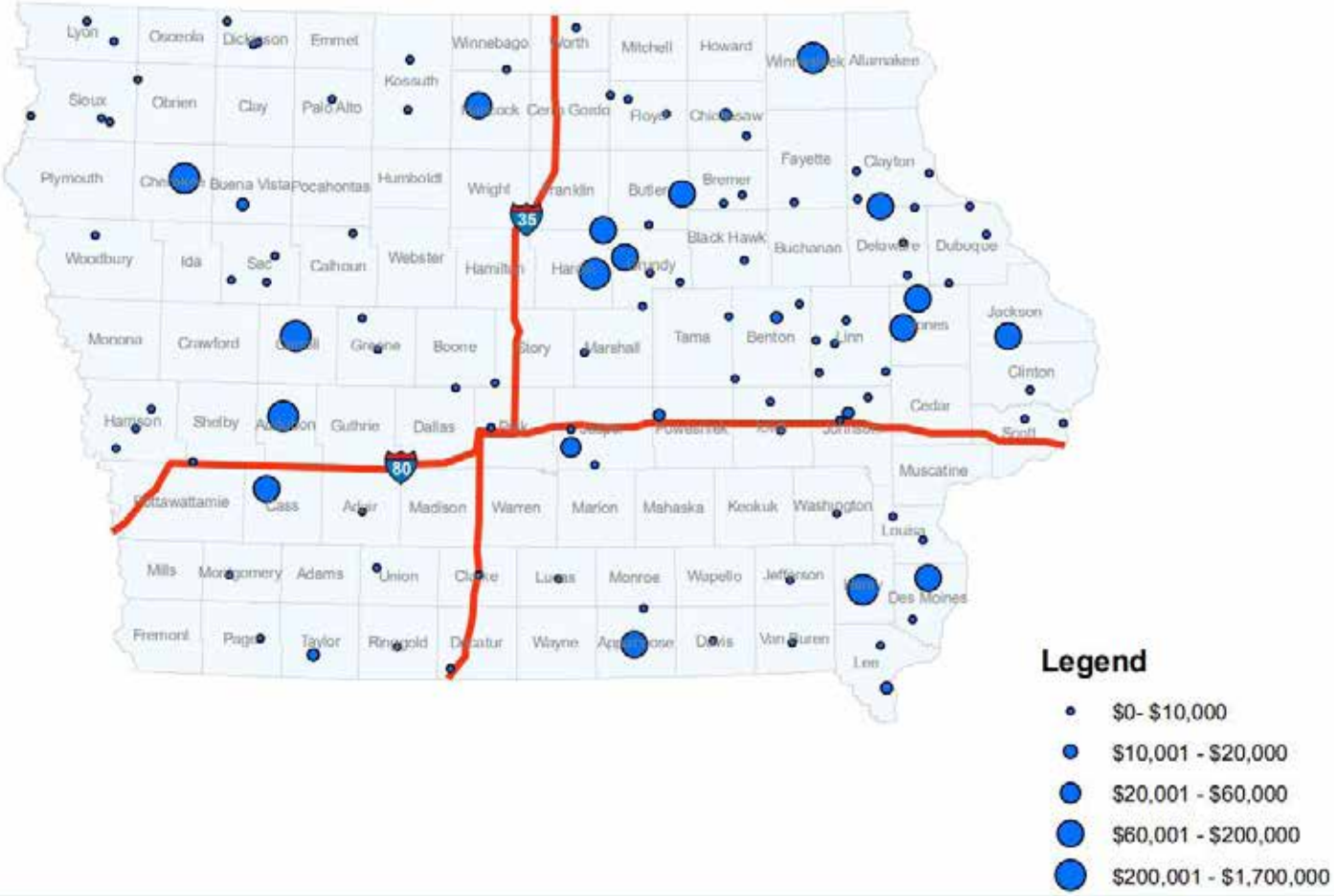
Iowa's Living Roadways community visioning

Cost Estimates

Introduction

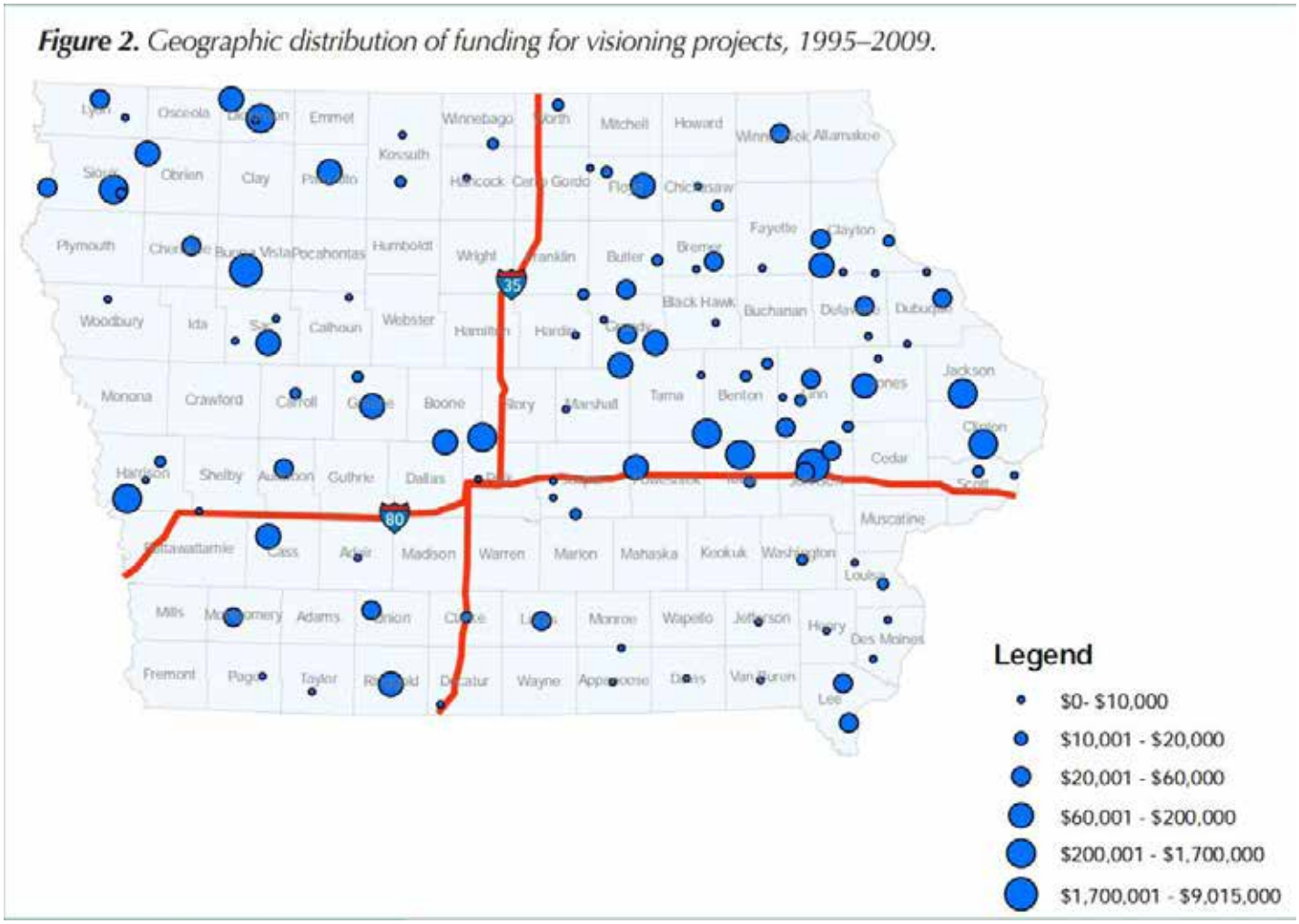
The following part of this document provides rough cost estimates for portions of the earlier concepts outlined in the report. Often when it comes to tackling large scale projects it is easy for communities to become discouraged and believe that due to their size the associated costs of a project eliminates it as a realistic initiative that can be accomplished. It is true that small and rural communities have limited fundraising and bonding capacity to undertake these projects, but that does not dictate that a small community cannot undertake a large costly project. That is where grant funding comes into play. Users of this document should also reference the Trees Forever Community Project Funding Guide, which is a guide that is updated and maintained annually to assist Iowa communities seeking funding sources for community improvement projects. This document can be found and downloaded at the following link: http://www.treesforever.org/Community_Project_Funding_Guide. This is an excellent resource that lists different grants that are available, provides a short summary regarding what type of projects are eligible, what types of organizations can apply for the grants, and where to find additional information regarding the grants or application process.

Figure 3. Geographic distribution of funding for non-visoning projects, 1995–2009.



No small or rural community should feel that they are ineligible for any of these grants due to their size or that they don't stand a chance of winning when competing with larger cities or towns. Some grants like the Community Catalyst Grant even specifically target small and rural communities. As for the grants that are not specific to small or rural communities, that is where your involvement in the Community Visioning Program proves advantageous. We have a proven track record of helping smaller communities obtain funding from some of these grants for large impactful community improvement projects even when competing with larger communities.

The two images below map out the geographic distribution and relative grant amounts for communities that have not participated in the Community Visioning Program (on the left) compared with communities that have participated in the Community Visioning Program, on the right. The maps show that more communities that have participated in the Community Visioning Program have received more grant funding between 1995-2009, than those who have not participated. Not only have more been successful at receiving grant funding, but a higher funding



Cost Estimates

threshold has been received by communities that have participated. More information regarding how communities benefit from participating in the program and examples of successfully built community projects can be found on the community visioning website under the "Resources" tab and "Evaluation Reports" which can be found at the following link: http://www.communityvisioning.org/resources/.

It is important to note that all the materials that come out of Community Visioning are intended to help communities plan projects, cultivate local support and consensus, apply for grants, and obtain funding. These materials are intended to, and should, accompany future grant applications. When thinking of your competition, or envisioning yourself as a grant reviewer, more than likely the other projects applying for the grant will have an equally qualified need for their project. However, by including Community Visioning material with your grant application your community is demonstrating ongoing and prior efforts, community buy-in for your project, and planning efforts that tie your project into other long range planning and community improvement goals. In this way, you are able to use this material to stand out from other grant applicants and are more likely to receive funding. That is why it is important to share and distribute this information and resources throughout your community to be utilized by any local group that can make good use of them when applying for grants. It is also important for local organizations and non-profits to work in tandem with your local government. Many grants require funding to be received and distributed through the local government. Of course, many rural governments employ only one or two full time employees and often do not have the capacity to undertake such initiatives alone. That is why local partnerships are crucial to making some of these initiatives a reality. In some cases, a local none-profit organization can help write the grant narrative and take care of the application process on behalf of the local government, and the local government can help to receive and distribute funds for projects. That way not party is overburdened, and explaining and highlighting this partnership in your grant application will reflect positively on your efforts.

Cost Breakdown

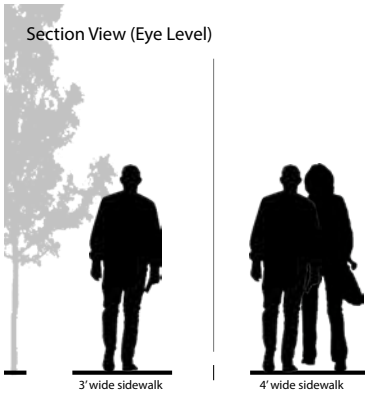
It should be noted that each concept depicts multiple initiatives meant to be broken down into separate projects. In planning projects such as this it is not practical to estimate costs for projects that may be 80-100+ years out into the future as the variability in material costs, construction costs, and inflation change year to year and even season to season. We have focused our efforts on estimating costs for several of the design interventions depicted in the early concepts. As there is inherent overlap in portions of each concept, there will be overlap implied in the cost estimates. Where appropriate, these have been broken up to reflect the concepts and individual projects within as best as possible. These costs have not been derived from finished construction documents and specific materials, products,

and manufacturers are unknown. We have tried to be as concise as is appropriate for schematic level design, and have provided allowances where there are multiple options or approaches. In most cases we have tried to err on the high side so that communities can plan for excess funds rather than be surprised with additional costs. Sidewalk costs do not include storm intake as some locations already have a storm sewer while some do not. Whether or not to include storm sewers and where should be determined at the next level of design and in collaboration with a Civil Engineer. Where best we could, we have tried to organize concepts starting with smaller projects that are easier to undertake and demonstrate a success in order to gain momentum for future more complex or costly projects. There may be exception to this approach where local opinion has expressed higher priority for certain projects.

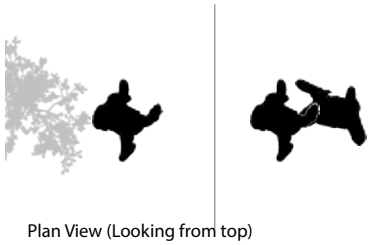
Costs for each Concept section will be summarized below and all costs will be compiled and delineated in more detail in final spreadsheet at the end of this section.

Concept 1-**Key Signage, Street and Sidewalk Improvements**

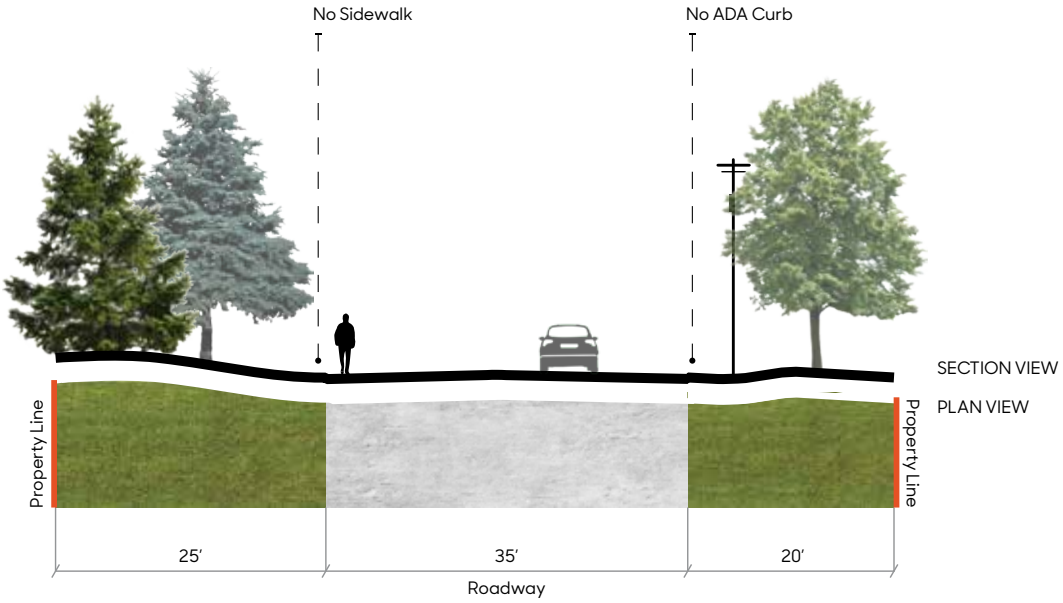
In order to price Concept 1, and in order to make the design intervention scalable, it is most appropriate to establish a square-footage costs for the length and width of proposed sidewalks and trails. This allows sidewalk enhancements to be implemented incrementally and priced linearly within a realistic budget for the community. As illustrated below, three to four foot sidewalks are typical, but do not allow enough space for two people to walk side by side, or to adequately accommodate a cyclist or wheelchair while allowing passage. For this reason in all sidewalk and trail proposals we have gone with a six-foot sidewalk width. For 2nd Street an existing section and plan and a proposed section and plan have been provided on the following page. Any areas of cut and fill or retaining wall have been delineated in the final spreadsheet.



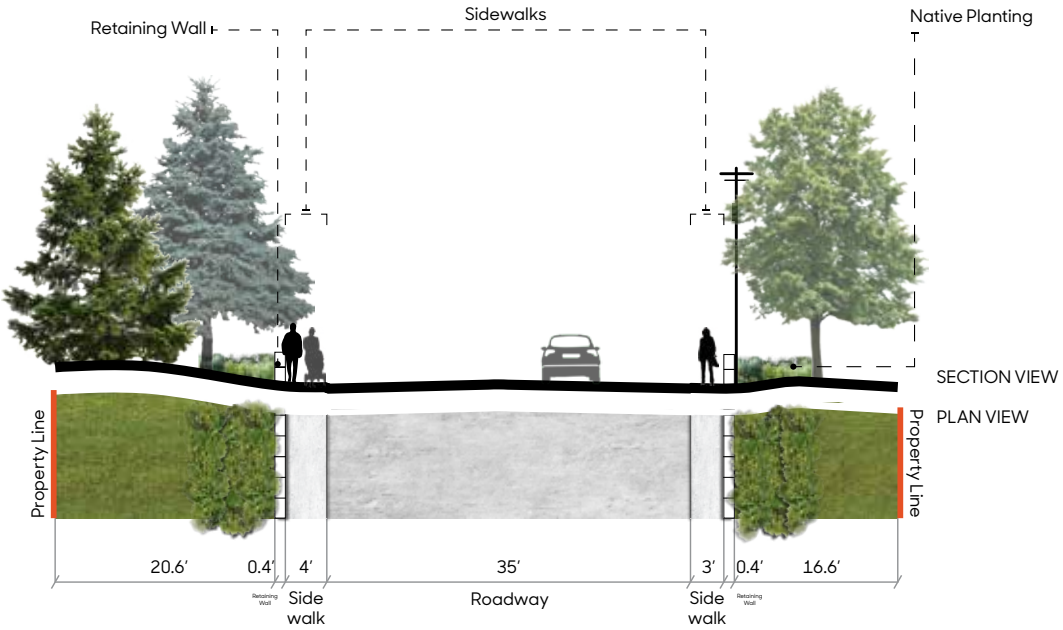
Neither pocket parks by the Opera House or Public Library have been fully designed. The focus of Community Visioning is on transportation and habitat enhancements. Any visual representations of such spaces are intended only to illustrate the potential of these spaces. Typical amenity costs have been provided as a starting point.



Cost Estimates



Existing Second Street Section



Proposed Second Street Section

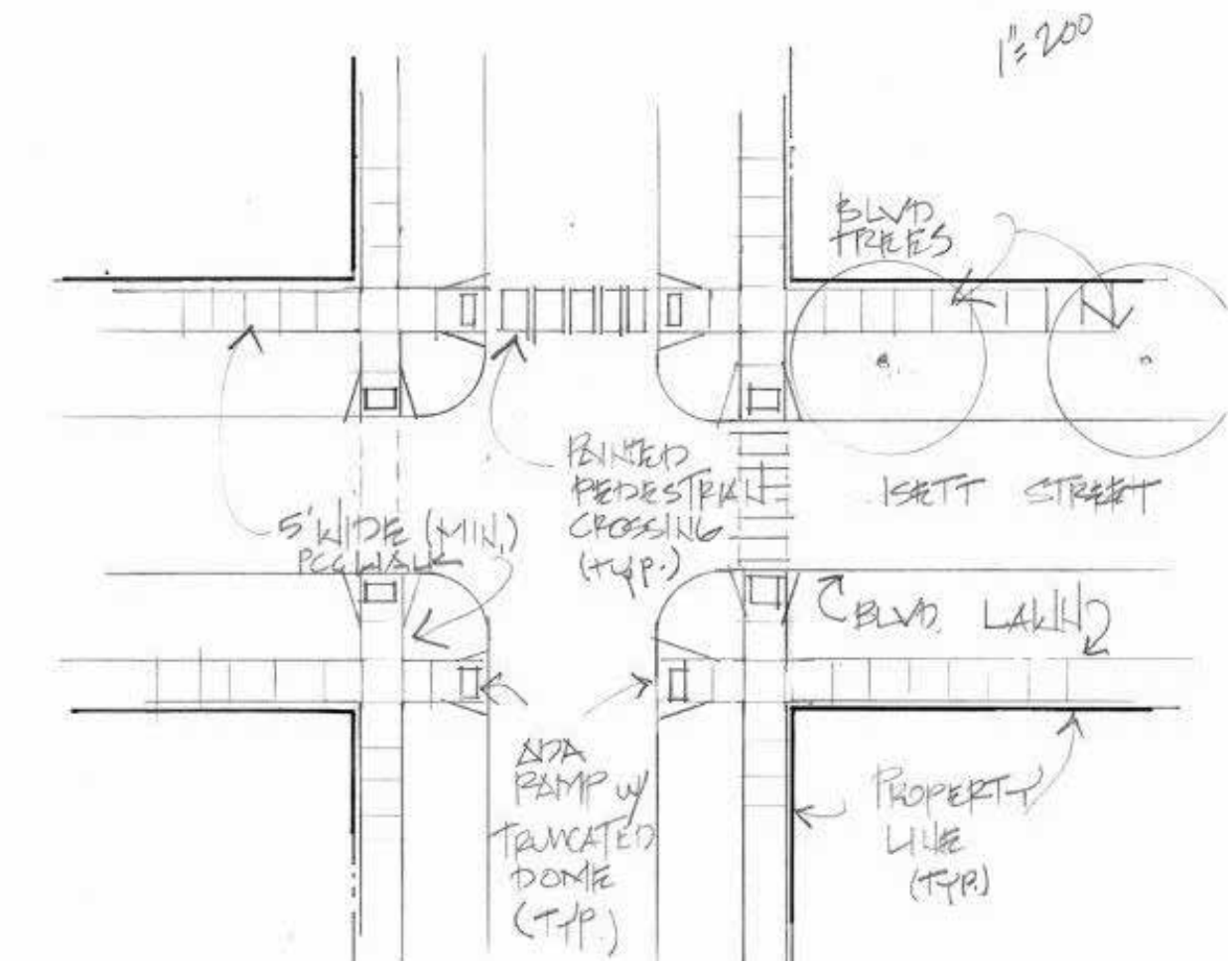
Wayfinding Signage.....$2,000 Each
Pocket Parks.....$9,000 - $20,000
Monument Signage.....$15,000 - $20,000 Ea.
Approx. $60,000 Total
Coggon Center Trail Loop.....$90,000 - $115,000
2nd Street Sidewalk Improvements.....$400,000 - $550,000

Concept 2-**Main St. Enhancements, Mill Park, and River Route**

Costs for this Concept section have been broken down into Main Street Improvements, Proposed Mill Park, Trails, Launch Points, and a Pedestrian Bridge Replacement. For Main Street, the following costs have been determined by the typical four-way street crossing shown below. Itemized amenities like benches, bike racks, and street trees have been included in the final spreadsheets that follows. Line items taken into consideration are as follows:

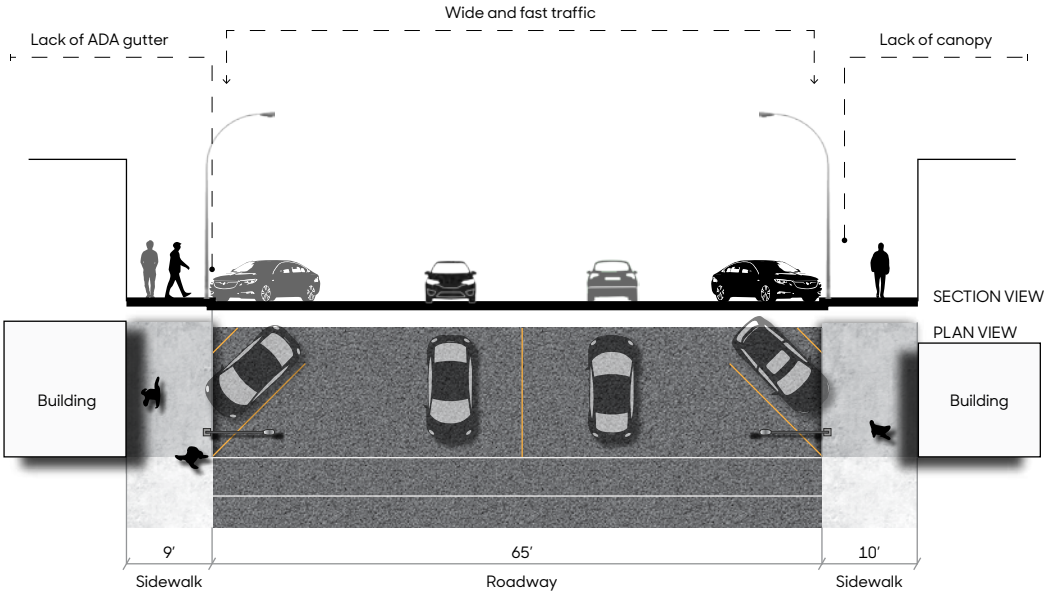
- Remove Existing Sidewalk
- Install new 5ft. walk
- ADA Truncated Dome/Curb Cuts
- Earthwork & Restore
- Paint Crosswalk
- Allowance for Artistic Specialists

Total: **$7,500- $10,000/Corner**

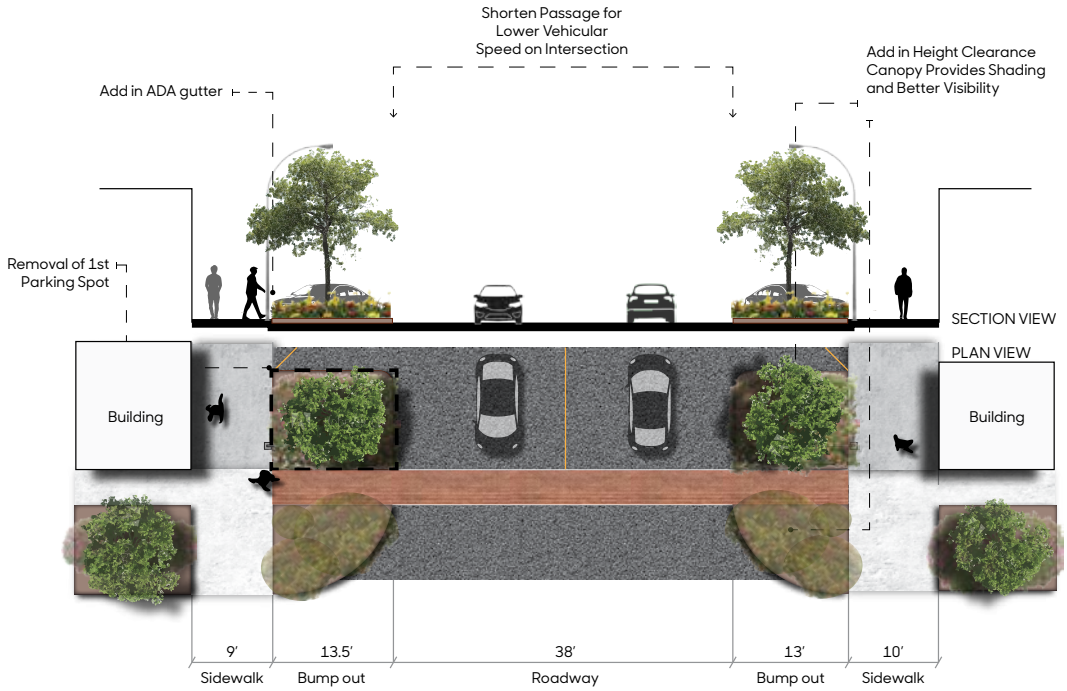


Typical Proposed Street Crossing

Cost Estimates



Existing Main Street Section



Proposed Main Street Section

Coggon Downtown Streetscape Improvement Plan

River Launch Points.....$10,000 Each
Approx. $20,000 Total
Main St/1st St to Mill Park Sidewalks.....$10,000 - $15,000
R.R. Street across Tracks to Dam Site Trail.....$30,000 - $50,000
ADA Path to Savage Park.....$30,000 - $40,000
Savage Park Pedestrian Bridge Replacement.....$125,000
New Mill Park.....$150,000 - $175,000

Cost Estimates

Concept 3-**Third Street Enhancements/N-S Loop, Mill Park Loop, and Linn Street Improvements**

The following cost estimates relate to Concept 3, and in order to make the design intervention scalable, it is most appropriate to establish a square-footage costs for the length and width of proposed sidewalks and trails. This allows sidewalk enhancements to be implemented incrementally and priced linearly within a realistic budget for the community. For 2nd Street an existing section and plan and a proposed section and plan have been provided on the following page. Any areas of cut and fill or retaining wall have been delineated in the final spreadsheet.

As neither pocket parks by the Opera House or Public Library have been designed, typical park amenity costs have been provided as a starting point. These area would need designed and developed further to obtain any more accurate costs.

Living History Cemetery Signage.....$300 Each
Qty: 25 $7,500 Total
Linn Street Pole Banners $20,000
Mill Park Trail $36,000
6th Avenue Sidewalks.....$30,000 - $40,000
Tower Trail Loop.....$150,000 - $200,000
3rd Street to Grocery Sidewalks.....$500,000 - $700,000

Concept 4- **Coggon Center-Casey's Connection Buffalo Creek Trail**

The following cost estimates relate to Concept 3, and in order to make the design intervention scalable, it is most appropriate to establish a square-footage costs for the length and width of proposed sidewalks and trails. This allows sidewalk enhancements to be implemented incrementally and priced linearly within a realistic budget for the community. For 2nd Street an existing section and plan and a proposed section and plan have been provided on the following page. Any areas of cut and fill or retaining wall have been delineated in the final spreadsheet.

As neither pocket parks by the Opera House or Public Library have been designed, typical park amenity costs have been provided as a starting point. These area would need designed and developed further to obtain any more accurate costs.

Coggon Center to Casey's Sidewalks.....$90,000 - $95,000
Buffalo Creek Trail Loop .....$350,000 - $500,000

Future Considerations- **Extensive Street, Sidewalk, and Lighting Improvements**

Another useful way to estimate costs for street and sidewalk improvements at this stage of development would be to look at cumulative costs per block. Often if a road surface or roadway/pedestrian lighting needs replaced, it is most cost effective to bundle all desired improvements along that corridor into one larger project. That way the community can realistically tackle a project like this several blocks at a time or all at once. It should be noted that with inflation, construction costs tend to increase over time. So pros and cons must be weighed in tackling a project over time as opposed to all at once, but ultimately budget constraints realistically determine what is and is not possible. Line items taken into consideration with this approach are as follows:

- Demolition
- Earthwork
- Sub-base Repair
- New Pavement for Streets & Sidewalks
- New Landscaping with Boulevard Trees
- Top Soil & Seed
- Street Lights
- Roadway Tiling
- Drive extensions

Total: **$480,000/Block**

A final piece of useful advice for consideration is that when looking at these numbers it is easy to perceive them as daunting because of their amounts. However, it is important to put them into the correct context. $50,000 to $100,000 is an extremely significant amount of money when looking from the perspective of a personal or family budget, but that is not that much money in a municipal, county, state, or federal funding context. As you make your way through this feasibility study, we encourage you to go forward with the understanding and belief that these large projects and great aspirations are achievable by small and rural communities as long as they are planned out, cohesive, and undertaken incrementally. Your design team wishes you the best of luck moving forward with your placemaking efforts and are happy to offer assistance or advice whenever it is needed. Keep up the great work, and keep making great places!

Cost Estimate Spreadsheet

COGGON COST ESTIMATES

		Unit	Estimated Unit Cost	Linear Feet	Square Yards
WAYFINDING SIGNAGE (24"x36" w. posts)		EA	$1,100		
MONUMENTAL SIGNAGE		EA	$14,500		
LIVING HISTORY SIGNAGE		EA	$300		
SIDEWALKS & PEDESTRIAN TRAILS					
2nd Street Improvements		SF	$6.00	4852.32	
* Site Grading & Earthwork (Grading)		CY	$39.50	700	
* Retaining Wall (4ft)		SY	$290.00	700	6
3rd Street Improvements		SF	$6.00	6000	
* Site Grading & Earthwork (Grading)		CY	$39.50	700	
* Retaining Wall (4ft)		SY	$290.00	700	6
R.R. Street acrross Tracks to Dam		SF	$6.00	900	
Mill Park Trail		SF	$6.00	1,000	
Main St/1st St to Mill Park		SF	$6.00	360	
ADA Path to Savage Park		SF	$6.00	1,020	
Coggon Center Trail		SF	$6.00	2772	
Coggon Center - Casey's Loop		SF	$6.00	2600	
Water Tower Trail		SF	$6.00	3,366	
6th Street Sidewalks		SF	$6.00	920	
Buffalo Creek Trail Loop w. Linn Co. Conservation		SF	$6.00	10,750	
* Pedestrian Bridge at Linn Delaware Road					
MAIN STREET IMPROVEMENTS					
* Benches		EA	$1,425.00		
* Trash Receptacles		EA	$1,200		
* Bike Rack		EA	$500.00		
* Deciduous Overstory Trees		EA	$350.00		
* Bump Out Plantings		EA	$35.00		
* Interpretive/Wayfinding Signage		EA	$300		
* Pedestrian Light Poles w. Banner/Basket Arms		EA	$2,040		
* Brick Crosswalks/Square		Per Corner	$9,000.00		

	Cubic Yards	Width	SF Total	Quantity	Estimated Line Total
				12	$13,200.00
				4	$58,000.00
				25	$7,500.00
		6 ft	29,114		$174,684.00
	2,722.00				$107,500.00
22					$180,000.00
					$462,184.00 Total
		6 ft	36,000		$216,000.00
	2722				$107,500.00
22					$180,000.00
					$503,500.00 Total
		6 ft	5,400		$32,400.00
		6 ft	6,000		$36,000.00
		6 ft	2,160		$12,960.00
		6 ft	6,120		$36,720.00
		6 ft	16,632		$99,792.00
		6 ft	20,393		$93,600.00
		6 ft	20,196		$121,176.00
		6 ft	5,520		$33,120.00
		6 ft	64,500		$387,000.00
					$176,800.00
				16	$22,800.00
				8	$9,600.00
				4	$2,000.00
				34	$11,900.00
				200	$7,000.00
				4	$1,200.00
				24	$48,960.00
				8	$72,000.00
					$175,460.00 Total

Cost Estimate Spreadsheet

LINN STREET POLE BANNERS/BASKETS		EA	$500.00		
RIVER LAUNCH POINTS		EA	2		
PEDESTRIAN BRIDGE (to Savage Park)		SF	$221	100	

MILL PARK

* Benches		EA	$1,425.00		
* Trash Receptacles		EA	$1,200		
* Bike Rack		EA	$500.00		
* Park Entrance/Identity Signage		EA	$3,000.00		
* Chain Link Fence		LF	$44	700	
* Drinking Fountain		EA	$3,509		
* Site Grading & Earthwork (Grading)		CY	$39.50		
* Retaining Wall (4ft)		SY	$290.00	150	66

POCKET PARK

* Benches		EA	$1,425.00		
* Trash Receptacles		EA	$1,200		
* Bike Rack		EA	$500.00		
* Park Entrance/Identity Signage		EA	$3,000.00		
* Planters		EA	$1,300.00		
* Paved Pathway		SF	$6.00	100	

				40	$20,000.00
			$10,000		$20,000.00
		8 ft	800		$176,800.00

				4	$5,700
				4	$4,800
				1	$500.00
				1	$3,000.00
					$31,500
				1	$3,509
	2,300				$90,850
.7					$19,343

$159,202 Total

				2	$2,850
				1	$1,200
				1	$500.00
				1	$3,000.00
				3	$3,900.00
		4 ft	400		$2,400.00

$13,850 Total

This Page Intentionally Left Blank for Notes:

EXHIBIT 1:

SMALL TOWN AND RURAL MULTIMODAL NETWORKS

-U.S. Department of Transportation, Federal Highway Administration

This document has been provided to you as a reference for best practices and national design guidelines for rural and small town transportation networks. These guidelines serve as the foundation for your design team's recommendations and proposals for your community. This report will serve as a useful resource as your community targets projects to execute and will help guide you and your consultants as you take those projects to the next level of design development.