FINAL 2024

City of Ames WAYFINDING GUIDELINES



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Information contained in this document is for planning purposes and should not be used for final design of any project. All recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change. Further design is necessary prior to implementing any of the recommendations contained herein.

Contents

Chapter 1: Introduction	<u>1</u>
Purpose of Guide	2
Benefits of Bicycle and Pedestrian Wayfinding	2
Technical Guidance on Bicycle Wayfinding and Trail Signage	3
Core Wayfinding Principles	6
Chapter 2: Process	<u>7</u>
Existing Signs for Wayfinding and Trail Navigation in Ames	8
Relevant Documents and Reports	8
Community and Stakeholder Engagement	9
Types of Navigation	10
Wayfinding Needs for Ames	11
Chapter 3: Sign Family & Design Standards	<u>12</u>
Chapter Summary	13
Sign Family	13

	Chapter 4: Sign Drawings	<u>18</u>
	Map (Trailhead)	19
	Map (Close-up)	20
	Map (Close-up) Examples	21
	Path Directional	22
	Path Directional Examples	23
	Street Name / Path Name	24
	Street Directional	25
	Street Directional (Examples)	26
I	Simple Blaze	27
	Chapter 5: Mounting & Placement	<u>28</u>
	Chapter Summary	29
	Chapter 6: System Planning & Programming	<u>39</u>

Chapter l: Introduction



The Ames Wayfinding Guidelines provide the City of Ames and partners with a standardized set of signs, symbols, colors, and processes to install a highquality wayfinding system for people walking, biking, and rolling.



Purpose of Guide

These guidelines present a compilation of best practices, existing conditions, design details, and guidance for planning and installing wayfinding signs for walking, biking, and rolling transportation in the City of Ames. The implementation of a community-wide wayfinding system will help people walking, biking, and rolling navigate to their destinations more easily and intuitively. The wayfinding system reflected in this document was created in parallel with the proposed bike and pedestrian network in the Walk Bike Roll Ames plan.

Concept development for the sign designs and layouts was based on input from Ames staff, stakeholders, and the public. The guidance includes sign styles, installation materials, and placement information. The phasing of design installation is based on the most prominent destinations, available funding sources, and best value of capital improvements for priority routes. The planning process included:

- Assessing existing conditions
- Creating a sign family
- Creating a sign placement strategy
- Establishing destination selection processes
- Designating trail names
- Identifying priority wayfinding routes
- Creating pilot sign deployment plans

Benefits of Bicycle and Pedestrian Wayfinding

Wayfinding works with and expands the usefulness of existing and planned bicycle and pedestrian infrastructure. Wayfinding can encourage more biking and walking (thereby reducing driving), emphasize a local brand, create a sense of place, and promote economic development in a community.

Installing wayfinding for people walking and biking also has the following benefits:

- Promotes safety and comfort by highlighting low-stress routes
- · Facilitates discovery of new destinations
- Gives users comfort and confidence to extend their trip distance
- Reduces confusion at junctions
- Brings awareness to important areas, landmarks, recreation spaces, and natural corridors

With the rise in GPS wayfinding app use (e.g. Google Maps), the role of wayfinding continues to evolve. Wayfinding can facilitate a positive and special experience that improves the sense of place and users connection to the area. Ames can help to create memorable, enjoyable journeys for both residents and visitors by building a consistent wayfinding system.

Technical Guidance on Bicycle Wayfinding and Trail Signage

The design of wayfinding signs is guided by a combination of local and national regulations, standards, and industry best practices. Attention to intended audience and regulation frameworks is integral early in the planning process to inform the design of wayfinding signs and systems.

National Guidance

The Manual on Uniform Traffic Control Devices (MUTCD, 2009 edition), published by the Federal Highway Administration, defines the signs and standards for traffic control devices on all "public streets, highways, bikeways, and private roads open to public travel". It is published by the Federal Highway Administration (FHWA). Having consistent sign and traffic control devices across the United States results in safer, more efficient travel. Part 9 of the MUTCD establishes standards and guidance for traffic control of bicycle facilities, including guide signs. The MUTCD also has a section on Community Wayfinding (Part 2D) which provides standards and guidance for customized, branded wayfinding signs, which may be used on roads that are not freeways.

Though the Community Wayfinding section only currently applies to roadways, some communities interpret this section as providing guidance for customizing their bicycle wayfinding signs to include specific branding and flexibility in color and design, either as an element of one or more unique routes, or throughout their entire bicycle wayfinding system. The figure below illustrates the features of a community wayfinding sign. The background color of the sign may be customized, but cannot use standard MUTCD colors that covey specific meanings to roadway users (see Color section on the following page). Enhancement markers may be any color, but the MUTCD recommends that enhancement markers occupy no more than 20 percent of the sign face on the top or side of the sign. Other features of the sign legend, such as the directional arrows, fonts, and layout are as dictated by the MUTCD.

Design Flexibility for Shared Use Paths and Trails.

Though the MUTCD states that its standards apply to all traffic control devices on bikeways, in practice, wayfinding signage systems on paths usually do not follow strict MUTCD design standards. There are two main reasons for this:



Figure 1: Spectrum of MUTCD compliance for wayfinding signs

- The funding agencies for wayfinding systems on paths often do not have to legally adhere to MUTCD standards, and therefore may not be aware of these standards. Frequently, funds for path wayfinding come from State Departments of Natural Resources, local or regional parks agencies, or privately-raised funds.
- On paths and trails, many users are pedestrians, and some wayfinding systems are therefore designed exclusively for pedestrians. The MUTCD does not cover pedestrian traffic control for paths and notes that pedestrian wayfinding signs may differ from bicycle wayfinding, such as by using smaller fonts and not including retroreflectivity.

Americans with Disabilities (ADA) and Public Right-of-Way Accessibility Guidelines (PROWAG)

provide standards for signs that are adopted by the US Access Board. These standards cover legibility, character, and typeface requirements. They also address accessibility and clearances for streets and sidewalks, shared use paths, and sign posts and placement. The sign system used by Ames should comply with these requirements.

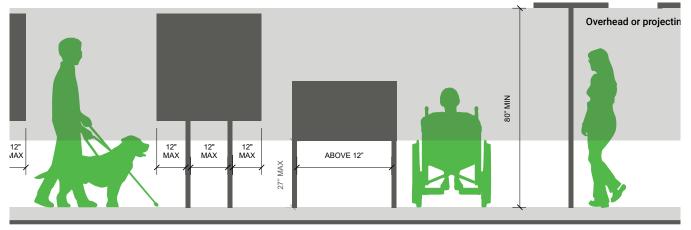
Statewide Guidance

Iowa Statewide Guidance may be applicable where Iowa Department of Transportation (Iowa DOT) funds the final design. If Ames desires to use state or federal funds for bike route wayfinding signs in the future, Iowa DOT District 1 staff should be consulted prior to selecting the final bicycle guide signs, especially for on-street signs.

Guidance unique to Iowa includes the Iowa Statewide Urban Design and Specifications Design Manual (SUDAS), which guides design for streets in urban areas like Ames. For bicycle guide signs, the SUDAS Design Manual instructs designers to refer to the MUTCD and the American Association of State Highway and Transportation Officials (AASHTO) Bike Guide. The Iowa DOT Traffic and Safety Manual (TAS) Community Wayfinding guidance states that,

"on local streets and connecting highways, local agencies have the authority to install destination signs for local attractions and generators. If there is deviation from state and national standards to the extent that highway signing would adversely affect driving behavior, local agencies may face liability problems." This seems to indicate that lowa DOT approval is not needed for Community Wayfinding signs on local streets and connecting highways.

The TAS Community Wayfinding policy section on sign design provides detailed guidance on the design of community wayfinding signs, including sign shape, use of pictographs, sign panel facing, color, border, lettering, sign size, arrows, and destination order. For roadways under Iowa DOT jurisdiction, the Community Wayfinding Signs policy requires an application and permit process.



Freestanding objects in circulation paths

Figure 2: ADA Clearance guidelines

Summary of Wayfinding Sign Design Requirements

Color

MUTCD uses "assigned" colors that covey specific meanings to roadway users, such as red (stop). Standard colors prohibited for use on wayfinding signs include red, orange, yellow, purple, fluorescent yellow-green.

Visibility and Visual Accessibility

Standards for lettering on signs ensures that the intended users are able to see and process the information on signs easily, typically at a distance and while in movement. To ensure this visibility, the Standard Highway Signs book, a supplement to the MUTCD, sets the sign design standards for lettering size and spacing, in addition to the contrast from the background of the panel on which the lettering is placed.

Signs must meet character and font size requirements consistent with their intended user (bicycles, pedestrians, or drivers), and travel speeds. The Americans with Disabilities Act (ADA) also dictates that there must be a high level of contrast between letters and background. "High contrast" is not mathematically defined, but ~70% contrast is generally accepted as the standard of care within the sign industry.

Placement

Both the MUTCD and the Rights-of-Way Accessibility Guidelines (US Access Board, under the Americans with Disabilities Act or ADA) have guidance on sign placement, The MUTCD is generally concerned with the safety of roadways and the visibility of signs in traffic conditions, while PROWAG is generally concerned with the pedestrian access route, and the ability of people with disabilities to navigate spaces with mobility devices, including long white canes for people with vision disabilities. The MUTCD instructs that signs should be placed 2 feet laterally from the edge of the roadway, but allows for the engineer's judgment of safety (see Figure 2).

Core Wayfinding Principles

Wayfinding systems are based on an understanding of how people move through space and take in and process information. Whether walking, rolling, or bicycling, the following core wayfinding principles are applicable to all roadway users and were used in the development of this wayfinding system.

Principle 1: Keep it Simple

Easy to use and intuitive wayfinding helps travelers navigate and understand where they are in relation to nearby landmarks and destinations. Information should be clear, legible, and simple enough to be understood by a wide audience. Information on each sign should be concise and kept to a minimum to avoid confusion and facilitate understanding. Wayfinding should also be placed efficiently to minimize sign clutter.

Principle 2: Be Consistent

Wayfinding sign styles and placement should be predictable and consistent. Signs should have common styles, fonts, colors, materials, and placement throughout a community to promote continuity. This can help users recognize signs and interpret messages quickly.

Principle 3: Design for the Inexperienced User ——

While almost any system can be learned through repeated use, wayfinding systems should be designed for new or infrequent users. Systems should leverage information that the user can easily recognize and understand, including language, landmarks, common symbols, or sequences, to create an intuitive experience. Integrate wayfinding with existing streetscape elements (e.g., light poles) to minimize clutter and be consistent with the City's existing design vocabulary.

Minimize the number of different sign types or pavement markings.

Use destination hierarchy to select legends on signs that guide users through the entire route.

Create a coordinated "kit of parts" that can be combined and scaled to fit each context.

Focus on trips or routes that might be made by students or visitors to ISU who are unfamiliar with Ames. Prioritize wayfinding in areas that are walkable to facilitate pedestrian movement and discovery.

Design signs to be responsive to the experience of different travel modes.

Use high contrast typography at a generous size, with highly legible symbols.

Implement thorough wayfinding systems along connected routes, starting with a small set of routes and gradually building out

Principle 4: Be Inclusive

Signs that consider the needs of people with vision disabilities, or people with limited English proficiency, benefit everyone by ensuring large fonts that can be read from far away, strong contrasts between colors that make them easy to read, and the use of icons and graphics that aid in instant recognition.

Principle 5: Make Connections

Wayfinding systems should be designed to make local connections and fully guide users to their destination. Consistent signs and placement should be carried throughout the entire route to minimize confusion and trip delays. Nearby destinations should be included on signage whenever possible and applicable to improve network connections and encourage exploration.

Chapter 2: Process



The process for developing a wayfinding system and these Guidelines involved reviewing existing signs in Ames, various local plans and studies, and listening to stakeholder input. The following section provides a summary of the analyses and engagement events that helped inform the branding and sign designs.

Existing Signs for Wayfinding and Trail Navigation in Ames

The project team performed an assessment of existing signs around Ames to identify colors, imagery, and themes that will inform different types of wayfinding signage.

Below is a list of the different types of existing wayfinding and trail navigation (see Figures 3 through 7 for example images):

- On -street bike route signs
- Park entrance signs
- Downtown banners and colorful streetscapes
- ISU Wayfinding
- Story County Tedesco Environmental Learning Corridor (TELC) Signs and Heart of Iowa Trail

Relevant Documents and Reports

A review of existing branding guidance was also conducted to understand themes, trail and sign issues, visual elements for the trail system around Ames. This section provides a summary of this guidance. The 2016 Leadership Ames Trailblazer Report

identifies the following goals for the future of the Ames' trail system:

- Improve discoverability of maps and trails through official websites
- · Increase branding and naming of Ames trails
- Allow community members to provide suggestions through Google maps
- Ensure trails are named and searchable through the lowa By trail mobile app
- Combine the preferred signs identified through a public survey

The 2022 Ames Visual Standard Guide,

a comprehensive branding overview, states the Ames brand as "thriving, smart, open-minded, innovative, and inspired". The Guide identifies

multiple acceptable logo sizes, two primary colors and six accent colors, and two typographic families.



The Iowa State University Branding Standards

include a color palette led by the university's two signature colors (cardinal red and gold) and accent colors; wordmark guidelines including the ITC Berkley typeface for the wordmark (see below); and other brand elements.

IOWA STATE UNIVERSITY



Figure 3: Example On-Street Bike Route Sign



Figure 4: Example Park Entrance Sign



Figure 5: Example Downtown Banner



Figure 6: Example ISU Wayfinding Sign



Figure 7: Example TELC Sign

Community and Stakeholder Engagement

Feedback from residents, and community stakeholders was crucial to developing a wayfinding program that will serve the needs of people walking, biking, and rolling in Ames, and to ensure community support for implementation. To achieve these goals, the project team worked with City staff, a project Community Advisory Committee (CAC), Technical Advisory Committee (TAC) and members of the public to solicit ideas, input, and develop support for the project.

The project team led three interactive meetings with the CAC and four with the TAC throughout the development of these Guidelines. Members included city officials, city staff, students, and local community and business groups. The Committees provided feedback through discussions, mental maps, and mentimeter surveys (see Figure 18 for examples of mental maps). The meeting series are summarized in this section.

Community Advisory Committee Meeting #1

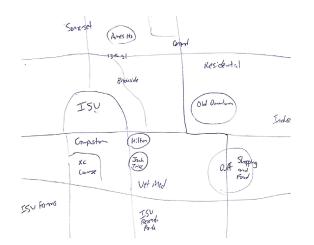
The first CAC meeting was held virtually on April 6, 2023. This meeting gave community members a chance to provide input on the three sign design concepts, colors, and materials, which ultimately led to the selection of a preferred sign concept.

Meeting #2

This CAC meeting was held virtually on April 26, 2023. This meeting was used to give feedback on the proposed wayfinding destination hierarchy and potential path names.

Meeting #3

The final CAC meeting was held virtually on May 10, 2023. This meeting was used to present the refined sign concept and sign family. During the meeting, participants discussed the pros and cons of implementing a color-coding scheme for different "districts" in Ames.



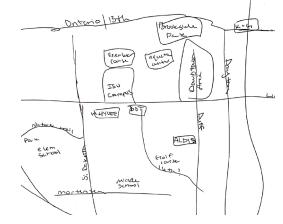


Figure 8: Example "mental maps" of the city, created by CAC members and other community members

Technical Advisory Committee Meeting #1

The first TAC meeting was held on August 17, 2022. This meeting was used to discuss potential engagement activities, graphic and branding ideas, connectivity priorities, and project goals.

Meeting #2

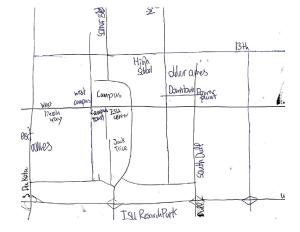
This TAC meeting was held on December 9, 2022. This meeting was used to introduce staff to wayfinding concepts, and discuss preferred wayfinding design themes and identities.

Meeting #3

This TAC meeting was held on June 15, 2023. This meeting was used to present refined sign concept designs and discuss policy, program, and network recommendations.

Meeting #4

The final TAC meeting was held on June 29, 2023. This meeting was used to refine the sign family design, discuss fabrication and installation, identify color schemes, and establish trail names.



Types of Navigation

People generally use multiple tools and systems to navigate. The four types of navigation can be summarized into four general types, as shown in the graphic to the right.

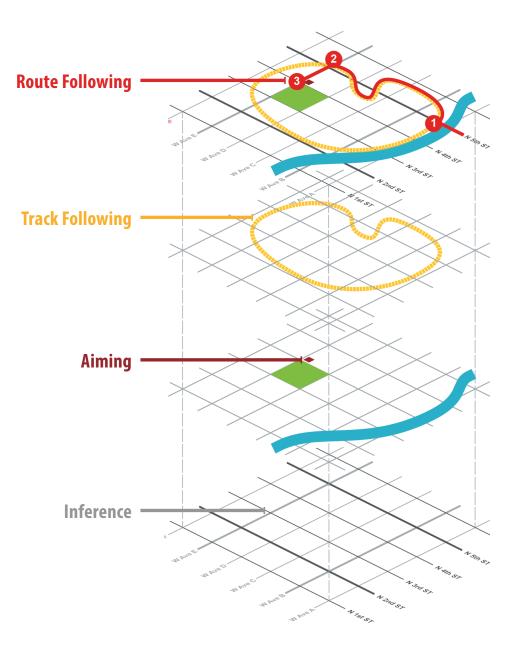
- Route following is the type of navigation most appropriate for Ames bicycle and pedestrian wayfinding because there are specific turns and connections people must make in order to stay on the low-stress bikeway network. When people route following for navigation, they have a predetermined series of steps or turns they need to follow to stay on the correct route: Route following navigation typically requires five steps:
 - Planning using maps or verbal directions in advance, including signage, printed, and/or digital maps
 - Orientation, which allows the user to establish the visual and directional connection between the plans they've made and the environment around them
 - Decision making when multiple options are present
 - · Confirmation that the user made the correct choice and is still on track
 - Arrival at the end of the journey when the destination is recognized

In addition to Route following, to support that kind of navigation, there are also several other systems people use to move around:

- Track following, where there is a clearly delineated single route to follow (the "yellow brick road")
- · Aiming, which relies on visual landmarks, clearly identifiable from a distance
- Inference, where a clear system is sequence is established that enables people to understand their current location through deductive logic (such as numbered streets and a grid of streets going either north/south or east/west)

Wayfinding systems should support multiple types of navigation for maximum impact.

Most users employ a variety of methods on a regular basis, switching between them without conscious thought. The more a wayfinding system can capitalize on each of these methods, the better it will work for a wider variety of users.



Wayfinding Needs for Ames

Through this assessment, the project team identified four main wayfinding sign needs for Ames, summarized here:

Trail Names

Trail and street name signs should be located at all intersection of trails and streets. This helps to orient trail users to the street and familiarize people with trail names. City staff and parks staff could also benefit from a trail naming scheme for maintenance and operations.

Trail Wayfinding Signs

Wayfinding signage along trails is needed to provide directional guidance for pedestrians and bicyclists. Because these signs will not be visible to motorists, they should be pedestrian-scale.

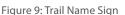
Bicycle Route Wayfinding Signs

Wayfinding signs along sidepaths and on-street bike lanes can help bicyclists navigate city streets. Because these are also visible to motorists, they need to be clearly identified as bicycle wayfinding signage.

Maps at Trailheads and Confusing Junctions

Installing maps at the start of trails or confusing intersections, where users can stop and pull over to read the map, allows people to assess their route and plan their navigation at the beginning of their trip.







rail Name Sign Figure 12: Trail Wayfinding Sign



Figure 10: Bicycle Route Wayfinding Signs





Figure 11: Maps

Chapter 3: Sign Family & Design Standards

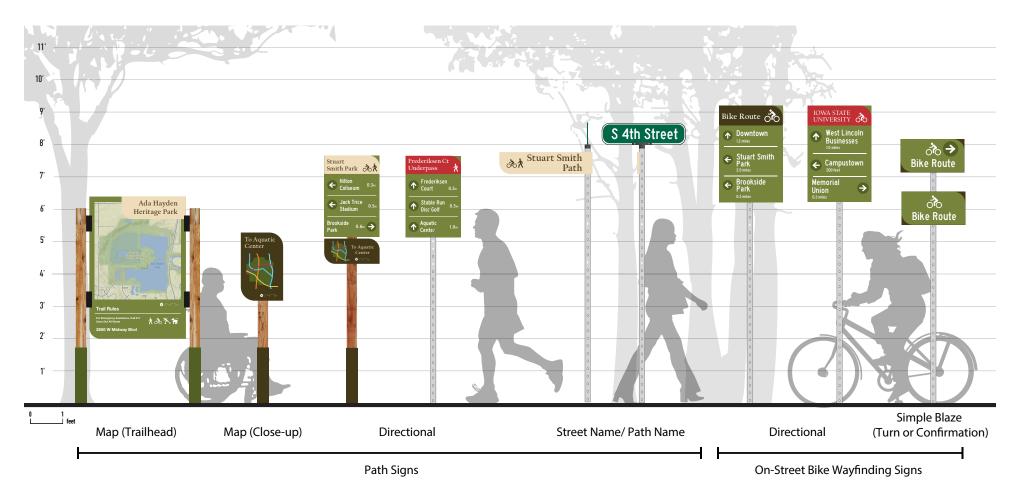


Chapter Summary

This chapter defines the types of signs used, placement, and key design elements of the proposed wayfinding sign family. This includes descriptions, graphics, and example images to illustrate the overall sign family design, identify typeface, symbols, and colors for each sign type, and provide direction on material and placement sign installation.

Sign Family

The sign family shown below was developed to meet the wayfinding needs identified for navigating the low-stress bicycle and pathway network in Ames. This includes maps, directional signage, path name signs, and on-street wayfinding signs. This sign family should be the standard for all wayfinding on all City paths and bikeways. The concept can easily be adapted for ISU trails and bikeways as well.



Example Sign Placement



Figure 13: Example of a directional sign and street name sign at the Entrance of Stuart Smith Park

Example Sign Placement



Figure 14: Example of an on-street directional sign and path name sign at the entrance of Stuart Smith Park



Figure 15: Example of a path directional sign at a junction of two paths in Stuart Smith Park

Design Standards

Typefaces

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890,./!@#&*

California FB, Bold [Sign Toppers] Optical spacing, -20 to +20 Tracking (shown at +20) Title Case

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijkImnopqrstuvwxyz 1234567890,./!@#&*

Highway Gothic, Narrow [Destinations and Distance] Optical spacing, -20 to +20 Tracking (shown at +20) Title Case

IOWA STATE UNIVERSITY

ITC Berkeley Oldstyle Standard, Medium [lowa State University Topper] Optical spacing, -10 to +10 Tracking (shown at +10) ALL CAPS

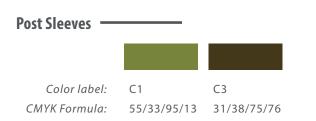
ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890,./!@#&*

Helvetica Neue LT Std 75 Bold [Supplemental Text on maps] Optical spacing, -20+to +20 Tracking (shown at +20) Figure 16: Typography Size by Type of Information & Speed of Viewer

	Speed (MPH)	Sign Height	Information	Letter Height
Ŕ	o mph	Eye Level	Map details	¼" min.
ৰ্জ 🕅	o mph	Eye Level	Map important information	½" min.
ৰ্জ 🕅	2–15 mph	Eye Level	Destinations, Path Names	1 ½" min.
ै	8–15 mph	7+ ft	Destinations, Directions	2" min.

Color

Signs —					
Color label:	C1	C2	C3	C4	C5
Use:	Panel background	Arrow background	Trail name text; panel background	Close up map text; panel background	ISU topper background
CMYK Formula:	55/33/95/13	64/42/100/31	31/38/75/76	6/12/28/0	0/92/77/22



Symbols



Materials and Finishes

Posts



It is preferable to use existing posts wherever possible. Where new posts are required, a metal post is preferred for most sign types on paths and streets. A surface mount base on a 12" minimum concrete footing is preferred.

3 inch round posts offer good stability and the ability to mount panels at different angles. A 2 inch perforated metal post may also be used.

Square wooden posts should be used in limited instances: for Path Maps and other special signs.

Sign Panels



Aluminum panels are the most common material for this application. They are durable, lightweight, inexpensive, and take both paint and vinyl applications well, and is easy to cut into custom shapes and patterns. Panel thickness should correspond to the overall size of the sign in order to ensure the panel remains rigid.

Edges should be eased in case of incidental contact.

Vinyl



Retroreflective vinyl is preferred for wayfinding signs on streets. This ensures that light from headlights is reflected back at the driver or bicyclists and increases visibility in low lighting conditions.

Reflective or non-reflective vinyl may be used for non-critical information, for example mileage or time to destination.

Metal Post Sleeves



Metal post sleeves should be used on all wood posts. Sleeves should be 18 inches tall.

Powder-coat post sleeves to match the color of the main sign (C1 or C3).

A surface mount base on a 12" minimum concrete footing is preferred.

Attachment Hardware



Sign brackets may vary depending on the size of sign and thickness of post. Paint all hardware visible on face of sign to match background color. Paint mounting brackets to match post.

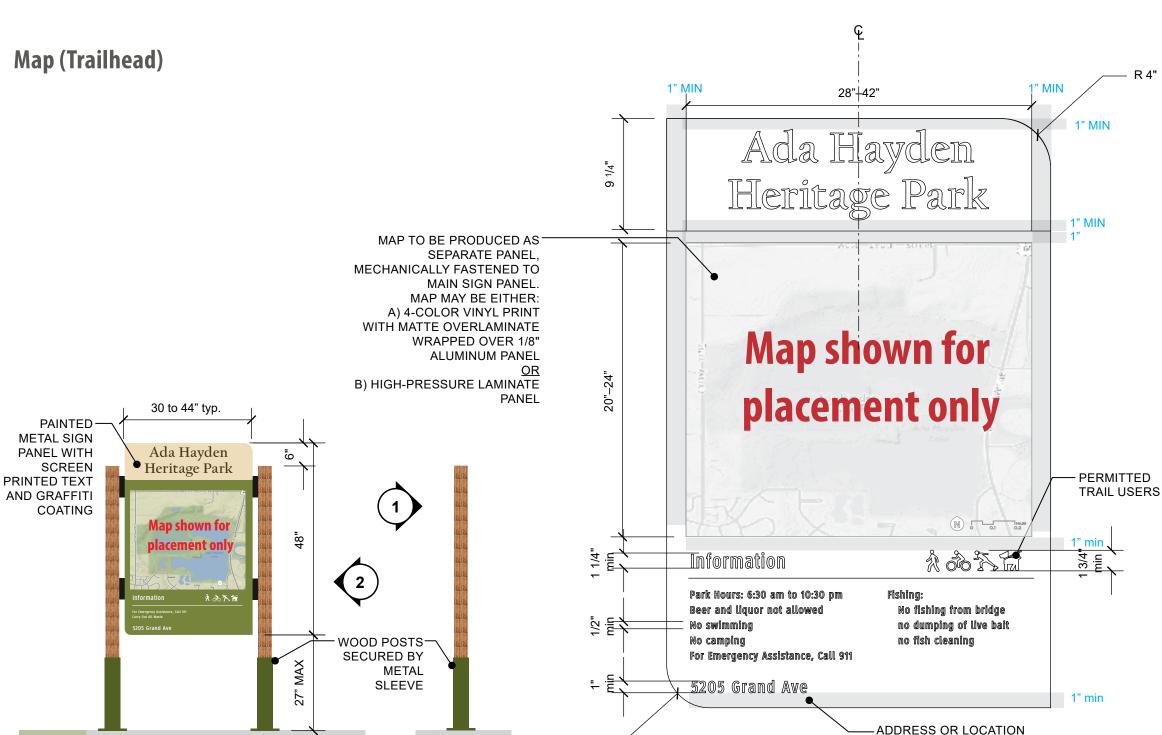
Screen Printed Graphics



Screen printing is the preferred mode of application for simple non-vinyl graphics, as it maintains the crispest linework and truest coloration.

Chapter 4: Sign Drawings





R 3 ⁹/16"

CONTEXT ELEVATION MT SCALE: 1/2" = 1'-0"

2 SIDE ELEVATION MT SCALE: 1/2" = 1'-0"

3 SIGN LAYOUT SCALE: 1 1/2" = 1'-0" CODE FOR EMERGENCY

ASSISTANCE

Used For

Providing orientation at the entrance or trailheads to large parks.

Placement

Place near parking lots at the trailhead entrance.

Application Method(s)

For lowest cost and flexibility, apply printed vinyl to aluminum panel.

For greater durability, use high pressure laminate (HPL).

Map Design

Map design TBD. It is recommended to incorporate sign system colors for visual continuity. Map should be oriented "heads up," meaning the direction the user is facing when viewing the map is at the top of the map. Include a north arrow.



THESE DRAWINGS ARE AN EXPRESSION OF DESIGN INTENT ONLY. FABRICATOR SHALL BE RESPONSIBLE FOR ALL PERMITTING, FIELD VERIFICATION, SITE CONDITION ASSESSMENTS, ENGINEERING, AND PREPARATION OF SHOP DRAWINGS, PRIOR TO IMPLEMENTING ANY OF THE RECOMMENDATIONS CONTAINED HEREIN.

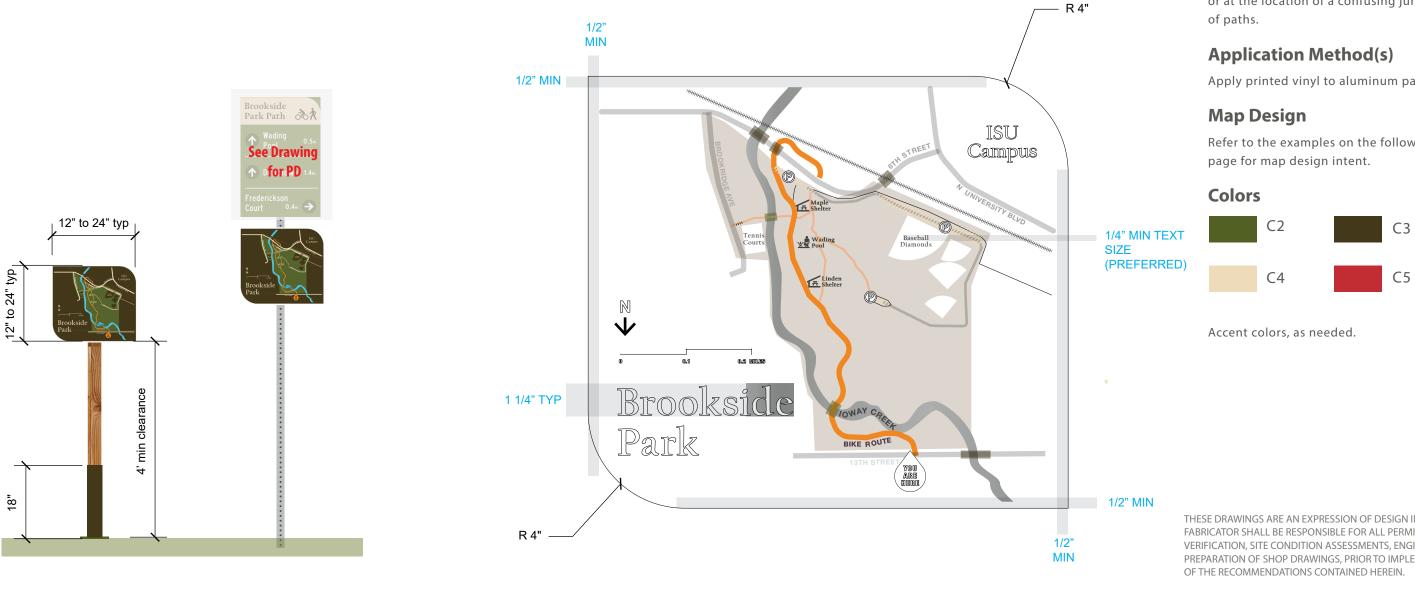
MT

MAP (TRAILHEAD)

Map (Close-up)

Layout Tip: Bridges and Underpasses

Show bridges or underpasses by adding a thicker line or polygon and layering above the base color but below the road or railroad main line color. Refer to the thick brown and green lines (shown in 50% opacity) under the lines over the creek and the railroad.



CONTEXT ELEVATIONS MC 1 SCALE: 1/2" = 1'-0"

SIGN ELEVATION SCALE: 3" = 1'-0" (2)

Used For

Providing orientation at the entrance to parks, where the route requires an unintuitive movement, or where there are destinations off the route.

Placement

Place along paths at the entrace to a park or at the location of a confusing junction

Apply printed vinyl to aluminum panel.

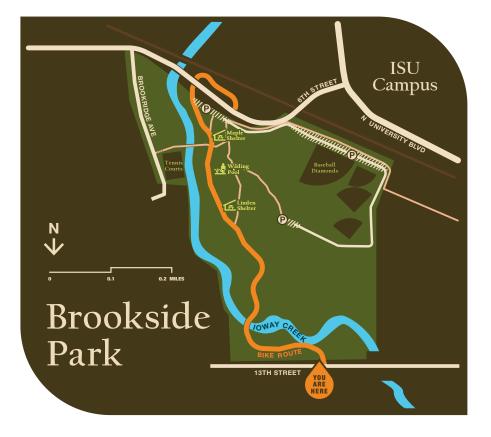
Refer to the examples on the following

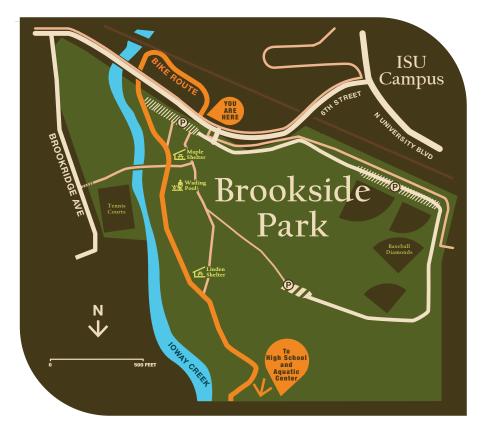
THESE DRAWINGS ARE AN EXPRESSION OF DESIGN INTENT ONLY. FABRICATOR SHALL BE RESPONSIBLE FOR ALL PERMITTING, FIELD VERIFICATION, SITE CONDITION ASSESSMENTS, ENGINEERING, AND PREPARATION OF SHOP DRAWINGS, PRIOR TO IMPLEMENTING ANY

MC

MAP (CLOSE UP)

Map (Close-up) Examples





SCALE: 3" = 1'-0"

EXAMPLE LAYOUTS PROVIDED TO CITY OF AMES IN ADOBE ILLUSTRATOR FORMAT

Reference

This page shows two MC layouts developed for Ames as part of prototype sign plans. Refer to the "Aquatic to Downtown" Sign Plan for placement and context.

Design Intent

Use a bright color such as orange to identify the main route and the "you are here" identifier.

Outline text in the base color to ensure proper contrast against mixed backgrounds. In this example, the shelter names and icons are outlined in dark green so that they can be clearly read over the underlying paths (in light orange).

When outlining text, tracking (the space between letters throughout the message) may need to be increased by 50-75% to make room for the outline.

Maps should be oriented "heads up," meaning the direction the user is facing when viewing the map is at the top of the map. Include a north arrow.

Accent Colors

C:59 M:0 Y:6 K:0

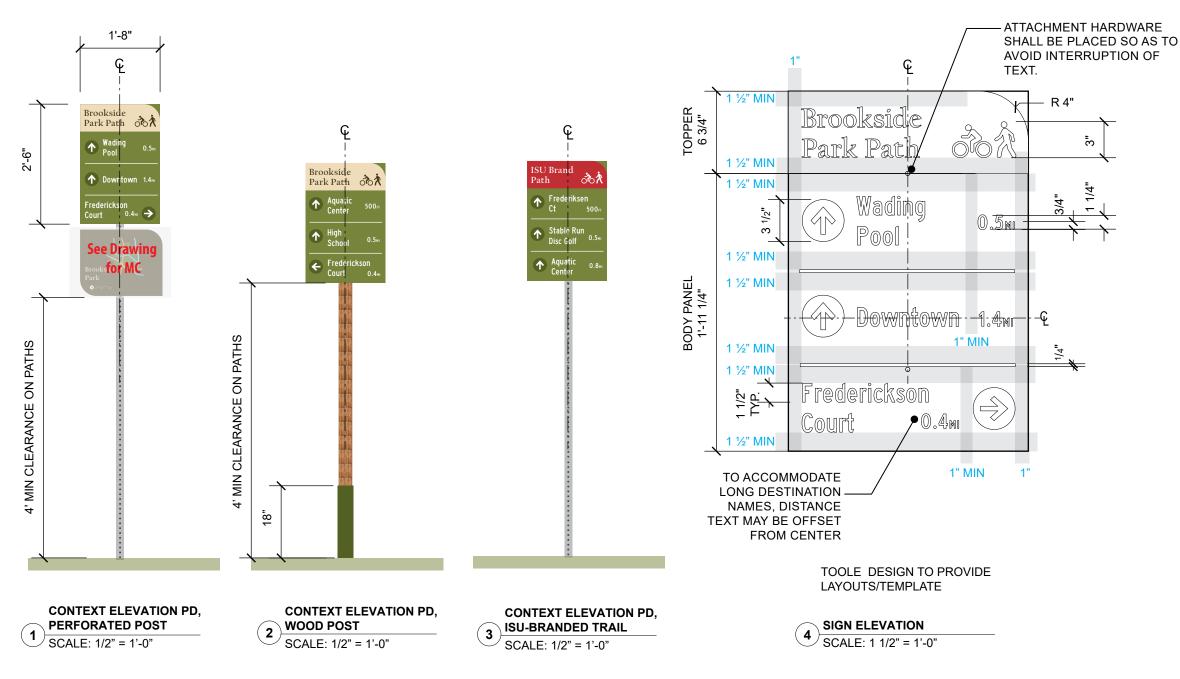
C:2 M:57 Y:100 K:0



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MC

Path Directional



Used For

Providing guidance on paths to list the destinations that can be reached from the path. ISU-branded toppers may be used on paths that belong to ISU.

Placement

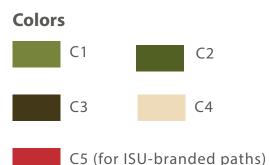
Place at the entrance to a park to indicate distance to destinations that can be reached from that point.

Place at confusing path junctures in a park to indicate where path users should turn to reach certain destinations.

Place on the right or left hand side of the path, with room to have a bicyclist approach the sign and not block the path.

Application Method(s)

Custom print on reflective or retroreflective vinyl, applied to painted sign panel.



THESE DRAWINGS ARE AN EXPRESSION OF DESIGN INTENT ONLY. FABRICATOR SHALL BE RESPONSIBLE FOR ALL PERMITTING, FIELD VERIFICATION, SITE CONDITION ASSESSMENTS, ENGINEERING, AND PREPARATION OF SHOP DRAWINGS, PRIOR TO IMPLEMENTING ANY OF THE RECOMMENDATIONS CONTAINED HEREIN.

Path Directional Examples

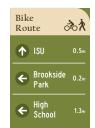


Brooksid Park Path	
Aquat Cente	
High Schoo	I ^{1.2} M
ISU	0.5m

Brookside Park Path 🗲 ISU City Hall 🛛 0.8# 🔿 ntown 0.8m 🄶

Wading
Pool





Reference

This page shows some example layouts developed for Ames as part of prototype sign plans. Refer to the "Aquatic to Downtown" Sign Plan for placement and context.

Order of Destinations

Signs should not include more than three destinations. Destinations are ordered from top to bottom as follows:

- Straight destinations
- Left-turn destinations
- Right-turn destinations

Multiple destinations in the same direction should be listed in order from nearest to farthest, so that all through-destinations are listed first, nearest to farthest, and so on.

The right arrow should always be on the right-hand side of the sign for faster recognition.

SCALE: 1/2" = 1'-0"

Distances

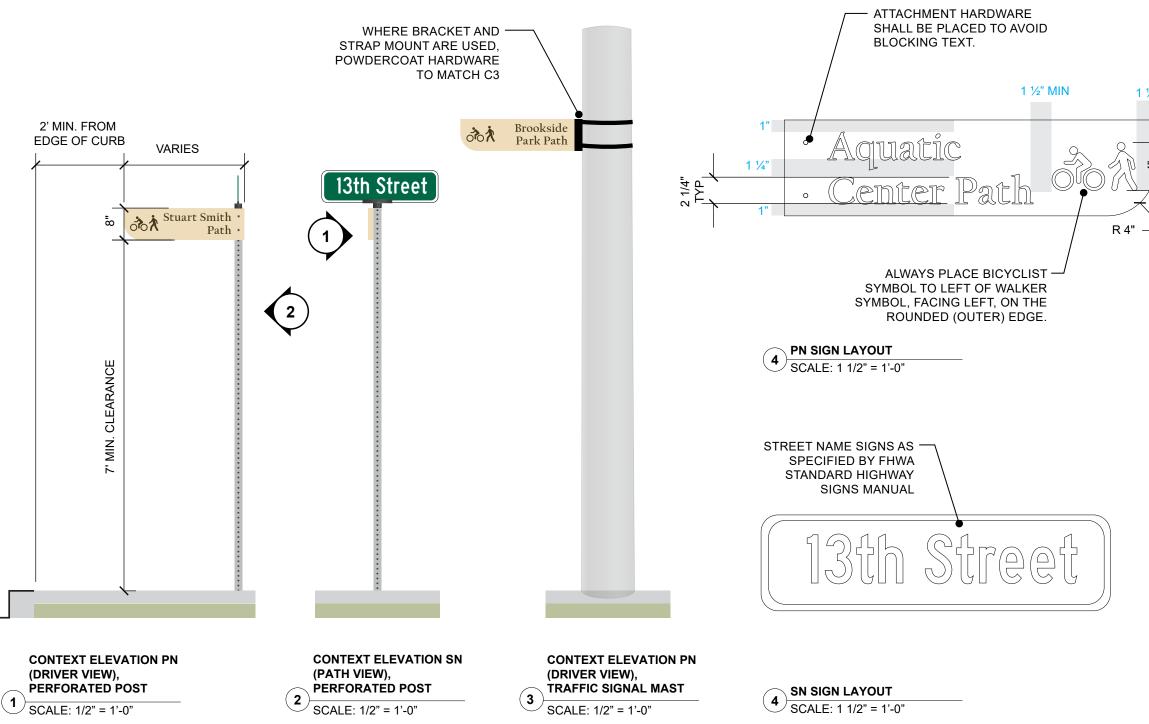
- When distances are less than one mile, a zero is placed before the decimal, e.g. 0.5 mi
- Distances under 5 miles should be rounded to the nearest tenth of a mile, e.g. 4.3 mi
- Between 5-10 miles, round to the nearest halfmile, e.g. 5.5 mi
- Over 10 miles, to the nearest mile, e.g. 11 mi
- For distances under 0.2 miles, use feet, or do not include the destination at all if the destination is visible from the location.

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PD

Street Name / Path Name





Used For

Identifying path names and/or street names at intersections.

Placement

Place at each intersection where a path intersects with a street.

Mount the path name sign so that it is visible to people on the street. Mount the street name sign so that it is visible to people approaching on the path.

Application Method(s)

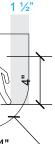
Custom print on retroreflective vinyl, applied to aluminum sign panel.

Colors

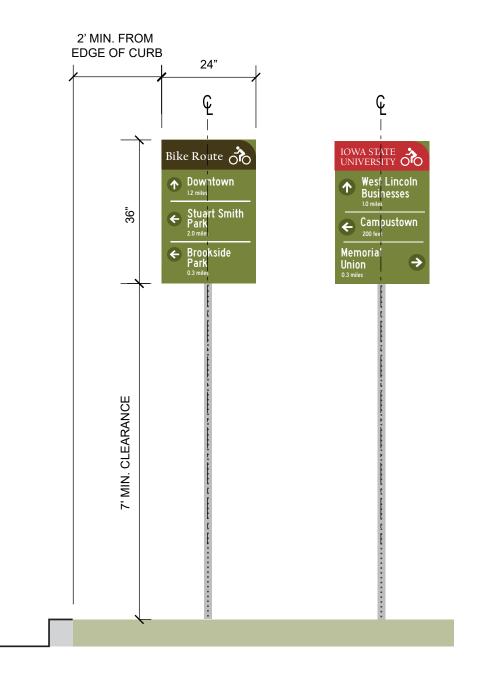


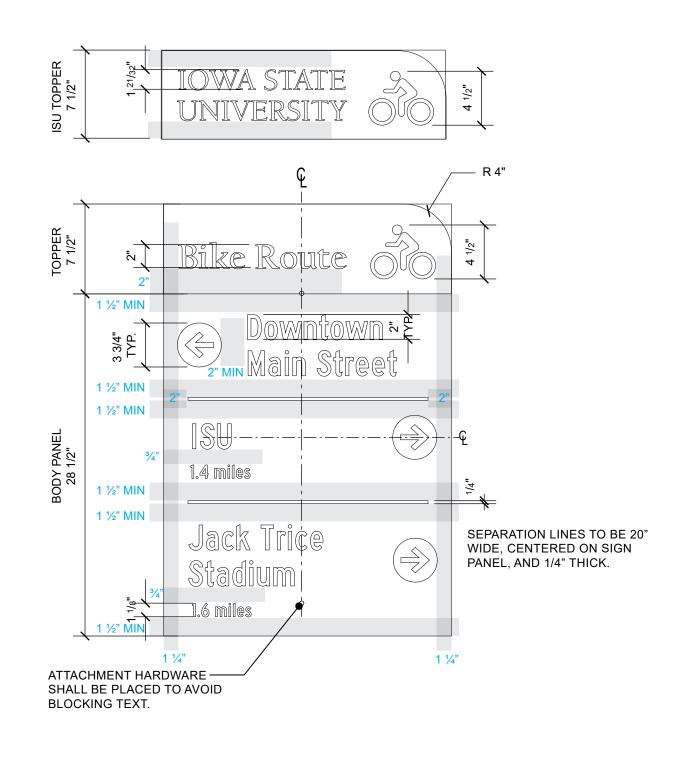
THESE DRAWINGS ARE AN EXPRESSION OF DESIGN INTENT ONLY. FABRICATOR SHALL BE RESPONSIBLE FOR ALL PERMITTING, FIELD VERIFICATION, SITE CONDITION ASSESSMENTS, ENGINEERING, AND PREPARATION OF SHOP DRAWINGS, PRIOR TO IMPLEMENTING ANY OF THE RECOMMENDATIONS CONTAINED HEREIN.

SN-PN



Street Directional





	SIGN ELEVATIONS (SD) SCALE: 1 1/2" = 1'-0"
4	SCALE: 1 1/2" = 1'-0"

CONTEXT ELEVATION SD PERFORATED POST 1 SCALE: 1/2" = 1'-0"

Used For

Providing guidance along on-street bike routes to the destinations that can be reached along, or just off, the route.

ISU-branded toppers may be used on streets under ISU jurisdiction.

Placement

Place in advance of intersections or turns to indicate a turn in the route or where a destination can be reached.

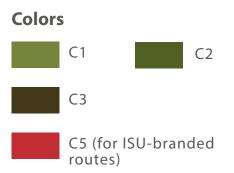
Where left turns are required, place at a distance far back enough from the intersection to allow for the bicyclist to safely make a left turn with traffic.

Where only right turns are necessary, the sign can be placed close to the intersection.

Signs may be co-located with parking regulatory signs or on utility poles.

Application Method(s)

Custom print on retroreflective vinyl, applied to painted sign panel.



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SD

Street Directional (Examples)

Bike Route 🔥	Bike Route 🔥	Bike Route 00	Bike Route	Bike Route
Downtown -	High School	ISU I.3 miles	Downtown 0.3 miles	Skunk River Trail
City Hall	e Brookside Park	City Hall	Vet Med Trail	Fellows Elem
South Duff Businesses	← ISU 0.9 miles	Mall 1.7 miles	South Duff Businesses	High School
ike Route 💦	Bike Route	Bike Route 💦	Bike Route	Bike Route 💦
Downtown Main Street	← Bandshell Park 0.4 miles	Brookside Park 0.6 miles	Vet Med Trail 0.9 miles	High School
SU A miles Jack Trice	City Hall	 ▲ ISU	South Duff Businesses	Mall Cross Grand, use path
Stadium	• Mall 1.7 miles	1.0 miles	L1 miles	0.4 miles
ike Route 👌	Bike Route	Bike Route 💦	Bike Route	Bike Route
Brookside Park	Downtown 0.2 miles	C Downtown	ISU 1.1 miles	Mall
SU O miles	· ·	← Brookside Park 0.6 miles	South Duff Businesses	
High School 🌖	e Bandshell Park	∠ ISU	Jack Trice	Meeker Elem

Reference

This page shows some example layouts developed for Ames as part of prototype sign plans. Refer to the "Aquatic to Downtown" and "Mall to Downtown" Sign Plans for placement and context.

Order of Destinations

Signs should not include more than three destinations. Destinations are ordered from top to bottom as follows:

- Straight destinations
- Left-turn destinations
- Right-turn destinations

Multiple destinations in the same direction should be listed in order from nearest to farthest, so that all through-destinations are listed first, nearest to farthest, and so on.

The right arrow should always be on the right-hand side of the sign for faster recognition.

SCALE: 1/2" = 1'-0"

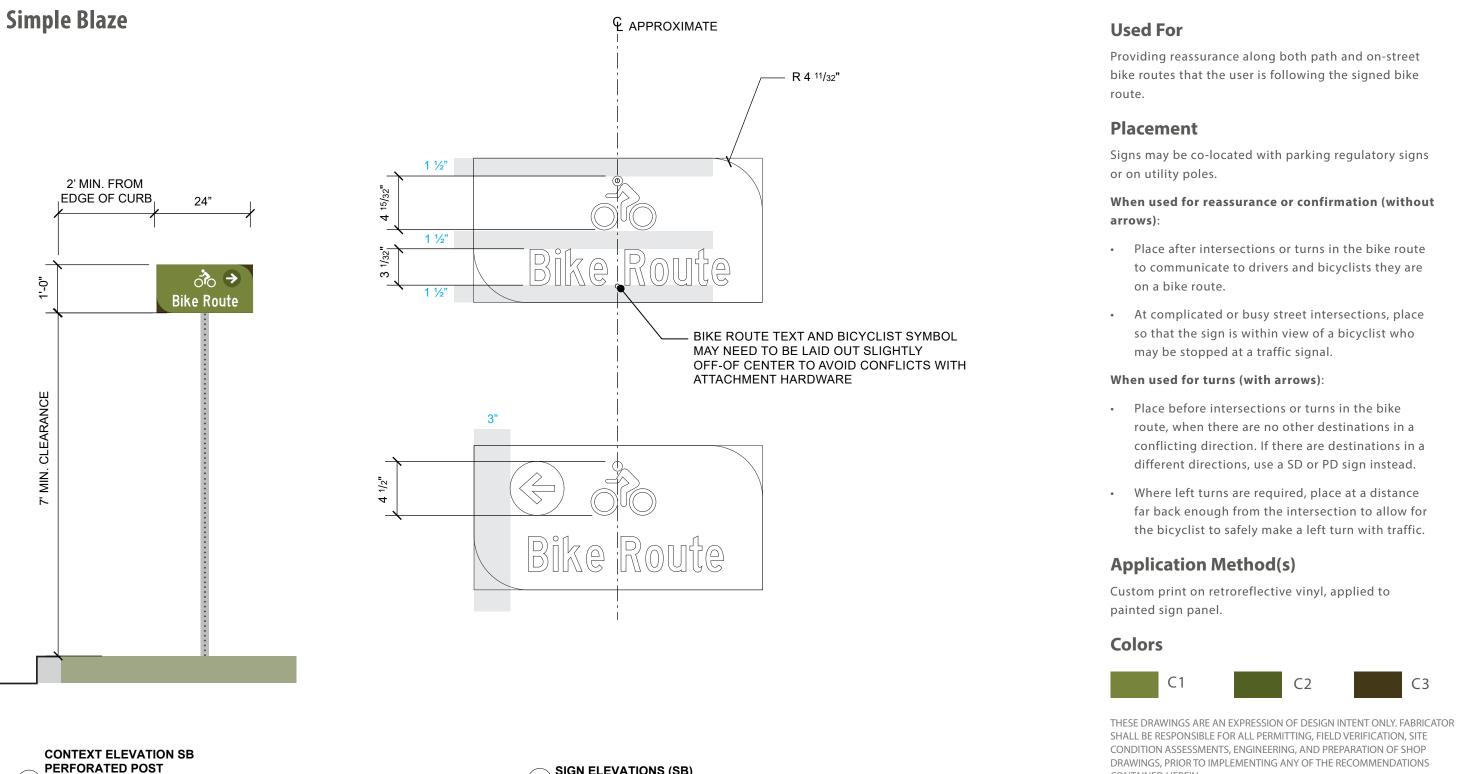
• Distances under 5 miles should be rounded to the nearest tenth of a mile, e.g. 4.3 mi

Distances

- When distances are less than one mile, a zero is placed before the decimal, e.g. 0.5 mi
- Between 5-10 miles, round to the nearest halfmile, e.g. 5.5 mi
- Over 10 miles, to the nearest mile, e.g. 11 mi
- For distances under 0.2 miles, use feet, or do not include the destination at all if the destination is visible from the location.

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SD



(1 SCALE: 1/2" = 1'-0"

SIGN ELEVATIONS (SB) 2 SCALE: 1 1/2" = 1'-0"

DRAWINGS, PRIOR TO IMPLEMENTING ANY OF THE RECOMMENDATIONS CONTAINED HEREIN.

SB

Chapter 5: Mounting & Placement



Chapter Summary

This chapter provides guidance on mounting heights and sign dimensions for each sign type, a Sign Placement Strategy, and Sign Placement Maps. The guidance outlined in this chapter should be used as tools and guidelines for putting together wayfinding deployment plans in the future.

General Dimensions and Mounting Clearance

The illustrations on pages 33-34 provide overall dimensions and mounting clearance guidelines for the various sign types within the sign family. Mounting clearances for Path Signs should be used at trails throughout the City, while clearances for On-Street Bike Wayfinding Signs should be used for on-street bike wayfinding signs.

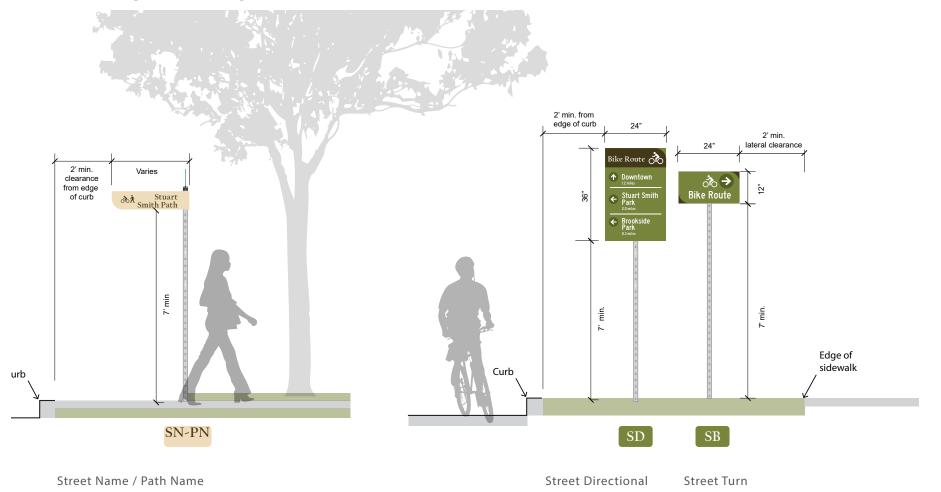
Sign Type Labels

The illustrations on these pages also establish labels for each sign type. These labels will be used to display sign placement guidance later in this chapter.

Dimensions and Mounting Clearance for Sign on Paths



Dimensions and Mounting Clearance for Signs Next to Streets



Co-Locating Path Directional Signs

To conserve sign posts and reduce sign clutter, Path Directional signs will often be co-located on the same sign post.

Mounting the signs back-to-back is preferred becuase both signs can be placed at a height that is preferred for reading. If signs are placed perpendicular to each other, the upper sign will be too high to read comfortably by many people.

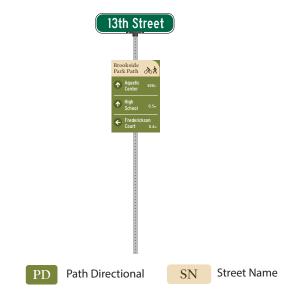
In some cases, it may be possible to mount a Street Name/Path Name sign on the same post as a Path Directional Sign. However, the Street Name Path Name Sign needs to be visible from the street, so it shouldn't be set too far back from the street; while the Path Directional sign needs to be placed in a location where a path user can slow down or pull aside to look at it more closely. Because of that, Path Directionals should usually be set back 10 to 20 feet from the intersection.

Encouraged: co-locating path directional signs back-to-back



Discouraged: co-locating path directional signs in perpendicular mount Caution: co-locating path directional signs with street name/path name signs





Sign Placement Strategy

Logical and consistent placement of wayfinding helps users easily identify wayfinding elements, provides a legible system, and ensures the signage elements do not create undue safety hazards.

A Sign Placement Strategy is a clear decisionmaking tool for future wayfinding implementation. Figure 17 sets forth a decision tree illustrating the strategy, which emphasizes three main considerations. The next pages will lay out examples for how to apply the strategy. The three considerations are:

1. Focus on Priority Wayfinding Routes

By focusing sign placement on a few priority routes, the City can limit new wayfinding signs to manageable quantity. It also makes decisions about sign placement easy and increases the "strength" and effectiveness of the wayfinding route.

2. Center the User

Centering the user experience is essential when determining sign type and placement. Identifying the user need in each situation helps determine sign type and placement. For example, bicyclists on an on-street bike route who need to turn left to get to their destination will need street directional signs placed in advance of the intersection. Bicyclists who need to turn right do not need advance notice.

3. Limit Sign Clutter

Where possible, co-locate signs on the same post and use existing posts such as telephone poles or Speed Limit signs, unless locating signs on existing posts will degrade the user experience significantly.

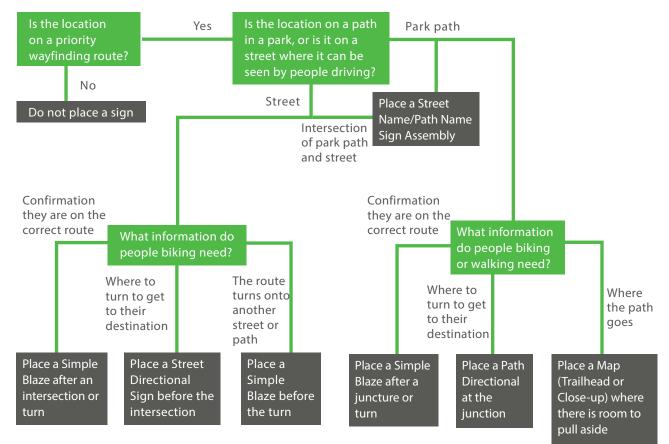


Figure 17: Sign Placement Strategy Flow Chart

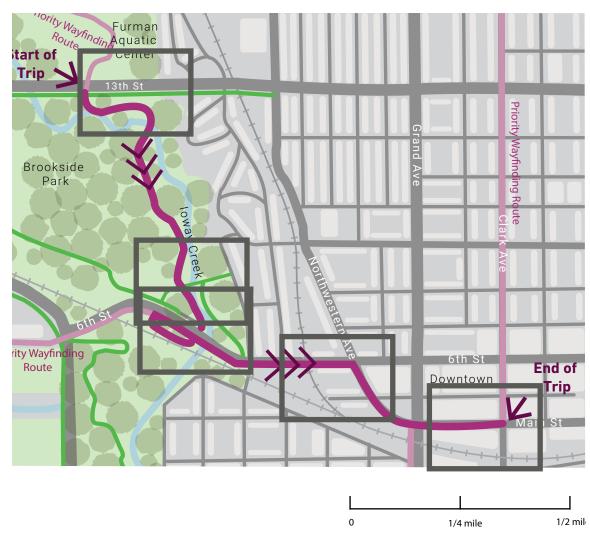
Core Wayfinding Principles for Sign Placement

The core wayfinding principles from page 5 earlier in these Guidelines can be applied specifically to the placement of wayfinding signs.

Keep it Simple	Be Consistent	Design for the	Be Inclusive	Make Connections
Minimize sign	Place signs in a	Inexperienced User	Consider the	Pick priority
clutter and	consistent way	Use low-stress	needs of people	wayfinding routes
the number	throughout	bicycle routes	who are using	guide users to
of different	the route in a	like paths and	mobility devices.	within sight of
signs used.	predictable way.	quiet streets.		their destination.

Apply the Strategy: Aquatic Center to Downtown

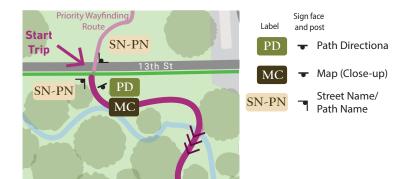
Map of User's Full Route



AMES WAYFINDING GUIDELINES

This first example shows how the Sign Placement Strategy would look from the perspective of a trail user who is on 13th Street just south of the Furman Aquatic Center. This person is going toward downtown Ames; from this location, their route will go on paths through Brookside Park. This user would encounter five sets of wayfinding signs on this journey.

Intersection of Trail and Street



At the start of the trip, the trail user is facing south looking at the entrance to the Brookside Park Path. They should see three sets of signs at this intersection: a Street Name/Path Name sign that identifies the name of the trail and the street name (13th Street), which can be mounted to the lampposts and signal.

In addition to that, a Path Directional Sign facing north should list the specific destinations that can be reached from this point. A Map (Close-up) would very helpful in this location, since it is the entry-point for Brookside Park which is quite large and has as a number of paths and amenities within the park. The Map can be co-located on the same post as the Path Directional, as long as there is sufficient clearance to mount the map below the Path Directional.

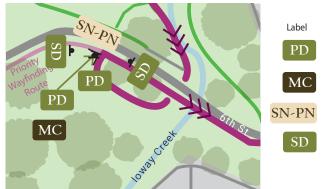
Apply the Strategy: Aquatic Center to Downtown

Internal Park Path Routing



Sign face and post B - Simple Blaze As the user continues on the Brookside Park Path, they will encounter path junctions within the park where it is not obvious they should continue. A Simple Blaze sign placed **after** the path junction can provide the "breadcrumb" to the user to let them know which way to go.

Intersection of Two Trails



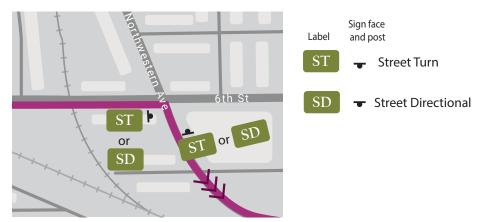


The user will go under 6th Street and approach 6th Street from the south, which can be disorienting. For the user approaching 6th street, a Path Directional Sign and a Street Name/Path Name sign will provide sufficient information for them to understand they need to turn right to go to downtown.

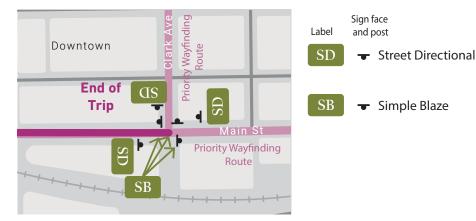
However, for users on the 6th Street sidepath, it will be confusing to see directions pointing south to go to the Brookside Park, the Aquatic Center, or Ames High School. For that reason, special care should be taken to ensure there is a Path Directional and a Map (Close-up) right at the junction of the paths so that trail users understand both the destinations and the path direction. To reduce sign clutter and the need for signposts, some of these signs can be colocated on the same post.

Apply the Strategy: Aquatic Center to Downtown

Turn From Trail to On-Street Route



Intersection of Two Priority Bike Routes



The user will continue east on 6th Street. At Northwestern Avenue, the route turns. There are some destinations straight ahead, but the bike lanes end at Grand Avenue. Therefore, the wayfinding should direct the user to go right on Northwestern Avenue to continue on the low-stress Priority Wayfinding Route towards downtown and other destinations in the area. A simple Street Turn sign with the arrow pointing right is all that is needed, but a Street Directional could also be used at this location to provide clarity on which specific destinations can be reached by turning right.

For bikeway users headed north out of downtown on Northwestern Avenue, a Street Turn with the arrow pointing left may be used, but if there are destinations straight ahead that are not far away or require turns, a Street Directional could also be used to point users to destinations that are straight ahead, since Northwestern Avenue is a low-stress bikeway.

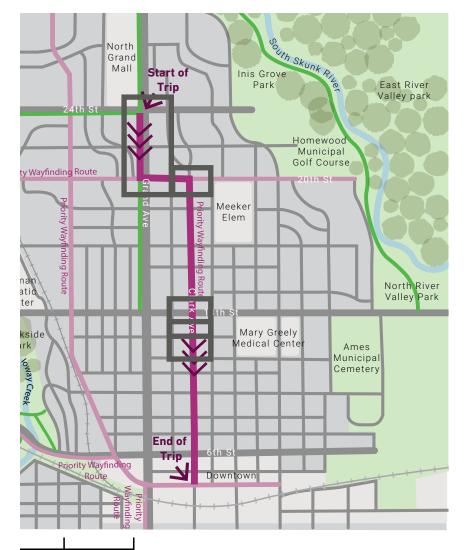
The user will continue towards downtown on Northwestern Avenue. They will cross Grand Avenue, which is a priority wayfinding route from the south, and Clark Avenue, which is a Priority Wayfinding Route from the north. The map at left shows the recommended signage for Clarke Avenue.

A Street Directional Sign in advance of the intersection with Clark Avenue can point the user to destinations straight ahead, to the left, and to the right. For bikeway users approaching the same intersection from other directions, Street Directional Signs should be provided on all legs of the intersection to alert users of the primary destinations that can be reached straight ahead, to the left, and to the right.

Because this is an intersection of two Priority Wayfinding Routes, and many people will be turning onto the route, this location deserves extra signage. Simple Blaze signs should also be placed immediately after the intersections to provide confirmation that the user is on a bike route.

Apply the Strategy: On-Street Bike Route to Downtown

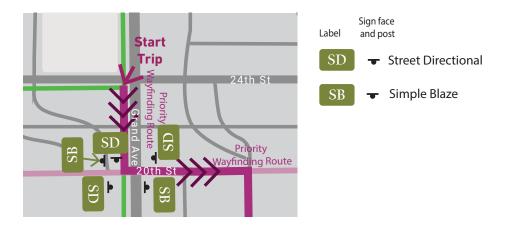
Map of User's Full Route



1/4 mile 1/2 mile

This second example shows how the Sign Placement Strategy would be look from the perspective of a bikeway user who is on 24th Street just south of the North Grand Mall. This person is also wanting to go to downtown Ames, but their route will be entirely on streets or paths next to streets. This route illustrates four additional scenarios on applying the wayfinding sign placement strategy in Ames.

Start of Journey (Not on a Priority Route)

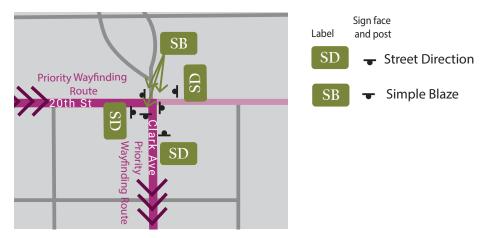


At the start of the trip, the bikeway user is facing south on the sidepath next to Grand Avenue, just south of 24th Street. The sidepath is not on a Priority Wayfinding Route, so the bikeway user will not see any wayfinding signs at the start of the journey. Even once they get to the intersection of 20th Street (a Priority Wayfinding Route), the user will not see wayfinding signs unless they look left or right.

Upon turning east on 20th Street, the user should see a Street Directional Sign on the far side of Grand Avenue. Directional signs placed immediately after the intersections provide confirmation that the user is on a bike route. They also will be able to include more destinations that can be reached on the bike route by continuing straight.

Apply the Strategy: On-Street Bike Route to Downtown

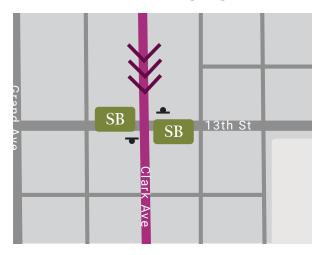
Intersecting Priority Routes



The user will continue east on 20th Street. No additional signs are needed on 20th Street until the intersection with Clark Avenue, another Priority Wayfinding Route. A Street Directional Sign in advance of the intersection with Clark Avenue can point the user to destinations straight ahead (continuing on the Priority Wayfinding Route on 20th Street) and to the right on Clark Avenue.

Because this is an intersection of two Priority Wayfinding Routes, this location deserves confirmation signs for after the turns. Simple Blaze signs should be placed immediately after the intersection to provide confirmation that the user is on a bike route.

On-Street Bike Route Crossing Large Intersection

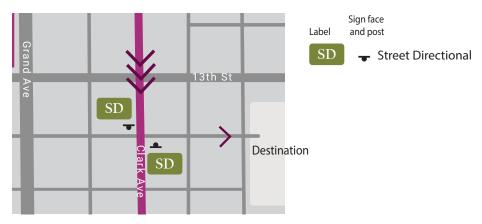




The user will continue south on Clark Avenue. At the intersection of 13th Street, which is a busy, high-traffic street, it will be helpful for the user to see Simple Blaze signs immediately after the intersection while they are waiting to cross 13th Street. This placement provides confirmation that the bike route continues, and also alerts turning motorists that they need to be looking for bicyclists.

Apply the Strategy: On-Street Bike Route to Downtown

Destination off of Route



After crossing 13th Street, the user will continue south on Clark Avenue and intersection of 13th Street, which is a busy, high-traffic street, it will be helpful for the user to see Street Directional signs before the intersection where they would need to turn if they were going to a destination (such as the hospital). No confirmation signs are needed after the intersection or the turn.

Chapter 6: System Planning & Programming



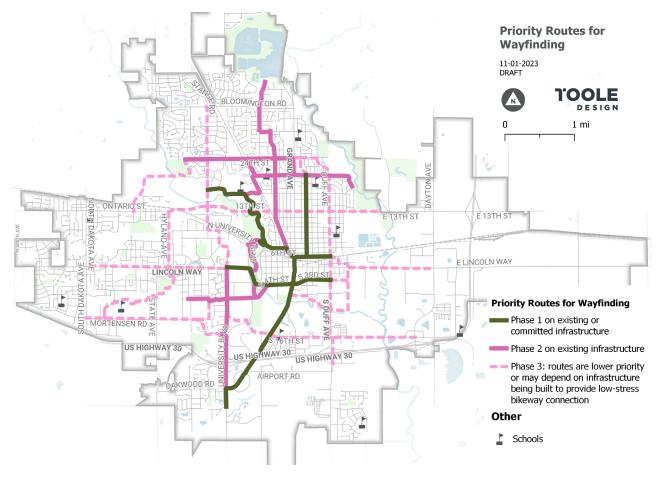
Priority Wayfinding Routes

Several priority routes were identified for early implementation through input from City staff, the project Technical Advisory Committee, and community engagement. These were selected based on need for wayfinding and the need to help people navigate routes using paths that go through city parks or away from the on-street network.

Phase 1 Priority Routes will help people make connections between downtown Ames and major destinations on bikeways and paths that are already low-stress bicycle facilities and don't require any significant investment to make them comfortable for inexperienced bicyclists. They will connect between downtown Ames and the following destinations:

- The mall area
- The hospital
- Ames High School and University Village
- ISU campus (eastern edge)
- Retail along South Duff Avenue
- Research Park

Phase 2 Priority Routes will build on the first set of wayfinding routes, with the intention to develop a "grid" of signed routes between most of the major destinations in Ames. The focus of wayfinding for both Phase 1 and Phase 2 routes is to guide users along streets or paths that are not "obvious": they are along paths or quiet local streets that people wouldn't be familiar with if they only get around Ames in a car. Phase 3 Priority Routes are less important or may require infrastructure investments (such as paths or bike lanes) before they are appropriate for inexperienced bicyclists. Wayfinding routes on eastwest or north-south arterial streets (even when they have paths next to them or connect to important destinations) are lower priority because people biking along those streets can rely on "inference" (see page 9) to know that they are going in the right direction. Moreover, many of the retail destinations in those outlying areas (such as Walmart or large employers) are readily visible from a distance.



Sign Programming Destination Selection

A destination hierarchy ensures that as users travel along the bicycle and trail network, they encounter simple, legible, and consistent destinationsimportant features of a wayfinding system. "Level 1 Destinations" (such as "Downtown") appear on almost all wayfinding signs as path users are guided toward the destination. Level 2 or Level 3 destinations will appear on wayfinding signs only when the path user is close to the destination).

The map on the following page displays both the hierarchy and the preferred abbreviations for the major destinations in Ames. The distance standards shown on this page and the destination hierarchy shown on the following page can be used by planners to decide which destinations to display on each sign.







Downtown Cultural Districts Arenas + stadiums Universities

LEVEL 1 DESTINATIONS



2 miles

LEVEL 2 DESTINATIONS



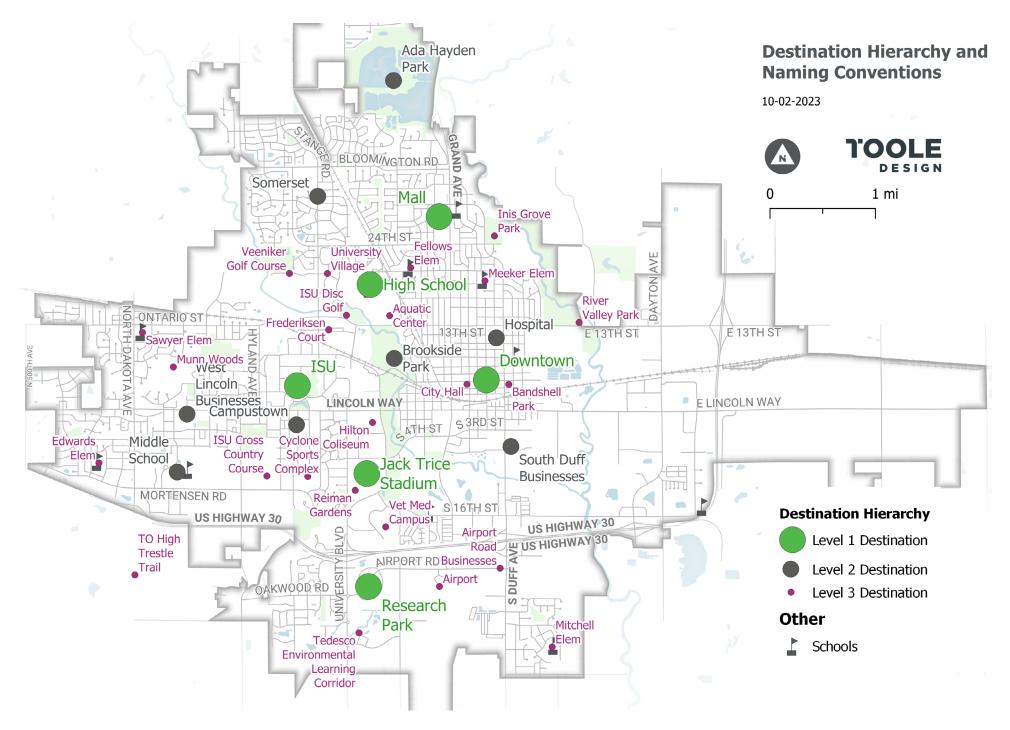
Transit stations Community parks Secondary schools Shopping districts



Neighborhood parks Primary schools Community centers

LEVEL 3 DESTINATIONS

Figure 18: Destination Hierarchy Diagram



Path Naming Conventions

Path names are essential for the wayfinding system so that routes can be identified and referenced to users on wayfinding signs. While some of the primary paths around Ames have names, the naming conventions are inconsistent and many paths are unnamed. Part of this planning process was establishing relevant and consistent names for many of the Ames paths, especially the ones that are not next to a street. The proposed path names are listed in Figure 19 along with their approximate location. These path names should be used on street name/path name signs and path directional signs.

Sidepaths that are parallel to streets do not need to be named explicitly and do not require Street Name/ Path Name sign assemblies or path directional signs.

Path Name (Alphabetical)	Location	Path Name (Alphabetical)	Location	
24th Street Path	West of Stange Road	Middle School Path	Path behind Ames Middle Sch	
Ada Hayden Path or	Paths in Ada Hayden Heritage Park should probably be distinguished from	Moore Memorial Park Path	Paths in Moore Memorial Pa	
Ada Hayden Loop	each other in some way to aid in wayfin- ding and navigation.	Skunk River Trail	Path along Skunk River from Homewo ipal Golf Course on the north, to pat	
Aquatic Center Path	Path between the High School path south to 13th Street		US Highway 30 on the south.	
Arboretum Path	Path through arboretum between S	Stuart Smith Bridge Path	Path in Stuart Smith Park crossing t over Ioway Creek	
Arboretum Path	Sheldon Avenue and State Ave	Stuart Smith Park Path	Path through Stuart Smith Park	
Brookside Park Path	Path through Brookside Park parallel to	Stuart Smith Park Path		
Freddy Court Under-	Ioway Creek Underpass between ISU main campus	Tedesco Connector Trail	Path connecting Cottonwood Road s to 260th Street	
pass	and Frederiksen Court	Tedesco Environmental		
GW Carver Road Path	South of Aspen Road and north of	Learning Corridor	Paths in and south of Research P	
	Moore Memorial Park	Vet Med Trail	Diagonal path from S Grand Avenue	
High School Bike Path	East-west path between University Village and Ridgewood Avenue behind		Creek Park to Airport Road at Resea	
the high school		West Ames Greenbelt	Path parallel to College Creek from S nue on the east to Daley Park/Wilder	
Lee Park Path Path through Lee Park connecting Toss		Path	on the west.	
	Road and Oakland Street			

Figure 19: Path Naming Conventions in Ames