

Final Report and Feasibility Study Toledo, Iowa



Program Partners:
Iowa Department of Transportation
Trees Forever
Iowa State University



Participants

Town Steering Committee

Denise Fletcher Bill Skow
Marilyn Rippy Kendall Jordan
Mark McFate Travis Mullen
Dorothy Jo Zmolek Trudy Koch
Jeff Shaw Darvin Graham

Trees Forever

80 West 8th 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 Program Specialist
Chad Hunter, Landscape Architecture Outreach Studio Manager

Firm Name

888 S Michigan Avenue Suite PH1
Chicago, IL 60605
(312) 427-7240
<https://www.site-design.com/>

Hana Ishikawa
(312) 374-5222
hana.ishikawa@site-design.com

Cassandra Rice
(812) 787-1059
cassandra.rice@site-design.com

Richard Meagher
Landscape Designer

Paul Hsu
Landscape Architecture Intern

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About site design group

Founded in 1990, *site* is an award-winning landscape architecture and urban design firm based in Chicago, Illinois. The firm is led by four principals, Ernest Wong, Robert Sit, Bradley McCauley, and Hana Ishikawa. As landscape architects, urban designers, planners, horticulturalists, architects, arborists, construction administrators, and creative thinkers, we are a staff of nearly 40 diverse and innovative professionals. We are enlivened by our surroundings and strive to produce creative spaces that inspire, restore, and bring communities together.

site is often engaged to collaborate and coordinate efforts with other architects, engineers, and design professionals. Effective communication with the design team and client ensures successful coordination of projects from concept through construction. We transform complex design challenges into places that clearly reflect identity and are strong statements of beautiful and functional spaces.

As designers, creative thinkers, and engaged citizens, we understand the value of exterior environments that create a sense of place. Successful placemaking leads to the long-term care and use of these spaces by the public. At *site* this is our goal in all we do: create spaces that are well-loved and well-utilized by the communities they reside within.



Hana Ishikawa, AIA, ASLA Affiliate

Hana Ishikawa is the Design Principal at *site*, often leading the design process with complex, yet thoughtful ideas. Hana's projects, more than 100 of them throughout her tenure, have ranged from master planning of modern entertainment complexes, traditional commercial interiors, and historic streetscapes to contemporary urban parks. Constantly looking for visually enticing environments from the rigid structure of classical aesthetics to cutting-edge modern design, whether it is conceptual design or construction details, she enjoys merging innovation and logic into all aspects of design.



Cassandra Rice, PLA, AICP, ASLA

Cassandra Rice is a landscape architect and planner at *site* whose work focuses on synthesizing environmental, economic, and cultural influences to create evidence-based, sustainable strategies for clients. Her work spans a variety of scales and project types—from parks, playgrounds, and plazas to design guidelines and strategic planning. She effectively guides her clients through the design and planning process from site analysis to ribbon cuttings, and she has worked with a number of her clients to secure grants and additional funding for implementation. Cassandra is passionate about participatory planning and design, and brings exciting and innovative public outreach strategies to her projects.



Richard Meagher, Project Designer

Richard Meagher is a project designer at *site* with a Bachelor of Landscape Architecture at Ball State University. He has a passion for designing spaces that are naturally and socially empathetic, and hopes to help create placemaking projects. He also hopes to engage the community by designing in a context-sensitive manner, with a respect for the context of the Chicagoland area.



Paul Hsu, Student Intern

Paul (Wen-Po) Hsu, recently graduated with a Bachelor of Landscape Architecture from the University of Oregon. He is currently an intern at *site*. Despite being Taiwanese, Paul grew up on an island in Malaysia. On the island Borneo, known for its biodiverse beaches and rainforest, life was hot, humid, and without seasons.. He is passionate about improving people's lives through the design of urban spaces, with special interest in the relationships between buildings and outdoor spaces. He is seeking to create spatial sequences that provide experiences and this has been driven by his interest in the art of storytelling and animation.

Program Overview

Toledo is one of 10 communities selected to participate in the 2021 Iowa's Living Roadways Community Visioning Program. The program, which selects communities through a competitive application process, provides professional planning and design assistance along transportation corridors to small Iowa communities (populations of fewer than 10,000).

Goals for the Visioning Program include:

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

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

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

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

Community Goals

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

- Improving downtown Toledo using wayfinding, on-street parking, and community projects.
- Increasing access to existing amenities such as Toledo Heights Park and South Tama Recreational Trail.
- Improve existing sidewalks within the southern and western areas of Toledo.

Capturing the Toledo 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. These boards include the Program Overview, Bioregional Assessment, Transportation Assets and Barriers Assessment, Transportation Behavior and Needs Assessment, Hispanic Interview, Transportation Inventory and Analysis, Concept Overview, and Community Design Boards.

SUMMER 2021 1



Images from the Tama-Toledo Design Day and Steering Committee Goal Setting Workshops

Community Goals

The two communities have worked together closely to identify common goals and formulate ideas and solutions. Each community's steering committee also worked to identify goals and priority areas for each of their respective communities as well. The common goals identified during the visioning process include:

- Create safe pedestrian routes between the two communities.
- Implement traffic calming measures and signage for increased pedestrian and vehicular safety.
- Balance pedestrian safety and traffic calming needs with regional truck and freight routes.
- Connect existing sidewalks to provide better connections between existing amenities such as the Tama-Toledo Water Park, STC High School and Elementary School, and both Tama and Toledo's downtown areas.

Priority areas identified for improvements include:

- Trail system: connect Tama Rec Trail and Cherry Lake Trail
- Key US 63 Intersection Safety and Placemaking Improvements: High Street, 2nd Street, 17th Street (at STC High School), Harding, and State
- Placemaking Improvements: Oak Park, Downtown Tama, Downtown Toledo

Capturing the Vision

1. Program Overview
 - 9a. Oak Park
 - 10a. Broadway St + Lincoln Hwy
 - 10b. Connection Plans
 - 10c. 2nd St + US 63
 - 10d. High St + US 63
 - 10e. Downtown Toledo
 - 11a. Plant Palette
 - 11b. Wayfinding + Identity
 12. Implementation Plan
- 6a. Transportation Inventory - Tama
- 6b. Transportation Inventory - Toledo
7. Feedback Summary
- 8a. Concept Overview
- 8b. Concept Detail
- 8c. South Tama Rec Trail
- 9a. Downtown Tama
- 9b. State St + US 63
- 9c. Harding St + US 63
- 9d. 17th St + US 63

site design group

LA: Cassandra Rice, PLA, ASLA, Hand Ishikawa, AIA
 Landscape Designer: Richard Meagher
 Intern: Paul Hisu

Iowa State University | Trees Forever | Iowa Department of Transportation

Tama + Toledo Program Overview

Community Visioning

Tama and Toledo are two of 10 communities selected to participate in the 2021 Iowa's Living Roadways Community Visioning Program. The Community Visioning Program integrates landscape planning and design with sustainable action to empower community leaders and volunteers in making sound, meaningful decisions about the local landscape. Throughout the process, the committee identifies and investigates the physical and cultural dimensions of landscape issues, sets goals for change, and develops implementation strategies for meeting community goals.

Successful completion of the visioning process results in a transportation enhancement plan and implementation strategies that empower communities to build meaningful townscapes, step by step, as resources become available.

Goals for the Visioning Program include:

- Develop conceptual plan and implementation strategies with local communities;
- Enhance the natural, cultural, and visual resources of small Iowa communities; and,
- Assist local communities in using external funds as leverage for transportation corridor enhancement.

Program Overview

Both Tama and Toledo are represented by steering committees that include residents and stakeholders who have been actively participating in a series of meetings facilitated by a field coordinator from Trees Forever. Iowa State University organizes design teams of professional landscape architect, design interns, and ISU faculty and staff. The program is sponsored by the Iowa Department of Transportation.

Throughout this process, each community participates in a planning process consisting of four phases of conceptual development.



Bioregional Assessment

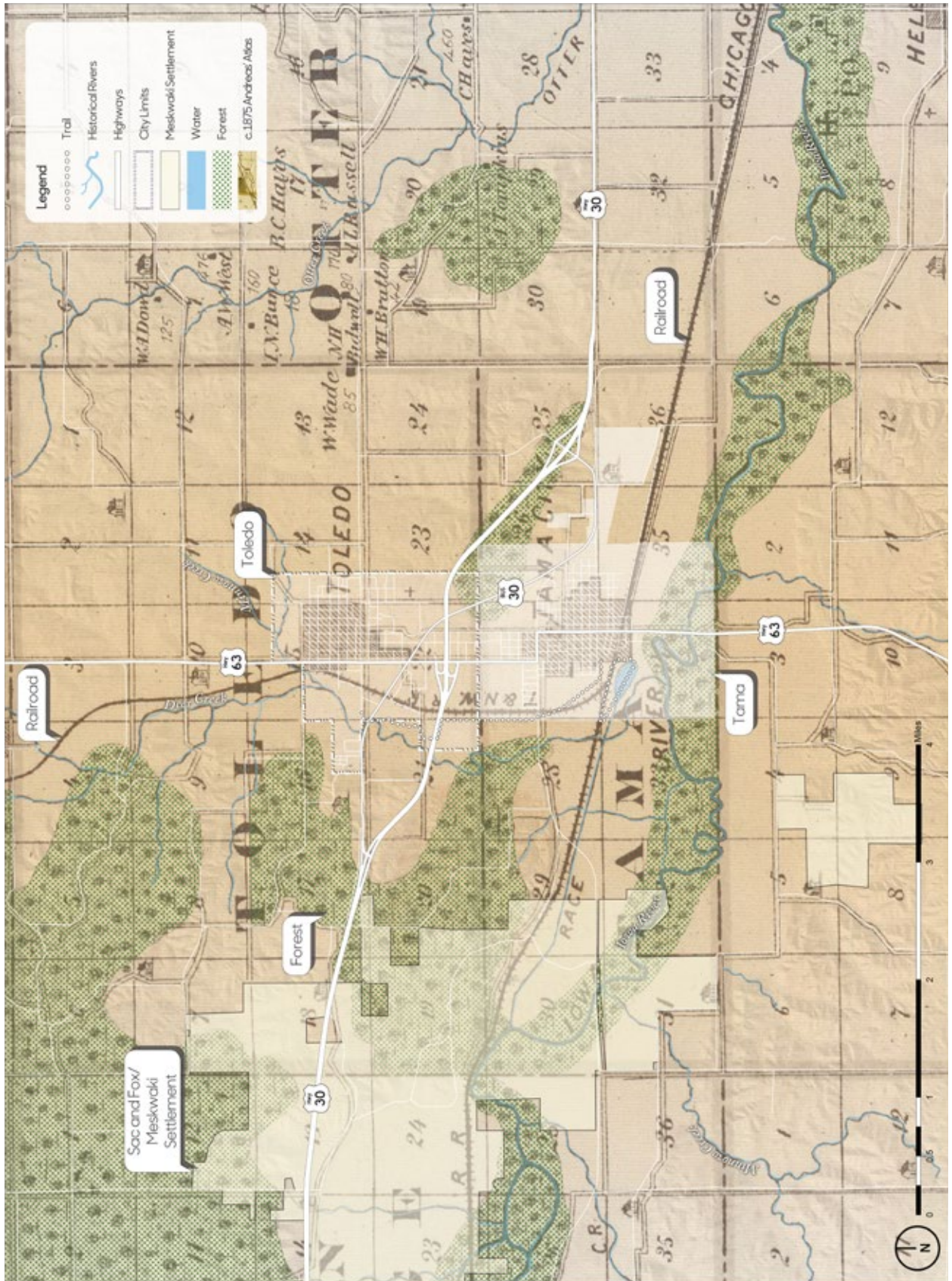
Historical Settlement Patterns

This board uses a map 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). A high-quality scan of the Atlas has been arranged to correspond closely with present-day map, revealing major landscape changes as well as features that have persisted, such as railroad rights-of-way and in some cases remnant vegetation patches.

Toledo 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. This information was digitized in 1996 as a resource for natural resource management and is useful "...for the study of long term ecological processes and as baseline data for the study of present day communities."¹

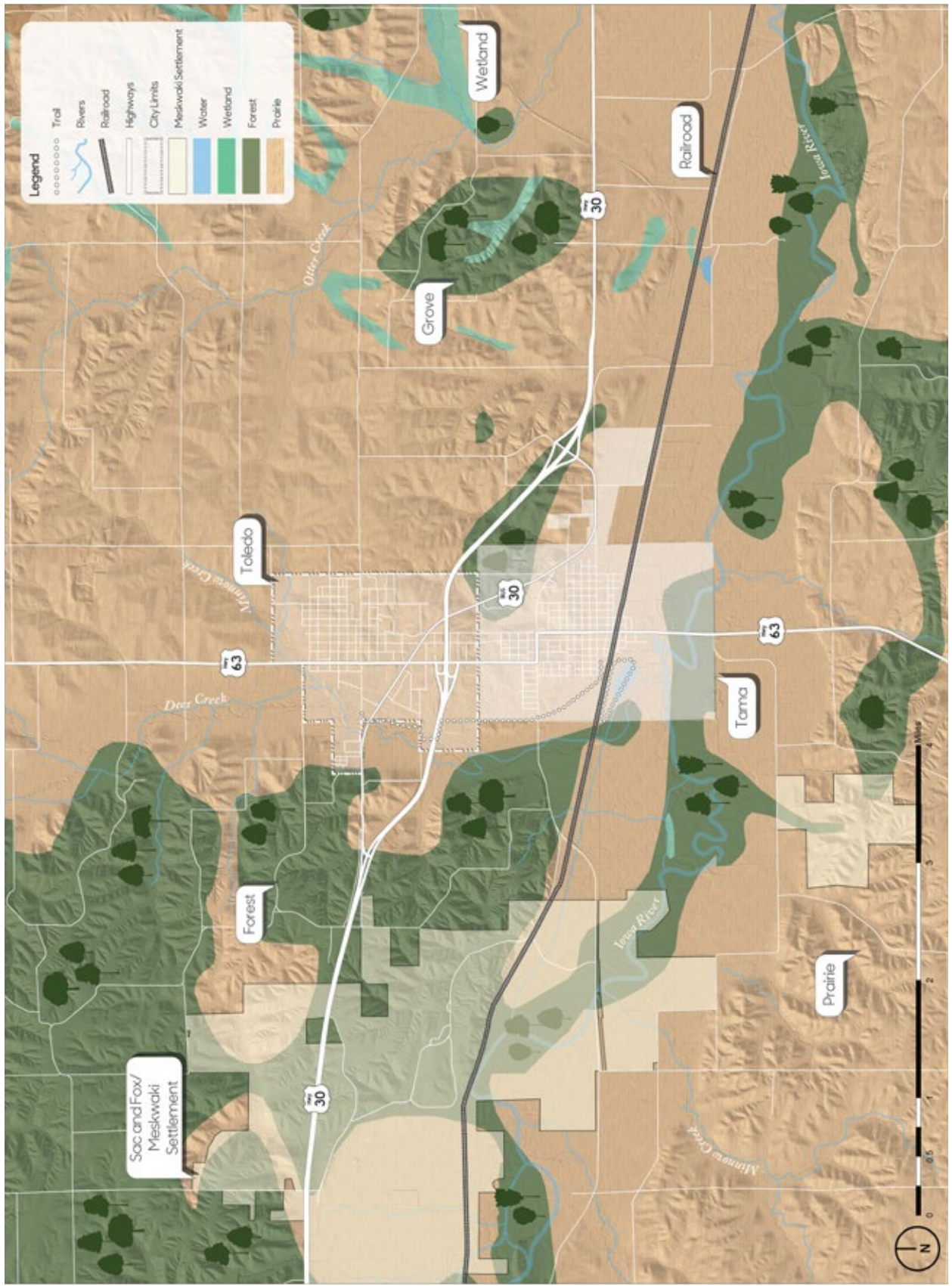
The plant community names mapped by the GLO surveyors varied. The original terminology they used has been preserved in the original data, but we have renamed them on this map to reflect names used to describe contemporary vegetation communities.

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

The vegetation types are defined¹:

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



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 determine 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.

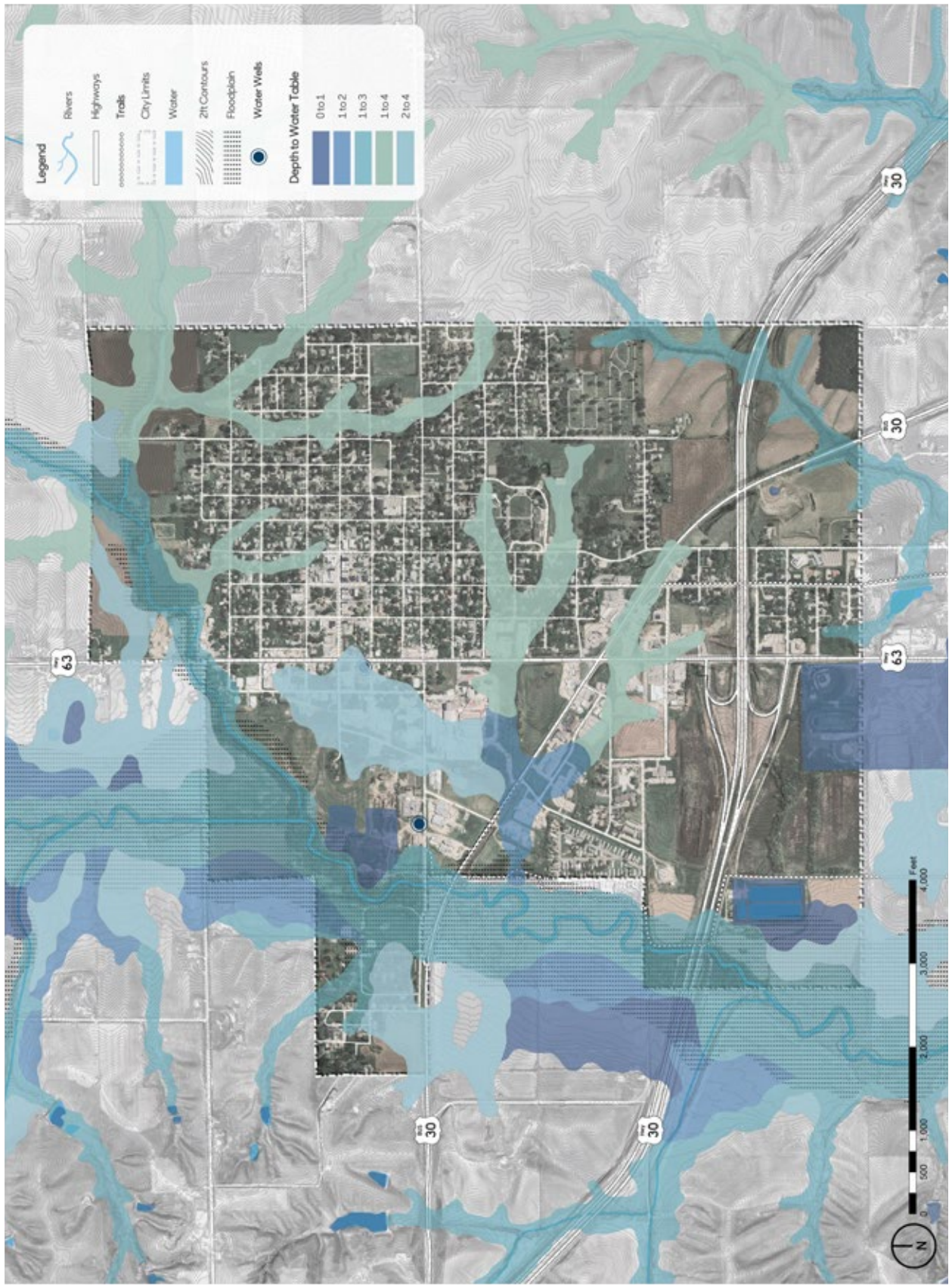
Where a community is located in relation to its surrounding watershed(s) determines its capacity to manage regional watershed issues such as flooding. For example, a community located near the end of a watershed (close to the outlet point) will have little capacity to reduce the amount of water draining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

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 snowmelt, 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 zero feet, water can well up out of the ground. This causes localized flooding, even if there is no surface water draining to the area.

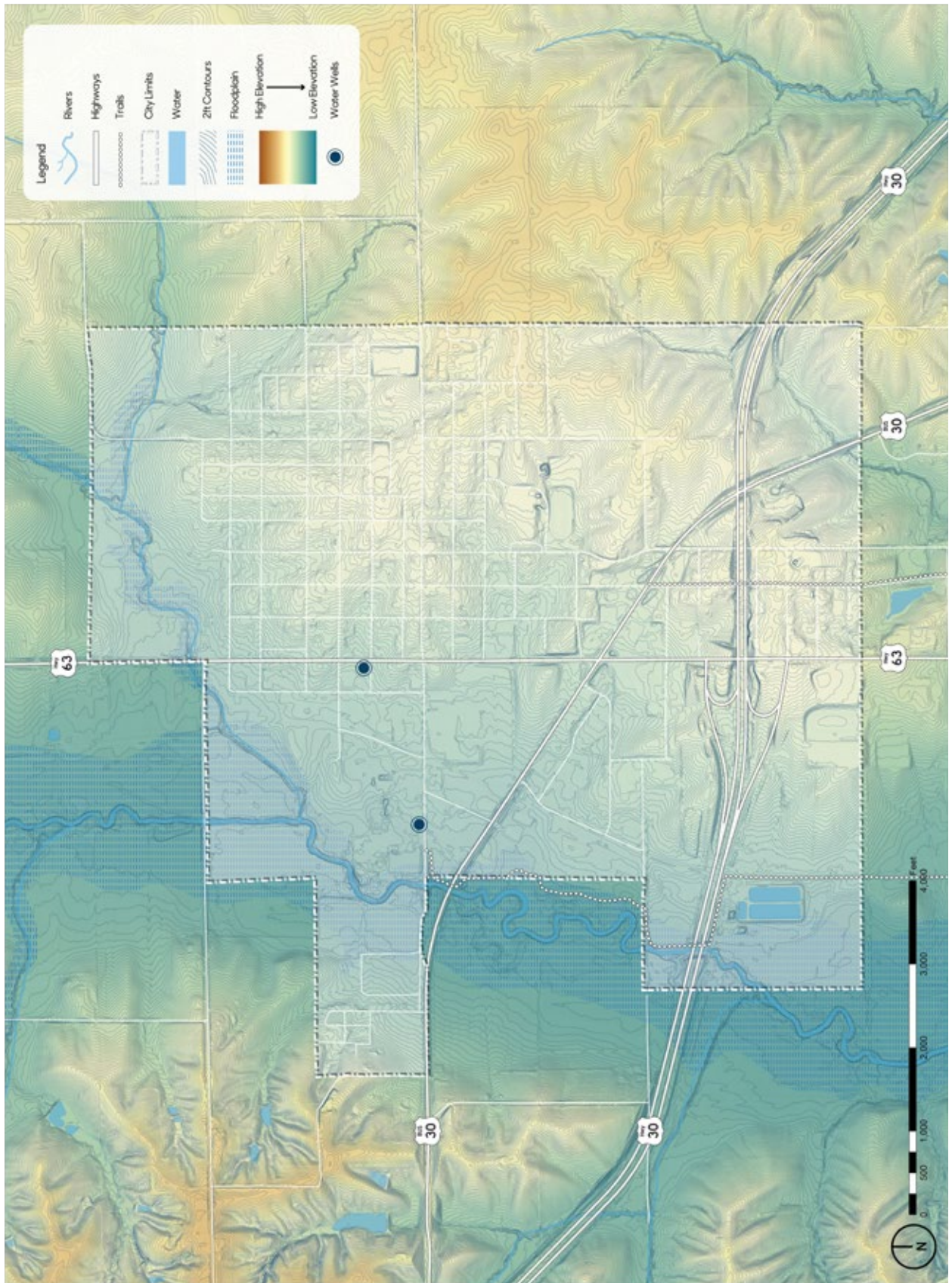


Elevation and Flow

This map displays topographic differences in elevation using a combination of contour lines and the color gradient depicted in the legend. The high 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; 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. The map shows the two most important flood zones if 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.

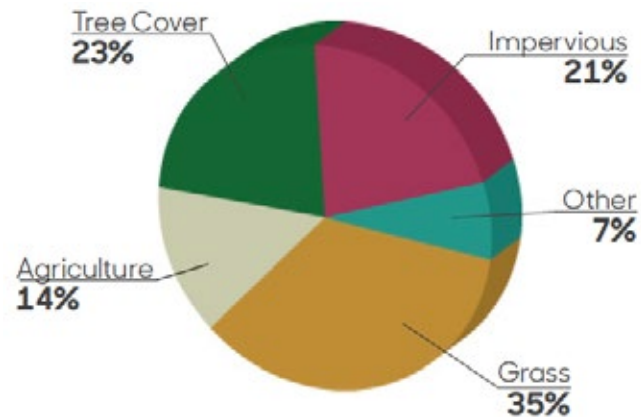
What do you observe about the dominant landcover types in your community?

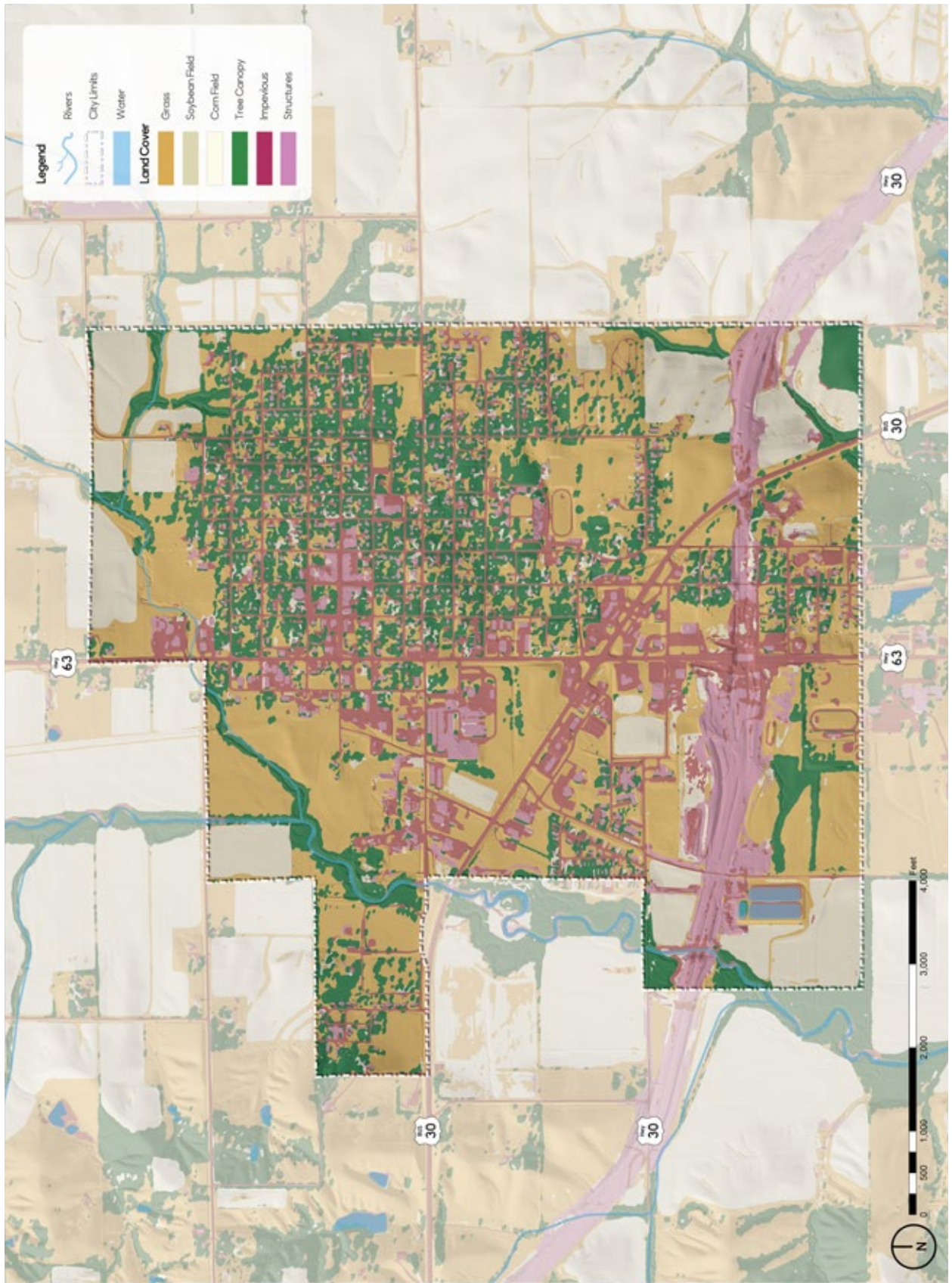
Where is the tree canopy most concentrated?

Look at how much of your community consists of impervious surfaces (e.g., parking lots, roads, buildings) compared 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





Landscape Change Over Time

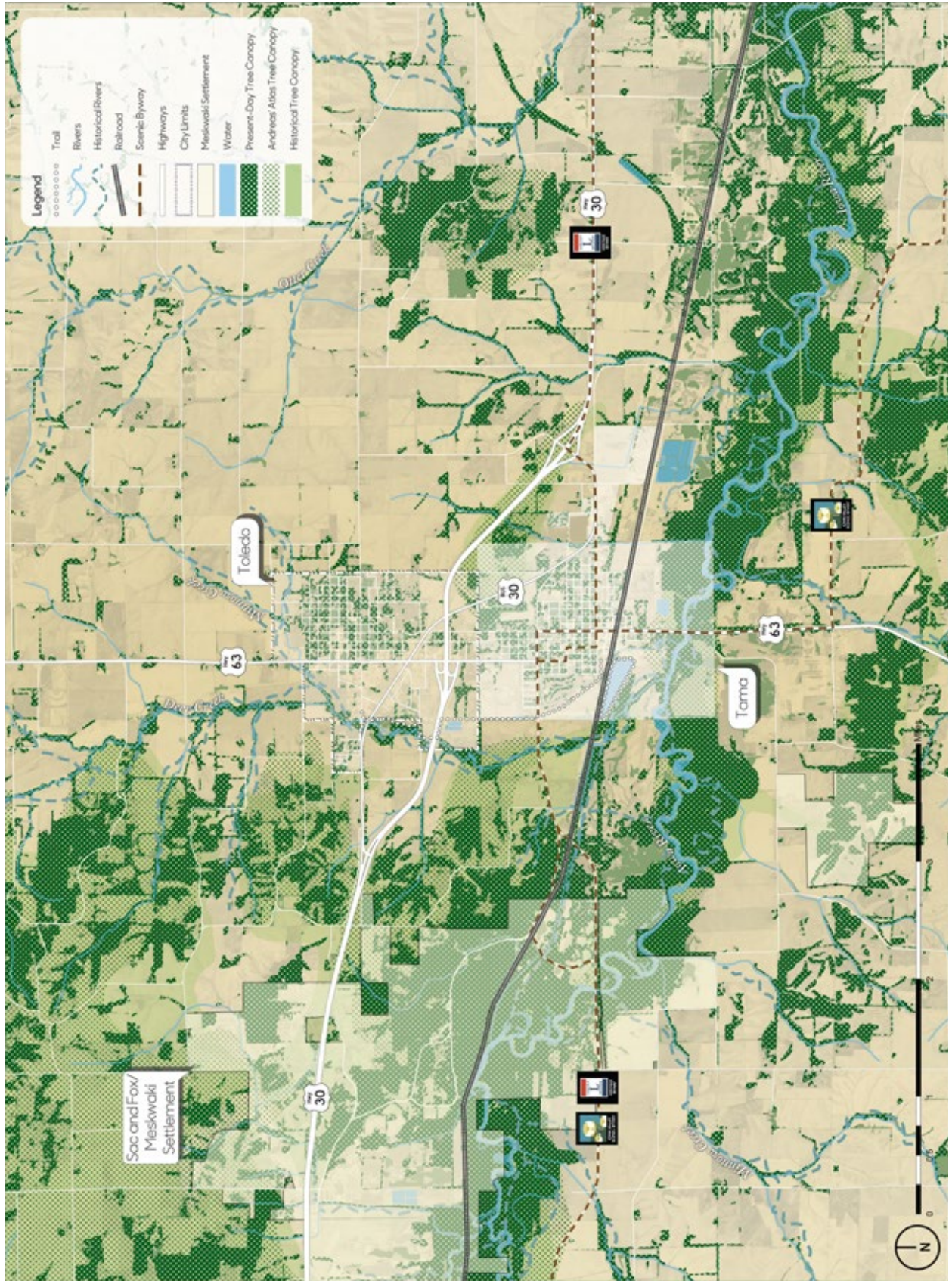
The map on this page shows how the landscape has changed over time, with an emphasis on vegetation and drainageways.¹ The map is helpful for understanding how landscapes change and considering how these changes might affect how well the landscape works to support human and ecological needs.

Trees are invaluable. They clean the air, create shade, and cool the atmosphere. They intercept rainfall and consume groundwater, which helps mitigate stormwater runoff. Carefully chosen and placed trees provide communities identity and residents with a sense of home. In Iowa, a prairie state, we increased tree cover to create shade and a sense of enclosure within rural towns. Lack of natural fires and burning has also generally increased tree cover along rivers and floodplains. Other areas of trees have diminished due to clearing for roads, agriculture, or other purposes.

What changes do you see to the tree canopy surrounding your community? Where has the tree canopy decreased? Where might the tree canopy have increased? Consider what changes to the landscape might have led to the increase or decrease of trees in the region (e.g., farming practices, community development, establishing homesteads and windbreaks, preservation of natural resources).

This map also shows current and historical stream and river corridors. Alterations to waterways such as channelization have been made to increase drainage, but can lead to increased erosion, sediment movement, and flooding where the straightened portion ends. Storm sewers also affect streams and waterways where outfalls drop urban runoff into the corridor, which can dramatically decrease water quality. How have streams and rivers changed? Do these changes appear to be man-made or natural?

¹ This map shows the difference between the present day tree canopy gathered from the DNR's Land Cover data and past landscape cover, as defined in the General Land Office (GLO) surveys from 1836 through 1859 and the *A.T. Andreas' Illustrated Historical Atlas of the State of Iowa from 1875*.



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

Different Users = Different Needs

To capture insights about transportation from a variety of perspectives, we invited Toledo residents with different transportation needs to participate in focus groups. A total of 33 residents attended Toledo's workshop. Participants were separated into four user groups and the Toledo steering committee.



Actives

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



Mobility Impaired

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



Older Adults

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



Youth

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



Parents

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



Steering Committee

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



The trailhead is a peaceful area with beautiful landscaping and convenient seating.



There are no pedestrian connections to Toledo Heights Park.



Toledo Heights Park is safe, has a nice, level path for walking and biking, and is open.



There is no marked or safe crossing across Broadway Street and US Business 30.



The Highway 63 overpass is great for walking and biking and provides a connection between Tama and Toledo.



The trail underpass for US Business 30 frequently floods, making it difficult to navigate.

What People Said



“...the City of Toledo put a nice bridge in over Deer Creek there right by the park. It’s got really nice space for biking and walking across the bridge...but there’s just nothing going up to it or away from it...There’s no walking or biking lane.”


“...we’ve got two major U.S. highways just cutting right through Tama and Toledo... it’s almost impossible for a kid, depending on where they live, to get to a school without having to cross a major U.S. highway.”

“When we walk out to Toledo Heights, we go on [Ross Street]... There’s hardly a sidewalk, and there’s quite a bit of traffic on that stretch.”

“If you go High Street to the east, you can pick about any street and run into bad sidewalks.”

“I just think what Tama and Toledo both need to do is [look] at how to better connect with the bicycle trails.”

Actives



“...there’s no way to get [to the walking trail]...for all those people [who] live on Prospect Drive and the trailer court...and there’s low income housing and then there’s a nursing home...Many of these people don’t have a car...”


“Several years ago...we went out and tried to walk [from]...the convenience store in Tama to the grocery store in Toledo...there’s no sidewalk for part of that area, and it’s right in front of the high school. They have to walk on a four-lane street to get there or walk on uneven ground to do it.”

“I think it would be great if we had some kind of an Uber system...or even a little taxi system in town. We have nothing, absolutely nothing, to help elderly people.”

“A lot of the children’s recreation is out at Toledo Heights Park [on Ross Street] and there’s no safe way to get out there.”

“...when [Highway 30] went in...they made overpasses for people to walk, and that is great for biking.”

Older Adults



Parents


"...the sidewalk in front of Weiting Theatre [is] very nice and very safe. It's exactly the kind of sidewalk we would like to see more of in our communities."

"...whenever I go to drop off my kids at the high school, there is a lot of traffic...There [are] always people coming in from both directions...turning in the same spot. Usually, it goes pretty smoothly, but if you're trying to make a left-hand turn...it's near[ly] impossible to go north."

"...our rec trails are a great place that we can go with kids. Only downfall...I have experienced there is just trying to get strollers through..."

"...in general, our community is not walking, biking, or exercise friendly...because our sidewalks are disconnected and all over the place."

"[Cherry Lake Trail] is nicely graveled. It's a pretty even walk...It's very level. It's easy to walk around. The only drawback is when the train goes by and it hanks the horn."



Youth

"I like to go to the old football field...because usually...when there's snow on the ground, I like to go with my friends sledding, because there [are] steep hills..."

"When it's nice out, I usually ask my mom if I can go walk or ride my bike to my friend's house...My mom doesn't have to worry about it because they live so close."

"Where the playground used to be for the middle school, it's a steep hill and there's not a [curb ramp] at the bottom. It's a curb, so it's hard to get up."

"At Toledo [Heights] Park, there [are] no sidewalks."

"There's usually a lot of sticks and leaves on the trail [at Cherry Lake] so it's a little harder to walk."



Steering Committee

"We only have...two pedestrian routes that connect Tama to Toledo now, and on both of those routes, the sidewalks dead-end within a quarter mile of the crossing, so there's no way to get to those crossings safely."

"...one reason why I haven't ridden my bike...[is] because I have to cross the highway, and it makes me nervous to do that."

"It took me 20 minutes to walk [to the high school]. Fifteen of that was crossing the highway and climbing over snow banks to do so."

"Our sidewalks are in bad shape in town. A lot of times, there's debris them and snow, and it just forces people out into the street."

"What I like about both Toledo Heights and the rec trail is [they are] wide enough for two people to walk side by side and have a conversation. [The trail is] surrounded by trees and so it's quiet and you get that feeling of nature."

Emerging Themes

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

Actives walk, drive, and bike regularly, either as part of a daily commute or as recreational/sports training. This group would like better connections between Toledo and Tama as well as regional trail connections.

Older adults primarily drive and walk to destinations. This group wants wide, handicapped-accessible sidewalks and a public transportation system.

Youth mainly walk and bike to get around the community. They enjoy the skateboard park, Toledo Heights, and the trail behind the school. They like to go sledding at the old football field.

Parents drive, walk, and bike. They are concerned about their children's safety as they travel throughout town. This group desires better sidewalk and trail connections, especially to the schools and crossing major US highways.

Steering committee members walk, drive, bike, and run. This group would like improved access to the business district, commercial areas, and new development.

User Types	Destinations and Activities			Desirable Qualities and Features			Undesirable Qualities and Features			Most Desired Improvements and Activities					
	Toledo Heights Park	South Tama Rec Trail	Cherry Lake and Trail	Outdoor Recreation Areas	Natural Areas and Wildlife	Pedestrian Overpasses	Incomplete and Poor Sidewalks	Heavy Traffic	Poor Pedestrian Connections	Flooding and Drainage Issues	Winter Barriers	Street Trees	Paved Trail	Complete Sidewalk System	Highway 63 Corridor
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Toledo Heights is a popular destination for user types, youth enjoy playing sports there and older adults like the seating and landscaping of the trailheads. Both adults and youth enjoy the tree canopy. Adults value Cherry Lake and its trail because it is a safe place to walk because of the wide, smooth sidewalk. Parents appreciate the South Tama Rec Trail because they offer a place for families to gather, Active youth and adults. All groups go to the picnic tables on the trail is popular for some for much of the year. Residents enjoy the vegetation and walking Cherry Lake or canoeing or kayaking on the pond river. Older adults appreciate the pedestrian overpasses of sidewalks in town on a barrier, particularly the lack of street crossings on Highway 63. US Business 30 Church Street, Ross Street and County View Drive. Active parents and steering committee members are especially concerned about heavy traffic on Highway 63 to cross it to get to school. Tama that pedestrian cannot easily in Toledo and Highways Heights Park and the Toledo business district. Members described flooding and drainage issues in town. Older adults and steering committee members also noted that flooding water is a problem. Active and older adults said that many trees during the 2020 drought in Toledo Heights Park and along the trail. Parents and active would like the trail to be paved so that it could be covered for winter use. Parents want to be able to push a stroller on the trail, which currently is not possible when the trail is wet. Participants would like to see a complete sidewalk system throughout town that is wide enough for people to walk side by side and that provides access to destinations such as Toledo Heights, the aquatic center, and the schools. Making Highway 63 safer for pedestrians is a priority among adults, parents, older adults, and steering committee members. Most sidewalks on both sides and across suggested on overpass at Myrtle Street.

Transportation Behaviors and Needs

Overview

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

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

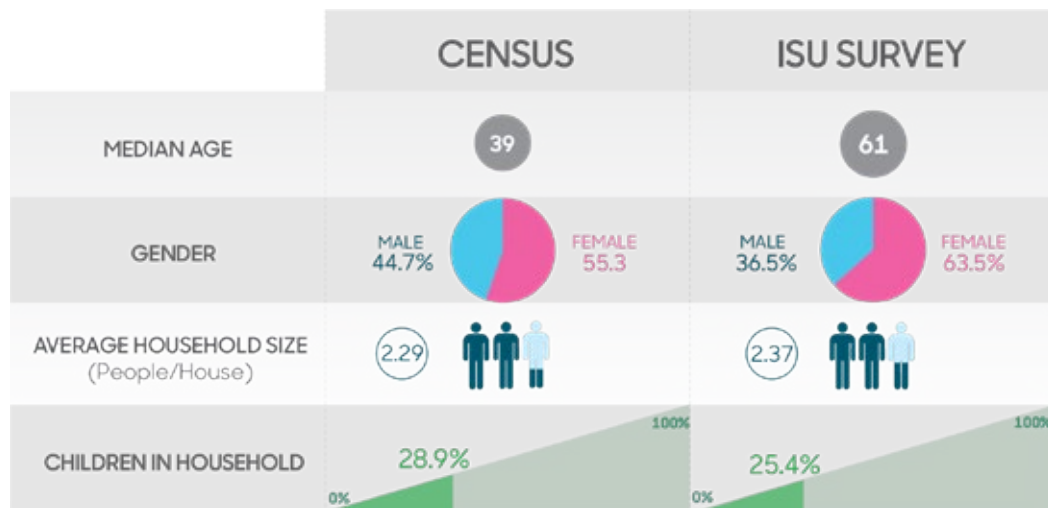
With assistance from Iowa State University's Survey Research Services staff in the Center for Survey Statistics and Methodology (CSSM-SRS), ISU visioning program staff conducted a survey to better understand the transportation patterns, behaviors, needs, and desires of Toledo residents. Surveys were mailed to 260 randomly selected residents living in Toledo and the surrounding area. To increase the response rate, the study was publicized through the local media and follow-up packets were mailed to nonrespondents. With adjustments for ineligible respondents (e.g., incorrect addresses, no longer living in the community), the final sample size was 231. A total of 64 people returned surveys, for a response rate of 27.7%. (A response rate of 20% is considered valid.)

We asked survey recipients what routes they use most often for going to work, walking, and biking. In addition, we asked what qualities and features are important during these activities. We also discovered what residents think is most important in terms of transportation enhancements that address issues such as accessibility, mobility, and safety. Finally, we learned whether or not residents are willing to contribute their time or their financial resources to making enhancements to Toledo. This series of boards summarizes the results of the survey as follows:

- Willingness to Help
- Enhancement Priorities
- Commuting Routes
- Walking Routes
- Biking Routes
- Regional Biking Routes

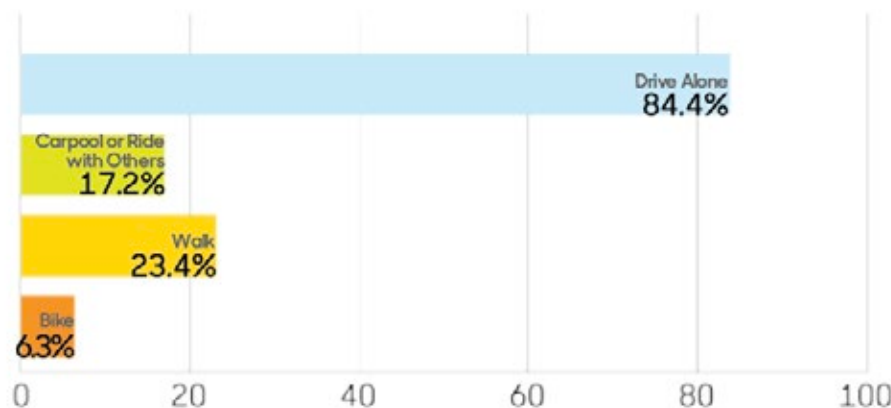
How We Did

The demographics of the respondents are somewhat different from those obtained from the 2019 American Community Survey Five-Year Estimate and the World Population Review. For example, the survey respondents median age of 61 is significantly older than the 2019 estimated average age for Toledo residents of 39. In terms of gender, the percentage of female survey respondents is significantly higher than that of the census. Average household size of survey respondents is higher than the 2019 estimate. The percentage of households with children among survey respondents is slightly lower than that of the census estimate.



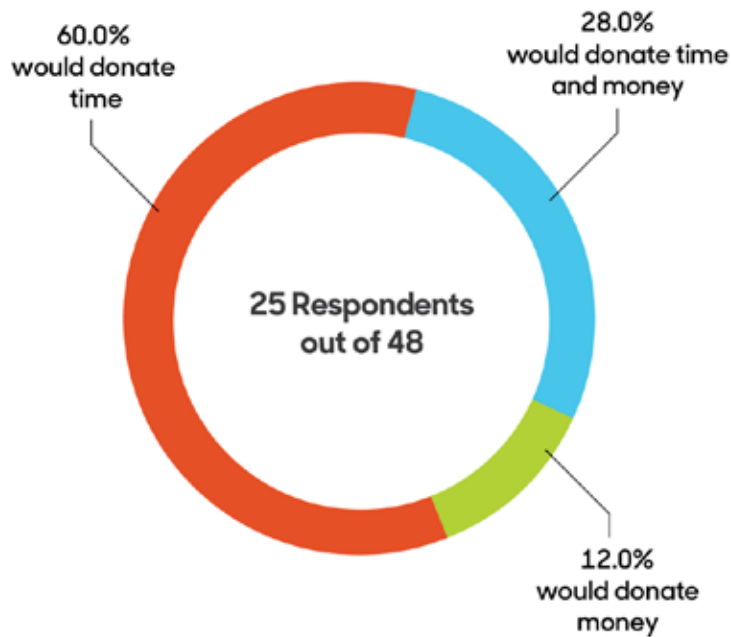
How Toledo Residents Travel

Most survey respondents drive to important destinations such as the convenience store, the post office, school, and church (84.4%). More than 17% carpool or ride with someone else. Nearly 24% of participants indicated that they walk to destinations and 6.3% bike.



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

Willingness to Help



Most survey participants who answered this question are willing to contribute their time to community improvements (60%), while 28% would contribute their time and money. Twelve percent of respondents indicated that they would be willing to contribute financially.

Compared to other small towns in Iowa, Toledo residents are more willing to become involved in improving their community. In 2014, on average, 43% of residents in small, rural towns volunteered to help with a community project¹. Toledo exceeds this average by 9%.

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

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

Survey Participants Said...



"[I] would like to see beautification of the area that draws people to be outdoors, connects people to the use of amenities, and promotes non-car usage."

"[I] would like to see more assistance for the elderly, [and] better ways to get to the bike trails."



"The town needs [to be] revitalized, but the historic nature of the town should be maintained."

How Do You Get People to Help?

Ask, Show, and Advertise Opportunities

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

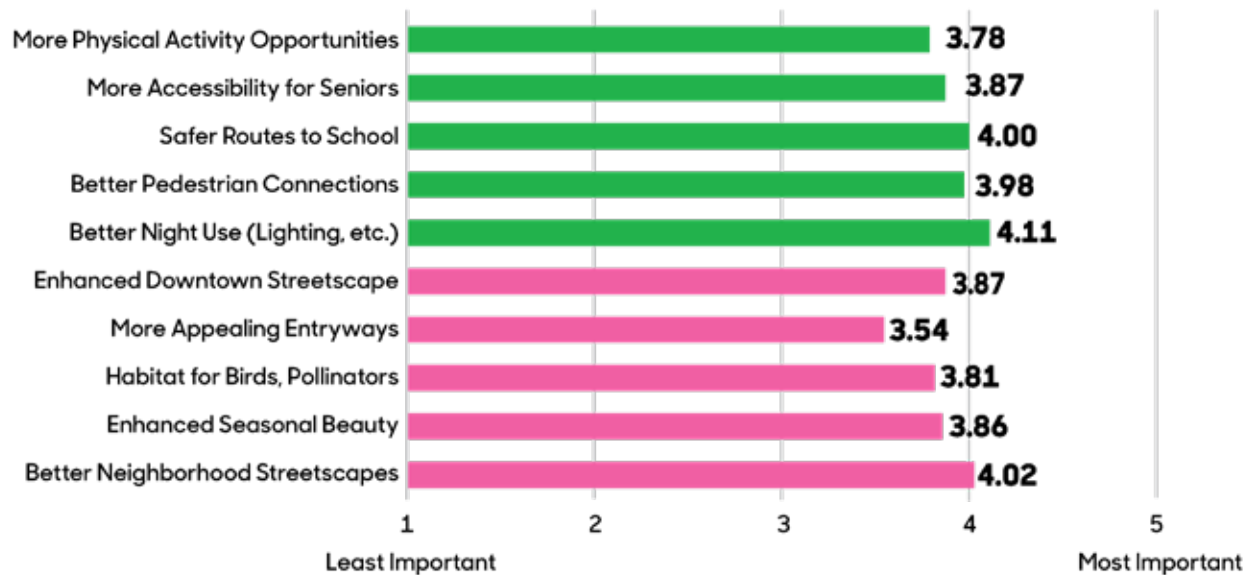
¹ *Sigma: A Profile of Iowa Small Towns 1994 to 2014* (Ames, IA: Iowa State University College of Agriculture and Life Sciences, 2015).

Priorities

On a scale of 1 to 5, with 5 being the most important, participants in Toledo ranked improving night use, with a mean value of 4.11. Other types of transportation enhancements that address pedestrian mobility, health, and safety are also considered important, such as creating safer routes to school (4.00) and providing better pedestrian connections (3.98) and creating more accessibility for seniors (3.87). In terms of quality of the built environment, survey respondents consider better neighborhood streetscapes as most important (4.02), followed by enhanced seasonal beauty (3.86) and habitat for birds and pollinators (3.81).

Transportation Enhancement Issues

- Pedestrian Mobility, Safety, and Health
- Quality of the Built Environment



Survey Participants Said...



"It would be great to have good, safe places to bike and walk, but the roads need a lot of work. Having some sort of public transportation would also benefit the people of the community."

"[We need to] make ALL sidewalks with [curb ramps] to accommodate wheelchairs, strollers, and other mobility devices."



"This town is beautiful, but the sidewalks can be [unsafe] in areas...Also, we need streetlights."

"[I don't feel safe walking because I] need to walk along busy roadways to get to the grocery store, bank, etc."



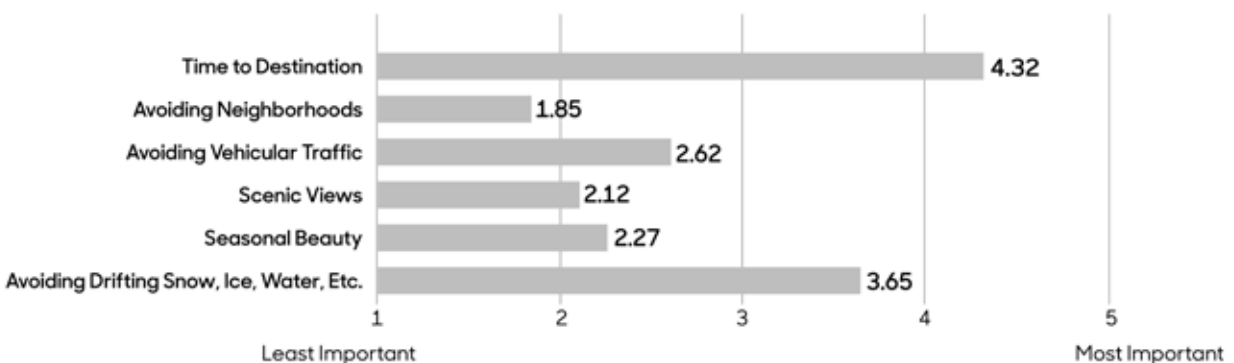
Commuting Routes

This map shows the commuting routes identified by 27 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. The primary commuting corridor in Toledo is Highway 63 south, which connects people with US 30 Business and US 30. Commuters travel both east and west out of town on US 30. Some people travel north on Highway 63 out of town, while other go south into neighboring Tama.

The circulation patterns that emerge when routes for biking, walking, and commuting are overlaid suggest suitable types of transportation enhancements. For example, where pedestrian and vehicular traffic intersect, such improvements could include creating better visibility, defining crossing points, or improving signage.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that factored into their choice of commuting route. Among Toledo participants, time to destinations is the most important factor, with a mean value of 4.32. Avoiding weather-related issues such as snow and ice is also considered important, with a mean value of 3.65. Avoiding vehicular traffic or neighborhoods, scenic views, and seasonal beauty are not considered significant factors when choosing commuting routes.

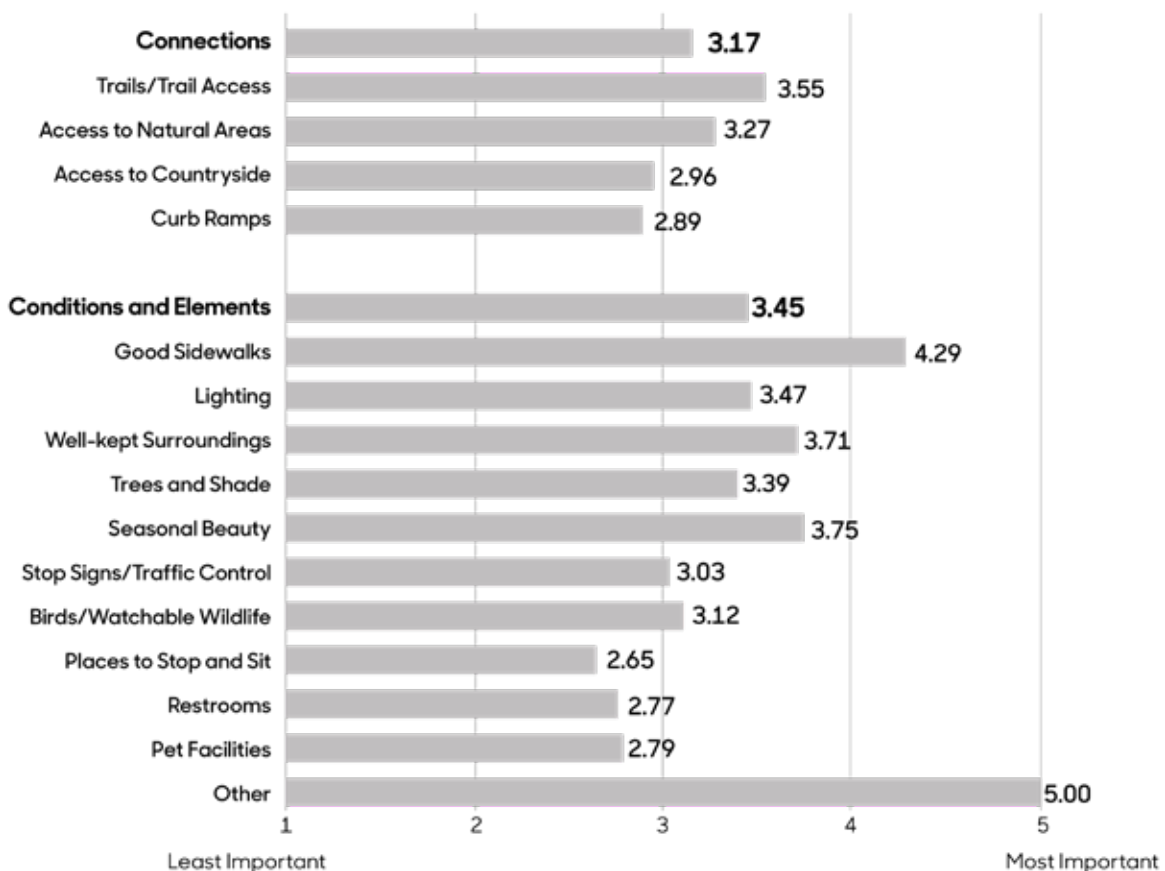


Walking Routes

This map shows the walking routes identified by 32 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. The most popular place to walk in Toledo is Toledo Heights Park. People also walk the South Tama Recreation Trail, presumably to Cherry Lake in Tama, and in Woodlawn Cemetery. City streets that walkers frequently take include Main Street and State Street in the downtown area, Church Street from Ross St to Mill St, Ross Street to Toledo Heights Park, and Vine Street.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their walking experience better. These features are categorized as either "connections" or "conditions and elements." Among Toledo participants, conditions and elements are more important than connections, with mean values of 3.45 and 3.17, respectively. In terms of connections, access to trails is most important with a mean value of 3.55. Other factors—including safety, particularly relative to crossing Highway 63 and US 30 Business—are most important, with a mean value of 5.00. Good sidewalks (4.29) are the next most important element to walkers, followed by seasonal beauty (3.75) and well-kept surroundings (3.71). Other significant factors include lighting (3.47) and trees and shade (3.39).

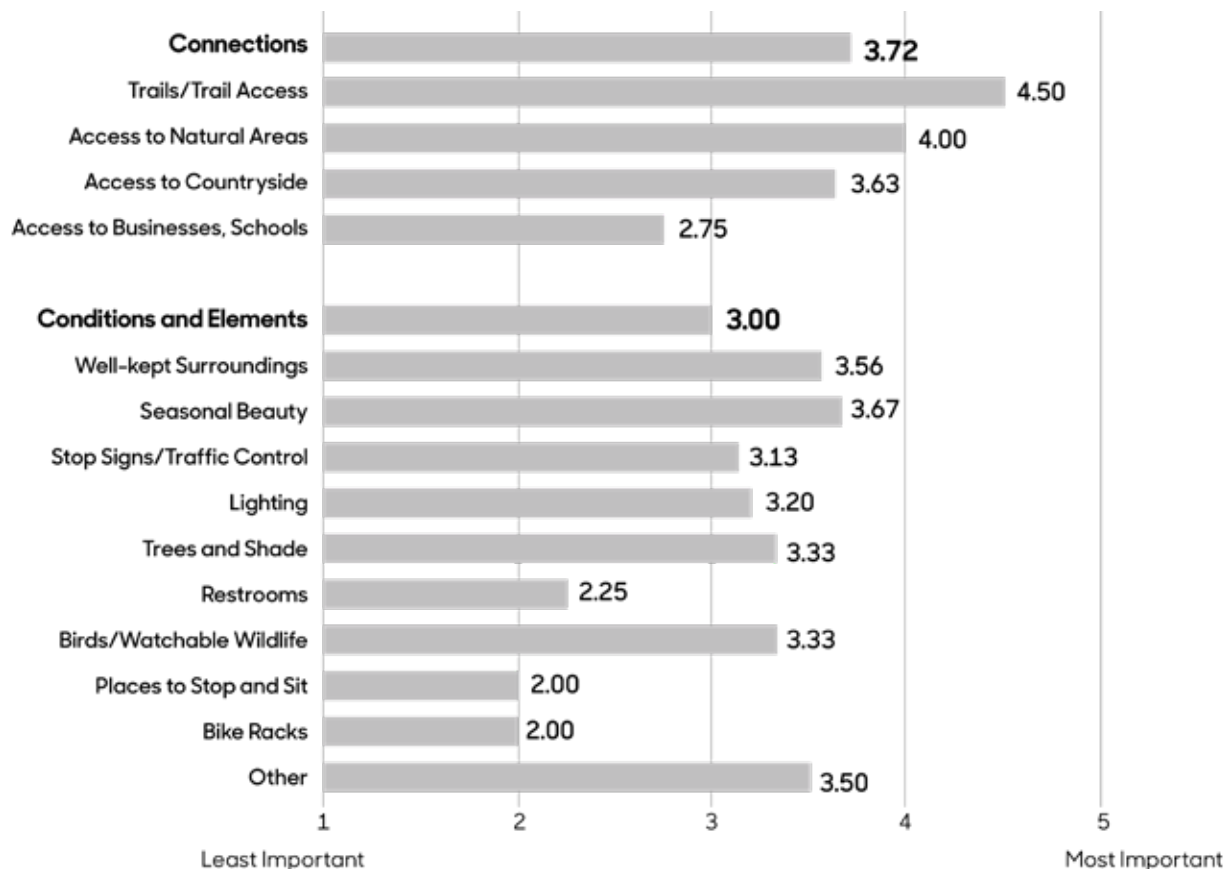


Biking Routes

This map shows the biking routes identified by 10 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. The South Tama Recreation Trail is the most popular biking venue. Some riders also bike in Toledo Heights Park and Woodlawn Cemetery. Cyclists also ride on city streets, most frequently on Main, State, and Broadway in the downtown area, Ross Street, Church Street, Vine Street, Elm Street, Harrison Street, and K Avenue.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their biking experience better. These features are categorized as either "connections" or "conditions and elements." Among Toledo participants, connections are of more important than conditions/elements, with mean values of 3.72 and 3.00, respectively. In terms of connections, access to trails is most important with a mean value of 4.50. Among conditions and elements, seasonal beauty is considered most important (3.67), followed by well-kept surroundings (3.56). Other factors (3.50), which include safety and road conditions, are also significant to bikers. Trees and shade and birds/watchable wildlife are also somewhat important (3.33 each).

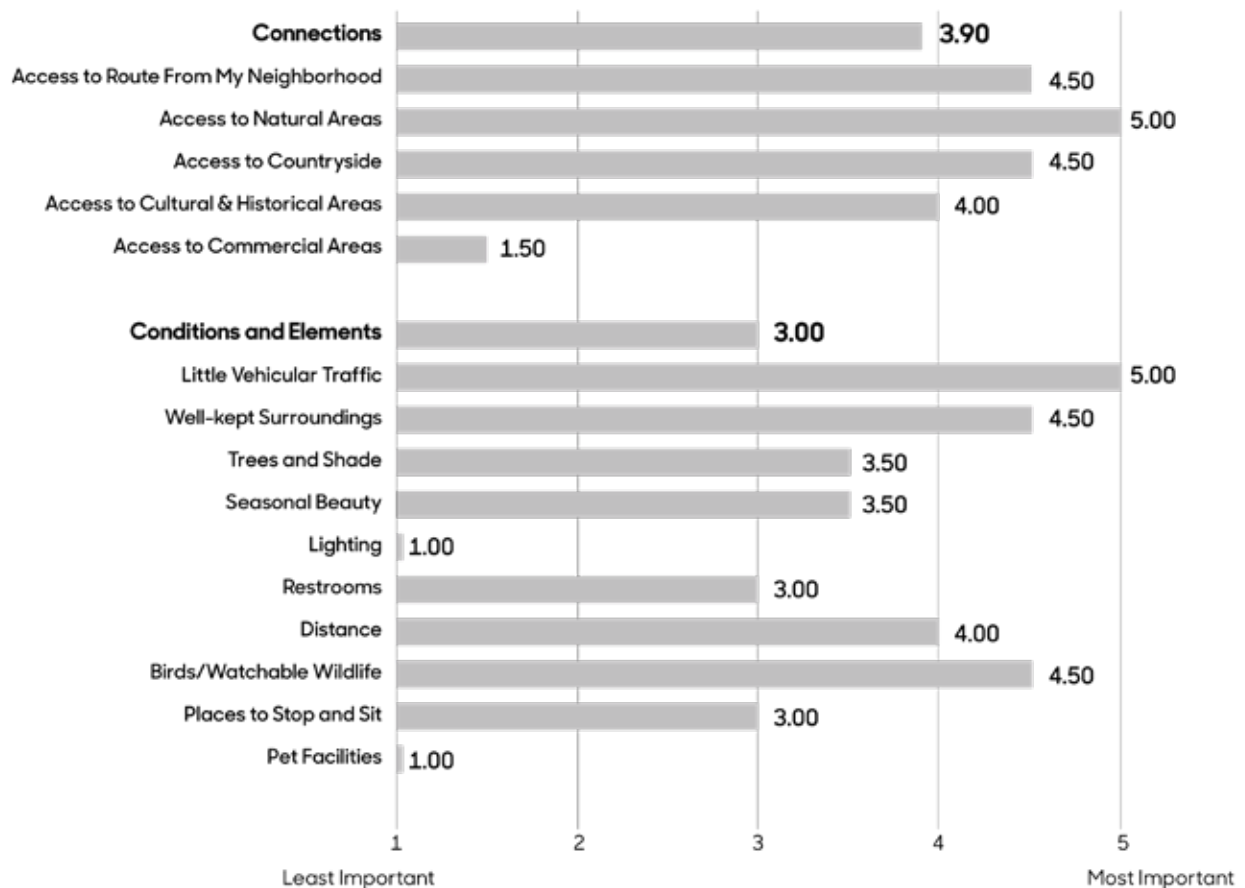


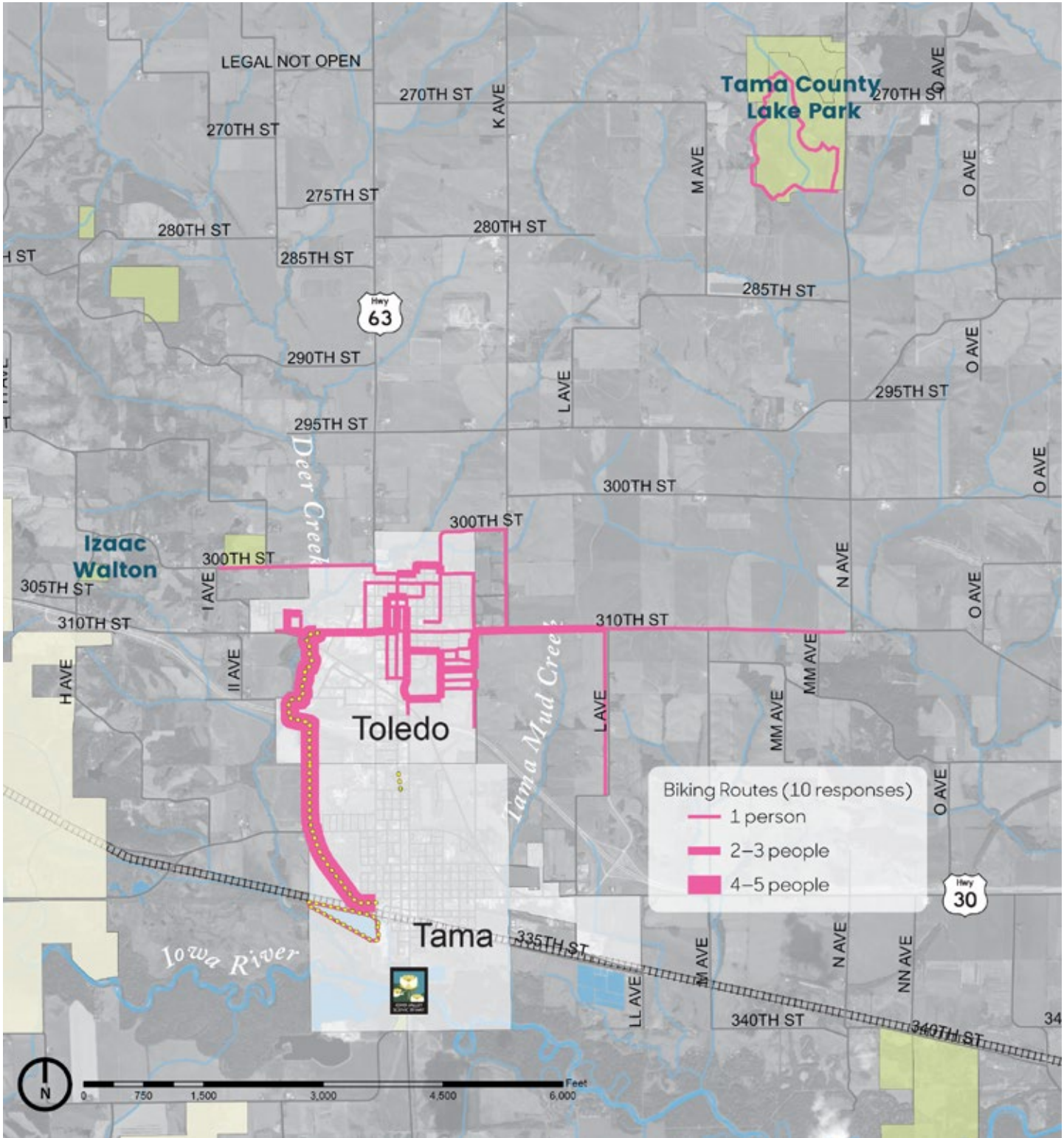
Regional Bike Routes

This map shows the out-of-town biking routes identified by 10 survey respondents. The frequency that the routes are used is depicted by their width, with most frequently used routes being the thickest. Both in town and out of town, the South Tama Recreation Trail is the most popular route for cyclists. Some people bike the trail into Tama to access the trail at Cherry Lake. Some cyclists take 310th Street east out of town and some go west on 300th Street. One person indicated that they bike at Tama County Lake Park.

Why They Go That Way

On a scale of 1 to 5, with 5 being the most important, survey participants ranked the characteristics and features that made their out-of-town biking experience better. These features are categorized as either "connections" or "conditions and elements." Among Toledo participants, connections are significantly more important than conditions/elements, with mean values of 3.90 and 3.00, respectively. In terms of connections, access to natural areas is most important with a mean value of 5.00, followed by access to the route from one's neighborhood and access to the countryside (4.50 each). In terms of conditions and elements, out-of-town cyclists consider little vehicular traffic most important (5.00), followed by well-kept surroundings and birds/watchable wildlife (4.50 each). Route distance is also a significant factor at 4.00.





Interview with Hispanic Residents

The Hispanic population in Toledo and Toledo is significantly higher than that of the state of Iowa, which is only 6.3%. In Toledo and Toledo, 34.6% and 14.2%, respectively, of the populations are Hispanic.¹ The Toledo and Toledo visioning committees recognized the importance of engaging with this substantial group of residents. To capture the transportation behaviors, needs, and desires of this demographic group, the ISU research team conducted an interview with two members of the Hispanic community, one from Toledo and the other from Toledo. The interview was conducted via Zoom, and, like with the focus groups, the team annotated interviewees' comments on an aerial map.



Hispanic residents like to walk on the trail around Cherry Lake because it is safe and they enjoy the natural scenery.



Because many Hispanic residents do not drive, they have to walk to basic services, many of which are located along Highway 63.

¹ "American Community Survey (ACS)," accessed May 21, 2021. <https://www.census.gov/programs-surveys/acs>.

Emerging Themes

Desirable Qualities and Features

Members of the Hispanic community walk and bike for recreation. Safety is the primary factor affecting their choice of walking and biking routes. Hispanic residents like Toledo Heights Park because there is no traffic, the drive is paved, and the park layout allows parents to keep an eye on their kids. Interviewees also identified Cherry Lake and the South Toledo Recreation Trail as both safe and scenic places to go. Toledo and Toledo focus-group participants and survey respondents also value these recreation venues for similar reasons.

Undesirable Qualities and Features

The absence of sidewalks and designated pedestrian crossings throughout Toledo and Toledo is the most significant barrier to Hispanic residents in the two communities. Specifically, interviewees cited the Highway 63 corridor, from which people access Fareway and Dollar General in Toledo and the elementary and high schools in Toledo, as particularly hazardous for pedestrians. One interviewee shared that they had seen parents pushing a stroller through the grass, trying to manage kids, and carrying groceries along Highway 63. Interviewees also talked about frequent car accidents at the entrance to the high school. Focus-group participants in both Toledo and Toledo share this view, particularly parents and older adults.

Desired Improvements

Hispanic residents would benefit most from additional sidewalks and controlled pedestrian crossings, according to interviewees. Specifically, they would like sidewalks along the Highway 63 corridor to provide better pedestrian access to the Toledo business district and the elementary and high schools in Toledo. Interviewees also suggested several stoplights, primarily to make it safer for kids walking to school, including at the entrance to the high school, at 12th and Harding Street, 9th and State Street, and 5th and State Street. These suggestions are consistent with the priorities expressed by survey respondents, which include creating safer routes to school.

Interviewees said that a bus or taxi service would be beneficial to Hispanic residents, many of whom do not drive. Older-adult focus-group participants would also like some sort of public transportation.

Finally, Hispanic residents would like the South Toledo Recreation Trail to be paved, a view expressed by participants in the Toledo parents and actives focus groups.

Transportation Inventory and Analysis

Knowledge of the transportation systems in and around a community is critical for sustainable transportation enhancement planning. Toledo's transportation system includes roadways, sidewalks, an active railroad, and a multi-use trail.

The Toledo visioning design team met with the local Toledo County officials to identify existing, past, and future transportation system capital improvements, maintenance activities and issues, and other transportation-related constraints and opportunities in the area.

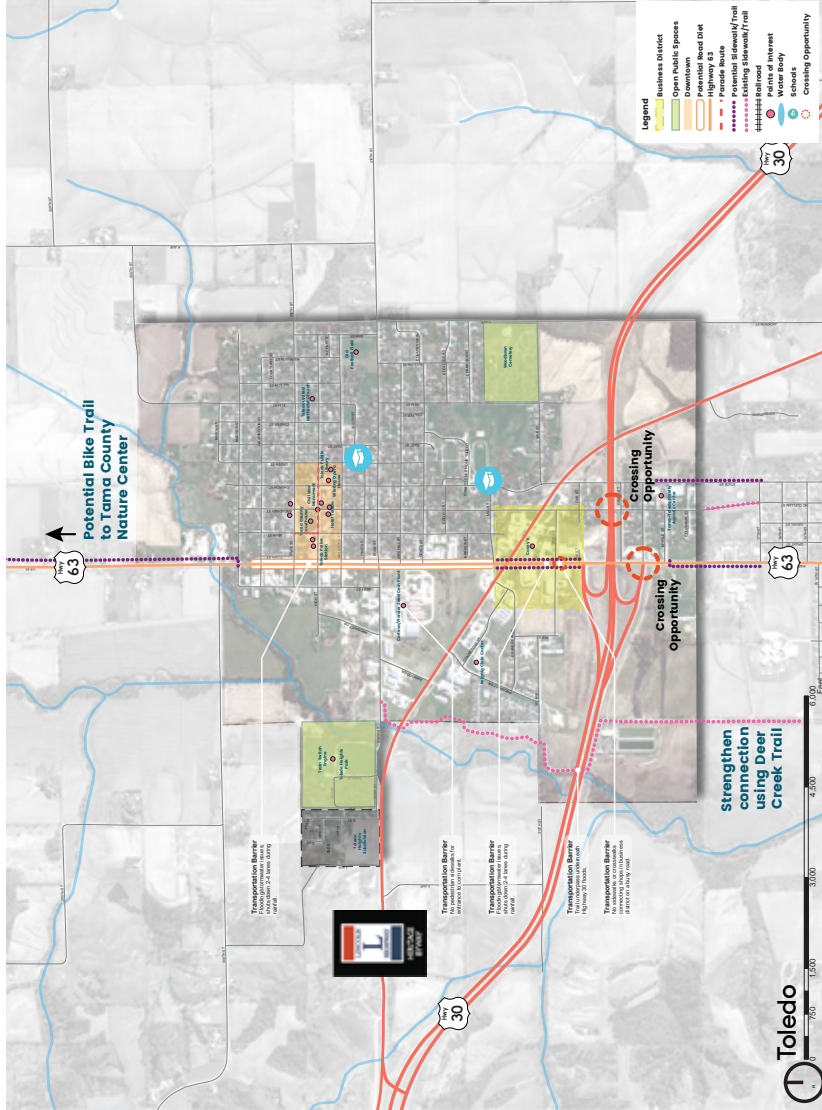
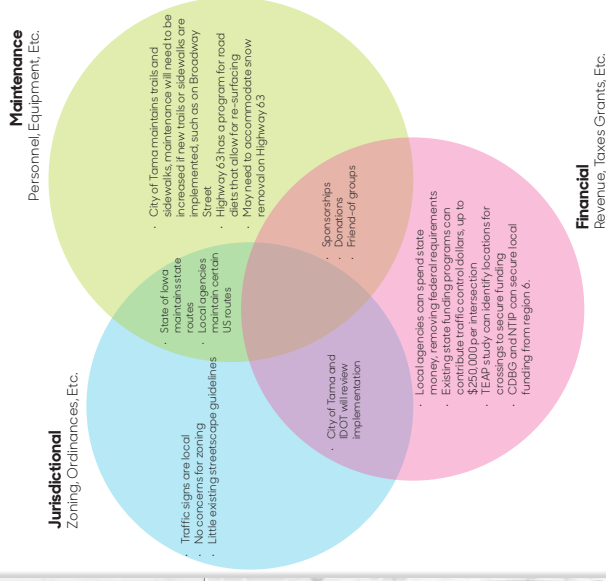
The design team met with Toledo community members to understand the influences affecting the community, and how any proposed designs should address the current strengths and weaknesses of Toledo's transportation systems.

Transportation strengths include various community resources and opportunities including the Toledo Heights Park, Tama Rec Trail that currently provides a pedestrian connection to the neighboring town of Tama, and the existing yet incomplete sidewalk network in the suburban areas southeast of downtown Toledo.

Issues facing Toledo transportation include lack of pedestrian access to the business district along US Highway 63, unsafe walking routes for Toledo students walking south to schools located in Tama to the south, and a lack of crossing opportunities along Highway 63 for pedestrians walking to and from Toledo. The incomplete sidewalk network also often forces community members to walk in the streets due to existing streetscape guidelines.

Community Influences

The design team met with Tama residents to understand the larger community influences that will affect any proposed planning and design projects. These are jurisdictional, maintenance, and financial aspects of implementation that will need to be considered by the Community Visioning team.



Toledo Transportation Inventory

site design group
 LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
 Landscape Designer: Richard Meagher
 Intern: Paul Hsu
 Iowa State University | Trees Forever | Iowa Department of Transportation



Community Concept Plan

Based on review of the bioregional assessment, feedback from survey respondents and focus group participants, and input from the Tama and Toledo Community Visioning steering committees, the design team proposed the following transportation improvement concepts:

- Traffic calming measures and signage for increased pedestrian and vehicular safety.
- Connect existing sidewalks to provide better connections between existing amenities such as the Tama-Toledo Water Park, STC High School and Elementary School, and both Tama and Toledo's downtown areas.
- Improving downtown Toledo with better wayfinding, on-street parking, and community projects such as pocket parks and wall murals.
- Connecting the Tama Rec Trail and Cherry Lake.
- Rethinking Oak Park between State and McClellan Streets to better accommodate residents and their children.
- Improving downtown Toledo with better wayfinding, pop-up outdoor spaces for businesses and activities, and increased on-street parking.
- Increasing access to existing amenities such as Toledo Heights Park and South Tama Recreational Trail.
- Improve existing sidewalks within the areas south of downtown Toledo.

These concepts seek to improve community identity, aesthetics, way-finding, and walkability throughout Tama and Toledo, addressing a range of community issues that were identified in the information gathering and analysis phase.

TAMA-TOLEDO JOINT PROJECTS	CONCEPT 1	CONCEPT 2	RESPONSIBLE PARTY	POTENTIAL PARTNERS
17TH STREET AND US 63	\$123,178	\$1,563,848	Tama and Toledo	Iowa DOT, South Tama Community School District, Local Artists
SOUTH TAMA REC TRAIL	\$1,321,820		Tama and Toledo	Tama County Parks
BROADWAY AND LINCOLN AVE	\$42,775		Tama and Toledo	Iowa DOT
ENHANCED PEDESTRIAN NETWORK	\$5,284,200		Tama and Toledo	Iowa DOT
JOINT PROJECTS TOTAL	\$6,771,973	\$1,563,848		

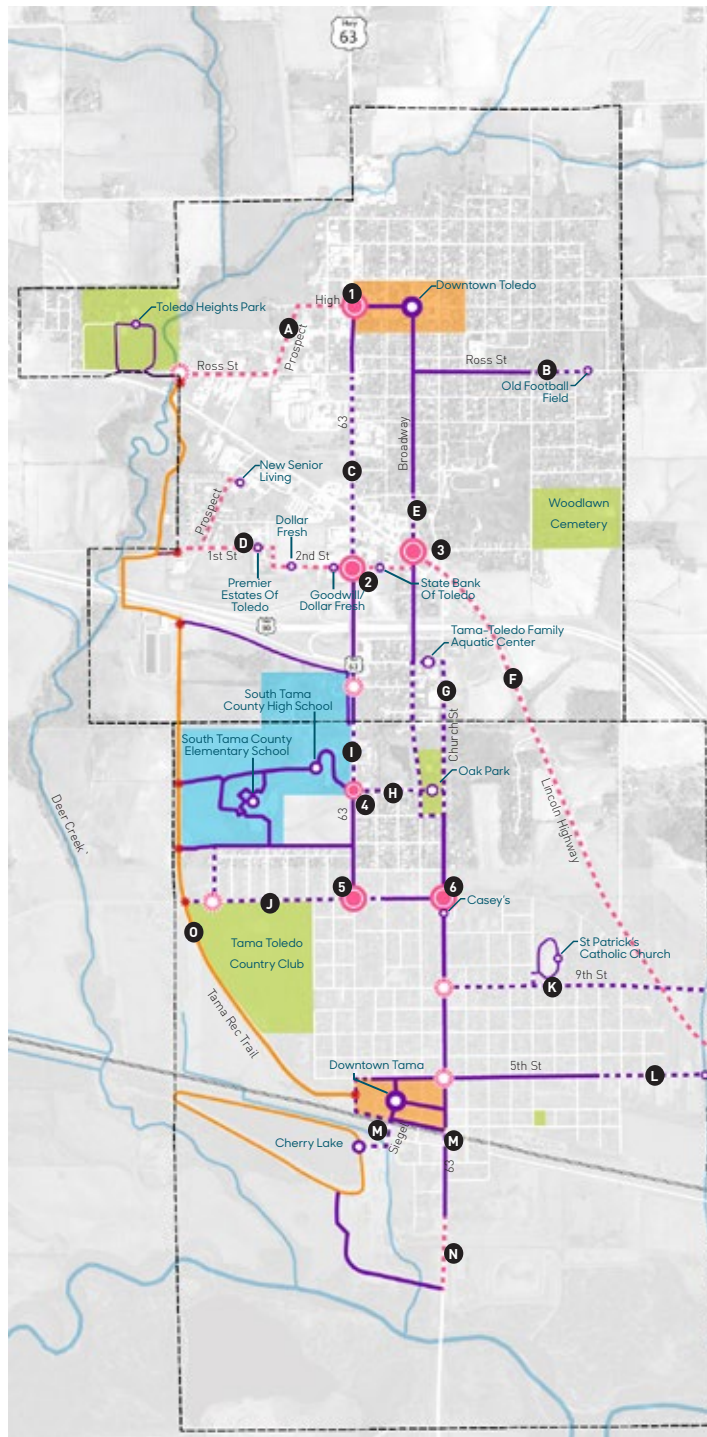
TAMA PROJECT	CONCEPT 1	CONCEPT 2	RESPONSIBLE PARTY	POTENTIAL PARTNERS
DOWNTOWN TAMA	\$438,770	\$841,653	City of Tama	Local Business Owners, Local High School Students (art competition), Main Street USA
STATE STREET AND US 63	\$113,100	\$82,900	City of Tama	Iowa DOT, Casey General Store, South Tama Community School District, Local Artists
HARDING AND US 63	\$75,400	\$85,057	City of Tama	Iowa DOT, South Tama Community School District, Local Artists
OAK PARK	\$1,405,520		City of Tama	Tama County Parks, Local Business Owners, Lions / Kiwanis / Community Organizations
TAMA PROJECTS TOTAL	\$2,032,790	\$1,009,610		

TOLEDO PROJECT	CONCEPT 1	CONCEPT 2	RESPONSIBLE PARTY	POTENTIAL PARTNERS
DOWNTOWN TOLEDO	\$655,400	\$799,516	City of Toledo	Local Business Owners, Local High School Students (art competition), Main Street USA
2ND STREET AND US 63	\$98,159		City of Toledo	Iowa DOT, Local Businesses Owners/Banks, Artists
HIGH STREET AND US 63	\$54,504	\$70,174	City of Toledo	Iowa DOT, Downtown Business Owners, Cultural Institutions, Local Artists
TOLEDO HEIGHTS CONNECTION PLAN (Segment A)	\$361,485		City of Toledo	Tama County Parks
2ND AND PROSPECT CONNECTION PLAN (Segment D)	\$237,075		City of Toledo	Iowa DOT, Downtown Business Owners, Senior/Assisted Living Institutions, Cultural Institutions, Local Artists
TOLEDO PROJECTS TOTAL	\$1,406,623	\$869,690		

GRAND TOTAL COSTS:	\$10,211,386	\$3,443,147		
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 888 South Michigan Avenue #1000
 Chicago, IL 60605
 312.427.7240

Proposed Trail Network + Project Sites



Visioning Process + Projects

Based on review of the bioregional assessment, feedback from survey respondents and focus group participants, and input from the Tama and Toledo Community Visioning steering committees, the design team proposed the following transportation improvement concepts:

- Traffic calming measures and signage for increased pedestrian and vehicular safety.
- Connect existing sidewalks to provide better connections between existing amenities such as the Tama-Toledo Water Park, STC High School and Elementary School, and both Tama and Toledo's downtown areas.
- Improving downtown Tama with better wayfinding, on-street parking, and community projects such as pocket parks and wall murals.
- Connecting the Tama Rec Trail and Cherry Lake.
- Rethinking Oakhill Park between State and McClellan Street to better accommodate residents and their children.
- Improving downtown Toledo with better wayfinding, pop-up outdoor spaces for businesses and activities, and increased on-street parking.
- Increasing access to existing amenities such as Toledo Heights Park and South Tama Recreational Trail.
- Improve existing sidewalks within the areas south of downtown Toledo.

These concepts seek to improve community identity, aesthetics, way-finding, and walkability throughout Tama and Toledo, addressing a range of community issues that were identified in the information gathering and analysis phase.

Proposed Trails + Sidewalks

- A Segment A: Toledo Heights Park to High/63 via Prospect and Ross
- B Segment B: Old Football Field to Elm Street via Ross Street (one block)
- C Segment C: Ross Street to the Business District via 63
- D Segment D: Tama Rec Trail and Toledo City Hall to the Business District and Broadway Street via 1st/2nd Street and Prospect Drive
- E Segment E: Mill Street to 2nd Street via Broadway Street
- F Segment F: Lincoln Highway Trail - continues into Tama
- G Segment G: Park Loop Trail (Summit to Church to 16th to Broadway, loops around the Tama-Toledo Family Aquatic Center and Oak Park
- H Segment H: Oakhill Park to STC High School via 17th Street
- I Segment I: STC High School to Toledo via 63
- J Segment J: 13th Street to Sesame Drive
- K Segment K: 63 to Oakhill Cemetery via 9th Street
- L Segment L: Garfield Street to Iowa Beef via 5th Street and Lincoln Highway
- M Segment M: Tama Rec Trail to Cherry Lake Trail via Siegel and the City Hall Parking Lot
- N Segments N: Downtown Tama to Cherry Lake Trail via 6
- O Segment O: Pave the Tama Rec Trail

Primary Intersection Safety Improvements

- 1 High Street and 63
- 2 2nd Street and 63
- 3 Broadway and Lincoln Highway
- 4 17th Street and 63
- 5 Harding and 63
- 6 State and 63

Tama + Toledo Concept Overview

site design group

LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
Landscape Designer: Richard Meagher
Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation



Enhanced Pedestrian Network

The primary goals of the improved pedestrian network and enhanced connections include:

- Establish a functional, safe pedestrian network that links the two communities, their downtowns, the Tama-Toledo Aquatic Park, Oak Park, and STC High School;
- Establish a functional safe pedestrian network that provides residents and community members with limited mobility options (i.e. lack of car) to access basic goods and services;
- Selectively upgrade sidewalks, targeting portions with heavy use, evident mud/ice issues, and conditions that limit accessibility or fail to adhere to ADA standards
- Strengthen Tama and Toledo community identities through wayfinding, signage, and environmental graphics (e.g., gateways, follies, etc.); enhance pedestrian safety through painted or constructed bump outs, pedestrian refuge islands, painted / enhanced crosswalks, and signage.; and, create an iconic and uniquely Tama/ Toledo space at Oak Park, establishing it as the "Central Park" of the communities.

Tama and Toledo Enhanced Pedestrian Network

The two communities of Tama and Toledo have integrated transportation networks, and to address the issues facing both cities the design team decided to look at these systems as a whole rather than separately. Various improvement projects will require collaborative efforts between Tama and Toledo, and certain design concepts may technically be located within another town's borders but will affect the residents of both communities.

CONCEPT PLAN - TRAIL SEGMENTS	CONCEPT 1	RESPONSIBLE PARTY	POTENTIAL PARTNERS
SEGMENT A	\$237,075	City of Toledo	Iowa DOT, South Tama Community School District, Local Artists
SEGMENT B	\$136,155	City of Toledo	Iowa DOT, South Tama Community School District, Local Artists
SEGMENT C	\$445,875	City of Toledo	Tama County Parks
SEGMENT D	\$361,485	City of Toledo	Iowa DOT, Local Businesses Owners/Banks, Artists
SEGMENT E	\$139,035	City of Toledo	Local Business Owners, Local High School Students (art competition), Main Street USA
SEGMENT F	\$932,814	City of Toledo	Iowa DOT, Local Businesses Owners/Banks, Artists
SEGMENT G	\$798,370	Tama and Toledo	Tama County Parks
SEGMENT H	\$159,152	City of Tama	Tama County Parks
SEGMENT I	\$93,830	Tama and Toledo	Iowa DOT, South Tama Community School District
SEGMENT J	\$484,735	City of Tama	Tama County Parks
SEGMENT K	\$796,050	City of Tama	Iowa DOT, Downtown Business Owners, Senior/Assisted Living Institutions
SEGMENT L	\$282,750	City of Tama	Iowa DOT, Downtown Business Owners, Cultural Institutions, Local Artists
SEGMENT M	\$245,775	City of Tama	Tama County Parks
SEGMENT N	\$171,100	City of Tama	Iowa DOT, Downtown Business Owners,
TRAIL SEGMENT TOTAL	\$5,284,200		

GRAND TOTAL COSTS: \$5,284,200

ENHANCED PEDESTRIAN NETWORK SEGMENT COSTS

TAMA-TOLEDO JOINT PROJECTS	
SEGMENT B	
Site Prep and Demolition	
6' Concrete Trail (SF)	
Landscape Enhancements	
Turf Seed	
Grading, Drainage, and Erosion Control	
Indirect Costs	
TOTAL	

CONCEPT 1			
QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
4600	SF	\$8	\$36,800
3800	SF	\$5	\$19,000
7700	SF	\$3	\$23,100
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$42,255
			\$136,155

SEGMENT C	
Site Prep and Demolition	
6' Concrete Trail (SF)	
Landscape Enhancements	
Turf Seed	
Grading, Drainage, and Erosion Control	
Indirect Costs	
TOTAL	

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
17000	SF	\$8	\$136,000
14200	SF	\$5	\$71,000
28500	SF	\$3	\$85,500
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$138,375
			\$445,875

SEGMENT E	
Site Prep and Demolition	
6' Concrete Trail (SF)	
Landscape Enhancements	
Turf Seed	
Grading, Drainage, and Erosion Control	
Indirect Costs	
TOTAL	

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
4722	SF	\$8	\$37,776
3900	SF	\$5	\$19,500
7870	SF	\$3	\$23,610
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$43,149
			\$139,035

SEGMENT F	
Site Prep and Demolition	
8' Concrete Trail (SF)	
Landscape Enhancements	
Turf Seed	
Grading, Drainage, and Erosion Control	
Indirect Costs	
TOTAL	

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
42240	SF	\$8	\$337,920
26400	SF	\$5	\$132,000
52800	SF	\$3	\$158,400
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$289,494
			\$932,814

SEGMENT F
Site Prep and Demolition
8' Concrete Trail (SF)
Landscape Enhancements
Turf Seed
Grading, Drainage, and Erosion Control
Indirect Costs
TOTAL

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
42240	SF	\$8	\$337,920
26400	SF	\$5	\$132,000
52800	SF	\$3	\$158,400
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$289,494
			\$932,814

SEGMENT G
Site Prep and Demolition
6' Concrete Trail (SF)
Landscape Enhancements
Turf Seed
Grading, Drainage, and Erosion Control
Indirect Costs
TOTAL

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
31200	SF	\$8	\$249,600
26000	SF	\$5	\$130,000
52000	SF	\$3	\$156,000
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$247,770
			\$798,370

SEGMENT H
Site Prep and Demolition
6' Concrete Trail (SF)
Landscape Enhancements
Turf Seed
Grading, Drainage, and Erosion Control
Indirect Costs
TOTAL

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
5520	SF	\$8	\$44,160
4600	SF	\$5	\$23,000
9200	SF	\$3	\$27,600
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$49,392
			\$159,152

SEGMENT I
Site Prep and Demolition
6' Concrete Trail (SF)
Landscape Enhancements
Turf Seed
Grading, Drainage, and Erosion Control
Indirect Costs
TOTAL

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
2900	SF	\$8	\$23,200
2410	SF	\$5	\$12,050
4820	SF	\$3	\$14,460
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$29,120
			\$93,830

SEGMENT J
Site Prep and Demolition
6' Concrete Trail (SF)
Landscape Enhancements
Turf Seed
Grading, Drainage, and Erosion Control
Indirect Costs
TOTAL

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
18600	SF	\$8	\$148,800
15500	SF	\$5	\$77,500
31000	SF	\$3	\$93,000
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$150,435
			\$484,735

SEGMENT K
Site Prep and Demolition
6' Concrete Trail (SF)
Landscape Enhancements
Turf Seed
Grading, Drainage, and Erosion Control
Indirect Costs
TOTAL

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
28500	SF	\$8	\$228,000
32700	SF	\$5	\$163,500
47500	SF	\$3	\$142,500
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$247,050
			\$796,050

SEGMENT L
Site Prep and Demolition
6' Concrete Trail (SF)
Landscape Enhancements
Turf Seed
Grading, Drainage, and Erosion Control
Indirect Costs
TOTAL

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
10500	SF	\$8	\$84,000
8700	SF	\$5	\$43,500
17500	SF	\$3	\$52,500
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$87,750
			\$282,750

SEGMENT M
Site Prep and Demolition
6' Concrete Trail (SF)
Landscape Enhancements
Turf Seed
Grading, Drainage, and Erosion Control
Indirect Costs
TOTAL

QTY	UNIT	COST	TOTAL
1	ALLOW	\$7,500	\$7,500
9000	SF	\$8	\$72,000
7500	SF	\$5	\$37,500
15000	SF	\$3	\$45,000
1	ALLOW	\$7,500	\$7,500
1	ALLOW	45%	\$76,275
			\$245,775

SEGMENT N	QTY	UNIT	COST	TOTAL
Site Prep and Demolition	1	ALLOW	\$7,500	\$7,500
6' Concrete Trail (SF)	6000	SF	\$8	\$48,000
Landscape Enhancements	5000	SF	\$5	\$25,000
Turf Seed	10000	SF	\$3	\$30,000
Grading, Drainage, and Erosion Control	1	ALLOW	\$7,500	\$7,500
Indirect Costs	1	ALLOW	45%	\$53,100
TOTAL				\$171,100

GRAND TOTAL COSTS:	\$4,685,640
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NOTES:

1. The unit pricing in the above opinion of probable costs represents in part, both historical average contractor price ranges from similarly sized projects of similar scope along with our opinion of costs for unique or custom items as compiled by *site design group, ltd. (site)* and our subconsultants base don our experience. Therefore, our opinion of probable costs should not be interpreted as a representation of what to expect during a contractor bid process but simply as our opinion of costs based on our experience on similar projects and scope. Our opinion of probable costs are based on the work scope of this project and all associated finishes and components at the time of the execution of this document. Our opinion of probable costs may fluctuate further than factored above if the work scope increases or decreases, material choices are modified, the project is phased or if the project is delayed based on the assumed schedule at the time of execution of this document.

2. Contractors General Conditions may include, but are not limited to, items such as project management, trucking and deliveries, toilets, dumpsters, final cleaning and document reproduction.

3. All "Landscape" scope on-structure opinion of probable costs are limited to components above waterproofing.

4. This opinion of probable costs is based on information and the accuracy of that information available at the time of the execution of this document.

EXCLUSIONS:

1. All *site* and subconsultant fees, Permitting and/or Expediting Fees, All Removals and/or Demolition of Existing Materials, Utility scope, Lighting System Scope, Security System Scope, Audio System Scope, Water Feature Scope, Signage and/or Wayfinding Scope, Site furnishings Scope and All "NIC" items noted in Detail or Summary Sheets. (Unless Included Herein)

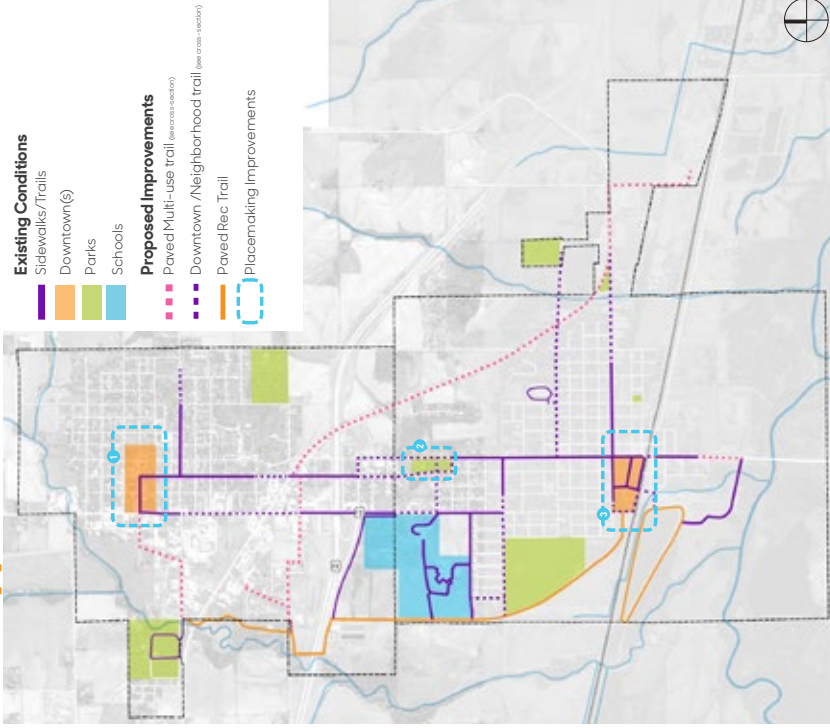
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Trail Types and Connections

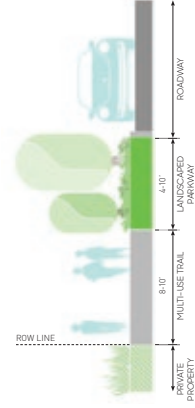


Enhanced Pedestrian Network

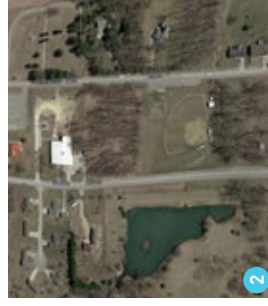
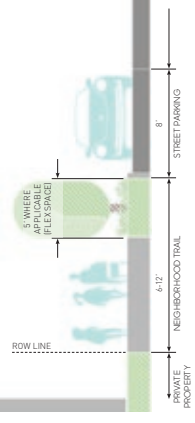
Primary goals of the improved pedestrian network and enhanced connections include:

- Establish a functional, safe pedestrian network that links the two communities, their downtowns, the Tama-Toledo Aquatic Park, Oak Park, and STC High School
- Establish a functional, safe pedestrian network that provides residents and community members with limited mobility options (i.e. lack of car) to access basic goods and services;
- Selectively upgrade sidewalks, targeting portions with heavy use, evident mud/ice issues, and conditions that limit accessibility or fail to adhere to ADA standards
- Strengthen the Tama and Toledo community identities through wayfinding, signage, and environmental graphics (e.g., gateways, folly's, etc)
- Enhance pedestrian safety through painted or constructed bump outs, pedestrian refuge islands, painted / enhanced crosswalks, and signage.
- Create an iconic and uniquely Tama/Toledo space at Oak Park, establishing it as the 'Central Park' of the communities.

Cross Section - Multi-use Trails



Cross Section - Downtown/Neighborhood Trails



Tama + Toledo Concept Detail

site design group

LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
Landscape Designer: Richard Meagher
Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation



South Tama Rec Trail

The South Tama Rec Trail is another joint project that will need to be accomplished with the cooperation of both Tama and Toledo, and may not be the first project either town decides to tackle due to the existing, workable conditions of the current South Tama Rec Trail. However, a concrete path along the current trail would allow for a pedestrian connection between the two cities for those who are elderly or mobility-challenged, as well as improve the current conditons for biking and running.

SOUTH TAMA REC TRAIL

TAMA-TOLEDO JOINT PROJECTS	
ITEM:	
Site Prep and Demolition	
8' Concrete Trail (SF)	
Grading, Drainage, and Erosion Control	
TOTAL	

CONCEPT 1			
QTY	UNIT	COST	TOTAL
1	ALLOW	\$ 75,000	\$75,000
107700	SF	\$ 8	\$861,600
1	ALLOW	\$ 50,000	\$50,000
			\$911,600

INDIRECT COSTS	
GENERAL CONDITIONS AND SUPERVISION	
PERMITS, INSURANCE AND BONDS	
OVERHEAD AND PROFIT	
DESIGN AND ESTIMATION CONTINGENCY	
ESCALATION CONTINGENCY	
DESIGNERS FEES (15%)	
OWNER'S CONSTRUCTION CONTINGENCY (5%)	
TOTAL INDIRECT COSTS	

\$36,464
\$9,116
\$27,348
\$136,740
\$18,232
\$136,740
\$45,580
\$410,220

GRAND TOTAL COSTS

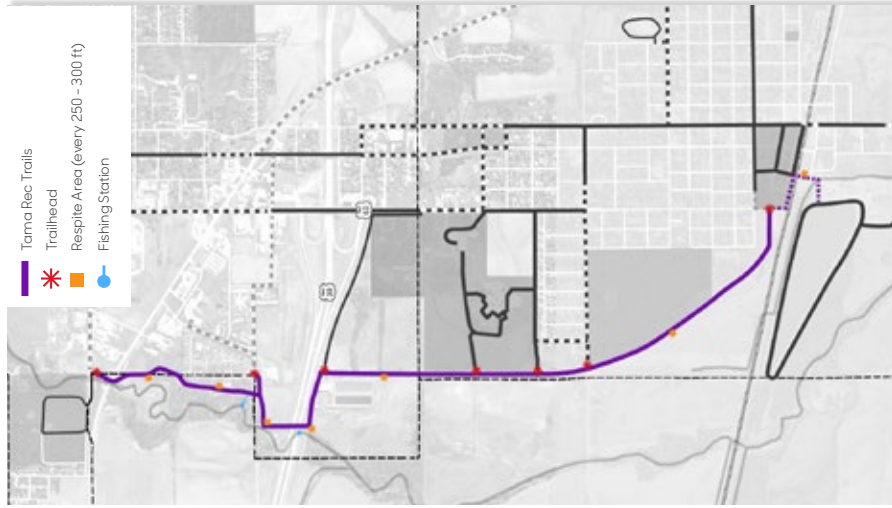
\$1,321,820

NOTES:

1. The unit pricing in the above opinion of probable costs represents in part, both historical average contractor price ranges from similarly sized projects of similar scope along with our opinion of costs for unique or custom items as compiled by *site design group, ltd. [site]* and our subconsultants base don our experience. Therefore, our opinion of probable costs should not be interpreted as a representation of what to expect during a contractor bid process but simply as our opinion of costs based on our experience on similar projects and scope. Our opinion of probable costs are based on the work scope of this project and all associated finishes and components at the time of the execution of this document. Our opinion of probable costs may fluctuate further than factored above if the work scope increases or decreases, material choices are modified, the project is phased or if the project is delayed based on the assumed schedule at the time of execution of this document.
2. Contractors General Conditions may include, but are not limited to, items such as project management, trucking and deliveries, toilets, dumpsters, final cleaning and document reproduction.
3. All "Landscape" scope on-structure opinion of probable costs are limited to components above waterproofing.
4. This opinion of probable costs is based on information and the accuracy of that information available at the time of the execution of this document.

EXCLUSIONS:

1. All *site* and subconsultant fees, Permitting and/or Expediting Fees, All Removals and/or Demolition of Existing Materials, Utility scope, Lighting System Scope, Security System Scope, Audio System Scope, Water Feature Scope, Signage and/or Wayfinding Scope, Site furnishings Scope and All "NIC" items noted in Detail or Summary Sheets. (Unless Included Herein)



COMMUNITY FEEDBACK

The Tama and Toledo Steering Committee would like a concrete trail to allow for easier biking and running, as well as a pedestrian path for mobility challenged and elderly individuals.

Older Toledo residents said that they appreciated the South Tama Rec Trail for its safety, seating and landscaping, but would prefer more habitat for birds and insects.

Tama parents and active adults would like the South Tama Rec Trail to not flood in certain areas, as well as a parking lot that doesn't experience these flooding issues.

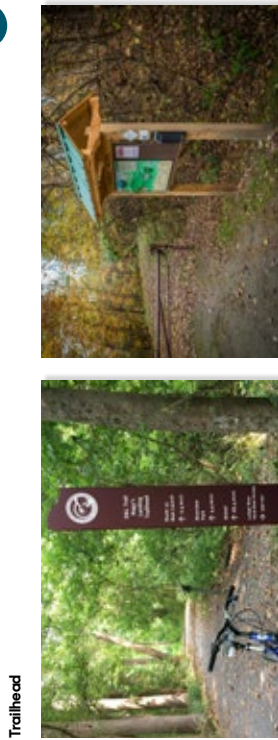
COMMUNITY ENGAGEMENT RESPONSE

"Better Pedestrian Connections"

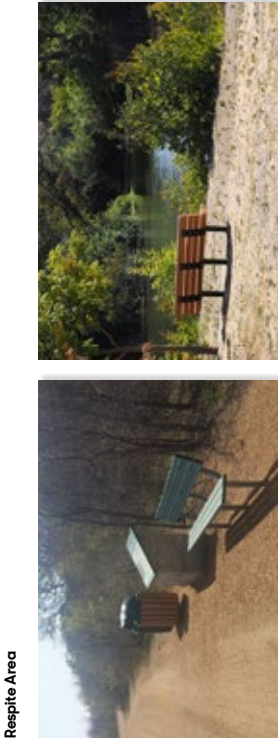
While the South Tama Rec Trail already serves as a great pedestrian connection, a paved connection between both downtown Tama and Toledo creates an easier route for runners, bikers, and children to use. The improvements to the trail also allow for a nearby winter-skiated 2.5-mile stretch of paved trail, greatly increasing the safety of pedestrians looking to safely move from Tama to Toledo or vice versa. The Downtown Tama concept also extend the path to connect to the existing Cherry Lake Trail, allowing for even more pedestrian paths for all community members to use.

"More Accessibility for Seniors"

Creating a paved connection along the existing South Tama Rec Trail also gives increased access to both seniors and the mobility challenged. This is particularly beneficial to older Toledo residents living in the senior homes closer to the South Tama Rec Trail, who will be able to access either downtown Tama or Toledo either on their own or with the assistance of a helper.



Trailhead



Respite Area



Fishing Station

Tama
South Tama Rec Trail

site design group

LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
Landscape Designer: Richard Meagher
Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation



17th Street + US Highway 63 Intersection

Overview

Community members identified the 17th Street and US Highway 63 intersection as another threat towards pedestrian safety, citing its location along Highway 63 as a source of speeding and truck traffic near where students are crossing the street to get to school. 17th Street also connects to Oak Park, another community resource, but there are no sidewalks on either side of this street forcing residents to walk along the curb. To address this and provide pedestrian access to Oak Park, both concepts propose a road diet along 17th Street, narrowing the street down to a one way heading west and proposing a sidewalk that connects to Oak Park. The sidewalk network is also extended on both concepts to connect to an existing dead-end sidewalk at Myrtle Street, giving students coming from the neighboring community of Toledo no safe way to school. However, this intersection also faces the issues associated with the Highway 63 truck route, and Tama city officials feel strongly that traffic along this route should not be brought to a stop. The design team proposed two different strategies for prioritizing pedestrian safety, allowing the city of Tama to decide on how to address these issues.

1. Concept One: Yield for Highway 63

The first concept attempts to stop both north and southbound traffic along Highway 63 using a push-button stop sign for northbound traffic that students can use to signal drivers to a stop while they are crossing 17th Street. A blinking yield sign cautions southbound drivers, slowing down traffic to a stop when there are pedestrians actively trying to cross the street. An ADA ramp is also provided, connecting the proposed crosswalk along Highway 63 to the existing sidewalk which currently only has concrete stairs to navigate the grade change, preventing ADA access to both schools. The ADA ramp also provides the opportunity for a small planting space and identity signage location, which can be filled either by community members or students.

2. Concept Two: Stop Except for Right Turn

Tama city officials felt that it would not be in the city's best interest to bring Highway 63 truck traffic to a stop, and were interested in exploring the idea of a pedestrian overpass to accomplish both goals of keeping pedestrians safe and allowing the truck route to continue unobstructed. The overpass creates a potential location for identity signage as well, and murals could be placed on either side, greeting drivers going to both Tama and Toledo depending on which direction they are coming from. Both sides of the overpass are also ADA accessible, creating a unique structure that leaves an impression on both visitors to either town as well as commuters just driving along Highway 63.

Design Expertise Recommended

Projects may require help beyond the capability of the Toledo Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect and a Civil Engineer.

17TH STREET AND US 63

TAMA-TOLEDO JOINT PROJECTS	
ITEMS	
Site Prep and Demolition	
8' Concrete Trail (SF)	
B6-12 Concrete Curb	
Pavement Painting	
6'-wide Crosswalk Striping	
ADA Curb Ramp	
ADA Access Ramp	
Signage - Stop Sign	
Signage - Yield Sign	
Wayfinding Signage	
Turf Seed	
Landscape Enhancements	
Pedestrian Overpass	
TOTAL	

CONCEPT 1			
QTY	UNIT	COST	TOTAL
1	ALLOW	\$ 25,000	\$25,000
4500	SF	\$ 8	\$36,000
40	SF	\$ 30	\$1,200
	SF	\$ 28	
1	ALLOW	\$ 5,000	\$5,000
3	EA	\$ 1,000	\$3,000
1	ALLOW	\$ 10,000	\$10,000
1	EA	\$ 500	\$500
1	EA	\$ 500	\$500
1	ALLOW	\$ 2,000	\$2,000
250	SF	\$ 3	\$750
1	ALLOW	\$ 1,000	\$1,000
	SF	\$ 250	
TOTAL			\$84,950

CONCEPT 2			
QTY	UNIT	COST	TOTAL
4500	SF	\$ 25,000	\$25,000
4500	SF	\$ 8	\$36,000
40	LF	\$ 28	\$1,120
32	LF	\$ 28	\$896
1	ALLOW	\$ 2,500	\$2,500
3	EA	\$ 1,000	\$3,000
	ALLOW	\$ 10,000	
	EA	\$ 500	
	EA	\$ 500	
1	ALLOW	\$ 10,000	\$10,000
	SF	\$ 3	
	ALLOW	\$ 1,000	
4000	SF	\$ 250	\$1,000,000
TOTAL			\$1,078,516

INDIRECT COSTS	
GENERAL CONDITIONS AND SUPERVISION	
PERMITS, INSURANCE AND BONDS	
OVERHEAD AND PROFIT	
DESIGN AND ESTIMATION CONTINGENCY	
ESCALATION CONTINGENCY	
DESIGNERS FEE (15%)	
OWNER'S CONSTRUCTION CONTINGENCY (5%)	
TOTAL INDIRECT COSTS:	
GRAND TOTAL COSTS:	

\$3,398
\$850
\$2,549
\$12,743
\$1,699
\$12,743
\$4,248
\$38,228
\$123,178

\$43,141
\$10,785
\$32,355
\$161,777
\$21,570
\$161,777
\$53,926
\$485,332
\$1,563,848

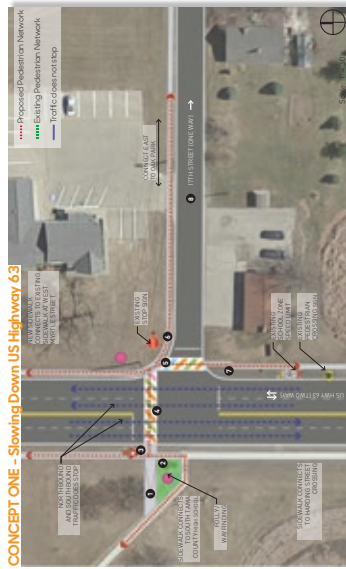
NOTES:

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- Contractors General Conditions may include, but are not limited to, items such as project management, trucking and deliveries, toilets, dumpsters, final cleaning and document reproduction.
- All "Landscape" scope on-structure opinion of probable costs are limited to components above waterproofing.
- This opinion of probable costs is based on information and the accuracy of that information available at the time of the execution of this document.

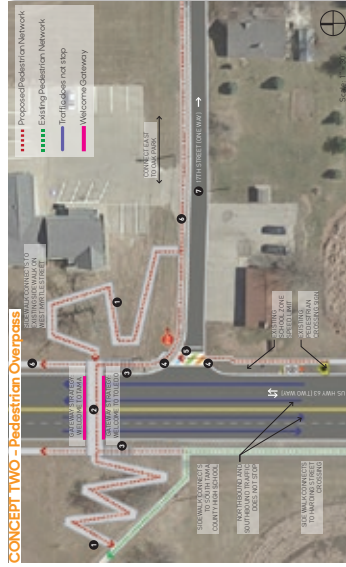
EXCLUSIONS:

- All *site* and subconsultant fees, Permitting and/or Expediting Fees, All Removals and/or Demolition of Existing

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CONCEPT ONE - Slowing Down US Highway 63



CONCEPT TWO - Pedestrian Overpass

COMMUNITY FEEDBACK
 The Tama Steering Committee has asked to prioritize safer connections for pedestrians crossing US Highway 63.

Hispanic residents of Tama were interviewed and cited the unsafe pedestrian connections along Highway 63, which makes accessing schools and essentials such as groceries difficult.

Active Tama adults also asked for a pedestrian overpass to make access to Oak Park from the South Tama Rec Trail easier and safer.

COMMUNITY ENGAGEMENT RESPONSE

"Heavy Traffic"
 The 17th Street and Highway 63 intersection were identified by community members as a danger to cross on the Tama and Toledo Matrix due to vehicular speeding and lack of crosswalks, but also because the US Highway 63 trucking route travels through this crossing. The two Steering Committee concepts address this issue differently, and Concept One prioritizes pedestrian safety over truck traffic, while Concept Two satisfies both conditions but will require more money for implementation.

"Safer Routes to Schools"
 According to the priorities of Tama and Toledo, Better Pedestrian Connections and Safer Routes to Schools were both in the top three of both communities surveyed Transportation Enhancement Issues. Both concepts create safer connections for pedestrians by either slowing down traffic or providing an accessible pedestrian overpass over Highway 63, allowing traffic to move unimpeded.

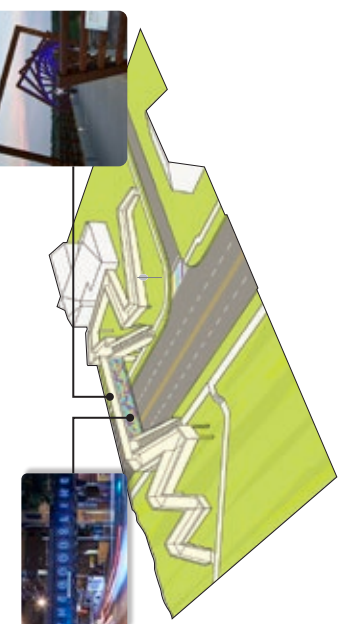
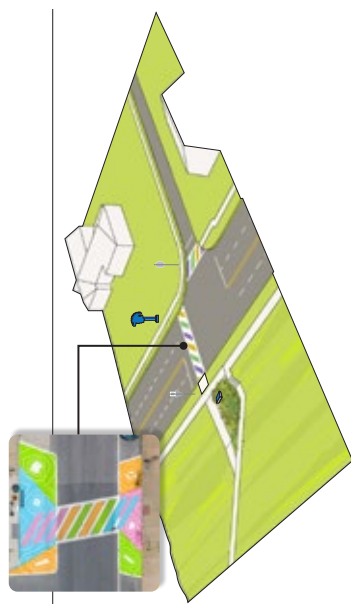
"More Accessibility for Seniors"
 The Tama Priorities also identified lack of access for seniors and the mobility challenged as a Transportation Enhancement Issue, and both concepts for 17th Street and US Highway 63 address this issue by providing ADA curb ramps with detectable warning strips at the end of all proposed crosswalks. Concept One includes an accessible ramp next to the existing concrete stairs, allowing all students to use the sidewalk to Tama County North-Oakwood schools. The pedestrian overpass in Concept Two is also ADA accessible, allowing for mobility-challenged students and pedestrians to safely cross US Highway 63.

LEGEND:

- 1 ADA Ramp - Ramp for access to existing sidewalk to South Tama County High School
- 2 Planting Space
- 3 Blinking Yield Sign - Push button stop sign could be implemented instead of yield sign
- 4 Crosswalk
- 5 ADA Curb Ramp - Curb ramp with ADA detectable warnings.
- 6 New Sidewalk - 6' min. sidewalk connects north to Toledo and the Business District.
- 7 Push-Button Stop Sign - Stop sign that lights up when button underneath is pressed, signaling traffic to stop.
- 8 Roadway Configuration - Provide sidewalk on North side of 17th Street to Oak Park, convert street to one-way

LEGEND:

- 1 ADA Accessible Ramp for pedestrian overpass
- 2 Pedestrian Overpass - over head bridge connection with gateway signage opportunity for both communities
- 3 Stairs for pedestrian overpass
- 4 ADA Curb Ramp - Curb ramp with ADA detectable warnings.
- 5 Crosswalk
- 6 New Sidewalk - 6' wide (minimum) concrete sidewalk connection.
- 7 Convert 17th Street into a one-way street and provide sidewalk on the north side of the street that connects to Oak Park.



Tama + Toledo
17th St + US 63

site design group

LA: Cassandra Rice, PL.A, ASLA, Hana Ishikawa, AIA
 Landscape Designer: Richard Meagher
 Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation



Broadway Street + Lincoln Highway

Overview

The intersection of Broadway Street and Lincoln Highway was identified by the design team as an important point of connection between Tama and Toledo. This intersection is a key point for pedestrian safety as community members said that they will occasionally walk, run, or bike along the side of Lincoln Highway because it is the only road where pedestrians are given a wide berth to occupy. This is also an important walking route to Iowa Premium Beef. Track traffic taking a left turn onto South Broadway Street does not stop, creating an increasingly dangerous pedestrian environment. Increasing pedestrian safety is important because Broadway Street also serves as an important pedestrian artery for the extended sidewalk network, connecting residents from both communities to both Oak Park and the Tama/Toledo Aquatic Center, two strong community resources. Finally, 2nd Avenue intersects with the Toledo Business District to the west, and providing a pedestrian route would allow community members to safely walk to businesses such as the State Bank, Medicap Pharmacy, and Fareway Grocery.

1. Concept One: Tactical Urbanism Approach

The concept attempts to stop and slow traffic on Lincoln Highway for a safer pedestrian crossing at this important point of connection between Tama and Toledo. A blinking yield sign cautions drivers, slowing down traffic to a stop when there are pedestrians actively trying to cross the street. An ADA ramp is also provided, connecting the proposed crosswalk along the north side of Broadway Street to the existing sidewalk.

Design Expertise Recommended

Projects may require help beyond the capability of the Toledo Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect and a Civil Engineer.

BROADWAY AND LINCOLN AVE

TAMA-TOLEDO JOINT PROJECTS	
ITEM	
	Site Prep and Demolition
	8' Concrete Trail (SF)
	B6-12 Concrete Curb
	6'-wide Crosswalk Striping
	ADA Curb Ramp
	Signage - Stop Sign
	Signage - Yield Sign
	Wayfinding Signage
	Grading, Drainage, and Erosion Control
TOTAL	

CONCEPT 1			
QTY	UNIT	COST	TOTAL
1	ALLOW	\$ 7,500	\$7,500
2300	SF	\$ 8	\$18,400
50	LF	\$ 28	\$1,400
1	ALLOW	\$ 2,500	\$2,500
4	EA	\$ 1,000	\$4,000
1	EA	\$ 500	\$500
1	EA	\$ 500	\$500
2	EA	\$ 500	\$1,000
1	ALLOW	\$ 1,200	\$1,200
TOTAL			\$29,500

INDIRECT COSTS	
	GENERAL CONDITIONS AND SUPERVISION
	PERMITS, INSURANCE AND BONDS
	OVERHEAD AND PROFIT
	DESIGN AND ESTIMATION CONTINGENCY
	ESCALATION CONTINGENCY
	DESIGNERS FEES (15%)
	OWNER'S CONSTRUCTION CONTINGENCY (5%)

\$1,180
\$295
\$885
\$4,425
\$590
\$4,425
\$1,475

GRAND TOTAL COSTS

\$42,775

NOTES:

1. The unit pricing in the above opinion of probable costs represents in part, both historical average contractor
2. Contractors General Conditions may include, but are not limited to, items such as project management, trucking
3. All "Landscape" scope on-structure opinion of probable costs are limited to components above waterproofing.
4. This opinion of probable costs is based on information and the accuracy of that information available at the time

EXCLUSIONS:

1. All site and subconsultant fees, Permitting and/or Expediting Fees, All Removals and/or Demolition of Existing Materials, Utility scope, Lighting System Scope, Security System Scope, Audio System Scope, Water Feature Scope, Signage and/or Wayfinding Scope, Site furnishings Scope and All "NIC" items noted in Deetail or Summary Sheets. (Unless Included Herein)

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COMMUNITY FEEDBACK

The intersection of Broadway Street and Lincoln Highway was identified as a critical intersection due to community member feedback from multiple groups. The Tama Steering Committee, older adults, and active adults all felt that the crossing between Lincoln Highway and Broadway Street was unsafe to cross due to high-speed traffic coming from both directions and small changes could be made to dramatically increase pedestrian safety.



COMMUNITY ENGAGEMENT RESPONSE

"Heavy Traffic"

The Broadway Street and Lincoln Street intersection were identified by community members as a danger to cross on the Toledo Metric due to vehicular speeding and lack of crosswalk. The US Highway 63 trucking route travels through this crossing. The goal of the first concept is to slow down the Lincoln Highway traffic by increasing pedestrian awareness through flashing yield signs.

"Better Pedestrian Connections"

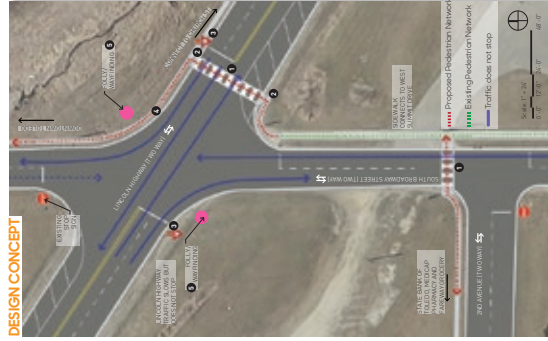
According to the Toledo Priorities, residents felt that better pedestrian connections was the third most important Transportation Enhancement Issue. Both concepts provide safe crossing across both streets by providing crosswalks, slowing traffic, and shortening the distance for pedestrians to cross. The proposed sidewalks along 2nd Avenue and Broadway Street will help to provide a more complete pedestrian network, satisfying the priorities identified by Toledo community members including Better Pedestrian Connections and Better Neighborhood Streetscapes.

"More Accessibility for Seniors"

The Toledo Priorities also identified lack of access for seniors and the mobility challenged as a Transportation Enhancement Issue, and the design concept for Lincoln Highway and 2nd Avenue address this issue by providing ADA curb ramps with detectable warning at tips at the end of all proposed crosswalks. Yield and stop signs are also proposed to slow incoming traffic and make drivers more aware of potential pedestrian presence, creating a safer crossing environment.

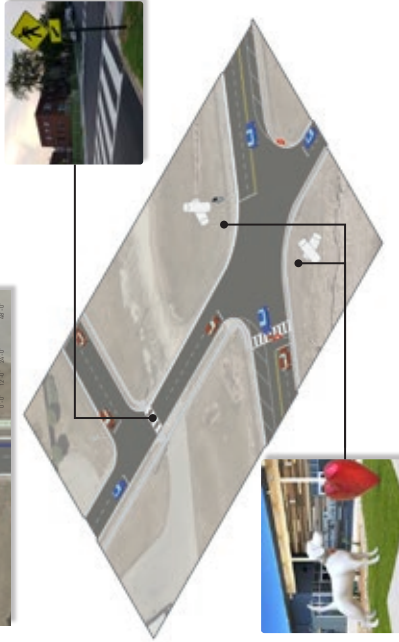


- Primary 17th Street and US Highway 63 issues and opportunities include:
- Traffic does not stop while taking the left-turn onto US Highway 63 while students may be trying to cross the street to school.
 - Traffic using US Highway 63 truck route increases the danger to pedestrian safety.
 - No opportunities for pedestrians crossing across US Highway 63 to access school.
 - Lack of pedestrian connection north to Toledo.



- LEGEND:**
- 1 Crosswalk
 - 2 ADA Curb Ramps - Curb ramp with ADA detectable warnings.
 - 3 Blinking Yield Sign - Cautious approaching drivers, and slows traffic to increase safety for crossing pedestrians.
 - 4 New Sidewalk - 6 wide (minimum) concrete sidewalk connection.
 - 5 Folly / Wayfinding

EXISTING CONDITIONS PHOTOS:



Broadway St + Lincoln Hwy

site design group

LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
Landscape Designer: Richard Meagher
Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation



2nd Street + US Highway 63

Overview

The intersection between 2nd Street and US Highway 63 is an important node for both transportation and commerce. However, there is little existing pedestrian infrastructure and no ADA access at either site, making safe, walkable travel difficult. There are multiple essential businesses in the area such as Medicap Pharmacy, Fareway Grocery, and the State Bank of Toledo, and these currently difficult to access for pedestrians especially senior living nearby in the assisted living and senior housing developments. The design team aims for this intersection to be a connective node between both Tama and Toledo that would allow students, commuters, and pedestrians to travel to their destinations safely within both communities.

1. Concept One: Tactical Urbanism Approach

Toledo city officials felt that it would not be in the city's best interest to bring Highway 63 traffic to a stop, as it is a truck route, and any proposed stop signs may disturb regional truck traffic or direct it to other routes outside of Tama and Toledo. The concept uses flashing yield signs that allow north and southbound traffic to continue without stopping, but raise awareness of pedestrians attempting to use the crosswalks. This intersection also plays an important role in the South Toledo Connection Plan and allows for elderly residents to cross the street safely by using painted curb bump-outs to shorten the distance between sidewalks.

Design Expertise Recommended

Projects may require help beyond the capability of the Toledo Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect and a Civil Engineer.

2ND AND US 63

TOLEDO PROJECT		CONCEPT 1			
ITEM	QTY	UNIT	COST	TOTAL	
Site Prep and Demolition	1	ALLOW	\$ 25,000	\$25,000	
6' Concrete Trail (SF)	3500	SF	\$ 8	\$28,000	
B6-12 Concrete Curb	132	LF	\$ 28	\$3,696	
Pavement Painting	1	ALLOW	\$ 10,000	\$10,000	
6'-wide Crosswalk Striping	3	ALLOW	\$ 5,000	\$15,000	
Signage - Stop Sign	2	EA	\$ 500	\$1,000	
Signage - Yield Sign	2	EA	\$ 500	\$1,000	
Flexible Delineators	20	EA	\$ 100	\$2,000	
ADA Curb Ramp	5	EA	\$ 1,000	\$5,000	
Grading, Drainage, and Erosion Control	1	ALLOW	\$ 1,200	\$2,000	
TOTAL				\$67,696	

INDIRECT COSTS	
GENERAL CONDITIONS AND SUPERVISION	\$2,708
PERMITS, INSURANCE AND BONDS	\$677
OVERHEAD AND PROFIT	\$2,031
DESIGN AND ESTIMATION CONTINGENCY	\$10,154
ESCALATION CONTINGENCY	\$1,354
DESIGNERS FEE (15%)	\$10,154
OWNER'S CONSTRUCTION CONTINGENCY (5%)	\$3,385
TOTAL INDIRECT COSTS	\$30,463

GRAND TOTAL COSTS	\$98,159
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COMMUNITY FEEDBACK

The Toledo Steering Committee has asked to prioritize safer connections for both bikers and pedestrians crossing US Highway 63.



Mobility-challenged individuals in Toledo would like a smooth, wide sidewalk that stretches from the new retirement center to the business district, creating easier mobility challenges to essential businesses for this use group.



Hispanic interviewees cited the Highway 63 corridor as particularly dangerous to pedestrians, despite this being a main thoroughfare for residents trying to reach essential services, such as Faraway Grocery and the Toledo State Bank.



COMMUNITY ENGAGEMENT RESPONSE

"Heavy Traffic"

The 2nd Street and Highway 63 intersection were identified by community members as a danger to cross on the Toledo Matrix due to vehicular speeding and lack of crosswalks, but also because the US Highway 63 trucking route travels through this crossing. The goal of both Steering Committee concepts is to slow down truck traffic without stepping it, addressing the concerns of Toledo official that DOT would re-route this traffic through another town.



"Better Pedestrian Connections"

According to the Toledo Priorities, residents felt that better pedestrian connections was the third most important Transportation Enhancement issue. Both concepts provide safe crossing across both streets by providing crosswalks, slowing traffic, and shortening the distance for pedestrians to cross. The proposed sidewalks along US Highway 63 and 2nd Street that are a part of the South Toledo Connection Plan will help to provide a more complete pedestrian network for active adults, parents and their children.



"More Accessibility for Seniors"

The Toledo Priorities also identified lack of access for seniors and the mobility challenged as a Transportation Enhancement issue, and the design concept for 2nd Street and US Highway 63 addresses this issue by providing ADA curb ramps with detectable warning strips at the end of all proposed crosswalks. Yield and stop signs are also proposed to slow incoming traffic and make mobility-challenged drivers more aware of potential pedestrian presence, creating a safer crossing environment.

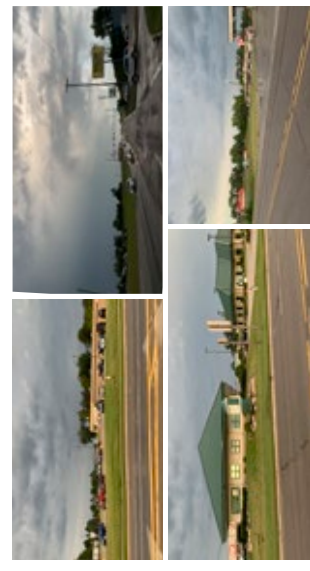


EXISTING CONDITIONS

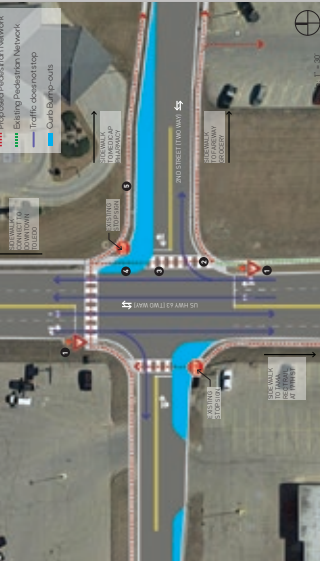


- Primary 2nd Street and US Highway 63 issues and opportunities include:
- Lack of sidewalk access to primary groceries and shopping hub.
 - Main access point to grocery and shopping hub for mobile home park, assisted living facility and senior homes. Limited pedestrian connections limit access to essential services and business for older residents.
 - Access to Toledo City Hall.
 - No way to safely cross US Highway 63 because traffic does not stop.
 - No ADA ramp on the existing sidewalk.

EXISTING CONDITIONS:



DESIGN CONCEPT



LEGEND:

- 1 Flashing Yield Sign - Slightly slows down US Highway 63 traffic, making drivers aware of potential pedestrians while not requiring a stop to continue onto Highway 63. Sign located on north and south for both directions of traffic.
- 2 ADA Curb Ramp - Curb ramp with ADA detectable warnings.
- 3 Crosswalk - Ladder style crosswalk at least 6' wide to prioritize and emphasize pedestrian crossings.
- 4 Painted Curb Bump-out - Painted area on the existing street that shortens the distance pedestrians have to walk while crossing the street, increasing safety. Protected by flexible delineators.
- 5 New Sidewalk - 6' wide (minimum) concrete sidewalk connection.

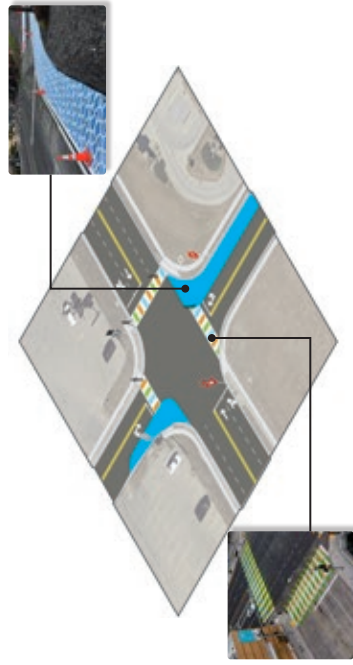
Toledo

2nd St + US 63

site design group

LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
Landscape Designer: Richard Meagher
Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation



Toledo Sidewalk Connection Plan

2nd Street + Prospect Drive Connection Plan

The South Toledo Connection Plan extends the sidewalk network through the Toledo Business District and towards the neighborhoods and planned retirement homes that currently have no pedestrian access to essential businesses such as Medicap Pharmacy and Fareway Grocery. This plan also ties into the pedestrian corridor along US Highway 63, which is a dangerous stretch of highway for pedestrians walking either to Tama County schools or their jobs. Mobility-challenged individuals such as residents of the new retirement center have a smooth, paved route to access the Toledo Business District, and bikers do not have to cycle close to the curb to avoid being hit by oncoming traffic.

Toledo Heights Connection Plan

The Toledo Heights Connection Plan proposed to connect two existing sidewalk networks, the existing multi-use trail on W Ross St that leads into Toledo Heights Park and sidewalks that lead into downtown Toledo on US 63. This connection is a crucial part in creating a looped pedestrian system that spans across both Tama and Toledo. With the starting entrance of the Tama Rec trail across the street from our sidewalk connection to Toledo Heights Park, residents and students from the north side of Toledo can now have a safe route into Tama Rec trail which leads south to Tama and the back of schools of the communities.

Design Expertise Recommended

Projects may require help beyond the capability of the Toledo Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect and a Civil Engineer.

TOLEDO HEIGHTS CONNECTION

TOLEDO PROJECT	
ITEM:	
Site Prep and Demolition	
6' Concrete Trail (SF)	
6'-wide Crosswalk Striping	
Grading, Drainage, and Erosion Control	
TOTAL	

CONCEPT 1			
QTY	UNIT	COST	TOTAL
1	ALLOW	\$ 50,000	\$50,000
29600	SF	\$ 8.00	\$236,800
1	ALLOW	\$ 2,500.00	\$2,500
1	ALLOW	\$ 10,000.00	\$10,000
			\$249,300

INDIRECT COSTS	
GENERAL CONDITIONS AND SUPERVISION	
PERMITS, INSURANCE AND BONDS	
OVERHEAD AND PROFIT	
DESIGN AND ESTIMATION CONTINGENCY	
ESCALATION CONTINGENCY	
DESIGNERS FEE (15%)	
OWNER'S CONSTRUCTION CONTINGENCY (5%)	
TOTAL INDIRECT COSTS	

\$9,972
\$2,493
\$7,479
\$37,395
\$4,986
\$37,395
\$12,465
\$112,185

GRAND TOTAL COSTS

\$361,485

2ND STREET AND PROSPECT CONNECTION

TOLEDO PROJECT	
ITEM	
Site Prep and Demolition	
6' Concrete Trail (SF)	
6'-wide Crosswalk Striping	
Grading, Drainage, and Erosion Control	
TOTAL	

CONCEPT 1			
QTY	UNIT	COST	TOTAL
1	ALLOW	\$ 50,000.00	\$50,000
19500	SF	\$ 8.00	\$156,000
1	ALLOW	\$ 2,500.00	\$2,500
1	ALLOW	\$ 5,000.00	\$5,000
			\$163,500

INDIRECT COSTS	
GENERAL CONDITIONS AND SUPERVISION	
PERMITS, INSURANCE AND BONDS	
OVERHEAD AND PROFIT	
DESIGN AND ESTIMATION CONTINGENCY	
ESCALATION CONTINGENCY	
DESIGNERS FEE (15%)	
OWNER'S CONSTRUCTION CONTINGENCY (5%)	
TOTAL INDIRECT COSTS	

\$6,540
\$1,635
\$4,905
\$24,525
\$3,270
\$24,525
\$8,175
\$73,575

GRAND TOTAL COSTS

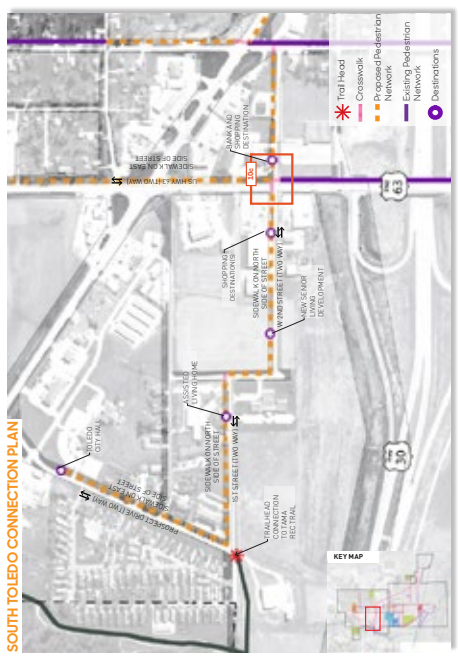
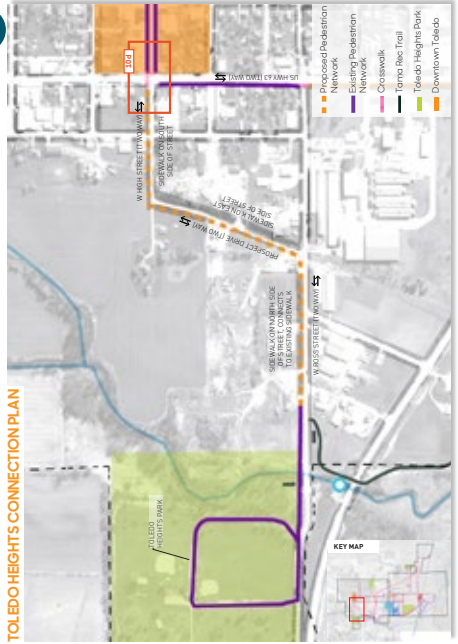
\$237,075

NOTES:

1. The unit pricing in the above opinion of probable costs represents in part, both historical average contractor price ranges from similarly sized projects of similar scope along with our opinion of costs for unique or custom items as compiled by *site design group, ltd. (site)* and our subconsultants base don our experience. Therefore, our opinion of probable costs should not be interpreted as a representation of what to expect during a contractor bid process but simply as our opinion of costs based on our experience on similar projects and scope. Our opinion of probable costs are based on the work scope of this project and all associated finishes and components at the time of the execution of this document. Our opinion of probable costs may fluctuate further than factored above if the work scope increases or decreases, material choices are modified, the project is phased or if the project is delayed based on the assumed schedule at the time of execution of this document.
2. Contractors General Conditions may include, but are not limited to, items such as project management, trucking and deliveries, toilets, dumpsters, final cleaning and document reproduction.
3. All "Landscape" scope on-structure opinion of probable costs are limited to components above waterproofing.
4. This opinion of probable costs is based on information and the accuracy of that information available at the time of the execution of this document.

EXCLUSIONS:

1. All *site* and subconsultant fees, Permitting and/or Expediting Fees, All Removals and/or Demolition of Existing Materials, Utility scope, Lighting System Scope, Security System Scope, Audio System Scope, Water Feature Scope, Signage and/or Wayfinding Scope, Site furnishings Scope and All "NIC" items noted in Detail or Summary Sheets. (Unless Included Herein)



COMMUNITY FEEDBACK

The Tama Steering Committee has asked to prioritize safer connections for pedestrians and bikers walking either along or across US Highway 63.

Hispanic interviewees cited the Highway 63 corridor as particularly dangerous to pedestrians, despite this being a main thoroughfare for residents trying to reach essentials such as Fareway Grocery and the Toledo State Bank.

Mobility-challenged individuals would like a smooth, wide sidewalk that stretches from the new retirement center to the Toledo Business District, allowing for easier access to the various businesses such as Fareway Grocery, Hy-Vee, Dollar General, and Toledo State Bank.

Local Hispanic residents enjoy Toledo Heights Park because the open spaces allow space for children to run around while parents can keep watching them. The paved ditches and multiple types of sports fields offer plenty of variety and accessibility to visitors. However, there is no continuous pedestrian route for elderly or mobility-challenged individuals, and the Toledo Heights Connection Plan hopes to address that.

Toledo Heights Park is a popular destination for both parents and their children due to the variety of sports fields and wide open spaces for children to run around while parents can keep an eye on them. However, despite being a popular pedestrian route according to the Toledo Walking Routes study, there is currently no paved connection for parents walking with their children. Pedestrians need to be cautious of speeding cars along Ross Street, and a wide multi-use trail would help to dramatically increase pedestrian and biker safety.

Description

The Toledo Heights Connection Plan extends the sidewalk network through the Toledo Business District and towards the neighborhoods and planned retirement homes that currently have no pedestrian access to essential businesses such as Medicap Pharmacy and Fareway Grocery. This plan also ties into the pedestrian corridor along US Highway 63. Mobility-challenged individuals such as residents of the new retirement center will have a smooth, paved route to access the Business District, and bikers will also have stronger, safer connections.

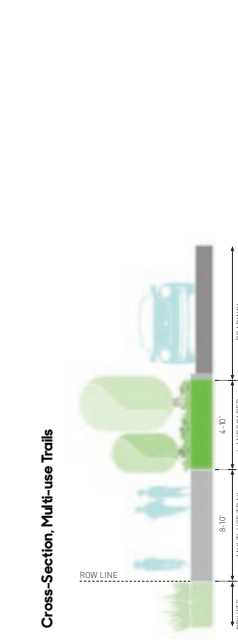
Description

The South Toledo Connection Plan extends the sidewalk network through the Toledo Business District and towards the neighborhoods and planned retirement homes that currently have no pedestrian access to essential businesses such as Medicap Pharmacy and Fareway Grocery. This plan also ties into the pedestrian corridor along US Highway 63. Mobility-challenged individuals such as residents of the new retirement center will have a smooth, paved route to access the Toledo Business District, and bikers will also have stronger, safer connections.

COMMUNITY ENGAGEMENT RESPONSE

"Better Pedestrian Connections"

According to the Toledo Priorities, residents felt that better pedestrian connections was the third most important Transportation Enhancement issue. Both connection plans provide safe crossing across through Toledo by providing crosswalks, slowing traffic, and shortening the distance for pedestrians to cross. These proposed paths will help to provide a more complete pedestrian network, and address the many comments and concerns from Tama and Toledo parents about the unsafe walking conditions for children trying to get to Toledo Heights Park.



Toledo Connection Plans

site design group
 LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
 Landscape Designer: Richard Meagher
 Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation

TOLEDO CONNECTION PLAN

TOLEDO HEIGHTS CONNECTION PLAN

Downtown Toledo

Overview

Downtown Toledo is recognized as a destination by residents and visitors but could be improved by celebrating its unique sense of place. The design team created two concepts to accomplish this goal, one focusing on tactical urbanism which can be deployed quickly with low costs while the second concept features more permanent, improvements. This gives the city of Toledo a degree of flexibility in how they approach and accomplish the goals listed by community residents. The Toledo Steering Committee also identified "Enhanced Downtown Streetscapes" as a Transportation Enhancement Issue, making this an important issue to address for the overall Toledo improvements. The Downtown Toledo Entry Gateway helps improve these streetscapes acting as both wayfinding and identity signage, featuring the Toledo Butter Cow prominently as a reference to Toledo's history.

1. Concept One: Tactical Urbanism Approach

The first concept uses quick-to-employ methods such as paint, chalk, and potted street trees to reclaim space for pedestrians. "People spots" are traced over existing asphalt to create areas for outdoor dining, gathering places, and sidewalk retail for local businesses. Murals are drawn by local artists and students on vacant building walls, and the current crosswalks are improved with more creative designs that make walking lanes more noticeable to both pedestrians and vehicular traffic.

2. Concept Two: Enhanced Connections and Permanent Streetscape Improvements

The second concept for Downtown Toledo focuses on more permanent improvements to the downtown streetscapes, which will take longer and cost more money. Curbs are extended into the street for seating areas and planted street trees, giving the downtown area a more classic 'Main Street' feel. Finally, festoon lights help provide a night-time atmosphere but also address community concerns about safety at night due to lack of lighting.

Design Expertise Recommended

Projects may require help beyond the capability of the Toledo Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect and a Civil Engineer.

DOWNTOWN TOLEDO

TOLEDO PROJECT		CONCEPT 1				CONCEPT 2			
ITEM	QTY	UNIT	COST	TOTAL	QTY	UNIT	COST	TOTAL	
Site Prep and Demolition	1	ALLOW	\$ 50,000	\$50,000	1	ALLOW	\$ 100,000	\$100,000	
B6-12 Concrete Curb		LF	\$ 28		5900	LF	\$ 28	\$165,200	
Pavement Painting	1	ALLOW	\$ 80,000	\$80,000		ALLOW	\$ 5,000		
6'-wide Crosswalk Striping	12	EA	\$ 5,000	\$60,000	12	ALLOW	\$ 5,000	\$60,000	
Downtown Toledo Welcome Gateway	1	ALLOW	\$ 150,000	\$150,000	1	EA	\$ 150,000	\$150,000	
Downtown Catenary Lighting	1	ALLOW	\$ 30,000	\$30,000	1	ALLOW	\$ 30,000	\$30,000	
Shade Tree	62	EA	\$ 750	\$46,500	42	EA	\$ 750	\$31,500	
Turf Seed		SF	\$ 3		6230	SF	\$ 3	\$18,690	
Landscape Enhancements		ALLOW	\$ 40		1	ALLOW	\$ 25,000	\$25,000	
Outdoor Dining Sets	28	EA	\$ 3,000	\$84,000	22	EA	\$ 3,000	\$66,000	
Grading, Drainage, and Erosion Control	1	ALLOW	\$ 1,500	\$1,500	1	ALLOW	\$ 5,000	\$5,000	
TOTAL				\$452,000				\$551,390	

INDIRECT COSTS			
GENERAL CONDITIONS AND SUPERVISION		\$18,080	\$22,056
PERMITS, INSURANCE AND BONDS		\$4,520	\$5,514
OVERHEAD AND PROFIT		\$13,560	\$16,542
DESIGN AND ESTIMATION CONTINGENCY		\$67,800	\$82,709
ESCALATION CONTINGENCY		\$9,040	\$11,028
DESIGNERS FEE (15%)		\$67,800	\$82,709
OWNER'S CONSTRUCTION CONTINGENCY (5%)		\$22,600	\$27,570
TOTAL INDIRECT COSTS		\$203,400	\$248,126

GRAND TOTAL COSTS	\$655,400	\$799,516
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NOTES:

- The unit pricing in the above opinion of probable costs represents in part, both historical average contractor price ranges from similarly sized projects of similar scope along with our opinion of costs for unique or custom items as compiled by *site design group, ltd. (site)* and our subconsultants base don our experience. Therefore, our opinion of probable costs should not be interpreted as a representation of what to expect during a contractor bid process but simply as our opinion of costs based on our experience on similar projects and scope. Our opinion of probable costs are based on the work scope of this project and all associated finishes and components at the time of the execution of this document. Our opinion of probable costs may fluctuate further than factored above if the work scope increases or decreases, material choices are modified, the project is phased or if the project is delayed based on the assumed schedule at the time of execution of this document.
- Contractors General Conditions may include, but are not limited to, items such as project management, trucking and deliveries, toilets, dumpsters, final cleaning and document reproduction.
- All "Landscape" scope on-structure opinion of probable costs are limited to components above waterproofing.
- This opinion of probable costs is based on information and the accuracy of that information available at the time of the execution of this document.

EXCLUSIONS:

- All *site* and subconsultant fees, Permitting and/or Expediting Fees, All Removals and/or Demolition of Existing Materials, Utility scope, Lighting System Scope, Security System Scope, Audio System Scope, Water Feature Scope, Signage and/or Wayfinding Scope, Site furnishings Scope and All "NIC" items noted in Detail or Summary Sheets. (Unless Included Herein)

COMMUNITY FEEDBACK
 The Toledo Steering Committee has asked to Enhance Downtown Streetscapes, and try to bring both visitors and residents to downtown Toledo.

Mobility-challenged people in Toledo said that the streetscapes in downtown are difficult to traverse due to heavy traffic, lack of curb cuts or ADA accessibility.

COMMUNITY ENGAGEMENT RESPONSE

"Heavy Traffic"

The Harding street and highway 43 intersection were identified by community members as a danger to cross on the Tama Matrix due to vehicular speeding and lack of crosswalks, but also because the US Highway 43 trucking route travels through this crossing. The goal of both concepts is to slow down truck traffic, without stopping it, addressing the concerns of Tama officials that IDOT would re-route this traffic through another town.

"Better Pedestrian Connections"

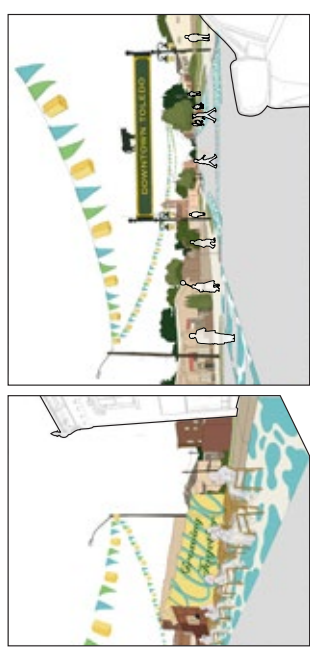
According to the Toledo Priorities, residents felt that better pedestrian connections was the third most important Transportation Enhancement Issue. Both concepts provide safe crossing across both streets by providing crosswalks, slowing traffic, and shortening the distance for pedestrians to cross. The proposed sidewalks along US Highway 43 and High Street will help to provide a more complete pedestrian network, safety being the priorities identified by Toledo community members including Better Pedestrian Connections and Better Downtown Streetscapes.

"More Accessibility for Seniors"

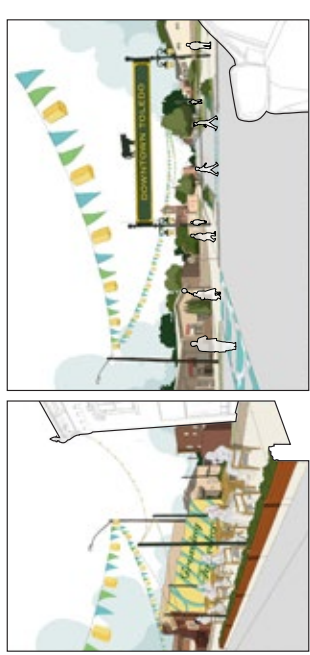
The Toledo Priorities also identified lack of access for seniors and the mobility challenged as a Transportation Enhancement Issue, and both concepts for Downtown Toledo address this issue by providing ADA curb ramps with detectable warning strips at the end of all proposed crosswalks. Yield and stop signs are also proposed to slow incoming traffic and make drivers more aware of potential pedestrian presence, creating a safer crossing environment.



- LEGEND:**
- 1 Yield Sign
 - 2 Downtown Toledo Entry Gateway
 - 3 "People Spots" - replacement of parking spaces with outdoor dining, parklets, play pockets, dog parks, and other pedestrian-focused amenities that activate and enhance the public realm.
 - 4 Enhanced Crosswalk
 - 5 Tama County Courthouse
 - 6 Historic Stop Light
 - 7 Overhead Downtown Identifier



- LEGEND:**
- 1 Downtown Toledo Entry Gateway
 - 2 "People Spots" - replacement of parking spaces with outdoor dining, parklets, play pockets, dog parks, and other pedestrian-focused amenities that activate and enhance the public realm.
 - 3 Enhanced Crosswalks - 6' wide crosswalks with specialty pavement designs
 - 4 Constructed Curb Extension - potential for outdoor dining spaces, seating, public art, and other public realm improvements
 - 5 Enhanced Street Trees
 - 6 Tama County Courthouse
 - 7 Historic Stop Light



Toledo
 Downtown Toledo

site design group

LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
 Landscape Designer: Richard Meagher
 Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation



High Street + US Highway 63

Overview

The intersection of High Street and Highway 63 acts as the eastern gateway for Downtown Toledo, bringing visitors onto High Street which is the main downtown corridor. This intersection also serves as an important node within the larger pedestrian network plan, as the Toledo Heights Connection Plan begins High Street and US Highway 63. However, the traffic from US Highway 63 is the biggest obstacle since to pedestrian safety Toledo officials would prefer that truck traffic not be stopped. Although this poses a risk to pedestrian safety, both concepts try to address this issue and while making US Highway 63 drivers more alert to crossing pedestrians.

1. Concept One: Tactical Urbanism Approach

To allow for US Highway 63 traffic to continue without stopping, both concepts use flashing yield signs to make drivers more aware of pedestrians. Concept One focuses on a tactical urban approach that Toledo would be able to implement quickly for smaller amounts of money. Curb bump-outs are painted onto the street to provide areas for street trees, outdoor dining, or placemaking. The painted bump-outs provide the benefits of more expensive improvements while still being flexible and adaptable to the city's needs. Crosswalks are also added along High Street and US Highway 63 to allow for pedestrian access to the Toledo Heights Connection Plan, continuing the overall pedestrian network for both Tama and Toledo. The most prominent feature is the Toledo entry gateway, a piece of identity signage that will announce to all visitors that they are entering Downtown Toledo. This will not only improve wayfinding, but also encourages visitors to spend time in the downtown district.

2. Concept Two: Enhanced Connections and Permanent Streetscape Improvements

The second concept for the High Street + US Highway 63 intersection features more expensive, permanent improvements to Downtown Toledo's infrastructure, enhancing the traditional Main Street, feel that Downtown Toledo already has. Permanent curb bump-outs are extended into the existing street to allow for larger street trees and plantings. Other constructed curb-bump outs have the potential to become outdoor dining spaces, public art, or community gatherings. The Downtown Toledo Entry Gateway is also featured prominently in Concept Two, and will help conduct both vehicular and pedestrian visitors towards the downtown district from US Highway 63.

Design Expertise Recommended

Projects may require help beyond the capability of the Toledo Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect and a Civil Engineer.

HIGH ST AND US 63

TOLEDO PROJECT	
ITEM	
Site Prep and Demolition	
8' Concrete Trail (SF)	
B6-12 Concrete Curb	
Pavement Painting	
6'-wide Crosswalk Striping	
Signage - Stop Sign	
Signage - Yield Sign	
Flexible Delineators	
Shade Tree	
Landscape Enhancements	
Turf Seed	
Grading, Drainage, and Erosion Control	
TOTAL	

CONCEPT 1			
QTY	UNIT	COST	TOTAL
1	ALLOW	\$ 25,000	\$25,000
2300	SF	\$ 8	\$18,400
92	LF	\$ 28	\$2,576
1	ALLOW	\$ 7,500	\$7,500
1	ALLOW	\$ 5,000	\$5,000
2	EA	\$ 500	\$1,000
2	EA	\$ 500	\$1,000
15	EA	\$ 100	\$1,500
5	EA	\$ 750	\$3,750
	ALLOW	\$ 10,000	
	SF	\$ 3	
1	ALLOW	\$ 1,200	\$1,200
TOTAL			\$41,926

CONCEPT 2			
QTY	UNIT	COST	TOTAL
1	ALLOW	\$ 25,000	\$25,000
2300	SF	\$ 8	\$18,400
290	LF	\$ 28	\$8,120
	ALLOW	\$ 7,500	
1	ALLOW	\$ 5,000	\$5,000
2	EA	\$ 500	\$1,000
2	EA	\$ 500	\$1,000
	EA	\$ 100	
5	EA	\$ 750	\$3,750
1	ALLOW	\$ 10,000	\$10,000
570	SF	\$ 3	\$1,710
1	ALLOW	\$ 5,000	\$5,000
TOTAL			\$53,980

INDIRECT COSTS	
GENERAL CONDITIONS AND SUPERVISION	
PERMITS, INSURANCE AND BONDS	
OVERHEAD AND PROFIT	
DESIGN AND ESTIMATION CONTINGENCY	
ESCALATION CONTINGENCY	
OWNER'S CONSTRUCTION CONTINGENCY (5%)	
TOTAL INDIRECT COSTS	

\$1,677
\$419
\$1,258
\$6,289
\$839
\$2,096
\$12,578

\$2,159
\$540
\$1,619
\$8,097
\$1,080
\$2,699
\$16,194

GRAND TOTAL COSTS

\$54,504

\$70,174

NOTES:

1. The unit pricing in the above opinion of probable costs represents in part, both historical average contractor price ranges from similarly sized projects of similar scope along with our opinion of costs for unique or custom items as compiled by *site design group, ltd. (site)* and our subconsultants base don our experience. Therefore, our opinion of probable costs should not be interpreted as a representation of what to expect during a contractor bid process but simply as our opinion of costs based on our experience on similar projects and scope. Our opinion of probable costs are based on the work scope of this project and all associated finishes and components at the time of the execution of this document. Our opinion of probable costs may fluctuate further than factored above if the work scope increases or decreases, material choices are modified, the project is phased or if the project is delayed based on the assumed schedule at the time of execution of this document.
2. Contractors General Conditions may include, but are not limited to, items such as project management, trucking and deliveries, toilets, dumpsters, final cleaning and document reproduction.
3. All "Landscape" scope on-structure opinion of probable costs are limited to components above waterproofing.
4. This opinion of probable costs is based on information and the accuracy of that information available at the time of the execution of this document.

EXCLUSIONS:

1. All *site* and subconsultant fees, Permitting and/or Expediting Fees, All Removals and/or Demolition of Existing Materials, Utility scope, Lighting System Scope, Security System Scope, Audio System Scope, Water Feature Scope, Signage and/or Wayfinding Scope, Site furnishings Scope and All "NIC" items noted in Deetail or Summary Sheets. (Unless Included Herein)

CONCEPT ONE - Tactical Urbanism Approach



LEGEND:

- 1 Yield Sign
- 2 ADA Curb Ramp - Curb ramp with ADA detectable warnings.
- 3 Crosswalk - Ladder style crosswalk at least 6' wide to prioritize and emphasize pedestrian crossings.
- 4 Painted Curb Bump-out - Painted area on the existing street that shortens the distance pedestrians have to walk while crossing the street, increasing safety. Preceded by flexible delineators.
- 5 New Sidewalk - 6' wide (minimum) concrete sidewalk connection.
- 6 Street Trees



LEGEND:

- 1 Yield Sign
- 2 Downtown Toledo Entry Gateway
- 3 Crosswalk - Ladder style crosswalk at least 6' wide to prioritize and emphasize pedestrian crossings.
- 4 Constructed Curb Extension - potential for outdoor dining spaces, seating, public art, and other public realm improvements
- 5 New Sidewalk - 6' wide (minimum) concrete sidewalk connection.
- 6 Street Trees

COMMUNITY FEEDBACK

The Toledo Steering Committee has asked for "softer" connections for both bikers and pedestrians crossing US Highway 63 trying to get to Toledo's downtown.

COMMUNITY ENGAGEMENT RESPONSE

"Better Downtown Streetscapes"

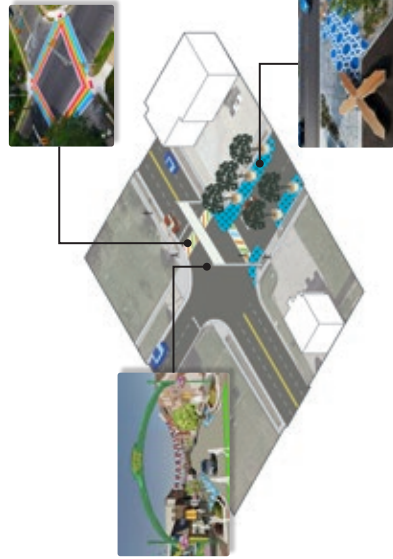
The High Street and Highway 63 intersections are important gateway for downtown Toledo, as most traffic coming through both communities uses the US Highway 63 corridor. The Toledo Steering Committee has asked to improve the downtown streetscapes of Toledo, Steering Committee encouraging visitors and residents to spend more time on Main Street. The entrance to High Street acts as a gateway in both concepts, conducting viewers towards Toledo's downtown.

"Better Pedestrian Connections"

According to the Toledo Priorities, residents felt that better pedestrian connections was the third most important Transportation Enhancement Issue. Both concepts provide safe crossing across both streets by providing crosswalks, slowing traffic, and shortening the distance for pedestrians to cross. The proposed sidewalks along US Highway 63 and High Street that are apart of the Toledo Heights Connection Plan will help to provide a more complete pedestrian network for active adults, parents and their children.

"More Accessibility for Seniors"

The Toledo Priorities also identified lack of access for seniors and the mobility challenged as a Transportation Enhancement Issue, and the design concept for High Street and US Highway 63 addresses this issue by providing ADA curb ramps with detectable warning strips at the end of all proposed crosswalks. Yield and stop signs are also proposed to slow incoming traffic and make drivers more aware of potential pedestrian presence, creating a safer crossing environment.



site design group

LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
Landscape Designer: Richard Meagher
Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation

Toledo
High St + US 63



Implementation Strategies

Implementation Overview

The Community Visioning Plan created by the design team for both Tama and Toledo are the first step towards implementing the transportation network changes that can improve the safety and livability of both communities. Using these documents as a foundational first step in the design process, projects can progress towards the point of construction with the continued help of allied professionals.

The design team, site design group.ltd (*site*), would like to continue our effort to improve the cities of Tama and Toledo by serving as landscape architectural consultants in the future for both communities. Our familiarity with the Community Visioning Plan and the members of both Steering Committees, as well as our experience with implementing these types of projects while able to help secure future funding, makes site design group a strong candidate for further inclusion in the improvement of both Tama and Toledo.

Projects may require help beyond the capability of the Toledo Visioning Steering Committee or available city staff. For this improvement project, the steering committee should expect to engage the services of a Landscape Architect and a Civil Engineer.

YEAR 1

- TASK 1** Schedule monthly steering committee meetings, confirm understanding of scope and estimated costs of identified projects, and **prioritize the top three projects for design refinement and implementation.**
- TASK 2** Determine the most practical project for implementation and identify all applicable and eligible funding sources and other resource opportunities.
- TASK 3** Utilizing Community Visioning deliverables along with assistance from Trees Forever and a landscape architect, **submit application(s) for eligible and related grant programs.**
- TASK 4** Upon a successful grant application and securing funding, **develop a schedule for project design, bidding, and construction. Select and execute a contract with a landscape architect as the lead design consultant.** This begins the Design development phase.

YEAR 2-10+

- TASK 1** Each year re-assess the top three priority projects based on grant application success and other funding/resource opportunities, **then repeat Tasks 2-4 for the next selected project.**

Implementation Overview

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The graphics on this board to the right illustrate the process for taking individual design projects from a general vision to a fully realized implementation. The specific amount of time, costs, and efforts are different from site to site, and will require a more in-depth cost estimate and analysis by whoever is selected to continue the various stages of each project. Projects may need to be adjusted based on a variety of factors such as project scope, complexity, project schedule and funding sources.

The ideas presented through the Community Visioning Program are the beginning of this design process.

Tama + Toledo Implementation Plan

Action Plan

The Action Plan is a basic, recommended approach for project implementation on how to take the ideas from the Community Visioning Plan to completed construction projects.

YEAR 1

TASK 1 Schedule monthly steering committee meetings, confirm understanding of scope and estimated costs of identified projects, and **prioritize the top three projects for design refinement and implementation.**

TASK 2 Determine the most practical project for implementation and identify all applicable and eligible funding sources and other resource opportunities.

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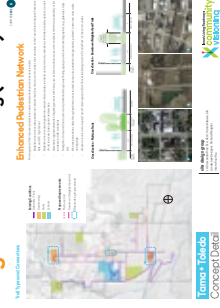
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YEAR 2-10+

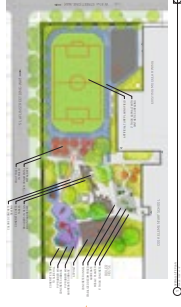
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SUMMER 2021 12

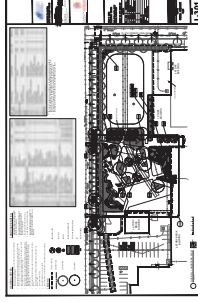
Stage 1: Master Planning (Vision)



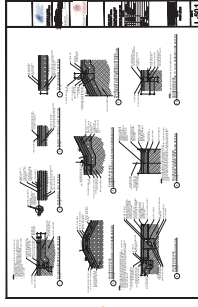
Stage 2: Schematic Design



Stage 3: Design Development



Stage 4: Construction Documents



Stage 5: Construction Administration



Stage 6: Completed Project



Tama and Toledo are here in the process

site design group

LA: Cassandra Rice, PLA, ASLA, Hana Ishikawa, AIA
Landscape Designer: Richard Meagher
Intern: Paul Hsu

Iowa State University | Trees Forever | Iowa Department of Transportation



Available Resources

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

Funding Opportunities

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

Funding Sources

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

Grant Programs

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