The River Edge Parkway

2020 MASTER PLAN UPDATE

Adopted: March 24, 2020

WAUSAU WISCONSIN

River Edge PARKWAY

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Image Credit: Andrew Plath

Introduction & Context

Wausau is a city built along and surrounding the Wisconsin River. Historically the Wisconsin River has been the focus of many cultural, economic and social activities throughout Wausau. American Indians, fur traders and loggers used the river for transportation. Later, saw mills relied on the river for power as well as moving logs and finished products to markets. As the sawmills were replaced by paper mills, the transportation use diminished, and the river became a source for hydroelectric power. A byproduct of commercial and residential development was the discharge of pollution to the river.

Throughout most of the river's history, it provided sport and recreational opportunities for the people who lived along its banks. However, when pollution reached extremely high levels in the 1950's and 1960's, residents were repelled by dirty water and noxious odors. Few sought out the river for recreation. After the paper mills and municipalities developed pollution abatement systems in the late 1960's and early 1970's and water quality showed dramatic improvement, interest in the river's recreational potential returned. Out of this interest, the City established the Wausau River Edge Commission in 1974.

The ordinance creating the Commission identified the following purpose:

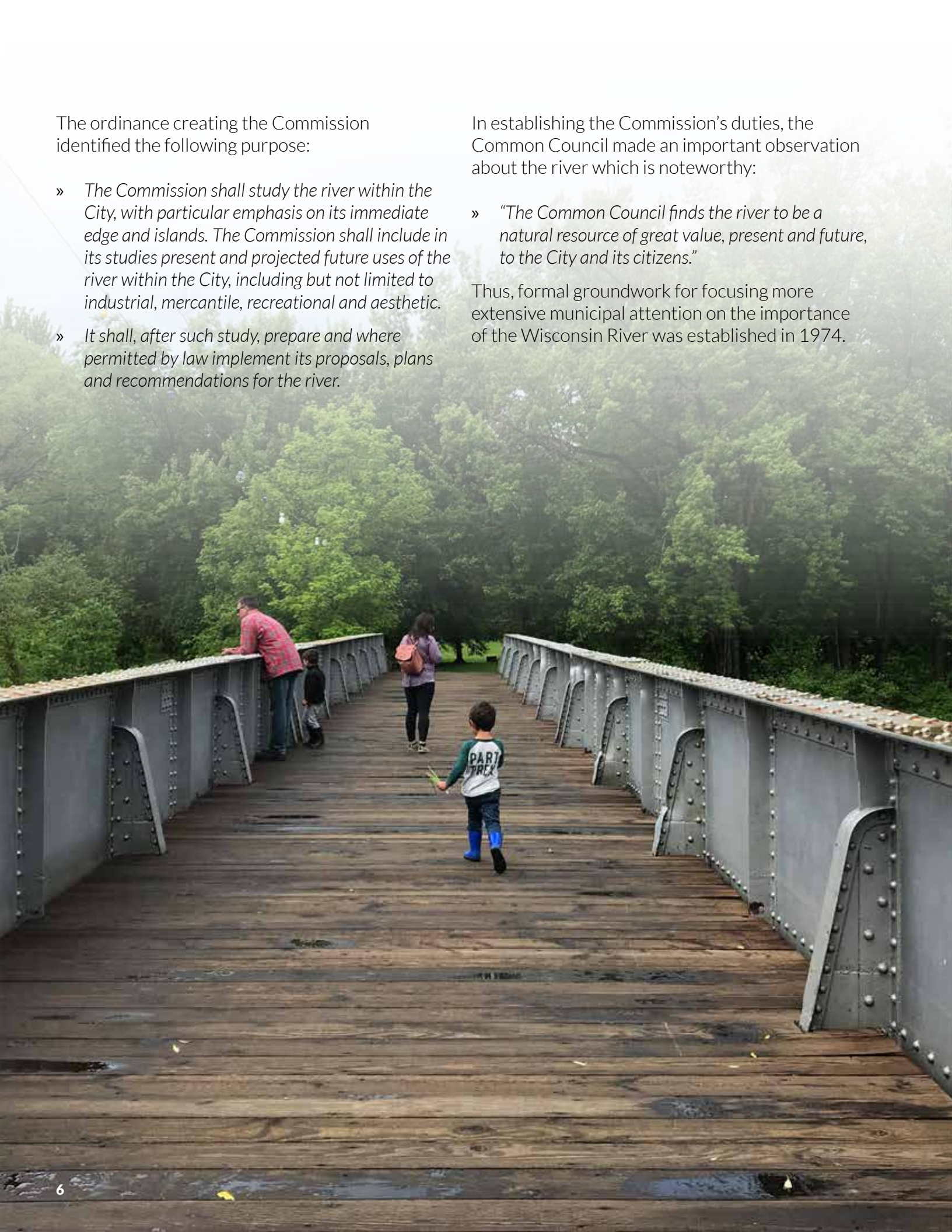
» *The Commission shall study the river within the City, with particular emphasis on its immediate edge and islands. The Commission shall include in its studies present and projected future uses of the river within the City, including but not limited to industrial, mercantile, recreational and aesthetic.*

» *It shall, after such study, prepare and where permitted by law implement its proposals, plans and recommendations for the river.*

In establishing the Commission's duties, the Common Council made an important observation about the river which is noteworthy:

» *"The Common Council finds the river to be a natural resource of great value, present and future, to the City and its citizens."*

Thus, formal groundwork for focusing more extensive municipal attention on the importance of the Wisconsin River was established in 1974.



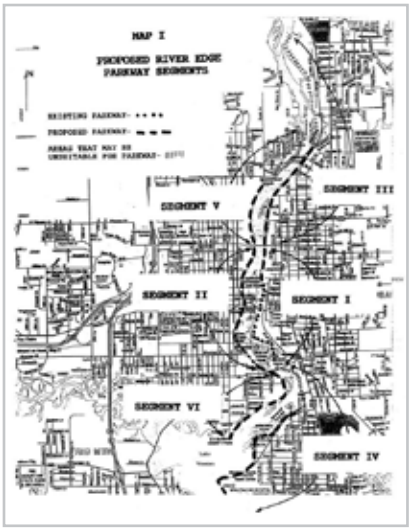
This Plan is an update to the City's prior River Edge Master Plan, which was adopted in June 1995. The 1995 plan laid the foundation for future bike route and trail development within the City. The plan identified short- and long-term strategies for improving public access to the City's most important natural resource – the Wisconsin River. Emphasis was placed on establishing trail connections to existing points of interest within the city and to adjacent communities and trail systems.

The River Edge parkway is intended to physically link the parks located along the river by improving pedestrian and bicycle facilities in the community. Most of the recommendations focus on the continued development of the River Edge Parkway along both banks of the Wisconsin River, which would be completed over the course of 20 to 30 years. The corridor includes portions of the City bordering both banks of the Wisconsin River, up to three city blocks deep in some cases, in order to provide safe and convenient connection.

Central to the parkway's concept is a web of walkways and multi-use trails, a network that reaches from City limit to City limit through the corridor and along the river wherever physically possible, including across bridges and islands. The trail network is a conduit for alternative transportation, allowing bicycle, pedestrian, and other non-motorized modes of travel access to and from residential and commercial areas throughout the corridor. The trail also connects existing parks along the river edge.

Though the trail system is beloved and used often by many residents of the City of Wausau, other residents are not aware that the trail exists just a few blocks away from where they live. This plan seeks to provide a vision for the trail's physical development, as well as recommendations for increasing its visual presence in the community.

"This plan seeks to provide a vision for the trail's physical development, as well as recommendations for increasing its visual presence in the community"



Map I from the 1995 River Edge Master Plan identified parkway segments along the Wisconsin River

3.75 miles of the 7 total miles of trail have been added to the River Edge Parkway since the 1995 plan was published

The Planning Process

The City of Wausau began the process of updating the River Edge Master Plan in the Fall of 2018 with a series of site visits and stakeholder interviews alongside a consultant team. From Fall 2018-Fall 2019, the City, stakeholders, and the consultant team engaged with community members about desires and priorities, completed site investigations and engineering studies of focus areas, and researched alternatives and options for Wausau's trail network.

Planning Meetings:

- October 26, 2018 – Kick Off: Bicycle & Pedestrian Advisory Committee
- February 25, 2019 – Bicycle & Pedestrian Advisory Committee
- June 14, 2019 – Bicycle & Pedestrian Advisory Committee
- June 14, 2019 – Public Open House
- July 29, 2019 – Bicycle & Pedestrian Advisory Committee
- September 17, 2019 – Public Open House
- October 8, 2019 – Public Open House
- November 25, 2019 – Bicycle & Pedestrian Advisory Committee
- December 2, 2019 – Park & Recreation Committee
- December 16, 2019 – Southeast Side Neighborhood Group
- February 18, 2020 – Plan Commission
- March 24 – City Council Adoption

Initial site visit and tour of trail facilities + discussion of priorities with City staff & stakeholders
Fall 2018

Preliminary Alternative Analyses
Winter 2018-2019

Stakeholder workshop
Summer 2019

Community Conversation & Outreach
Summer 2019

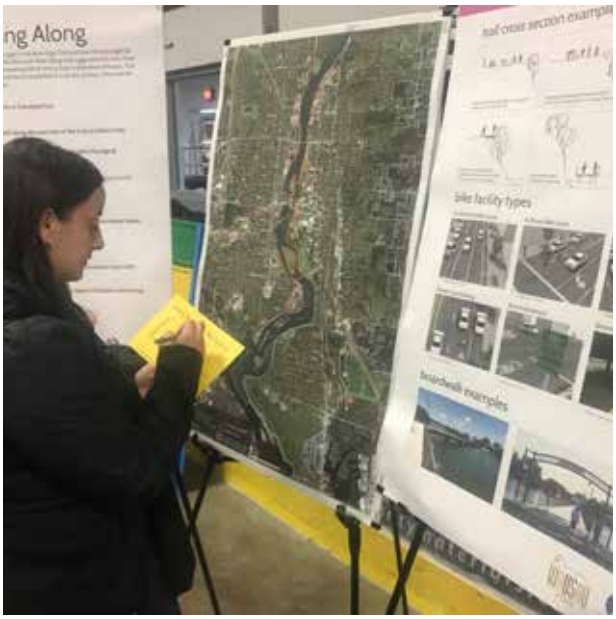
Engineering investigation of alternatives and refined priorities
Summer 2019

Community Conversation & Outreach
Summer & Fall 2019

Review & Adoption by City Commissions & Council
Winter 2019-2020

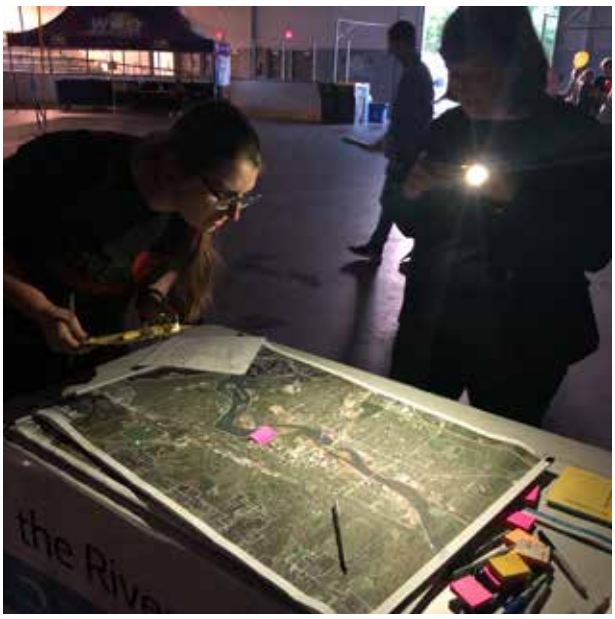
The Final Adopted Plan & Implementation Next Steps
March 2020


Opportunity Areas


ng Along
Bike facility types
Boardwalk examples


SUBWAY


Trail Elements
Connecting Along



Throughout the planning process, priority areas for physical improvement came into focus; these sites are examined in greater detail in the plan that follows, and next steps are outlined for each. Community members expressed appreciation for the trail network in Wausau, and a desire for greater regional connectivity to other trails. They also identified areas where safety on the trail was a concern, either because of lack of lighting, isolation (such as on Barker-Stewart Island) or difficult road crossings (such as on Washington Street just south of Kickbusch Plaza).

Residents in the southeastern neighborhoods and the western neighborhoods felt disconnected from the trail network, and some residents were unaware of existing trail segments on the western river bank.

Priorities Shared by Community Stakeholders:

- Increase knowledge of the trail system – wayfinding signage, map brochures, map kiosks, online information, media
- Closing the gaps on the west side of the river
- Creating a safe connection to the southern neighborhoods
- Create a safe river crossing on an existing bridge – Slough & Falls bridges, Bridge Street, and Thomas Street to be further assessed
- Increased public knowledge and use of the system will increase public support of maintaining, enhancing, and expanding the system
- Improve safety on the trail - wayfinding, emergency buzzers, location identification signage for emergencies, guardrails in steep sections
- If a trail/boardwalk is created south of Thomas Street bridge on the east side of the river, consider having the trail/boardwalk go under Thomas Street if possible
- Consider an enhanced path/trail from the intersection of Sturgeon Eddy Road and Kent Street, east on Kent Street, south on Marshall Street, and down Lake View Drive heading east
- Improve connection from DC Everest Park to playground further north on Cleveland Avenue
- Address the blind spot on Prospect Avenue designated bike route at railroad crossing and Single Avenue/Floral Avenue
- Work with the FAA about a primitive trail around the airport (coordinate about whether the trail will need to drop or be in a culvert for increased aircraft safety) - natural 10' trail
- Mobilize volunteer help for trail along airport, and other areas to do trail making/ maintenance, or fundraising
- Easement conversations with all property owners in the trail gaps - begin planning and planting seeds now, even if it's a longer-term connection

Connecting Along

This diagram shows the current gaps in the River Edge Trail and how the trail might be connected along the banks of the Wisconsin River along with suggestions for how those gaps might be connected to the existing trail to form a loop in downtown Wausau. Trail extensions and connections could be accomplished in a variety of ways. Check out the following boards for more ideas.

- A — Extend bike route north of Schofield Park
- B — Extend bike route north along the east side of the river to Gilbert Park
- C — Connect the trail north from Bridge Street past Graphic Packaging (see Focus Areas board)
- D — Connect the trail segments past MBX Packaging (see Focus Areas board)
- E — Develop an on-street two-way bike connection along 1st Ave
- F — Complete River Edge segment south of Thomas Street to the Waste Water Treatment trail
- G — Extend the trail around the airport to the south
- H — Formalize the Prospect Avenue and the Pine Grove Cemetery route with enhanced bicycle facilities
- I — Create a loop to the south around the Eastbay Sports Complex (connecting with the City of Schofield)
- J — Connect the west side of the trail to DC Everest Park

WAUSAU River Edge GRAEF

Did we miss any priority connections? Use a pink post-it to mark it on the map!

A Connection Across

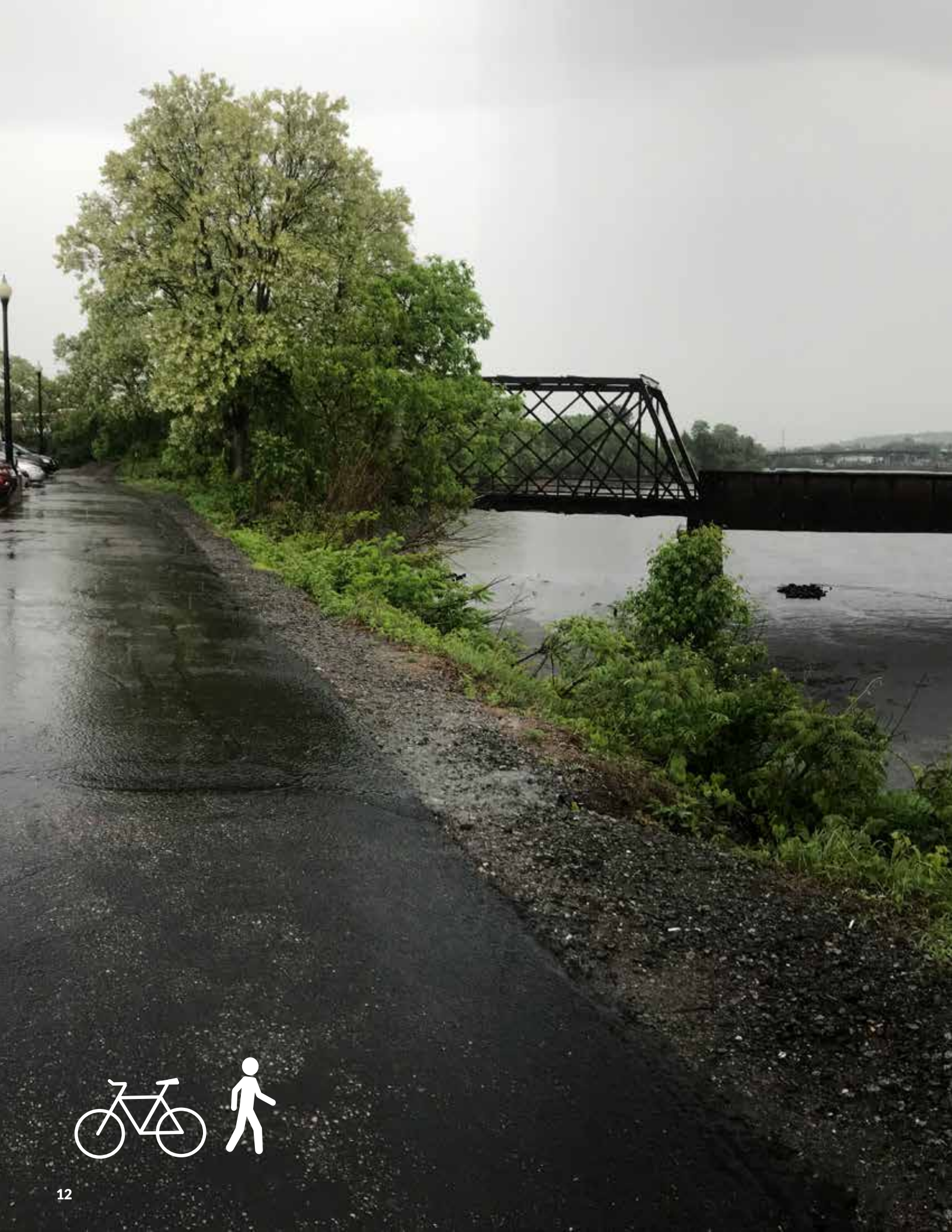
*This diagram shows the **possible options** for an enhanced or new designated pedestrian and bike connection across the Wisconsin River. Current river crossing points are few and constrained, limiting bicycle and pedestrian movement throughout the downtown loop of the River's Edge Trail. One of the top priorities for the future of the trail is to develop a safe river crossing that will allow greater movement throughout the trail network.*

- A — New northern pedestrian bridge connection to Scholfield Park
- B — Safe connection across the Bridge Street bridge
- C — Conversion of existing railroad bridge to a bicycle/pedestrian bridge from Stewart Island (long-term possibility)
- D — Safe connection across Falls & Slough Bridge at Stewart Avenue
- E — Two-way bike and pedestrian connection across the Thomas Street Bridge
- F — New southern pedestrian bridge connection from the south end of the waste water treatment plant portion of the trail to Memorial Park

potential bridge types

WAUSAU River Edge GRAEF

Where should the trail cross the river? Use an orange post-it to mark it on the map!



Vision & Goals

Wausau has always had big dreams for the Wisconsin River Corridor. The last River Edge Master Plan document identified a detailed vision for what the corridor would look like in the next 20-30 years, including development that blends harmoniously with the natural environment along the river, and a connected trail system along the river edge and across the bridges.

The City of Wausau envisions a River Edge Parkway that connects people to the river, to the city, and to each other as pedestrians, cyclists, and neighbors.

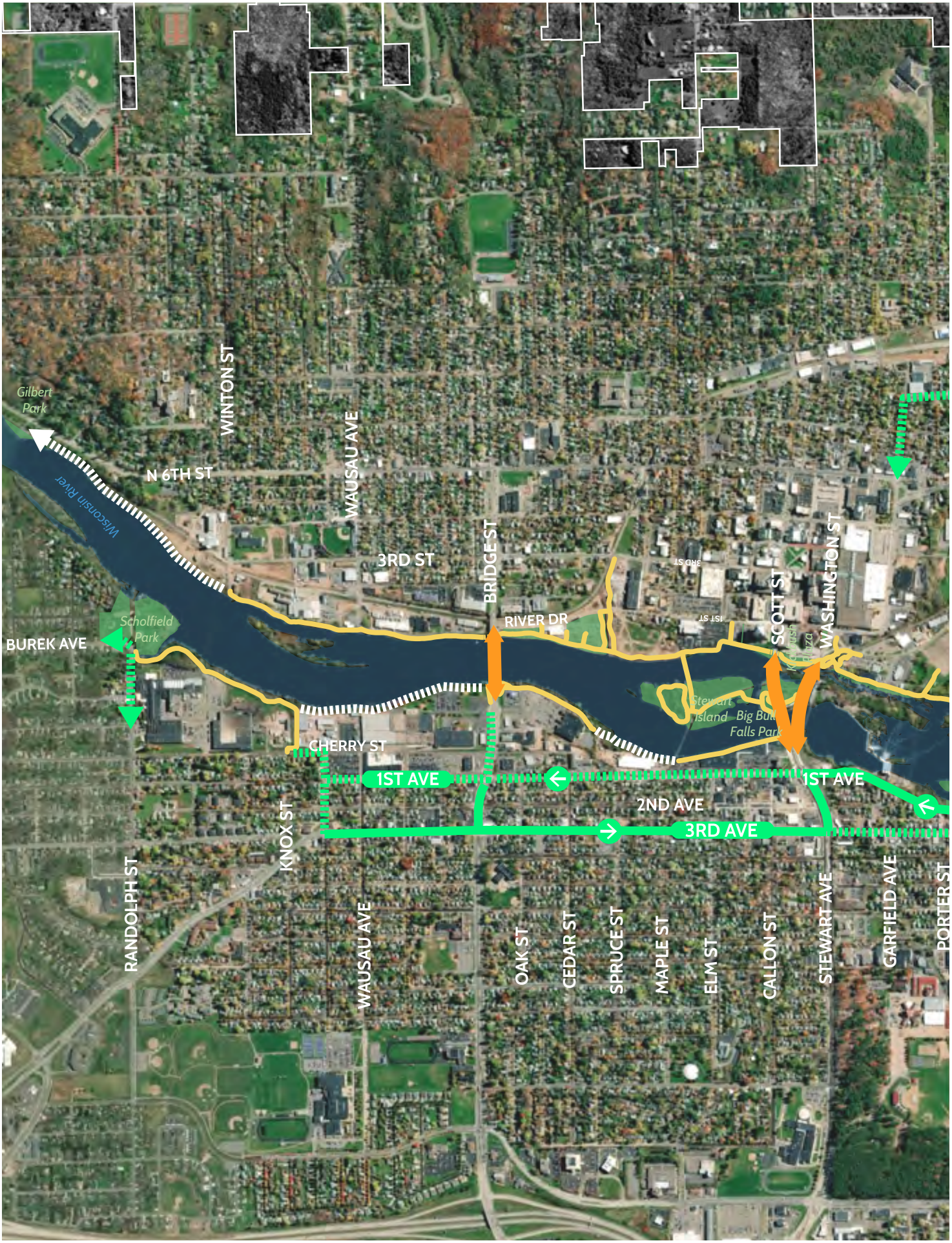
Through the planning process, the River Edge Master Plan team identified the following fundamental goal statements for the future of the River Edge Parkway network in Wausau. The recommendations of the plan stem from these statements and are based on information from stakeholders and community members, helping to ensure that the trail develops in a way that most benefits Wausau's residents.

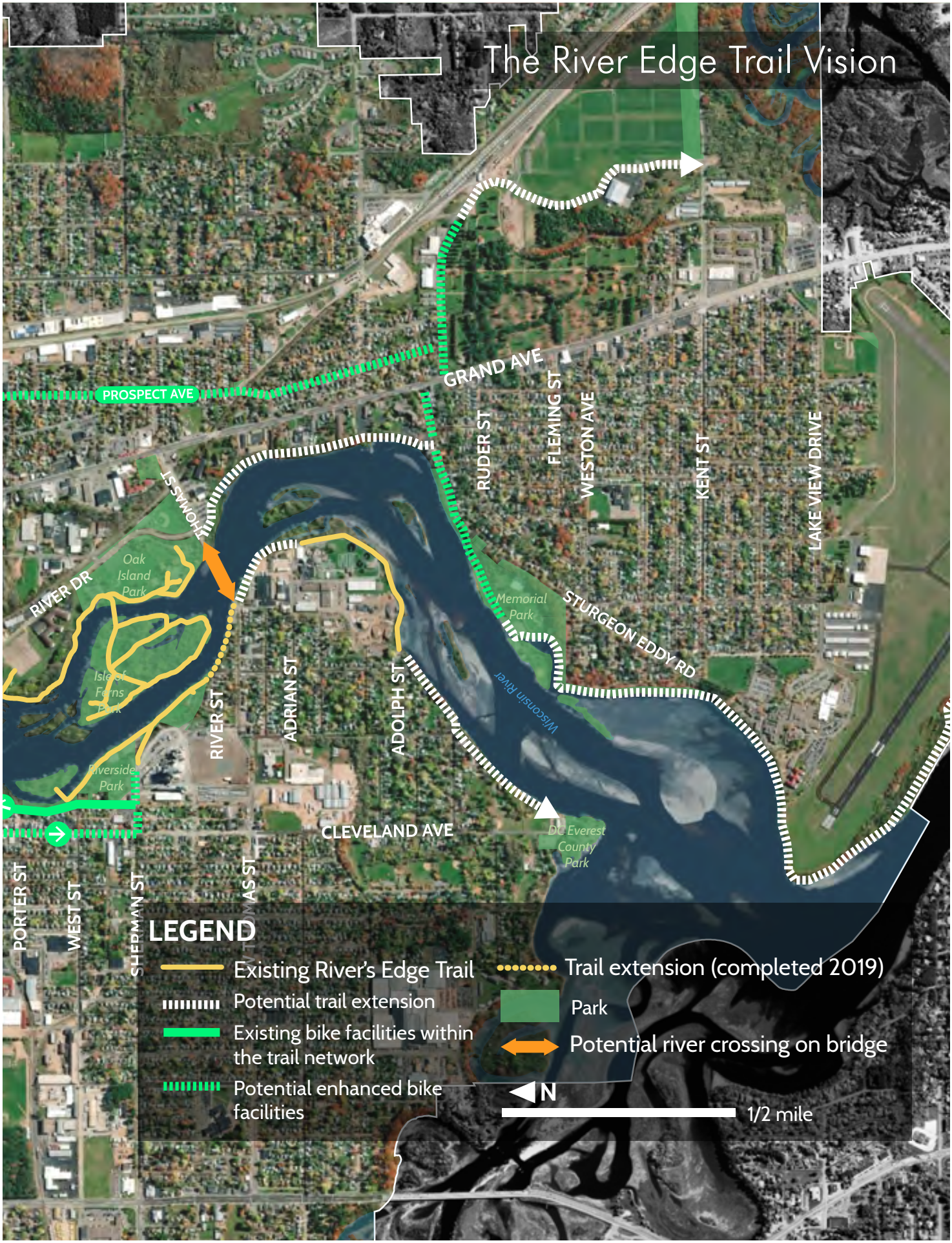
Access to the Trail and River for All

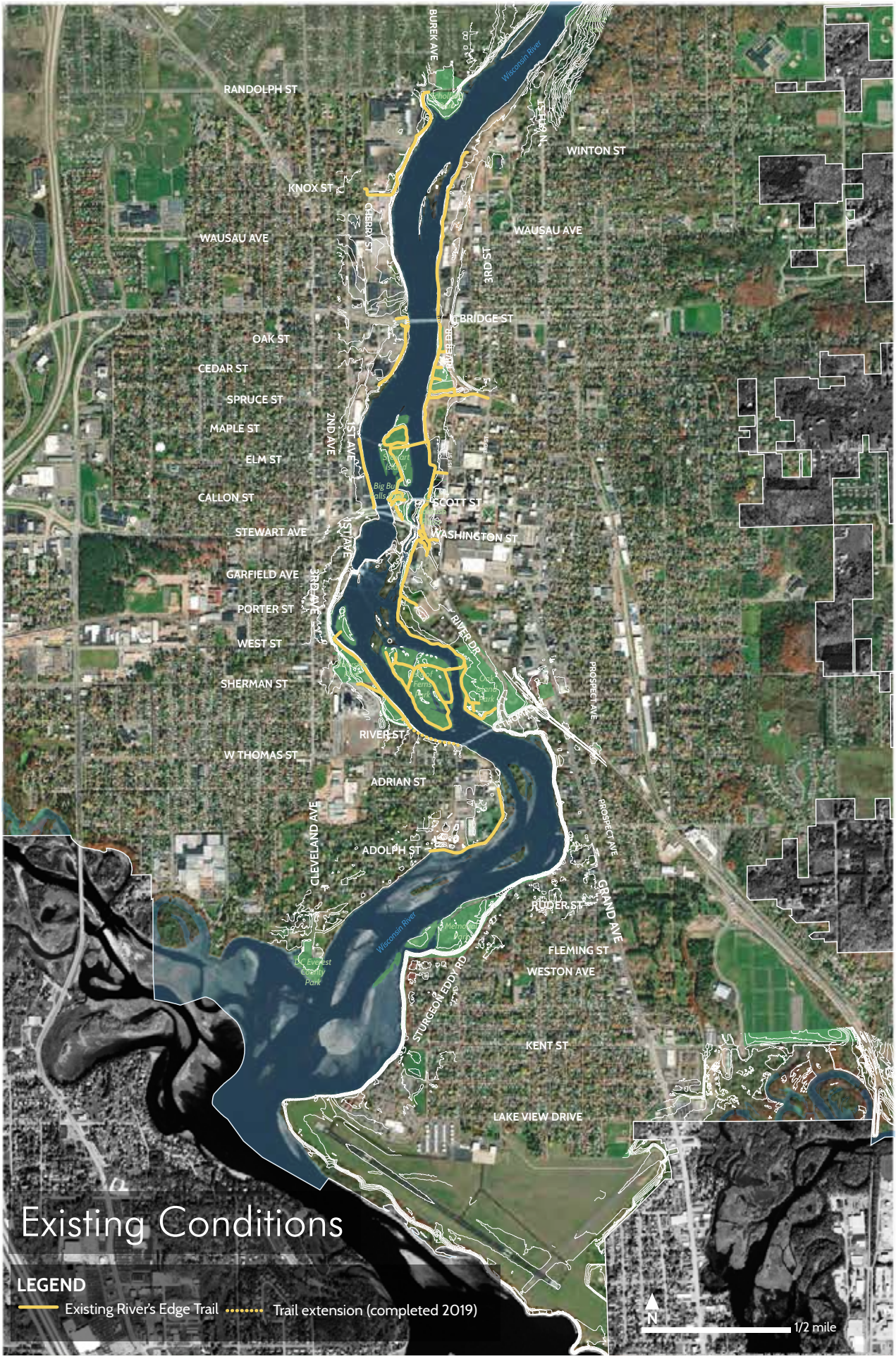
Views and connection to the Wisconsin River

A complete and connected trail network

Safety along the trail for bicyclists & pedestrians


Gilbert Park
WINTON ST
WAUSAU AVE
N 6TH ST
Wisconsin River
3RD ST
BRIDGE ST
RIVER DR
WASHINGTON ST
SCOTT ST
Scholfield Park
BUREK AVE
CHERRY ST
1ST AVE
2ND AVE
3RD AVE
KNOX ST
RANDOLPH ST
WAUSAU AVE
OAK ST
CEDAR ST
SPRUCE ST
MAPLE ST
ELM ST
CALLON ST
STEWART AVE
GARFIELD AVE
PORTER ST


The River Edge Trail Vision
PROSPECT AVE
GRAND AVE
RUDER ST
FLEMING ST
WESTON AVE
KENT ST
LAKE VIEW DRIVE
THOMAS ST
RIVER DR
Oak Island Park
Memorial Park
STURGEON EDDY RD
Wisconsin River
Island of Ferns Park
Riverside Park
RIVER ST
ADRIAN ST
ADOLPH ST
CLEVELAND AVE
DC Everest County Park
PORTER ST
WEST ST
SHERMAN ST
THOMAS ST
LEGEND
Existing River's Edge Trail
Potential trail extension
Existing bike facilities within the trail network
Potential enhanced bike facilities
Trail extension (completed 2019)
Park
Potential river crossing on bridge
N
1/2 mile


BUREK AVE
RANDOLPH ST
Wisconsin River
STEWART AVE
WINTON ST
KNOX ST
CHERRY ST
WAUSAU AVE
WAUSAU AVE
3RD ST
BRIDGE ST
RIVER DR
OAK ST
CEDAR ST
SPRUCE ST
MAPLE ST
2ND AVE
1ST AVE
ELM ST
Big Bull Falls
CALLON ST
SCOTT ST
STEWART AVE
1ST AVE
WASHINGTON ST
GARFIELD AVE
3RD AVE
PORTER ST
RIVER DR
WEST ST
SHERMAN ST
Marathon County Historical Society
PROSPECT AVE
RIVER ST
W THOMAS ST
ADRIAN ST
CLEVELAND AVE
PROSPECT AVE
ADOLPH ST
RUDER ST
GRAND AVE
Wisconsin River
Marathon Park
FLEMING ST
WESTON AVE
D.C. Everest County Park
STURGEON EDDY RD
KENT ST
LAKE VIEW DRIVE
Existing Conditions
LEGEND
Existing River's Edge Trail
Trail extension (completed 2019)
N
1/2 mile

Existing Conditions

The seven miles of existing River Edge Parkway represents a major accomplishment for the City of Wausau. Community members enjoy walking with their family from park to park on the eastern edge of the river, connecting to downtown and to the newly developed Riverlife Park. Trail improvements south of Bridge Street on the western waterfront provide opportunities for visual connection to the river as well as accessibility to the trail for those with mobility needs.

Throughout the planning process, the project team heard time and time again from parents who love using the trail with their children, and adults who use the trail and parks for exercise and recreational purposes in addition to commuting by bike or by foot.

The trail on the western edge of the Wisconsin River corridor in Wausau weaves in and out of industrial development, and is not continuous along the river edge. Accessibility and visibility of the trail segments are also challenges along the western river edge. The gaps in the western trail segments are identified and prioritized on pages 24 & 25 in the **Connecting the Gaps** section of this plan.

Updated signage marks some of the access points along the River Edge Parkway, though not every access point is marked with signage.

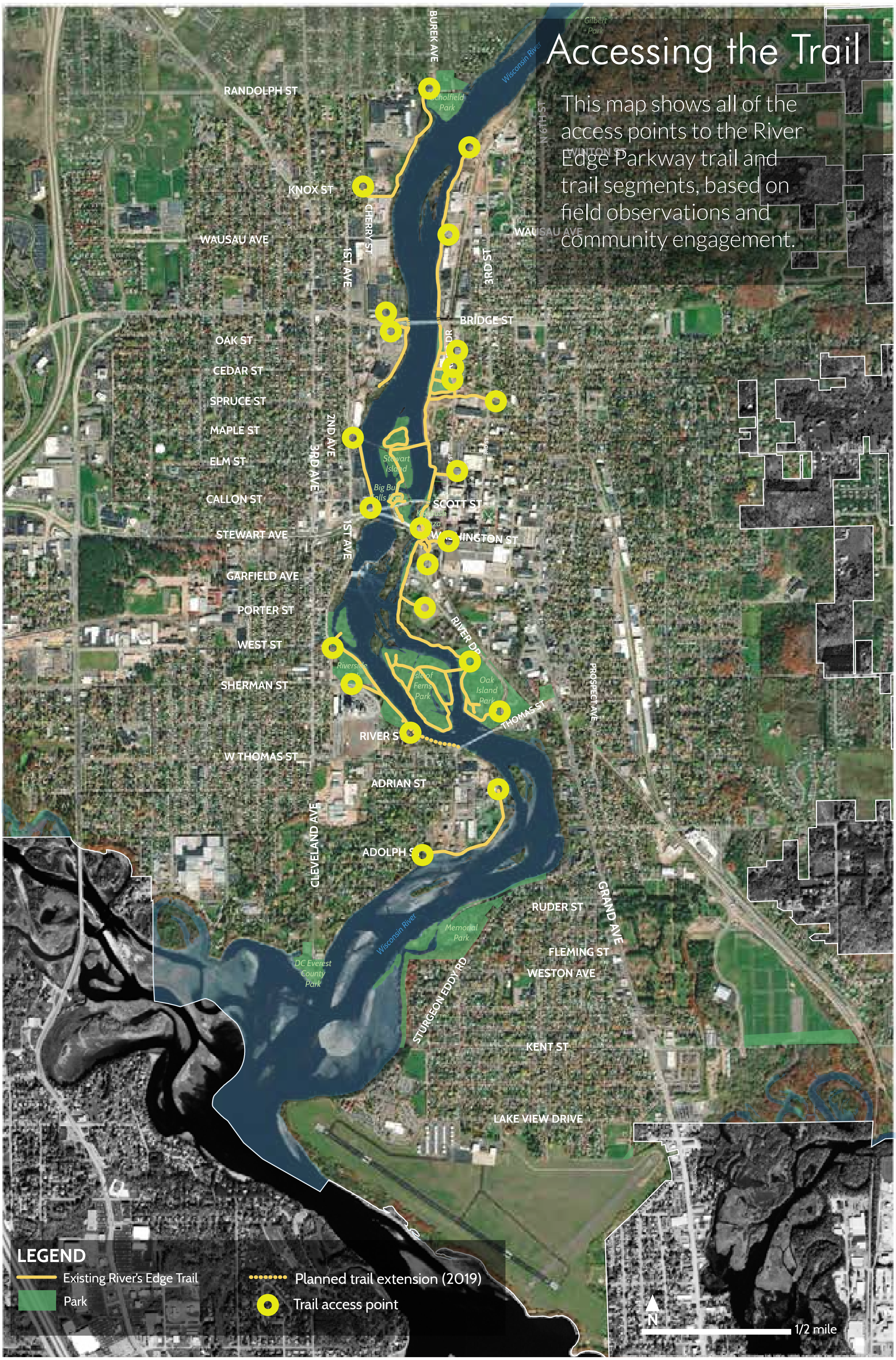
Current trail and road conditions provide a safety concern along some sections of the trail and on-street connections. At the far left, the River Edge Parkway crosses a railroad at grade at Cherry Street. At near left, ongoing construction on 1st Ave prevents current bicycle traffic, but will eventually include a dedicated bike facility going northbound.

Some trail access points were hidden or inaccessible to the public, such as this example in the Riverside Plaza Shopping Center parking lot.

Some trail access points are visible, but not physically accessible to those in wheelchairs or to cyclists, such as this entrance at the southern end of Riverside Park.

Other trail access points are visible, but are not clearly marked as part of the River Edge system with signage, nor are they paved, such as this section of trail around the edge of the waste water treatment plant.

Some sections of the River Edge Parkway are gravel paths and packed dirt, such as the pathways on Isle of the Ferns. These areas of the trail network are well-loved by the community for their more "rustic" nature, with many residents and stakeholders referring to them as the most scenic parts of the trail. However, these sections are also prone to flooding in some seasons and are not wheelchair accessible.

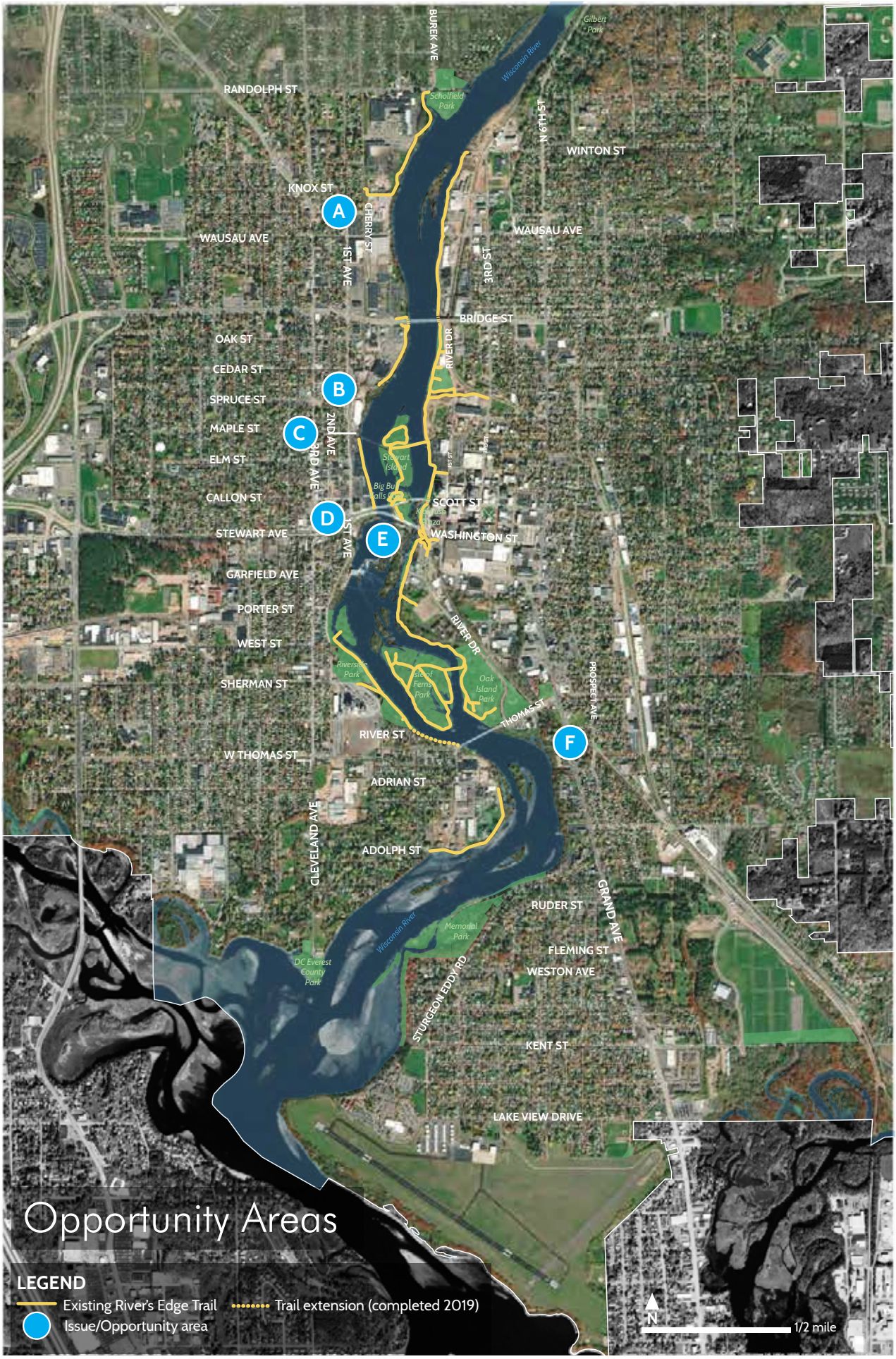


Accessing the Trail
This map shows all of the access points to the River Edge Parkway trail and trail segments, based on field observations and community engagement.
BUREK AVE
RANDOLPH ST
KNOX ST
WAUSAU AVE
CHERRY ST
1ST AVE
3RD ST
BRIDGE ST
OAK ST
CEDAR ST
SPRUCE ST
MAPLE ST
2ND AVE
3RD AVE
ELM ST
CALLON ST
SCOTT ST
STEWART AVE
GARFIELD AVE
PORTER ST
RIVER DR
WEST ST
SHERMAN ST
THOMAS ST
PROSPECT AVE
W THOMAS ST
ADRIAN ST
CLEVELAND AVE
RUDER ST
GRAND AVE
FLEMING ST
WESTON AVE
STURGEON EDDY RD
KENT ST
LAKE VIEW DRIVE
Wisconsin River
Scholfield Park
Stewart Island
Oak Island Park
Memorial Park
DC Everest County Park
LEGEND
Existing River's Edge Trail
Park
Planned trail extension (2019)
Trail access point
N
1/2 mile

Project Highlight:
Riverlife Park

In 2017, the newest section of Wausau's River Edge Parkway opened, called the Riverlife Park. The park was designed to complement new and future commercial and residential development along this part of the eastern riverfront, and incorporates a day-lit creek (above), as well as seating areas (left) and water access points (below left). In summer 2019, the newest element of this part of the River Edge Parkway was opened - a large playground element situated just under the Bridge Street bridge.

Image Credit: City of Wausau


Opportunity Areas
LEGEND
Existing River's Edge Trail
Trail extension (completed 2019)
Issue/Opportunity area
A
B
C
D
E
F
BUREK AVE
RANDOLPH ST
Gilbert Park
Wisconsin River
Schofield Park
16TH ST
WINTON ST
KNOX ST
CHERRY ST
1ST AVE
WAUSAU AVE
3RD ST
BRIDGE ST
RIVER DR
OAK ST
CEDAR ST
SPRUCE ST
MAPLE ST
ELM ST
2ND AVE
3RD AVE
Stewart Island
Big Bull Falls
CALLON ST
SCOTT ST
STEWART AVE
1ST AVE
WASHINGTON ST
GARFIELD AVE
PORTER ST
WEST ST
SHERMAN ST
Riverside Park
Sister Ferns Park
Oak Island Park
PROSPECT AVE
THOMAS ST
RIVER ST
W THOMAS ST
ADRIAN ST
CLEVELAND AVE
ADOLPH ST
RUDER ST
GRAND AVE
Memorial Park
FLEMING ST
WESTON AVE
DC Everest County Park
STURGEON EDDY RD
KENT ST
LAKE VIEW DRIVE
N
1/2 mile

Opportunity Areas

The map at left identifies several areas where the existing trail conditions present significant opportunities for improvement. Isolated segments of trail that don't connect to a sidewalk or bike route, unclear trail access points, and dangerous intersections are identified, providing a summary of some of the highest-priority locations for improvements and investment.

Most of these opportunity areas are further explored in the Focus Area pages beginning on page 28. Other recommendations that address each of the opportunity areas are found on the following pages.

A

Current trail access point crosses railroad tracks at Cherry Street, creating a safety issue

B

Trail dead-ends south of Pick n' Save with no connection

C

Trail connection in the Riverside Plaza Shopping Center parking lot is unmarked and difficult to find

D

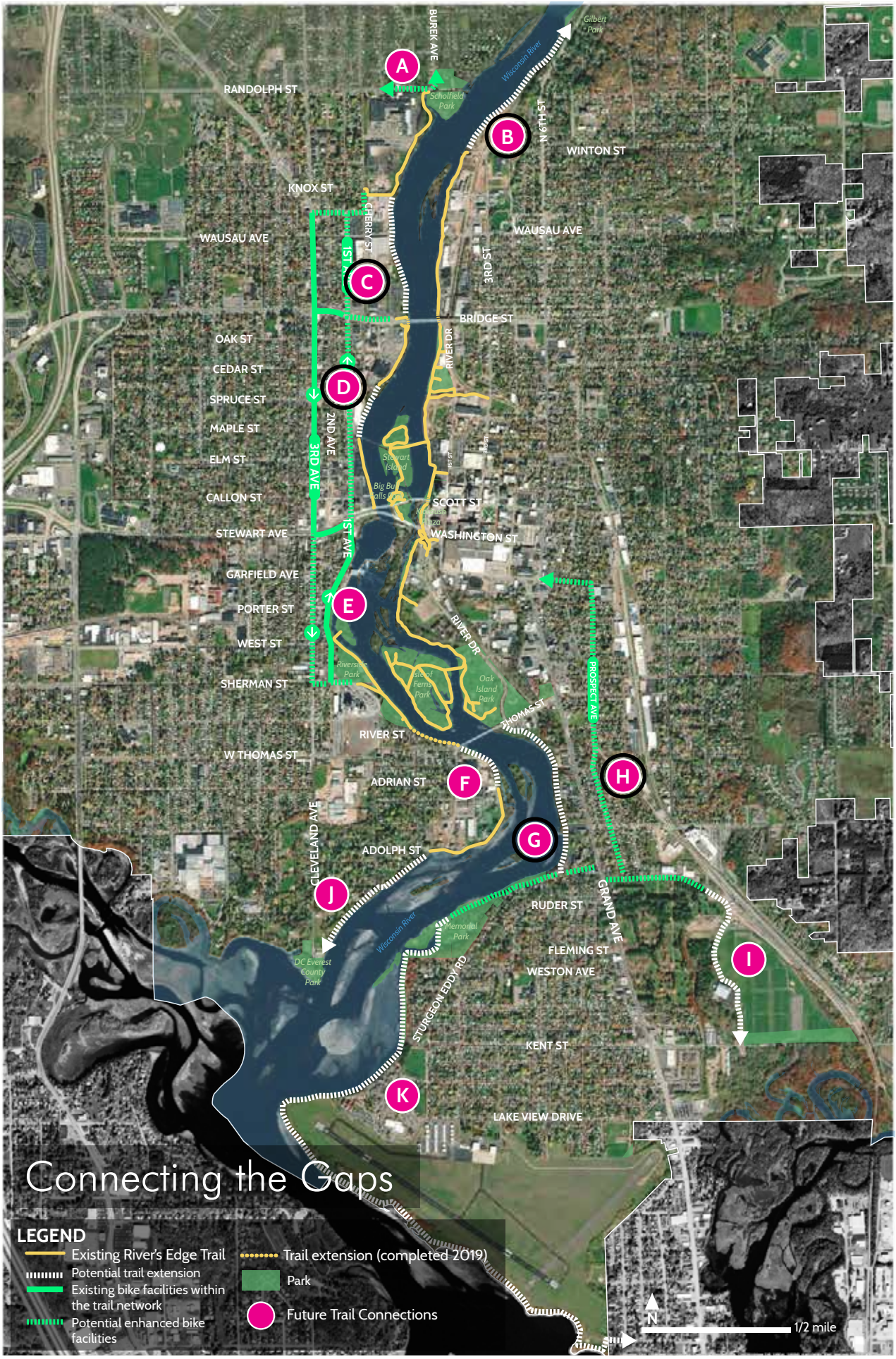
Challenging intersection at Stewart Avenue and S. 1st Avenue limits north/ south connectivity

E

Trail crosses Washington Street Bridge on the eastern river edge across three lanes of traffic in an uncontrolled crossing

F

Grand Avenue is a desirable bike connection for the southern neighborhood, but has physical constraints and high automobile traffic


Connecting the Gaps
LEGEND
Existing River's Edge Trail
Potential trail extension
Existing bike facilities within the trail network
Potential enhanced bike facilities
Trail extension (completed 2019)
Park
Future Trail Connections
N
1/2 mile
A
B
C
D
E
F
G
H
I
J
K
BUREK AVE
RANDOLPH ST
Scholfield Park
Wisconsin River
Gilbert Park
6TH ST N
WINTON ST
KNOX ST
CHERRY ST
1ST
WAUSAU AVE
3RD ST
BRIDGE ST
RIVER DR
OAK ST
CEDAR ST
SPRUCE ST
MAPLE ST
ELM ST
CALLON ST
STEWART AVE
GARFIELD AVE
PORTER ST
WEST ST
SHERMAN ST
2ND AVE
3RD AVE
1ST AVE
Stewart Island
Big Bull Falls
SCOTT ST
WASHINGTON ST
Riverside Park
Island Ferns Park
Oak Island Park
PROSPECT AVE
THOMAS ST
RIVER ST
W THOMAS ST
ADRIAN ST
CLEVELAND AVE
ADOLPH ST
RUDER ST
GRAND AVE
Memorial Park
FLEMING ST
WESTON AVE
STURGEON EDDY RD
DC Everest County Park
KENT ST
LAKE VIEW DRIVE

Connecting the Gaps

This diagram shows the current gaps in the River Edge Parkway trail system and how the trail might be connected along the banks of the Wisconsin River. Suggestions are given for how those gaps might be connected to the existing trail to form a loop in downtown Wausau.

Through the planning process, the team identified four focus areas in terms of trail extension within the planned network. These focus areas represent near-term priority projects for trail expansion, allowing the City of Wausau to make the trail network more accessible to more residents. As with all of the identified priority connections, focus area projects could be accomplished in a variety of ways. Potential options and recommended alternatives are identified on the following pages.

A ◯ indicates a focus area project on the map and key below. See more about focus areas on pages 28-43.

- **A** Extend bike route north of Scholfield Park
- **B** Extend bike route north along the east side of the river from Winton Street to Gilbert Park
- **C** Connect the trail north from Bridge Street past Graphic Packaging
- **D** Connect the trail segments past MBX Packaging
- **E** Develop an on-street two-way bike connection along 1st Ave in the long-term, in the short term use 3rd Ave as a south-bound route
- **F** Complete River Edge segment south of Thomas Street to the Waste Water Treatment trail
- **G** Extend the trail along the river from Sturgeon Eddy Road to Thomas Street & Oak Island Park
- **H** Formalize the Prospect Avenue bicycle boulevard route with enhanced bicycle facilities as a short-term connection to downtown for the southern neighborhoods
- **I** Create a segment to the south around the Eastbay Sports Complex (connecting with the City of Scholfield)
- **J** Connect the west side trail to DC Everest Park
- **K** Connect the trail around the airport to the south

E The gap in the trail network between Stewart Avenue and Riverside Park on the western river edge is an especially difficult one to address given the existing physical constraints in that section of the trail.

In the short term, the City of Wausau should focus on incorporating 1st Avenue and 3rd Avenue into the official River Edge Parkway bike route. 1st Avenue is a one-way northbound road that is currently under redevelopment, and the new on-street bicycle facility that is being added there will also be one-way northbound. South 3rd Avenue will have to be incorporated into the River Edge Parkway network as a short-term south-bound bike connection between Stewart Avenue and Riverside Park. Two-way pedestrian connection is available along the sidewalk on the western edge of 1st Avenue.

In the longer-term, the City of Wausau should explore the possibility of retrofitting a two-way bicycle facility along 1st Avenue as the official River Edge Parkway connection for this gap in the network. This will be challenging due to the constrained roadway size in some locations, but a path alongside the street at the top of the river bluff here may be possible.

A two-way bicycle formation on-street or at the top of the river bluff is preferable to a connection closer down towards the river in this area because the Wausau Hydro plant severely limits the possibility of a trail connection along the water's edge south of Stewart Avenue.

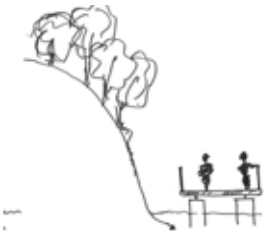
H The designated bicycle route on Prospect Avenue should be further enhanced and formalized as a bicycle boulevard – a low-speed street that is optimized for bicycle traffic. Refer to pages 54-56 for on- street connection options.

Trail Typologies: Along the River Edge

Several different relationships between rivers and trails are possible. A few of these can be seen in the River Edge Parkway system. All of these options were explored as part of this planning process.

Partially at-grade, partially cantilevered trail on top of bluff (or partway down the slope)

Shared path / two-way bike lane alongside street at the top of the bluff



Boardwalk multi-use path in the river

Viewing and seating rest area on top of bluff next to shared path / two-way bike lane

Trail on the lower river shore

G **I** Many community members who are avid bicyclists live in the southern neighborhood in Wausau, and the City has become aware of the severe constraints to bike and pedestrian connectivity to downtown from these neighborhoods. These constraints and possible priority solutions and recommendations for both short and long-term time frames are outlined in a focus-area section on pages 36-41.

However, Wausau residents have also expressed interest in establishing recreational bicycle connections from the southern neighborhoods on the eastern side of the river to the south, as represented in letters K and I on the preceding diagram, including a loop around the airport and around the Eastbay Sports Complex.

J The connection from Wastewater Treatment Plant to DC Everest County Park is a potential long-term connection. Considerations to be made during this feasibility study should include the ability to retrofit the area with a trail system across private residential properties. In this scenario, an easement across these private properties would be required, however the river shore could still be maintained as private property, with access to private docks. Precedents for this exist, including the Fox River Trail in Green Bay and Allouez, WI.

Although not depicted, further consideration should be made to a future trail connection to Rib Mountain State Park. This trail segment could also be part of the River Edge Parkway and follow the Wisconsin River as possible. This connection was mentioned in community feedback sessions as a desirable future trail phase.

Bike Typologies: On-street connections

Conventional Bike Lanes

Image source: NACTO

Buffered Bike Lanes

Image source: NACTO

Separated Bike Lanes

Image source: NACTO

Shared Lane Marking

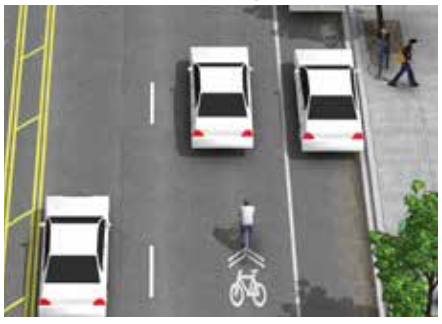


Image source: NACTO

Bicycle Boulevard

Image source: NACTO

Shared-Use Path

Image source: Grand Junction Greenway, Cambridge, MA

Focus Area : Trail extension from Winton Street to Gilbert Park on the northeastern river edge

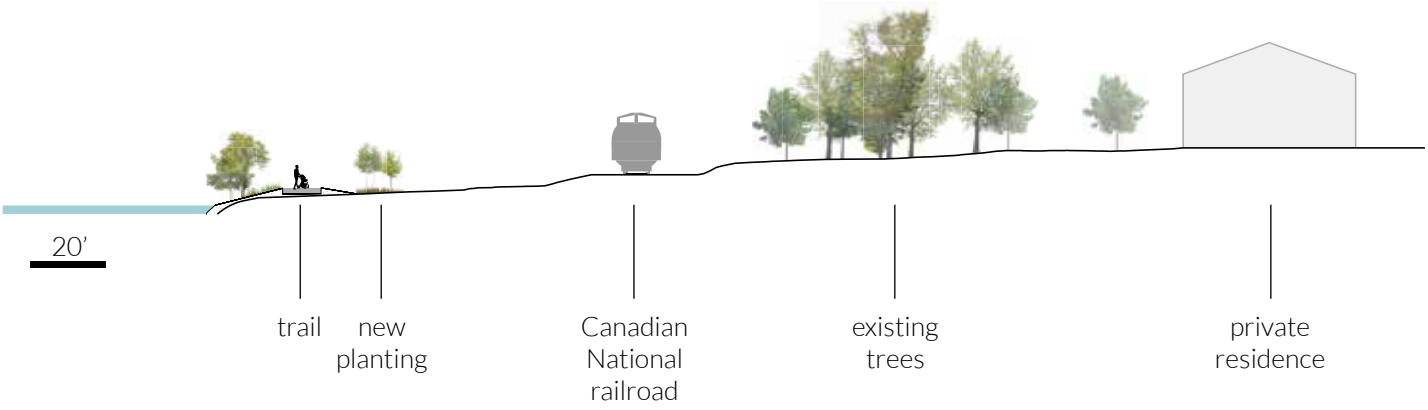
Ⓐ Trail extension from Winton Street to Gilbert Park

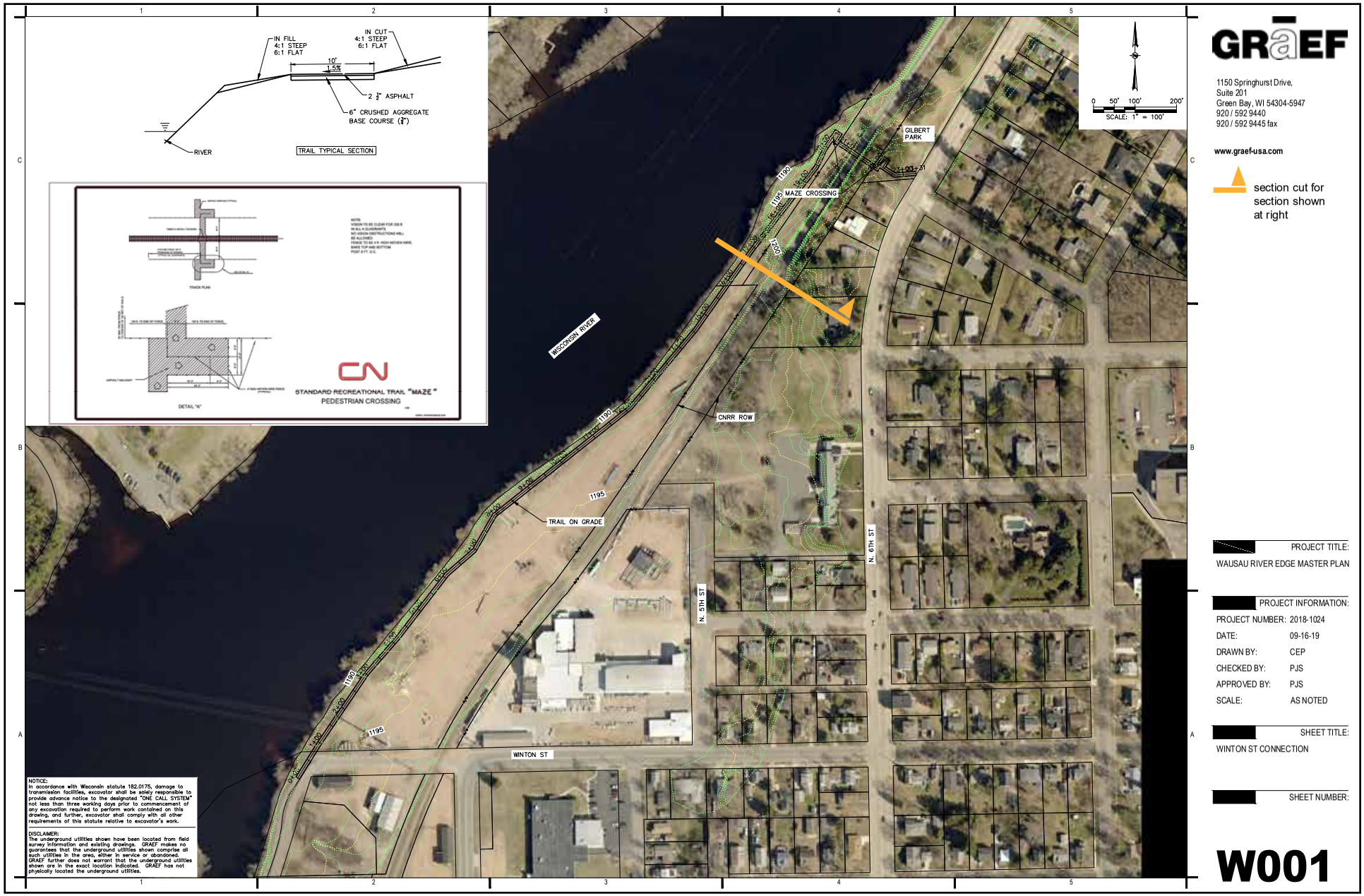
The segment connecting Winton Street to Gilbert Park on the northeastern edge of the Wisconsin River was identified as a priority gap to fill, given that the trail currently ends at Winton Street. Furthermore, this trail gap is less complex than some other missing segments, and is also a connection that will be utilized to access Gilbert Park as well as the neighborhoods in this segment of the city.

Most of this potential segment is relatively flat ground, where the trail can be built close to the river to maintain the river trail experience for trail users. Views can be maintained for users, given the smaller amount of vegetation along the route. One unique facet of this trail is the crossing of Canadian National (CN) railroad tracks on the northern extent of the trail, to then reach Gilbert Park. This will require close coordination with CN to design the crossing, and for some construction efforts.

ON THE TRAIL: Cross-section

See the section cut on the drawing at right to best understand this trail cross- section. Please note that this section is meant for illustrative purposes only.





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PROJECT TITLE:
WAUSAU RIVER EDGE MASTER PLAN

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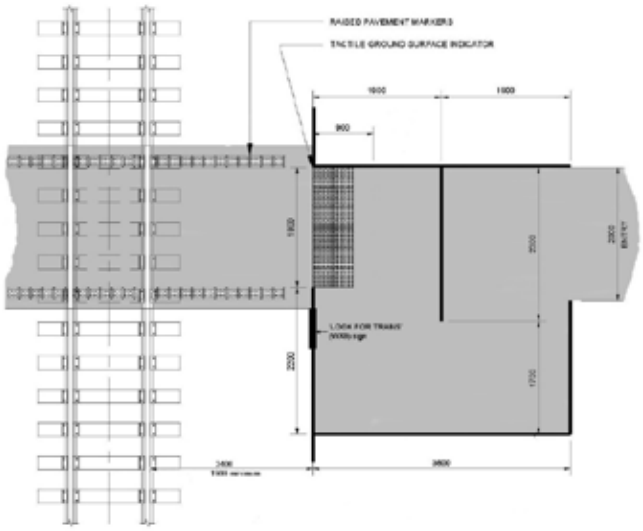
SHEET TITLE:
WINTON ST CONNECTION

SHEET NUMBER:
W001

The right-of-way (ROW) of the railroad tracks is 100 feet wide. The current design concept accommodates this ROW. CN prefers the utilization of a "maze" crossing, which are designed to facilitate safe crossings. The maze barriers and guide fencing form a zig-zag that slows pedestrians and bicyclists as they approach the crossing, enabling trail users to look in both directions of the railroad track before safely crossing. Proper channelization ensures that pedestrians will use a crossing as intended. Channelization treatments must be installed in such a way that pedestrians (or cyclists) are not able to easily circumvent them, therefore limiting the number of potential pedestrian and rail conflict points.

Consideration could be given in discussions with Canadian National to consider a 50 foot ROW which is more typical of a railroad crossing. This would allow for a smaller crossing and fewer landscape and adjacent property impacts. If an at-grade crossing is not allowable by CN, a prefabricated truss pedestrian bridge could be considered. This option would require run-up ramps on both sides of the ROW to get to grade, and would need to reach a 23 foot vertical clearance. This option would have fairly significant cost impacts and therefore an at-grade design is preferred.

Based on the recommended configuration, a budgetary range of $375,000 - $475,000 could be used to include design and construction costs.



Typical pedestrian maze barrier for public at-grade crossings and an example image of a maze crossing Image source: U.S. Department of Transportation, Federal Railroad Administration

NEXT STEPS

- Survey the site to begin preliminary & final engineering
- Begin discussions with Canadian National Railway to identify options and timing for implementation
- Advocate for an at-grade railroad crossing with a maze crossing.
- Discuss a 50 or 70 foot ROW in place of the current 100 foot ROW for the maze crossing zig-zags to begin, or at least a reduction in order to minimize site and property impacts
- Pursue an easement for the trail route
- Integrate wayfinding into the segment, to direct users to Gilbert Park effectively

Focus Area : Trail extension from Bridge Street north along the western river edge past Graphic Packaging

A River Edge Parkway extension

B Multi-use trail beside road on north side of Bridge Street

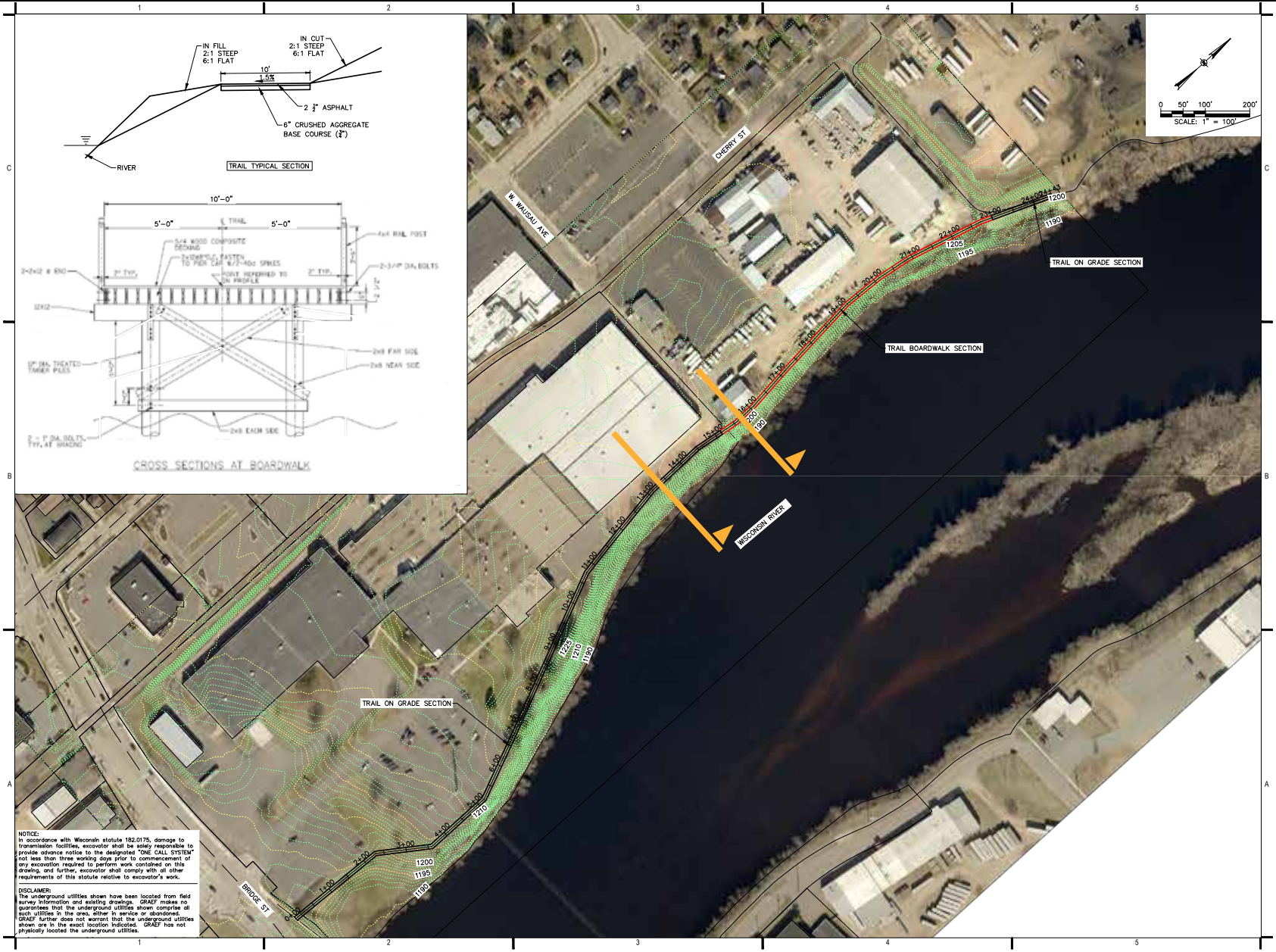
C Dedicated on-street connection along 1st Avenue to Cherry Street

One priority that surfaced from the planning process for this Plan was to address the segment gap north of Bridge Street on the western edge of the Wisconsin River. The current alignment assessed (right) that was reviewed as part of the engineering feasibility assessment follows the edge of the existing parking areas, keeping the trail on-grade above the slope as much as possible north of the parking lot, given the steep slopes in this area of the river.

Once the trail route reaches the north end of the Graphic Packaging site, the trail is proposed near the existing garage structure on the southeast edge of the MBX north site. At this point, the trail moves from being on-grade, to a partially cantilevered boardwalk structure. The proposed boardwalk would be approximately 800 feet in length, and would be built high along the slope, rather than down near the river. This elevated boardwalk/trail section would be supported by timber piles, with wood posts, cable rails, and aluminum rails.

River Edge Parkway Extension

Along this section of river, the western bank ridge is well above the river with a top of ridge elevation of approximately 1196 at Bridge Street, to a high elevation of approximately 1229 near the Graphics Packaging building, and down to approximately 1200 at the north trail connection end. The bottom of bank/normal water elevation is approximately 1189 for a ridge height ranging between 7 and 40 feet. The current ridge cross-slope is very steep and varies from approximately 1.25H:1V to 2H:1V, with slightly flatter segments in the southerly 350 feet and northerly 100 feet. The 100-year floodplain elevation along this section of the Wisconsin River per the Flood Insurance Rate Map (FIRM) Map 55073C0382F and the Flood Insurance Study ranges from approximately



NOTICE:
In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

DISCLAIMER:
The underground utilities shown have been located from field survey information and existing drawings. GRAEF makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. GRAEF further does not warrant that the underground utilities shown are in the exact location indicated. GRAEF has not physically located the underground utilities.

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section cut for section shown at right

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MBX NORTH TRAIL AND BOARDWALK

SHEET NUMBER:
M001

1195.0 at Bridge Street to approximately 1195.3 at the northern property line of the MBX parcel. On the top of ridge along both the Graphics Packaging parcel and MBX parcel, the terrain plateaus to flatter usable areas. Both parcels are using the upper bank plateau areas to different degrees. More specifically, the Graphics Packaging parcel has parking with widened manicured turf up to the top of ridge on the south half of their parcel, while the northern half of their parcel along the building is manicured turf and/or paved access drive. The MBX parcel has gravel and paved storage yard areas with a garage and stored materials right up to the crest of the ridge.

For this segment gap of the trail route, we evaluated several alternatives. Those alternatives included:

1. An entirely boardwalk trail below the ridge nearer the river.
2. An entirely on-grade trail, below the ridge nearer the river, cut into the ridge slope.
3. An entirely on-grade, top of ridge trail from Bridge Street to the existing trail north of the MBX site.
4. A segment including on-grade trail through the Graphic Packaging site then a segment of partially cantilevered boardwalk structure through the MBX site to the connection with the existing trail to the north. This is the recommended configuration.

Each alternative was evaluated for multiple factors including property use impacts, floodplain impacts, ease of construction, and construction cost impacts. A summary of that evaluation is in the following table:

Both alternatives #1 and #2 have minimal property use impacts as they will be located beyond the currently used area of the adjacent parcels. However, each of those options would impact the floodplain in some fashion either through placing structure supports or fill/retaining wall in the floodplain limits and/or waterway. Those alternatives also both will be difficult to construct likely requiring both construction ramp grading and barges for construction equipment access. The mobilization and construction method factors will increase cost considerably. Alternative #1 will require a retaining wall above and/or below the trail to hold the slope and limit fill in the waterway. Alternative #2 will increase the length of boardwalk by 1,500 linear feet thus increasing construction cost by approximately $400,000 vs the recommended configuration of an on-grade trail/boardwalk combination segment.

Alternative #3 would be the least expensive to construct and easiest to build due to the easier access and having no boardwalk section. It would, however, have the greatest impact to the adjacent parcels. While the Graphics Packaging parcel appears to have room for the trail without impacting the current parcel uses, the MBX parcel uses would be impacted greatly. The MBX property owner would need to relocate or remove an existing garage and would lose use of a large area of outdoor storage that is currently utilized.

Alternative	Property Use Impacts	Floodplain Impacts	Ease of Construction	Construction Cost
#1	Minimal	Yes	Difficult	High
#2	Minimal	Yes	Difficult	High
#3	Moder-ate/High	None	Easy	Low
#4 - Recommended	Moderate	None	Easy/Moderate	Medium

Alternative #4 is our recommended configuration. This alternative utilizes an on-grade top of ridge trail through the Graphics Packaging parcel where room for the trail exists without impacting their current site uses. On the MBX parcel, a top of ridge post-supported boardwalk structure would be used for the length of the parcel. This boardwalk structure would be beyond the area currently used by the property owner thus not impacting their operations. The structure would be well above the river floodplain eliminating possible floodplain impacts. Construction cost would be moderate with easy construction access from the top of the ridge and a reduced boardwalk length vs Alternative #2.

Based on the recommended configuration, Alternative #4, a budgetary range of $650,000 - $725,000 could be used to include design and construction costs.

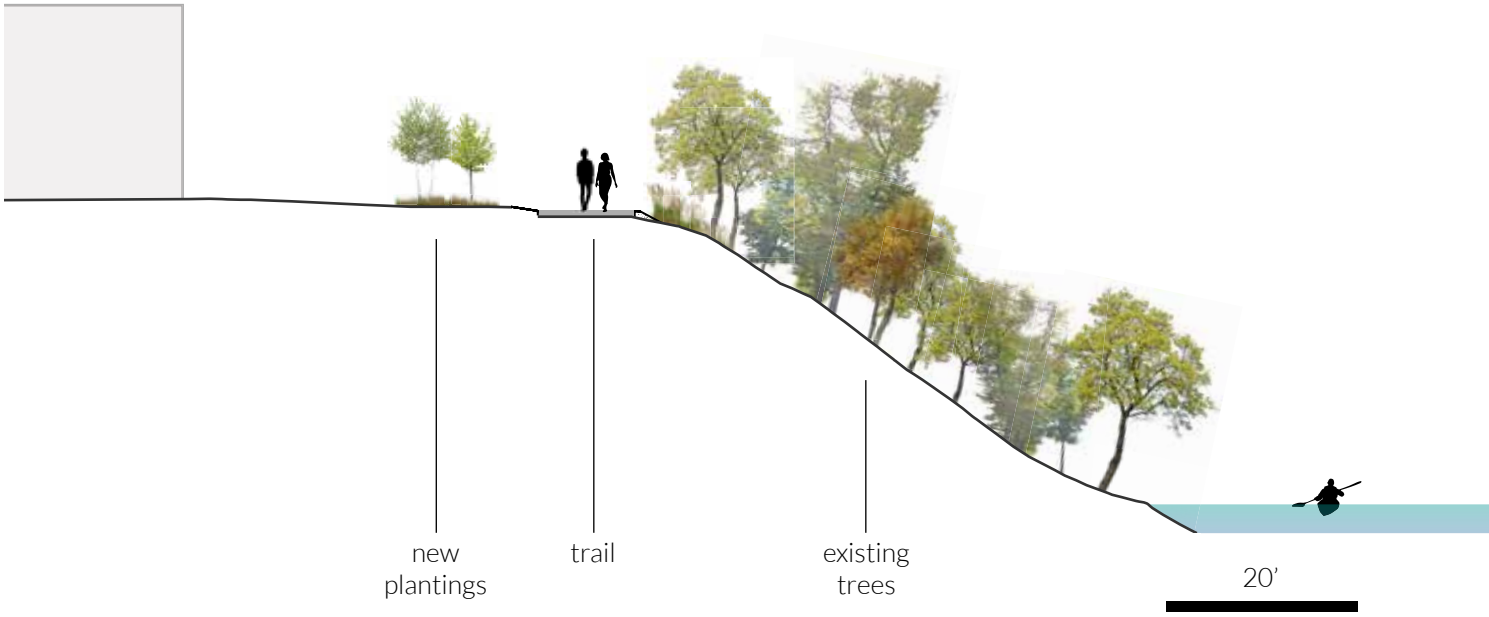
NEXT STEPS

- Survey the site to begin preliminary & final engineering
- Begin conversations with Graphic Packaging and MBX ownership to establish easements and/or property acquisition costs for the trail to be designed and constructed
- Work with property owners and the railroad on phasing if necessary

North Side of Bridge Street and 1st Avenue & Cherry Street Designated Route

An interim solution to improve north/south connectivity from Bridge Street is possible through enhancements on Bridge Street, and 1st Avenue to Randolph Street, or 1st Avenue from Bridge Street to E. Wausau Avenue and/or E. Union Avenue, and Cherry Street to Randolph Avenue.

In this scenario, a multi-use trail connecting the Bridge Street bridge to 1st Avenue would be built on the north side of Bridge Street (by expanding the existing sidewalk), and an enhanced designated route on 1st Avenue that could connect to Cherry Street at E. Wausau Avenue or E. Union Avenue. Alternatively, the designated route on 1st Avenue could continue to Randolph Avenue. Refer to pages 54-56 for best practices to be considered for potential bicycle facility enhancements to be considered for 1st Avenue, Union and/or Wausau Avenue, and Cherry Street. These will include signage and sharrows at a minimum.


new
plantings
trail
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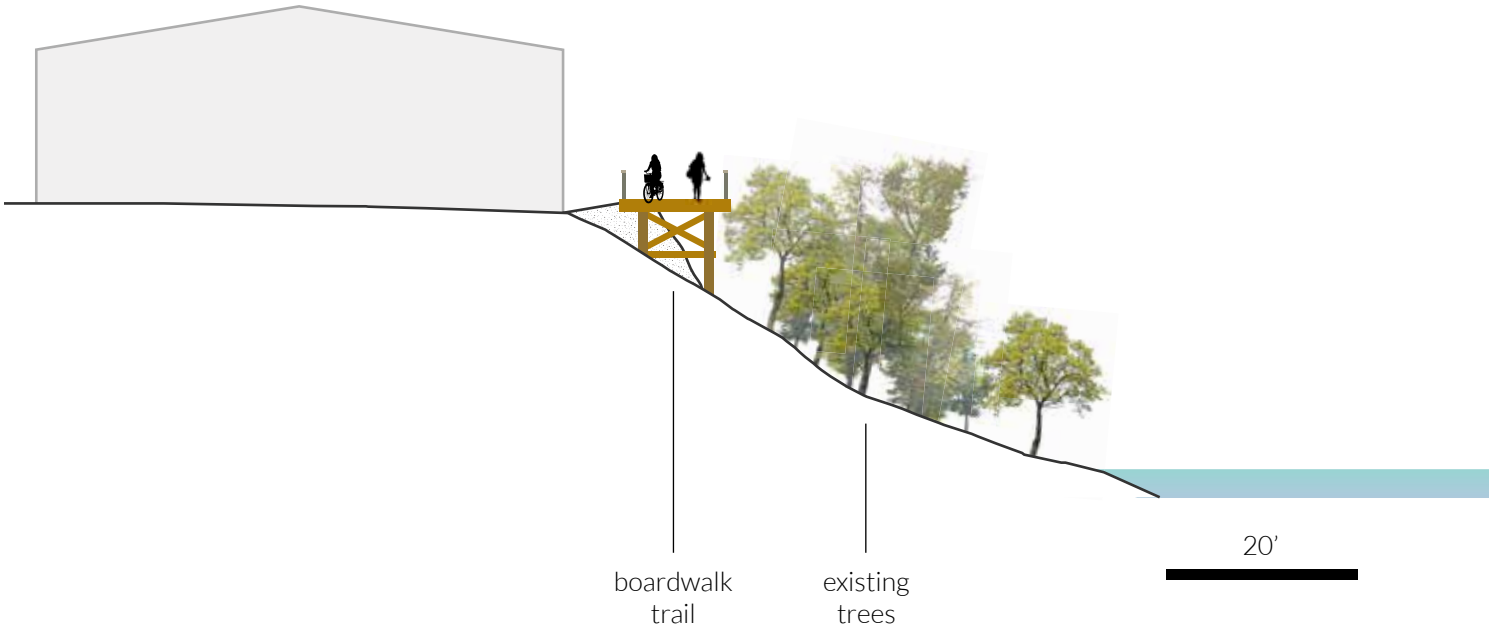
trees
20’


boardwalk
trail
existing
trees
20’

Focus Area : Extend the trail from Sturgeon Eddy Road to Thomas Street along the southeastern river edge

A Trail extension from Sturgeon Eddy Road north to Thomas Street

B Enhanced bicycle boulevard connection along Prospect Avenue

One of the biggest priorities of many bicycle advocates in Wausau is to connect the bike-friendly southern neighborhoods to downtown Wausau with a safe bicycle connection. As a part of this planning process, three alternatives were investigated to provide this connection.

1. A trail connection along the eastern bank of the river was weighed
2. The possibility of a bicycle and pedestrian bridge across the river to the developing trails on the other side of the river.
3. Enhancements to Grand Avenue to create a multi-use trail on the west side of the street.

River Edge Parkway Extension

The trail extension from Sturgeon Eddy Road to Thomas Street was determined the highest priority, given the opportunity for a direct and scenic riverside connection to extend the River Edge Parkway and fewer land use impacts. Although the trail would fall within private property, this area is unusable to the properties, and would not impact their use given that they are currently unable to reach this area.

Along this section of river, the eastern bank ridge is very high above the river with a top of ridge elevation of approximately 1213 at the southern trail switchback ramp and approximately 1200 at the Thomas Street end. The normal water elevation is approximately 1161 for a ridge height ranging between

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THOMAS ST TO STURGEON EDDY TRAIL

SHEET NUMBER:
T001

40 and 52 feet. The ridge also has a very steep cross-slope and varies from approximately 1.4H:1V to nearly 1H:1V in some areas. The 100-year floodplain elevation along this section of the Wisconsin River per the Flood Insurance Rate Map (FIRM) Map 55073C0403G and the Flood Insurance Study ranges from approximately 1167.2 at the southern trail switchback ramp to 1167.9 at East Thomas Street. On the top of ridge the terrain plateaus to flatter usable areas and is occupied by commercial/residential buildings and parking areas. Several of the buildings extend right up to the crest of the ridge with one extending beyond the ridge crest slightly.

NEXT STEPS

- Survey the site to begin preliminary engineering
- Begin discussions with property owners along the river bank about easements and potential acquisition
- Identify funding resources to assist with the planning, engineering, and construction of this trail segment

For this segment gap of the trail route, we evaluated several alternatives. Those alternatives included:

1. An entirely on-grade, top of ridge trail from Thomas Street to Sturgeon Eddy Road.
2. A boardwalk trail below the ridge along the river bank with a linear on-grade ramp down the slope at both ends.
3. A boardwalk trail below the ridge along the river bank with switchback ramps down the slope at both ends.
4. An on-grade trail cut into the slope below the ridge along lower river bank with switchback ramps down the slope at both ends.

Each alternative was evaluated for multiple factors including property use impacts, floodplain impacts, ease of construction, and construction cost impacts. A summary of that evaluation is in the following table:

Alternative	Property Use Impacts	Floodplain Impacts	Ease of Construction	Construction Cost
#1	Moderate/High	None	Moderate	Medium
#2	Minimal	Yes	Difficult	High
#3	Minimal	Yes	Difficult	High
#4 - *Recommended*	Minimal	Yes	Difficult	Medium

edge of development along Grand Avenue

Alternative #1 has the most property impacts due to its location at the top of the ridge on the flat plateau area. The entire trail route would be immediately adjacent to multiple existing buildings and parking areas. In some locations, the trail would not fit on grade around the buildings and would need short sections of elevated boardwalk extending over the ridge slope. While this alternative would be the easiest to construction with direct access in most cases, it would infringe on the property owner's use of their usable land and obstruct their direct views that they currently have. We anticipate this to be the least desirable alternative for the property owners.

Alternatives #2 and #3 are similar in that both have on-grade sections ramping down to a lower boardwalk segment along the river bank. The Alternative #2 would have a straight linear ramped segment cutting into the slope down to the boardwalk segment with turf reinforcing mat and vegetative mat for stabilizing the slope. The Alternative #3 would have a switchback ramp at each end with retaining walls separating the switchbacks. The straight ramped segment of Alternative #2 would shorten the boardwalk section by approximately 1,100 linear feet versus the Alternative #3 option. While saving some cost, it would significantly shorten the more desirable length along the river. These options have similar impacts per the table. Both would minimize direct property impacts being located below the ridge on unusable parts of the parcels. The boardwalks would have minor floodplain impacts. Generally speaking, the ease of construction will be difficult on the steep slope requiring both construction ramp grading and barges for construction equipment access. Construction cost would be similar and the highest of the alternatives.

Alternative #4 is our recommended configuration. This alternative uses an on-grade trail below the ridge for the entire length. The ramping segments would be switchbacks cutting into the slope with retaining walls separating the ramp runs and holding the slope. The straight segment would be located just above floodplain elevation cut into the slope. Slope stabilization on this segment would be provided by turf reinforcing mat and vegetative mat. Construction access would be challenging but could likely be limited to construction ramping since no piling is needed. Having no boardwalk segment would save cost of installation as well cost for construction materials.

Given the location of the trail along the historic Wisconsin River, along with its history of development and industry, it is highly likely that undocumented fill materials will be present along the ridge. We anticipate that this material would be poor quality fill with variable debris. Given the steepness of the slope, any dumped material will likely be fairly shallow in depth. This material may require partial removal and replacement of engineered backfill for on grade segments of trail and any retaining walls. We would expect this need and associated cost to be modest, as the on-grade trail would not require design for regular vehicle loads and geogrid/geotextile reinforcing we would expect to be adequate. The budget range below includes a contingency amount that should capture this possible provision.

Based on the recommended configuration, a budgetary range for Alternative #4 of $1,550,000 – $1,725,000 could be used to include design and construction costs.

Examples of the multi-use path analysis on the west side of Grand Avenue. See the Appendix for full-page versions of this analysis.

Grand Avenue Option

After discussion with community members, stakeholders, and design experts, a trail extension along the eastern bank was deemed the better option of the three from a connectivity and access perspective. The enhanced Grand Avenue connection was ruled out due to the spatial constraints of the roadway and the adjacent development on either side of the street and due to limitations within the roadway itself. While a multi-use path on the west side of Grand Avenue is possible, there are several challenges to implementation. These constraints include:

- 20 driveway crossings would require pavement markings to increase visibility at these crossings, including substantial impacts to the underground parking driveway for the Riverview Apartments at 920 Grand Avenue
- The bridge over the railroad would likely require an overlay in order to widen the bridge enough to accommodate a sidewalk that could be multi-use, or would require a pre-fabricated bicycle and pedestrian bridge structure be put in place to one side of the bridge
- Street lighting would be impacted
- A river edge connection would likely continue be desired by community members

For future improvements of Grand Avenue by WisDOT, considerations should be given to the integration of bike lanes or a multi-use path at that time, including the opportunities for a road diet or widening the roadway for these accommodations.

Prospect Avenue Enhancements

In the shorter term, Prospect Avenue is a designated bike route and an important North-South connection. The Prospect Avenue designated route can be accessed from E. Kent Street and Curling Way/Junction Street, or Mcdonald Street. Further enhancements could be made to this route to improve the connection for residents and visitors to the southeast quadrant of the city. Enhancements to this route could include a formalized bike boulevard which could include more robust route signage at prominent intersections and entry points, sharrows, bike lanes (including consideration of advisory style) or a multi-use path. Given the lower traffic counts on Prospect Avenue, these enhancements could bolster use of the route and increase the safety for riders that prefer more protection while bicycling on-street. See page 54 for additional consideration of best practices for bicycle accommodations on-street.

Pine Grove Cemetery Route

Some consideration was given to a bike route through the Pine Grove Cemetery, to connect bicyclists to the Prospect Avenue designated bike route. While this option may yet be possible, it was not explored further due to concerns about appropriateness given the land use, the lack of a park atmosphere, and the narrow gravel roadways. In the future this may be further explored as a possibility for greater connectivity. This would require gaining permission from the ownership of the Pine Grove Cemetery, development of an agreement or easement for use of improved access roads for bike and pedestrian use, a signage plan, maintenance plan, crossing improvements on Grand Avenue to and from the cemetery, and other enhancements to encourage use.

Focus Area : Connect the trail segments on the western river edge adjacent to MBX Packaging

A Trail connects to 1st Avenue south of Pick n' Save, and then connects back to the trail

B Trail connects past MBX packaging on top of the riverbank, including a connection over or under the railroad.

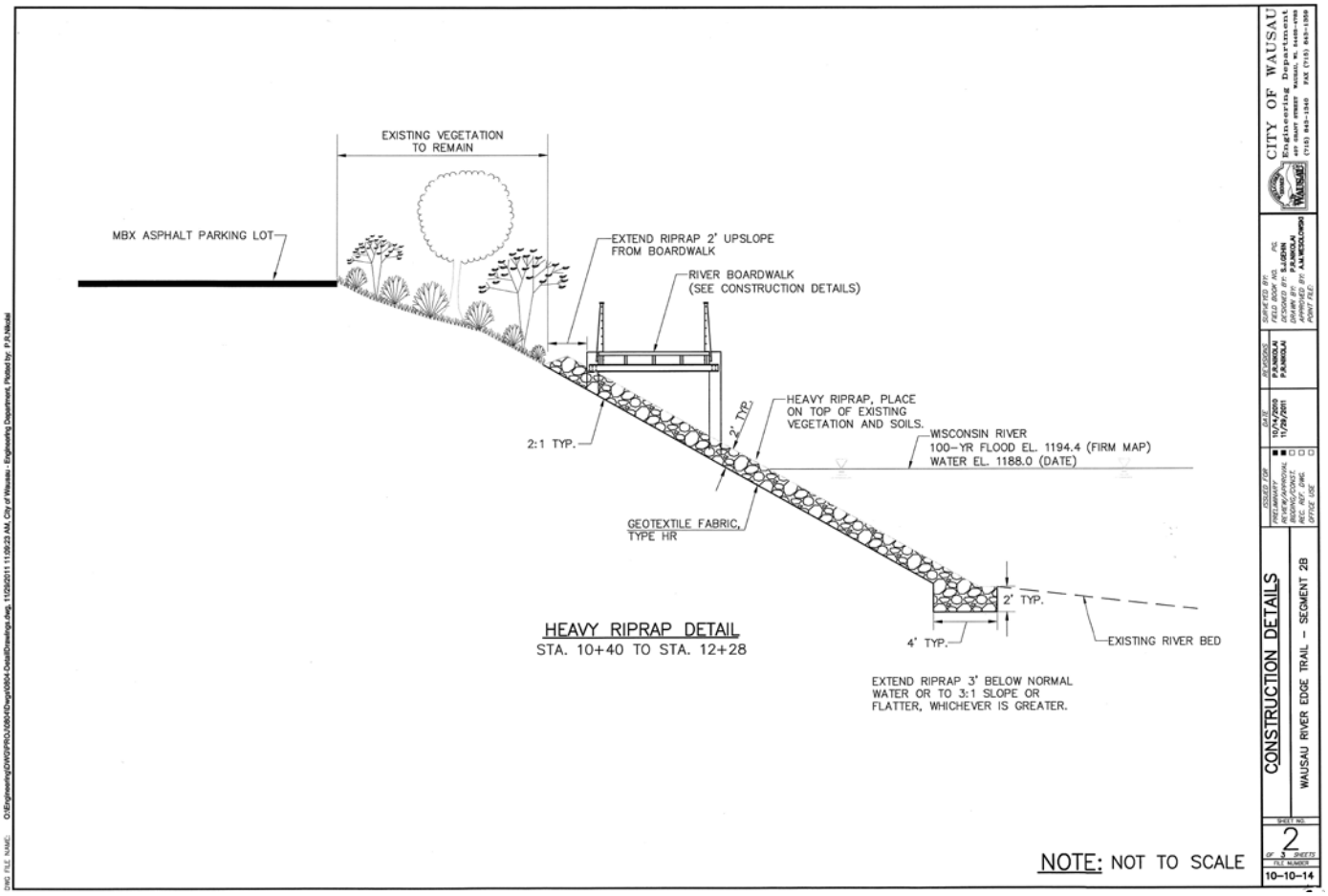
NEXT STEPS

- Continue discussions and collaboration with the land owner at MBX Packaging with the goal of constructing a trail in this segment as soon as possible
- In the short term, consider ways for the MBX property to be circumnavigated using 1st Ave
- Work with the railroad operator to coordinate the necessary crossings of the line to ensure safe connection in this area
- Enhance the trail segment along the shopping center parking lot to more clearly delineate the trail

One of the missing links in the River Edge Parkway on the western river bank is a connection between the trail segment that dead-ends just south of Pick n' Save (Cedar and Spruce Streets) and the trail segment to the south that picks up in the Riverside Plaza Shopping Center. This trail segment could be challenging to complete due to the constrained space between the existing building at the top of the river bluff and the railroad bridge that is situated just to the south of the trail gap.

The City of Wausau has been in close communication with the property owner at the MBX Packaging facility, and previously completed engineering drawings for the trail extension through this site. As collaboration with the property owner continues, the City will be able to work to address the site's challenges and move towards construction of a new trail segment.

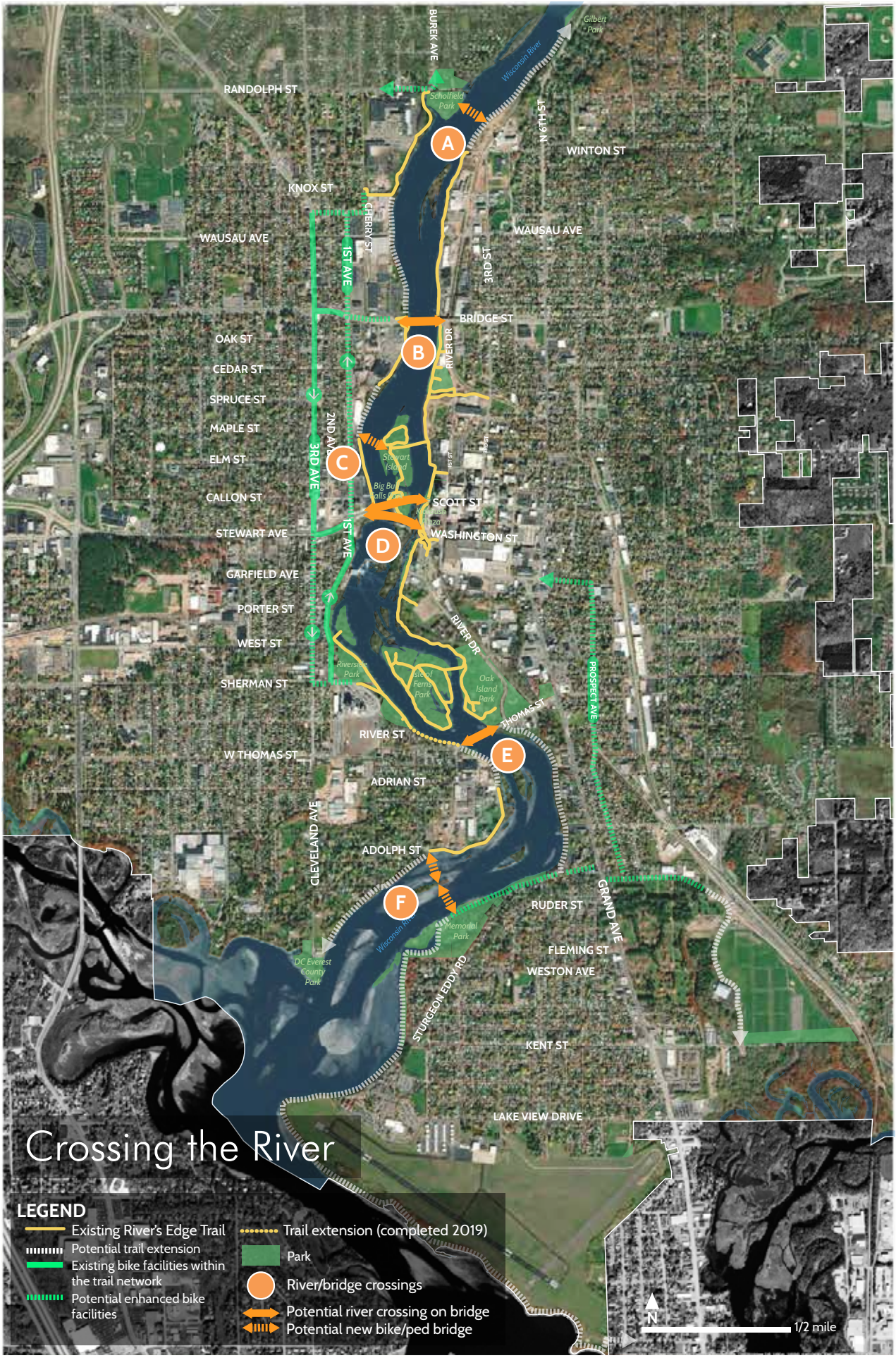
In the short term, option A in the diagram at left may be pursued to provide increased connectivity in this section of the trail before an on-river connection is possible. In this on-road option, a new connection from the trail segment at Pick n' Save would extend to North 1st Avenue, providing connection south to Riverside Plaza along 1st Avenue. Major limitations of this option include the necessity of a railroad crossing, and the fact that 1st Avenue is a one-way road going northbound, with a shoulder that can be used for biking, but does not formally meet bike lane standards, which is five feet.



Potential cross section from the trail design for the segment adjacent to MBX packaging. Image source: City of Wausau

Trail conditions on the west side of the Wisconsin River at the Riverside Plaza Shopping Center, in the parking lot (left) and behind the shopping center and its shed (north of the shopping center) (right).

Improvements should also be considered for the trail segment in the Riverside Plaza Shopping Center's parking lot (north of the shopping center). Parking stops should be installed to protect the trail from parked vehicles that sometimes encroach on the trail. An extension of the railing should also be considered to protect trail users from the edge conditions along the River at this point. The installation of signage would also improve the connectivity of the trail through this section, and also bring more awareness of the trail given the higher volumes of traffic in this parking lot.


Crossing the River
LEGEND
Existing River's Edge Trail
Potential trail extension
Existing bike facilities within the trail network
Potential enhanced bike facilities
Trail extension (completed 2019)
Park
River/bridge crossings
Potential river crossing on bridge
Potential new bike/ped bridge
N
1/2 mile
A
B
C
D
E
F
BUREK AVE
RANDOLPH ST
Schofield Park
Wisconsin River
Gilbert Park
16TH ST N
WINTON ST
KNOX ST
CHERRY ST
WAUSAU AVE
1ST AVE
3RD ST
BRIDGE ST
RIVER DR
OAK ST
CEDAR ST
SPRUCE ST
MAPLE ST
2ND AVE
3RD AVE
ELM ST
Stewart Island
CALLON ST
SCOTT ST
STEWART AVE
WASHINGTON ST
GARFIELD AVE
PORTER ST
WEST ST
SHERMAN ST
Riverside Park
Island Ferns Park
Oak Island Park
PROSPECT AVE
THOMAS ST
RIVER ST
W THOMAS ST
ADRIAN ST
CLEVELAND AVE
ADOLPH ST
RUDER ST
GRAND AVE
Memorial Park
FLEMING ST
WESTON AVE
DC Everest County Park
STURGEON EDDY RD
KENT ST
LAKE VIEW DRIVE

Crossing the River

The diagram at left shows the possible options for an enhanced or new designated pedestrian and bike connection across the Wisconsin River. Current river crossing points are few and constrained, limiting bicycle and pedestrian movement throughout the downtown loop of the River Edge Parkway. One of the top priorities for the future of the trail is to develop a safe river crossing that will allow greater movement throughout the trail network, especially for commuters heading to downtown Wausau for work.

High Priority Crossing

D The crossings at the Scott Street and Washington Street bridges have been identified as the highest priority crossing. These bridges both have three lanes for traffic, and given the volume of current annual average daily traffic, there is potential for the other travel lane of both bridges to be utilized for bicycle traffic only. These two lanes would accommodate a buffered or separated bike lane.

A New northern pedestrian bridge connection to Scholfield Park

B Safe connection across the Bridge Street bridge

C Conversion of existing railroad bridge to a bicycle/pedestrian bridge from Barker-Stewart Island (long-term possibility)

D Safe connection across the Scott Street and Washington Street bridges

E Two-way bike and pedestrian connection across the Thomas Street Bridge

F New southern pedestrian bridge connection from the south end of the waste water treatment plant portion of the trail to Memorial Park

The pursuit of this option will require coordination with the Wisconsin Department of Transportation (WisDOT), as the State has jurisdiction over these two bridges. If approved, the City should consider the implementation of a fully separated bike lane. If cost is a factor, the City could consider creating a buffered bike lane with paint and delineator posts, raised lane separators, or even concrete jersey barriers in the short-term and in the medium-term enhance the lane to be fully separated from the traffic lanes. These bike lanes would extend the existing lanes on Scott and Stewart on the west side of the river, and could be further assessed on the east side of the river for continuity and increased safety of bicyclists.

Beyond the lanes on the bridges, consideration must then be given to the east side of the river, where connections to and crossings of 1st Street, Washington Street, and River Drive, must be considered, given the high levels of traffic and complexity of the street pattern. Community members have expressed having difficulty safely crossing Washington street. A traffic study could be helpful to determine the best options for multi-modal traffic integration and optimal safety. Traffic controls on Stewart Avenue will certainly need to be a consideration on the west side of the railroad tracks on the east end of the bridge. This will aid bicyclists and other trail users to use the trail segments running north-south.

E

Medium Priority Crossings

The Thomas Street bridge is a common crossing for pedestrians and bicyclists. The bridge does not have a dedicated bike lane. There is a sidewalk on the north side of the bridge that is used by pedestrians, and often bicyclists. More advanced bicyclists often ride on the shoulder of the bridge travel lanes. The bridge was widened and re-decked in 2006. While the opportunity to widen the bridge is at least 10-15 years away, wayfinding signage and shared use arrows "sharrows" could be integrated into the travel lanes to increase safety of bicyclists using the travel lanes.

B

The Bridge Street bridge, while not of highest priority, has been determined as an important crossing. The bridge is not likely to be re-decked for at least another 10 years. Consideration in the short-term could be given to lane widths, and whether there is the possibility to widen the existing sidewalks to create a multi-use path to accommodate pedestrian and bicycle traffic (10 feet in width). When the bridge is being planned for re-decking, the City and WisDOT can consider opportunities to widen the bridge to accommodate fully integrated bike lanes.

Additional Potential Crossings

While lower priority, there was interest in considering the following three crossings in the medium- and long-term:

A

A prefabricated pedestrian bridge could be installed to connect the east side of Wausau directly to Scholfield Park on the west side of the Wisconsin River. For regular bike community and traffic patterns, that was not determined to be a priority crossing project.

C

The potential future conversion of the existing railroad bridge that connects on the west side of Wausau at Maple Street could eventually be considered to connect the west side of Wausau directly to Barker-Stewart Island. This connection will require coordination with the railroad.

F

Early in discussions, the potential for a pedestrian bridge on the south of the city was considered, to connect the eventual trail that long-term is developing in and around the treatment plan from Thomas Street to DC Everest County Park, and as a potential connection for residents in the southeast quadrant of the city to downtown (back over the river at Stewart Avenue). This has been determined a very low priority crossing, given the expressed interest in creating the connection on the east side of Wausau from Thomas Street to Sturgeon Eddy Road.

The River Edge Experience

Benches & Vistas

River Edge Parkway existing benches & lighting

The benches are consistent throughout the River Edge Parkway trail system. The memorial benches are constructed of wood on metal frames. As segments are further developed, these memorial benches will continue to be integrated into the system. Whenever possible, educational or wayfinding signage should be incorporated into the vistas and other rest stop areas with memorial benches.

Moving forward, the City and County will purchase benches instead of making them in house. An example is shown above, purchased from Upbeat Site Furnishings. Image source: Upbeat Site Furnishings

Examples of vistas in the new Riverlife Park. While these types of materials are unique to this park, these styles of vistas or overlooks can be used in more urban sections of the trail. Image source: The City Pages (left) and Wausau Pilot & Review (right)

Current Vistas Locations in Wausau:

- Memorial Park: 3 bench vistas and one vista by gazebo
- Oak Island Park: Entire shoreline from bridge to boat launch
- Isle of Ferns Park: 2 maintained shoreline vistas
- River Edge Parkway (Oak Island Boat Landing to Scott Street): 3 bench vistas
- Kickbusch Plaza: Entire park boundary along river edge is a viewing area
- River Edge Parkway: Kickbusch Plaza to Barker Stewart Bridge): 4 bench vistas, one maintained shoreline vista south of bridge
- Barker Stewart Island: 4 locations at memorial bench, two interpretive signs and one created opening.
- Riverlife (Barker Stewart Island Bridge to Bridge Street Kayak Launch): Entire shoreline from Barker Stewart Bridge to Bridge Street Bridge
- Big Bull Falls: Double bench, single bench, and an interpretive sign
- River Edge Parkway (Bridge Street to Winton Street): 2 bench vistas, kayak launch area
- Scholfield Park: 5 bench vistas (two on top and three on the water)
- River Edge Parkway (west) (Scholfield Park to Cherry Street): 3 bench vistas
- River Edge Parkway (west) (Bridge Street to Pick N Save): 2 bench vistas
- River Edge Parkway (west) (Stewart Avenue to North 1st Avenue): Overlook deck behind Eastbay
- Riverside Park/Picnic Island: 1 bench vista on Picnic Island, one maintained shoreline vista at the south end of Riverside near the base of the steps
- Gilbert Park: 4 bench vistas, clearing around fishing pier

Future Vistas to be considered:

- 1-3 vistas along the future trail segment between Thomas Street and Sturgeon Eddy Road
- 1-3 vistas along the Graphic Packaging segment
- 1-2 vistas along the MBX Packaging site between Riverside Plaza Shopping Center and the Pick n' Save
- 1-3 vistas along the Winton Street to Gilbert Park segment

An example of a soft boat launch for kayaks, canoes, or other human powered water craft. A number of small slips have been installed along the trail into the Wisconsin River. As trail segments are completed, consideration will be given to the continued installation of slips to increase access from the trail to the river. Image source: The City Pages

Lighting

River Edge Parkway existing lighting

Lighting throughout the trail system consists of decorative pole lighting with globe lamp covers. The Wausau and Marathon County Parks, Recreation, and Forestry Department is currently in the process of updating the existing lights to LED to be more energy efficient.

In general, it is a goal system-wide to improve lighting where necessary to increase the feeling of safety. While lighting should be installed system-wide, there are some more natural areas of the parkway where lighting should be more closely considered.

Some recent community feedback focused on the heavily wooded sections of the parkway – such as the Whitewater Park-Oak Island Park and Barker-Stewart Island sections of the trail. In these sections, there is some desire for improved lighting to increase the visibility and sense of safety. Concurrently, there are some concerns about lighting negatively impacting the wildlife in these natural sections.

In these sections, consideration should be given to the more heavily wooded sections, which remain dark, even with light pollution and moonlight. Given the curves, elevation changes, and the current spacing of lighting, options should be assessed for lighting with more recent technologies that can be more focused on the trail or lighted bollards, to supplement the existing decorative lights and improve the lighting and safety, while keeping wildlife impacts to a minimum in these natural areas. A photometric analysis should be conducted to determine the appropriate types of lighting that can accomplish both important goals of increasing safety while respecting natural habitats.

Lighting with total cut off luminaires, are no taller than bollard height, and zeros out at the wooded areas should be considered to avoid any light pollution or spillover into adjacent natural areas and wildlife habitats. Examples of these types of lighting from a variety of price points are highlighted on the next page.

Interim Trail Solutions

As the River Edge Parkway continues to be phased in, interim strategies can be considered to expand the system in phases for hiking and off-road biking. This includes the implementation of lower cost trails that can be part of incremental trail improvements and system expansion. This may allow the City, partners, and volunteers to add segments to the network inexpensively in a shorter period of time, while also building support for continued improvements by creating new users of the trail.

The multi-use trails could simply be a 3" limestone chips over 6" aggregate base course (a common standard detail), which would accommodate emergency and maintenance vehicles. If a paved trail is desired in the future, asphalt can be added to the top.

▸ Trail transition sign from multi-use trail to on-street. This type of sign could be used in either condition to communicate the change in route and trail type (low-stress trails to on-street routes). Image source: The Intertwine (Portland, OR)

▴ Network map sign example at a trail head. This type of sign could also be used on an on-street route to direct bicyclists and pedestrians to a trail network, Image Source: Bike Portland (Portland, OR)

Signage & Wayfinding

River Edge Parkway existing signage & wayfinding

The River Edge Parkway currently has signage that identifies the trail, with the occasional educational and larger system wayfinding signage.

As the system is further enhanced, there is a desire by community members to strengthen the system signage, both on-trail, but also throughout the city to strengthen the identity and knowledge of the trail system. During community feedback sessions, many community members expressed that they were not aware of the trail system as a whole, or were unaware of particular segments that they were excited to learn about. From this feedback, it is clear that strengthening the general wayfinding signage throughout the trail and bike route systems would be a great benefit to the Wausau community.

Additional feedback included mile markers that designate the user's location on the trail in case of emergency to call for help, as well as wayfinding signage that includes distances to other prominent amenities or destinations. For safety purposes, consideration could be given to call boxes throughout the trail system. Long stretches of the trail without access points approximately a block in distance should be prioritized for these enhancements.

An updated River Edge Parkway map should be created and installed at prominent trail head locations of the trail. Using trail user counting technology could assist with identifying highly trafficked areas that could benefit from additional signage, wayfinding, and furnishing amenities.

Precedents – Network Map Signs, Mile Markers, & Finding the Trail markers

Ruth Bascom Riverbank Path System - Eugene, Oregon


Seattle, WA


Austin, TX

San Francisco, TX


Fayetteville, AR


Denver, CO

HOW TO:

Enhance On-Street Trail Connections

Like many urban trail networks, Wausau's River Edge Parkway consists of many segments of off-street, multi-use pathways. While the City's goal is to connect each of these trail segments together with more multi-use trail, that is not always possible immediately (and sometimes, it will never be possible).

The River Edge Parkway Trail, like its peers across the country, has designated on-street connection routes throughout the City so that bicyclists and pedestrians can safely navigate between sections of the trail. Some of these connections may be phased out over time, and some may continue to serve as part of the River Edge Parkway network. In order to make sure that these designated trail connection routes are safe and accessible to all Wausau residents, the following best practices should be used to guide enhancement of on-street trail connections.

Priority On-street Connections within the River Edge Parkway Trail Network

» **Prospect Avenue**

Prospect Avenue is an important on-street route that will help connect commuters and recreational riders from the neighborhoods south of downtown to the trail network.

» **N. 1st Avenue (northbound)**

» **N. 3rd Avenue (southbound)**

Both 1st and 3rd Avenues are one-way routes that will be necessary to fully connect the River Edge Parkway while priority sections of the off-street multi-use trail are planned and constructed on the West side of the river.

1 Clear **signage** that designates on-street connections as part of the trail network & marks the street as an bike route or enhanced bicycle boulevard

Designated on-street connections within the trail network should be clearly marked as part of the River Edge Parkway Trail with the River Edge Parkway logo, and ideally should also be designated bicycle boulevards or bike routes with enhanced facilities. Signs posted frequently along these on-street connections (at intersections, on both sides of the street) should indicate to cars and bicyclists the need to share the road and give priority to non-vehicular traffic. ***Applicable at intersections along major on-street bicycle connections, including Prospect Avenue, N. 1st Avenue, and N. 3rd Avenue. Could be incorporated along Grand Avenue if bicycle facilities are added in the future.***

Bike route signs in Madison, WI. Image source (upper and lower): NACTO – nacto.org/publication/urban-bikeway-design-guide/bicycle-boulevards

2 Bicycle boulevard **pavement markings** that clearly indicate to all that bicycles are the priority on a particular road

Where possible, adding larger pavement markings along designated bike routes with slower traffic will further ensure that vehicles yield to bicyclists and share the road. ***Applicable along Prospect Avenue.***

City of Berkeley, CA. Image Source: NACTO – nacto.org/publication/urban-bikeway-design-guide/bicycle-boulevards

3 Post **trail maps** at key intersections that show both the multi-use trail part of the network & the designated on-street connections

Trail maps of the River Edge Parkway should be displayed at strategic locations throughout the City, including at locations where an on-street connection intersects an off-street, multi-use path. The trail map should clearly mark the designated on-street routes that are part of the trail network, helping trail network users (familiar and new) navigate the City and know what to expect as they move through the trail network.
Applicable throughout the River Edge Network

Image source: Bike Orlando – www.bikeorlando.net

4 Add sharrows or bike lanes when possible; where bike lanes or sharrows are present, add colored facilities or more frequent bicycle markings to remind drivers to share the road

N. 3rd Avenue on Wausau's west side has some existing bike facilities, including sharrow markings and a wide road shoulder. Enhancing these existing facilities could take the form of adding additional bike lane markings or painting the bike area green. Along N. 1st Avenue, no such markings currently apart from the newly-completed facility south of Stewart Avenue. Adding bicycle markings, and painting existing facilities green, will help increase the sense of awareness and safety for bicyclists in the City.
Applicable along major on-street bicycle connections.

Image source: City of Milwaukee – city.milwaukee.gov/mpw/infrastructure/Milwaukee-by-Bike

5 Add directional arrows to help pedestrians and bicyclists familiarize themselves with the on- and off-street trail network

Directional arrow signage is a great way to encourage familiarity with the bicycle network and to visually remind residents and visitors how to access key public places, including schools, parks, health care facilities, and the downtown district. They can also serve as a signal to bicyclists and pedestrians as to the length and extent of a designated on-street routes - for example, how long will trail users need to navigate on-street connections before connecting to another off-street multi-use trail segment.
Applicable at key trail intersections, including transitions to on-street connection routes.

STRATEGIES FOR...

Crossing Intersections within the Bike Network

A necessary part of navigating the River Edge Parkway. Residents have expressed concern about crossing the streets on bikes, and have called out some particularly dangerous intersections. The following three strategies should be considered potential options for increasing comfort and safety when crossing intersections.

It is important to note that **any intersection re-design would necessitate a traffic study and engineered design drawings** to ensure the strategies employed are successful in Wausau.

1 Bicycle Box painted at the intersection

Bicycle boxes increase the visibility of bicyclists and intersections and give bicyclists a head start through the intersection, making it safer and easier for bikes to get through the intersection within the signal time. ***Potentially applicable when bicycle lanes or sharrows cross major intersections, including the intersections of N. 1st and N. 3rd Avenues with Stewart Avenue and Bridge Street.***

Madison, WI. Image Source: NACTO – nacto.org/publication/urban-bike-way-design-guide/bicycle-boulevards/major-street-crossing

2 Bicycle Signal

Bicycle signals are often used when a multi-use or bike path crosses a street, or at an intersection where the bicycle movement conflicts with the desired vehicle movement. Bicycle signals can also be used to give bicyclists an advanced green light, allowing them to clear the intersection before vehicle traffic begins.

There are several locations throughout the River Edge Parkway system and associated on-street bike routes where bicycle signals could be used to increase the visibility and safety of both bicyclists and pedestrians. ***Potentially applicable at the N. 1st Avenue and Stewart & N. 3rd Avenue & Stewart intersections.***

Image Source: NACTO – nacto.org/publication/urban-bikeway-design-guide/bicycle-boulevards/major-street-crossing

3 Painted & signaled designated bicycle crossing

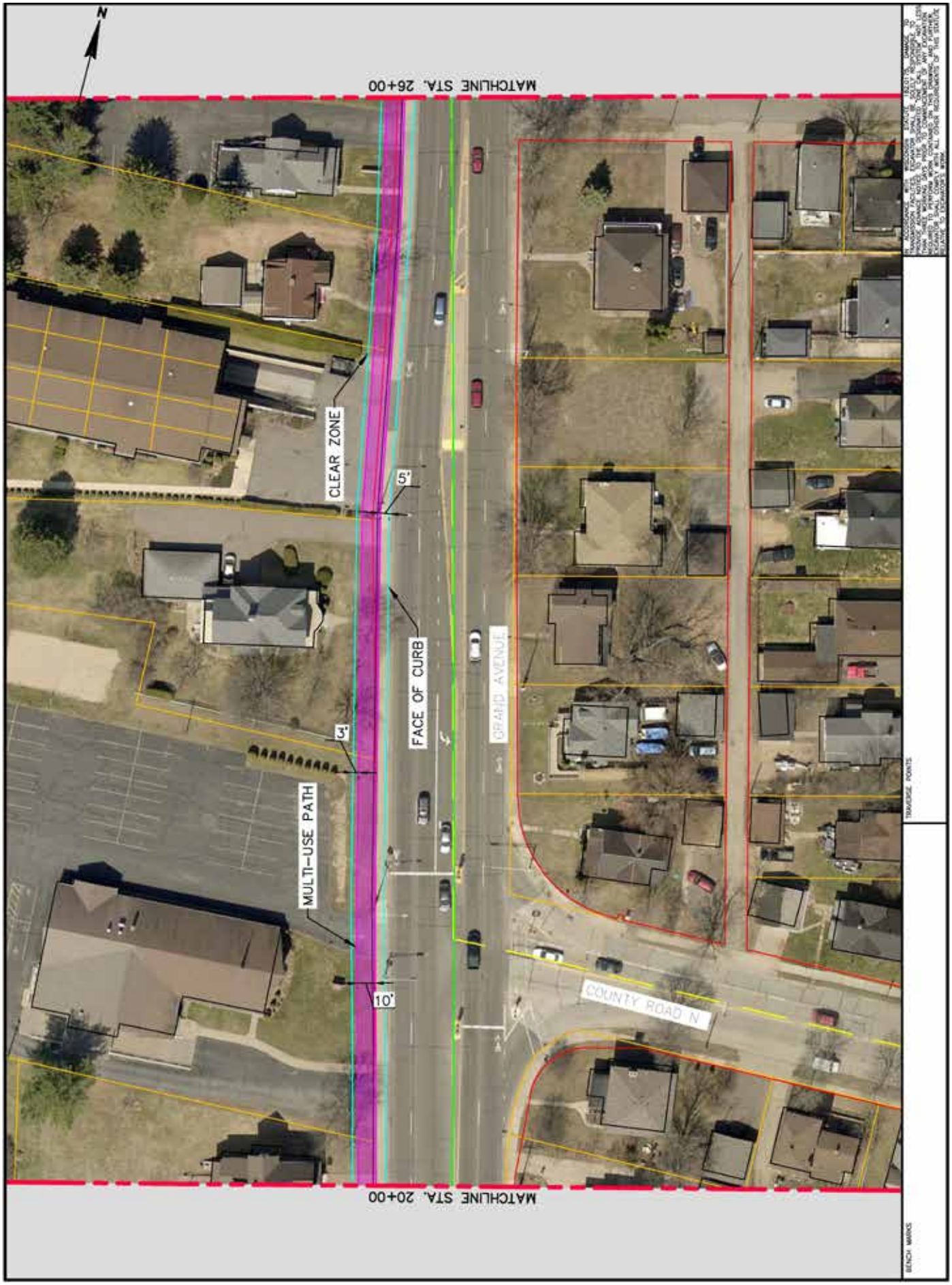
Designated bicycle or multi-modal crossings can be further highlighted in a complex intersection through a combination of dedicated signaling and brightly painted crossing areas. ***Potentially applicable at the Washington Street Bridge trail crossing to Kickbush Plaza, adjacent to the railroad tracks.***

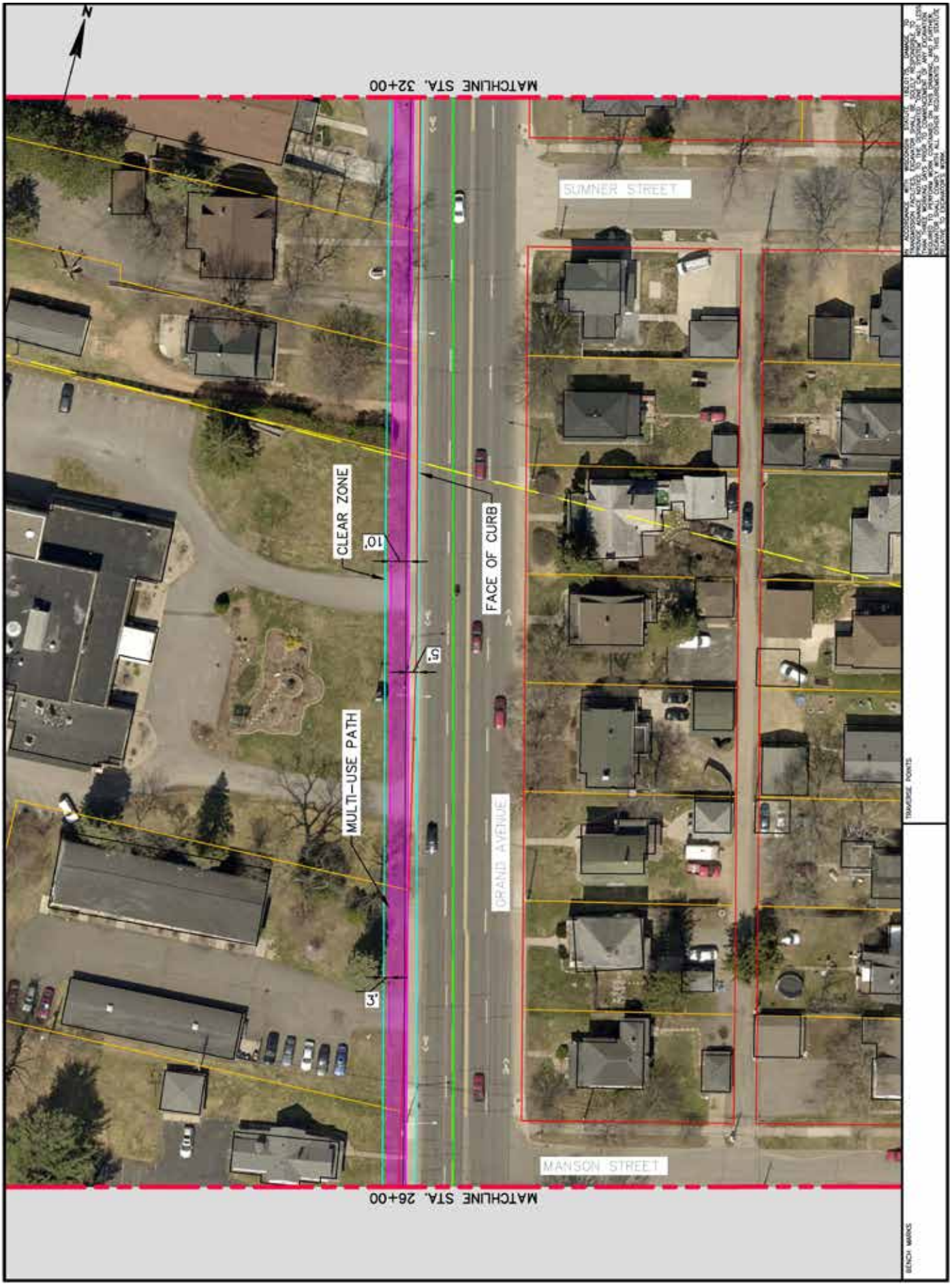
Madison, WI. Image Source: NACTO – nacto.org/publication/urban-bike-way-design-guide/bicycle-boulevards/major-street-crossing

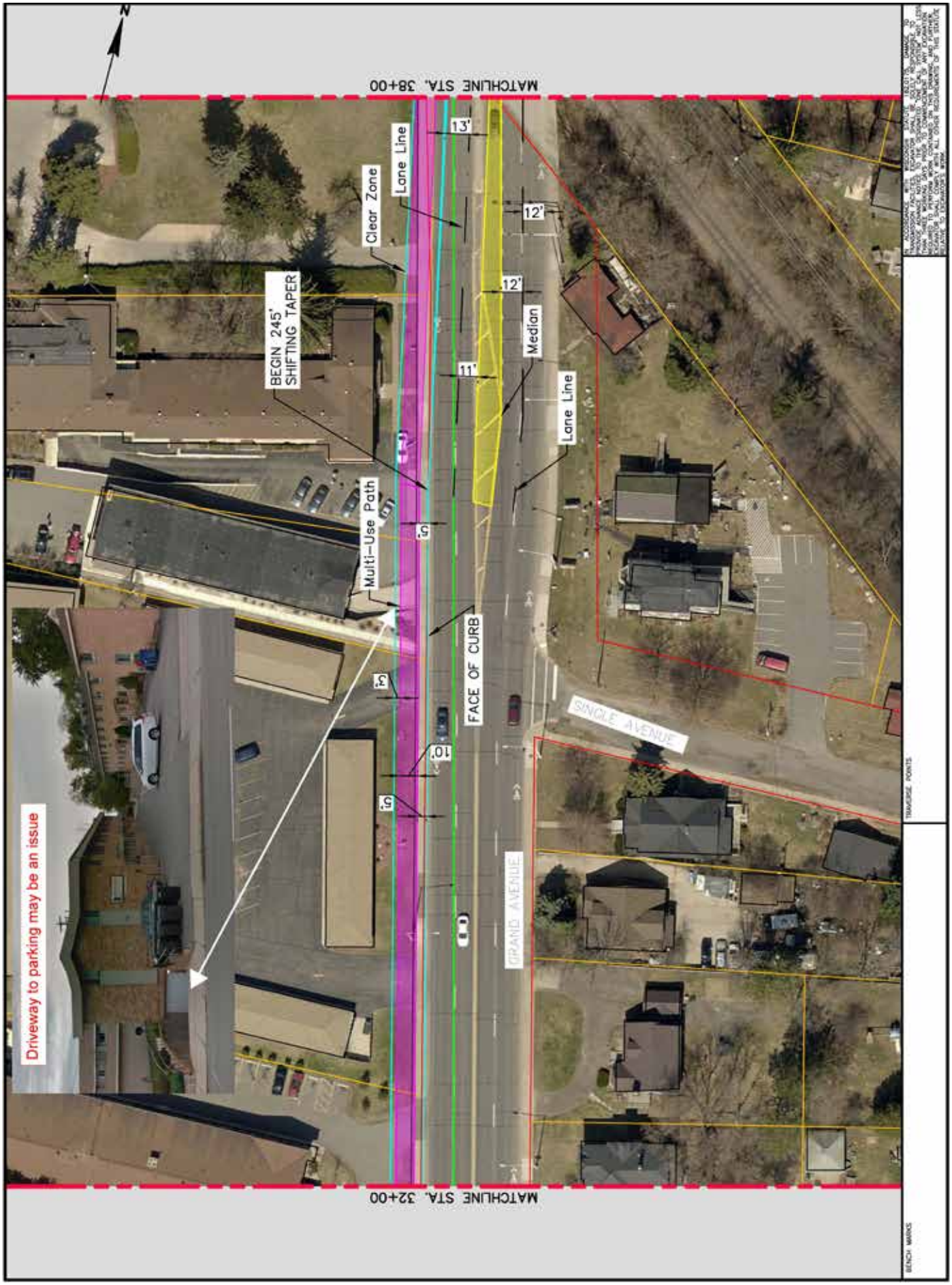
Appendix

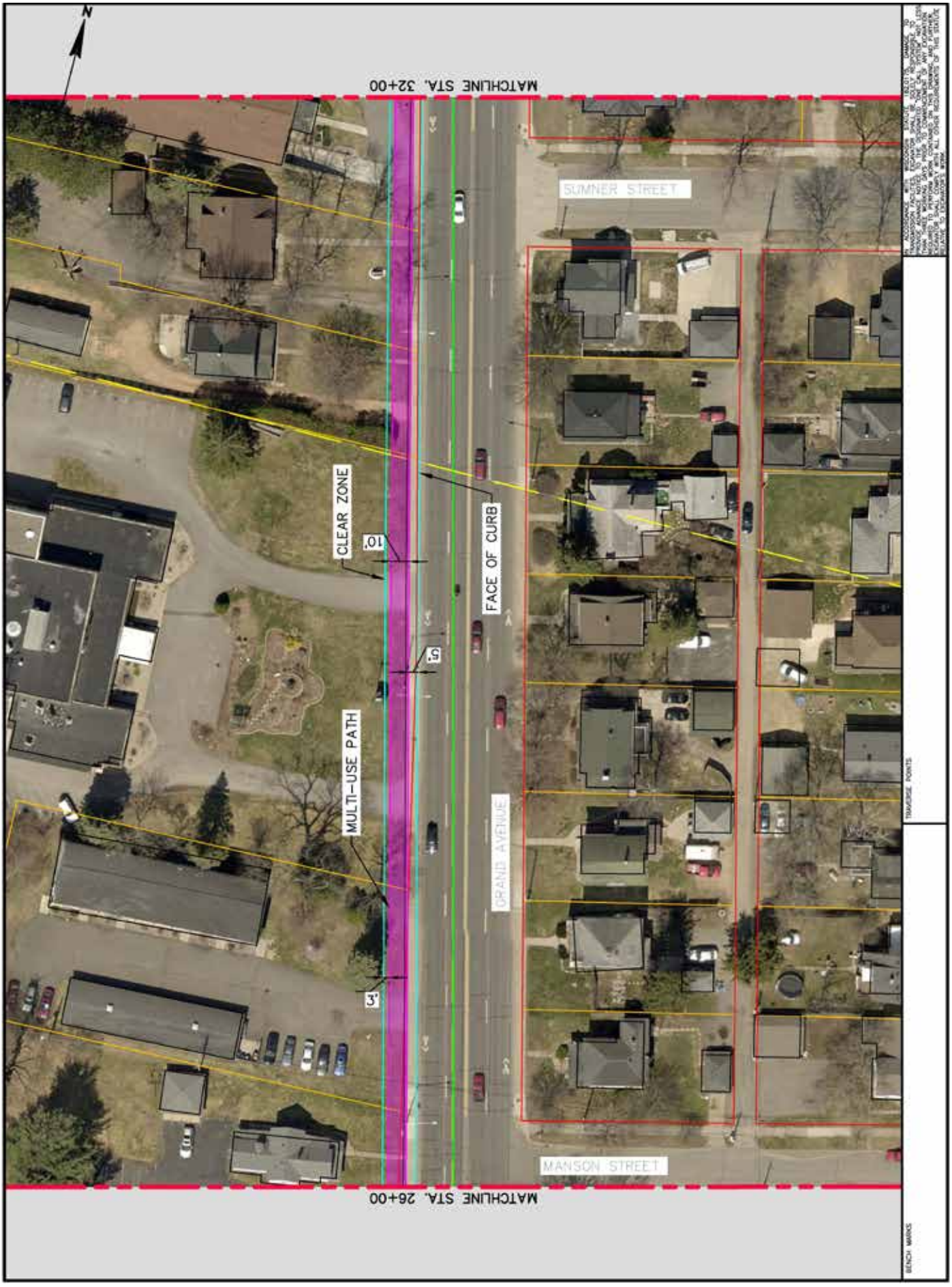
Analysis of Grand Avenue Multi-Use Trail Option

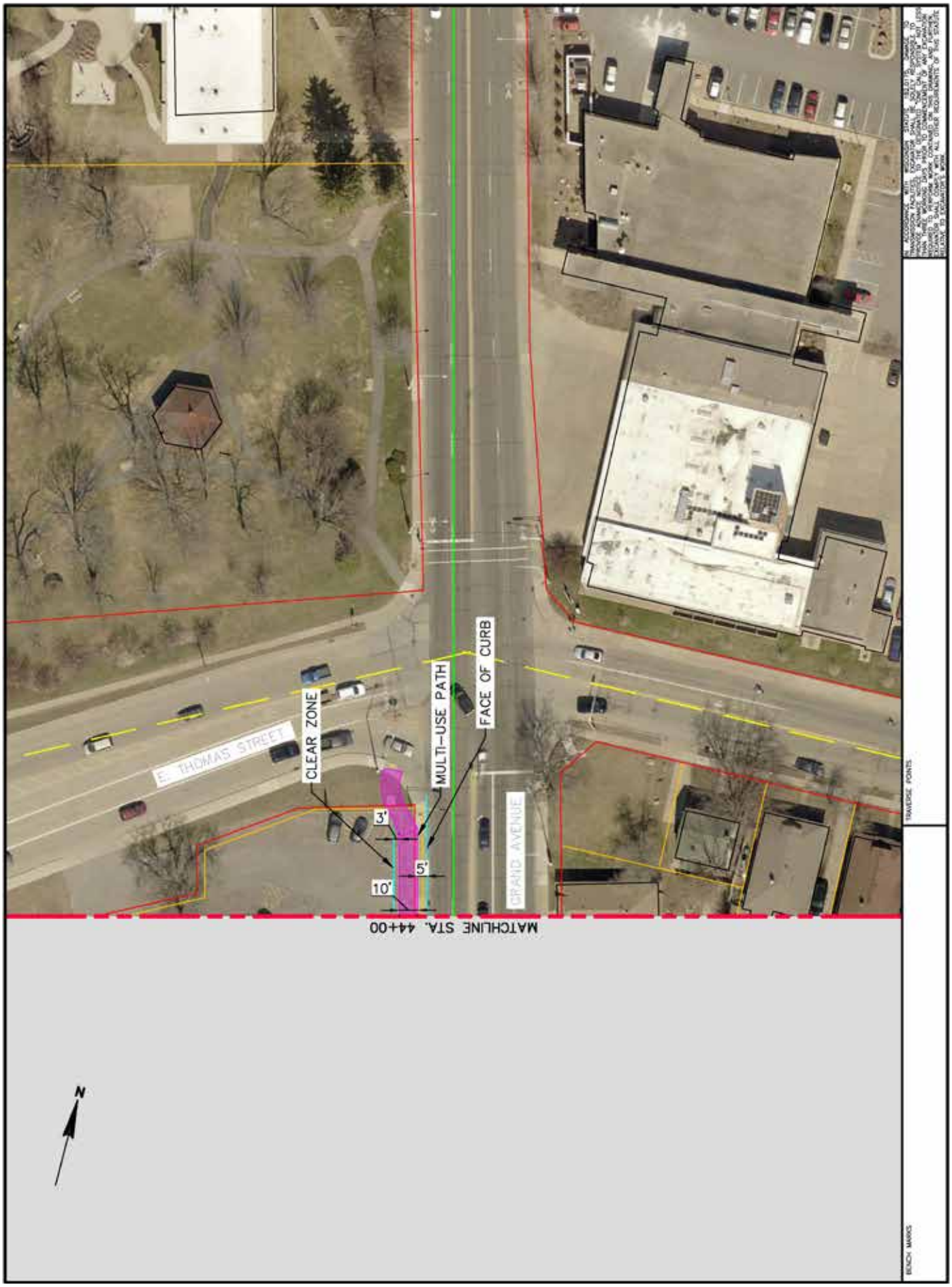
N
MATCHLINE STA. 20+00
Multi-Use Path
FACE OF CURB
Clear Zone
10'
3'
5'
GRAND AVENUE
Sign relocation
STURGEON EDDY ROAD


N
MATCHLINE STA. 26+00
CLEAR ZONE
5'
FACE OF CURB
GRAND AVENUE
3'
MULTI-USE PATH
10'
COUNTY ROAD N
MATCHLINE STA. 20+00
TRAVERSE POINTS
BENCH MARKS


N
MATCHLINE STA. 32+00
SUMNER STREET
CLEAR ZONE
10'
FACE OF CURB
5'
MULTI-USE PATH
3'
GRAND AVENUE
MANSON STREET
MATCHLINE STA. 26+00
BENCH MARKS
TRAVERSE POINTS


MATCHLINE STA. 38+00
MATCHLINE STA. 32+00
Clear Zone
Lane Line
13'
12'
12'
11'
Median
Lane Line
BEGIN 245' SHIFTING TAPER
Multi-Use Path
5'
5'
5'
10'
FACE OF CURB
SINGLE AVENUE
GRAND AVENUE
Driveway to parking may be an issue


N
MATCHLINE STA. 32+00
SUMNER STREET
CLEAR ZONE
10'
FACE OF CURB
5'
MULTI-USE PATH
3'
GRAND AVENUE
MANSON STREET
MATCHLINE STA. 26+00


E. THOMAS STREET
CLEAR ZONE
MULTI-USE PATH
FACE OF CURB
GRAND AVENUE
3'
5'
10'
MATCHLINE STA. 44+00
N
TRAVERSE POINTS
BENCH MARKS