AGENDA
CITY OF DAYTON, MINNESOTA
12260 So. Diamond Lake Road, Dayton, MN 55327
Tuesday, April 1, 2025
REGULAR MEETING OF THE PARKS COMMISSION: 6:30 P.M.
To Participate in the Meeting, Please see www.cityofdaytonmn.com calendar for Zoom Invitation.

6:30 **CALL TO ORDER**

PLEDGE OF ALLEGIANCE

6:30 **APPROVAL OF AGENDA**

6:30 **CONSENT AGENDA** *These routine or previously discussed items are enacted with one motion. Minutes can be approved by those absent from meeting.*

A. Approval of Park Commission Minutes from March 4th, 2025

6:30 **OPEN FORUM** *Limited to 3 minutes for non-agenda items; state your name and address; No action will be taken and items will be referred back to staff and/or Council.*

COUNCIL UPDATE

STAFF UPDATE

REGULAR MEETING

6:35 **B.** Elm Creek Watershed Presentation
7:00 **C.** Three Rivers Park Presentation
7:30 **D.** Elsie Stephens Park Canoe/Kayak 90% Plans
8:00 **E.** 2024 Park Improvement Projects Bids Review
8:30 **F** Tree Ordinance Review

NOTICES AND ANNOUNCEMENTS

Next Park Commission Meeting: Tuesday, May 6th, 2025

ADJOURNMENT

The City of Dayton's mission is to promote a thriving community and to provide residents with a safe and pleasant place to live while preserving our rural character, creating connections to our natural resources, and providing customer service that is efficient, fiscally responsible, and responsive.

MINUTES OF THE MARCH 4, 2025, PARKS COMMISSION MEETING
CITY OF DAYTON, MINNESOTA

I. CALL TO ORDER at 6:30 PM

Present: David Pikal, Brad Cole, John Knutson, and Keri Lingard

Absent: Kaia Chambers

City Council Member Present: Salonek

Also in attendance: Public Works Superintendent, Marty Farrell; Community Development Director, Jon Sevald; Community Event Specialist, Elizabeth Decker

II. PLEDGE OF ALLEGIANCE

III. APPROVAL OF AGENDA

MOTION: Lingard motioned, seconded by Knutson, to approve the agenda as presented/amended. Motion carried unanimously.

IV. CONSENT AGENDA

A. Approval of Park Commission Minutes from February 4, 2025.

MOTION: Lingard motioned, seconded by Cole to approve the consent agenda as presented. Motion carried unanimously.

V. OPEN FORUM

No one present for open forum.

VI. COUNCIL UPDATE

Salonek updated the Commission on Council items.

The City Council approved going out for bid for all the park amenities.

VII. STAFF UPDATE

Farrell stated that the bid documents were put on the website for contractors to review on March 3, 2025. It will be advertised in the Champlin Dayton Press this Thursday.

The bridge at Elsie Stephens Park should begin construction this week. The snow may impact progress. The bridge is scheduled for delivery in April.

The irrigation work is ongoing. Currently the work is happening at Elsie Stephens Park by rehabbing the existing well. Next, the plan is to develop the well at Hayden Hills.

VIII. REGULAR MEETING

B. Work Session to prepare for Joint Park Commission and City Council Meeting on March 25, 2025

Pikal stated that Arbor Day needs to be discussed. Arbor Day is in April and Tree City USA needs to be discussed. Pikal asked the Parks Commission if anyone else has items to bring forward.

Lingard stated that in a previous discussion it was suggested that the Parks Commission share with the City Council what was accomplished in 2024.

Lingard stated that along with working to attain Tree City USA status, the Parks Commission began an Adopt-A-Park Program. Currently four parks have been adopted.

Cole asked if the Parks Commission would like to go into detail about what is happening with Elsie Stephens Park or the trail that's going in. Cole also asked if the purpose is to keep the information at a high level, or would it be better to go deeper into the details.

Farrell suggested that the focus be on some bigger projects in the future.

Lingard suggested that the focus should be on the goals with a brief mention of what has already been accomplished.

Cole suggested that part of the discussion should be about acquiring land for future projects.

The discussion shifted to bringing up the topic of CDAA and a potential athletic complex.

Farrell stated that if the project is on a CIP, then it opens the possibility of being able to apply for grant funding.

Pikal stated that his understanding is that the City would be responsible for purchasing the land and CDAA would assist with the buildings.

There was consensus that the land would be the most expensive piece of the puzzle for an athletic complex of approximately 50-60 acres.

Farrell stated that it is time to get a commitment about the purchase of the land.

Cole stated that he was shocked to hear that a lot of the residents believe there are plenty of parks in Dayton.

Sevald asked what questions the Parks Commission have for staff in preparation for the work session on March 25, 2025.

Pikal asked Knutson to prepare for Arbor Day and Tree City USA.

Pikal asked Lingard to prepare for the 2024 accomplishments and the Adopt-A-Park Program.

Pikal stated that he and Cole would handle the land and the Community Park.

The discussion shifted to the goals for 2025. Making the list were: 1) Bridge at Elsie Stephens Park; 2) Some Progress at Leathers Park; 3) Trail Continuation; and 4) Putting Together a New Resident Map.

Additional discussion ensued.

Pikal gave some questions to Sevald for the upcoming Work Session. The questions included: 1) How much money can CDAA bring to the table; 2) Is the City Council serious about the potential $50 million purchase of land?

Salonek stated that there may need to be a Referendum.

Additional discussion ensued.

The question was asked if Three Rivers Park District could assist with an athletic complex. The answer is no.

C. DCM Farms Development presentation by Jon Sevald, Community Development Director

Sevald came forward and stated that the DCM Farms project is located off Fernbrook Lane and 113th Avenue. The project encompasses 91 acres of land. The proposal is for 253 single-family homes along with eight acres of commercial/retail space. The project will be donating about three acres of park land towards the Area 21 Park. There will be several trails and sidewalks. As part of the project, the developer will be installing a roundabout at Fernbrook Lane and 114th Avenue.

Sevald explained that as part of the PUD process, the developer is required to provide something that would serve as a public benefit. Sevald asked the Parks Commission if there is anything that they would like to see added.

Pikal stated that he would like to see additional artery trails in through the neighborhood, specifically in the southwestern area.

Additional discussion ensued.

Sevald stated there would be about $1.8 million in park and trail fees. The intent is that 75% will be spent within the area, which is the Area 21 Park.

Additional discussion ensued regarding the placement of trails.

Pikal asked what phase the development is in. The answer is Preliminary Plat.

Sevald stated that the Preliminary Plat will go to the Planning Commission on Thursday and then to the City Council later in March or early April.

Knutson requested a turnaround for a fire truck.

D. Shaney Parcel presentation by Jon Sevald, Community Development Director

Sevald stated that the Shaney parcel encompasses 107 acres of land located at North Diamond Lake Road and Brockton Road near Laura Lake. The Thicket Hills neighborhood is located just to the north. This project will be a continuation of Thicket Hills. There are only ten lots proposed. The smallest lot size is currently five acres, and the largest lot is about 20 acres.

Sevald asked if the Parks Commission wants to pursue trails or parks for the development.

Pikal stated that the Parks Commission should do something right along the lake.

Knutson suggested that something small for the neighbors to gather at would be nice. Knutson believes there is value in community space.

Cole liked the idea, but cautioned the Commission about the things that can go wrong when attracting people towards the water.

Additional discussion ensued.

Knutson stated that one of the parcels has the septic line on the property line and that doesn't seem too neighborly.

Sevald stated that there is a Concept Plan for a 200,000 square foot manufacturing and distribution business. This will be a speculative warehouse. The City does not know what type of user would be drawn to this project.

Sevald stated that there is a sidewalk on both sides of Dayton Parkway. Farrell corrected Sevald, noting there are trails on both sides of Dayton Parkway.

The Concept Plan is focused only on the south portion.

Pikal asked if the other empty building could be filled before another one goes up.

Sevald stated that The Cubes is half full.

Additional discussion ensued.

Sevald stated that Territorial Grove has received Preliminary Plat Approval and Final Plat Approval will likely be requested in April.

The project has a trail along East French Lake Road and along Territorial Road. There will also be an HOA funded sport court in the neighborhood.

E. Elm Creek Watershed Fourth Generation Plan Representatives Discussion

Farrell stated that he doesn't have a lot of information to add to the Staff Report that was included in the packet. Farrell asked if the Parks Commission is open to presentation. After the presentation, there will be a question-and-answer session.

Pikal asked what they would be presenting. Farrell directed the Parks Commission to the link that was included in their packet of information.

The presentation will be April 1, 2025.

IX. NOTICES AND ANNOUNCEMENTS

F. Next Park Commission Meeting will be Tuesday, April 1, 2025.
G. The Joint Work Session with the City Council will be Tuesday, March 25, 2025, at 5:30 p.m.

X. ADJOURNMENT

MOTION: Cole motioned, seconded by Lingard, to adjourn the meeting at 7:40 p.m. Motion carried.

Respectfully submitted,

Sandra Major, Recording Secretary
TimeSaver Off Site Secretarial, Inc.

Meeting Date: 04-01-2025
Item Number: B

PRESENTER: Diane Spector

ITEM: Elm Creek Watershed presentation

PREPARED BY: Martin Farrell

BACKGROUND: None.

CRITICAL ISSUES: N/A

BUDGET IMPACT: N/A

RECOMMENDATION: N/A

ATTACHMENT(S): Citizens Action Committee Memo and Elm Creek Watershed Overview

elm creek
Watershed Management Commission

ADMINISTRATIVE OFFICE
3235 Fernbrook Lane ● Plymouth, MN 55447

PH: 763.553.1144 | email: judie@jass.biz
elmcreekwatershed.org

Elm Creek WMO Member Cities
Citizen Advisory Committees

Dear Stakeholder:

Your City is a member of the Joint Powers Organization, the Elm Creek Watershed Management Commission. Watershed Management Organizations (WMOs) within the Metro Area, such as Elm Creek, provide management and oversight of lakes, streams, and rivers within their respective drainage areas. State law requires each WMO to have a plan in place that establishes goals, policies, and actions to protect and improve those waters, and that plan must be updated every ten years. The Elm Creek Commission has been working for the past year to update what will be its fourth management plan and would appreciate review and comments from residents and property owners in the watershed.

Rather than establish a special separate Citizens Advisory Committee (CAC), the Commission has asked each of its member cities to designate one of its existing citizen commissions (i.e., parks and rec, environmental, planning, etc.) to serve. The role of the CAC is to provide input and review, starting with a presentation on the general goals and actions in the Fourth Gen Plan at one of your regular meetings and an opportunity to review and provide comment on the overall draft plan either at a subsequent meeting or on your own.

Attached to this letter is a brief overview of the Commission, what we do, and what is planned for the next ten years. At your upcoming meetings, Commission and City staff will expand on that information and how it relates to your city. In the next few years all cities in the Metro area will be updating their Comprehensive Plans, including their own Local Stormwater Management Plans. The goals and actions proposed in the Watershed's Plan will need to be addressed in your Local Plan and the Comp Plan, so this is the start of a multi-year planning process.

Prior to our upcoming meeting, we hope you will be able to learn more about the Commission and what we do at www.elmcreekwatershed.org. On the home page is a link to a page dedicated to the Fourth Generation Plan. There you will find the latest draft of the Plan and supporting material, more information about the process and timeline, and an opportunity to submit comments online. You can also submit comments to City staff. There will be more opportunities to review and submit comments during several upcoming public comment periods and a public hearing later this year.

We appreciate your time and input and look forward to meeting with you. We hope you find this information and process illuminating and helpful as you provide input and advice to your City Council on matters related to water resources in your community.

Sincerely,

Doug Baines
Chair, City of Dayton

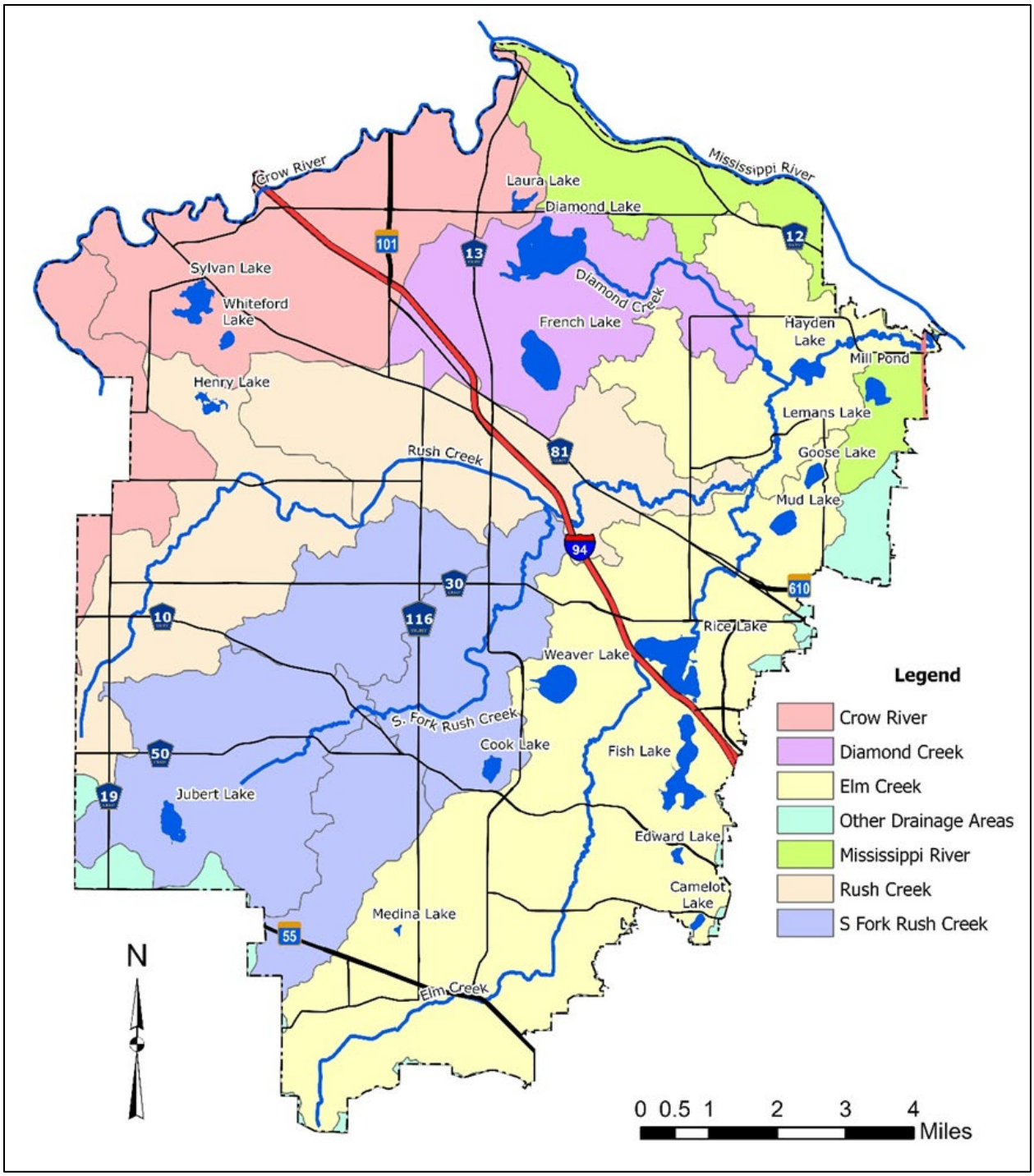
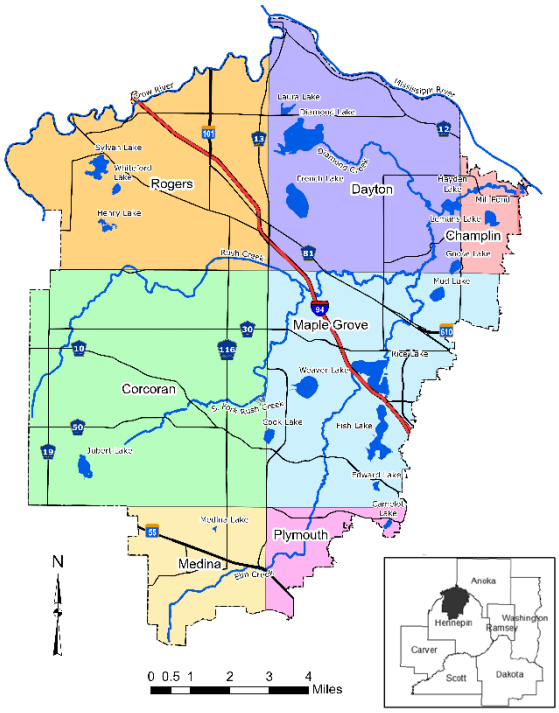


Figure 1. Elm Creek drainage system.

Elm Creek Watershed Fourth Generation Management Plan

elm creek
Watershed Management Commission



What is the role of the Watershed Commission?

We partner with cities, property owners, and others to protect and improve lakes, streams, and wetlands in the 130 square mile Elm Creek watershed. This includes all or parts of seven cities that drain into Rush Creek, Diamond Creek, and Elm Creek and then to the Mississippi River. It also includes areas in those cities that drain directly into the Crow River or the Mississippi River .

We are a joint powers organization governed by a citizen board and advised by a technical committee of key city staff.

The Commission sets policies and establishes goals for the water resources in the watershed and implements programs to achieve those goals. These policies help guide city actions as we work toward common goals.

What is the history of the Commission?

The Commission was established on February 1, 1973, when several cities and the Hennepin Conservation District formed a Joint Powers Organization. The Town of Hassan and City of Rogers later joined, and the City of Greenfield withdrew. The parties saw an opportunity in jointly managing the watershed through common standards, water quality monitoring, and evaluations of flooding potential. In 1982 the Minnesota Surface Water Management Act required the Metro area to be divided into drainage areas under the planning and oversight of watershed management organizations (WMOs) based on drainage boundaries rather than county or municipal boundaries. The Elm Creek Commission fulfils this statutory role.

What does the Commission do?

As required by statute, every 10 years the Commission prepares a new Watershed Management Plan of goals and actions. This will be our fourth, or “Fourth Generation” Plan.

- Sets policy and standards to protect and improve lakes, streams, and wetlands.
- Maintains Rules and Standards for development and redevelopment and reviews proposals to be sure impacts to downstream waters are minimized.
- Monitors water quality in lakes and streams.
- Provides education and outreach programming .
- Completes special studies for potential projects.
- Leverages grant funding and partnerships to move projects forward.

Read more about our accomplishments!

What is our focus for 2025-2034?

The Commission has established four priorities of focus for the Fourth Generation Plan:

1. Protect, maintain, and improve the water quality and ecological integrity of the water and natural resources within the watersheds and the downstream receiving waters.
2. Reduce stormwater runoff rates and volumes to limit flood risk, protect conveyance systems, protect surficial groundwater, and reduce or mitigate impacts that have already occurred.
3. Educate and engage all stakeholders in the watershed on surface water issues and opportunities.
4. Anticipate and proactively work to withstand adverse impacts from changing land use/cover and environmental and climate conditions.

Celebrate!

The Commission and partners Three Rivers Park District, City of Maple Grove, the lake association, and others worked together on projects that improved Fish Lake water quality so much that it was removed from the state's list of Impaired Waters.

We partner with other WMOs to expand our reach and resources.

The West Metro Water Alliance (WMWA) is a partnership between the Elm Creek, Shingle Creek/West Mississippi and Bassett Creek WMOs. WMWA pools resources to offer education and outreach throughout the four watersheds. A notable program is Watershed PREP that provides classroom instruction to fourth graders. *Over 22,000 students have participated.*

More information can be found on the Commission's website
www.elmcreekwatershed.org

This education partnership was recently expanded to include Hennepin County and the Richfield-Bloomington WMO, who help fund a shared education coordinator dedicated to developing and delivering common messaging and coordination.

What are some of our projects?

Over the last 10 years, the Commission was awarded over $1.2 million in grants for water quality improvement projects and provided $3.6 million in cost-share funds to help cities undertake 22 projects. Notable projects are: restoration of 9,100 feet of Elm Creek in Champlin, 8,700 feet of Elm Creek in Plymouth, 7,000 feet of Rush Creek in Maple Grove, and 5,100 feet of South Fork Rush Creek in Maple Grove.

The Commission shared in the cost of an alum treatment and carp removals on Fish Lake and fishery and other improvements on the Mill Pond. The Commission also partners with Hennepin County Board Conservationists to identify and implement improvements on lands used for agriculture and animal husbandry.

What's coming up?

Some exciting city/watershed actions planned or underway are:

- Continued invasive carp management in Fish and Rice Lakes.
- Additional stream restoration projects on Rush Creek and South Fork Rush Creek in Maple Grove.
- Nutrient management in Diamond Lake, including potential alum treatments to reduce phosphorus release from sediments.
- Continued engagement with the agricultural community.
- Increased emphasis on reducing chloride and bacteria pollution in our waters.
- An ongoing assessment of climate vulnerabilities and resiliency actions.

Meeting Date: 04-01-2025
Item Number: C

PRESENTER: Ann Rexine

ITEM: Three Rivers Park District West Mississippi River Trail Update

PREPARED BY: Martin Farrell

BACKGROUND: Three Rivers Park have identified a route for their West Mississippi River Trail, which includes a significant stretch in Dayton. The Park District has been purchasing properties along the trail route to be able to construct the Trail. Tonight's presentation is an update on the progress of developing the trail.

CRITICAL ISSUES: N/A

BUDGET IMPACT: N/A

RECOMMENDATION: N/A

ATTACHMENT(S): Presentation slide show.

ThreeRivers PARK DISTRICT

City of Dayton

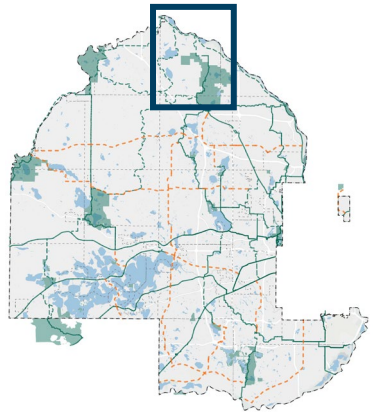
West Mississippi River Regional Trail 2025 Update

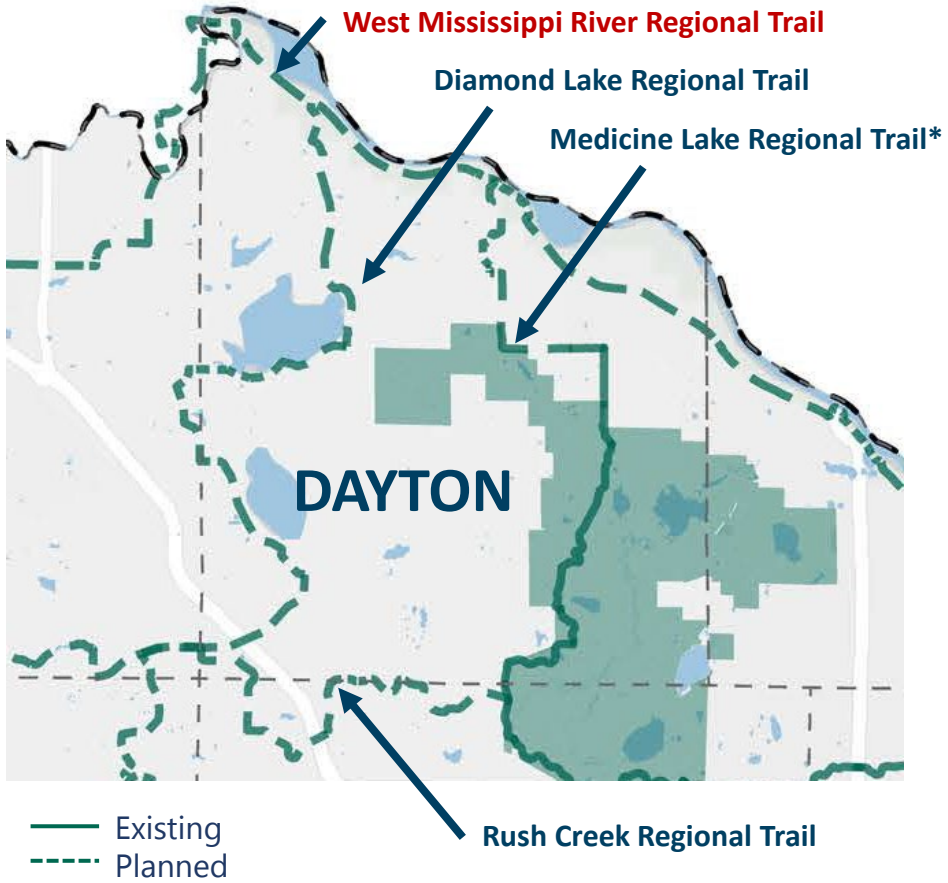
April 1, 2025

Dayton regional trails
SNAPSHOT

	Approx. Miles in Dayton (when complete)
West Mississippi River RT	6
Diamond Lake RT	7
Medicine Lake RT*	4
Rush Creek RT	1
Total	18

* Also known as the Elm Creek Connector. Mileage does not include trail segments within Elm Creek Park Reserve.





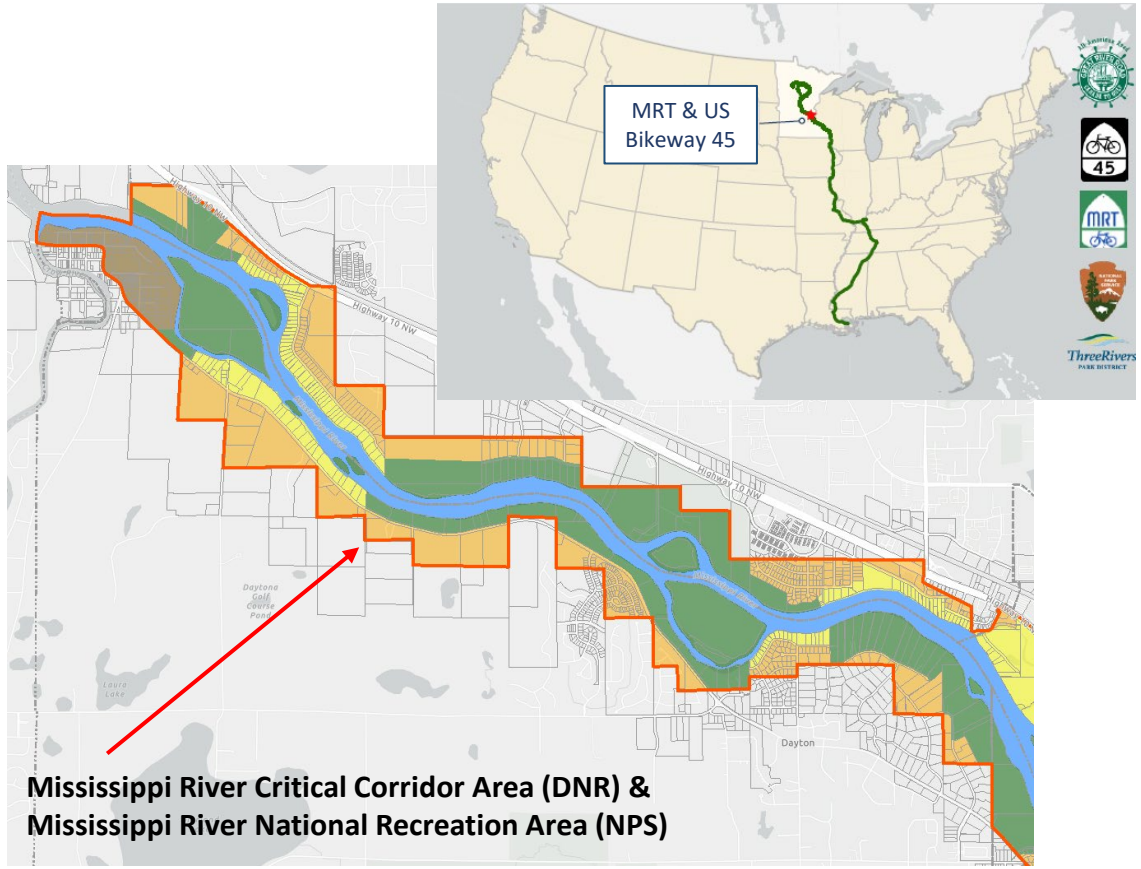
2040 Regional Trail System

planning framework

West Mississippi River Regional

The West Mississippi River Regional Trail is consistent with or builds off the:

- Minnesota National River Recreation Area (MNRRA; NPS)
- Mississippi River Critical Corridor Habitat (MRCCA; MNDNR)
- Mississippi River Trail/US Bikeway 45 (MRT; ASHTO, NPS, MNDOT)
- 2040 Regional Park and 2040 Transportation Policy Plans (Metropolitan Council)
- 2040 Bicycle Transportation Plan (Hennepin County)
- 2040 Comprehensive Plan (Dayton)
- 2016 West Mississippi River Regional Trail Long-range Plan (Three Rivers, Dayton, Metropolitan Council)
- 2018 Regional Trail Cooperative Agreement (Three Rivers, Dayton)



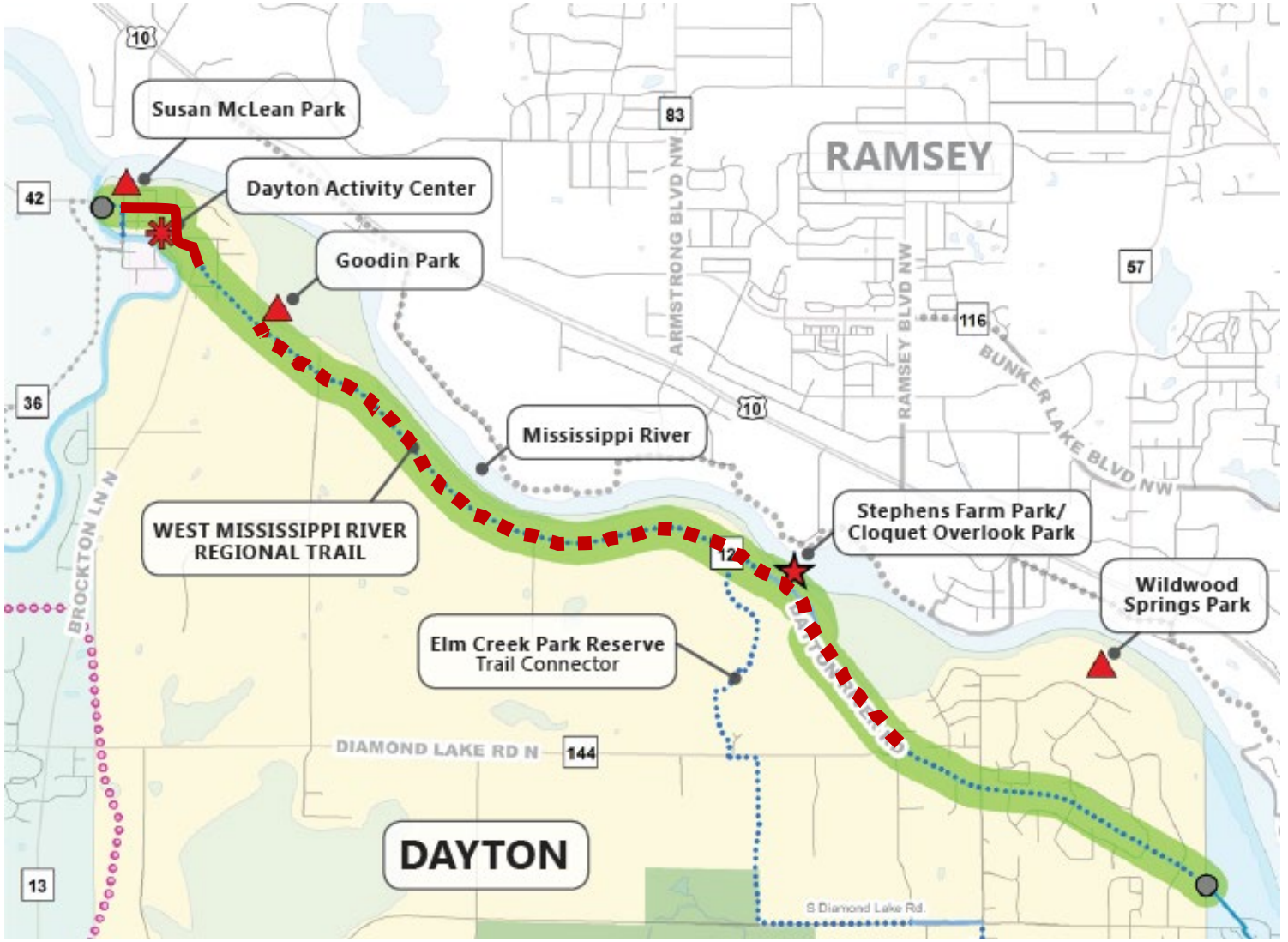
long-range plan (formerly known as the master plan)

West Mississippi River Regional Trail

Goal
Provide a high-quality destination multi-use trail that provides the best user experience reasonably feasible.

Regional Trail will be along Dayton River Road with the following exceptions:

- **Historic Village Area:** follows Robinson and Division Street
- **Between Goodin Park and North Diamond Lake Road:** as opportunities present themselves, property acquisition on a willing-seller basis should be considered where construction complications could be alleviated or lessened and/or to create a wider, more scenic regional trail corridor



status and long-range plan consistency

West Mississippi River Regional Trail

Acquisition

- Ongoing between Goodin Island to Diamond Lake Road North
- Willing-seller basis only
- Primarily 'word of mouth'

Design and Construction

- Pending securement of property rights
  - *and/or* -
- As partnership opportunities present themselves:
  - Recent Elsie Stevens Park trail construction
  - Anticipating Hennepin County partnership for partial trail construction as part of Dayton River Road work

Segment A3: Brockton Lane to Elsie Stephens Park

West end of Segment A7: Cloquet Overlook to North Diamond Lake Road

Long-range Plan Excerpts

acquisition priorities

West Mississippi River Regional Trail

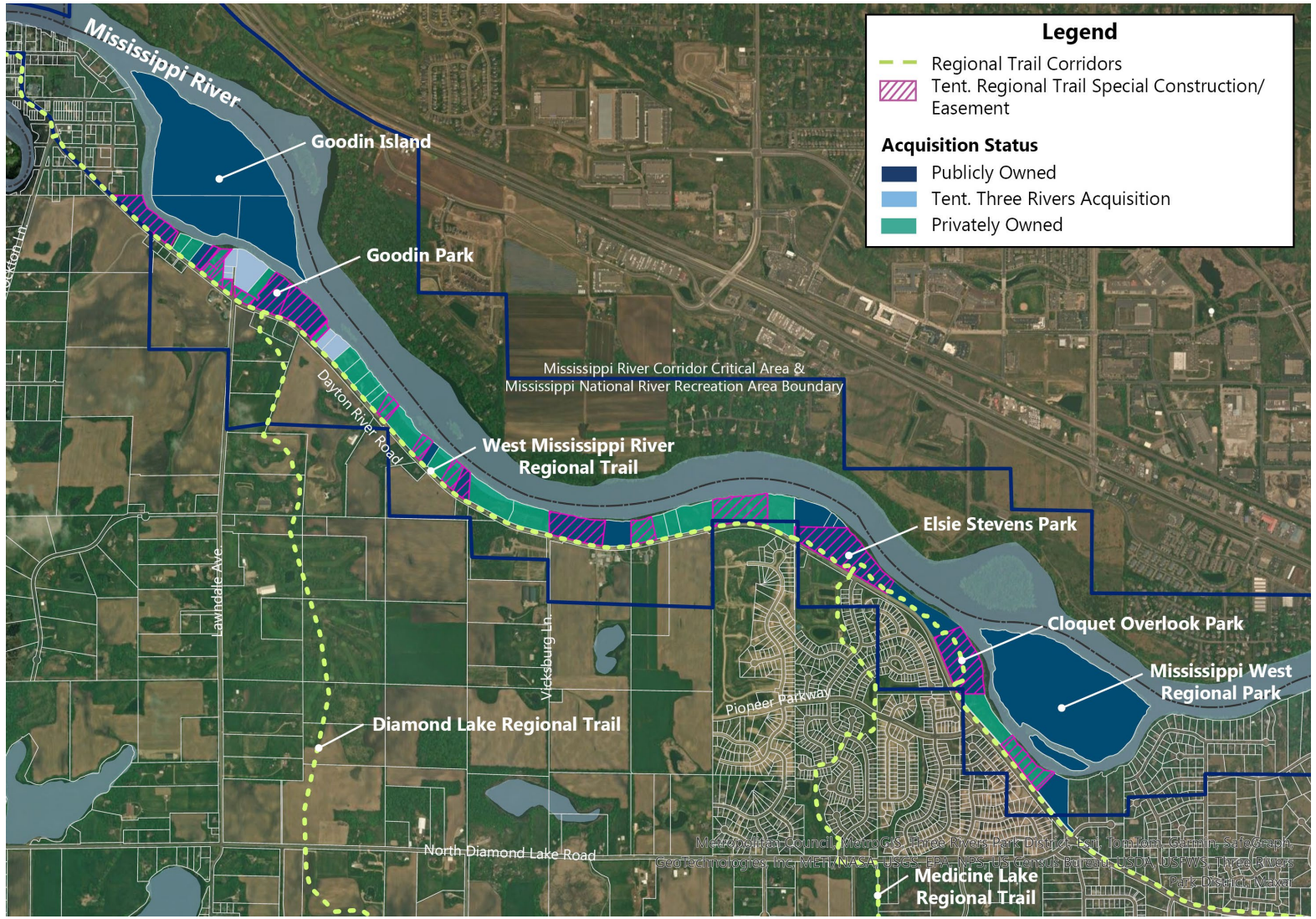
Area of Interest:

- ~330 acres along a 3.5 mile stretch of the River between Goodin Island and North Diamond Lake Road
- 252 acres are already in public ownership

Owner	Parcels	Acres
State of MN Land	4	95
Anoka County (Island)	1	75
City of Dayton	8	45
Three Rivers Park District (Includes pending opportunities)	13	37
Private	31	78

High Priority Parcels:

	Public	Private	Total
Parcels where special construction and/or easements are anticipated	8	12	20



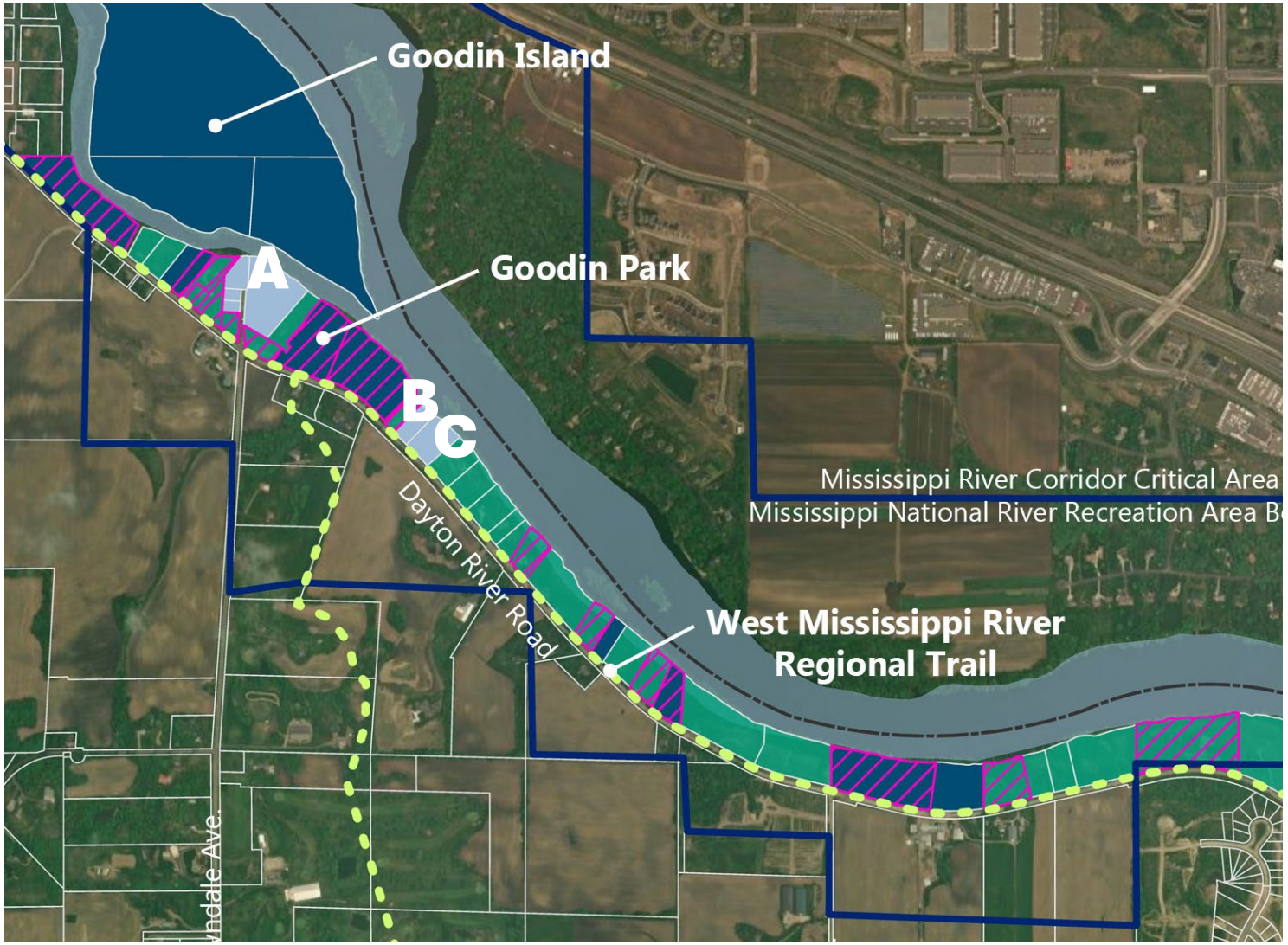
pending acquisition opportunities

West Mississippi River Regional Trail

A.15520 Lawndale Lane
Anticipated closing March/April 2025, pending legal access resolution

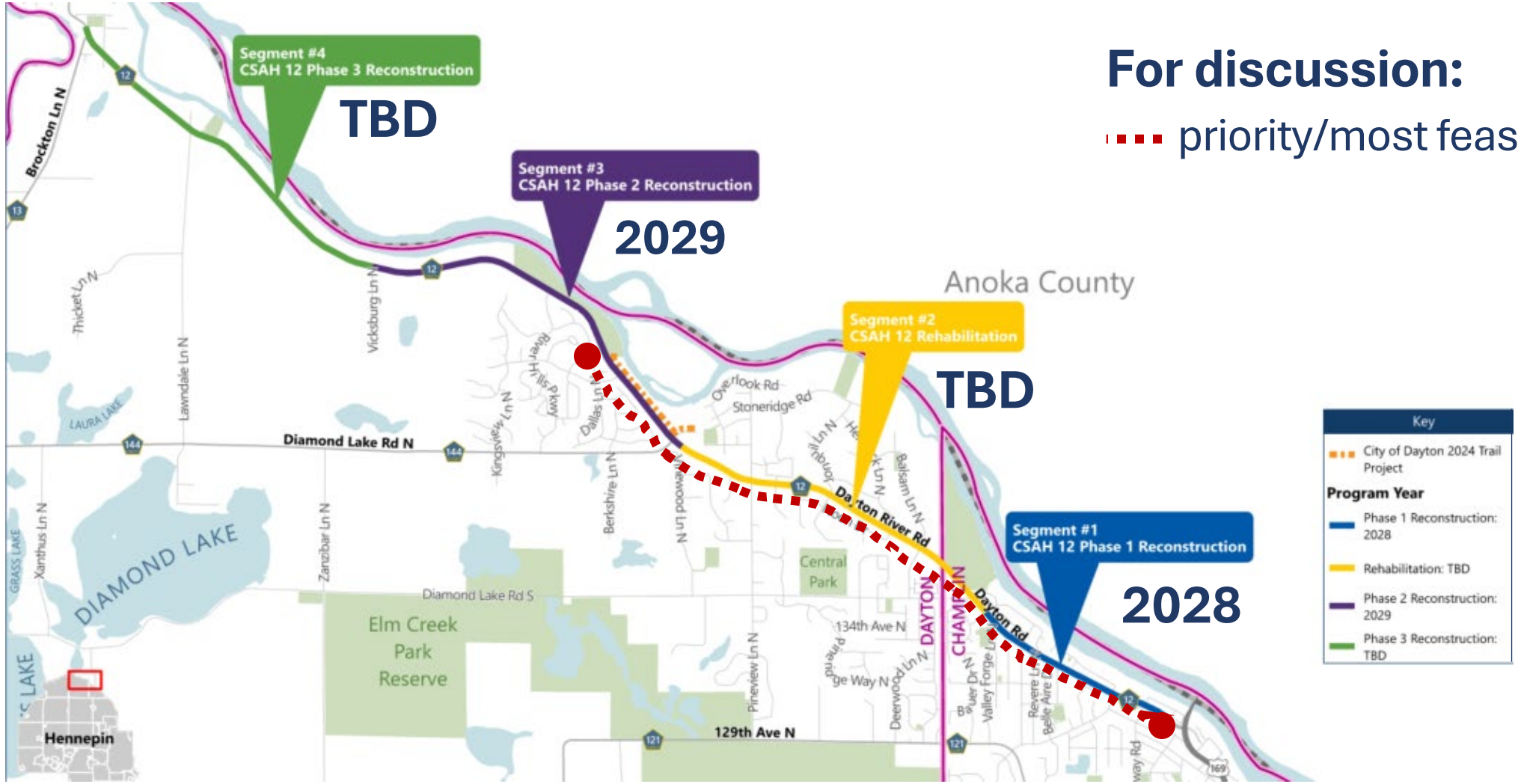
B. 17060 Dayton River Road
On hold, pending further community engagement and City review

C. 17020 Dayton River Road
Anticipated closing April 15



future trail construction coordination

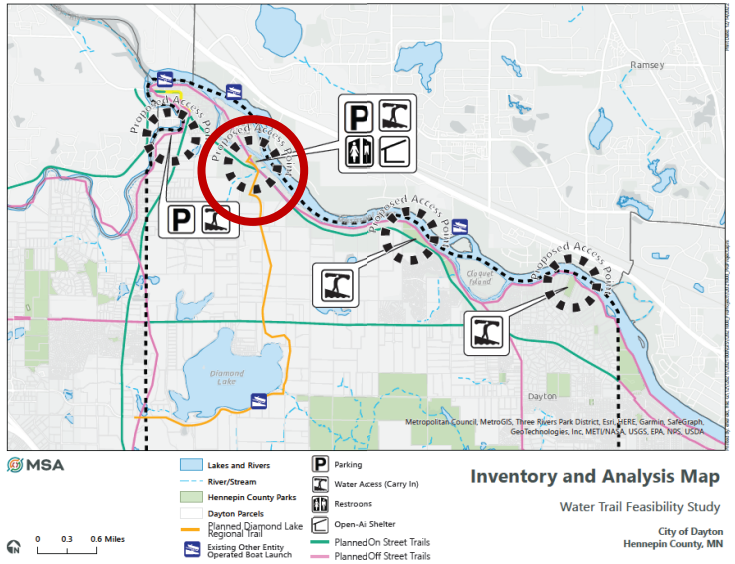
Dayton River Road Work



For discussion:

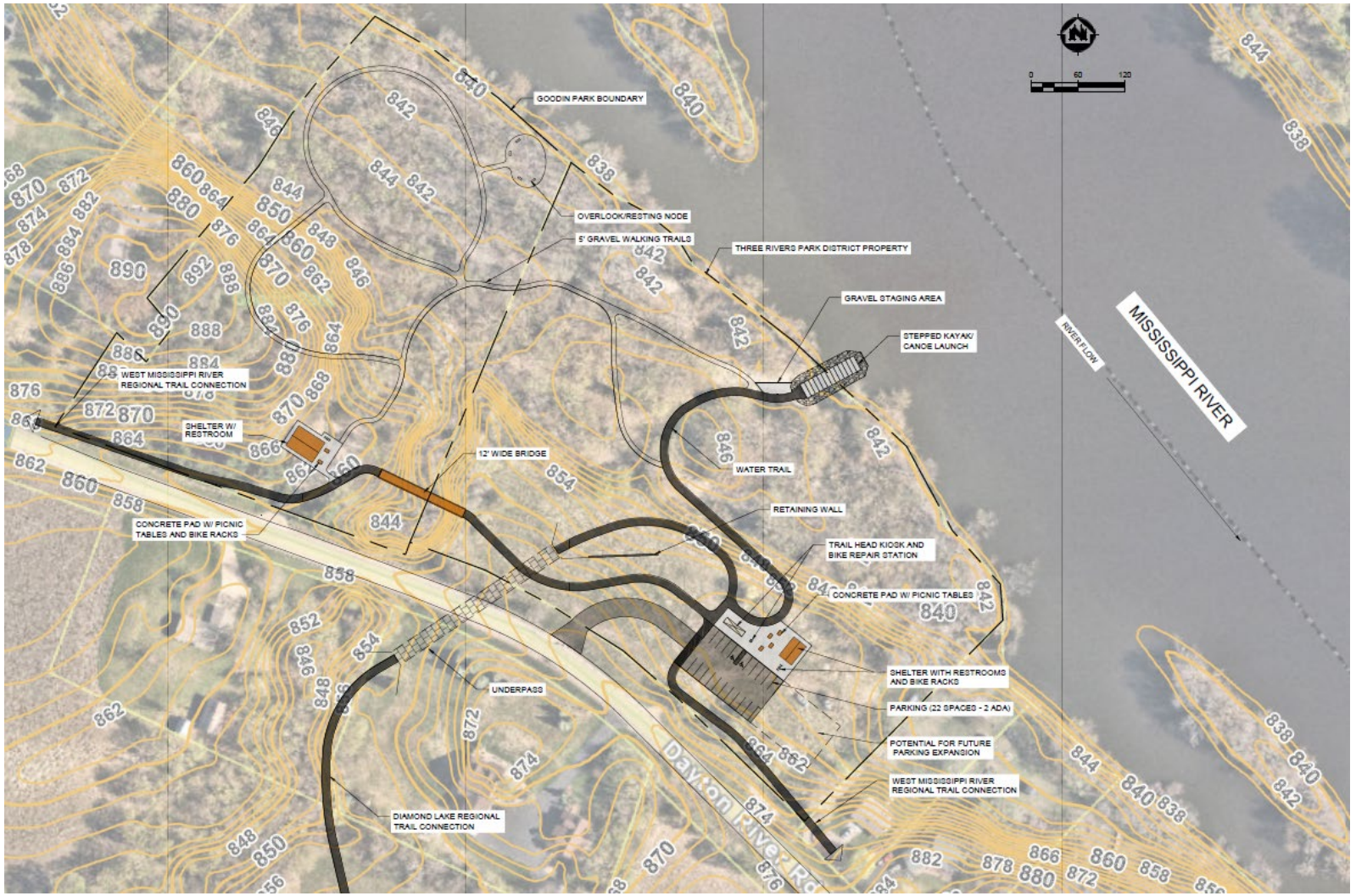
- priority/most feasible segments

other partnership opportunities along the corridor
Dayton Water Trail



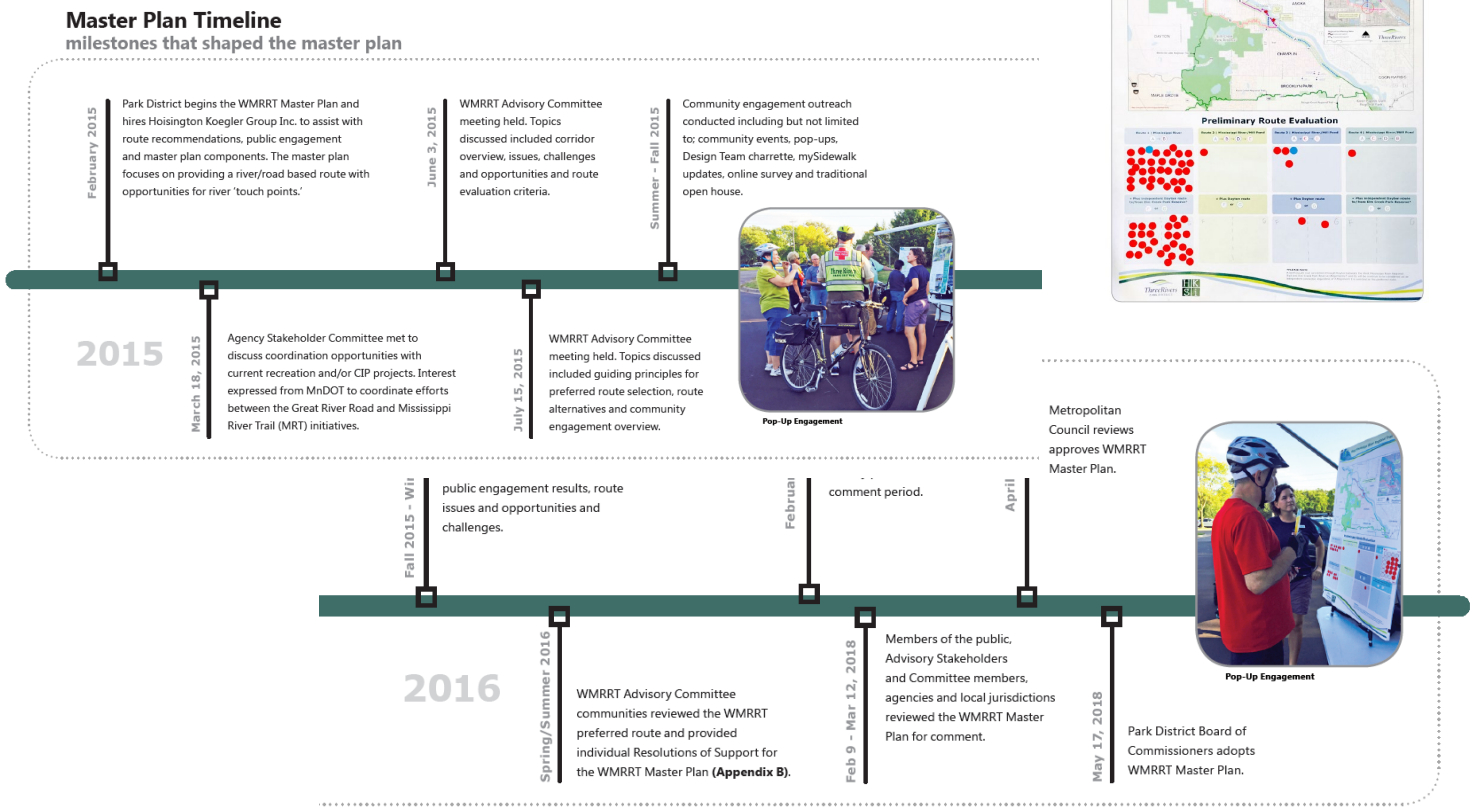
LCCMR Grant Proposal

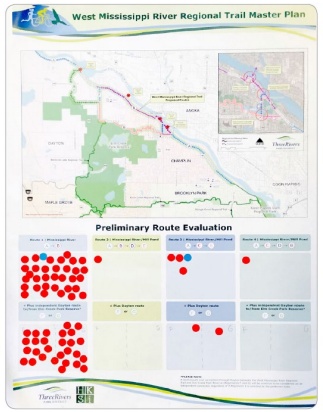
- Gravel parking lot, paved trail to the river, non-motorized boat access and staging area
- $850,000: $500K grant, $150K/land/restoration TPRD, $200K Dayton
- Construction 2026+



West Mississippi River Regional Trail
Engagement Plan

The City Council has requested that Three Rivers reengage the community to share information, answer questions, and reconfirm that the 2018 long-range plan goals still align with current community sentiment.





April 1
Dayton Parks Commission Meeting

April 8
Dayton City Council

April 15
Hennepin County Dayton River Road Corridor Study Open House

April 15 – May 20
Adjacent Property Owner Mtgs

April 15 – June 15
Online Engagement

May 14
City of Dayton Open House at the Public Works Bldg

May 21
Public Open House at Eastman Nature Center

June 24
City Council/Park Commission Joint Work Session

City of Dayton

West Mississippi River Regional Trail 2025 Update

Questions, Concerns, and Discussion

Jonathan Vlaming
Associate Superintendent
Jonathan.Vlaming@threeriversparks.org

Kelly Grissman
Director of Planning
Kelly.Grissman@threeriversparks.org

Ann Rexine
Principal Planner
Ann.Rexine@threeriversparks.org

PRESENTER: Marty Farrell

ITEM: Water Trails Design 90% Plan set

PREPARED BY: Marty Farrell

POLICY DECISION / ACTION TO BE CONSIDERED: Water Trails Project update and review 90% plans and costs.

BACKGROUND:
Park Commissioners and Staff expressed a desire to enhance the accessibility for residents, to the natural resources that we have available in the City of Dayton. One opportunity that has been discussed is how to best access the Mississippi and Crow Rivers, for the residents of the Dayton. One idea was to design a water trail system that would tie in with projects funded by Three Rivers Park District such as the Diamond Lake Regional Trail which would possibly have a trail head in the Goodin Park Area. The ultimate goal would be to build the water trail out incorporating our neighboring City's into the project, while also trying to invite support from other agencies that have an interest in improving access to the Mississippi and Crow Rivers.

Council approved the Water Trail Study in October of 2021. Since then there have been numerous meetings with Stakeholder groups, Steering committee, presentations to the City Council and Park Commission, and an Open House for resident input. This has been an exhaustive process, that has taken a significant amount of time but has garnered a significant amount of interest from Agencies that have an interest and a presence in Dayton, such as the DNR, Three Rivers Park District, Friends of the Mississippi and the National Parks Service.

Some of the interest from these agencies includes; DNR have reviewed plans and see no issues with getting permits for the project and they want to actively start promoting the project on their web site, TRPD are very interested in incorporating the water trail into their location next to Goodin Park, which will serve as a trail head for the Mississippi Trail and Diamond Lake Trail, there is a Concept that we have worked on with them in the packet. The National Parks Service have applied for grant funding for this project, and have indicated that they will be able to support the City in applying for other Federal Grant opportunities, NPS also wants to use the Dayton Water Trail as the starting point for their relaunch of their 72 miles of Mississippi Water Trail, if the Council accepts the Study.

The Parks Commission voted unanimously for Council acceptance of the Study. The Water Trail Study was accepted by the council at the February 28th meeting in 2023.

Since the Council acceptance we have been in a holding pattern waiting for the confirmation of the Federal Grant Funding, Staff were notified in July of 2023 that our finding request was going to be $850,000, significantly lower than the $3,900,000 that we had asked for. Funding from the National Park Service is also held up awaiting approvals. With this in mind it was decided that we needed to limit the scope of the project, to the Elsie Stephens launch as this would fit within the revised funding that we are expecting.

Staff have been working with the Department of Natural Resources to partner on a project at the existing DNR landing at the confluence of the Crow and Mississippi Rivers. The DNR are planning to realign their launch site to use the Crow river side as their access point, and potentially allow the City to use the existing Mississippi ramp as a Canoe/Kayak launch site. This would allow the City to have a put in point and a take-out point creating a significant stretch of the water trail. The DNR have a $574,000 budget for this project, Staff is currently negotiating a cooperative agreement and a project scope with the Agency.

Staff have also commissioned Stantec to conduct and environmental review of the site, which is a requirement of being able to access the funding from the Federal government, the study will be funded from the grant funding.

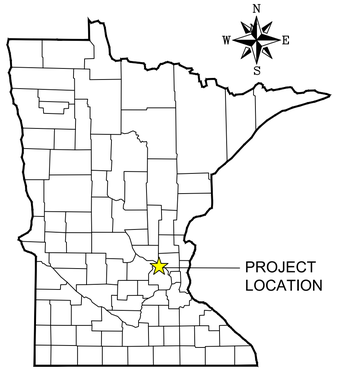
CRITICAL ISSUES: Works toward achieving a Strategic Initiative identified by the City Council to “Enhance our Connections to the Natural Environment”.

BUDGET IMPACT: Funded from CIP Park and Trail Development Fund 408, National Park Service Grant $100,000, Federal Grant $850,000, Department of Natural Resources $574,000.

RECOMMENDATION: None

ATTACHMENT(S): Water Trail 90% plan set.

ELSIE STEPHENS
CANOE/KAYAK LAUNCH
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA



SHEET INDEX

LEGEND

W	EXISTING WATER MAIN
	EXISTING GATE VALVE & HYDRANT
	WATER SERVICE & CURB STOP
	PROPOSED WATERMAIN, VALVE, & HYDRANT
	PROPOSED WATER SERVICE & CURB STOP
SAN S	EXISTING SANITARY SEWER & MANHOLE
FM	EXISTING FORCEMAIN
SAN	EXISTING STORM SEWER & INLET
	PROPOSED STORM SEWER & INLET
	PROPOSED STORM SEWER & MANHOLE
	PROPOSED SANITARY SEWER & MANHOLE
E	BURIED ELECTRIC
G	BURIED GAS & VALVE
TV	BURIED CABLE TELEVISION
T	BURIED TELEPHONE
FO	BURIED FIBER OPTICS
OH	OVERHEAD UTILITY
	RAILROAD TRACKS
	EXISTING CURB & GUTTER
	PROPOSED CURB & GUTTER
	EXISTING SIDEWALK
	PROPOSED SIDEWALK
CP	EXISTING CULVERT PIPE
	PROPOSED CULVERT PIPE
	FENCE LINE
	DRAINAGE ARROW
	SILT FENCE
	RIGHT-OF-WAY
	BASELINE
	PROPERTY LINE
	TREE LINE
	BENCHMARK
	IRON PIPE
	IRON ROD
	CONTROL POINT
	UTILITY POLE & GUY
1 000.00	SOIL BORING
	LIGHT POLE
	PEDESTAL
	STREET SIGN
	MAILBOX
	FLAGPOLE
	TREE - DECIDUOUS
	TREE - CONIFEROUS
	TREE TO BE REMOVED

UTILITIES

GAS:

N/A

ELECTRIC:

EXCEL ENERGY
414 NICOLLET MALL
MINNEAPOLIS, MN 55401
P: (612) 330-5500

TELEPHONE:

N/A

SEWER & WATER:

N/A

CATV:

N/A

NOTE:
UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND CONTRACTOR SHALL HAVE APPROPRIATE UTILITY MARK EXACT LOCATIONS PRIOR TO CONSTRUCTION.

LOCATION MAP
NOT TO SCALE

MAP LINK

		NO.	DATE	REVISION	BY
PROJECT DATE: .	DRAWN BY: JAH	.	.	PRELIMINARY	.
	DESIGNED BY: CMM	.	.		.
	CHECKED BY: RG	.	.		.

PLOT DATE: 3/25/2025 11:04 AM, G:\12\12021\12021001\CADD\construction documents\12021001 Title Sheet.dwg

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DATE Date

REGNO License No.

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ELSIE STEPHENS CANOE/KAYAK LAUNCH
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

TITLE SHEET

PROJECT NO. 12021001

SHEET G001

0 15 30

FLOODPLAIN LINE

WETLAND BOUNDARY, TYP. (10/31/2024)

MISSISSIPPI RIVER

WATER LINE WHEN SURVEYED 10/24/24. EL: 834.4±

EXISTING TREES, TYP.

BENCHMARK: RR SPIKE IN 30" TREE EL = 844.62

CONCRETE PIPE *tipd
857.83

EXISTING BOULDER, TYP.

EXISTING PARKING LOT

EXISTING INFILTRATION BASIN

EXISTING ASPHALT PATH

FLOODPLAIN LINE

EXISTING DRIVE TO REST OF PARK AND ENTRANCE

		NO.	DATE	REVISION	BY
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	DESIGNED BY: CMM	.	.	PRELIMINARY	
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PLOT DATE: 3/25/2025 11:04 AM, G:\12\12021\12021001\CADD\construction documents\12021001 Existing Site Plan.dwg

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CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

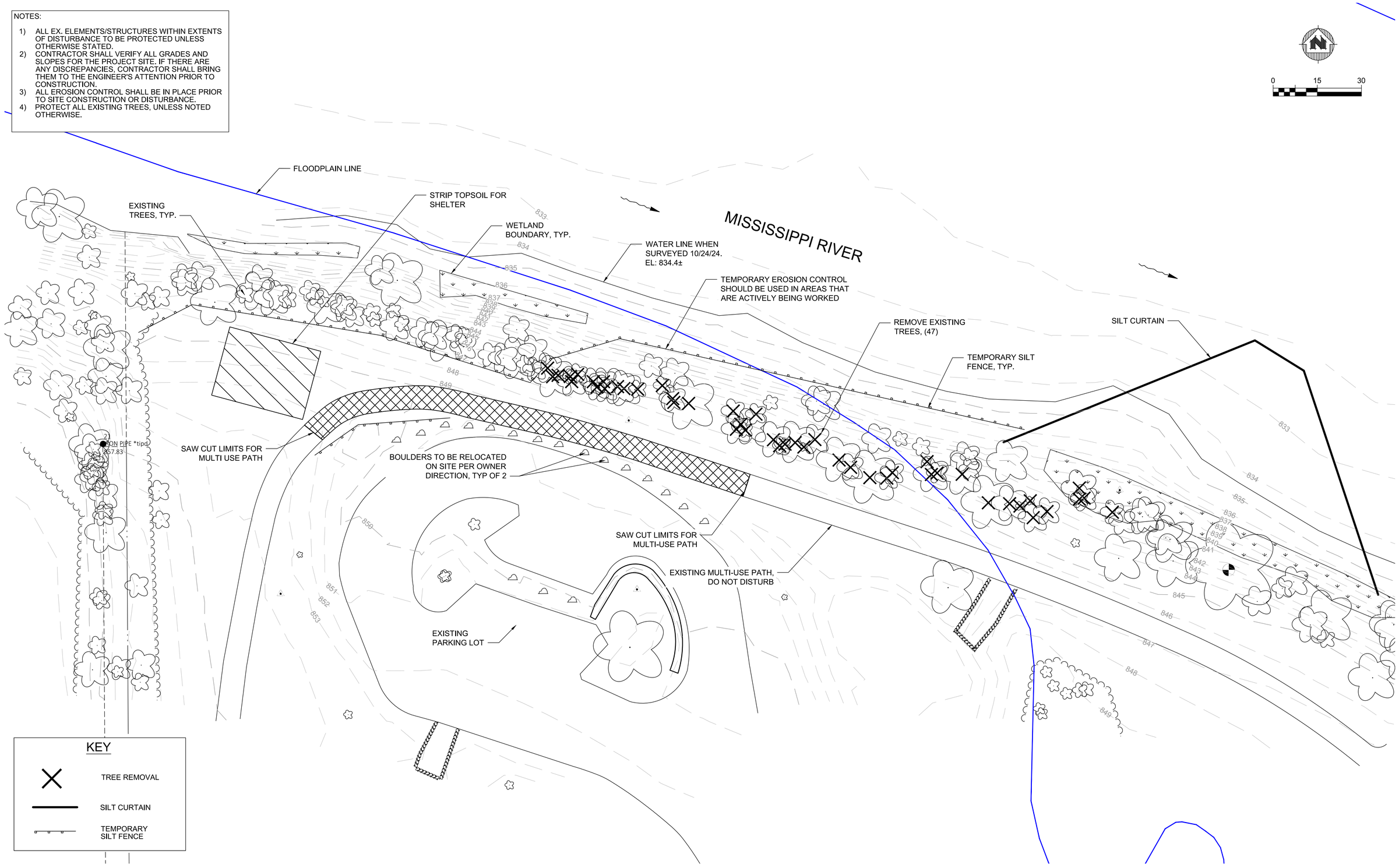
EXISTING SITE PLAN

PROJECT NO. 12021001

SHEET G101

NOTES:

1) ALL EX. ELEMENTS/STRUCTURES WITHIN EXTENTS OF DISTURBANCE TO BE PROTECTED UNLESS OTHERWISE STATED.
2) CONTRACTOR SHALL VERIFY ALL GRADES AND SLOPES FOR THE PROJECT SITE. IF THERE ARE ANY DISCREPANCIES, CONTRACTOR SHALL BRING THEM TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION.
3) ALL EROSION CONTROL SHALL BE IN PLACE PRIOR TO SITE CONSTRUCTION OR DISTURBANCE.
4) PROTECT ALL EXISTING TREES, UNLESS NOTED OTHERWISE.



KEY

- TREE REMOVAL
- SILT CURTAIN
- TEMPORARY SILT FENCE

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	CHECKED BY: RG	.	.	.	.

PRELIMINARY

PLOT DATE: 3/25/2025 11:04 AM, G:\12\12021\12021001\CADD\construction documents\12021001 Erosion Control Plan.dwg

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ELSIE STEPHENS CANOE/KAYAK LAUNCH
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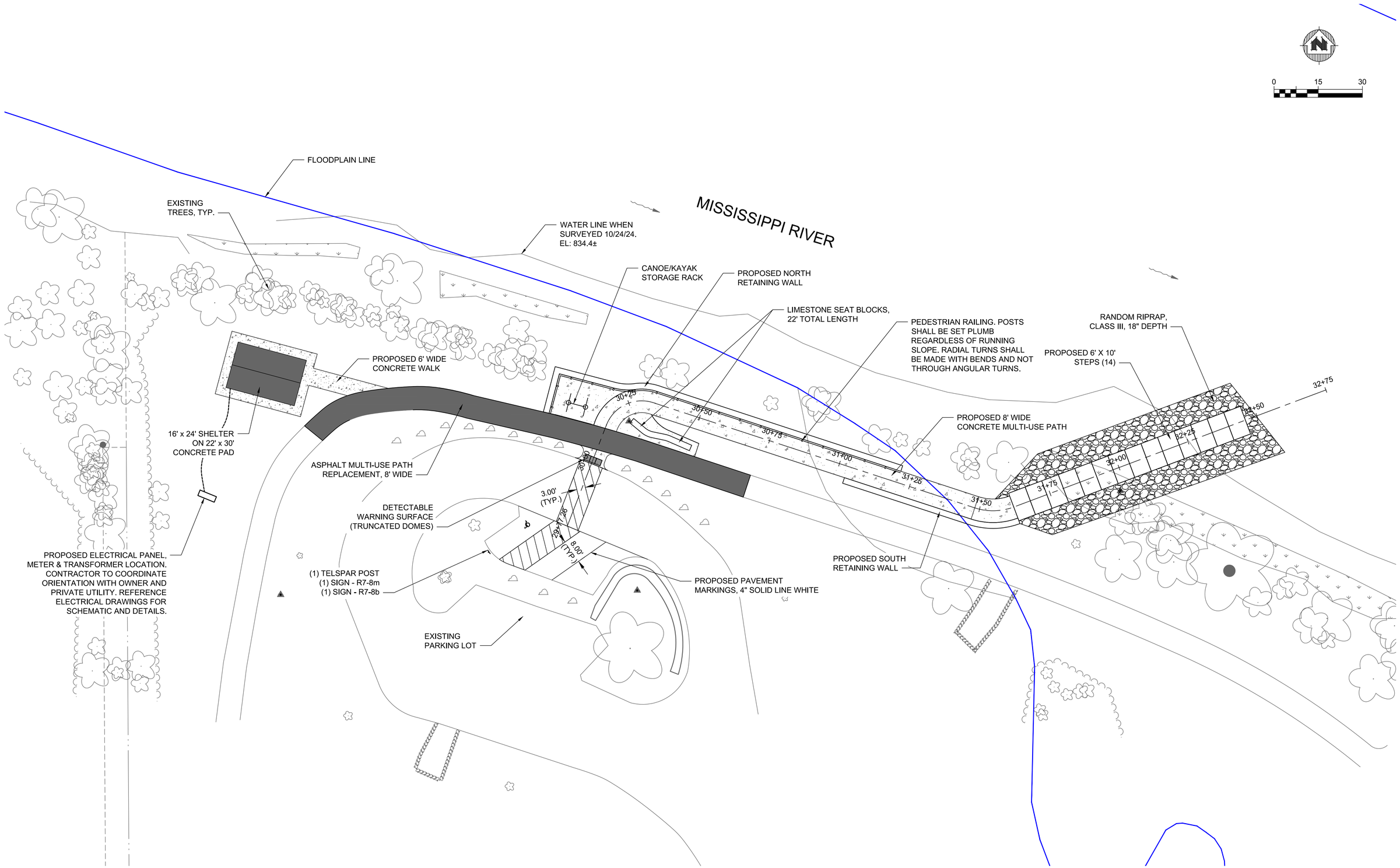
HENNEPIN COUNTY, MINNESOTA

EROSION CONTROL PLAN AND REMOVALS

PROJECT NO. 12021001

SHEET C101



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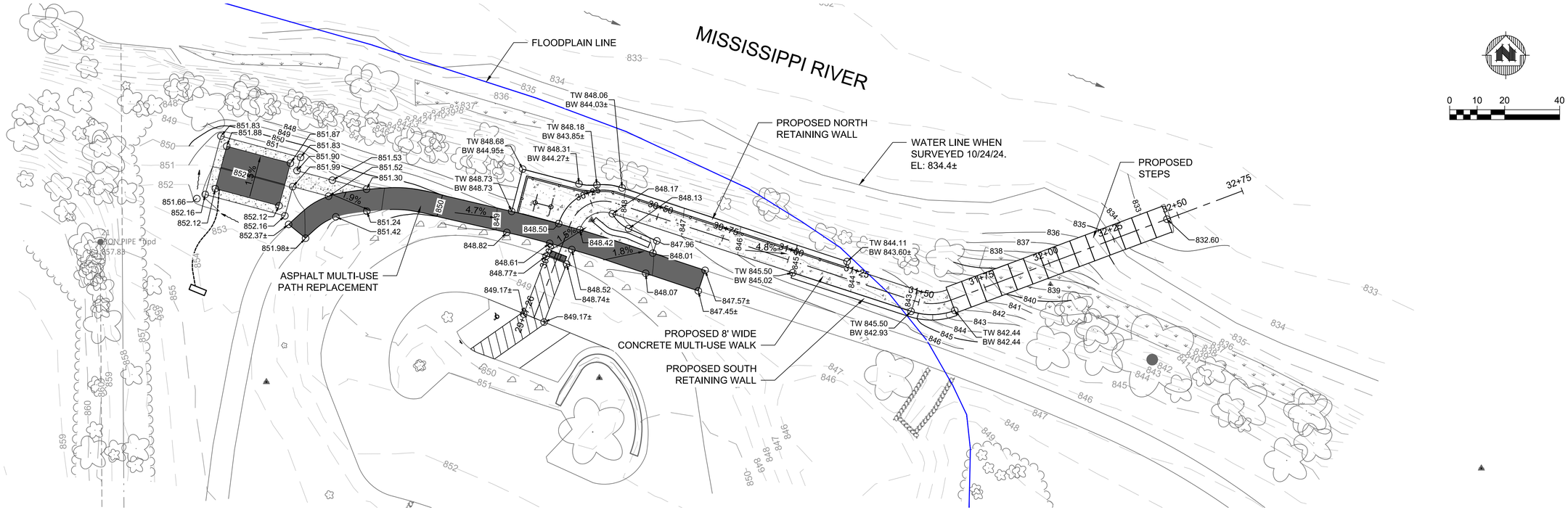
ELSIE STEPHENS CANOE/KAYAK LAUNCH
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

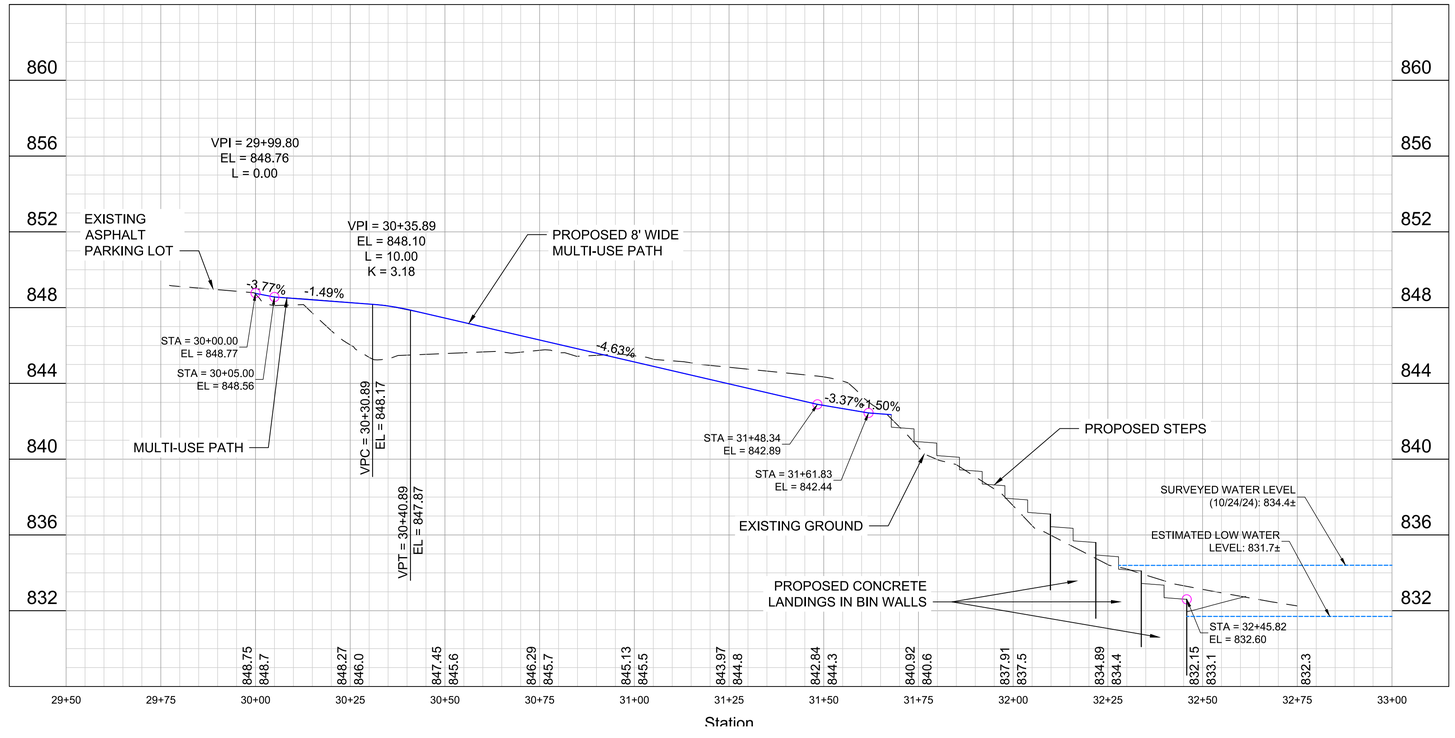
PROPOSED SITE PLAN

PROJECT NO. 12021001

SHEET C102



NORTH LANDING PROFILE



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PLOT DATE: 3/25/2025 11:05 AM, G:\12\12021\12021001\CADD\construction documents\12021001 Proposed Site Plan.dwg

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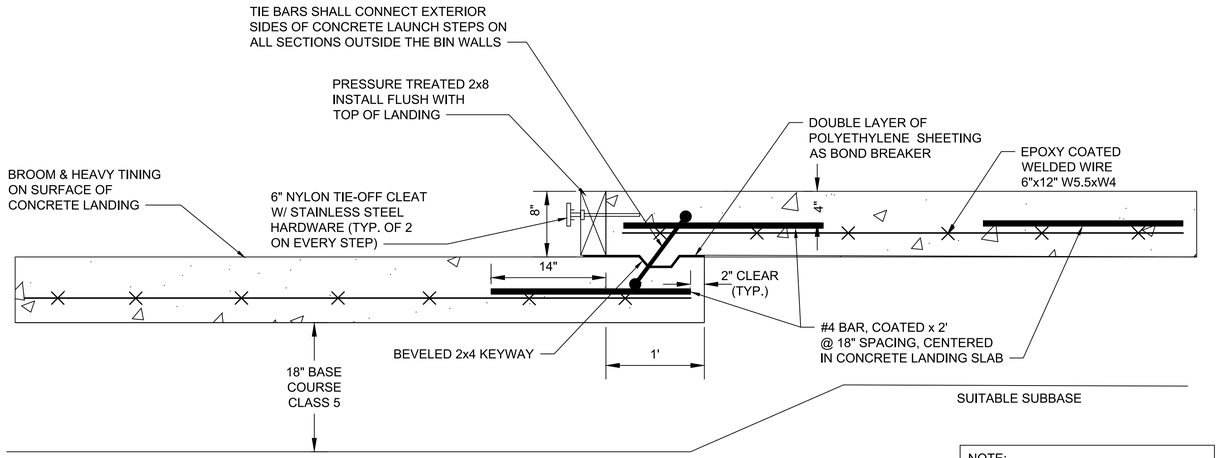
HENNEPIN COUNTY, MINNESOTA

PROPOSED GRADING PLAN AND PROFILE

PROJECT NO. 12021001

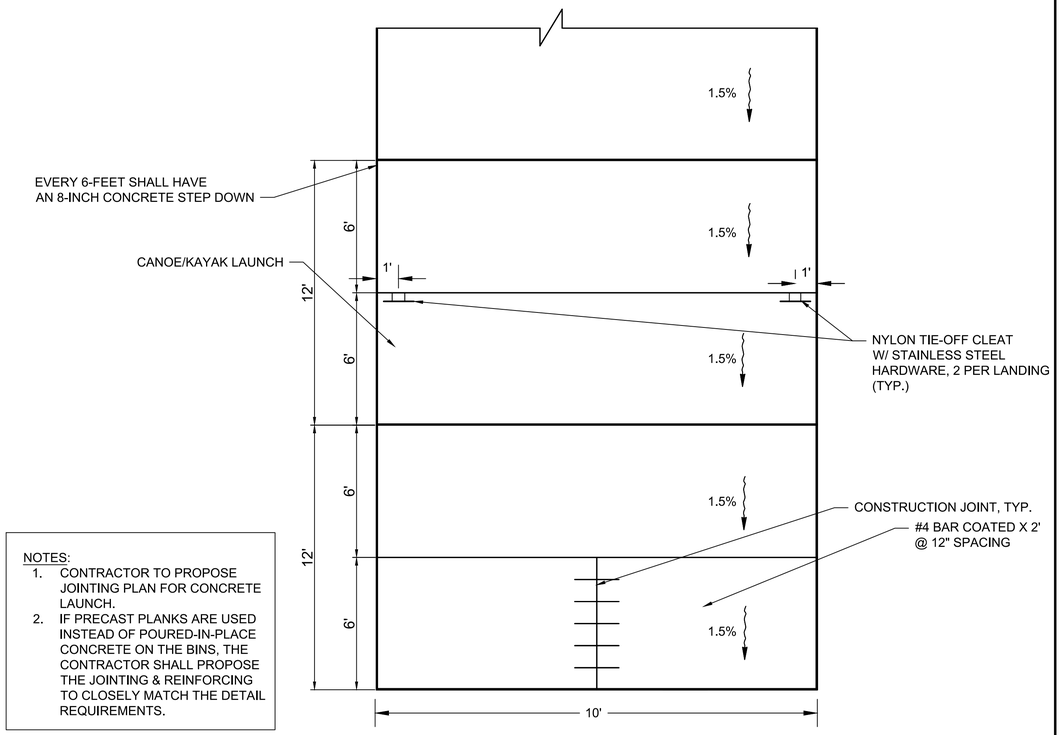
SHEET C103



NOTE:

1. CONTRACTOR SHALL CONNECT THE UPPER LAUNCH SECTIONS W/ SIDE TIE BARS DRILLED & EPOXY-COATED INTO THE EXTERIOR SIDES OF CONCRETE LAUNCH PADS.
2. EACH PANEL SHALL BE CAST INDIVIDUALLY AND PLACED WITH A BOND BREAKER BETWEEN LAYERS PER DETAIL.

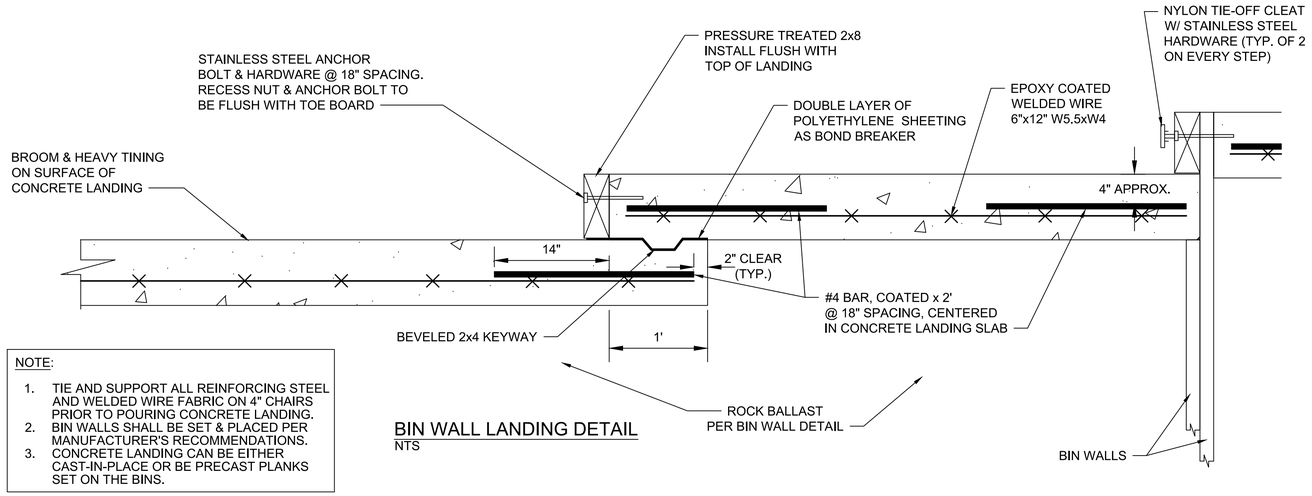
1 C501 UPPER LAUNCH LANDING ABOVE BIN WALLS
NTS



NOTES:

1. CONTRACTOR TO PROPOSE JOINTING PLAN FOR CONCRETE LAUNCH.
2. IF PRECAST PLANKS ARE USED INSTEAD OF POURED-IN-PLACE CONCRETE ON THE BINS, THE CONTRACTOR SHALL PROPOSE THE JOINTING & REINFORCING TO CLOSELY MATCH THE DETAIL REQUIREMENTS.

2 C501 LAUNCH PLAN VIEW
NTS

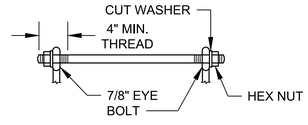


NOTE:

1. TIE AND SUPPORT ALL REINFORCING STEEL AND WELDED WIRE FABRIC ON 4" CHAIRS PRIOR TO POURING CONCRETE LANDING.
2. BIN WALLS SHALL BE SET & PLACED PER MANUFACTURER'S RECOMMENDATIONS.
3. CONCRETE LANDING CAN BE EITHER CAST-IN-PLACE OR BE PRECAST PLANKS SET ON THE BINS.

BIN WALL LANDING DETAIL
NTS

3 C501 BIN WALL LANDING DETAIL
NTS



7/8 INCH TIE ROD

GENERAL NOTES:

1. DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. HOLES SHALL BE FILLED WITH A NON-SHRINK GROUT OR A NON-SHRINK EPOXY GROUT AS DIRECTED BY THE ENGINEER.
3. ALL TIE BAR COMPONENTS SHALL BE GALVANIZED.

4 C501 SIDE TIE BAR DETAIL FOR LAUNCH CONCRETE PAD CONNECTIONS
NTS

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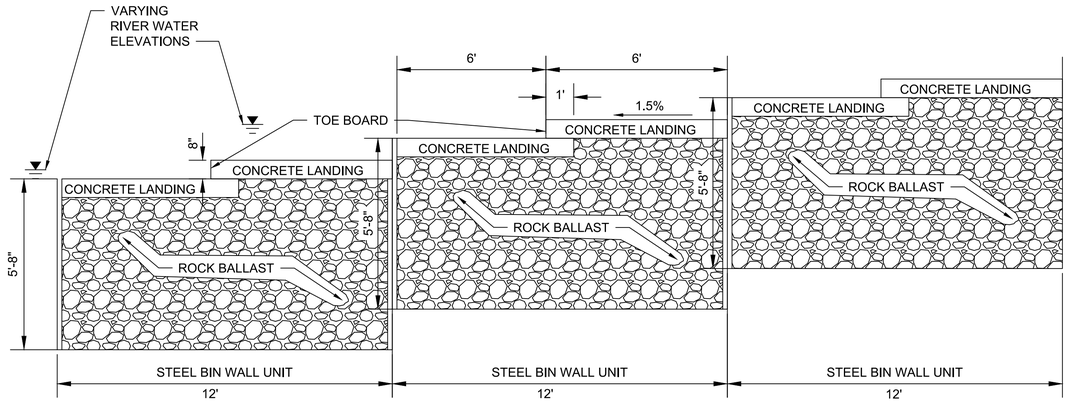
HENNEPIN COUNTY, MINNESOTA

GENERAL DETAILS

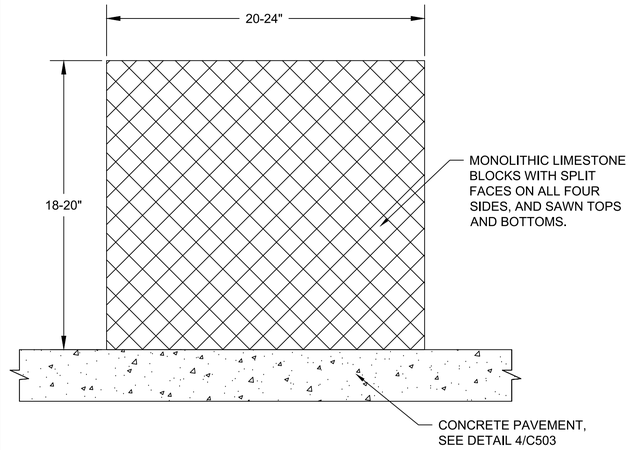
PROJECT NO. 12021001
SHEET C501



NOTES:

1. DESIGN BASED ON USE OF CONTECH. TYPE 2 BIN-WALL SYSTEM WITH CONNECTING SLIP-JOINTS, OR EQUAL. SEE PROJECT SPECIFICATIONS.

1 C502 BIN WALL SECTION VIEW
NTS



2 C502 LIMESTONE SEAT WALL
NTS

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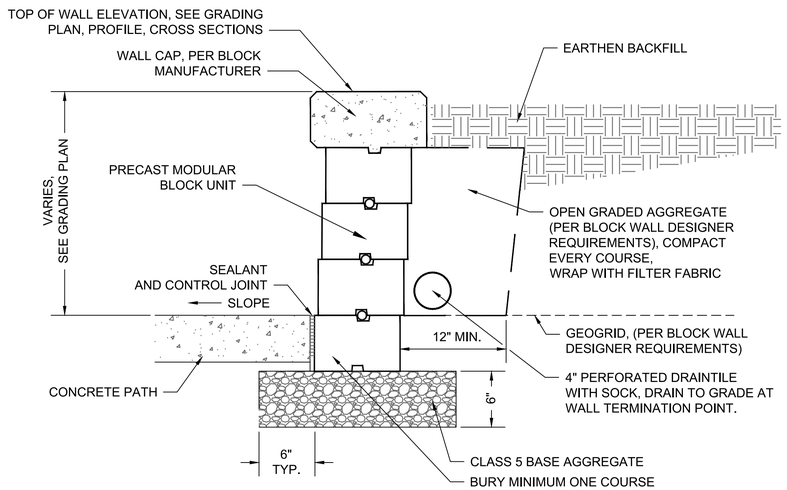
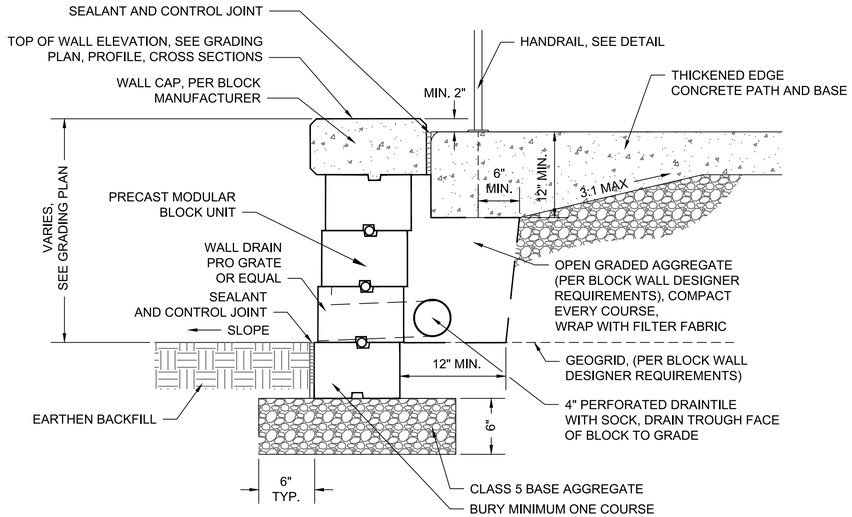


NOTES:

1. SLOPE WALL TERMINALS NECESSARY TO BLEND INTO ADJACENT TERRAIN.
2. FINAL BLOCK WALL AND SUBDRAINAGE DESIGN TO BE SUBMITTED BY WALL MANUFACTURER.

TABLE OF EXTERNAL STABILITY SAFETY FACTORS	
SLIDING	≥ 1.5
OVERTURNING	≥ 2.0
GEOGRID LONG TERM STRENGTH	≥ 1.5
GEOGRID CONNECTION STRENGTH	≥ 1.5
GLOBAL ROTATION	≥ 1.3
BEARING CAPACITY	≥ 2.0

3 C502 SOUTH SEGMENTAL RETAINING WALL DETAIL
NO SCALE



NOTES:

1. SLOPE WALL TERMINALS NECESSARY TO BLEND INTO ADJACENT TERRAIN.
2. FINAL BLOCK WALL AND SUBDRAINAGE DESIGN TO BE SUBMITTED BY WALL MANUFACTURER.

TABLE OF EXTERNAL STABILITY SAFETY FACTORS	
SLIDING	≥ 1.5
OVERTURNING	≥ 2.0
GEOGRID LONG TERM STRENGTH	≥ 1.5
GEOGRID CONNECTION STRENGTH	≥ 1.5
GLOBAL ROTATION	≥ 1.3
BEARING CAPACITY	≥ 2.0

4 C502 NORTH SEGMENTAL RETAINING WALL DETAIL
NO SCALE

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GENERAL DETAILS

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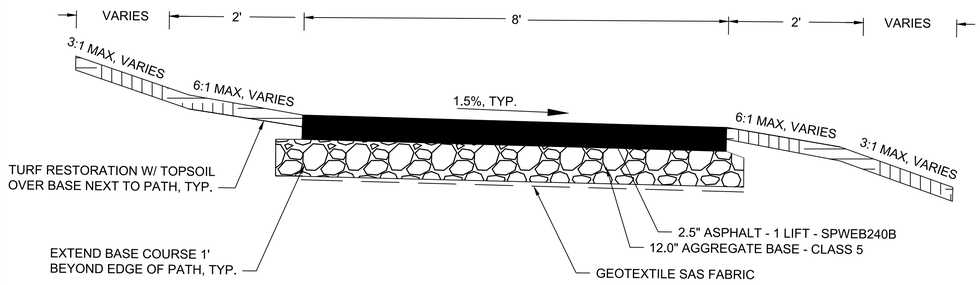
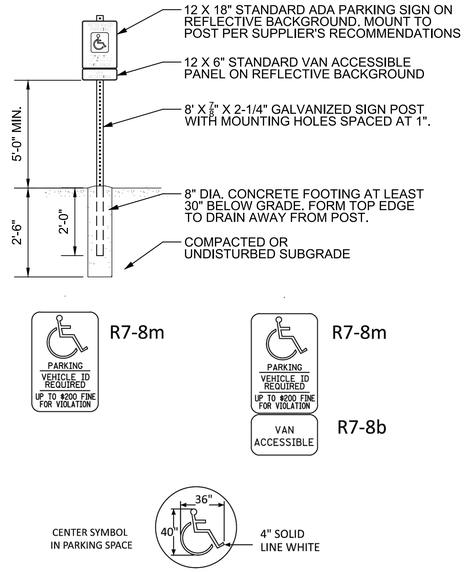
SHEET C502



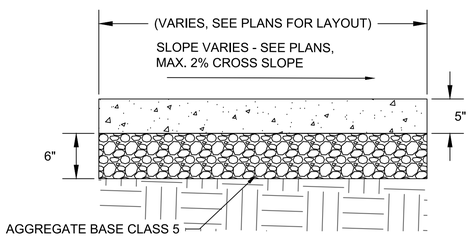
1 C503 ASPHALT MULTI-USE PATH DETAIL

NTS



2 C503 ADA PAVEMENT MARKINGS AND SIGNAGE

NTS



NOTES:

1. ALL CONCRETE MULTI-USE PATH OR SIDEWALK SHALL NOT EXCEED A 2% CROSS SLOPE OR 5% LONGITUDINAL SLOPE.

4 C503 TYPICAL CONCRETE MULTI-USE PATH/SIDEWALK DETAIL

NTS

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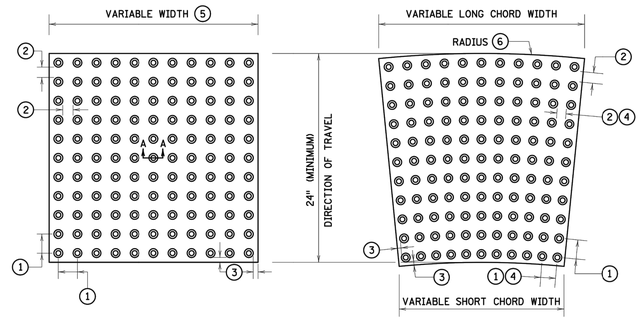

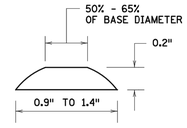

SECTION A-A
TRUNCATED DOME

TYPICAL RADIAL TRUNCATED DOME PLATES			
RADIUS (FEET) (7)	LONG CHORD WIDTH (INCHES)	SQUARE FEET PER PLATE	PLATES REQUIRED FOR 90 DEGREE TURN
10	23 1/2	3.53	8
15	18 13/16	2.93	15
15	23 1/2	3.67	12
20	18 13/16	3.00	20
20	18 7/8	2.98	20
25	20 1/2	3.28	23
25	23 9/16	3.77	20
30	22 5/8	3.65	25
35	22	3.56	30

NOTES:

DETECTABLE WARNING SURFACES SHALL FOLLOW THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).

DETECTABLE WARNINGS CONSIST OF TRUNCATED DOMES ALIGNED IN A SQUARE OR RADIAL GRID PATTERN.

DETECTABLE WARNINGS ARE REQUIRED:
- -WHERE RAMPS, LANDINGS, OR BLENDED TRANSITIONS PROVIDE A FLUSH PEDESTRIAN CONNECTION TO THE ROADWAY.
- -WHERE PEDESTRIAN ACCESS ROUTES CROSS COMMERCIAL DRIVEWAYS THAT ARE PROVIDED WITH TRAFFIC CONTROL DEVICES OR OTHERWISE PERMITTED TO OPERATE LIKE A PUBLIC ROADWAY.
- -AT PEDESTRIAN RAILWAY CROSSINGS.
- -ON RAIL PLATFORMS WHERE BOARDING EDGES ARE NOT PROTECTED.

DETECTABLE WARNINGS SHALL EXTEND:
- -A MINIMUM OF 24" IN THE DIRECTION OF TRAVEL.
- -THE FULL WIDTH OF THE RAMP, LANDING, OR BLENDED TRANSITION, WITHIN 3" OF FULL WIDTH ON EITHER END.
- -THE FULL LENGTH OF THE PUBLIC USE AREA OF A RAIL PLATFORM.

DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT GUTTER, ROADWAY, OR WALKWAY, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. CONTRAST MAY BE PROVIDED ON THE FULL RAMP SURFACE, EXCLUDING THE FLARED SIDES.

FOR MNDOT PROJECTS, SEE MNDOT'S APPROVED/QUALIFIED PRODUCT LISTS.

ALL TRUNCATED DOME SYSTEMS SHALL BE PLACED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER.

(1) CENTER-TO-CENTER DOME SPACING: 1.6" MINIMUM, 2.4" MAXIMUM.
(2) BASE-TO-BASE DOME SPACING: 0.65" MINIMUM.
(3) DOME BASE TO PLATE EDGE SPACING: 0.35" MINIMUM, 0.75" MAXIMUM.
(4) SPACING VARIES ON RADIAL PLATES.
(5) TYPICAL WIDTHS AVAILABLE: 12", 18", 24", 30", 36". CHECK WITH MANUFACTURERS FOR AVAILABLE WIDTHS.
(6) ON RADIAL PLATE, RADIUS DEFINED AT BACK OF CURB.
(7) TYPICAL RADII. CHECK WITH MANUFACTURERS FOR AVAILABLE RADII.

APPROVED AUGUST 23, 2010 STATE DESIGN ENGINEER	STATE OF MINNESOTA DEPARTMENT OF TRANSPORTATION DETECTABLE WARNING SURFACE TRUNCATED DOMES	SPECIFICATION REFERENCE 2531 2563 REVISED 01-09-2020 M.J.E.	STANDARD PLATE NO. 7038A

3 C503 DETECTABLE WARNING FIELD DETAIL

NO SCALE

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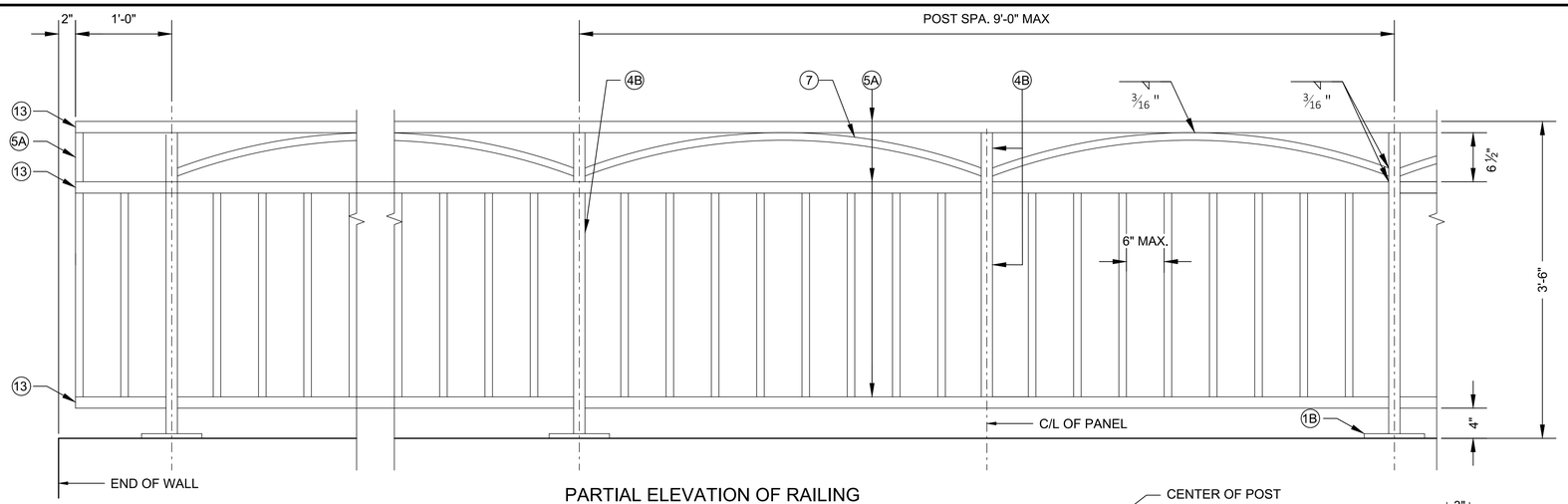
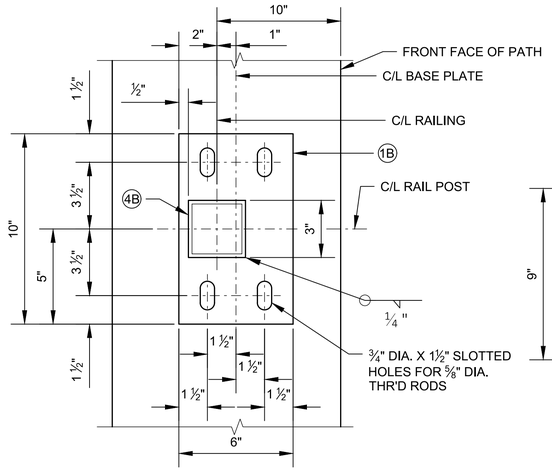
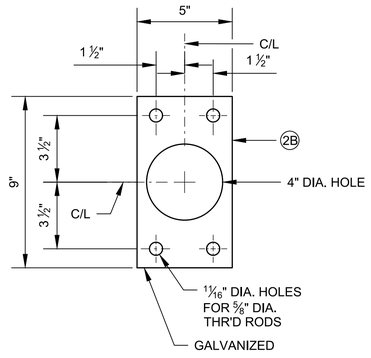


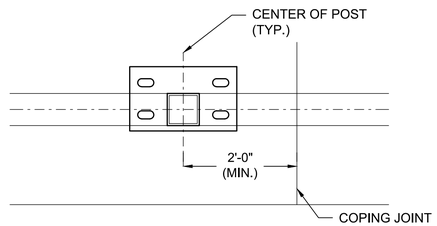
PARTIAL ELEVATION OF RAILING
NO SCALE



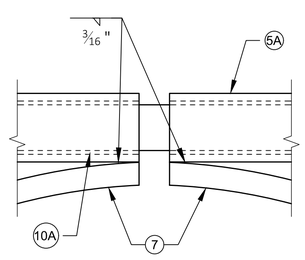
TYPICAL RAIL POST BASE PLATE



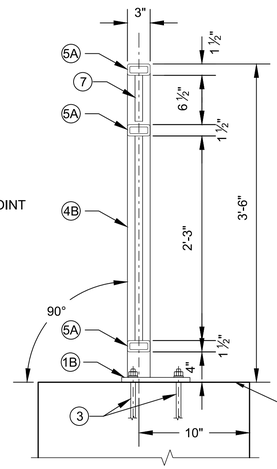
ANCHOR PLATE



RAILING AT EXPANSION JOINT



CURVED MEMBER JOINT DETAIL



SECTION THRU RAILING

LEGEND:

- (1B) PLATE 5/8" X 6" X 10" WITH 3/4 " X 1 1/2 " SLOTTED HOLES.
- (2B) 1/4" X 5" X 9" ANCHOR PLATE WITH 1 1/16" DIA. HOLES FOR THR'D RODS NO. 3.
- (3) 5/8" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 5/8-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. ADHESIVE ANCHORS SHALL CONFORM TO PROJECT MANUAL SPECIFICATIONS.
- (4B) STRUCTURAL TUBING 3" X 3" X 3/16 ". PLACE VERTICAL. WELD TO NO. 1 & 5.
- (5A) STRUCTURAL TUBING 3" X 1 1/2" X 3/16 " RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- (6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. SPACE AT 6" MAX. C/L TO C/L. PLACE VERTICAL.
- (7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.
- (9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- (10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.)
- (13) PLATE 1/4" X 3" X 1 1/2" WELD TO NO. 5.

NOTES:

BID ITEM SHALL BE "HANDRAILS AND RAILINGS", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL PLATES, BARS, AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

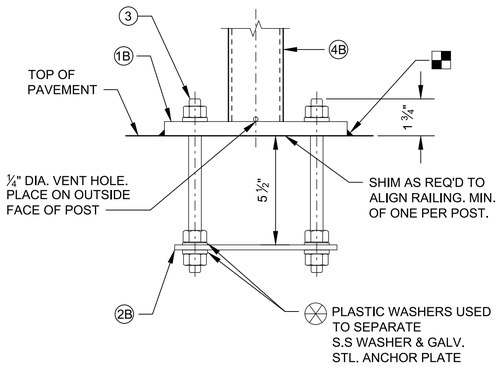
ALL JOINTS AND RECESSES IN CONCRETE COPING ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING SHALL BE PAINTED AMS STD. COLOR NO. 27038, BLACK.

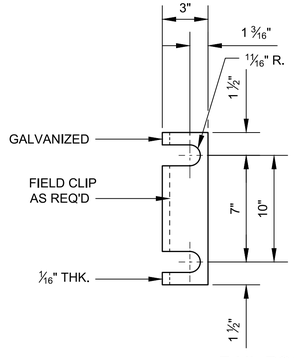
VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

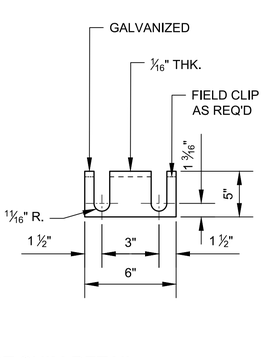
TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



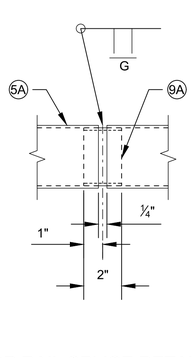
ANCHORAGE FOR RAIL POSTS
NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

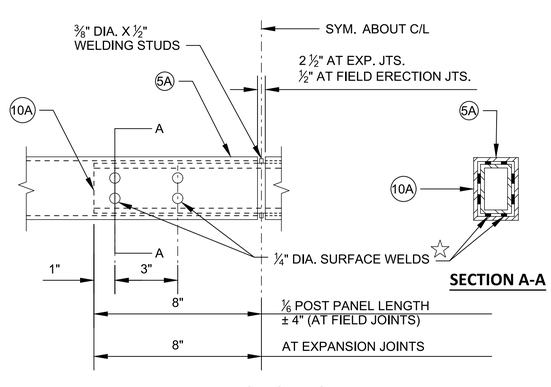


RAIL POST SHIM DETAIL
(2 SETS PER POST)



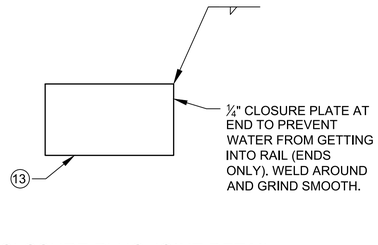
SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)





SECTION A-A

FIELD ERECTION JOINT DETAIL
☆ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



CLOSURE PLUG JOINT DETAIL

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	CHECKED BY: RG	.	.		

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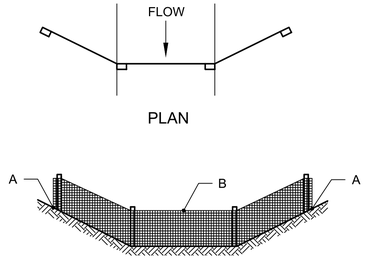
HENNEPIN COUNTY, MINNESOTA

RAILING DETAILS

PROJECT NO. 12021001

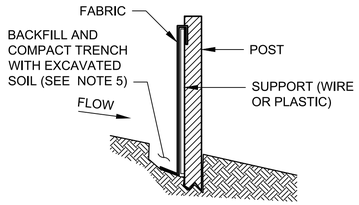
SHEET C504



PLAN

POINTS A SHALL BE HIGHER THAN POINT B.

SECTION



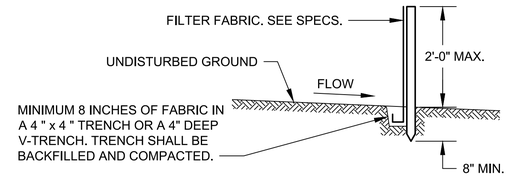
TRENCH DETAIL

GENERAL NOTES:

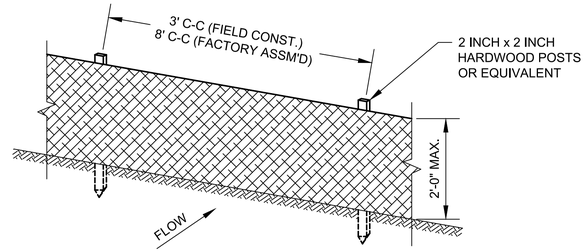
1. DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
2. WHEN POSSIBLE THE SILT FENCE SHOULD BE CONSTRUCTED IN AN ARC OR HORSESHOE SHAPE, WITH THE ENDS POINTING UPSLOPE TO MAXIMIZE BOTH STRENGTH AND EFFECTIVENESS.
3. CROSS BRACE WITH 2 INCH BY 4 INCH WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS AS DIRECTED BY THE ENGINEER.
4. MINIMUM 14 GAGE WIRE REQUIRED, FOLD FABRIC 3 INCHES OVER THE WIRE AND STAPLE OR PLACE WIRE RINGS 12 INCHES O.C.
5. EXCAVATE A TRENCH A MINIMUM OF 4 INCHES WIDE AND 6 INCHES DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD THE MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
6. WIRE SUPPORT FENCE SHALL BE 14 GAGE MINIMUM WOVEN WIRE WITH A MAXIMUM MESH SPACING OF 6 INCHES, SECURE TOP OF GEOTEXTILE FABRIC TO TOP OF FENCE WITH STAPLES OR WIRE RINGS AT 12 INCHES O.C.
7. GEOTEXTILE FABRIC SHALL BE REINFORCED WITH AN INDUSTRIAL POLYPROPYLENE NETTING WITH A MAXIMUM MESH SPACING OF 3/4 INCH OR EQUAL. A HEAVY DUTY NYLON TOP SUPPORT CORD OR EQUIVALENT IS REQUIRED.
8. STEEL POSTS SHALL BE STUDDED "TEE" OR "U" TYPE WITH A MINIMUM WEIGHT OF 1.28 LBS./LIN. FT. (WITHOUT ANCHOR). FIN ANCHORS SUFFICIENT TO RESIST POST MOVEMENT ARE REQUIRED. WOOD POSTS SHALL BE 4 INCH IN DIAMETER OR 1- 1/2 INCH BY 3- 1/2 INCH EXCEPT WOOD POSTS FOR GEOTEXTILE FABRIC REINFORCED WITH NETTING SHALL BE A MINIMUM OF 1- 1/8 INCH BY 1- 1/8 INCH OAK OR HICKORY.

1 C505 TYPICAL SILT FENCE INSTALLATION AT DRAINAGE WAYS DETAIL

NTS



SECTION

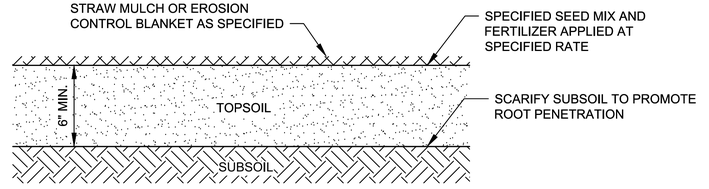


PERSPECTIVE VIEW

GENERAL NOTES:
1. ENDS OF FENCE SHALL BE TURNED UPSLOPE 1 TO 2 FEET IN ELEVATION TO PREVENT FLANKING.
2. STAPLE FABRIC WITH 1/2 INCH (MINIMUM) STAPLES TO THE UPSLOPE SIDE OF THE POSTS.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.

2 C505 TYPICAL SILT FENCE INSTALLATION AT SITE PERIMETER DETAIL

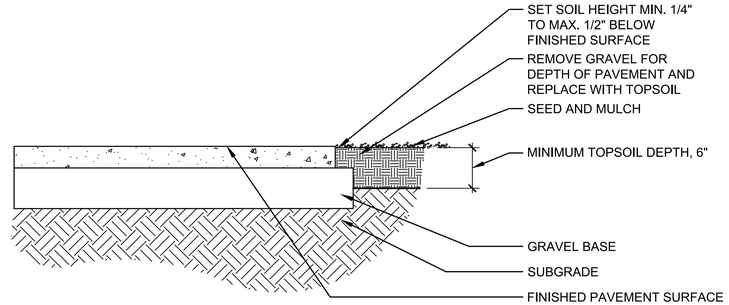
NTS



NOTE: WHERE REQUIRED, PLANT HERBACEOUS PLUGS ACCORDING TO PLAN, OR AS DIRECTED BY ENGINEER.

3 C505 TOPSOIL AND SEEDING DETAIL

NTS



4 C505 SEEDING ALONG PAVEMENT DETAIL

NTS

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ELSIE STEPHENS CANOE/KAYAK LAUNCH
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

EROSION CONTROL DETAILS

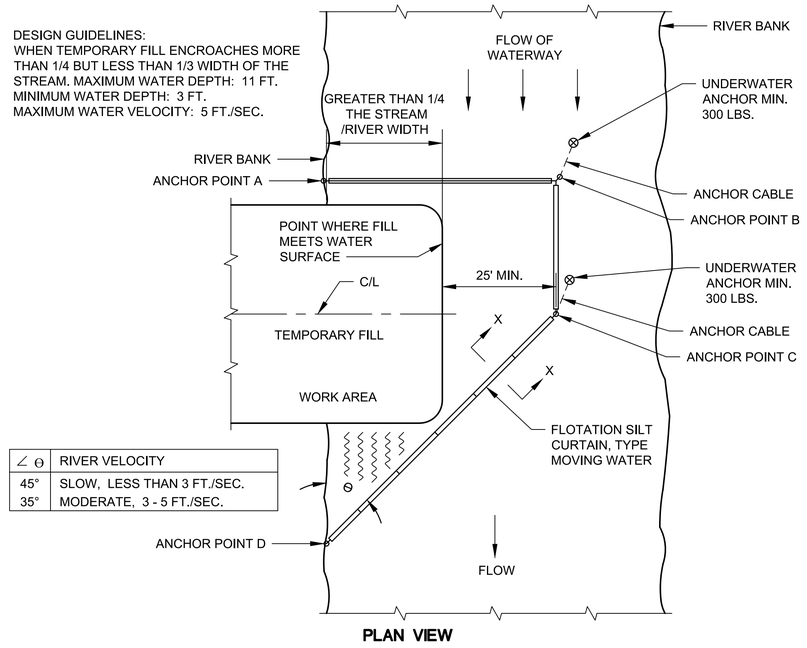
PROJECT NO. 12021001

SHEET C505

CONSTRUCTION SITE
EROSION CONTROL REQUIREMENTS

1. THE PROJECT'S MPCA SWPPP IDENTIFIES REQUIREMENTS FOR CONSTRUCTION SITE AND POST-CONSTRUCTION EROSION CONTROL. IT IS THE INTENT OF THESE PLANS TO SATISFY THESE REQUIREMENTS. THE METHODS AND STRUCTURES USED TO CONTROL EROSION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL IMPLEMENT AN APPROPRIATE MEANS OF CONTROLLING EROSION DURING SITE OPERATION AND UNTIL THE VEGETATION IS RE-ESTABLISHED. ADJUSTMENTS TO THE CONTROL SYSTEM SHALL BE MADE AS REQUIRED.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE WISCONSIN DNR'S CONSERVATION PRACTICE STANDARDS. THESE STANDARDS ARE PERIODICALLY UPDATED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND REFERENCE THE MOST RECENTLY RELEASED STANDARD.
3. THIS INFORMATION IS ONLY ONE PART OF THE OVERALL EROSION CONTROL REQUIREMENTS. ADDITIONAL REQUIREMENTS MAY ALSO BE SHOWN ON THE CONTRACT DRAWINGS AND IN THE ACCOMPANYING SPECIFICATIONS.
4. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE OWNER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.
5. THE AREA OF EROSIVE LAND EXPOSED TO THE ELEMENTS BY GRUBBING, EXCAVATION, TRENCHING, BORROW AND FILL OPERATIONS AT ANY ONE TIME SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. FOR ANY DISTURBED AREA THAT REMAINS INACTIVE FOR GREATER THAN 7 WORKING DAYS, OR WHERE GRADING WORK EXTENDS BEYOND THE PERMANENT SEEDING DEADLINES, THE SITE MUST BE TREATED WITH TEMPORARY STABILIZATION MEASURES SUCH AS SOIL TREATMENT, TEMPORARY SEEDING AND/OR MULCHING. ALL DISTURBED AREAS SHALL BE TREATED WITH PERMANENT STABILIZATION MEASURES WITHIN 3 WORKING DAYS OF FINAL GRADING.
6. ALL EROSION CONTROL MEASURES AND STRUCTURES SERVING THE SITE MUST BE INSPECTED AT LEAST WEEKLY OR WITHIN 24 HOURS OF THE TIME 0.5 INCHES OF RAIN HAS OCCURRED. ALL NECESSARY REPAIR AND MAINTENANCE WILL BE DONE AT THIS INSPECTION TIME.
7. ALL EROSION CONTROL DEVICES AND/OR STRUCTURES SHALL BE PROPERLY INSTALLED PRIOR TO CLEARING AND GRUBBING OPERATIONS WITHIN THEIR RESPECTIVE DRAINAGE AREAS. THESE SHALL BE PROPERLY MAINTAINED FOR MAXIMUM EFFECTIVENESS UNTIL VEGETATION IS RE-ESTABLISHED.
8. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY INSTALLED PRIOR TO ANY SOIL DISTURBANCE.
9. ANY SLOPES STEEPER THAN 3H:1V SHALL BE STAKED WITH EROSION CONTROL FABRIC UNLESS INDICATED ON THE PLAN.
10. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED OF AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
11. WIND EROSION SHALL BE KEPT TO A MINIMUM DURING CONSTRUCTION. WATERING, MULCH, OR A TACKING AGENT MAY BE REQUIRED TO PROTECT NEARBY RESIDENCES AND WATER RESOURCES.
12. CHANNELIZED RUNOFF ENTERING THE PROJECT SITE FROM ADJOINING LANDS SHALL BE DIVERTED THROUGH NATURALLY OR ARTIFICIALLY EROSION-RESISTANT CONVEYANCES. IF CHANNELIZED RUNOFF CANNOT BE DIVERTED, SITE BEST MANAGEMENT PRACTICES MUST ACCOUNT FOR THE ADDITIONAL FLOW RATES AND EROSION POTENTIAL THAT SUCH RUNOFF PRESENTS.
13. THE CONTRACTOR SHALL TAKE ALL POSSIBLE PRECAUTIONS TO PREVENT SOILS FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. PAVED SURFACES ADJACENT TO CONSTRUCTION SITE VEHICLE ACCESS SHALL BE SWEPT AND/OR SCRAPED (NOT FLUSHED) PERIODICALLY TO REMOVE SOIL, DIRT, AND/OR DUST.
14. EROSION CONTROLS SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF TEMPORARY STOCKPILES. ANY SOIL STOCKPILE THAT REMAINS FOR MORE THAN 30 DAYS SHALL BE COVERED OR TREATED WITH STABILIZATION PRACTICES SUCH AS TEMPORARY OR PERMANENT SEEDING AND MULCHING. ALL STOCK PILES SHALL BE PLACED AT LEAST 75 FEET FROM STREAMS OR WETLANDS.
15. ADDITIONAL EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, SANITARY SEWER, WATER MAIN, ETC.) SHALL INCLUDE THE FOLLOWING:
    a. PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
    b. BACKFILL, COMPACT, AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
    c. DISCHARGE OF TRENCH WATER OR DEWATERING EFFLUENT MUST BE PROPERLY TREATED TO REMOVE SEDIMENT IN ACCORDANCE WITH THE WDNR CONSERVATION PRACTICE STANDARD 1061 - DEWATERING OR A SUBSEQUENT WDNR DEWATERING STANDARD PRIOR TO DISCHARGE INTO A STORM SEWER, DITCH, DRAINAGEWAY, OR WETLAND OR LAKE.
16. ALL DRAINAGE CULVERTS, STORM DRAIN INLETS, MANHOLES, OR ANY OTHER EXISTING STRUCTURES THAT COULD BE DAMAGED BY SEDIMENTATION SHALL BE PROTECTED ACCORDING TO THE VARIOUS METHODS PROVIDED IN THE PRINTED CONSERVATION PRACTICE STANDARDS.
17. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
18. THE FIRST SIX WEEKS AFTER INITIAL STABILIZATION, ALL NEWLY SEEDED AND MULCHED AREAS SHALL WATERED WHENEVER 7 DAYS ELAPSE WITHOUT A RAIN EVENT.
19. WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY BMP'S SUCH AS SILT FENCES, STRAW BALES, AND SEDIMENT TRAPS SHALL BE REMOVED AND THESE AREAS STABILIZED.
20. ALL TEMPORARY BEST MANAGEMENT PRACTICES SHALL BE MAINTAINED UNTIL THE SITE IS STABILIZED.
21. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED WITH SEED AND MULCH UNLESS OTHERWISE SPECIFIED. A MINIMUM OF SIX INCHES OF TOPSOIL SHALL BE APPLIED TO ALL AREAS TO BE SEEDED OR SODDED.

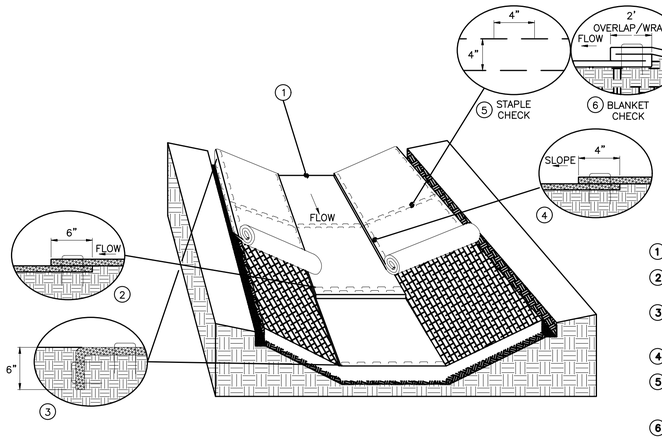
DESIGN GUIDELINES:
WHEN TEMPORARY FILL ENCROACHES MORE THAN 1/4 BUT LESS THAN 1/3 WIDTH OF THE STREAM. MAXIMUM WATER DEPTH: 11 FT.
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.



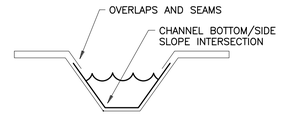
∠ Θ	RIVER VELOCITY
45°	SLOW, LESS THAN 3 FT./SEC.
35°	MODERATE, 3 - 5 FT./SEC.

PLAN VIEW

1 C506 FLOTATION SILT CURTAIN - TYPE MOVING WATER
NTS (MNDOT SPEC. 3887)



DITCH BLANKET STAPLE DETAIL



DITCH BLANKET CRITICAL POINTS (7)

NOTES:

1. USE CHECK SLOT DETAIL (NO ALTERNATES).
2. PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER.
3. USE 6" X 6" TRENCH TO PLACE BLANKET. PLACE SINGLE ROW OF STAPLES ON TOP AND TRENCH SIDES AT 12" SPACING. BACKFILL TRENCH WITH SOIL AND TAMP.
4. PLACE SINGLE ROW OF STAPLES AT 12" SPACING.
5. USE STAPLE CHECK FOR CHANNEL SLOPES LESS THAN 2.5%. GRADE AT 100' INTERVALS. PLACE DOUBLE ROW OF STAPLES STAGGERED 4" APART AND AT 4" SPACING.
6. USE BLANKET CHECKS FOR THE FOLLOWING SLOPES:
   2.5%–3% 100' INTERVALS
   3%–5% 50' INTERVALS
   5%–7% 25' INTERVALS
7. CRITICAL POINTS SHALL BE SECURED WITH PROPER STAPLE PATTERNS.

2 C506 EROSION CONTROL BLANKET DETAIL
NTS

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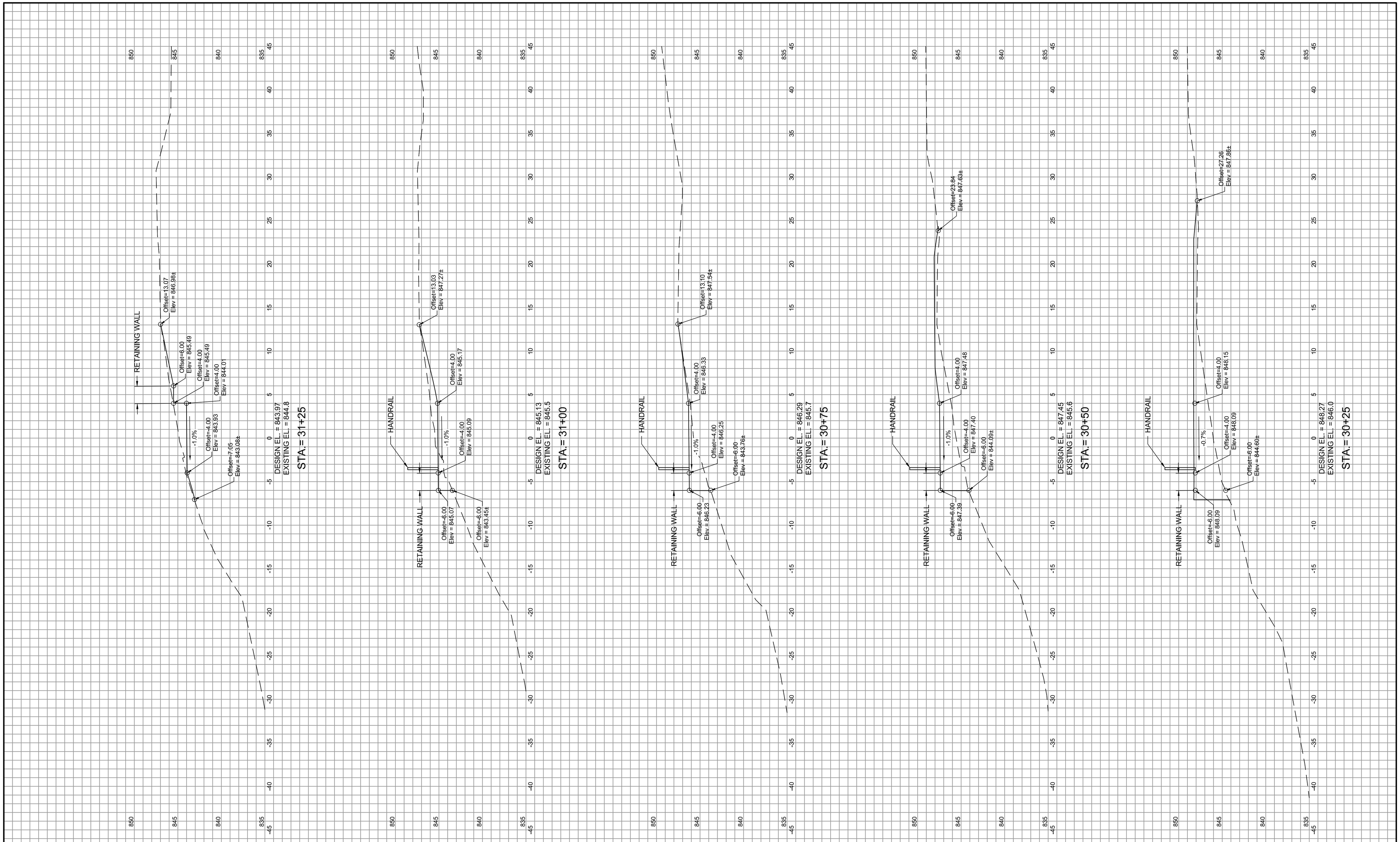
EROSION CONTROL DETAILS

PROJECT NO. 12021001
SHEET C506



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	DESIGNED BY: CMM	.	.		.
	CHECKED BY: RG	.	.		.

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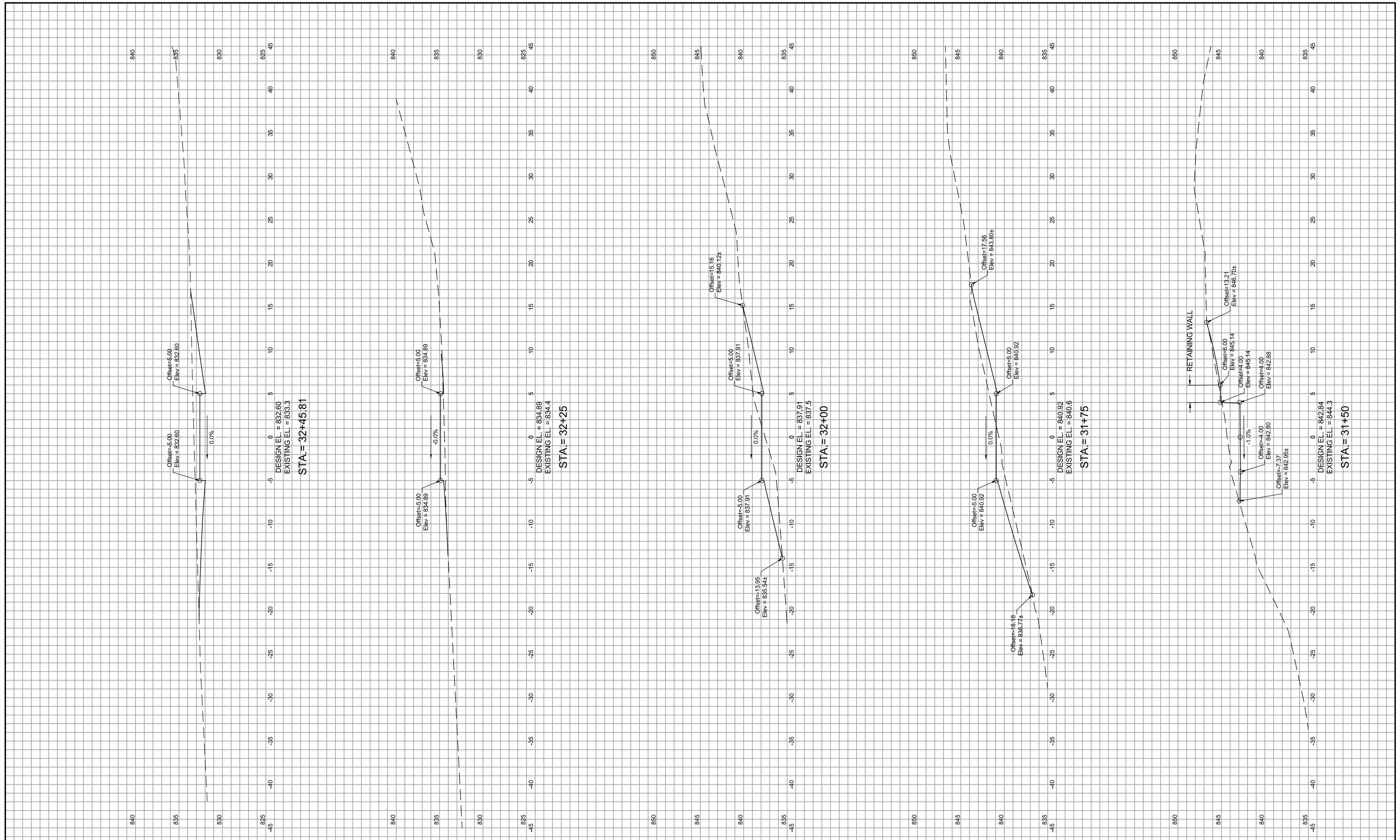
ELSIE STEPHENS CANOE/KAYAK LAUNCH
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

SECTION VIEW

PROJECT NO. 12021001

SHEET C507



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	DESIGNED BY: CMM	.	.	.	.
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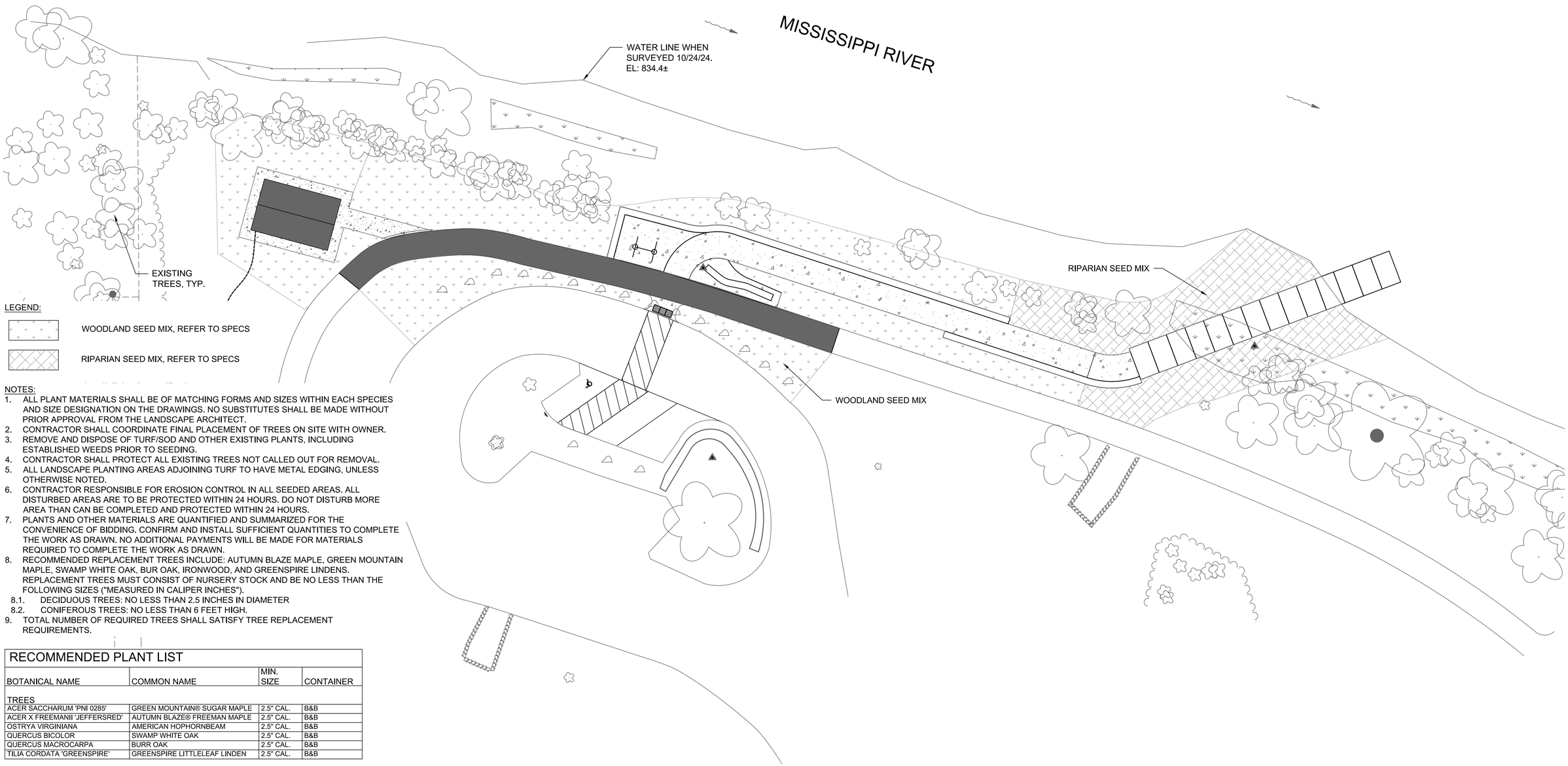

LEGEND:

- WOODLAND SEED MIX, REFER TO SPECS
- RIPARIAN SEED MIX, REFER TO SPECS

NOTES:

1. ALL PLANT MATERIALS SHALL BE OF MATCHING FORMS AND SIZES WITHIN EACH SPECIES AND SIZE DESIGNATION ON THE DRAWINGS. NO SUBSTITUTES SHALL BE MADE WITHOUT PRIOR APPROVAL FROM THE LANDSCAPE ARCHITECT.
2. CONTRACTOR SHALL COORDINATE FINAL PLACEMENT OF TREES ON SITE WITH OWNER.
3. REMOVE AND DISPOSE OF TURF/SOD AND OTHER EXISTING PLANTS, INCLUDING ESTABLISHED WEEDS PRIOR TO SEEDING.
4. CONTRACTOR SHALL PROTECT ALL EXISTING TREES NOT CALLED OUT FOR REMOVAL.
5. ALL LANDSCAPE PLANTING AREAS ADJOINING TURF TO HAVE METAL EDGING, UNLESS OTHERWISE NOTED.
6. CONTRACTOR RESPONSIBLE FOR EROSION CONTROL IN ALL SEEDED AREAS. ALL DISTURBED AREAS ARE TO BE PROTECTED WITHIN 24 HOURS. DO NOT DISTURB MORE AREA THAN CAN BE COMPLETED AND PROTECTED WITHIN 24 HOURS.
7. PLANTS AND OTHER MATERIALS ARE QUANTIFIED AND SUMMARIZED FOR THE CONVENIENCE OF BIDDING. CONFIRM AND INSTALL SUFFICIENT QUANTITIES TO COMPLETE THE WORK AS DRAWN. NO ADDITIONAL PAYMENTS WILL BE MADE FOR MATERIALS REQUIRED TO COMPLETE THE WORK AS DRAWN.
8. RECOMMENDED REPLACEMENT TREES INCLUDE: AUTUMN BLAZE MAPLE, GREEN MOUNTAIN MAPLE, SWAMP WHITE OAK, BUR OAK, IRONWOOD, AND GREENSPIRE LINDENS. REPLACEMENT TREES MUST CONSIST OF NURSERY STOCK AND BE NO LESS THAN THE FOLLOWING SIZES ("MEASURED IN CALIPER INCHES").
   - 8.1. DECIDUOUS TREES: NO LESS THAN 2.5 INCHES IN DIAMETER
   - 8.2. CONIFEROUS TREES: NO LESS THAN 6 FEET HIGH.
9. TOTAL NUMBER OF REQUIRED TREES SHALL SATISFY TREE REPLACEMENT REQUIREMENTS.

RECOMMENDED PLANT LIST

BOTANICAL NAME	COMMON NAME	MIN. SIZE	CONTAINER
TREES			
ACER SACCHARUM 'PNI 0285'	GREEN MOUNTAIN® SUGAR MAPLE	2.5" CAL.	B&B
ACER X FREEMANII 'JEFFERSRED'	AUTUMN BLAZE® FREEMAN MAPLE	2.5" CAL.	B&B
OSTRYA VIRGINIANA	AMERICAN HOPHORNBEAM	2.5" CAL.	B&B
QUERCUS BICOLOR	SWAMP WHITE OAK	2.5" CAL.	B&B
QUERCUS MACROCARPA	BURR OAK	2.5" CAL.	B&B
TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	2.5" CAL.	B&B

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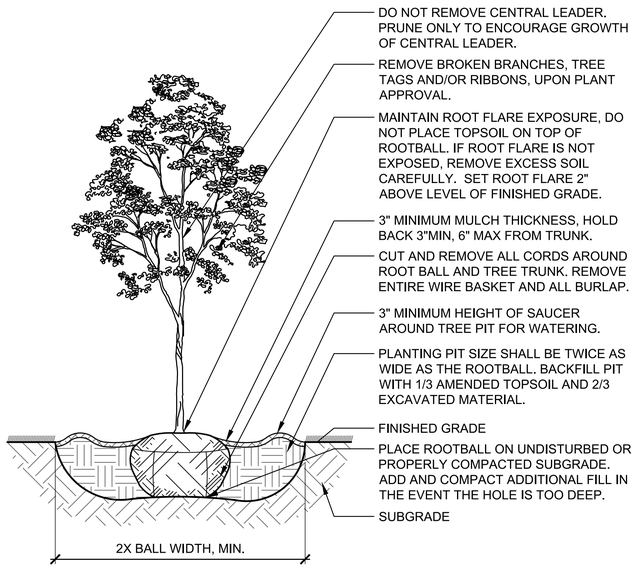
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

LANDSCAPE PLAN

PROJECT NO. 12021001

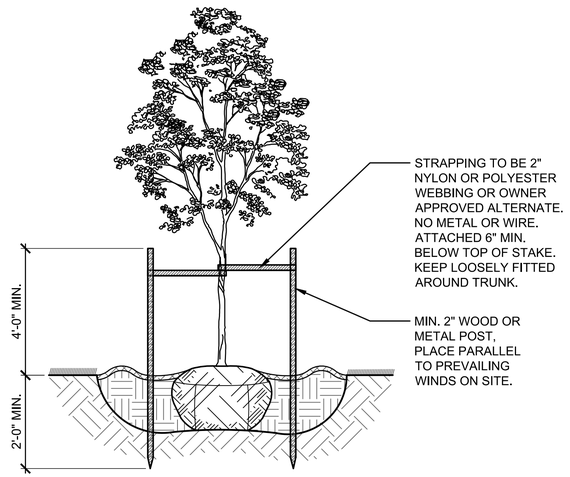
SHEET L101

NOTE:
1. REMOVE AND PROPERLY DISPOSE OF ANY EXCESS EXCAVATED MATERIAL
2. WRAP TRUNK WITH APPROVED TREE WRAP UP TO FIRST BRANCH. (FALL PLANTING REQUIREMENT).

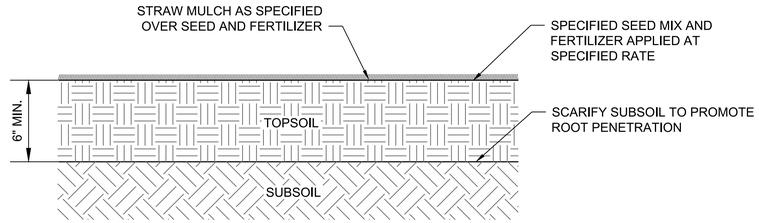


1 L901 DECIDUOUS TREE PLANTING
NTS

NOTE:
1. REMOVE AND PROPERLY DISPOSE OF ANY EXCESS EXCAVATED MATERIAL
2. WRAP TRUNK WITH APPROVED TREE WRAP UP TO FIRST BRANCH. (FALL PLANTING REQUIREMENT).



2 L901 DECIDUOUS TREE STAKING
NTS



3 L901 TOPSOIL AND SEEDING
NTS

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HENNEPIN COUNTY, MINNESOTA

LANDSCAPE DETAILS

PROJECT NO. 12021001
SHEET L901

TREE REPLACEMENT TABLE

TREE ID	SIZE (DBH)	REPLACEMENT VALUE (DBH)	SPECIES	CONDITIONS
1237	8	16	ASH	
1239	6	12	ASH	
1240	9	0	ASH	POOR
1241	10	0	ASH	POOR
1242	12	0	ASH	DEAD
1243	12	0	HACKBERRY	POOR
1244	18	36	HACKBERRY	
1245	14	28	ASH	
1249	7	14	HACKBERRY	
1250	12	24	HACKBERRY	
1251	8	16	HACKBERRY	
1252	8	16	HACKBERRY	
1253	18	36	HACKBERRY	
1254	9	18	HACKBERRY	
1255	15	30	HACKBERRY	
1315	9	0	HACKBERRY	DEAD
1316	9	18	HACKBERRY	
1317	9	18	HACKBERRY	
1318	12	24	HACKBERRY	
1319	12	24	HACKBERRY	
1320	6	12	HACKBERRY	
1322	6	12	HACKBERRY	
1323	9	18	HACKBERRY	
1324	18	0	HACKBERRY	POOR
1326	8	16	HACKBERRY	
1327	10	20	HACKBERRY	
1330	12	0	HACKBERRY	POOR
1331	7	14	HACKBERRY	
1332	12	24	HACKBERRY	
1333	6	0	HACKBERRY	POOR
1335	14	28	HACKBERRY	
1337	10	20	HACKBERRY	
1348	9	0	ASH	DEAD
TOTAL (DBH)	344	494		

NOTES:
1. FOR EVERY 1" CALIPER OF HEALTHY TREES REMOVED, THERE SHALL BE 2" CALIPER OF REPLACEMENT TREES. DEAD TREES AND TREES IN POOR CONDITION WILL NOT NEED TO BE REPLACED.
2. NO MORE THAN 1/4 OF THE REPLACEMENT TREES MAY BE FROM ANY ONE SPECIES AND SHALL BE SIMILAR TO THE VEGETATION FOUND ON SITE.
3. REPLACEMENT TREES.
4. REPLACEMENT TREES MUST CONSIST OF NURSERY STOCK AND BE NO LESS THAN THE: FOLLOWING SIZES (MEASURED IN CALIPER INCHES):
   A. DECIDUOUS TREES: NO LESS THAN 2.5 INCHES IN DIAMETER.
   B. CONIFEROUS TREES: NO LESS THAN 6 FEET HIGH.
5. ALL TREE CONDITIONS NOT SPECIFICALLY NOTED WERE ASSUMED TO BE FAIR GIVEN LIMITED OBSERVATION. THIS SHALL NOT BE CONSIDERED A COMPREHENSIVE EVALUATION OF TREE HEALTH.

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	DESIGNED BY:	CMM	.	.		.
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HENNEPIN COUNTY, MINNESOTA

TREE REPLACEMENT PLAN

PROJECT NO. 12021001

SHEET L201

DESIGN LOADS AND CRITERIA

BUILDING CODE.....2020 MINNESOTA BUILDING CODE, REFERS TO IBC 2018
BUILDING RISK CATEGORY.....II

WIND LOADS*

BASIC WIND SPEED..... 109 MPH
WIND IMPORTANCE FACTOR, Iw..... 1.0
WIND EXPOSURE..... C
PER ASCE 7-16, DIRECTIONAL PROCEDURE (OPEN BUILDING)
MAIN WIND FORCE RESISTING SYSTEM
INTERNAL PRESSURE COEFFICIENT 0.0
EXTERNAL PRESSURE COEFFICIENT ..... +/- 1.1

ADDITIONAL LOADS

ROOF DEAD LOAD.....12 PSF (ASSUMED)

SEISMIC DESIGN DATA

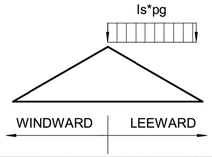
SEISMIC IMPORTANCE FACTOR, Ie..... 1.0
SEISMIC DESIGN CATEGORY..... A
SEISMIC SITE CLASS..... D (PRESUMED)
ANALYSIS PROCEDURE..... EQUIVALENT LATERAL FORCE
MAPPED SPECTRAL RESPONSE ACCELERATIONS
Ss..... 0.0480
S1..... 0.0250
SPECTRAL RESPONSE COEFFICIENTS
Sds..... 0.051
Sd1..... 0.040
SEISMIC FORCE-RESISTING SYSTEM..... STEEL
SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
SEISMIC RESPONSE COEFFICIENT, Cs..... 0.010
RESPONSE MODIFICATION FACTOR, R..... 3.0

LIVE LOADS

ROOF LIVE LOAD (MINIMUM)..... 20 PSF
FLOOR LIVE LOAD..... 150 PSF, UNO

SNOW LOADS

GROUND SNOW LOAD, Pg..... 50 PSF
FLAT-ROOF SNOW LOAD, Pf..... 38 PSF
SNOW EXPOSURE FACTOR, Ce..... 0.9
SNOW IMPORTANCE FACTOR, Is..... 1.0
THERMAL FACTOR, Ct..... 1.2
SLOPED ROOF SNOW LOAD, Ps..... 38 PSF
MINIMUM SNOW LOAD, Pm..... 0 PSF
DESIGN SNOW LOAD..... 38 PSF
ROOF SLOPE FACTOR, Cs..... 1.0
UNBALANCED ROOF SNOW LOADS.....REFER TO DIAGRAM



UNBALANCED ROOF SNOW LOADS DIAGRAM

NOTE:
LOADS CAN OCCUR ON EITHER SIDE OF ROOF

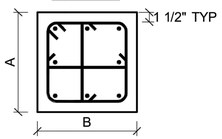
CONCRETE PIER SCHEDULE

KEY	SIZE (A x B)	TYPE	TOP ELEV. (UNO)	REINFORCING
P1	24" x 24"	1	99'-7"	(8) #5 VERTICAL DOWELS w/ #4 TIES AT 8" OC

GENERAL NOTES

1. SEE DETAIL 1/S101
2. ALL VERTICAL DOWELS SHALL BE FULL LENGTH AND EMBEDDED INTO FOOTING WITH STANDARD HOOK.

TYPE 1



DESIGN STRESSES

GEOTECHNICAL INFORMATION

NET ALLOWABLE SOIL BEARING PRESSURE.....q = 3000 PSF
GEOTECHNICAL REPORT No. 22-0663 PREPARED BY:
HAUGO GEOTECHNICAL SERVICES
DATED: 09/14/2022

REINFORCING STEEL

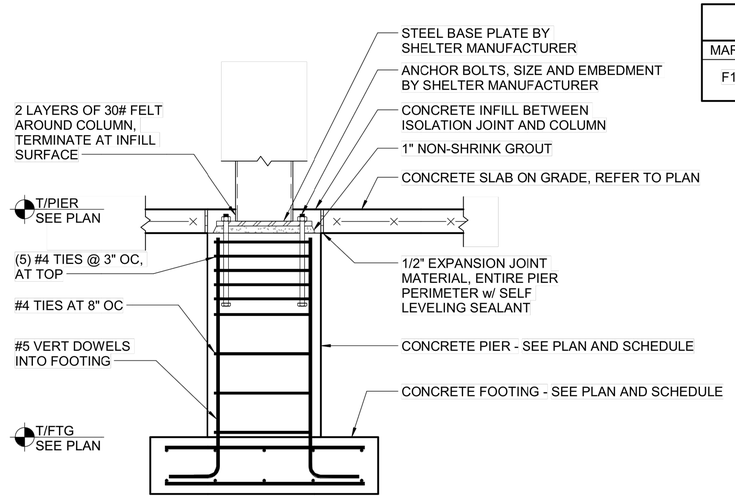
REINFORCING.....fy = 60 KSI

CAST-IN-PLACE CONCRETE

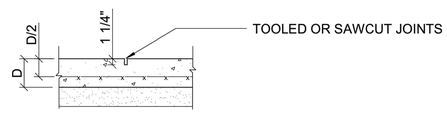
FOOTINGS..... f'c = 4000 PSI
WALLS..... f'c = 4000 PSI
SLAB-ON-GRADE..... f'c = 4000 PSI
OTHER..... f'c = 3500 PSI

ANCHORS

ANCHOR BOLTS..... F1554, GRADE 36
EXPANSION ANCHORS..... WEDGE TYPE

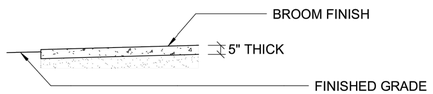


1 S101 **TYPICAL PIER DETAIL**
NO SCALE



CONTROL JOINT SECTION

NOTES:
1. 1/2 " PREFORMED EXPANSION JOINT FILLER INSTALLED AT MAX 24' OC AND AT BUTT JOINT WITH EXISTING STRUCTURES OR WALKS
2. CONTROL JOINTS - SPACING AS SHOWN ON CONCRETE PATIO SLAB PLAN UNLESS SHOWN OR NOTED OTHERWISE



TYPICAL SECTION

2 S101 **OPEN SHELTER SLAB CONTROL JOINT (CJ) DETAIL**
NO SCALE

FOOTING SCHEDULE

MARK	FOOTING SIZE	FOOTING REINFORCING	DETAIL
F1	5'-0" x 5'-0" 15" DEEP	(6) - # 5 BARS EACH WAY TOP & BOTTOM	1/S101

CONCRETE AND REINFORCING NOTES

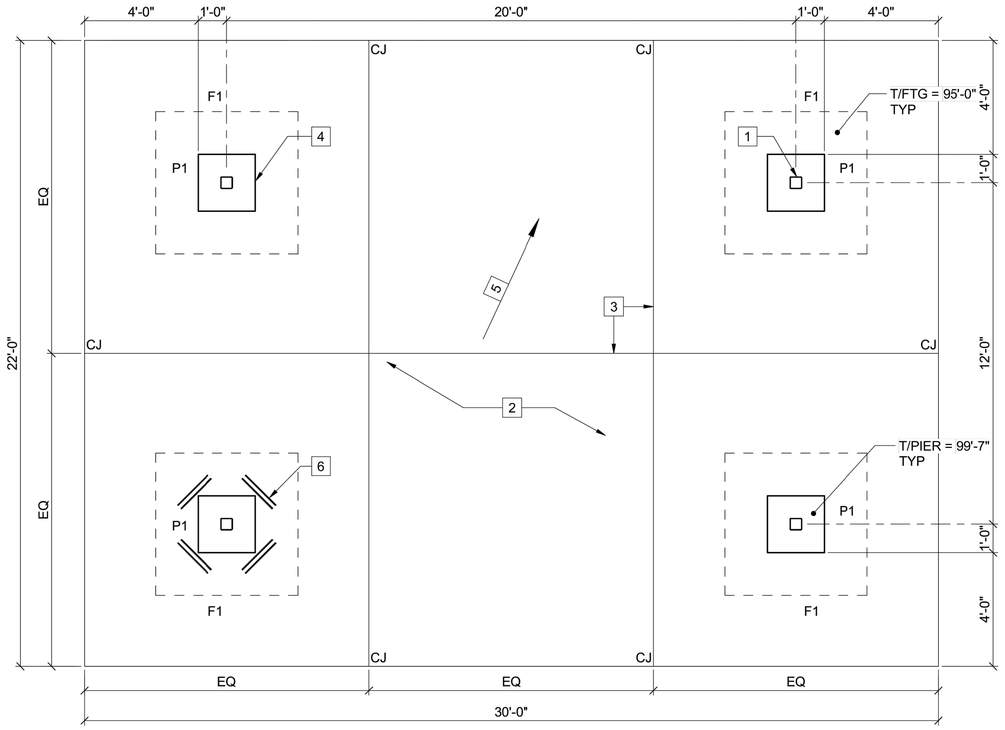
A. ALL LAPS SHALL BE CLASS 'B' PER ACI 318 CURRENT EDITION, UNO ON THE DESIGN DRAWINGS.
B. LAP LENGTH SHALL BE SPECIFICALLY NOTED BY DETAILER ON SHOP DRAWINGS WHEN MORE THAN ONE BAR MAKES UP A CONTINUOUS STRING. DETAILER SHALL PROVIDE STAGGERED LAPS FOR CONTINUOUS BAR RUNS. TOP BAR LAP LENGTHS SHALL BE USED FOR ALL HORIZONTAL WALL BARS AND FOR BARS IN SLABS WITH MORE THAN 12" OF CONCRETE BELOW THE LAP.
C. BAR PLACEMENT TOLERANCES SHALL BE AS SPECIFIED IN THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) MANUAL OF STANDARD PRACTICE, CURRENT EDITION.
D. ALL REINFORCING BAR LENGTHS ARE FROM OUT-TO-OUT OF BAR. ALL BEND ANGLES ARE AT 45° AND 90° UNO. BAR SPACINGS ARE ON-CENTER UNO.
E. DOWEL BAR HOOKS SHALL BE PLACED AT THE SAME HORIZONTAL LEVEL AS BOTTOM LAYER STEEL REINFORCING, UNO.

GENERAL FOUNDATION NOTES

A. CONTRACTOR TO COORDINATE STRUCTURAL, ARCHITECTURAL, SITE/CIVIL, HVAC, ELECTRICAL, AND PLUMBING PLANS FOR DETAILS, DIMENSIONS, ELEVATIONS, OPENINGS, INSERTS, ETC. NOTIFY ARCHITECT OF ANY VARIANCE BEFORE COMMENCING CONSTRUCTION. OBTAIN ASSOCIATED DRAWINGS OF ALL DISCIPLINES PRIOR TO STARTING WORK.
B. SEE DESIGN STRESSES TABLE ON SHEET S101
C. IN NO CASE SHALL STRUCTURAL ALTERATIONS OR WORK AFFECTING A STRUCTURAL MEMBER BE MADE, UNLESS APPROVED BY ENGINEER.
D. SIMILAR PORTIONS OF THE BUILDING SHALL HAVE SIMILAR DETAILING, UNLESS NOTED OTHERWISE.
E. FOOTINGS SHALL BE CENTERED ABOUT THE PIERS.
F. ALL WALL FORM TIES SHALL BE KNOCKED OFF FLUSH WITH THE FACE OF THE WALL AT INTERIOR AND EXTERIOR FACE OF WALLS. AT TIES BELOW THE FINISHED FLOOR AND/OR FINISHED GRADE PROVIDE A LAYER OF DAMPPROOFING PRODUCT OVER THE REMOVED TIE AREA, TYP
G. REFER TO SITE/CIVIL FOR EXTERIOR SLAB ELEVATIONS AND SLOPES.
H. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DIMENSIONS.
I. OPEN SHELTER COLUMN BASE PLATE, ANCHOR BOLT SIZE, AND ANCHOR BOLT EMBEDMENTS SHALL BE DESIGNED AND PROVIDED BY SHELTER MANUFACTURER.
J. CONTRACTOR TO SUBMIT SHELTER MANUFACTURER'S FINAL ENGINEERED REACTIONS TO A/E PRIOR TO SHELTER FOUNDATION INSTALLATION FOR VERIFICATION OF FOUNDATION DESIGN.

KEY NOTES

1 PREFABRICATED SHELTER COLUMN, BASE PLATE, AND ANCHOR BOLTS BY MANUFACTURER, TYP - SEE DETAIL 1/S101
2 5" CONCRETE SLAB ON GRADE w/ 6x6 W2.9xW2.9 WWM OVER 12" MIN COMPACTED GRAVEL BASE. PROVIDE BROOM FINISH AND SAW CUT CONTROL JOINTS ON SLAB - SEE DETAIL 2/S101
3 SLAB ON GRADE CONTROL JOINT LOCATION, TYP - SEE DETAIL 2/S101
4 1/2" EXPANSION JOINT MATERIAL w/ REMOVABLE CAP AND SELF-LEVELING SEALANT AT PERIMETER SLAB WALL/PIER JOINT, TYP
5 SLAB SLOPE - SEE SITE / CIVIL
6 (2) #4 X 18" LONG BARS IN CENTER OF SLAB AT REENTRANT CORNERS, TYP EACH PIER



FOUNDATION PLAN
3/8" = 1'-0" (22x34)
3/16" = 1'-0" (11x17)
0 1 2 4 6

PLOT DATE: 3/19/2025 11:40:59 AM J:\Autodesk Docs\#12021001 ELSIE STEPHENS CANOE LAUNCH DEVELOPMENT\12021001 ELSIE STEPHENS CANOE LAUNCH DEVELOPMENT R24.rvt

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PROJECT DATE: MARCH 19, 2025	DRAWN BY: JRG				
	DESIGNED BY: JMM				
	CHECKED BY: SHG				

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ENGINEER: Serena Gilles LICENSE #: 59190

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ELSIE STEPHENS CANOE/KAYAK LAUNCH
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

STRUCTURAL SCHEDULES AND FOUNDATION PLAN

PROJECT NO. 12021001
SHEET S101

ELSIE STEPHENS - LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	WATTS	LAMP TYPE	MANUFACTURER	CATALOG NUMBER	NOTE
D4	1'X4' VAPORTITE LED (2 TOP HUBS)	40/51	LED 4000K	LITHONIA	FEM-L48-6000LM-LPPFL-MD-MVOLT-GZ10-40K-80CRI-WLF-STSL	1
				METALUX	4VT2-LD5-6-FR50-UNV-L840-CD1-WL-TH-SSL-VT2-SS-MBK	

GENERAL NOTES:
1. ALL FIXTURES TO BE 120V UNLESS OTHERWISE NOTED.
2. ALL FIXTURES MUST MEET BAA (BUY AMERICAN ACT).

SCHEDULE NOTES:
1. SURFACE MOUNT FIXTURE (STRUCTURE SURFACE MOUNT IN OPEN AIR SHELTER). ALL WIRING SHALL BE CONCEALED INSIDE STRUCTURE. COORDINATE REMOVABLE HAND HOLE ACCESS POINTS FOR WIRE PULLING WITH STRUCTURE MANUFACTURER PRIOR TO STRUCTURE MANUFACTURING.

PANEL SCHEDULE - SH

(NEMA 3R)

TYPE: SQUARE D NQ
MOUNT: SURFACE
ISOLATED GROUND BUS: No
GROUND BUS: Yes
LOCATION: Open Air Shelter
VOLTAGE: 120/240V 1P, 3W
BUS AMPACITY: 100 A
MAIN CIRCUIT BKR: 100 A
SUB FEED LUGS: No
AMPS AIC: Per Utility Co. Requirements

CKT. NO.	TRIP/P	DESCRIPTION	A		B		DESCRIPTION	TRIP/P	CKT. NO.
1	20 A/1	LIGHTING	4.4 A	1.5 A			Receptacles	20 A/1	2
3	20 A/1	SPARE			1.5 A	1.5 A	Receptacles	20 A/1	4
5	20 A/1	SPARE	1.5 A	1.5 A			Receptacles	20 A/1	6
7	20 A/1	SPARE			0.0 A	1.5 A	Receptacles	20 A/1	8
9	20 A/1	SPARE	0.0 A	0.0 A			SPARE	20 A/1	10
11	/1	SPACE			--	--	SPACE	/1	12
13	/1	SPACE	--	--			SPACE	/1	14
15	/1	SPACE			--	--	SPACE	/1	16
17	/1	SPACE	--	--			SPACE	/1	18
			1071 VA		540 VA				
			8.9 A		4.5 A				

NOTES:

Load Classification	Connected...	Demand Factor	Estimated...	Panel Totals	
Receptacles	1080 VA	100.00%	1080 VA		
Other	531 VA	100.00%	531 VA	**Total Conn. Load:**	1611 VA
				Total Est. Demand:	1611 VA
				Total Conn. Current:	6.7 A
				Total Est. Demand...	6.7 A

ELECTRICAL SYMBOLS AND ABBREVIATIONS

ELECTRICAL DISTRIBUTION EQUIPMENT

UTILITY TRANSFORMER

METER PEDESTAL WITH INTEGRAL METER SOCKET BY E.C. METER BY UTILITY COMPANY

PANEL - NEW SURFACE MOUNTED; TAG = "XX"

WIRING DEVICES

SWITCHES

SX SINGLE POLE SWITCH; TAG X, 3=3 WAY, 4=4 WAY, D=DIMMER, I=ILLUMINATED, K=KEYED, M=MOTION SENSOR SWITCH, P=PILOT, R=RELAY, WP=WEATHERPROOF, LVX=LOW VOLTAGE, TAG X = INDICATES NUMBER OF BUTTONS AT EACH SWITCH LOCATION

RECEPTACLES

NO TAG=STANDARD RECEPTACLE, TAGS X, ARC=ARC FAULT RATED, CM=CEILING MOUNTED, CW=CLOTHES WASHER, D=EXTRA DEEP, DW=DISH WASHER, EWC=ELECTRIC WATER COOLER, FM=FLOOR MOUNTED, FR=FREEZER, GFI=GROUND FAULT INTERRUPTER, GR=GAS RANGE, ICE=ICE MACHINE, IG=ISOLATED GROUND, MIC=MICROWAVE, REF=REFRIGERATOR, SP=SURGE PROTECTED DEVICE, UPS=UNINTERRUPTED POWER SUPPLY, USB=UNIVERSAL SERIAL BUS, VM=VENDING MACHINE, WP/GFI=WEATHER PROOF/GROUND FAULT INTERRUPTER

X RECEPTACLE - DUPLEX

LIGHTING FIXTURES

X LIGHT FIXTURE - FLUSH OR SURFACE; TAG = TYPE IN FIXTURE SCHEDULE

LINE LEGEND

CIRCUIT HOME RUN TO 20A/1P BREAKER UNLESS SHOWN OTHERWISE ON DRAWINGS.

INDICATES ITEMS CONNECTED TO SAME CIRCUIT AND CONTROLLED TOGETHER.

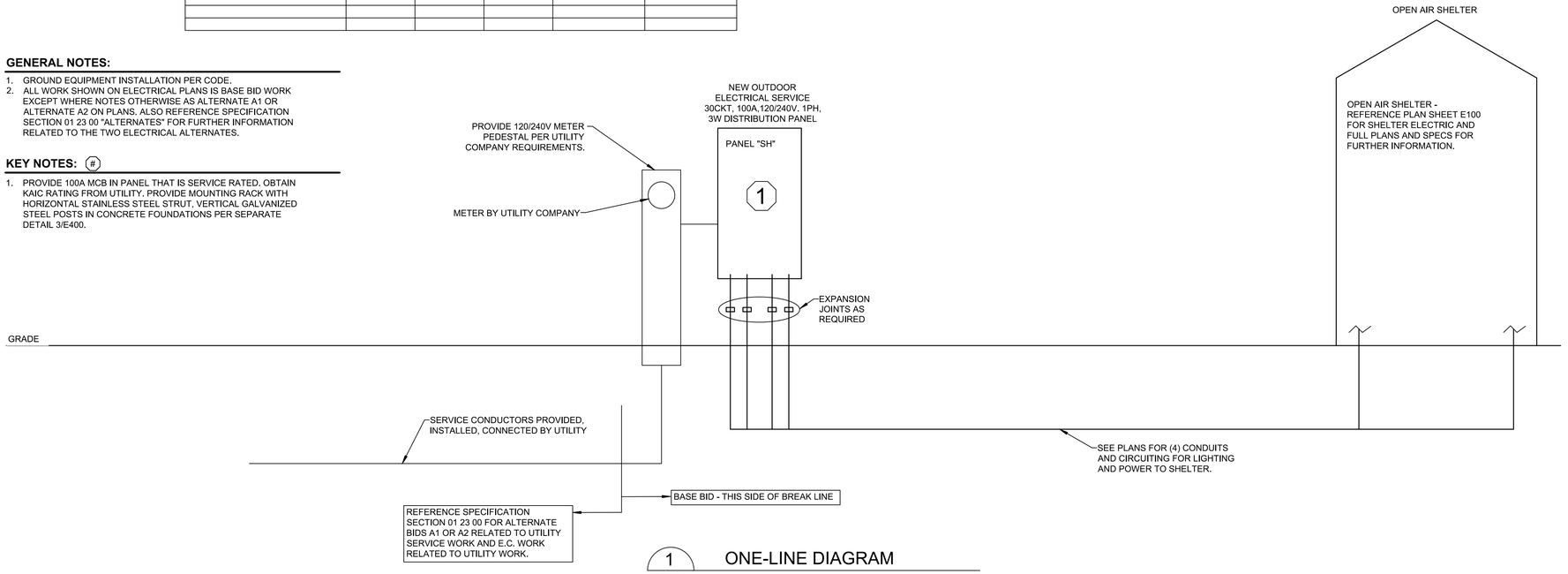
INDICATES UNDERGROUND CONDUIT AND CONDUCTORS AS NOTED ON DRAWINGS.

GENERAL NOTES:

1. GROUND EQUIPMENT INSTALLATION PER CODE.
2. ALL WORK SHOWN ON ELECTRICAL PLANS IS BASE BID WORK EXCEPT WHERE NOTES OTHERWISE AS ALTERNATE A1 OR ALTERNATE A2 ON PLANS. ALSO REFERENCE SPECIFICATION SECTION 01 23 00 "ALTERNATES" FOR FURTHER INFORMATION RELATED TO THE TWO ELECTRICAL ALTERNATES.

KEY NOTES: (#)

1. PROVIDE 100A MCB IN PANEL THAT IS SERVICE RATED. OBTAIN KAIC RATING FROM UTILITY. PROVIDE MOUNTING RACK WITH HORIZONTAL STAINLESS STEEL STRUT, VERTICAL GALVANIZED STEEL POSTS IN CONCRETE FOUNDATIONS PER SEPARATE DETAIL 3/E400.



1 / E001 ONE-LINE DIAGRAM
NTS

ELECTRICAL SHEET LIST	
Sheet Number	Sheet Name
E001	ELECTRICAL SYMBOLS, ABBREVIATIONS & PANEL SCHEDULES
E100	ELECTRICAL SITE PLAN
E400	ELECTRICAL DETAILS

		NO.	DATE	REVISION	BY
PROJECT DATE: .	DRAWN BY: JAH	.	.	.	.
	DESIGNED BY: CMM	.	.	.	.
	CHECKED BY: RG	.	.	.	.

PRELIMINARY

PLOT DATE: 3/25/2025 11:06 AM, G:\12\12021\12021001\CADD\construction documents\12021001 Electrical Details.dwg

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DATE Date REGNO License No.

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ELSIE STEPHENS CANOE/KAYAK LAUNCH
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

ELECTRICAL SYMBOLS, ABBREVIATIONS & SCHEDULE

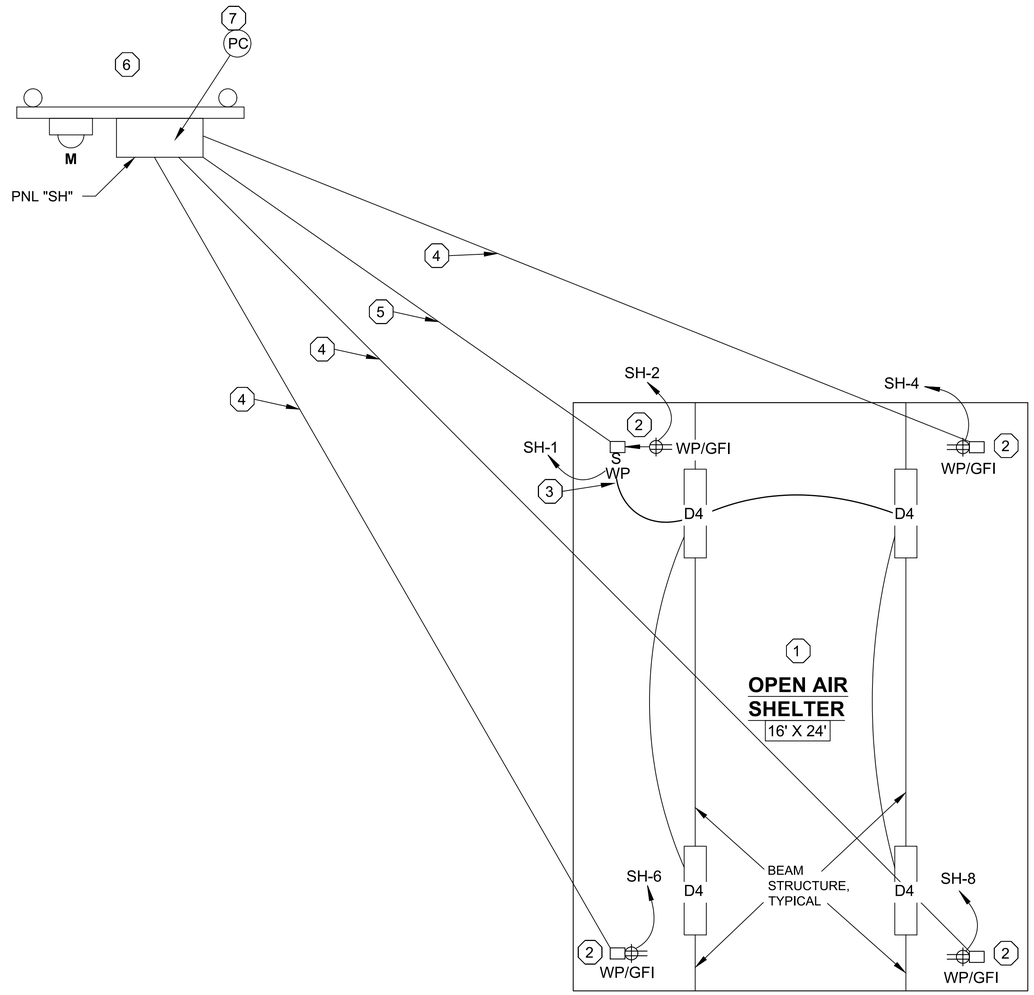
PROJECT NO. 12021001
SHEET E001

GENERAL NOTES:

1. ALL LIGHTING FIXTURES IN AREAS WITH EXPOSED STRUCTURE SHALL BE LAID OUT ON SITE AND LOCATIONS APPROVED BY THE OWNER PRIOR TO INSTALLATION.
2. ALL LIGHT FIXTURE MOUNTING SHALL BE DIRECT MOUNTED TO STRUCTURAL BEAMS.
3. REFERENCE OPEN AIR STRUCTURAL DRAWINGS FOR FRAMING.
4. PROVIDE EXTERIOR RECEPTACLES PER DETAIL (2 / E400).
5. CONFIRM EXACT LOCATION OF ALL OUTLETS WITH OWNER PRIOR TO ROUGH-IN.
6. ALL WORK SHOWN ON ELECTRICAL PLANS IS BASE BID WORK EXCEPT WHERE NOTED OTHERWISE AS ALTERNATE A1 OR ALTERNATE A2 ON PLANS. ALSO REFERENCE SPECIFICATION SECTION 01 23 00 "ALTERNATES" FOR FURTHER INFORMATION RELATED TO THE TWO ELECTRICAL ALTERNATES.

KEY NOTES: (#)

1. ALL CONDUITS BETWEEN PANEL AND SHELTER VERTICAL COLUMNS SHALL BE RUN CONCEALED UNDERGROUND AND STUBBED UP CONCEALED INSIDE EACH OF (4) SHELTER STRUCTURE BASEPLATES. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL HAND HOLE ACCESS POINTS NECESSARY TO PULL AND CONCEAL ALL CIRCUIT CONDUCTORS TO REACH ALL RECEPTACLES, SWITCH, AND LIGHT FIXTURES. CONTRACTOR SHALL PROVIDE SHELTER MANUFACTURER WITH THEIR WIRE ROUTING AND REQUEST FLUSH REMOVABLE HAND HOLE ACCESSES AS NECESSARY SO THAT ALL WIRE CAN BE PULLED AND KEPT CONCEALED WITH ALL SPICING TAKING PLACE IN RECEPTACLES, SWITCH, OR LIGHT FIXTURES. NO SPLICING OF WIRES INSIDE STRUCTURE IS ALLOWED.
2. E.C. SHALL COORDINATE FOR MANUFACTURER TO PROVIDE ALL (4) INTEGRAL SINGLE GANG, WEATHER PROOF, FLUSH MOUNTED ELECTRICAL BOXES AT 24" A.F.G. E.C. SHALL PROVIDE 20 AMP TAMPER PROOF, WEATHER PROOF GFCI RECEPTACLES WITH CAST ALUMINUM "WHILE-IN-USE" WEATHER PROOF COVER PAINTED TO MATCH STRUCTURE (ORIENT AS INDICATED - FACING INWARD AS SHOWN).
3. E.C. SHALL COORDINATE FOR MANUFACTURER TO PROVIDE (1) INTEGRAL SINGLE GANG, WEATHER PROOF, FLUSH MOUNTED ELECTRICAL LIGHT SWITCH BOX. E.C. SHALL PROVIDE A 120 VOLT, SINGLE POLE, WHITE LIGHT SWITCH. ALSO PROVIDE WEATHERPROOF COVER WITH INTEGRAL SWITCH OPERATION LEVER MOUNTED FLUSH AT 46". SWITCH SHALL SERVE AS OVERRIDE "OFF".
4. PROVIDE 3/4" SCHEDULE 40 PVC CONDUIT FOR HORIZONTAL UNDERGROUND SECTION AND CONVERT TO RIGID GALVANIZED THREADED STEEL CONDUIT FOR 90 DEGREE ELBOWS AND VERTICAL SECTIONS. PROVIDE EXPANSION FITTINGS ABOVE GRADE ALONG WITH HORIZONTAL STRUT SUPPORT THAT ALLOWS MOVEMENT OF EXPANSION JOINTS. PROVIDE BUSHED ENDS UP INSIDE STRUCTURE BASES.PROVIDE CHASE NIPPLE IN BOXES AND KEEP ALL WIRE CONCEALED. PROVIDE (2) #12 AWG STRANDED COPPER XLPE WITH #12 GND FOR EACH SEPARATE RECEPTACLE CIRCUITED AS SHOWN.
5. PROVIDE 3/4" SCHEDULE 40 PVC CONDUIT FOR HORIZONTAL UNDERGROUND SECTION AND CONVERT TO RIGID GALVANIZED THREADED STEEL CONDUIT FOR 90 DEGREE ELBOWS AND VERTICAL SECTIONS. PROVIDE EXPANSION FITTING ABOVE GRADE ALONG WITH HORIZONTAL STRUT SUPPORT THAT ALLOWS MOVEMENT OF EXPANSION JOINTS. PROVIDE BUSHED ENDS UP INSIDE STRUCTURE BASES. PROVIDE CHASE NIPPLE IN BOXES AND KEEP ALL WIRE CONCEALED. PROVIDE (2) #12 AWG STRANDED COPPER XLPE WITH #12 GND FOR EACH SEPARATE RECEPTACLE CIRCUITED AS SHOWN. PROVIDE SAME WIRE SIZE AND COUNT FOR LIGHTING ROUTED THROUGH PHOTOCELL.
6. PROVIDE A 120/240V, SINGLE PHASE METER PEDESTAL PER UTILITY COMPANY REQUIREMENTS. ALSO PROVIDE A PANELBOARD EQUAL TO SQUARE D AS FOLLOWS: NEMA 3R, 100A, 120/240V SINGLE PHASE 30 CIRCUIT PANELBOARD. PROVIDE STRUCTURED BACKBOARD PER DETAIL 3/E400.
7. PROVIDE A WEATHERPROOF 120 VOLT PHOTOCELL IN WEATHERPROOF. THREADED CAST ALUMINUM BELL BOX WITH GASKETED COVER. WIRE LIGHTING CIRCUIT THROUGH PHOTOCELL FIRST BEFORE HEADING OVER TO SHELTER LIGHTING. MOUNT PHOTOCELL BOX SO AS TO NOT COMPROMISE THE NEMA 3R RATING OF PANELBOARD.



PLAN NORTH

NEW OPEN AIR SHELTER - ELECTRICAL

3/16" = 1'-0"

0 2' 4' 8'

NO.	DATE	REVISION	BY

PROJECT DATE: .
DRAWN BY: JAH
DESIGNED BY: CMM
CHECKED BY: RG

PRELIMINARY

PLOT DATE: 3/25/2025 11:06 AM, G:\12\12021\12021001\CADD\construction documents\12021001 Electrical Details.dwg

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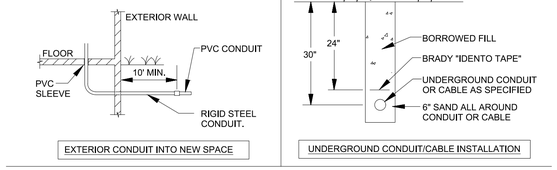
ELSIE STEPHENS CANOE/KAYAK LAUNCH
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

ELECTRICAL SITE PLAN

PROJECT NO. 12021001
SHEET E100

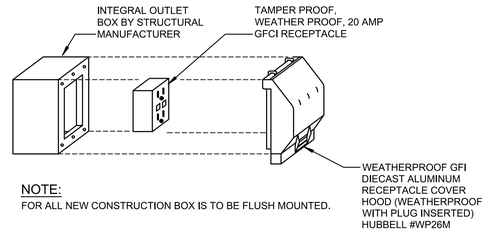


NOTES:

1. E.C. MAY USE PVC COATED RIGID STEEL CONDUIT IN LIEU OF RIGID CONDUIT AND PVC SLEEVE.
2. PVC SLEEVE TO BE AS SNUG AS POSSIBLE ON RIGID CONDUIT.

CONDUIT UNDER FLOOR PENETRATION

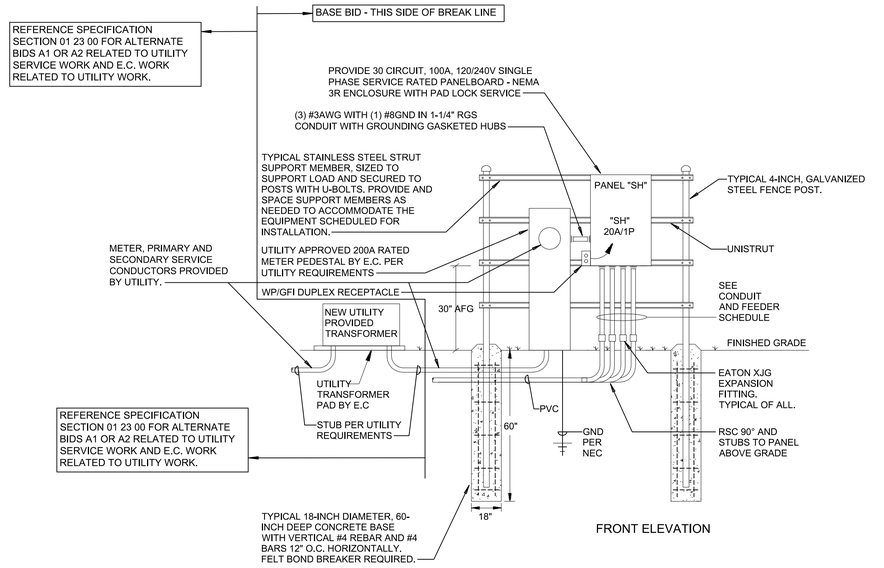
1 CONDUIT DETAILS
E400 NTS



NOTE:
FOR ALL NEW CONSTRUCTION BOX IS TO BE FLUSH MOUNTED.

OUTLET BOX:
FLUSH: 1-GANG BOX (PROVIDE RECEPTACLE AND WEATHERPROOF COVER SHOWN.)

2 GFI/WP RECEPTACLE MOUNTING DETAIL
E400 NTS



NOTES:

1. REFER TO SITE PLAN FOR LOCATION AND ORIENTATION.
2. CONTRACTOR SHALL VERIFY THAT SELECTED COMPONENTS ARE SUITABLE FOR THE WEIGHT OF THE MOUNTED EQUIPMENT.
3. SUPPORT MEMBERS SHALL BE CONSTRUCTED OF STAINLESS STEEL. ALL HARDWARE SHALL BE CONSTRUCTED OF STAINLESS STEEL.

3 ELECTRICAL EQUIPMENT RACK INSTALLATION DETAIL
E400 NTS

		NO.	DATE	REVISION	BY
PROJECT DATE: .	DRAWN BY: JAH	.	.	.	.
	DESIGNED BY: CMM	.	.	.	.
	CHECKED BY: RG	.	.	.	.

PRELIMINARY

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ELSIE STEPHENS CANOE/KAYAK LAUNCH
CITY OF DAYTON
HENNEPIN COUNTY, MINNESOTA

ELECTRICAL DETAILS

PROJECT NO. 12021001
SHEET E400

Meeting Date: 04-01-2025
Item Number: E

PRESENTER: Paul Kangas

ITEM: PIP2024 Bids and Alternates Discussion

PREPARED BY: Martin Farrell

BACKGROUND: The City solicited bids from contractors for the Park Improvements Project for Area 21 Park, Ione Gardens upgrades and Elsie Stephens Phase 3. The bids were separated into base bids and multiple alternates for each of the Parks to help with spending limited dollars appropriately.

Bids packages were posted on March 3 2025, and the bid opening scheduled for March 27 2025. Staff held the bid opening and received 6 competitive bids. We are going through the base bids and alternates to ascertain the low bid; this will take some time to confirm. The bid synthesis is not available currently but will be presented at the Parks Commission 4/1/2025 meeting.

CRITICAL ISSUES: N/A

BUDGET IMPACT: N/A

RECOMMENDATION: N/A

ATTACHMENT(S): None

Meeting Date: 04-01-2025
Item Number: F

PRESENTER: Martin Farrell

ITEM: Amended Tree Ordinance

PREPARED BY: Martin Farrell

BACKGROUND: As part of the Tree City USA initiative the City is required to adopt a Tree Ordinance, Staff and the City Attorney have reviewed an initial document and made comments and recommendations. Attached is a copy of the Ordinance including the comments and recommendations. Staff would like any additional comments from the Park Commission and approval of the document before we present it to Council for their approval.

CRITICAL ISSUES: N/A

BUDGET IMPACT: N/A

RECOMMENDATION: Approve draft Tree Ordinance documentation

ATTACHMENT(S): Draft Tree Ordinance, Hennepin County recommended trees booklet.

SAMPLE MUNICIPAL TREE ORDINANCE — WITHOUT TREE ADVISORY BOARD

Be it ordained by the City Council of the City of:

Dayton, Minnesota

Section 1. Purpose.

To enhance the quality of life and the present and future health, safety, and welfare of all residents, to enhance property values, and to ensure proper planting and care of trees on public property, the City Council herein delegates the authority and responsibility for managing public trees, establishes practices governing the planting and care of trees on public property, and makes provision for the emergency removal of trees on private property under certain conditions.

Commented [HS1]: Where do you think this section should be included? Under the public works chapter 50 of the City Code?

Commented [AS2R1]: How do the provisions in this ordinance fit together with Code Section 1001.25?

Commented [HS3R1]: From what I read in this section of the code, it applies to preservation/replacement for development on private property, not existing public areas. Removal of trees for public use within development areas, such as for roadways or trails, etc., are exempt from that replacement program.

Section 2. Definitions.

As used in this Article, the following words and phrases shall have the meanings indicated:

Damage – any injury to or destruction of a tree, including but not limited to: uprooting; severance of all or part of the root system or main trunk; storage of material on or compaction of surrounding soil; a substantial change in the natural grade above a root system or around a trunk; surrounding the tree with impervious paving materials; or any trauma caused by accident or collision.

Nuisance – any tree, or limb thereof, that has an infectious disease or insect; is dead or dying; obstructs the view of traffic signs or the free passage of pedestrians or vehicles; or threatens public health, safety, and welfare.

Parkway – the area along a public street between the curb and the sidewalk; or if there is no curb or sidewalk, the unpaved portion of the area between the street right-of-way line and the paved portion of the street or alley.

Public property – all grounds and rights-of-way (ROWs) owned or maintained by the City.

Public tree – any tree or woody vegetation on city-owned or city-maintained property or rights-of-way.

Top or **Topping** – the non-standard practice of cutting back of limbs to stubs within a tree's crown to such a degree so as to remove the normal canopy and disfigure the tree.

Section 3. Authority and power.

(a) **Delegation of authority and responsibility.** The Director of the Public Works Department and/or their designee, hereinafter referred to as the "Director", shall have full authority and responsibility to plant, prune, maintain and remove trees and woody plants growing in or upon all municipal streets, rights-of-ways, city parks, and other public property. This shall include the removal of trees that may threaten electrical, telephone, gas, or any municipal water or sewer line, or any tree that is affected by fungus, insect, or other pest disease.

Commented [JK4]: Is this the correct technical/legal name for the Department?

Commented [MF5R4]: Yes this is correct

(b) **Coordination among city departments.** All city departments will coordinate as necessary with the Director and will provide services as required to ensure compliance with this Ordinance as it relates to streets, alleys, rights-of-way, drainage, easements, and other public properties not under direct jurisdiction of the Director.

Commented [JK6]: e.g. Fire Department will need to have some trees trimmed when a Ladder truck as added to the fleet

Commented [MF7R6]: OK

(c) **Interference.** No person shall hinder, prevent, delay, or interfere with the Director or his agents while engaged in carrying out the execution or enforcement of this Ordinance.

Section 4. Tree planting and care standards.

(a) **Standards.** All planting and maintenance of public trees shall conform to the American National Standards Institute (ANSI) A-300 "Standards for Tree Care Operations" and shall follow all tree care Best Management Practices (BMPs) published by the International Society of Arboriculture.

(b) **Requirements of franchise utility companies.** The maintenance of public trees for utility clearance shall conform to all applicable utility industry standards.

(c) **Preferred species list.** The Director shall maintain an official list of desirable tree species for planting on public property in two size classes: Ornamental (20 feet or less in height at maturity) and Shade (greater than 20 feet at maturity). Trees from this approved list may be planted without special permission; other species may be planted with written approval from the Director.

Commented [JK8]: I believe that Hennepin County maintains a list that we could source from, or use as-is.

Commented [MF9R8]: I will talk with the arborist to see if he concurs or has alternative suggestions

Commented [JK10]: There are many references to approval from the Director, do we want language to allow e.g. our city Arborist/Forester to approve as well?

Commented [MF11R10]: Good thought but I think in this instance where a sign off is required it should come from Senior Management

(d) **Planting distances.** The Director shall develop and maintain an official set of spacing requirements for the planting of trees on public property. No tree may be

planted within the ~~visibility~~ Clear View Ttriangle of a street intersection or within 10 feet of a fire hydrant.

(e) **Planting trees under electric utility lines.** Only trees listed as Ornamental trees on the official city tree species list may be planted under or within 15 lateral feet of any overhead utility wire.

Commented [JK12]: Do we need to add a definition for "visiblity triangle"?

Commented [HS13R12]: Clear view is defined within the zoning ordinance.

Section 5. Prohibition against harming public trees.

(a) It shall be unlawful for any person, firm, or corporation to damage, remove, or cause the damage or removal of a tree on public property without written permission from the Director.

(b) It shall be unlawful for any person, firm, or corporation to attach any cable, wire, sign, or any other object to any street, park, or public tree.

(c) It shall be unlawful for any person, firm, or corporation to "top" any public tree. Trees severely damaged by storms or other causes, where best pruning practices are impractical may be exempted from this provision at the determination of the Director.

(d) Any person, firm, corporation, or city department performing construction near any public tree(s) shall consult with the Director and shall employ appropriate measures to protect the tree(s), according to procedures contained in the Best Management Practices (BMPs) for "Managing Trees During Construction" published by the International Society of Arboriculture.

(e) Each violation of this section as determined and notified by the Director shall constitute a separate violation, punishable by fines and penalties under Section 8, in addition to mitigation values placed on the tree(s) removed or damaged in violation of this section.

Commented [JK14]: Should we include a provision to allow for hammocks?

Commented [MF15R14]: I think restricting the location for hammocks may be a good idea so that we don't have individuals setting up hammocks everywhere. I think that we need to make sure that it is only on mature trees to protect younger stoick

Commented [AS16]: I recommend against including anything with a link to an outside source. The City has no control over when/how the third party changes the resource, discontinues the link, etc. If a person is expected to adhere to this standard, then there needs to be a sure way for them to be able to access it.

Commented [JK17]: This originally said "Section 10", which I believe is a typo, so I changed to 8.

Commented [MF18R17]: ok

Section 6. Adjacent owner responsibility.

(a) The owner of land adjacent to any city street or highway, when acting within the provisions of this Ordinance, may plant and maintain trees in the adjacent parkway area.

(b) No property owner shall allow a tree, or other plant growing on his or her property to obstruct or interfere with pedestrians or the view of drivers, thereby

Commented [HS19]: Should this require prior notification to the City to review compliance?

Commented [AS20R19]: Yes, this should not happen without City approval. Wouldn't this otherwise be considered an encroachment?

creating a hazard. If an obstruction persists, the Director shall notify the property owner to prune or remove the tree or plant. If the owner fails to comply with the notice, the City may undertake the necessary work and charge the cost to the property owner.

Section 7. Certain trees declared a nuisance.

(a) Any tree, or limb thereof, on private property determined by the Director to have contracted a lethal, communicable disease or insect; to be dead or dying; to obstruct the view of traffic signs or the free passage of pedestrians or vehicles; or that threatens public health, safety, and welfare is declared a nuisance and the City may require its treatment or removal.

(b) Private property owners have the duty, at their own expense, to remove or treat nuisance trees on their property. The City may remove such trees at the owner's expense if the owner does not comply with treatment and/or removal as specified by the Director within the written notification period.

Section 8. Violations and penalty.

Any person, firm or corporation violating any provision of this Ordinance shall be deemed guilty of a misdemeanor and shall be subject to a fine not to exceed five hundred dollars ($500.00) for each offense.

Commented [JK21]: Is this the "right" amount? Do we (City of Dayton) determine the fee, or is that determined by e.g. Hennepin County/State of MN based on the level of charge?

Commented [AS22R21]: If it is a misdemeanor offense, the maximum possible penalty is 90 days in jail, a $1000 fine, or both. A petty misdemeanor has a maximum possible penalty of $300 (no jail time possible). A judge determines the sentence.

Do you want to just cross reference to Section 10.99 of the Code for the penalty?

Do you want each day that the violation continues to be a separate offense?

Section 9. Appeals.

Appeals to decisions by the Director, or to penalties imposed after violations of this ordinance, shall be heard by City Council.

Section 10. Savings and repeal.

All ordinances or parts of ordinances in conflict with this Ordinance are repealed to the extent of such conflict.

Commented [AS23]: This type of provision tends to create ambiguity or confusion in the Code. I recommend not including it.

Commented [HS24R23]: Would it make more sense to say something along the lines of where there is conflicting language in other sections of the City Code, the stricter of the two apply?

Section 11. Severability.

Should any word, sentence, clause, paragraph, or provision of this Ordinance be held to be invalid or unconstitutional the remaining provisions of this Ordinance shall remain in full force and effect.

Recommended trees for Hennepin County

Benefits of trees

Trees and forests provide many benefits, including improving our air and water, making us and our communities healthier, reducing the urban heat island effect, providing wildlife habitat, saving energy, and increasing property values.

Key

- **Street tree:** these trees do well when planted next to roadways.
- **Evergreen:** these trees do not lose leaves/needles in the winter.
- **Utility compatible:** these trees work well to be planted near utility lines.
- **Native Minnesota tree species:** these trees are native to Minnesota.
- **Southern range species for Minnesota's climate:** these trees are not native to Minnesota, but may do well with the state's changing climate.

How to use this resource

Use this list when developing a planting plan for properties in Hennepin County. When creating a plan including multiple trees, county foresters recommend planting no more than 20% of one family or 5% of one species in each geographic area.

Sun and shade exposure:

- **Partial sun:** these trees like between three and six hours of sun each day.
- **Full sun:** these trees require at least six hours of sun each day.
- **Partial shade:** these trees require between three and six hours of sun per day but need protection from afternoon sun.
- **Shade:** these trees require less than three hours of direct sun per day.
- **Salt tolerance:** ability to withstand salt in water on leaves or in the soil.

Common name	Scientific name	Alternate name(s)	USDA hardiness zone limit	Height	Spread	Exposure	Salt	Pest and disease problems	Notes
Snakebark maple	*Acer pensylvanicum*	Striped maple, moosewood	3	15-25 ft	12-20 ft	partial sun	intolerant	No serious problems	
Allegheny serviceberry	*Amelanchier laevis*	Smooth shadbush, juneberry	4	15-25 ft	15-25 ft	partial sun	intolerant	No serious problems	Fruit is edible
Pawpaw	*Asimina triloba*	Prairie banana	5	15-25 ft	15-20 ft	partial shade	intolerant	No serious problems	Sensitive to drought, resistant to deer browse. Fruit may not be produced until the climate warms.
Balsam fir	*Abies balsamea*		3	50-75 ft	20-35 ft	full sun	moderately tolerant	Cankers, woolly aphids	Does poorly on dry exposed sites
White fir	*Abies concolor*	Concolor fir, Colorado fir	3	30-50 ft	15-20 ft	full sun	intolerant	No serious problems	Similar look to blue spruce with less disease issues.
Sweet birch	*Betula lenta*	Black birch, cherry birch	3	40-50 ft	35-45 ft	full sun	intolerant	Cankers, aphids, leaf miners, bronze birch borer	Moderately susceptible to bronze birch borer.
River birch	*Betula nigra*	Red birch	4	30-40 ft	20-30 ft	full sun	moderately tolerant	Aphids, leaf miners and leaf spots, bronze birch borer	Attractive pink-reddish bark that exfoliates to reveal lighter inner bark. Resistant to bronze birch borer
Paper birch	*Betula papyrifera*	White birch	2	50-70 ft	20-45 ft	full sun	tolerant	Leaf miners, cankers, bronze birch borer	Not a good tree for tough sites. Shows some resistance to the bronze birch borer.
Pecan	*Carya illinoinensis*		5	70-100 ft	40-75 ft	full sun	intolerant	No serious problems	Fruit is edible. Relatively short-lived.
Northern catalpa	*Catalpa speciosa*	Hardy catalpa, western catalpa	4	40-60 ft	20-40 ft	full sun	moderately tolerant	Verticillium wilt, leaf spots, powdery mildew	Messy fruit/plant parts but will rarely ripen due to frost in MN. Weak wood and branch structure
Alaska cedar	*Chamaecyparis nootkatensis*	Yellow cypress	4	25-40 ft	15-20 ft	full sun	intolerant	No serious problems	Needs consistently moist soils

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partial sun exposure · full sun exposure · partial shade exposure · shade exposure

Salt tolerance: tolerant · moderately tolerant · intolerant

Common name	Scientific name	Alternate name(s)	USDA hardiness zone limit	Height	Spread	Exposure	Salt	Pest and disease problems	Notes
Yellowwood	*Cladrastis kentukea*	American yellowwood	4	30-50 ft	40-55 ft	full sun	moderately tolerant	Susceptible to verticillium wilt and borer damage	
"Hawthorn spp.: cockspur"	*Crataegus spp.*		3	20-30 ft	20-35 ft	full sun	intolerant	Cedar rust, fire blight, leaf spots, scale, mites	This variety is thornless
Ginkgo	*Ginkgo biloba*	Maidenhair tree	4	50-80 ft	40-50 ft	full sun	moderately tolerant	No serious problems	Only male trees should be planted. Females produce messy and stinky fruit.
Honeylocust	*Gleditsia triacanthos*		3	30-70 ft	30-70 ft	full sun	tolerant	Honeylocust plant bug, spider mites, leaf spots, canker	Request thornless variety
Kentucky coffeetree	*Gymnocladus dioicus*		3	60-75 ft	40-50 ft	full sun	tolerant	No serious problems	Well suited for the urban environment
Black walnut	*Juglans nigra*	Eastern black walnut	4	50-75 ft	30-50 ft	full sun	tolerant	Anthracnose, thousand canker disease	Good tree for wildlife.
Eastern red cedar	*Juniperus virginiana*	Red cedar, upright juniper	3	40-50 ft	8-20 ft	full sun	tolerant	Cedar rusts, bagworms	
European larch	*Larix decidua*		3	70-75 ft	25-30 ft	full sun	intolerant	Larch sawfly, Needle blight/needlecast, larch casebearer, European larch canker	Deciduous conifer, attractive yellow fall foliage
Tamarack	*Larix laricina*	Eastern/ American larch, larch	2	40-80 ft	30-50 ft	full sun	tolerant	Larch case-bearer, larch sawfly	
Amur maackia	*Maackia amurensis*		4	20-30 ft	20-35 ft	full sun	intolerant	No serious problems	
Osage orange	*Maclura pomifera*	Hedge apple	4	20-40 ft	20-40 ft	full sun	tolerant	No serious problems	Stem can be thorny
Crabapple spp.	*Malus spp.*	Flowering crabapple	4	15-25 ft	15-20 ft	full sun	intolerant	Apple scab, cedar apple rust, fire blight, mildew, borer, scale, Japanese beetle	Adaptive to climate change. Produces excessive suckers.

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partial sun exposure · full sun exposure · partial shade exposure · shade exposure

Salt tolerance: tolerant · moderately tolerant · intolerant

Common name	Scientific name	Alternate name(s)	USDA hardiness zone limit	Height	Spread	Exposure	Salt	Pest and disease problems	Notes
Apple	*Malus spp.*	Variety dependent	3	15-25 ft	15-20 ft	☀	👎	Apple scab, cedar apple rust, black rot, fire blight, apple maggot, codling moth, plum curculio	
Dawn redwood	*Metasequoia glyptostroboides*	Water-fir, water-larch	4	70-100 ft	25 ft	☀	👍	Cankers	Deciduous conifer
Black spruce N	*Picea mariana*	Bog spruce, swamp spruce	2	30-50 ft	20-30 ft	☀	👎	Needle rusts, cankers	
Jack pine N	*Pinus banksiana*		2	35-50 ft	10-20 ft	☀	👍	Sawflies, tussock moth, needlecasts	
Austrian pine	*Pinus nigra*		3	50-60 ft	20-40 ft	☀	👍	Lophodermium needlecast, diplodia tip blight, European pine sawfly, various weevils, Zimmerman pine moth, yellow-bellied sapsucker	
Ponderosa pine	*Pinus ponderosa*	Western yellow pine	3	50-70 ft	25-30 ft	☀	👍	Mountain pine beetle, Dothistroma needle blight, Lophodermium needlecast	
Scots pine	*Pinus sylvestris*	Scotch pine	3	30-60 ft	30-40 ft	☀	👎	Zimmerman pine moth, pine spittlebug, Lophodermium needlecast, Scleroderris canker	
Balsam poplar N	*Populus balsamifera*		2	40-80 ft	20-30 ft	☀	👍	Septoria leaf spot, Linospora leaf blight	
Eastern cottonwood N	*Populus deltoides*	Eastern poplar	3	75-100 ft	50-75 ft	☀	👍	Cankers, leaf spots, rusts, powdery mildew, borers, aphids, caterpillars, scale	Weak wood, prefers wet soils
Pin cherry N	*Prunus pensylvanica*	Wild red cherry, fire cherry	2	20-35 ft	20-35 ft	☀	👍	Fire blight, canker, borer, black knot	Important keystone species

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◑ partial sun exposure · ☀ full sun exposure · ◐ partial shade exposure · ● shade exposure

Salt tolerance: 👍 tolerant · 👍 moderately tolerant · 👎 intolerant

Common name	Scientific name	Alternate name(s)	USDA hardiness zone limit	Height	Spread	Exposure	Salt	Pest and disease problems	Notes
Pear tree	*Pyrus spp.*		3	15-20 ft	10-15 ft	☀	👎	Japanese beetles, fire blight	Edible fruit, fruit tree maintenance needed to produce viable fruit
White oak N	*Quercus alba*		3	50-80 ft	100 ft	☀	👎	Oak wilt, anthracnose, two-lined chestnut borer, galls, scale	Does not tolerate wet conditions, best planted in well-drained sites. Roots are sensitive to soil disturbances, such as compaction and construction.
Swamp white oak N	*Quercus bicolor*	Bicolor oak	4	50-60 ft	50-60 ft	☀	👍	Anthracnose, powdery mildew, chlorois, insect galls	One of the easiest oaks to transplant and more tolerant of poor drainage than other oaks.
Northern pin oak N	*Quercus ellipsoidalis*	Hill's oak, jack oak	4	40-75 ft	40-75 ft	☀	👎	Oak wilt, scale, two-lined chestnut borer	Has the advantage of tolerating a higher soil pH than pin oak
Bur oak N	*Quercus macrocarpa*		3	70-80 ft	70-80 ft	☀	👎	Leaf galls, kermes scale, anthracnose, bacterial leaf scorch, powdery mildew, oak wilt, bur oak blight	Excellent tree for wildlife. Keystone species. Lives a long time.
Chinkapin oak N ▼	*Quercus muelenbergii*	Yellow oak, rock oak	5	50-80 ft	50-70 ft	☀	👎	Anthracnose, oak wilt, two-lined chestnut borer.	Climate adaptive species. Performs well in alkaline soils.
Pin oak	*Quercus palustris*		4	60-70 ft	40-50 ft	☀	👍	Oak wilt, oak blister	Tree suffers greatly from chlorosis (yellowing) of the leaves when there is high soil pH.
Oak Hybrids: Prairie stature oak Heritage oak Regal Prince oak or as approved	*Quercus spp.*		3	40-60 ft	10-40 ft	☀	👍	Oak wilt	

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partial sun exposure · full sun exposure · partial shade exposure · shade exposure

Salt tolerance: tolerant · moderately tolerant · intolerant

Common name	Scientific name	Alternate name(s)	USDA hardiness zone limit	Height	Spread	Exposure	Salt	Pest and disease problems	Notes
American mountain ash	*Sorbus americana*		2	10-30 ft	10-15 ft	☀	👎	Fire blight, scab, cankers, powdery mildew, rust, borers, aphids, sawfly, scale	Climate adaptive species
European mountain ash	*Sorbus aucuparia*	Rowan, rowantree, common mountainash	3	20-40 ft	15-25 ft	☀	👎	Borers, cankers	
Showy mountain ash	*Sorbus decora*	Northern mountain ash	2	15-30 ft	10-20 ft	☀	👎	Fire blight, scab, cankers, borers, crown gall, pear leaf mite, mountain ash sawfly, and scale	Featuring showy clusters of white flowers in spring followed by bright scarlet berries lasting into winter
Oak leaved mountain ash	*Sorbus hybrida*		3	25-35 ft	20-30 ft	☀	👎	Cytospora canker, fire blight, leaf spot	Tree will tolerate poor soil and difficult growing conditions. Hybrid derived from European mountain ash and Swedish mountain ash
Japanese tree lilac	*Syringa reticulata*		3	20-30 ft	15-25 ft	☀	👍	Bacterial blight, leaf spots	Produces large clusters of small creamy-white, fragrant flowers
Littleleaf linden	*Tilia cordata*		3	60-70 ft	30-40 ft	☀	👎	Aphids, Japanese beetles	Aphids can secrete sap which can lead to sooty mold issues
Resistant American elms: Jefferson Lewis & Clark (Prairie Expedition) Princeton St. Croix Valley Forge	*Ulmus spp.*		4	50-70 ft	30-60 ft	☀	👎	Some may be susceptible to elm bark beetle, elm leaf beetles, elm yellows, elm leaf miner and verticillium wilt.	These elms are cultivars of Dutch elm disease resistant American elm specimens. Their resistance has been tested, often at University of Minnesota.

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Black maple N	*Acer nigrum*		3	60-75 ft	40-50 ft	☀ ●	👎	Leaf scorch, verticillium wilt, tar spot, anthracnose, Asian longhorn beetle	
Three flowered maple	*Acer triflorum*		5	20-30 ft	20-30 ft	☀ ●	👍	Verticillium wilt	Some consider this a subspecies of sugar maple. Yellow, orange, and red fall foliage
Red buckeye	*Aesculus pavia*		5	15-20 ft	15-30ft	☀ ●	👍	Powdery mildew, leaf blotch.	Red flowers in spring
Manchurian alder	*Alnus hirsuta*		3	25-40 ft	20-30 ft	☀ ●	👎	No serious problems	One of the most drought tolerant alders on the market
Autumn Brilliance serviceberry	*Amelanchier x grandiflora*	Apple serviceberry	4	15-25 ft	15-25 ft	☀ ●	👎	Rust, leaf spot, fire blight, powdery mildew and canker are occasional disease problems	Attractive orange to deep red fall color. Birds are attracted to edible fruit.
Bitternut hickory N	*Carya cordiformis*	Bitternut, swamp hickory	4	50-70 ft	40-50 ft	☀ ●	👍	No serious problems	
Carolina silverbell	*Halesia carolina*	Silverbell	4	30-40 ft	20-35 ft	☀ ●	👎	No serious problems	Not tolerant of compacted soils
Bigtooth aspen N	*Populus grandidentata*	American aspen, white poplar	2	60-80 ft	20-40 ft	☀ ●	👍	Hypoxylon canker, leaf spots, nectria canker	Can struggle with Hennepin County's humid climate
Hop tree	*Ptelea trifoliata*	Wafer-ash, stinking ash	4	15-20 ft	15-20 ft	☀ ●	👎	Leaf spots, rust	Small tree or large shrub that produces small fragrant flowers and wafer-like winged seeds
Eastern hemlock N	*Tsuga occidentalis*	Canada hemlock	3	40-70 ft	25-35 ft	☀ ●	👎	Hemlock scale, bagworm, needle rust mite, woolly adelgid, needle blight	Susceptible to winter burn if not sheltered from strong winds.
Chestnut oak	*Quercus prinus*		4	60-70 ft	60-70 ft	☀ ◐	👎	Oak wilt, scale, two-lined chestnut borer	

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Common name	Scientific name	Alternate name(s)	USDA hardiness zone limit	Height	Spread	Exposure	Salt	Pest and disease problems	Notes
Fraser fir	*Abies fraseri*		4	30-40 ft	20-25 ft	☀ ◐	👎	Balsam woolly adelgid, bark beetles, spruce budworms, aphids, bagworms, scale, root rots, needle rust and twig blight	
Korean fir	*Abies koreana*		5	30-50 ft	6-12 ft	☀ ◐	👎	Disease problems include root rot, needle rust and twig blight	Tolerant of alkaline soils and heat tolerant, purple/blue upright cones, needles have an attractive silver underside.
Yellow buckeye	*Aesculus flava*		4	60-80 ft	25-35 ft	☀ ◐	👎	Leaf scorch, fungal leaf blotch	Messy fruit/plant parts
Ohio buckeye	*Aesculus glabra*		3	20-40 ft	20-40 ft	☀ ◐	👎	Leaf blotch, powdery mildew, scale, Japanese beetles, leaf scorch.	Buckeyes should not be eaten. Premature leaf drop is probable in hot, dry periods.
Horse chestnut	*Aesculus hippocastanum*		3	50-75 ft	40-65 ft	☀ ◐	👍	Leaf scorch, fungal leaf blotch.	Large seed in a prickly husk
Shadblow serviceberry	*Amelanchier canadensis*	Canada serviceberry	3	10-20 ft	10-20 ft	☀ ◐	👎	No serious problems	Fruit is edible
Yellow birch N	*Betula alleghaniensis*		3	60-75 ft	60-75 ft	☀ ◐ ☀ ◐	👎	Leaf spots, cankers, birch leaf miners, birch skeletonizer, bronze birch borer	Shows some resistance to the bronze birch borer. Lives a long time. Beautiful fall color and peeling golden bark.
Heart leaved birch N	*Betula cordifolia*	Mountain paper birch, eastern paper birch, swamp birch	3	50-70 ft	20-45 ft	☀ ◐	👍	Leaf miners, cankers, bronze birch borer	
Musclewood N	*Carpinus caroliniana*	Blue beech, American hornbeam	3	25-40 ft	15-40 ft		👎	Not susceptible to any serious insect or disease problems	Can tolerate a wide variety of conditions but grows best on rich, seasonally wet sites.

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partial sun exposure · full sun exposure · partial shade exposure · shade exposure

Salt tolerance: tolerant · moderately tolerant · intolerant

Common name	Scientific name	Alternate name(s)	USDA hardiness zone limit	Height	Spread	Exposure	Salt	Pest and disease problems	Notes
Shellbark hickory	*Carya laciniosa*	Kingnut hickory, big-leaved shagbark hickory	4	75-100 ft	50-75 ft	☀ ◐	👎	No serious problems	Fruit is edible
Shagbark hickory N	*Carya ovata*		4	60-80 ft	30-50 ft	☀ ◐	👎	No serious problems	Fruit is edible
Mockernut hickory	*Carya tomentosa*	White hickory	4	50-60 ft	20-30 ft	☀ ◐	👎	No serious problems	Fruit is edible
Southern catalpa	*Catalpa bignoniodes*	Common catalpa, eastern catalpa, cigar tree	5	30-40 ft	30-40 ft	☀ ◐	👎	Verticillium wilt, leaf spots, powdery mildew	Tree can be messy when fruits and flowers drop.
Chinese catalpa	*Catalpa ovata*	Yellow catalpa	4	20-30 ft	20-30 ft	☀ ◐	👍	Verticillium wilt, leaf spots, powdery mildew	Tree can be messy when fruits and flowers drop.
Hackberry N	*Celtis occidentalis*		2	40-60 ft	40-50 ft	☀ ◐	👍	Witch's broom, hackberry nipple gall	Important food source for migrating songbirds. Great street tree.
Katsura tree	*Cercidphyllum japonicum*	Japanese katsura	4	40-60 ft	20-30 ft	☀ ◐	👎	Leaf scorch	Sensitive to tough and dry sites
Eastern redbud UC	*Cercis canadensis*	Redbud	4	20-30 ft	25-35 ft	☀ ◐	👎	Borers, cankers, verticillium wilt	Suffers in full sun or extreme summer heat.
Pagoda dogwood N	*Cornus alternifolia*	Alternate-leaved dogwood	3	15-25 ft	20-35 ft	☀ ◐	👎	Minor leaf infections, golden stem canker	Good for native pollinators
Cornelian cherry dogwood	*Cornus mas*		4	20-25 ft	15-20 ft	☀ ◐	👍	No serious problems	
Turkish filbert	*Corylus colurna*	Turkish hazelnut	4	40-50 ft	15-35 ft	☀ ◐	👎	No serious problems	Fruit is edible
Smoke tree	*Cotinus obovatus*	Chittamwood	4	20-30 ft	10-20 ft	☀ ◐	👎	No serious problems	Excellent fall colors

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Persimmon	*Diospyros virginiana*	Simmon, possumwood, and Florida persimmon	4	35-60 ft	20-35 ft	☀ ◐	👎	Impacted by persimmon wilt, webworm, and hickory horned devil.	Desirable wood, edible fruit, good for pollinators.
Hardy rubber tree	*Eucommia ulmoides*		5	40-60 ft	30-50 ft	☀ ◐	👎	No serious problems	
American beech	*Fagus grandifolia*		4	50-70 ft	50-70 ft	☀ ◐	👎	Beech bark disease, beech bark scale	
European beech	*Fagus sylvatica*	Common beech	4	50-60 ft	35-45 ft	☀ ◐	👎	Cankers	
Manchurian ash	*Fraxinus mandshurica*	Mancana'	3	30-55 ft	25-35 ft	☀ ◐	👍	No serious problems	
Mountain silverbell	*Halesia tetraptera*		5a	40-60 ft	20-30 ft	☀ ◐	👎		Attractive flowers and yellow fall color.
Tuliptree	*Liriodendron tulipifera*	Tulip poplar	5	70-90 ft	35-50 ft	☀ ◐	👎	Aphids, scales, mildew, canker, verticillium wilt	
Cucumber magnolia	*Magnolia acuminata*	Cucumbertree	3	50-80 ft	50-80 ft	☀ ◐	👎	Scale insects	Will not do well in windy or polluted sites.
Star magnolia	*Magnolia stellata*		4	15-20 ft	10-15 ft	☀ ◐	👎	Chlorosis, magnolia scale, powdery mildew	Best planted in a sheltered location
Butterflies magnolia	*Magnolia accuminata x M. denudata 'Butterflies'*	Butterfly magnolia	4	15-30 ft	15-30 ft	☀ ◐	👍	No serious problems	
Blackgum	*Nyssa sylvatica*	Black tupelo, sour gum	4	30-50 ft	20-30 ft	☀ ◐	👎	Cankers, leaf spots	
Ironwood	*Ostrya virginiana*	Eastern hop hornbeam	3	25-40 ft	15-40 ft	☀ ◐	👎	No serious problems	Provides food for wildlife. Common understory tree in Hennepin County forests.

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◑ partial sun exposure ☀ full sun exposure ◐ partial shade exposure ● shade exposure Salt tolerance: 👍 tolerant 👎 moderately tolerant 👎 intolerant

Common name	Scientific name	Alternate name(s)	USDA hardiness zone limit	Height	Spread	Exposure	Salt	Pest and disease problems	Notes
Norway spruce	*Picea abies*		3	40-60 ft	25-30 ft	☀ ◐	👎	Cytospora canker, Rhizosphaera needlecast, spider mites, bagworm	
White spruce N	*Picea glauca*	Canadian spruce	2	40-60 ft	10-20 ft	☀ ◐	👎	Cankers, root rots, needlecast diseases, bagworm, sawfly miners, needle miners, eastern spruce gall, adelgids	
Serbian spruce	*Picea omorika*		4	50-60 ft	20-25 ft	☀ ◐	👎	Aphids, borers	Intolerant of pollution
Red pine N	*Pinus resinosa*	Norway pine	2	50-80 ft	15-30 ft	☀ ◐	👎	Armillaria root rot, Diplodia tip blight, Sirococcus shoot blight	
Eastern white pine N	*Pinus strobus*		3	50-80 ft	20-40 ft	☀ ◐	👎	White pine blister rust, white pine weevil	Sensitive to salt and air pollution. Important keystone species for wildlife.
American sycamore	*Platanus occidentalis*	Buttonwood, buttonball tree	4	75-100 ft	50-70 ft	☀ ◐	👎	Anthracnose, leafspots, aphids, plant bug, scales, bagworm, borers	Also susceptible to frost cracks.
London planetree	*Platanus x acerifolia*		5	70-100 ft	65-80 ft	☀ ◐	👎	Canker stain, anthracnose, leafspots, aphids, plant bug, scales, borers	Young plants can be susceptible to frost cracks
Quaking aspen N	*Populus tremuloides*	Trembling aspen	2	40-50 ft	20-30 ft	☀ ◐	👍	Hypoxylon canker, leaf spots, nectria canker	Roots tend to sucker freely. Does not tolerate summer heat or pollution.
America plum	*Prunus americana*	Wild plum	3	15-25 ft	15-25 ft	☀ ◐	👎	Black knot, mildew, rust, root rots, fire blight, borers, mites, tent caterpillars	Fast-growing, short-lived, colony-forming tree. Great for wildlife.
Sargent's cherry	*Prunus sargentii*		4	40-50 ft	40-50 ft	◐	👎	Black knot, Eastern tent caterpillar, cankers, leaf spots, borers, aphids and scale	Beautiful pink flowers in early spring and shiny green foliage turns bronze to red in fall.
Black cherry N	*Prunus serotina*	Wild black cherry	3	50-60 ft	20-35 ft	☀ ◐	👍	Eastern tent caterpillar, cherry scallop shell moth, black knot fungus, animal browse as seedlings.	Excellent pollinator, good for songbirds, attractive flowers. Yellow to red fall color. Valuable lumber.

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Chokecherry N	*Prunus virginiana*	Virginia bird cherry, bitter cherry	2	15-25 ft	10-15 ft	☀ ◐	👍	Black knot, mildew, rust, root rots, fire blight, borers, mites and tent caterpillars.	Great for pollinators and songbirds.
Douglas fir	*Pseudotsuga menziesii*		4	40-80 ft	12-20 ft	☀ ◐	👎	Armillaria root rot, dwarf mistletoe	
Shingle oak	*Quercus imbricaria*	Laurel oak, small-leaved oak	5	50-60 ft	50-60 ft	☀ ◐	👎	Oak wilt, scale, two-lined chestnut borer	
Northern red oak N	*Quercus rubra*		3	60-75 ft	60-75 ft	☀ ◐	👊	Oak wilt, two-lined chestnut borer	One of the faster growing oaks. More tolerant of salt and air pollution.
Black oak N ▼	*Quercus velutina*		4	50-60 ft	40-70 ft	☀ ◐	👍	Oak wilt, two-lined chestnut borer	This species cannot withstand severe drought
Peachleaf willow N	*Salix amygdaloides*		2	13-65 ft	20-60 ft	☀ ◐	👊	Forest tent caterpillar, spongy moth, cottonwood leaf borer, willow sawfly, Phytophthora and Cytospora canker	Native American medicinal use, excellent early season pollinator. Very flood tolerant
Black willow N	*Salix nigra*		4	30-60 ft	30-60 ft	☀ ◐	👊	Forest tent caterpillar, spongy moth, cottonwood leaf borer, willow sawfly, Phytophthora and Cytospora canker	Native American medicinal use, excellent early season pollinator. Very flood tolerant
Bald cypress N ▼	*Taxodium distichum*	Swamp cypress, red cypress	4	50-70 ft	20-30 ft	☀ ◐	👍	Twig blight, spider mite, gall forming mite, cypress moths	Deciduous conifer. Tree will adapt to a wide range of soil types
Northern white cedar N	*Thuja occidentalis*	Arborvitae (American or eastern)	3	40-60 ft	10-15 ft	☀ ◐	👊	Bagworm, leaf miner, spider mites	Foliage tends to discolor in winter. Deer browsing can be a problem.
Basswood N	*Tilia americana*	American linden	3	60-80 ft	30-60 ft	☀ ◐	👎	Aphids, Japanese beetles, linden borer, anthracnose, verticillium wilt	Small fragrant flowers in mid-June. Great for pollinators.

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Silver linden	*Tilia tomentosa*		4	50-70 ft	25-40 ft	☀ ◐	👍	Aphids, Japanese beetle, powdery mildew, verticillium wilt	Excellent pollinator
Zelkova	*Zelkova serrata*		5	50-80 ft	50-75 ft	☀ ◐	👍	Phloem necrosis, Canker	Elm-like form
Canada plum	*Prunus nigra*	Black plum	2	20-30 ft	10-15 ft	◐ ●	👎	Plum pocket, branch cankers, powdery mildew, plum curculio	Fruit is edible

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◑ partial sun exposure · ☀ full sun exposure · ◐ partial shade exposure · ● shade exposure

Salt tolerance: 👍 tolerant · moderately tolerant · 👎 intolerant

These trees are not recommended to plant within Hennepin County. They may be invasive, prone to disease or infestation, or not survive well in Minnesota's changing climate.

Common name	Scientific name
Amur maple	Acer ginnala
Norway maple	Acer platanoides
Tree of heaven	Ailanthus altissima
Black alder	Alnus glutinosa
Russian olive	Elaeagnus angustifolia
Autumn olive	Elaeagnus umbellata
White ash	Fraxinus americana
Green Ash	Fraxinus pennsylvanica
White mulberry	Morus alba
Amur corktree	Phellodendron amurense
Callery pear	Pyrus calleryana
Common buckthorn	Rhamnus cathartica
Glossy buckthorn	Rhamnus frangula
Siberian elm	Ulmus pumila

Hennepin County
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