City of Ramsey
Agenda
Public Works Committee
Tuesday, April 18, 2023
5:30 pm
Lake Itasca Room, 7550 Sunwood Drive NW

Remote Attendance available at www.cityoframsey.com/meetings.
Those joining remotely and requesting to speak are asked to use a webcam when speaking.

1. Call to Order

2. Citizen Input

3. Approve Agenda

4. Approve Minutes

1. Approve the following meeting minutes.
1. Public Works Committee meeting dated March 21, 2023

5. Committee Business

1. Consider Boulevard Trees for the Barren Side of Sunwood Drive in The COR

2. Consider Recommending City Council Approval of 2023 Temporary Pavement Repairs Plan

3. Consider Recommending City Council Approval to Order Vactor Trailer

4. Consider Recommending City Council Approval of adding streets within Rivenwick 3rd and Rivenwick Village subdivisions to 2023 MSA Pavement Overlay Improvements, Improvement Project #23-06

5. Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for Barthel's Rum River Acres 2nd Street Reconstructions, Improvement Project #23-05

6. Consider Recommending City Council Approval of Ordering Request for Proposals for 2023 MSA Pavement Marking Improvements, Improvement Project #23-13

6. Committee/Staff Input

1. Receive Updates on Improvement Projects, Studies and Items of Interest

2. Review Future Topics Calendar

7. Adjournment

Public Works Committee **4. 1.**

Meeting Date: 04/18/2023

Submitted For: Bruce Westby, Engineering/Public Works

By: MaryJo Warner, Engineering/Public Works

Title:

Approve the following meeting minutes.
1. Public Works Committee meeting dated March 21, 2023

Purpose/Background:

Purpose: To review and approve meeting minutes.
Background: Attached are the meeting minutes for review.

Timeframe:

5 minutes.

Observations/Alternatives:

n/a

Funding Source:

n/a

Recommendation:

To review and approve meeting minutes dated March 21, 2023.

Action:

Motion to approve meeting minutes dated March 21, 2023.

Attachments

Minutes

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	04/13/2023 02:02 PM
Brian Hagen	Brian Hagen	04/13/2023 04:15 PM
Form Started By: MaryJo Warner		Started On: 04/13/2023 01:53 PM
Final Approval Date: 04/13/2023		

PUBLIC WORKS COMMITTEE
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Public Works Committee conducted a regular meeting on Tuesday, March 21, 2023, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Chairperson Chris Riley
Councilmember Debra Musgrove
Councilmember Matt Woestehoff

Also Present: City Engineer/Public Works Director Bruce Westby
Assistant City Engineer Joe Feriancek

1. CALL TO ORDER

Chairperson Riley called the regular meeting of the Public Works Committee to order at 5:30 p.m.

2. CITIZEN INPUT

There was none.

3. APPROVE AGENDA

Motion by Councilmember Musgrove, seconded by Councilmember Woestehoff, to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Musgrove and Woestehoff. Voting No: None.

4. APPROVE MINUTES

4.01: Approve February 21, 2023, Meeting Minutes

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to approve the following minutes:

Regular Meeting Minutes dated February 21, 2023

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

5. COMMITTEE BUSINESS

5.01: Receive Presentation on CSAH 5 (Nowthen Boulevard) Corridor Traffic Study

City Engineer/Public Works Director Westby provided brief background information on the corridor study, noting that the complete study was provided in the case. He introduced the staff member from Anoka County present at the meeting.

Jack Forslund, Transportation Planner for Anoka County Highway Department, stated that Anoka County recognized there will likely be changes in travel patterns due to the proposed Ramsey Gateway Highway 10 construction project and wanted to determine what some of those impacts may be. He stated that the study also reviewed the traffic and safety conditions both existing and projected into the future and to consider future improvements along the corridor. He recognized that Ramsey Elementary will see an increase in enrollment, so they also reviewed what could be done to assist the school. He reviewed the change in travel patterns that were forecasted following the grade separation improvements to Highway 10 and the bridges over the railroad tracks on Ramsey Boulevard and Sunfish Lake Boulevard. He stated that once the Highway 10 improvements are completed, traffic will likely remain on Highway 10 longer and exit on Sunfish Lake Boulevard or Ramsey Boulevard, which will decrease traffic on Highway 47 and Bunker Lake Boulevard. He reviewed the current ratings of intersections along the corridor as well as projected ratings along with similar information relating to crash data. He reviewed the key findings of the study and highlighted some of the potential improvements that were reviewed to improve the corridor. He noted that the County is actively attempting to gain funding for improvements. He stated that for the elementary school, most of the improvements would be on the school site itself, improving the parent drop-off function. He stated that the County consultant worked with the school to provide some potential plans.

Chairperson Riley asked if the mentioned roundabouts would help to control speed.

Mr. Forslund confirmed that roundabouts do help to control speed as vehicles have to slow their speed to move through.

Councilmember Woestehoff referenced the intersections of Green Valley Road and 175th and asked if the study accounted for planned development in the area.

Mr. Forslund confirmed that they worked with the City to use the proposed site plans for future development to account for that additional traffic.

Councilmember Musgrove referenced the grant funding that was mentioned. She asked if the likelihood for funding would increase if the four improvements were bundled together as a safety improvement project for the corridor.

Mr. Forslund replied that would not assist in eligibility for that type of funding. He stated that they will continue to submit for different types of funding.

Councilmember Musgrove noted that Sunwood Drive and Green Valley Road are high priorities for the City. She acknowledged that with the Highway 10 improvements, a roundabout at Ramsey Boulevard would be helpful.

Chairperson Riley asked if the anticipated shift in traffic patterns would cause issues on the other roadways that are anticipated to increase in traffic.

Mr. Forslund stated that the shift in traffic would not cause issues on those roads.

Councilmember Musgrove stated that it is nice to have this data and numbers that can be used for comparison in the future.

Chairperson Riley asked the next step in the process.

Mr. Forslund stated that the County has a capital improvement process, similar to the City. He noted that these improvements are not yet included in the Anoka County CIP, but that the County is constantly updating its system.

Councilmember Musgrove asked if the City including projects on its CIP would assist in moving projects up on the County radar.

Mr. Forslund commented that they do listen to the cities, noting that this study was completed because of input and requests from the City of Ramsey.

Chairperson Riley thanked Mr. Forslund for attending and providing input.

5.02: Consider Recommending City Council Approval of Ordering Requests for Proposals for 2023 Capital Improvement Program Project Topographic Surveys, Geotechnical Services, Utility Testing, and Engineering Services

Assistant City Engineer Feriancek presented the staff report and stated that staff recommends City Council approval of ordering Requests for Proposals for 2024 Capital Improvement Program Project Topographic Surveys, Geotechnical Services, Utility Testing and Engineering Services.

Chairperson Riley commented that it would make sense to attempt to coordinate with Nowthen on the streets that continue into that community. He asked if these were the streets in the worst condition that were included for 2024.

Assistant City Engineer Feriancek confirmed that staff used the CIP and list of streets within the City's plan in attempt to tackle those in the worst condition while also addressing roads that could still receive an overlay.

Chairperson Riley asked if the winter conditions changed anything, or whether there needs to be flexibility.

Assistant City Engineer Feriancek stated that the CIP is reviewed every year and some tweaking is done to the projects, while the goal is to not move projects backs. He stated that sometimes they can include an additional road. He stated that staff believes that this would max out what they could do within the year, based on staffing levels and funding.

Councilmember Woestehoff asked about the dirt road that has been discussed for paving on the north side of Ramsey. He noted that if it were close to these roads he would wonder whether it would be appropriate to pave the roadway.

City Engineer/Public Works Director Westby identified the roadway and stated it is not close to the proposed improvements.

Motion by Councilmember Musgrove, seconded by Councilmember Woestehoff, to recommend City Council approval of ordering Requests for Proposals for 2024 Capital Improvement Program project topographic surveys, geotechnical services, utility testing and engineering services.

Further discussion: Chairperson Riley commented that this is great and staff should be commended for this work.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Musgrove and Woestehoff. Voting No: None.

5.03: Consider Recommending City Council Approval of Plans and Specifications and Award of Contract for Improvement Project #23-09, 2023 Pavement Rejuvenation Improvements

Assistant City Engineer Feriancek reviewed the staff report and stated that staff recommends City Council approval of plans and specifications and award of contract for Improvement Project #23-09, 2023 Pavement Rejuvenation Improvements.

Chairperson Riley asked for details on the process and whether that has changed.

Assistant City Engineer Feriancek reviewed the process and confirmed that it remains the same.

Councilmember Musgrove commented that this plan is great and trusts that staff will add roads when possible.

Motion by Councilmember Musgrove, seconded by Councilmember Woestehoff, to recommend City Council approval of plans and specifications and award of contract for Improvement Project #23-09, 2023 Pavement Rejuvenation Improvements.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Musgrove and Woestehoff. Voting No: None.

5.04: Consider Recommendation to City Council to Accept Bids and Award Contract for Improvement Project #21-09, Centralized Water Treatment Plant

City Engineer/Public Works Director Westby presented the staff report and stated that staff recommends City Council acceptance of bids and award of construction contract for Improvement

Project #21-09, Centralized Water Treatment Plans, to Magney Construction, Inc. in the amount of $31,478,500.

Chairperson Riley referenced the $50,000 savings for bid alternate 1, which is .16 percent of the project cost. He noted that the delay would cause them to miss the peak season which also allows the new equipment to come on line in a less taxing season. He asked if there would be enough value to the City to account for the $50,000 savings noting that is relatively small in terms of the overall project cost.

City Engineer/Public Works Director Westby commented that the longer a project goes on, the more inspections there would be and stated that many of the inspections cannot be provided by in-house staff. He stated that he is working to determine what the additional cost for inspections would be if bid alternate 1 was approved.

Chairperson Riley stated that if the savings were larger, he may agree with the delay.

Councilmember Woestehoff stated that he agrees that the $50,000 is not enough to justify the additional four months. He stated that perhaps an incentive is offered if the desired completion date is reached.

Councilmember Musgrove commented that the low bid seems to be very tight compared to the estimate and the other bids.

City Engineer/Public Works Director Westby commented that he is not privy as to how the numbers are determined by the bidder. He noted that sometimes a bidder may have materials available on hand that were already purchased but not used. He stated that the bidder could really want the project and want to ensure work for their crews.

Chairperson Riley asked if the bid has been reviewed to ensure it is responsible.

City Engineer/Public Works Director Westby confirmed that the bid has been reviewed and determined to be responsible. He stated that the committee should make a recommendation on whether or not to accept the bid. He stated that staff will bring back additional information on the bid alternate for review when it goes forward to the City Council. He noted that the recommendation of staff at that time may be to not accept the bid alternate.

Chairperson Riley commented that he would tend not to accept the bid alternate.

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to recommend City Council acceptance of bids and award of construction contract for Improvement Project #21-09, Centralized Water Treatment Plant, to Magney Construction, Inc., rejecting bid alternate #1.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

6. COMMITTEE / STAFF INPUT

6.01: Staff Updates on Improvement Projects and Items of Interest

City Engineer/Public Works Director Westby provided an update on current and proposed City, County, and MnDOT improvement projects and studies, and on other items of interest to the committee. He also provided an update on pothole activity, resident complaints, and a form that can be completed for damages to vehicles due to potholes. He stated that typically in the winter they use one trailer of cold mix for pothole patching and this year they have placed seven trailers of cold mix to patch potholes, and the supplier has now run out.

6.02: Review Future Topics Calendar

City Engineer/Public Works Director Westby stated that staff is working on the 2023 spray patching plan and will bring that forward for committee review in April.

7. ADJOURNMENT

Motion by Councilmember Musgrove, seconded by Councilmember Woestehoff, to adjourn the Public Works Committee meeting.

Motion carried.

The regular meeting of the Public Works Committee adjourned at 6:34 p.m.

Respectfully submitted,

_____
Bruce Westby
City Engineer/Public Works Director

Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.

Public Works Committee **5. 1.**

Meeting Date: 04/18/2023

By: Mark Riverblood, Engineering/Public Works

Title:

Consider Boulevard Trees for the Barren Side of Sunwood Drive in The COR

Purpose/Background:

Street trees provide many environmental and community benefits, including beautification of urban areas, and creating shady sidewalks for pedestrians. Sunwood Drive is essentially Ramsey's 'main street', with boulevard trees, sidewalk, streetscape and irrigation installed on alternating halves of the approximately one mile arterial roadway in 2008. Planting trees on the opposite side sooner than later, will minimize the disparity in the height and canopy size of essentially a decade and a half differential in planting times for these new trees.

Planting the trees in 2023, versus waiting years for individual parcels to develop along Sunwood will lesson the future visual lopsidedness of boulevard trees along Ramsey's most prominent street. Completing the trees on both sides of this street would also improve the overall aesthetic in this area of the downtown, improve property values there, and will have traffic-calming benefits. The installation of the trees and irrigation will also reduce the future streetscape costs for private developers for sites that abut Sunwood Drive—thus for the parcels the city would sell, there is an additionally theoretical increase in land sales value due to the established trees (if approved).

It may be reiterated here, that this proposed project only includes trees and irrigation; the future sidewalk, landscape, outdoor furnishings (benches, trash receptacles, etc.) are not envisioned with this project—these would be installed as individual development occurs on Sunwood Drive.

In 2022 the Public Works Committee authorized staff to issue a Request for Proposal to ascertain the costs for the proposed tree and irrigation project. The attached RFP details the scope of this work, and also parses the potential project into a Base Bid for the boulevard trees that abuts the city-owned property, and an Add Alternate for the trees in the right-of-way adjoining privately owned land. This was also at the direction of the PWC.

Timeframe:

It is expected that staff will take up to 5 minutes to provide background on this proposed project and summarize the Bidding conditions, for the Committee's discussion.

Observations/Alternatives:

While the whole of The COR is half built out, it may be many years before all of the parcels along 'main street' are developed—the 15-year disparity in tree sizes (2008 to 2023) will be noticeable if the trees are planted as this case discusses. If the streetscape trees are only planted as each private development is competed along Sunwood Drive, the tree size differences would likely be dramatic.

In following through on the PWC's direction to issue an RFP; Anderson Irrigation, Fair's Nursery, Great Northern Landscapes and Grove Nursery were invited to bid on a Base Bid and an Add Alternate for the project, with the following proposals received:

Contractor	Base Bid	Add Alternate
Anderson Irrigation	**$45,639**	$51,785
Great Northern Landscapes	$50,015	$56,045

Funding Source:

The proposed funding source is the Community Forestry Fund 0233.4608 which has a present balance of $76,730.

Recommendation:

Staff recommends proceeding with the Base Bid planting only at this time of $45,639—the Add Alternate could be considered with some sort of cost sharing agreement with the adjoining landowner, or at a future time.

Action:

Motion to recommend to City Council _____ regarding the installation of boulevard trees and irrigation, at a not-to-exceed amount of $_____.

Attachments

RFP

Appendix plan view

Scope of work and tree size comparison

CIP worksheet

Illustrative Benefits

2018 Tree Report

Development Plan

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	04/13/2023 02:01 PM
Brian Hagen	Brian Hagen	04/13/2023 04:22 PM
Form Started By: Mark Riverblood		Started On: 03/23/2023 03:15 PM
Final Approval Date: 04/13/2023		

REQUEST FOR PROPOSAL

PROPOSALS MUST BE RECEIVED BY:
4:00 PM on Monday, March 27th, 2023

E-mail to: mwarner@cityoframsey.com
Mary Jo Warner
763-433-9820

Procure and Plant 42 *or* 78 B & B Trees, with corresponding Design-build Irrigation System for Sunwood Drive NW

N

Base Bid ↑

Add Alternate ↓

PROPOSAL SPECIFICATIONS

Provide and plant trees, and provide and install irrigation system as follows:

I/We agree to furnish all trees, materials, labor and incidentals to perform the work below.

- Mobilization, deliver and plant, B & B trees approximately 60" back of curb in the locations shown in the attached plan view document (Appendix).
- A mandatory pre-construction meeting shall occur at the job with the City and the Contractor's on-site supervisor.
- Each tree shall have no less than ½ cubic yard 'Plaisted's Growers Mix' incorporated into the parent soil immediately surrounding each tree, at a rate of 25% Plaisted's soil to 75% native or parent soil.
- All trees shall be staked or paint-located in the ROW, approximately 40' O.C. by the contractor, and then verified/approved by a City representative.
- Trees shall be thoroughly watered-in upon planting, and kept sufficiently moist by the Contractor until acceptance of the irrigation system by the City.
- Trees shall be individually approved for planting on site by the City upon visual inspection—no park grade trees permitted, nor any defects in the trunk will be approved.
- The root flare shall be properly located level with the top of the B-style curb, even if the ground level slopes down and away from back of curb. It is not anticipated that any soil generated from the tree planting excavations will be hauled away—rather, this sand may be evenly spread parallel to the curb line to level the ROW where the tree planting is to take place.
- After the correct placement and planting depth is approved by the city representative, a 4' diameter circle of 'mink mulch' wood chips shall be placed around each tree, 3" to 4" in depth.
- All trees shall be warranted for a period of 18 months following installation and acceptance by the City.

- **Base Bid** tree planting shall include the following trees at a minimum 2.5 diameter, with Elms (only) a minimum of 3" dbh:
  6, Swamp White Oak
  6, Red Oak
  6, Heritage River Birch (single stem)
  6, Accolade Elm
  And 6 trees each (18 trees), of three of the following species;
  Bur Oak
  Sentry Linden
  Expresso Kentucky Coffee Tree
  Street Keeper Locust
  Sienna Glenn Maple

- **Add Alternate** tree planting shall include the following trees at a minimum 2.5 diameter, with Elms (only) a minimum of 3" dbh:
  6, Swamp White Oak
  6, Heritage River Birch (single stem)
  6, Expresso Kentucky Coffee Tree
  6, Accolade Elm
  And 6 trees each (12 trees), of two of the following species;
  Bur Oak
  Sentry Linden
  Street Keeper Locust
  Sienna Glenn Maple

- This Request for Proposal shall be a not-to-exceed amount, for the irrigation component, and numbers of trees to be planted. If upon field staking, it is determined that the tree count (of 42 or 36) can not 'fit' in the corresponding street blocks, the tree(s) shall be planted by the Contractor elsewhere in the downtown area, without the corresponding irrigation component. The Contractor must include within his/her quote any time or materials necessary and incidental to complete the work in a professional and quality manner. **There will be no Change Orders.**

- Key points of the design-build irrigation are noted on the 7 page appendix and may not be to scale—The relevant notes germane to this RFP are in color (many notes in black and white are carried forward in the plan view drawing from a previous project). All irrigation components shall be staked or located for field verification and approval by the city.
- The Base Bid irrigation main line is in place and consists of a 2" PVC pressurized pipe 32" to 48" below grade *approximately* 8' to 10' north of the curb line.
- The Add Alternate CL200 2" PVC main line shall be provided by the Contractor and installed 1.5' to 2' feet deep, approximately 1' foot back of curb.
- There shall be one Acclima decoder and one Hunter PROS valve per block A, B, and C for three total decoders and valves for the Base Bid. There shall be one Acclima decoder and one Hunter PROS valve per block D and E for two total decoders and valves for the Add Alternate blocks.
- Each block shall be served by 40 psi MP pop-up pressure regulating heads. The spray pattern shall be 5' x 30' with an approximate 20% overlap between heads (maximum spacing of 21' to 24' feet). Each zone line shall be connected to the main line with a 1" poly pipe. Each pop-up shall be connected to the zone line with 'funny pipe'.
- There shall be one surge protector in the Base Bid block and another in the Add Alternate block, or more frequency *if* the Acclima manufacturing specifications call for it. There shall be one 8' foot ground rod 5/8" diameter every 500' feet or less, and located within 24" of each decoder. The ground rod shall be connected by a #6 or # 10 copper wire.
- Each decoder and valve shall be in a green, 21" by 15" NDS 'jumbo' irrigation box blocked and secured to industry standards.
- The Acclima 2-wire system shall include a 14 gauge (blue or orange) jacketed wire.
- The contractor shall work with the City to program decoders, valves, with the Base Bid, and Add Alternate blocks on-site, following irrigation component installation. The Acclima CS3500 Installation Checklist (included in the Appendix) shall be consulted as part of part of project acceptance (where applicable), including also that spray patterns do not overlap curbing or street pavement.

Work and Staging Areas:

Confine work activities to the immediate project area, and approved traffic control and signage shall be employed for all vehicles, equipment and persons within Sunwood

Drive. Contactor is responsible for protecting pavement edge at the street from breaking and damage. No construction activity shall be performed before 7 AM nor after 7 PM Monday through Saturday. The contractor shall provide 72 hour advance notice before working on Saturday. City Council approval is required for Sunday work.

A dumpster is not anticipated to be needed on site, and no construction related disposal is to be placed in the trash receptacles along Sunwood Drive.

Warranty/Guarantee:
The Contractor warrants and guarantees to the Owner that all Work will be of good quality and free from faults or defects for 18 months and in accordance with this RFP. All defective Work may be rejected.

If required by the Owner, prior to payment, the Contractor will promptly without cost to the Owner, correct defective Work, or replace it with non-defective Work. If the Contractor does not correct such defective Work or remove and replace within a reasonable time, the Owner may have the deficiency corrected or the rejected Work removed and replaced. All direct or indirect costs of such correction or removal and replacement, including compensation for additional professional services shall be paid by the Contractor, or deducted by the Owner, all such costs from the quoted contract price.

If, instead of requiring correction or removal and replacement of defective Work, the Owner (prior to approval of final payment) prefers to accept it, they may do so. In such case, if the acceptance occurs prior to payment, a Statement shall be issued incorporating the necessary revisions, including appropriate reductions in Contract Price.

Specification References:

- Plaisted's Grower's Mix

https://plaistedccompanies.com/horticultural-mixes/

Plaisted Companies
INCORPORATED

P.O. Box 332 • 11555 205th Avenue NW • Elk River, MN 55330 U.S.A.
www.plaistedccompanies.com
Tel 763.441.1100 • Fax 763.441.7782

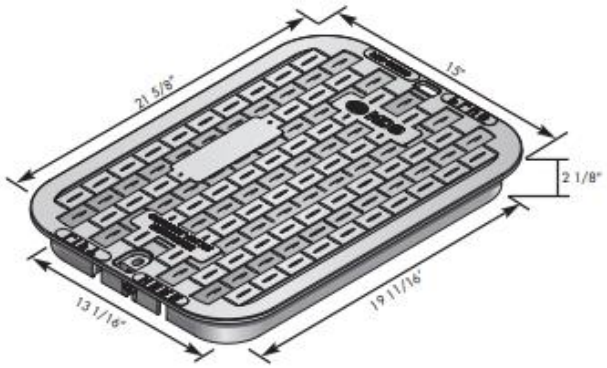
NDS
One source. Many solutions.

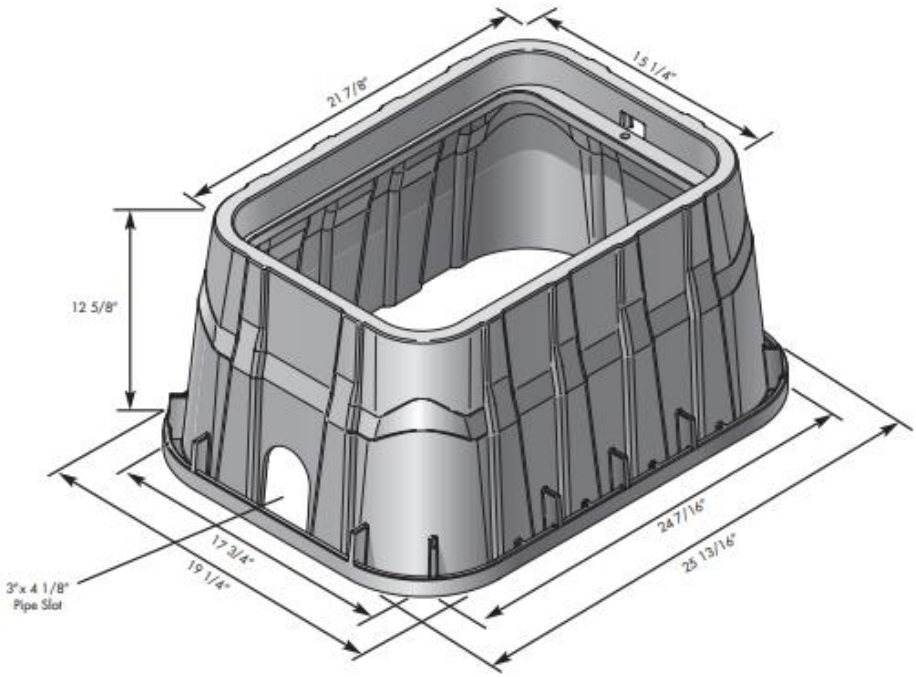
TECHNICAL SPECIFICATIONS

NDS Pro Series Plus 13"x 20" Jumbo Rectangular Valve Boxes

318BC, 13" x 20" Jumbo Rectangular Valve Box

The NDS 318BC is a 13" x 20" rectangular high performance structural foam polyethylene valve box with locking brass insert, structural corrugated ribbed sidewall, corrugated overlapping lip cover, and UV inhibitor. Optional locking stainless steel bolt available.





Decoder

2 and 4 Zone Decoder

2-Wire System Accessories, connecting solenoid valves and other system devices to the 2-Wire System.

Features:

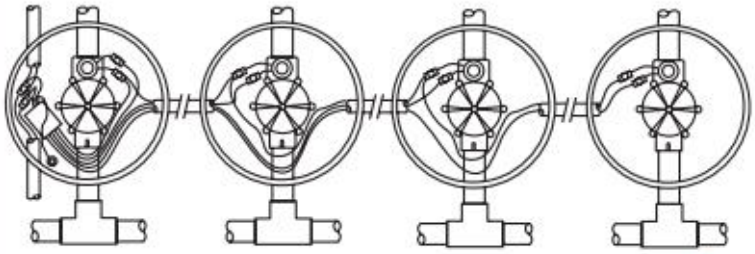
- Waterproof, submersible enclosure
- Interfaces with any 24VAC solenoid valve
- Zone activity LED for each zone
- Communications activity LED
- 14 Gauge Polyethylene insulated wire
- Automatic overload and short-circuit disconnect
- Short-circuit and overload reporting to controller
- Includes built in lightning arrestor

The Acclima 2 and 4 zone Decoders are used to connect 24 volt AC solenoid valves and relays to the Acclima 2-wire system. They are designed to be installed in valve boxes or underground wiring boxes where they can adapt any 24 volt AC solenoid valve or pump-start relay to the 2-wire system, thus providing communications to and control over those devices from Acclima's CS3500 controller.

Specifications:

- Power Consumption (valves off): 24vac 20ma,.48w
- Load Capability per zone: 0.7 Arms
- Operating Temperature Range: -20C to 70C
- Survival Temperature Range: -40C to 85C
- 36" min wire length for 2-Wire and zone connections
- Lightning Arrestor 6KV 6KA

NOTE:
2 and 4 Zone Adapters are best used for new system installation only. For retrofitting existing systems to the Acclima 2-Wire system use 16 or 32 zone decoders.



Dimensions:
Width: 3-1/2" (8.9 cm)
Length: 2-1/2" (6.3 cm)
Height: 7/8" (2.2 cm)
Wire length: 3" (7.6 cm)

Model Number#
ACC-DCR-002
ACC-DCR-004

Acclima
Closed Loop Irrigation Systems

Acclima, Inc., 2260 East Commercial Street, Meridian, Idaho 83642
Toll Free: 866-887-1470 Fax: 208-887-6368
www.acclima.com

Rev 0309

Closed Loop Irrigation®

WD System Water On Demand®

PRO-SPRAY® PRS40

To optimize MP Rotator Nozzle performance, the Pro-Spray PRS40 Sprinkler Body is pressure-regulated to 40 PSI.

KEY BENEFITS

- Industry's strongest sprinkler body for years of reliable performance
- Pressure-regulated to 40 PSI for the MP Rotator Nozzle
- Gray cap for easy field identification
- Co-molded wiper seal made from chemical- and chlorine-resistant materials
- Innovative seal design prevents cap-to-body leaks, even with a loose cap
- FloGuard Technology option eliminates water waste in the event of a missing nozzle

ADDITIONAL FEATURES

- Directional flush plug design for cleaner installation
- Interchangeable components for easier servicing, retrofits, and upgrades
- Heavy-duty spring for consistent riser retraction
- Check valve option eliminates low-head drainage

OPERATING SPECIFICATIONS

- Operational pressure range: 15 to 100 PSI
- Warranty period: 5 years

FACTORY-INSTALLED OPTIONS

- Check valve available for 4", 6", and 12" models (up to 14' of elevation)
- Reclaimed water identification
- FloGuard Technology available for pop-up models

USER-INSTALLED OPTIONS

- Check valve
  - Up to 10' of elevation for 3" model
  - Up to 14' of elevation for 4", 6", and 12" models
- Reclaimed water ID cap (P/N 458562SP)
- Snap-on reclaimed cover (P/N PROS-RC-CAP-SP)
- Shutoff cap (P/N 213600SP)
- Shutoff nozzle (P/N 916400SP)

PRS40 Reclaimed

Optional factory-installed purple reclaimed water caps

FloGuard Technology

Eliminate water waste in the event of a missing nozzle

PROS-00-PRS40
Retracted height: 4½"
Inlet size: ½"

PROS-03-PRS40
Retracted height: 5"
Pop-up height: 3"
Exposed diameter: 2¼"
Inlet size: ½

PROS-04-PRS40-CV
Retracted height: 5⅞"
Pop-up height: 4"
Exposed diameter: 2¼"
Inlet size: ½"

PROS-06-PRS40-CV
Retracted height: 8¾"
Pop-up height: 6"
Exposed diameter: 2¼"
Inlet size: ½"

PROS-12-PRS40-CV
Retracted height: 16⅛"
Pop-up height: 12"
Exposed diameter: 2¼"
Inlet size: ½"

Acclima
Closed Loop Irrigation Systems

CS3500 Installation Checklist

Site Installation

- ☐ Sensors are installed in each microclimate of the site
- ☐ Each sensor is be watered by a single host zone
- ☐ Each sensor is installed in healthy turf and free from runoff
- ☐ Sensors are buried at 3 inch depth +/-1 inch. Use a stiff wire probe or ice pick to find the sensor body
- ☐ New sites are wired with sheathed 2-conductor cable of at least 14 Gauge diameter
- ☐ All wire connections are protected by closed grease caps
- ☐ Wiring inside grease caps is secured by tightly fastened wire nuts. Don't open to inspect – ask
- ☐ Wires in valve boxes are orderly and easily discernable as to what they control

Device Configuration (at the Controller or from Irrigation Manager)

- ☐ Inspect the controller to see that it is clean and not damaged in shipping or by mishandling during installation
- ☐ Create and name watering restrictions in accordance with area and site requirements
- ☐ Install water sources, master valves and pumps and name them
- ☐ Install sensors and name them
- ☐ Install flow meters and name them
- ☐ Assign each flow meter a water source
- ☐ Set pipe diameter or custom settings for each flow meter
- ☐ Install any remaining devices and name them
- ☐ Install zones and name them. These can be reordered at any time
- ☐ Assign a Host Zone to each sensor

Zone Checklist

- ☐ Sensor zones are identified and programmed as per site specifications
- ☐ Dependent zones are assigned to sensor zones according to the microclimate
- ☐ Dependent zones are set to reasonable tracking ratios
- ☐ Timed zones have reasonable run times and frequencies
- ☐ Each zone should be assigned to the proper water source
- ☐ All zones are assigned to the appropriate watering restriction
- ☐ All zones water when manually activated
- ☐ Water distribution patterns assure efficient coverage (head to head coverage)
- ☐ Nozzle types (precipitation rates) are consistent throughout each zone
- ☐ Heads are clean with full spray patterns
- ☐ Heads are adjusted to avoid sidewalks and parking lots
- ☐ If a pressure meter is installed, verify that pressure readings are reasonable
- ☐ Set flow rates for each zone (as determined from flow meter readings or as specified if flow meter is not present)

Sensor Checklist

- ☐ Verify each sensor reads reasonable moisture, temperature and EC levels
- ☐ Identify Field Capacity and Managed Allowable Depletion levels for each sensor
- ☐ Program proper threshold settings for each sensor

Final Check

- ☐ Run the "Configuration Check" from the diagnostic screen in Irrigation Manager and resolve concerns
- ☐ Successfully run the "System Test" from the diagnostic screen in Irrigation Manager
- ☐ Verify remote connection is working (Telephone, Ethernet, or Radio)
- ☐ Verify "Voice Access" is working (where installed)
- ☐ Install the Acclima Email Reporting application and verify it is working (where desired)
- ☐ Notify site maintenance personnel of site connection information
- ☐ Create a site map with zone names and sensor locations
- ☐ File an 'Initial Configuration' reference document using the "Print configuration" option in Irrigation Manager
- ☐ Create a configuration backup using "Export Configuration" in Irrigation Manager

Tree Planting Blocks A, B, and C

N

Base Bid

Add Alternate

Tree Planting Blocks D and E

Procure and Plant 42 *or* 78 B & B Trees (Base Bid + Add Alternate)**, with corresponding Design-build Irrigation System for Sunwood Drive NW.**

Base Bid $ _____.

Add Alternate $ _____.

Total Base *and* Alternate $_____.

In submitting the above quote, I/We warrant the quote valid for work to be completed in the Spring, Summer, or Fall of 2023 (Contractor's choice), *or* Spring of 2024. (Bidders need only to submit this page, not the entire RFQ.)

Additionally, I/we acknowledge that the specifications and provisions above.

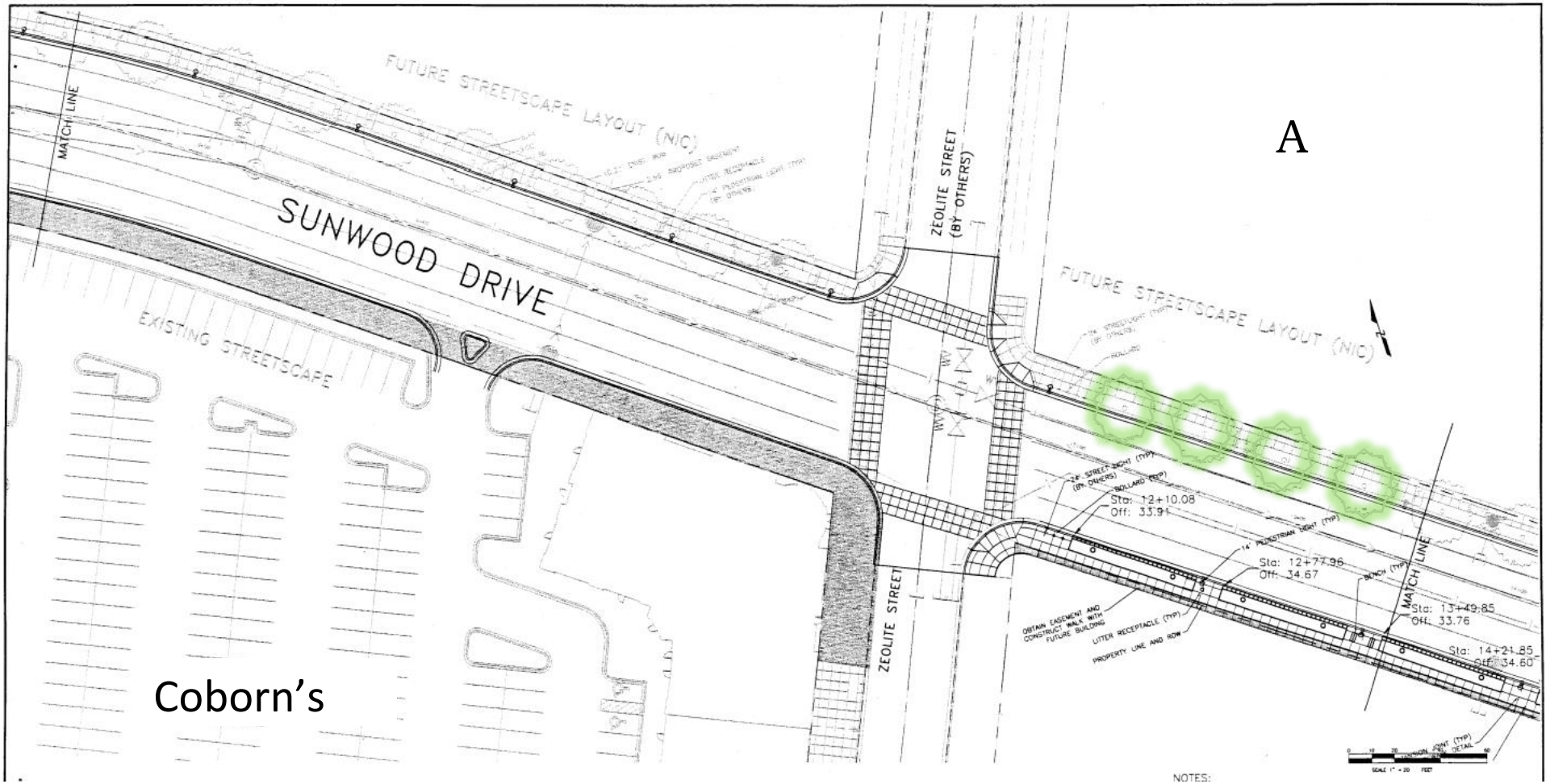
Contractor name _____

Owner or representative _____

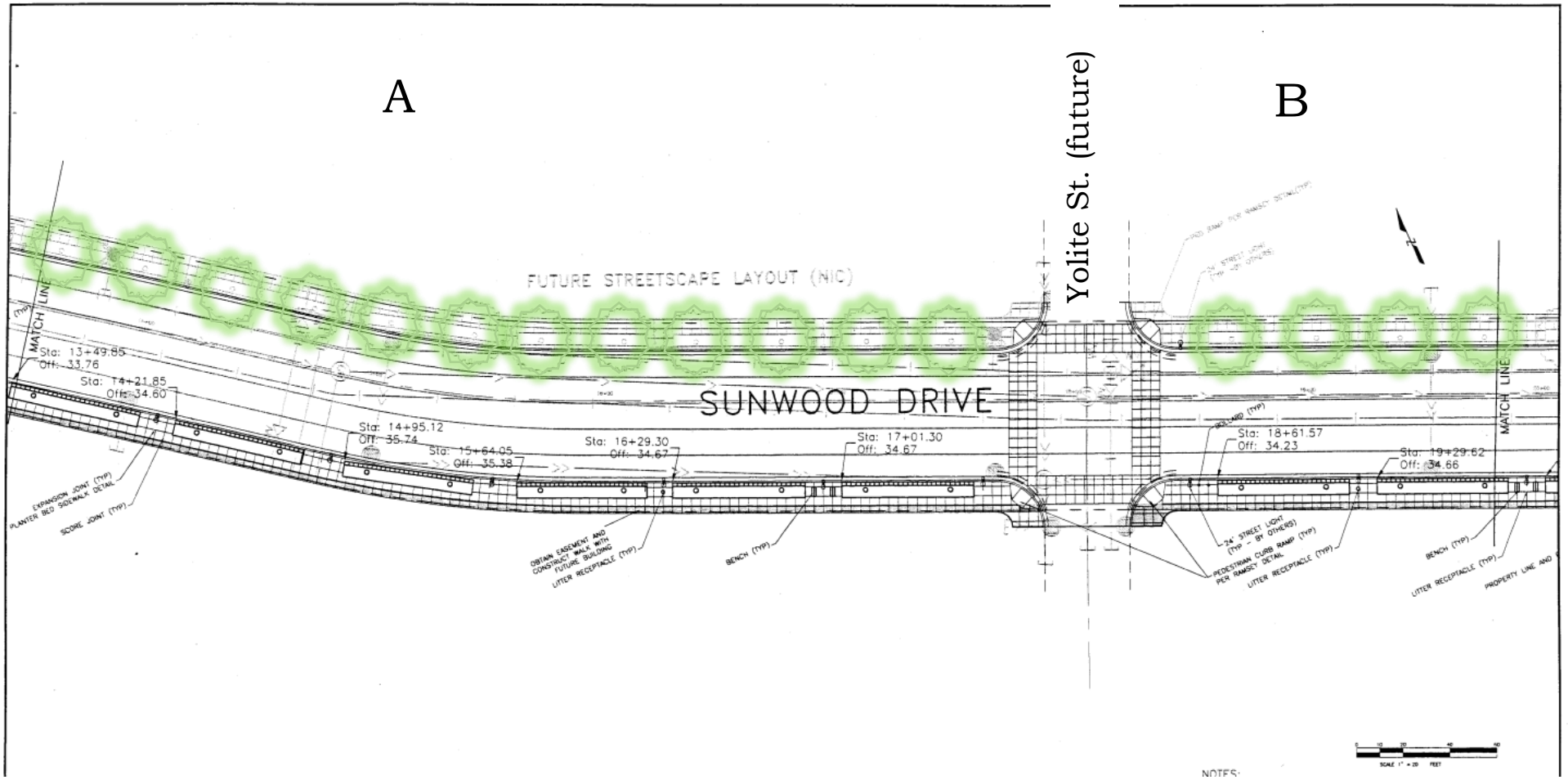
Signature _____

Phone(s) _____

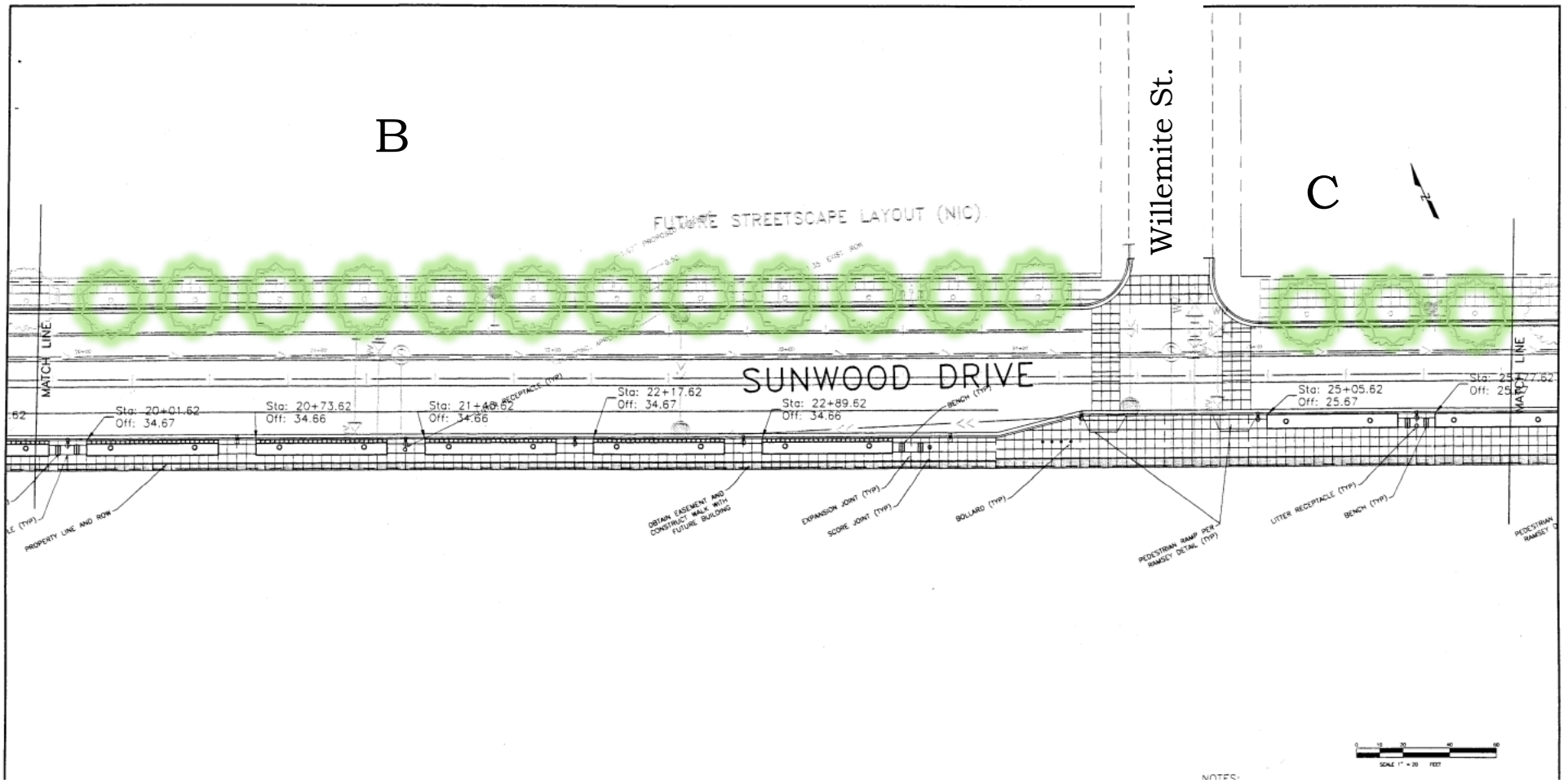
E-mail _____



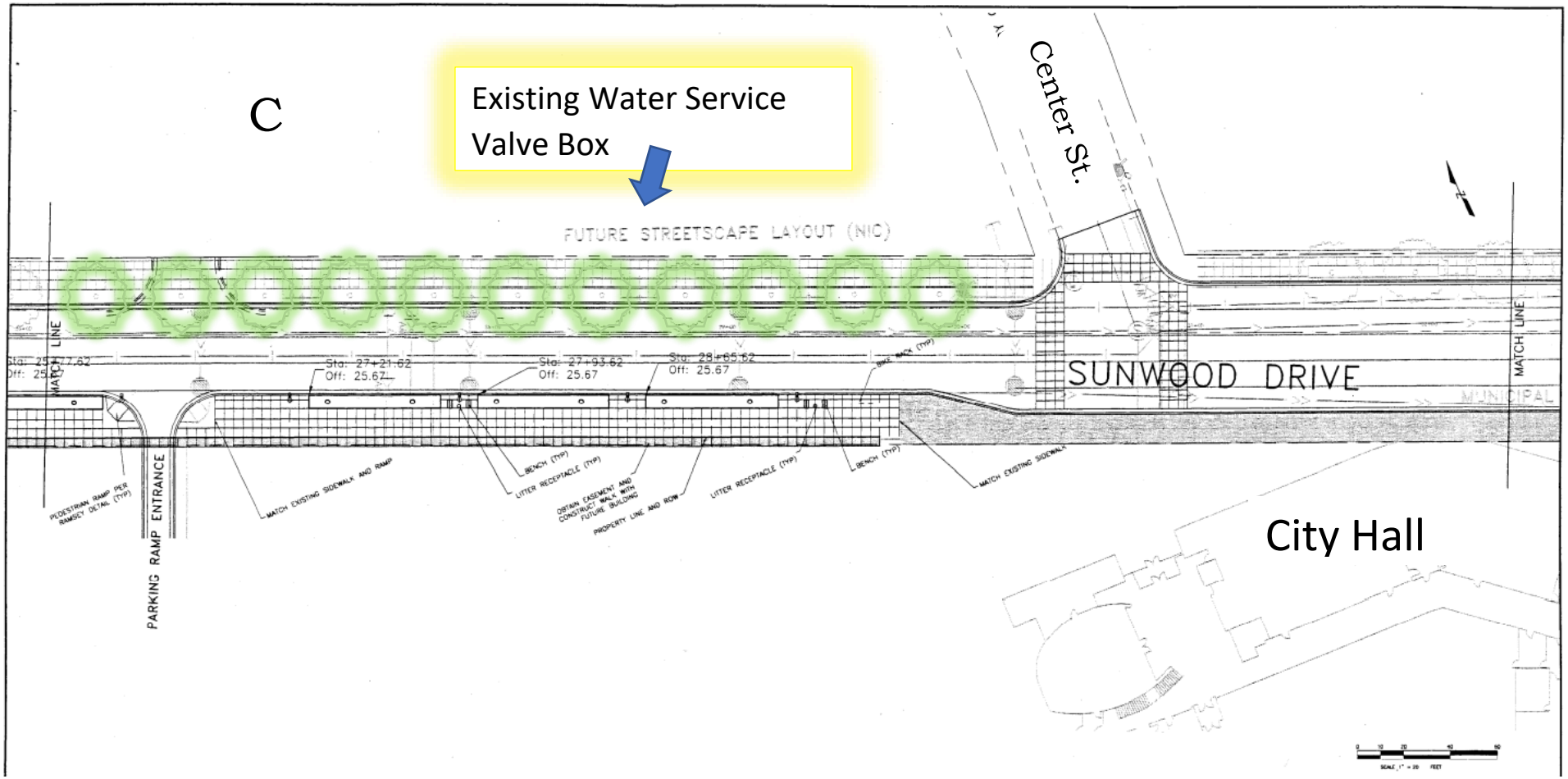
West side Block A (Base Bid)



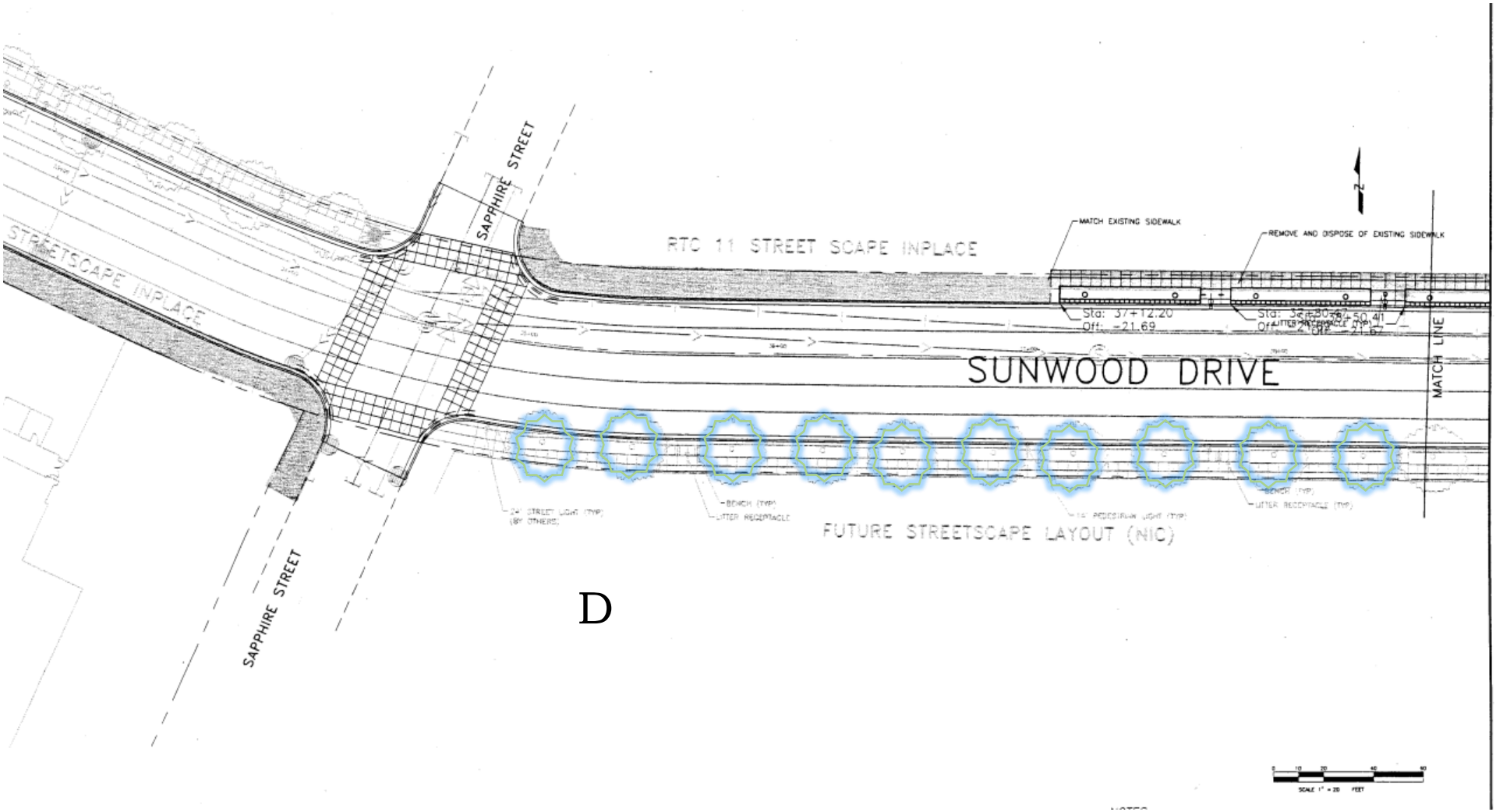
East side Block A, and West side Block B (Base Bid)



East side Block B, and West of C (Base Bid)

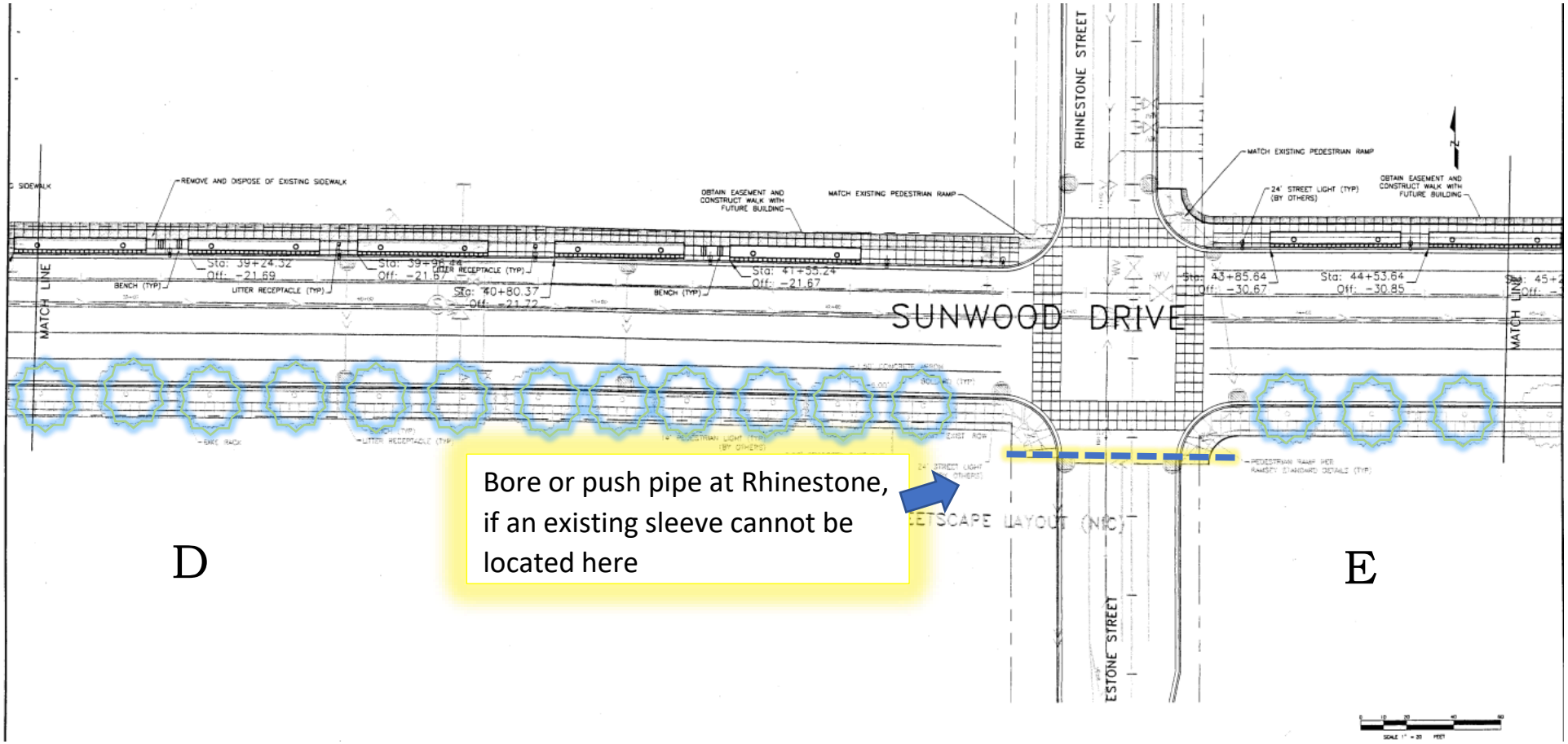


East side Block C (Base Bid)

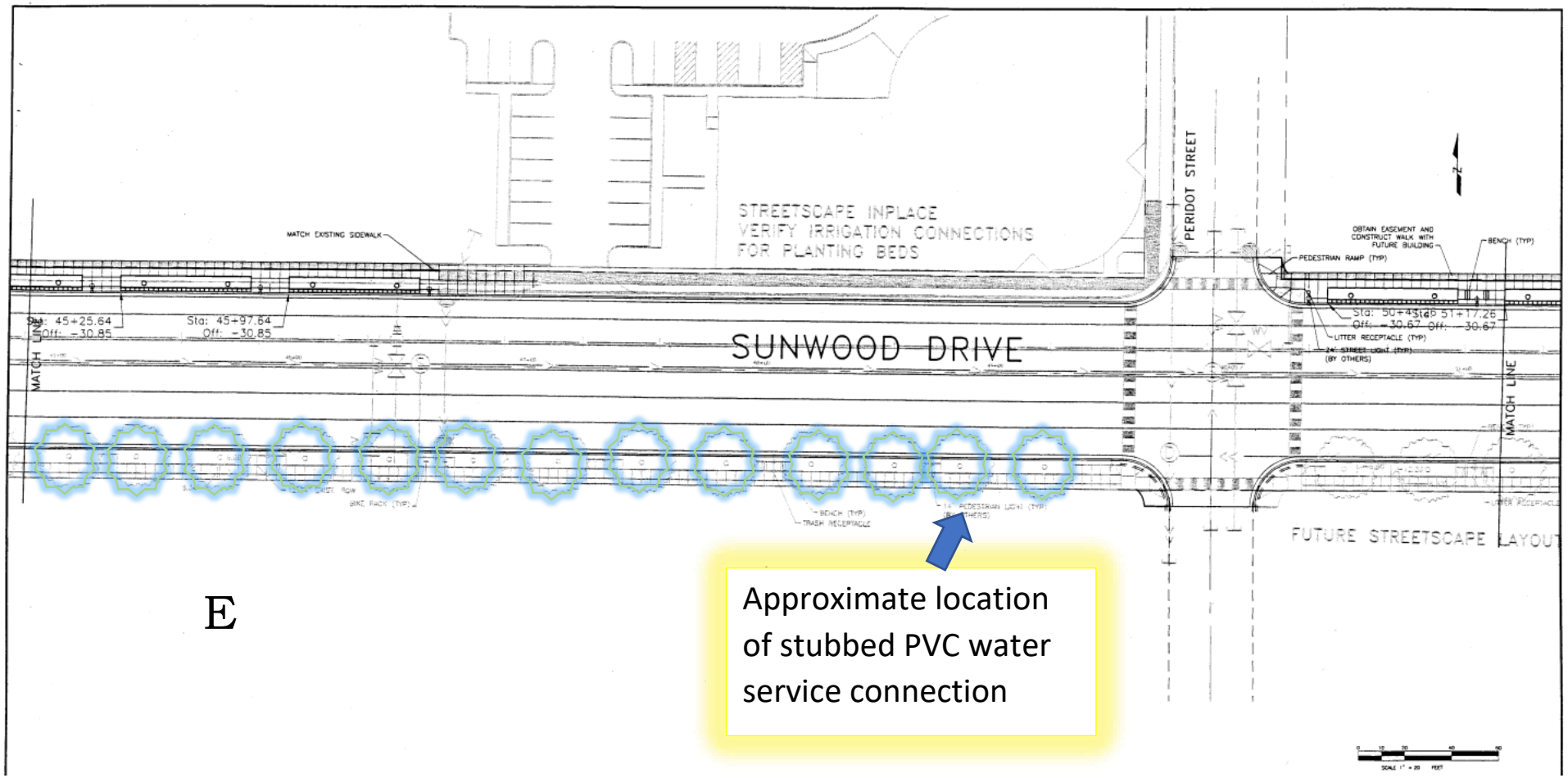


D

West side Block D (Add Alternate)



East side Block D, and West side Block E (Add Alternate)



East side Block E (Add Alternate)


Yellow bar represents approximate
tree height of 2 ½ inch B & B tree


2 ½ inch B & B tree planted two years ago
to replace 'car killed' tree


The Draw
The Draw
The Draw
Scope of work
Mississippi West
Regional Park

Capital Improvement Program

2022 *thru* 2031

City of Ramsey, Minnesota

Project # 22-PARK-002

Project Name Boulevard Trees - Sunwood Drive in COR

Department Park Improvements
Contact
Type Improvement
Useful Life 50 Years
Category Park Improvement
Priority 2-New Addition (High)
Status Active

Total Cost $80,000

Description

Sunwood Drive in The COR is essentially Ramsey's main street, and boulevard trees, sidewalk and streetscape and irrigation were installed on alternating halves' of the approximately one mile arterial roadway in 2008. Planting trees on the opposite side, sooner than later, will minimize the disparity in the height and canopy size of basically a decade and a half differential in planting time for these new trees. In addition, to contract installation of approximately 100, 2-1/2 inch diameter trees and soil amendments, the project would include the installation of irrigation behind the curb to ensure the establishment and viability of the shade trees.

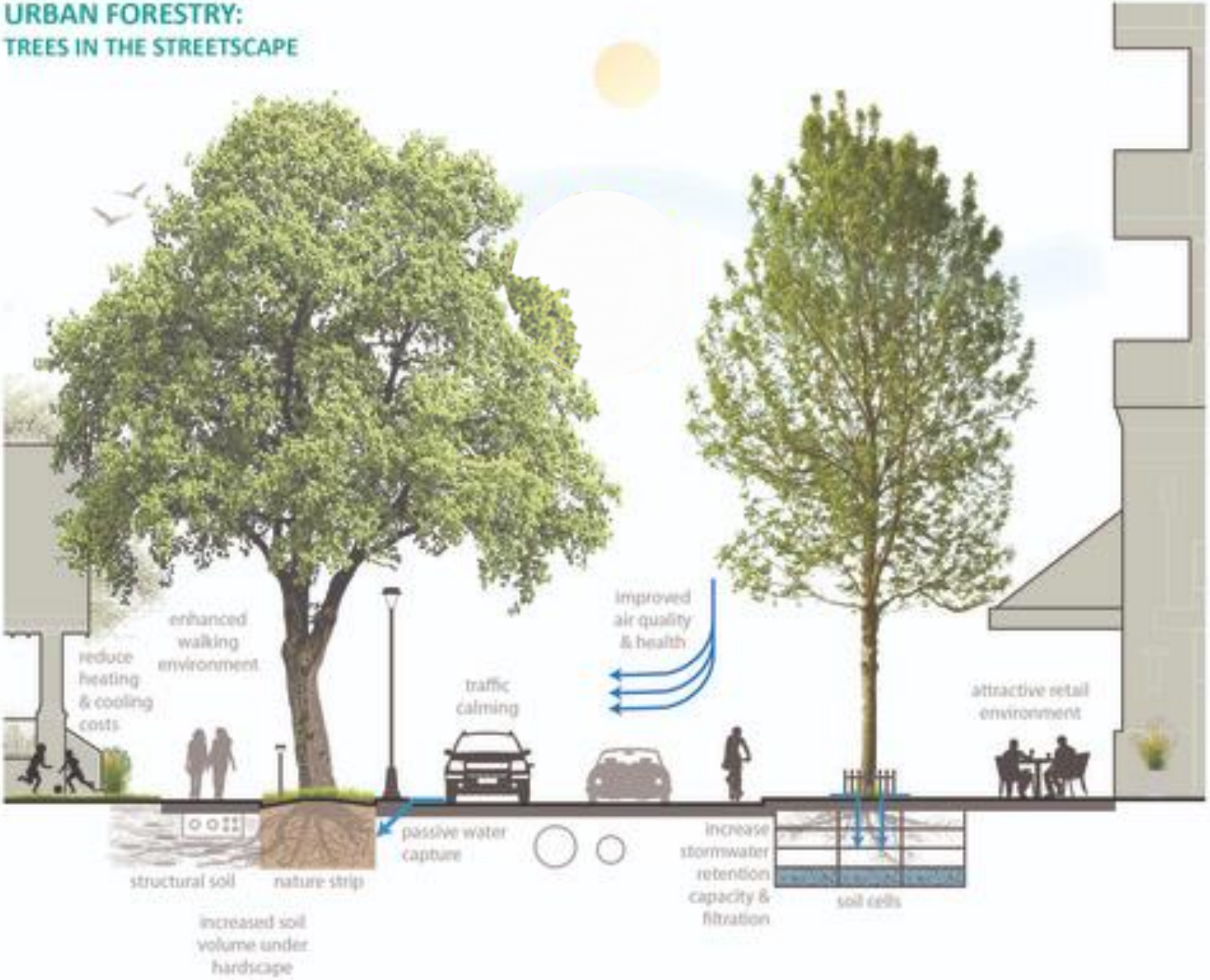
Justification

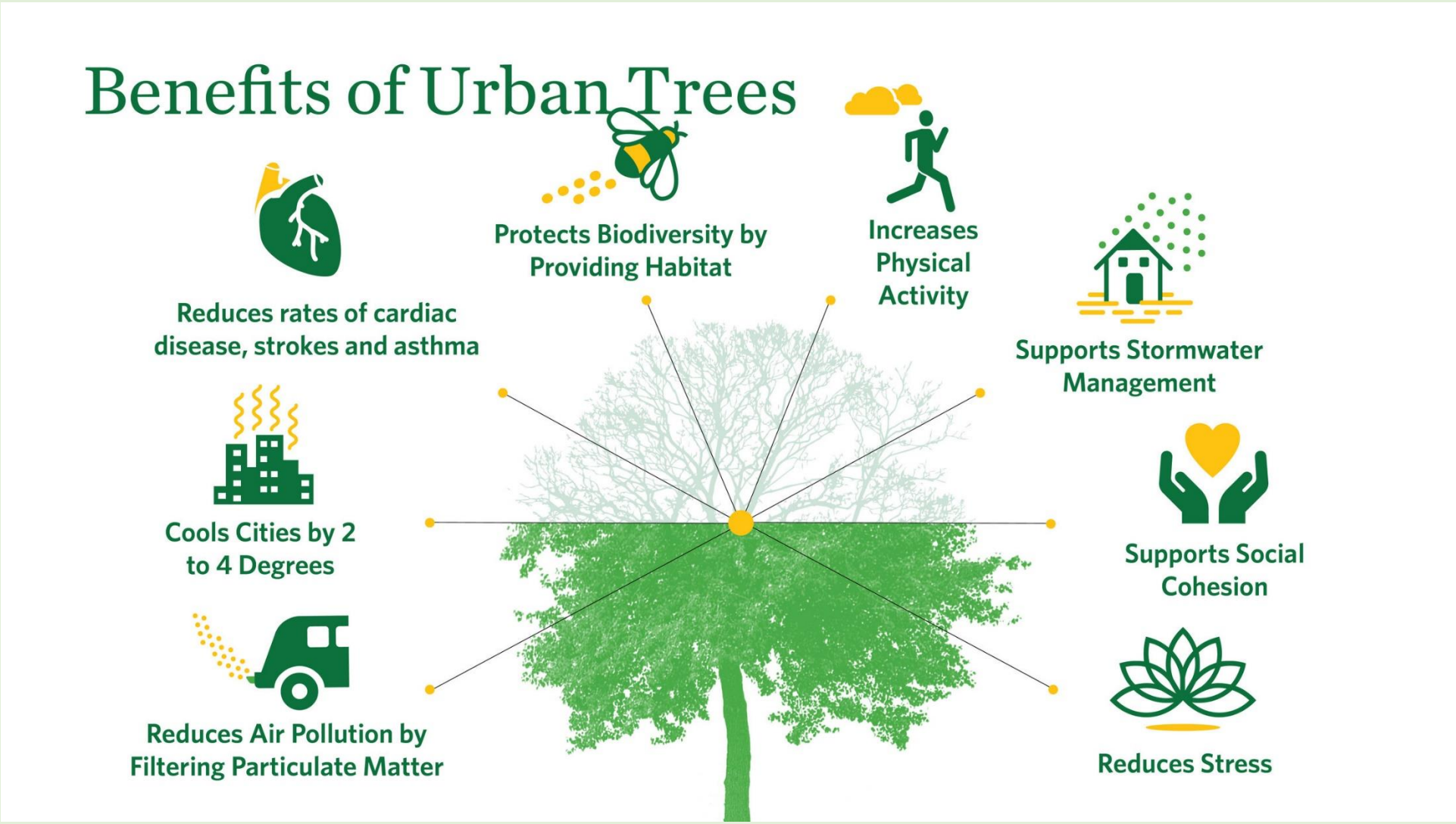
The above description calls attention to the intervention to minimize the future lopsided boulevard trees in Ramsey's most prominent street. Completing the trees along this street will also improve the overall aesthetic in this area of the downtown and include traffic calming benefits. The installation of trees and irrigation will also reduce future costs for private developer for sites that abut Sunwood Drive.

Expenditures	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Improvements Other than Building Cost	80,000										80,000
Total	**80,000**										**80,000**

Funding Sources	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Tax Increment Fund #14	80,000										80,000
Total	**80,000**										**80,000**

URBAN FORESTRY:
TREES IN THE STREETSCAPE





Illustrative Benefits of Street Trees

Money Does Grow on Trees!
Investing in Ramsey's Streetside Urban Forest

Prepared by
Ada Moreno Gomez, Nick Kieser, and
Victoria Dan

Students in PA 5211 Land Use Planning
Instructor: Dr. Fernando Burga
Hubert H. Humphrey School of Public Affairs

Prepared in Collaboration with
Chris Anderson
City Planner
City of Ramsey

City of RAMSEY

Resilient Communities Project
University of Minnesota
Building community-university partnerships for sustainability

The project on which this report is based was completed in collaboration with the City of Ramsey as part of the 2017–2018 Resilient Communities Project (RCP) partnership. RCP is a program at the University of Minnesota's Center for Urban and Regional Affairs (CURA) that connects University faculty and students with Minnesota communities to address strategic projects that advance local resilience and sustainability.

The contents of this report represent the views of the authors, and do not necessarily reflect those of RCP, CURA, the Regents of the University of Minnesota, or the City of Ramsey.

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Money Does Grow on Trees!

Investing in Ramsey's Streetside Urban Forest

1

Introduction

Planting ahead: Ramsey's street tree inventory

as a proactive approach to planning for a resilient city

Tree inventories are used to assess and manage forest and community trees. As a tool for Urban Forest Management, they guide and inform public officials to **prioritize and budget for the proactive management of public trees.** Beyond aesthetic appeal, trees provide a multitude of **ecosystem services (stormwater benefits, pollution mitigation, and energy savings)** to individuals, businesses, and visitors alike. An inventory can be used for management and policy recommendations, to quantify the dollar value of a city's urban forest, and to educate residents about the benefits of a well-managed community forest.

A regularly updated inventory provides Ramsey with crucial data for maintaining its trees, enabling Ramsey to eventually **manage larger and more complex urban forests**. Well-managed trees will ensure that **future generations of Ramsey residents** will share in the benefits of **more engaging public spaces** and a **connected community**.

Improved Drainage

Trees **reduce stormwater runoff** by absorbing the water down their trunks and into the earth below. They act as natural sponges by filtering water and **preventing stormwater from carrying pollutants** into natural waterways like rivers and lakes.

Energy Savings

Trees benefit neighborhoods and homes by **reducing energy costs.** During hot summer months their shade can reduce **air conditioning** use and during the winter they provide wind barriers to decrease the need for **heating**.

Vibrant Community

Embracing the ecosystem services and property value added by trees will lead to smart planting practices, which in turn benefits the well-being of communities. Trees promote community vibrancy by improving **health, safety,** and **neighborhood satisfaction.**

Cleaner Air

Trees improve air quality by **absorbing and storing CO_2** while **releasing oxygen** back into the atmosphere. They clean the air by absorbing odor and pollutants and filtering out **airborne particles.**

Added Property Value

Trees improve the value of homes and the aesthetic appeal of a neighborhood. In addition to providing **shade** and **privacy**, a well maintained landscape adds **curb appeal** and increases the value the property.

We have three main objectives

for developing a street tree planting framework

Information • Provide the City of Ramsey with the information and resources necessary to make better budgetary and management decisions for their upcoming Comprehensive Plan

Pilot • Examine the value of an inventory through a "micro" pilot of Sunwood Drive, which assesses tree genus, diameter at breast height (DBH), location, and canopy quality

Vision • Suggest a long-range vision for tree planting in Ramsey, which can be made possible through regular inventorying and assessment

We will see the benefits of a tree inventory in the following posters...

1 Introduction
2 Benefits
3 Stormwater
4 Air Quality
5 Energy + Property
6 Community
7 Diversity
8 Methods
9 COR Inventory
10 Residential Inventory
11 Conclusion

PA 5211 Land Use Planning • **TEAM:** Ada Moreno Gomez, Nick Kieser, Victoria Dan • **INSTRUCTOR:** Fernando Burga, Ph.D.

Resilient Communities Project — University of Minnesota Driven to Discover — City of Ramsey

References:
PennState Extension. (2017). *Conducting a Community Tree Inventory*. Retrieved from https://extension.psu.edu/conducting-a-community-tree-inventory
United States Forest Service. i-Tree Design (Version 6.0) [web application]. Available from https://design.itreetools.org/

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Investing in Ramsey's Streetside Urban Forest

2 Benefits

An appreciative tree advantage:

A look at the 20-year benefits of street trees

Trees are unique assets to cities and properties because they generally appreciate in value as they grow and age. Some trees do survive the urban environment for over a century, but most city street trees have a lifespan of up to 20 years.

Even so, in two decades a tree can impart significant benefits, and as the tree ages it adds to **property values** and more efficiently provides **ecosystem services** to owners and the wider community. With patience, young trees will start generating more value than the cost of planting and maintenance.

Over the next 20 years, these two oak trees outside Ramsey City Hall will perform valuable services and increase property value as the canopy grows...

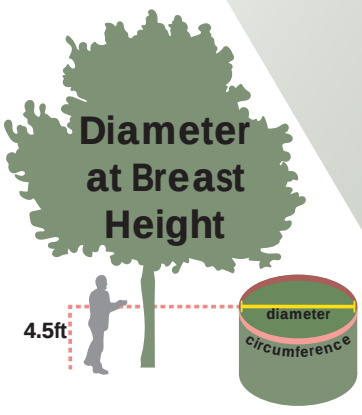
2017 $47 → 2037 $154 → 20 years $1,168

Return on Investment
over one year

$1 spent on tree management

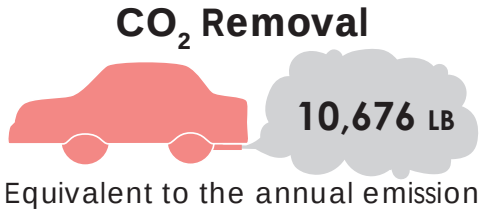
$4 returned to the community

Diameter at Breast Height



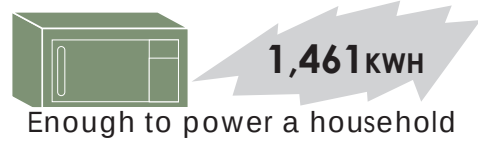
A tree's age and size is inferred from its Diameter at Breast Height (DBH), which is the trunk diameter at 4.5 ft from the ground. Measuring DBH is non-invasive: find the diameter using a diameter tape or by calculating from the circumference.

CO_2 Removal



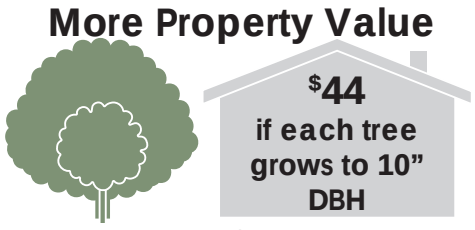
Equivalent to the annual emission of a typical passenger vehicle

Electricity Savings



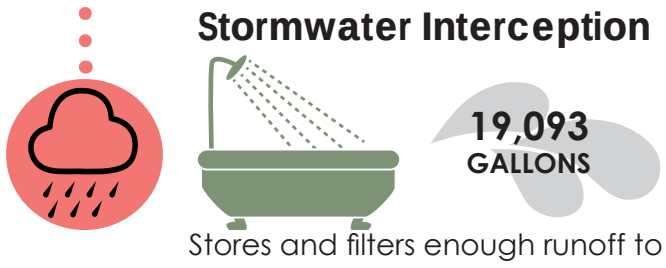
Enough to power a household microwave for **81 days**

More Property Value



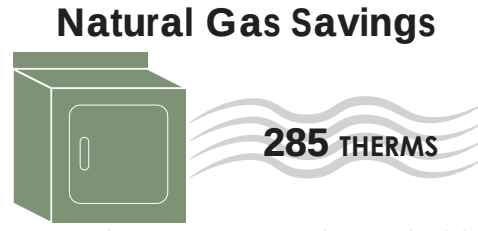
Compared to **$23 in 2017** with approximately 4"-5" DBH

Stormwater Interception



Stores and filters enough runoff to fill **477 bathtubs**

Natural Gas Savings



Enough to operate a household dryer for **59 days**

Trees Generate Diverse Benefits and Savings

Trees are nature's workhorse, and they provide significant and measurable benefits to communities. Street trees **clean the air, reduce energy expenses, filter stormwater,** and **increase property values**. We will first explore how street trees help **maximize stormwater management by reducing surface water pollution**.

Stormwater

PA 5211 Land Use Planning • **TEAM:** Ada Moreno Gomez, Nick Kieser, Victoria Dan • **INSTRUCTOR:** Fernando Burga, Ph.D.

Resilient Communities Project
University of Minnesota Driven to Discover
City of Ramsey

References:
Casey Trees & Davey Tree Expert Co. National Tree Benefit Calculator (Beta) [web application]. Available from http://www.treebenefits.com/calculator/
United States Forest Service. i-Tree Design (Version 6.0) [web application]. Available from https://design.itreetools.org/

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3 Stormwater

Improving Runoff Drainage

Each year, Ramsey receives 14 to 15 billion gallons of rainfall. New development expands **impervious surface area**, which includes surfaces like parking lots and roofs that are impenetrable by water. Stormwater systems mitigate flooding by channeling rainfall to stormwater ponds and other surface waters (e.g. wetlands, lakes, and rivers).

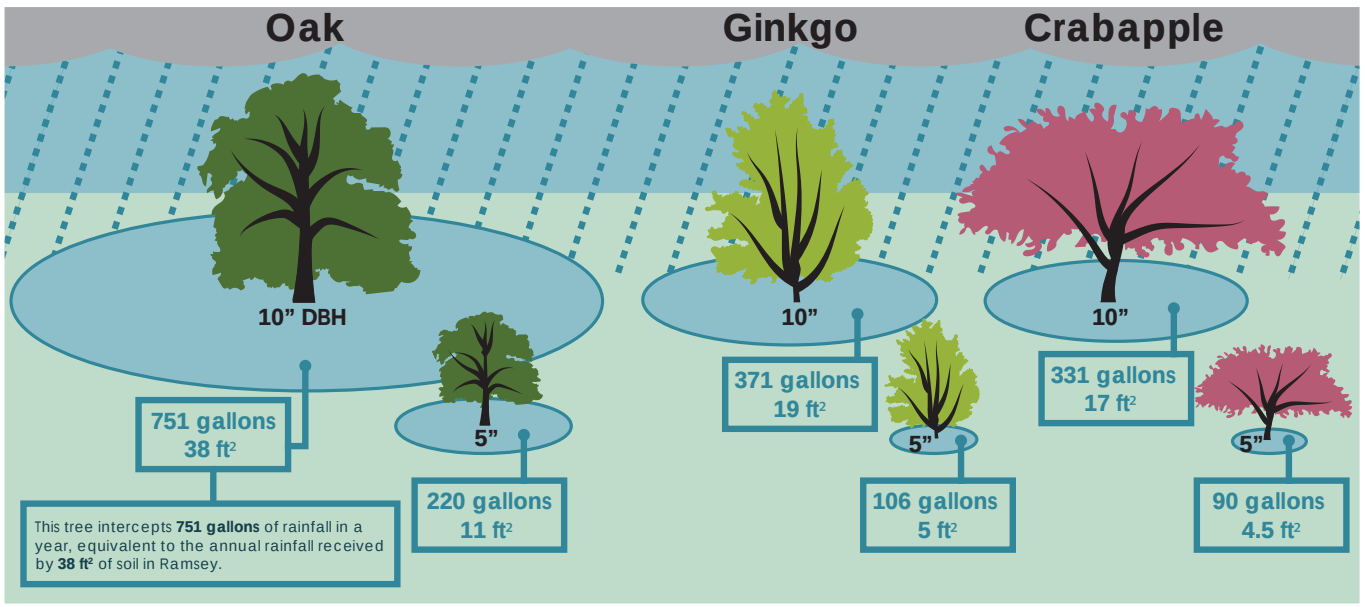
However, **runoff contaminates surface water** when it carries oil, litter, and other pollutants. Trees improve stormwater management by promoting infiltration (movement of water into soil), which helps **filter pollutants** and **recharge aquifers**.

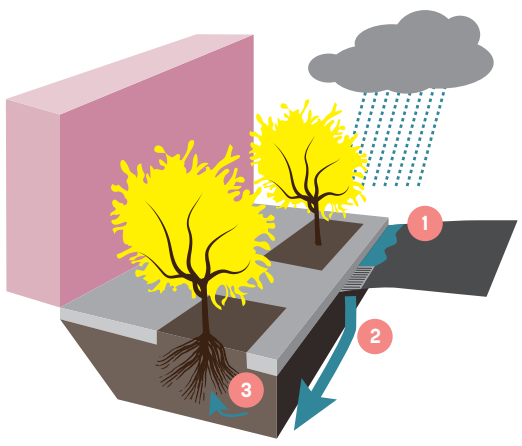
Rainfall Interception

A tree will absorb more water as its **Diameter at Breast Height (DBH)** increases. However, **water interception also varies by species.** In areas that experience heavy runoff, oaks would be effective at intercepting large volumes of water. However, **oaks grow large** and may not fare well in narrow spaces. **Ginkgos** can grow large, but they are **slower-growing** and would be more appropriate in **confined spaces.** In small planting spaces with less runoff, **small trees like crabapples** would be a good alternative.

Annual Rainfall

More development means less surface soil for water infiltration; trees make up for this loss by intercepting water and promoting infiltration.



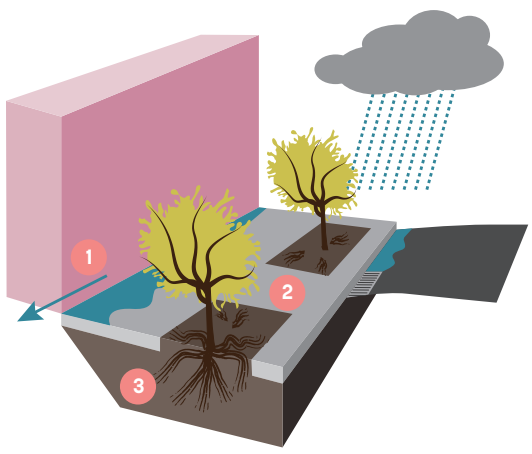


Prototypical perspectival section

Stormwater Flow

1. Stormwater flows into inlet
2. Water distributes and infiltrates through soil
3. Tree roots take up and hold water

Filtered and excess water flows through pipes into the stormwater sewer.



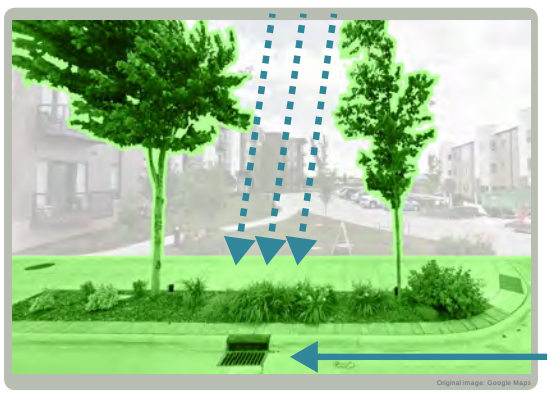
Prototypical perspectival section

Common Issues

1. Water pools away from drainage sites
2. Trees lacking moisture and oxygen send roots to the surface
3. Compacted soil and insufficient root space prevents stormwater absorption

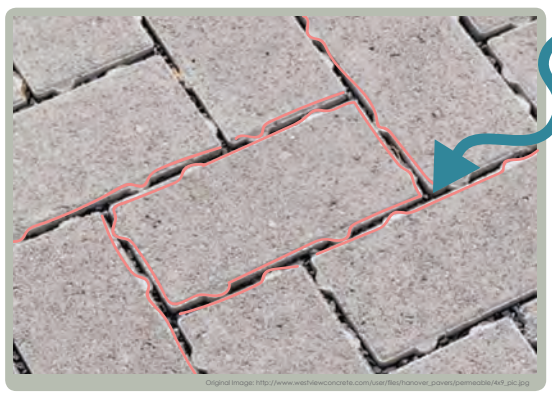
Trees underperform in poor site conditions

Optimizing Stormwater Systems



Original image: Google Maps

In the COR, tree pits combine with planters, and these connect to stormwater sewer inlets. This maximizes the runoff capture from direct rainfall and inlet flow.



Original image: http://www.westviewconcrete.com/user/files/hanover_pavers/permeable/4x9_pic.jpg

Permeable pavers enhance street tree systems by allowing water to pass through small spaces in the sidewalk. This ensures that more water moves into the soil instead of pooling away from trees.

Trees Protect Our Cities from Storms

No one wants to be caught unprepared in a rainstorm. Fortunately, street trees are on the first line of defense when it comes to **intercepting stormwater pollutants**. Next, we see how Ramsey can utilize street trees to **improve air quality by filtering pollutants and reducing pollutant emissions.**

Air Quality

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University of Minnesota Driven to Discover
City of Ramsey

References:
United States Environmental Protection Agency. (2013). *Stormwater to Street Trees: Engineering Urban Forests for Stormwater Management*. Retrieved from https://www.epa.gov/sites/production/files/2015-11/documents/stormwater2streettrees.pdf
United States Environmental Protection Agency. (2016). *Stormwater Trees: Technical Memorandum*. Retrieved from https://www.epa.gov/sites/production/files/2016-11/documents/final_stormwater_trees_technical_memo_508.pdf

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Investing in Ramsey's Streetside Urban Forest

4

Air Quality

Breathing Cleaner Air

Trees in urban areas significantly affect local and regional air quality. It is commonly known that trees **release oxygen** and **capture carbon dioxide**, but the impact of trees on urban air quality is broad and complex. Trees alter the urban atmosphere and affect air quality in cities by **reducing temperatures**, **removing air pollutants**, changing building energy use, and releasing volatile organic compounds. Using a tree inventory, city officials can improve the air quality within their cities and build healthier communities by planting tree species that reduce the formation of smog.

Temperature Reduction

Air temperature decreases when trees transpire and water vapor from their leaves is released into the atmosphere. By reducing air temperatures, **trees provide cooler summer months**. The **distribution of trees** also **affects temperature**, which is why **an informed and organized tree planting plan** not only **contributes to a healthy** and **well maintained community forest**, but to **increased wellbeing for Ramsey's residents**.

Release of Volatile Organic Compounds (VOCs)

Some tree species are better suited for congested streets as they can **reduce the formation of smog**. Although trees give off chemicals called volatile organic compounds (VOCs), tree species differ in the amount of VOCs they emit. Cities should plan ahead to plant lower VOC-emitting trees along streets with heavy traffic.

Removing Air Pollutants

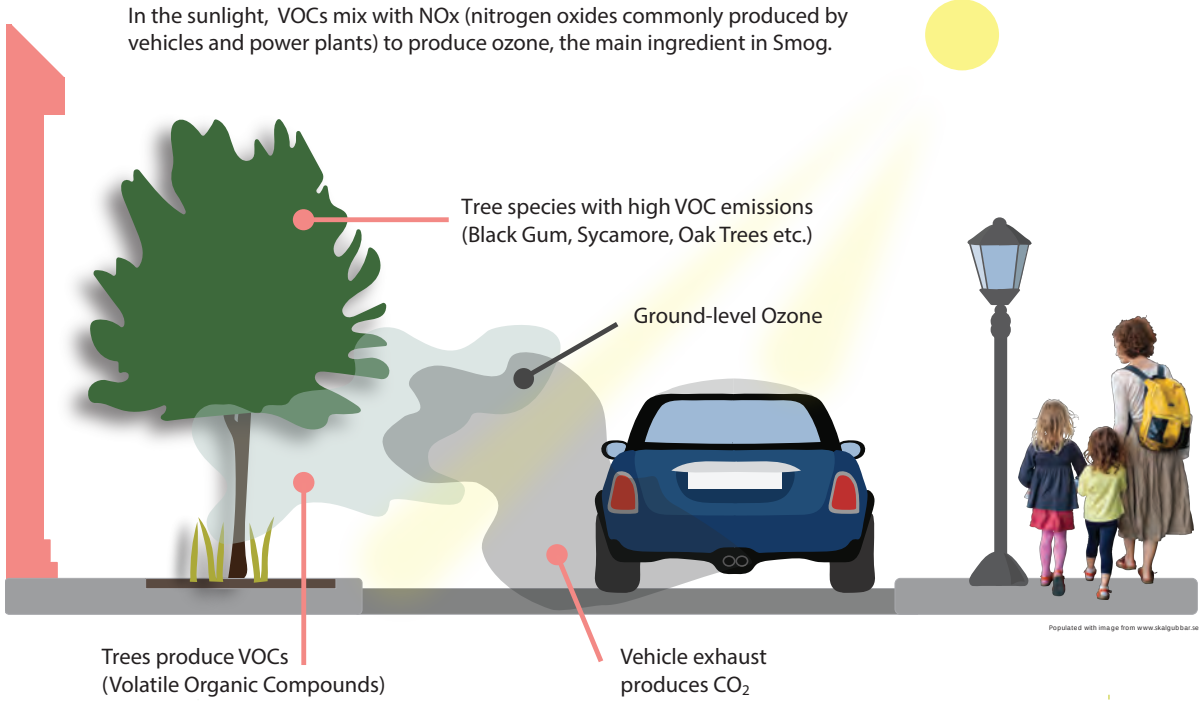
Trees remove air pollution by intercepting and absorbing airborne particles. The larger tree canopy cover a city has, the greater total pollution removal.

Changing Building Energy Use

Trees change building energy use by providing shade during the summer and blocking winds during the winter. As a building's energy use decreases, so do the pollutants being emitted. **Improper tree placement** can lead to **higher utility bills**, so Urban Forest Management allows cities to maximize a tree's energy conservation benefits.

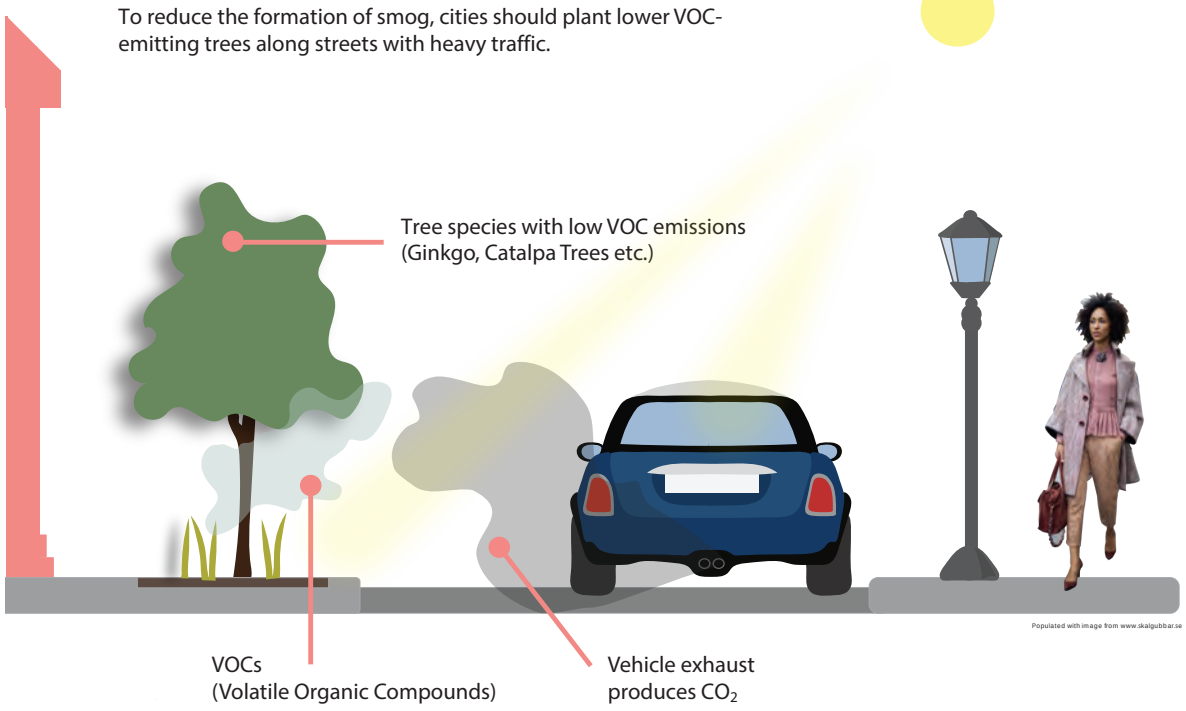
City Street with Poor Air Quality

In the sunlight, VOCs mix with NOx (nitrogen oxides commonly produced by vehicles and power plants) to produce ozone, the main ingredient in Smog.



City Street with Good Air Quality

To reduce the formation of smog, cities should plant lower VOC-emitting trees along streets with heavy traffic.



Trees Make Clean Air

As the number of cars and industries in Ramsey grows, **strategic tree planting initiatives** could **reduce carbon emissions** and **prevent respiratory diseases**. Planting trees with low VOC emissions in congested streets ensures the amount of airborne chemicals in the atmosphere remains low. Likewise, **an informed plan for tree planting guarantees economic returns** for the city and its residents by **raising property values**.

Energy + Property

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Driven to Discover℠
City of Ramsey

References:
Nowak, D. J. (n.d.). *The Effects of Urban Trees on Air Quality*. Retrieved from http://www.ncufc.org/uploads/nowak_trees.pdf
Nowak, D. J., Greenfield, E. J., Hoehn, R. E., & Lapoint, E. (2013). Carbon storage and sequestration by trees in urban and community areas of the United States. *Environmental Pollution 178*, 229-236. Retrieved from http://dx.doi.org/10.1016/j.envpol.2013.03.019

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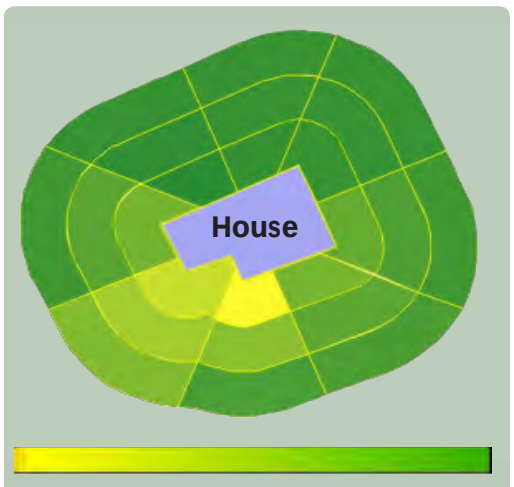
Investing in Ramsey's Streetside Urban Forest

5
Energy + Property

Reducing Energy Expenses

Trees planted in a strategic manner are able to conserve energy for homes and reduce energy bills. In the summer, the leaves of trees provide shade that will reduce the amount of air conditioning a house will use. In the winter, deciduous trees allow more sunlight into homes, which can reduce the amount of heating that is needed. Trees that are planted to the south are the least prioritized. Trees that give shade to an air conditioner can increase the efficiency by 10%. This type of strategic planning is called smart landscaping.



Digital Resource: i-Tree

i-Tree is an easy to use online application that can provide essential information to Ramsey officials and residents. The picture to the left depicts a function of i-Tree; it shows where it is most beneficial to plant a tree on a specific property. i-Tree can also determine the money saved from the existing trees.

The U.S. Department of Energy predicts that the proper placement of only 3 trees can save an average household between $100 and $250 in energy costs annually. Evergreen trees are beneficial to plant in areas that will not shade the home in the winter, but will serve as a windbreak. On average, evergreen trees that are placed properly as a windbreak will decrease a home's fuel consumption by **25%.**

The energy savings from the street trees in the above photo total **$41.34** in 2017. As these trees mature, their canopy will increase which will result in higher savings.

Adding to Property Values

Street trees increase the property values of every property. The trees bring an aesthetic appeal along with their other benefits, which can increase the value of the property. The U.S. Forest Service estimates that mature street trees can increase a property's value by **10%** on average. As property values increase then the revenue that is acquired from taxes will increase as well bringing more money into the local municipality.

1.7 days + **$88**

Homes that are within 100 ft of a street tree have an average reduction of 1.7 days on the market which adds **$88** on average to the selling price.

= **$7,000**

A mature street tree that has a 300 square foot canopy cover can add approximately **$7,000** to the property value.

From → To

10% tree canopy cover increase = **$1,371**

A study done in Ramsey and Dakota Counties concluded that a **10%** increase in tree cover that is within 100 meters of a house will add approximately **$1,371** to the market value.

Trees Save Energy and Add Property Value

Street trees provide energy savings and increase property value, most notably in the residential areas. i-Tree is an easy and informative tool that residents in Ramsey can use to maximize the benefits of planting trees on their property. The benefit of street trees that is most evident is the added vibrancy and health to the community.

Community

PA 5211 Land Use Planning • **TEAM:** Ada Moreno Gomez, Nick Kieser, Victoria Dan • **INSTRUCTOR:** Fernando Burga, Ph.D.

Resilient Communities Project — University of Minnesota Driven to Discover — City of Ramsey

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Money Does Grow on Trees!

Investing in Ramsey's Streetside Urban Forest

6 Community

Creating Vibrant Community

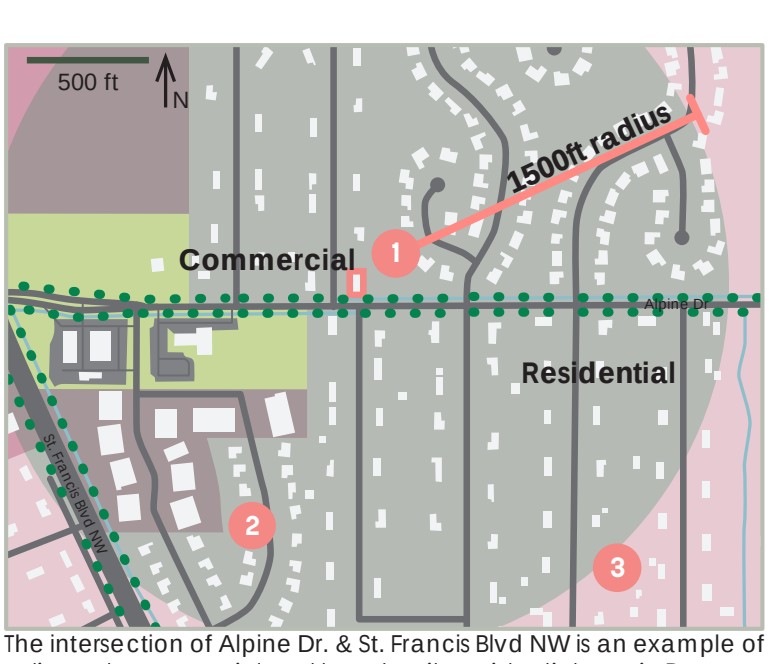
The long-lasting benefit of street trees is that they add to a more vibrant and healthy community. Street trees impact how people interact with, move through, and perceive their environment. As Ramsey grows, it is important that residents and visitors continue to feel **safe**, **connected**, and **comfortable**. The community will experience big changes as Ramsey develops, and the City can proactively support this transition with street tree planting solutions.

Tree Attraction

In spaces where commercial and residential uses overlap or are proximal, **street trees help mediate the relationship between places that would otherwise be in conflict.**

Street trees can impact driving behavior and route choice, and they can be used to **attract people to retail, restaurants, and other destinations.**

Residents will also have a **higher quality of life** in neighborhoods with dense street tree planting.



The intersection of Alpine Dr. & St. Francis Blvd NW is an example of adjacent commercial and low-density residential uses in Ramsey.

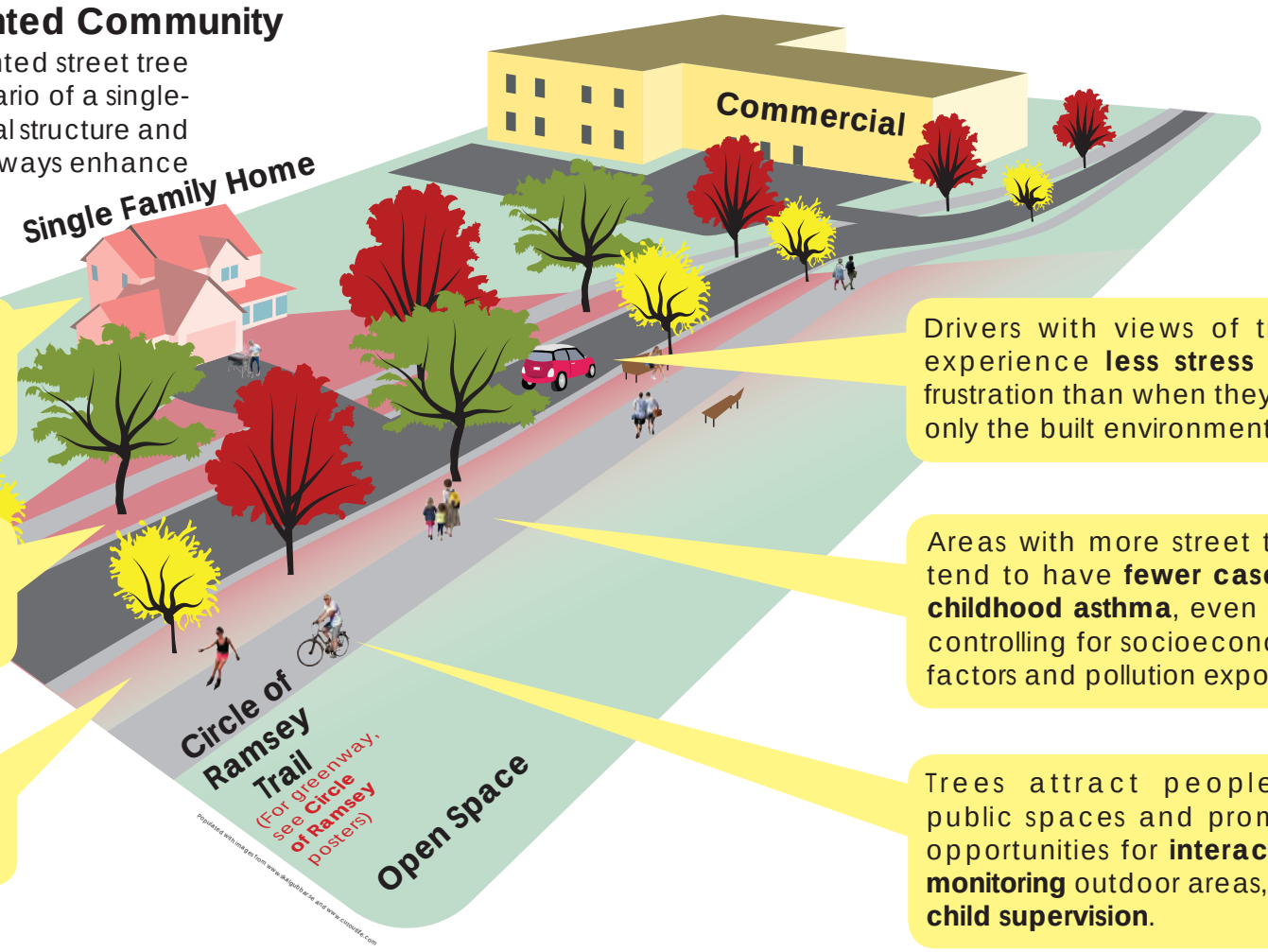
1. Because it generates traffic, nearby retail reduces neighborhood satisfaction for residents living in single-family homes; for these residents, trees within 1500ft **improve satisfaction**.

2. More than half the time, local residents will **choose scenic driving routes** over faster routes. Planting trees on arterial roads can mitigate thru-traffic on residential streets.

3. On suburban roads, people **drive slower** where there are street trees.

Envisioning a Tree-Oriented Community

An example of community-oriented street tree planting in a hypothetical scenario of a single-family home next to a commercial structure and open space. Sidewalks and bikeways enhance the functions of street trees.



Residents who can **see trees from their living rooms** have higher neighborhood satisfaction.

On the rural-urban fringe, residents prefer environments of **rural character**, which can be evoked with tree planting.

A public tree in right-of-way is 40% more effective at **reducing crime** than a private tree.

Drivers with views of trees experience **less stress** and frustration than when they see only the built environment.

Areas with more street trees tend to have **fewer cases of childhood asthma**, even after controlling for socioeconomic factors and pollution exposure.

Trees attract people to public spaces and promote opportunities for **interaction**, **monitoring** outdoor areas, and **child supervision**.

Trees Create Communities

Trees bring communities alive by enhancing the experiences of residents and visitors. They promote the **well-being of all people**--drivers and pedestrians, young and old, locals and out-of-towners. Next, we will learn the **benefits and disadvantages of planting specific kinds of trees** on Ramsey streets.

Diversity

PA 5211 Land Use Planning • **TEAM:** Ada Moreno Gomez, Nick Kieser, Victoria Dan • **INSTRUCTOR:** Fernando Burga, Ph.D.

Resilient Communities Project
University of Minnesota Driven to Discover
City of Ramsey

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Money Does Grow on Trees!

Investing in Ramsey's Streetside Urban Forest

7

Diversity

Good planting for a growing city

starts with putting the right trees in the right places

A **tree inventory** will provide the City of Ramsey with **valuable information** to **guide future tree planting initiatives**. It is crucial cities undertake **tree planting programs** to **maximize the ecosystem services** trees provide and **prevent economic losses**. However, it is equally important to assess the diversity of a city's Urban Forest to select tree species that can adapt and bring benefits to their surroundings. Cities, businesses, and community members can determine the best trees for planting based on tree qualities (e.g. shading, ornamentation) as well as restrictions on planting conditions (e.g. soil type, limited space). **Below we show the Tree species in Ramsey.**

Catalpa (genus *Catalpa*)

Traits:
- Bean-like seed pods
- Large leaves
- Irregular crown
- Height: 60'
- Canopy: 25'

Benefits:
- Fast growth rate
- Adapts to urban stress
- Tolerates air pollution and drought
- Shading canopy
- Fragrant blossoms

Weaknesses:
- Weak structure
- Falling flowers and fruit need clean-up
- Threatened by verticillium wilt, leaf spots, and powdery mildew

Catalpas are resilient, but they require cleanup.

Crabapple (genus *Malus*)

Traits:
- Dense, rounded tree
- Grows small fruit
- Height: 30'
- Canopy: 20'

Benefits:
- Low maintenance
- Adapts to urban stress
- Tolerates salt, alkaline soil, and drought
- Profuse spring flowering

Weaknesses:
- Susceptible to disease and fungus, including fireblight and scab
- Requires full sun

Crabapples fare well in urban conditions and are low-maintenance.

Ginkgo (genus *Ginkgo*)

Traits:
- Short branches
- Fan-shaped leaves
- Height: 80'
- Canopy: 30'

Benefits:
- Low Maintenance
- Adapts to urban stress
- Tolerates air pollution, salt, confined spaces
- Grows in alkaline, acidic, and compacted soil
- Shading canopy
- Leaves turn bright yellow in fall

Weaknesses:
- Slow growth rate
- Requires full sun

Ginkgos adapt well to the city, although they are slow-growing.

Maple (genus *Acer*)

Traits:
- 5-lobed leaves
- Round/oval growth
- Height: 50'-90'
- Canopy: 35'-40'

Benefits:
- Native species
- Adapts to urban stress
- Tolerates drought
- Grows in alkaline and anaerobic soil
- Shading canopy
- Colorful fall foliage

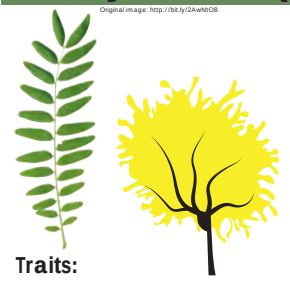
Weaknesses:
- Limited tolerance to compaction, salt, and confined spaces
- Branch loss
- Weakened by the Asian Longhorned Beetle

Maples are attractive shading trees, but they are sensitive to site conditions.

Trees in Ramsey

Cities should follow the **10-20-30 guide** for tree planting: no more than **10% any species**, no more than **20% of any genus**, and no more than **30% of any family**. This is crucial for urban forest resilience against disease and invading insects. Ash trees (bottom right) are not recommended for new planting due to the prevalence of Emerald Ash Borers.

Honey Locust (genus *Gleditsia*)



Traits:
- Compound leaves
- Height: 70'
- Canopy: 40'

Benefits:
- Native species
- Fast growth rate
- Adapts to urban stress
- Tolerates salt and drought
- Grows in alkaline soil
- Strong branches
- Colorful fall foliage

Weaknesses:
- Susceptible to insect attacks
- Pods require clean-up

Honey Locusts are fast-growing and adaptable, but require clean-up.

Elm (genus *Ulmus*)

Traits:
- Toothed leaves
- Umbrella-like crown
- Height: 70'
- Canopy: 40'

Benefits:
- Native species
- Moderate to fast growth rate
- Adapts to urban stress
- Tolerates salt, moisture, drought, and wind
- Shading canopy

Weaknesses:
- Requires full sun
- Susceptible to Dutch Elm Disease

Consider planting Elm varieties that are resistant to Dutch Elm Disease.

Oak (genus *Quercus*)

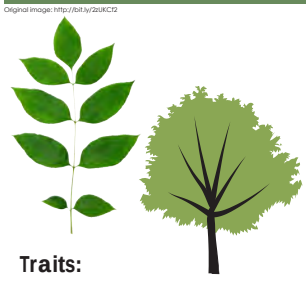
Traits:
- Narrow crown
- Large acorns
- Height: 80'-100'
- Canopy: 40'-60'

Benefits:
- Native species
- Fast growth rate
- Adapts to urban stress
- Tolerates pollution
- Grows in most soil textures
- Colorful fall leaves

Weaknesses:
- Intolerant of salt
- Requires full sun
- Susceptible to Oak Wilt

Oaks need space and should be planted apart to prevent the spread of Oak Wilt.

Ash (genus *Fraxinus*)



Traits:
- Compound leaves
- Rounded crown
- Height: 65'-90'
- Canopy: 20'-40'

Benefits:
- Native species
- Fast growth rate
- Tolerates salt
- Grows in compacted and alkaline soil
- Shading canopy
- Tough, elastic wood

Weaknesses:
- Lower tolerance for drought conditions
- Requires full sun
- Threatened by the Emerald Ash Borer

Ash trees should not be newly planted due to the threat of Emerald Ash Borers.

Tree Diversity Matters

No two trees are alike, and cities that respect these differences will achieve successful street planting projects. **Planting diverse trees** that are appropriate for site conditions **ensures a resilient urban forest** yielding **diverse benefits**. In the following poster, we will assess and evaluate the population of street trees in The COR along Sunwood Dr. in Ramsey.

Methods

PA 5211 Land Use Planning • **TEAM:** Ada Moreno Gomez, Nick Kieser, Victoria Dan • **INSTRUCTOR:** Fernando Burga, Ph.D.

Resilient Communities Project
University of Minnesota
Driven to Discover
City of Ramsey

References:
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Money Does Grow on Trees!

Investing in Ramsey's Streetside Urban Forest

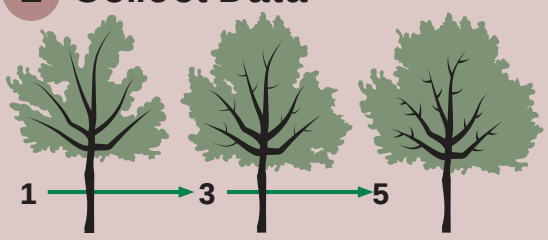
Methods

how we completed the COR and residential tree inventories

For our tree inventories we collected data on a total of 130 trees in The COR and in a residential neighborhood. For each tree we collected the diameter at breast height (DBH), geographic coordinates, tree species, and the quality of the canopy cover. Once the data was collected, we calculated the age, size and monetary benefits for each tree. The data that we collected for each tree inventory can be seen on the next two posters. **Our methods for data collection can be used as a model for future tree inventories in Ramsey at more locations.**

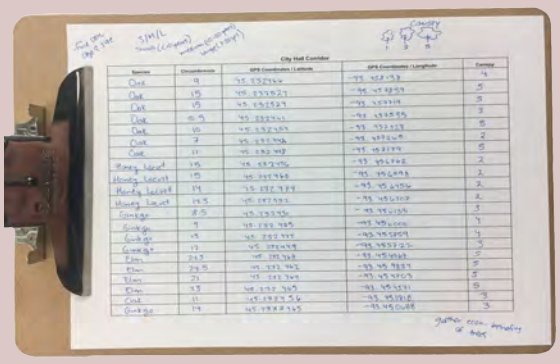
1 Gather Tools

2 Collect Data



These trees show the difference between high and low quality canopy cover. In our inventories, we used a rating scale of 1-5. **The trees with a higher quality canopy cover maximize the benefits.**

The ruler that we used is called a diameter tape. This tape is used by foresters to determine **DBH**.



The two pictures above show our completed data collection forms. **The pictures show the forms we filled out to record tree species, DBH, coordinates and the tree canopy cover quality.** Once we had our field data we transferred the data into an Excel sheet. With this data, we calculated the age and averages of the diameter and canopy cover quality. We also calculated the monetary value for each tree in our inventories which led to our average monetary value for each tree for the area.

To determinine the location of each tree, we used a coordinate system app on our smartphones. The app is called *Coordinates* and can be found in the iPhone app store. In future tree inventories, **we suggest using a GPS locator** rather than this app because GPS locators are able to determine the location of the trees more precisely.

3 Analysis

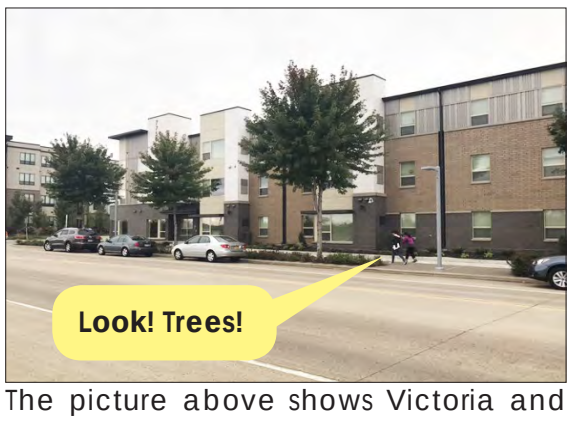
The two Excel sheets to the right show the iteration of our tree inventory data after inputing our data into Excel. **The Excel sheets also show our calculations for each tree to determine the monetary value, size, age and circumference of each tree.** These show only a portion of the trees that were inventoried.

City Hall Corridor

Species	Circumference	GPS Coordinates / Latitude	GPS Coordinates / Longitude	Canopy	DBH	Overall Benefits per Year	Age	Size
Oak	11	45.23309	-93.461181	4	3.5	$14.00	14	M
Crab Apple	8	45.232433	-93.461467	2	2.5			
Crab Apple	9	45.233275	-93.461734	2	2.9			
Crab Apple	8.5	45.233295	-93.461834	2	2.7			
Crab Apple	10	45.233368	-93.461965	3	3.2			
Maple	10	45.233394	-93.462201	3	3.2	$10.00	18	M
Maple	8	45.23339	-93.462246	2	2.5	$7.00	14	M
Maple	18	45.233508	-93.462648	5	5.7	$28.00	32	L
Maple	16	45.233539	-93.462768	5	5.1	$22.00	28	L
Maple	23	45.23361	-93.462893	5	7.3	$44.00	40	L
Maple	13	45.23361	-93.462948	4	4.1	$15.00	23	L
Maple	18	45.233675	-93.463152	3	3.2	$10.00	18	M
Maple	28.5	45.233716	-93.463320	5	9.1	$62.00	50	L
Maple	19.5	45.233739	-93.463445	5	6.2	$33.00	34	L
Maple	29.5	45.233756	-93.463550	5	9.4	$66.00	52	L
Oak	20	45.233825	-93.463715	5	6.4	$34.00	25	L
Oak	18	45.23386	-93.463833	5	5.7	$28.00	23	L
Oak	21	45.233905	-93.463936	5	6.7	$36.00	27	L
Oak	20.5	45.233955	-93.464048	5	6.5	$35.00	26	L
Oak	21	45.233992	-93.464153	5	6.7	$36.00	27	L
Oak	21	45.234008	-93.464264	5	6.7	$36.00	27	L
Elm	32	45.234131	-93.464724	5	10.2	$68.00	41	L
Elm	32.5	45.23417	-93.464852	5	10.4	$70.00	41	L
Elm	16	45.23421	-93.464943	3	5.1	$23.00	20	M
Elm	18	45.234258	-93.465070	4	5.7	$28.00	23	L
Maple	27	45.234292	-93.465242	4	8.6	$57.00	47	L
Maple	24	45.234328	-93.465374	5	7.6	$47.00	42	L
Maple	22.5	45.23438	-93.465471	5	7.2	$43.00	39	L
Maple	20	45.234514	-93.465722	3	6.4	$35.00	35	L
Maple	21	45.234567	-93.465829	3	6.7	$38.00	37	L
Maple	29	45.234642	-93.465935	3	9.2	$63.00	51	L
Maple	23	45.234658	-93.466066	3	7.3	$44.00	40	L
Maple	28	45.234743	-93.466198	4	8.9	$60.00	49	L
Maple	26.5	45.234807	-93.466295	4	8.4	$55.00	46	L
Maple	28	45.234846	-93.466386	5	8.9	$60.00	49	L
Maple	27.5	45.234906	-93.466478	5	8.8	$59.00	48	L
					Total Benefits	$2,328.00		

Residential Corridor

Species	Circumference	GPS Coordinates / Latitude	GPS Coordinates / Longitude	Canopy	DBH	Overall Benefits per Year	Age	Size
Elm	26.5	45.237919	-93.416367	4	8.4	$68.00	34	L
Elm	24	45.237934	-93.416163	3	7.6	$60.00	31	L
Elm	25	45.418033	-93.418033	3	8.0	$64.00	32	L
Elm	27	45.237940	-93.417880	4	8.6	$70.00	34	L
Elm	32	45.237940	-93.417733	4	10.2	$88.00	41	L
Elm	24.5	45.327947	-93.417561	3	7.8	$62.00	31	L
Elm	26	45.237939	-93.417361	3	8.3	$67.00	33	L
Elm	26.5	45.237894	-93.417209	4	8.4	$68.00	34	L
Elm	30	45.237992	-93.417045	3	9.6	$81.00	38	L
Elm	38	45.237964	-93.416879	4	12.1	$112.00	48	L
Elm	20.5	45.237959	-93.416731	3	6.5	$46.00	26	L
Elm	30	45.237999	-93.416574	3	9.6	$81.00	38	L
Elm	30.5	45.237970	-93.416382	3	9.7	$82.00	39	L
Elm	31	45.237988	-93.416211	2	9.9	$85.00	39	L
Elm	39	45.237954	-93.416050	4	12.4	$115.00	50	L
Elm	45	45.237973	-93.415864	4	14.3	$136.00	57	L
Elm	44	45.237954	-93.415726	4	14.0	$135.00	56	L
Elm	14	45.23799	-93.415210	2	4.5	$28.00	18	M
Maple	5.5	45.238049	-93.415443	1	1.8	$4.00	10	S
Elm	10.5	45.238056	-93.415618	2	3.3	$20.00	13	S
Elm	21.5	45.238069	-93.415756	3	6.8	$51.00	27	L
Elm	22	45.238042	-93.415979	3	7.0	$53.00	28	L
Elm	14	45.238054	-93.416141	1	4.5	$28.00	18	M
Elm	30	45.238099	-93.416520	4	9.6	$81.00	38	L
Elm	42.5	45.238079	-93.416401	5	13.5	$129.00	54	L
Elm	43	45.238058	-93.416579	5	13.7	$131.00	55	L
Elm	32.5	45.23806	-93.416773	4	10.4	$91.00	41	L
Elm	35	45.238043	-93.417310	3	11.1	$99.00	45	L
Linden	14.5	45.23808	-93.417499	4	4.6	$22.00	14	M
Elm	29.5	45.238082	-93.417640	3	9.4	$79.00	38	L
Elm	27.5	45.238053	-93.417789	3	8.8	$72.00	35	L
Elm	28	45.238026	-93.417973	5	8.9	$73.00	36	L
Elm	39	45.238028	-93.417136	5	12.4	$115.00	50	L
Elm	23.5	45.23802	-93.416311	3	7.5	$59.00	30	L
Elm	30	45.238037	-93.416407	4	9.6	$81.00	38	L



The picture above shows Victoria and Ada on Sunwood Drive, completing the COR tree inventory.

Calculating Street Trees

These methods will be built upon by a **class in spring semester as a part of the RCP partnership**. It is important to **keep the methods of Ramsey's tree inventories consistent** so the results are as accurate as possible, so the spring class can evaluate our methods to determine the optimal way to complete the inventories. In the following poster, we will **assess and evaluate the population of street trees** in The COR along Sunwood Drive in Ramsey.

COR Inventory

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9

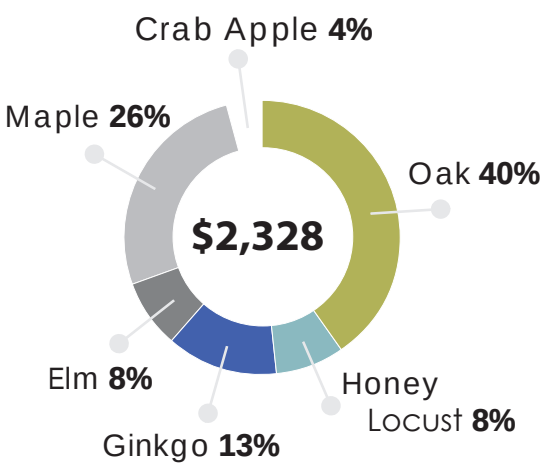
COR Inventory

The COR trees as place-makers

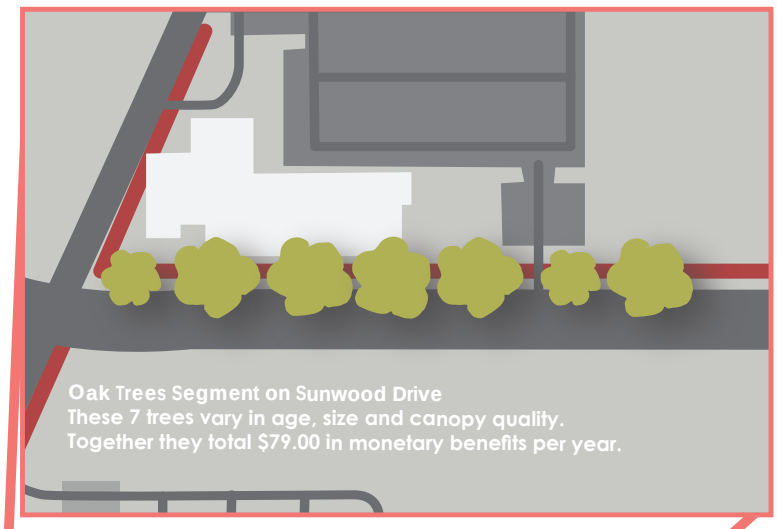
enhance downtown character through diverse street tree planting

A **pilot tree inventory** was taken on **Sunwood Drive** on what is defined as a **'destination street'** throughout The COR. A total of **97 trees** were inventoried comprised of 6 species of trees: t**he Bicolor Oak, Skyline Honey Locust, Ginkgo, Accolade Elm, Sienna Glenn Maple** and **Crabapple**. The trees along Sunwood Drive **provide variety**, **ensuring protection against diseases** and **visual aesthetics** for a street projected to support commerce and attract shoppers and employees. The age of the trees inventoried ranged from 9 to 50 years of age. However, to guarantee trees don't wither and decay at the same time, they should be **planted sparsely**. If a large section of trees reaches the end of its life span at the same time the cost of replacement will be higher for Ramsey.

Tree Diversity on Sunwood Dr.

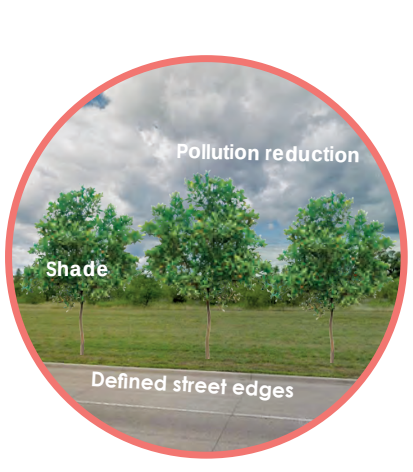


Total Monetary Benefits Per Year	$2,328.00
Average Monetary Benefits Per Tree	$25.58
Average Canopy Quality	3.7
Average Diameter	5.1 Inches



Current View

Future Possibility



Proper placement is vital to enhance the **ecosystem services** trees provide. This young **Oak tree** located in front of **Ramsey's City Hall** provides **aesthetic appeal** to destination streets.

Trees Define Destinations

The **97 street trees inventoried** on The COR's Sunwood Drive total **$2,328 in economic benefits** for the City of Ramsey. The trees planted vary in species and age, but as more trees are planted throughout destination and downtown streets, **city officials must consider the lifespan of trees** and their **cost of replacement.** These considerations must also extend to other arteries within The COR, and street planting in residential areas.

Residential Inventory

PA 5211 Land Use Planning • **TEAM:** Ada Moreno Gomez, Nick Kieser, Victoria Dan • **INSTRUCTOR:** Fernando Burga, Ph.D.

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City of Ramsey

Money Does Grow on Trees!

Investing in Ramsey's Streetside Urban Forest

10 Residential Inventory

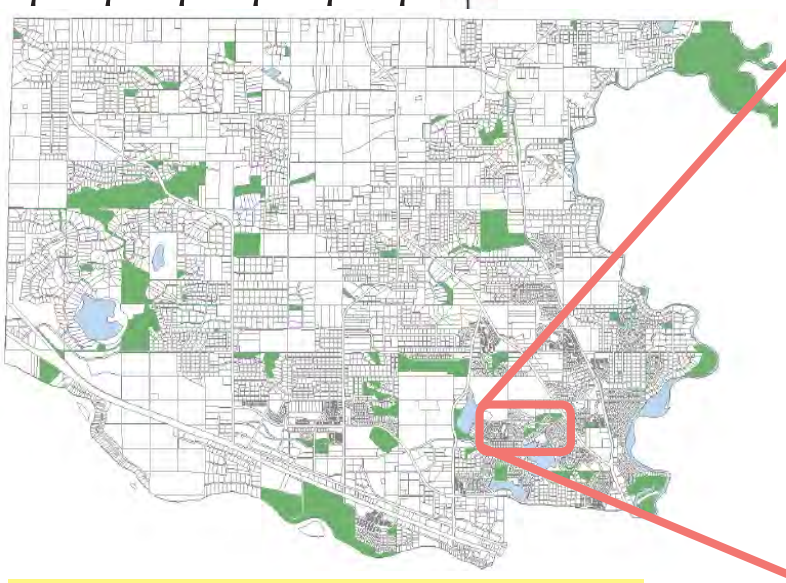
Residential trees as local heritage

show the lasting benefits of neighborhood street trees

The r**esidential tree inventory** was taken on **Sunwood Drive**, between Potassium Street and 147th Street. The trees in this inventory are more mature compared to the trees in The COR inventory. From this small sample, the **main issue** with the trees in the residential corridor is the **lack of diversity**. The **majority of the trees** sampled were **Elms** with **only one Maple** and **one Linden**. With the **lack of diversity**, there is a **higher chance of all the trees dying** from a species- specific disease. If all of the Elms died from a disease, then there would be **great financial**, **environmental and social burdens** put on Ramsey to replace those trees.

Tree Diversity between Potassium St. and 147th St.

Total Monetary Benefits Per Year	$2,640.00
Average Monetary Benefit Per Tree	$75.43
Average Canopy Quality	3.4
Average Diameter	8.9 Inches



Sunwood Drive is a good example of a **residential street** that has **good quality mature street trees.** The picture to the right shows Potassium Street south of Sunwood Drive. The benefits that are laid out in the earlier posters show how **residents can benefit from having street trees in their neighborhood**. To maximize the benefits of street trees, there needs to be a **system in place** to plant a more **diverse group of trees** in residential areas. In this small tree inventory, there is an overwhelming number of Elm trees. If a more **diverse group of trees** is planted then there will be **less risk of spreading diseases**.

Current View

Future Possibility

Trees Make a Home

These mature street trees along Sunwood Drive are a good example to show how Ramsey can showcase the benefits of residential street trees. These images also show what the future neighborhoods can look like if street trees are planted. A tree inventory is essential for all of Ramsey to calculate the existing tree population and to check the quality of each tree.

Conclusion

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11

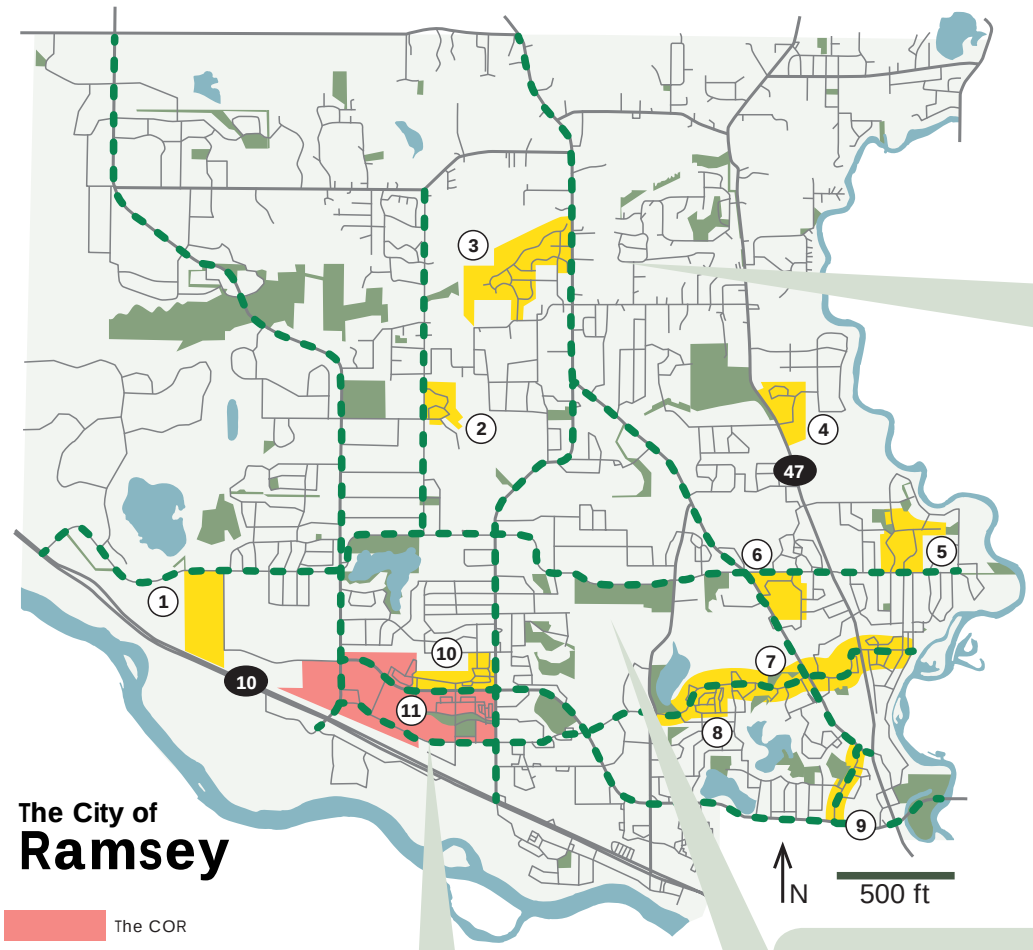
Conclusion

Envision all trees lead to the COR

in a street tree network concept for Ramsey

Each street tree bestows unique benefits, but **collectively a street tree network can create a green roadmap serving an entire community**. Ramsey's most ambitious street tree planting is occuring in the COR, the mixed use downtown development that will provide jobs, housing, retail, and recreation for a growing city. Within a network, street trees would serve as **guideposts for directing movement in and out of The COR**; they would also **create a spatial narrative about moving and experiencing the city and enhance Ramsey's identity through place-making**.

Our concept for a potential street tree network in Ramsey.

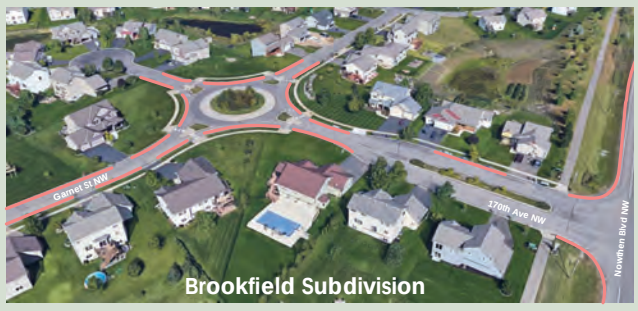


The City of
Ramsey

- The COR
- Residential area of interest
- Park + open space
- Street tree planting

① Riverstone
② Sweetbay Ridge*
③ Brookfield*
④ Estates of Silver Oaks*
⑤ Highlands at River Park
⑥ Meadow*
⑦ Sunwood Dr NW
⑧ Village of Sunfish Lake*
⑨ Dysprosiumn St NW
⑩ Town Center Gardens*
⑪ The COR*

**Major housing development with 51-2200 units planned*



Brookfield Subdivision

Brookfield with Street Trees

Street trees create **visual transitions** into residential spaces to encourage **safe driving**, promote **outdoor activity**, and **buffer residents from the noise and sight of traffic**. As place-making tools, street trees can enhance the **aesthetic character** of neighborhoods like Brookfield by creating **unique spaces**.

In a potential street tree network, spokes of trees radiate from the COR, **centralizing connections** along arterials and congested local roads. This would encourage **travel choices** along major routes while also generating **traffic calming** benefits.

Some public spaces are **vehicle-oriented rather than pedestrian-oriented.** At Apline Park, an adjacent neighborhood has crosswalk access, but there is no crossing signal or stop sign. Trees can enhance **safety** by **calming traffic** leading up to the crosswalk, while leaving space for **visibility** at the immediate crosswalk area. This approach can be used with streets at **parks, schools, and shopping areas** where pedestrian safety can be improved.

Existing
Alpine Park

Proposed
Alpine Park withStreet Trees

Street trees tell a story: This is Ramsey.

In many ways, Ramsey will **change**, **grow**, and **mature** as a city. Street trees are a smart investment that generates **savings from ecostystem services** while also **enhancing the social character of a community.** Furthermore, a **network of trees** connects **people to places** as well as **people to ideas** of **identity**, **pride**, and **values** that are vital to a city's integrity.

PA 5211 Land Use Planning • **TEAM:** Ada Moreno Gomez, Nick Kieser, Victoria Dan • **INSTRUCTOR:** Fernando Burga, Ph.D.

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City of Ramsey


Armstrong Blvd
Ramsey Blvd
Bunker Lake Blvd
Sunwood Dr
169
10
wsb

Public Works Committee **5. 2.**

Meeting Date: 04/18/2023

By: Bruce Westby, Engineering/Public Works

Title:

Consider Recommending City Council Approval of 2023 Temporary Pavement Repairs Plan

Purpose/Background:

During the 2023 budget process, $750,000 was budgeted to the streets maintenance fund for temporary spray patching improvements on an estimated 19 miles of City streets to help hold pavement together on streets experiencing significant surface stripping but that are not identified for overlay or reconstruction improvements in the 2022 - 2031 Capital Improvement Program (CIP). Pavement on these streets will be prone to accelerated deterioration due to water pooling in the surface depressions, which is then forced between the pavement base and the wear courses as vehicle tires drop into the depressions and push the water into pavement voids. The rideability on these streets will also continue to decline while other streets are receiving overlay and reconstruction improvements. Staff therefore recommended spray patching these streets while PMP projects in the 2022 - 2031 CIP are being completed, and as streets constructed between 1975 and 1985 having PASER ratings of 4 or less that are not included in the 2022-2031 CIP can be reconstructed. See attached Public Works Committee case #13431 from July 2022.

Staff has since been developing a plan to contract such temporary pavement repair work in 2023, but in the course of developing this plan it was observed that several different types of pavement repairs would be needed to most cost-effectively maintain pavement on streets awaiting overlay and reconstruction improvements. The different types of pavement repairs recommended by Staff for 2023 include spray patching, pothole patching, and spot mill and overlay improvements, along with striping after this contracted work is complete, when needed.

Timeframe:

Staff estimates 30 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Staff was in the process of finalizing maps and quantities at the time this case was prepared but in the interest of time and the City's immediate pavement repair needs, Staff wanted to bring this case to the Public Works Committee as soon as possible. Staff will present maps and supporting data during the meeting.

Funding Source:

2023 budgeted street maintenance funds.

Recommendation:

Staff will provide their recommendations during the meeting.

Action:

Based on meeting discussions.

Attachments

AgendaQuick case #13431

Form Review

Inbox	Reviewed By	Date
Brian Hagen	Brian Hagen	04/13/2023 04:18 PM
Form Started By: Bruce Westby		Started On: 04/12/2023 02:29 PM
Final Approval Date: 04/13/2023		

Public Works Committee **5. 4.**

Meeting Date: 06/21/2022

By: Bruce Westby, Engineering/Public Works

Title:

Consider Recommendation to City Council to Temporarily Increase Funding for Pavement Management Program

Purpose/Background:

Purpose:

The purpose of this case is to consider making a recommendation to City Council to temporarily increase Pavement Management Program funding to address the immediate street reconstruction bubble needs.

Background:

Pavement Management Program Background

The City maintains over 186 miles of bituminous paved City streets and is in the seventh year of its current Pavement Management Program (PMP). The primary goal of the PMP is to perform the proper pavement management (maintenance/rehabilitation) operation at the proper time to maximize the life of the pavement as cost-effectively as possible.

When streets are constructed or reconstructed using today's design standards, and when pavement management operations are proactively performed on those streets on a regular basis afterwards, at least 60-years of useful life is anticipated from new and reconstructed bituminous pavement sections.

Current bituminous pavement management operations include;

- Cracksealing – Protects existing pavement by preventing stormwater runoff from seeping through cracks in the pavement and joints between the pavement and concrete curb and gutter and utility castings, minimizing future damage due to wet subgrade soils, especially during freeze-thaw cycles. The City annually crackseals about 25 miles of bituminous pavement on its public street system.
- Overlays – Protects existing pavement similar to cracksealing, while also increasing the structural or load carrying capacity of the pavement. The City typically overlays up to 4 miles of pavement on its public street system annually.
- Reconstructs – Pavement reconstruction projects remove and replace severely damaged pavement with new pavement sections. Reconstruction projects may also include removal and replacement of damaged concrete curb and gutter on urban sections, or re-grading ditches and re-shouldering on rural sections. The City annually reclaims/reconstructs up to 2 miles of pavement on its public street system.

The City of Ramsey's current proactive pavement management schedule for improved public streets is generally as follows;

- Cracksealing - 3 years following construction, overlays or reconstruction, then every 7 years after.
- Overlays - 20 years after construction, overlays or reconstruction.
- Reconstructs - 60 years after construction or reconstruction.

The pavement management schedule for each street segment is adjusted based on actual pavement conditions. City staff annually reviews and rates the pavement condition of all public streets using the Pavement and Surface Evaluation Rating (PASER) system. PASER ratings range from 1 to 10, with 1 being a failed pavement section in total disrepair, and 10 being a new pavement section.

Figure 1 shows 2021 PASER ratings for all City streets.

Staff typically recommends reconstructing pavement sections with PASER ratings between 1 and 4. Overlays are typically recommended for pavement sections with PASER ratings of 5 and 6. Cracksealing is typically recommend for pavement sections with PASER ratings between 7 and 10.

By proactively performing these pavement management operations on a scheduled basis, the useful life of the pavement is maximized as cost-effectively as possible. If proactive maintenance operations are not applied, pavement sections will generally require reconstruction every 30 years, which adds considerable cost to a pavement management program.

Street Reconstruction Bubble

Between 1975 and 1985 approximately 40-percent of all City streets were constructed. At the time these streets were constructed their anticipated useful design life was 40-years, after which reconstruction would be required. These streets have all now either reached, or are nearing, the end of their useful lives. This means approximately 40-percent of City streets need to be reconstructed now or in the immediate future. And while it has generally been known for a decade or more that this "street reconstruction bubble" was approaching, it has become even more apparent this year that current Pavement Management Program funding levels need to be increased to acceptably maintain the condition of City streets.

Pavement Management Program Funding Needs

Staff has received a steady increase in calls in recent years from businesses and residents complaining about the poor condition of City streets and asking when the City plans to patch, overlay or reconstruct the streets serving their businesses and homes. Based on the increasing number of complaints received each year, on the fact that 40-percent of public streets are generally at the age that they need to be reconstructed, and considering that Public Works Staff struggles to adequately maintain the pavement on City streets, Staff is seeking a recommendation from the Public Works Committee to the City Council on how many more streets to reconstruct and/or overlay each year, over and above the amount of Pavement Management Program (PMP) projects identified in the 2022 – 2031 CIP.

Figure 2 shows all public streets proposed to be reconstructed between 2022 and 2031 as identified within the current 10-year CIP, which totals 25.38 miles. The figure also shows streets that currently qualify for reconstruction since they have PASER ratings of 4 or less, but are not yet identified in the CIP. These streets total 18.50 miles. Of these streets less than one mile are non-residential streets, and less than one-quarter mile are Municipal State Aid System routes, qualifying for use of MSA funds.

Figure 3 shows all public streets proposed to receive mill and overlay improvements between 2022 and 2031 as identified within the CIP, which totals 34.84 miles.

Figures 4 through 7 shows which City streets have PASER ratings of 5, 6, 7 and 8, which are the PASER ratings typically targeted for identifying future PMP projects within the 10-year CIP. PASER ratings for bituminous pavements decrease over time which allows Staff to determine specific street segments for future PMP projects within the 10-year CIP.

Expanding the PMP program to account for the increased immediate needs due to the current street reconstruction bubble the City is facing will require a significant increase in annual PMP funding. Currently, approximately $2,750,000 of American Rescue Plan Act (ARPA) funds are available for additional street reconstruction and/or overlay projects in 2023. In the future, such funding may not be readily available so Staff is seeking direction from the Public Works Committee on how much additional funding should be allocated annually for PMP projects, if any.

Traditional funding sources for PMP projects include the general levy, bonds, special assessments, Municipal State Aid (MSA) funds, and/or franchise fees. Finance Director Diana Lund will be in attendance to address questions Committee members might have on these funding sources including availability, reliability, interest rates, fund balances, etc.

Timeframe:
Staff anticipates up to 60 minutes will be needed to present and discuss this case.

Observations/Alternatives:

Observations:

"Light" Street Reconstruction Projects

An option the Committee may wish to consider would be to temporarily complete more PMP projects as "light" street reconstruction projects. This would involve reconstructing streets by reclaiming the existing bituminous pavement plus an inch or two of underlying aggregate base, leaving all or most of the reclaim pavement on site as a thicker aggregate base section, then paving a single 2-inch lift of bituminous pavement over the compacted reclaim material. This would generally provide a pavement section similar or slightly better than the pavement sections constructed up to the early 2000's, which generally met a 5-ton pavement design strength, compared to today's pavement sections constructed with 4-inches of aggregate base and 3½-inches of bituminous pavement that generally meet a 7-ton design strength.

Light street reconstruction projects are estimated to cost about 75-percent of a standard street reconstruction project utilizing pavement reclamation, which involves reclaiming the existing pavement plus an inch or two of underlying aggregate base, hauling about half the reclaim material off site, then paving two lifts of bituminous pavement totaling 3½-inches on top of the remaining compacted reclaim material. This design generally meets a 7-ton pavement design strength.

Utilizing light street reconstruction projects would allow the City to reconstruct about 25-percent more streets at the same cost as a standard street reconstruction project. However, the anticipated design life of these streets would be between 25 and 40 years instead of 60 years with a standard pavement reclamation project. In addition, pavement design strength would be reduced which may cause issues during spring load restrictions requiring increased enforcement actions by Ramsey PD and other Staff.

Staff would support this option if the Committee feels the benefit of completing 25-percent more street reconstruction projects annually will outweigh the costs and other potential local impacts due to achieving a design life that is two-thirds or less than that of a standard street reconstruction project, and due to a lesser pavement design strength.

Advancing Street Reconstructions to Overlay Improvements

Staff also explored whether streets identified as street reconstruction projects in the later years of the 10-year CIP, which may have PASER ratings of 5, 6 or higher, may be suitable for pavement overlay improvements in earlier years to extend the life of the pavement enough to allow it to be reconstructed after the "street reconstruction bubble" passes to smooth out the next street reconstruction bubble.

Attached are four figures showing streets with PASER ratings between 5 and 8, all of which could potentially be identified within the 10-year CIP as street reconstruction projects closer to the end of the 10-year period based on projected pavement decay curves.

Staff reviewed the 2022 – 2031 CIP to identify streets with PASER ratings between 5 and 8 that might meet this qualification. Staff only found one street segment that might meet these criteria and provide enough benefit to outweigh the additional cost due to overlaying a pavement section that is past the point of achieving 15 or more years of pavement life following the overlay improvements. Staff therefore does not believe there is enough value associated with this option to pursue it further.

Alternatives:

Alternative #1 – Motion recommending City Council approval to temporarily increase Pavement Management Program funding to address immediate street reconstruction bubble needs in an annual amount of $_____.

Alternative #2 – Motion of other.

Funding Source:

To be determined based on discussions.

Recommendation:

Staff recommends temporarily increasing annual PMP funding to mitigate immediate street reconstruction bubble needs and minimize annual maintenance costs in as few years as practical.

It is important to consider that the longer the bubble continues, the greater the impacts related to street maintenance including equipment and material costs, professional services, and potentially staffing. On the flip side, the higher the annual PMP funding, the greater the impacts related to engineering costs including engineering staff and potentially professional services. These costs must therefore be considered as well. More information on these costs will be provided during the meeting.

Action:

Motion recommending City Council approval to temporarily increase Pavement Management Program funding to address immediate street reconstruction bubble needs in an annual amount of $_____.

Attachments

Figure 1 2021 PASER Map

Figure 2 Street Recon Needs

Figure 3 2022-31 Overlay Projects

Figure 4 PASER5

Figure 5 PASER6

Figure 6 PASER7

Figure 7 PASER8

Asphalt Method Patching and Costs

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	06/16/2022 03:26 PM
Brian Hagen	Brian Hagen	06/16/2022 04:03 PM
Form Started By: Bruce Westby		Started On: 06/07/2022 09:17 AM
Final Approval Date: 06/16/2022		

CITY OF RAMSEY
2021 PASER RATINGS

City of RAMSEY

CITY STREETS

Mileage Summary

Paser Rtg	Length	
9 - 10	45.77 mi.	24.87%
7 - 8	58.76 mi.	31.93%
5 - 6	33.57 mi.	18.24%
3 - 4	26.86 mi.	14.60%
0 - 2	16.72 mi.	9.09%
Dirt	2.59 mi.	1.41%
Total	184.03 mi.	

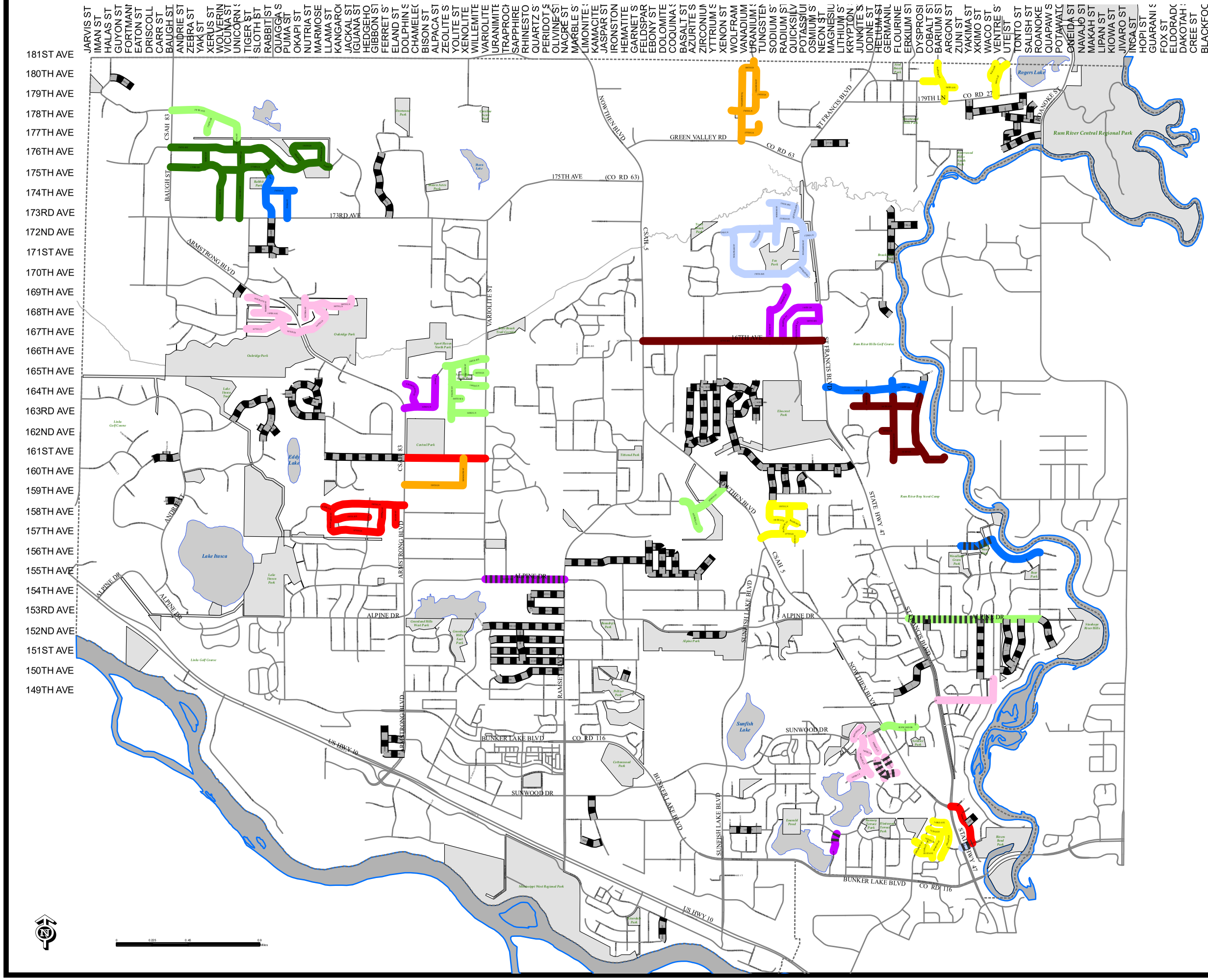
Legend

- subdivisions_pts
- Paser 9 - 10
- Paser 7 - 8
- Paser 5 - 6
- Paser 3 - 4
- Paser 0 - 2
- Dirt Streets
- MRCC_Centerlines
- MuniBndry

January 2019

CITY OF RAMSEY

Pavement Management Program
Street Reconstruction Needs



LEGEND

2021 PASER 4 OR LESS

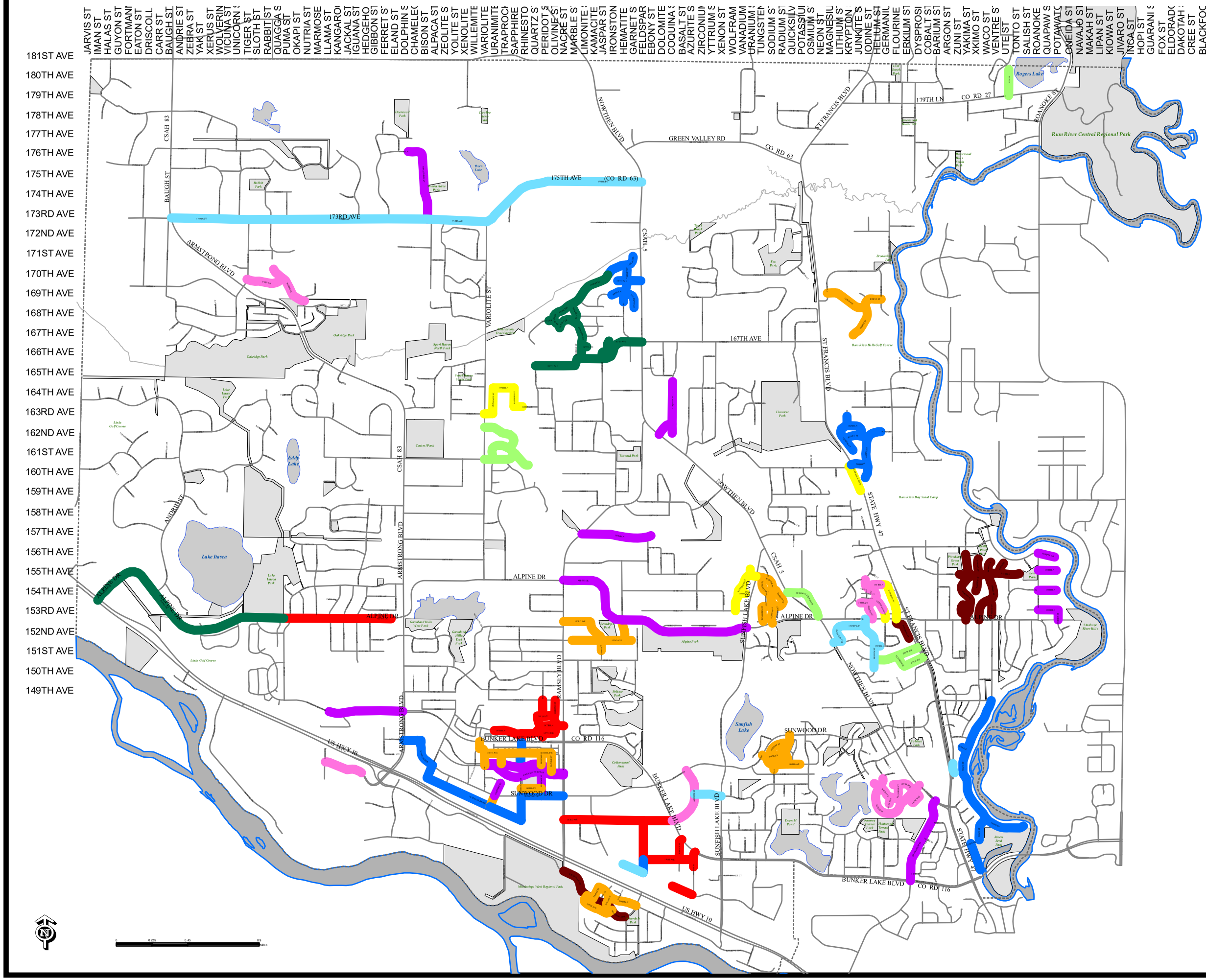
- CURRENT RECON NEED

2022 - 31 CIP, PROJECT YEAR

- 2031, RC
- 2030, RC
- 2029, RC
- 2028, RC
- 2027, RC
- 2026, RC
- 2025, RC
- 2024, RC
- 2023, RC
- 2022, RC
- CIP Recon Paser > 4
- Road_Centerlines
- MuniBndry
- Parks
- Rivers
- Lakes_Ponds
- Creeks

CITY OF RAMSEY

Pavement Management Program
Overlay Improvements



LEGEND

2022 - 31 CIP, PROJECT YEAR

<all other values>

2022, OL	2.91 mi.
2023, OL	2.39 mi.
2024, OL	3.43 mi.
2025, OL	4.86 mi.
2026, OL	1.39 mi.
2027, OL	5.00 mi.
2028, OL	4.13 mi.
2029, OL	3.42 mi.
2030, OL	1.78 mi.
2031, OL	5.53 mi.

- Road_Centerlines
- MuniBndry
- Parks
- Rivers
- Lakes_Ponds
- Creeks

CITY OF RAMSEY
2021 PASER RATINGS
STREETS RATED 5

January 2019

City of RAMSEY

CITY STREETS

Mileage Summary

Paser Rtg	Length	
9 - 10	45.77 mi.	24.87%
7 - 8	58.76 mi.	31.93%
5 - 6	33.57 mi.	18.24%
3 - 4	26.86 mi.	14.60%
0 - 2	16.72 mi.	9.09%
Dirt	2.59 mi.	1.41%
Total	184.03 mi.	

Legend

- Paser 5 — 18.46 mi.
- subdivisions_pts
- MRCC_Centerlines
- subdivisions
- MuniBndry

CITY OF RAMSEY
2021 PASER RATINGS
STREETS RATED 6

January 2019

City of RAMSEY

CITY STREETS

Mileage Summary

Paser Rtg	Length	
9 - 10	45.77 mi.	24.87%
7 - 8	58.76 mi.	31.93%
5 - 6	33.57 mi.	18.24%
3 - 4	26.86 mi.	14.60%
0 - 2	16.72 mi.	9.09%
Dirt	2.59 mi.	1.41%
Total	184.03 mi.	

Legend

- Paser 6 — 15.11 mi.
- subdivisions_pts
- MRCC_Centerlines
- MuniBndry

CITY OF RAMSEY
2021 PASER RATINGS
STREETS RATED 7

January 2019

City of RAMSEY

CITY STREETS

Mileage Summary

Paser Rtg	Length	
9 - 10	45.77 mi.	24.87%
7 - 8	58.76 mi.	31.93%
5 - 6	33.57 mi.	18.24%
3 - 4	26.86 mi.	14.60%
0 - 2	16.72 mi.	9.09%
Dirt	2.59 mi.	1.41%
Total	184.03 mi.	

Legend

- Paser 7 — 25.79 mi.
- subdivisions_pts
- MRCC_Centerlines
- MuniBndry

CITY OF RAMSEY
2021 PASER RATINGS
STREETS RATED 8

January 2019

City of RAMSEY

CITY STREETS

Mileage Summary

Paser Rtg	Length	
9 - 10	45.77 mi.	24.87%
7 - 8	58.76 mi.	31.93%
5 - 6	33.57 mi.	18.24%
3 - 4	26.86 mi.	14.60%
0 - 2	16.72 mi.	9.09%
Dirt	2.59 mi.	1.41%
Total	184.03 mi.	

Legend

- Paser 8 — 32.97 mi.
- subdivisions_pts
- MRCC_Centerlines
- MuniBndry

Temporary Patching (Pothole Filling)			**Location**	**161st Ave**	
Equipment Used			**Cost/Hour**		**Cost / 8 hrs**
1-Ton Truck			$20.57		$164.56
Asphalt Tamper			$10.37		$82.96
Trailer			$12.81		$102.48
Labor	Full Time	2.00	$124.20		$993.60
	Seasonal	1.00	$15.00		$120.00
Asphalt	Per Ton	**4 Tons@68.85/Ton**			$275.40
		Total/hr	**$187.90**	**Total/8 hrs**	**$1739.00 or $434.75/ton**
Permanent Patching (Mill/Overlay)			**Location**	**Xkimo St N. of Alpine**	
Equipment Used in Removal			**Cost/Hour**		**Cost/8hrs**
Tandem Axle Truck			$65.75		$524.00
24 Ton Trailer			$16.99		$135.92
Skid Steers		2.00	$62.32		$498.56
Edge Mill			$15.48		$123.84
Broom			$7.37		$58.96
Labor	Full Time	2.00	$124.20		$993.60
	Seasonal	1.00	$15.00		$120.00
Asphalt	Per Ton	$68.85		**Total Equipment Cost**	**$2,454.88**
Equipment Used in Repair			**Cost/Hour**		**Cost / 24 hrs**
1-Ton Truck			$20.57		$493.68
Asphalt Roller			$15.32		$367.68
Trailer			$12.81		$307.44
Labor	Full Time	2.00	$124.20		$2,980.80
	Seasonal	1.00	$15.00		$360.00
Asphalt	Per Ton	**28 Tons@$68.85/Ton**			$1,927.80
		Total/hr	**$187.90**	**Total/24 hrs**	**$6,437.40**
				Total Project Cost	**$8892.28 or $317.58/ton**
Spray patching-Contractor				**Various Locations**	**$403.88/ Ton**

PUBLIC WORKS COMMITTEE
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Public Works Committee conducted a regular meeting on Tuesday, June 21, 2022, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Chairperson Chris Riley
Councilmember Debra Musgrove
Councilmember Matt Woestehoff

Also Present: Public Works Superintendent Grant Riemer
City Engineer Bruce Westby
Civil Engineer II Joe Feriancek
Finance Director Diana Lund
Community Development Director/Deputy City Admin Brian Hagen

1. CALL TO ORDER

Chairperson Riley called the regular meeting of the Public Works Committee to order at 5:30 p.m.

2. CITIZEN INPUT

There was none.

3. APPROVE AGENDA

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

4. APPROVE MINUTES

4.01: Approve May 17, 2022, Meeting Minutes

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to approve the following minutes:

Regular Meeting Minutes dated May 17, 2022

Further discussion: Councilmember Musgrove noted on page nine, paragraph seven, it should state, "…indicates ~~they~~ we…"

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

5. COMMITTEE BUSINESS

City Engineer Westby suggested first considering case 5.02 as a resident is not yet present for case 5.01.

5.02: Review Bicycle and Pedestrian Facilities as Part of the 161st Avenue Street Reconstruction

Civil Engineer II Feriancek reviewed the staff report and stated that staff recommends alternative one, reconstructing 161st Avenue as a minimum width two lane road with a six-foot boulevard and ten-foot bituminous trail on the north side.

City Engineer Westby referenced an email he received from Councilmember Woestehoff who asked about running a trail between the fields and PACT. He stated that staff did look at that option but that would place the trail within the foul area of the ball field. He commented on the high cost to move fields. He stated that staff could review that option in more detail, but it may interfere with field use and rental. He commented that this is an MSA road, therefore they are limited in the options for design. He stated that the City does have the ability to change its MSA routes, if desired, but noted that it a lengthy process as well and it would still most likely make sense to widen the road.

Councilmember Woestehoff asked if PACT could be asked to have an easement and put the trail on their property as it would provide mutual benefit. He commented that the neighborhood does not want to see loss of mature trees and it would also change the look of Central Park dramatically. He stated that he would not be in favor of the bike lane as he believed people will most likely park in that lane.

Civil Engineer II Feriancek stated that the current plan has a ten-foot gap between the property line and parking lot.

Chairperson Riley stated that is an option he would be interested in finding out more about. He stated that of the options given, option three would seem to be the best fit for safety and to lose the minimum number of trees.

Councilmember Musgrove stated that she agrees that tree removal should be avoided to the extent possible. She agreed that removing a number of trees would impact the character of the park and therefore would like to look at the possibility of another trail placement that could avoid more tree loss. She stated that she does appreciate the staff time and thought in developing these creative ideas for trails.

Civil Engineer II Feriancek confirmed the consensus of the Committee to work with the developer and try to keep the trail north, staying out of the playing fields.

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to direct staff to further investigate option three as well as alternative to negotiate with PACT for a ten-foot trail on the western boundary to the fields.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

5.01: Consider Recommendation to City Council Authorizing Preparation of Plans and Specifications for 2022 Argon Street Drainage Improvements

City Engineer Westby reviewed the staff report and recommendation to recommend City Council authorization to prepare plans and specifications for 2022 Argon Street Drainage Improvements.

Chairperson Riley referenced the replacement of the septic system that was mentioned and asked if there was flooding before that replacement occurred.

Luke Buchholz, 15407 Argon Street, replied that he was not aware of flooding before the previous owner replaced the septic system.

Councilmember Woestehoff asked the pavement rating for Argon and when the road is scheduled for work next.

Public Works Superintendent Riemer replied that he believed the road had a rating of five or six.

Councilmember Woestehoff asked if the improvement could be delayed until work is done on the road. He stated that perhaps if a pavement management project is planned at a future time, the improvement could become part of that project and be budgeted for. He commented that he would have a hard time developing plans and specifications and spending $500,000 for something that only impacts four homes.

Chairperson Riley noted that the next road improvement would be an overlay, not a reconstruction.

City Engineer Westby replied that the resident has had water in their basement at least twice now and the rain events are becoming more intense each year which will lead to further flooding.

Councilmember Woestehoff stated that nothing in the case makes this seem like this was caused by the City. He stated that when he lived in Richfield his basement flooded on multiple occasions and he did not call the City to regrade his yard. He stated that he would not have a problem assisting with plans and specifications but believed there are better ways to spend $500,000.

Mr. Buchholz stated that he did not think going to the south with a pipe would be feasible because of the grade. He commented that all the water already goes to the west. He stated that the City already did a regrading once, but it was not done correctly. He believed a proper swale would have provided a solution and suggested curving the swale around the septic. He commented that the culvert under Argon Street was not properly sized for all the water that it handles. He commented that after the last overlay, the road surface is almost at the same level as the curb, so

half the water is running off the roads into the driveways and ditches. He believed that regrading a better swale and resizing the culvert would provide a solution. He believed the pond to the west was adequately sized.

Chairperson Riley commented that again it seems that the replacement of the septic system was the cause of these issues.

City Engineer Westby replied that typically when a new system is installed it is put in a new location and perhaps that was part of the issue. He stated that staff could look to see what perpetuated the drainage issue, look at potential costs for regrading, and potential impacts.

Chairperson Riley recognized the hesitancy of the Committee to spend $500,000 to fix something that was caused by replacement of a septic system.

Councilmember Musgrove asked if this would be a situation where a rain garden could help.

City Engineer Westby replied that he is unsure of the soil types in that area or level of the water table. He commented that with the wetland complex to the west he would guess the water table could be high. He identified other properties that have reached out to the City with complaints on this topic. He commented that when the original property owner put the septic system in, he did have problems with water coming into his basement.

Mr. Buchholz commented that per the MS4 Permit, the City is not allowed to send water from the right-of-way onto private land. He commented that if there is not drainage and utility easement through Mr. Ridgeway's property, drainage cannot be sent into that area.

City Engineer Westby replied that there is an issue, and Staff's proposed design would prevent that from occurring and prevent the City from having to purchase an easement. He explained that when the City was incorporated, it incorporated the existing drainage systems and issues.

Chairperson Riley commented that he is shocked at the cost.

Councilmember Woestehoff referenced property four in the diagram which he believed does have an easement. He asked if the issue is that the easements are not in the right place and in order to use that easement there would need to be significant tree removal.

City Engineer Westby stated that in order to direct water to that location, water would need to be rerouted which would include regrading.

Councilmember Woestehoff commented that there is an easement between properties seven and four.

City Engineer Westby replied that there is easement but that is not where the drainage wants to go. He stated that if they were going to perpetuate drainage through the yard, an easement would need to be purchased.

Councilmember Woestehoff stated that it is nice that staff has been helpful even though this does not appear to be the fault of the City at any time.

City Engineer Westby confirmed the consensus of the Committee, directing staff to pursue a less costly option.

5.03: Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for Autumn Heights Street Reconstructions, Improvement Project #22-02

Civil Engineer II Feriancek reviewed the staff report and recommendation to recommend that the City Council approve plans and specifications and authorize advertisement for bids for Autumn Heights Street Reconstructions, Improvement Project #22-02. Alternatively, the Committee could recommend revising the plans to include the "reclamation light" design at an estimated 43 percent cost savings, however, these streets would then have a different design than all other recently reconstructed streets in Ramsey which would provide a lesser pavement design strength and shorter design life.

Councilmember Musgrove asked for clarification on the eight feet of existing driveways mentioned in the report. She also asked whether there is a need for curb and gutter or whether that is just needed on one section.

Civil Engineer II Feriancek replied that 167th west of Armstrong goes uphill and turns left. He stated that the drainage along the hill goes to the ditches as there are no swales. He stated that curb and gutter would be added to that section to manage that drainage and keep soil from spilling into the road. He stated that the eight feet of driveways provides enough space to tie into the new pavement. He stated that over time parts of the road sink or raise and therefore space is needed to recreate the profile, which will cause some driveways to be slightly adjusted as well.

Councilmember Musgrove asked if the curb and gutter is only in that section.

Civil Engineer II Feriancek confirmed that the curb and gutter is only along that portion of 167th.

Councilmember Woestehoff asked how a reclamation and overlay would differ.

Civil Engineer II Feriancek replied that an overlay would mill out the top layer, but reflective cracking still occurs. He stated that there is a lot of alligator cracking on the road, which would cause the overlay to break up. He stated that a reclaim will mill off additional material to create new class five material.

Councilmember Woestehoff asked if they could do that without doing a full depth reclamation, specifically asking for more explanation on the reclamation light option.

Civil Engineer II Feriancek stated that the reclaim light would mill off the top and a little into the gravel.

City Engineer Westby replied that the reclaim is still the same in both the full depth and light options. He explained that in a full depth reclamation they remove some of the reclaim and put two lifts of pavement, whereas the light version removes less reclaim and puts one layer of pavement on top.

Chairperson Riley referenced the cost difference, noting that the light version is less than half the cost.

Civil Engineer II Feriancek stated that the reduced cost does not include the other improvements proposed, noting that the grade would not be adjusted and therefore it may not be as smooth and it would also remove the curb and gutter, culvert replacement, and other proposed improvements for the project.

City Engineer Westby replied that the road would be a touch better than the originally constructed road. He explained that the City currently constructs roads to a seven-ton design load, whereas this would only be rated for perhaps five tons. He stated that 60 years is the typical lifespan for a new road, whereas this would be maybe between 25 and 40 years.

Councilmember Woestehoff stated that doing these types of improvements could help to solve the bubble situation and spread some repairs over time and the lower cost would help to spread needed repairs to more areas.

Councilmember Musgrove asked if this project was on the 2022 CIP.

City Engineer Westby confirmed that this road was planned for 2022.

Councilmember Musgrove stated that she could support the light version if there were a plan for how many roads could be placed into that category. She stated that she also has a desire to see the road project move forward as planned.

Chairperson Riley asked if this neighborhood would be a good candidate for the light option. He asked all residential neighborhoods would be equally available for the light option or whether it would not be recommended for some roads.

City Engineer Westby replied that it would depend upon the subgrade soils. He stated that it sounds like there were some poor subgrade sections in this area where soil corrections were going to be done and if that does not happen the road would fail faster. He stated that he would target the light option on streets that have better subgrade sections.

Public Works Superintendent Riemer commented that the east side of the project basically only sees traffic from the people living there while the west side has a fair amount of cut-through traffic.

Civil Engineer II Feriancek commented that the subgrade soils on the east side are worse and the subgrade on the west side are better, but people do cut through the west side to get to other neighborhoods.

Councilmember Woestehoff stated that because this is rural residential with less density it would seem like a prime candidate for the light reclaim option. He asked if there would be a hybrid option.

Chairperson Riley asked for details on the half cul-de-sac proposed.

Civil Engineer II Feriancek replied that would allow turn around space for emergency vehicles. He did not believe residents would provide additional right-of-way for a full cul-de-sac as it would significantly impact the resident to the north and take most of his driveway.

Chairperson Riley commented that this was planned for last year and is now planned for this year but is just being brought forward now which means it may not be completed. He asked why this did not come forward earlier.

City Engineer Westby replied that this was the last project and staff has had a heavy workload.

Councilmember Musgrove asked staff for details on a potential hybrid option and whether the reclaim light would be proposed for the west or east portion. She also asked the impact of doing a reclaim light on the eastern portion.

Civil Engineer II Feriancek replied that if the subgrade soils on the east are not corrected, that would fail faster. He commented that perhaps 20 years could be gotten, but maybe not.

Chairperson Riley stated that the Committee would be interested in hearing which projects would be feasible for reclaim light and acknowledged that if there are poor soils those roads would not be good for the reclaim light option.

City Engineer Westby commented that staff will need to track where reclaim light is done to ensure the proper maintenance schedule is followed in the future.

Councilmember Woestehoff asked if it would make sense to split the project into two projects, full reclaim on the east side and reclaim light on the west side, for tracking purposes. He believed that the light reclaim will be a viable option going forward for some roads in order to complete more improvements at a lesser cost.

City Engineer Westby stated that staff could figure out how to track this and would prefer to keep the entire project together.

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to recommend City Council approval of plans and specifications and authorizing advertisement for bids for Autumn Heights Street Reconstructions, Improvement Project #22-02 with the assumption that the eastern portion will be full-depth reclaim and the western portion will be reclaim light.

Further discussion: Councilmember Musgrove asked where the cul-de-sac is located and whether that would still be constructed. Civil Engineer II Feriancek replied that while the cul-de-sac is on the western portion, that portion could be full-depth in order to complete that improvement.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

5.04: Consider Recommendation to City Council to Temporarily Increase Funding for Pavement Management Program

City Engineer Westby reviewed the staff report and recommendation to temporarily increase annual PMP funding to mitigate immediate street reconstruction bubble needs and minimize annual maintenance costs in as few years as practical. It is important to consider that the longer the bubble continues, the greater the impacts related to street maintenance including equipment and material cost, professional services, and potentially staffing. On the flip side, the higher the annual PMP funding, the greater the impacts related to engineering costs including engineering staff and potential professional services. These costs must therefore be considered as well.

Chairperson Riley asked if the reclaim light is done, would that preclude a mill and overlay in the future.

City Engineer Westby confirmed that generally that would be true as there would not be enough pavement for that option. He commented that an overlay could be done to lengthen the lifespan, but a mill and overlay would not be an option.

Civil Engineer II Feriancek explained the differences in the proposed costs of the last case between full-depth reclaim and reclaim light.

City Engineer Westby replied that staff will provide better cost estimates at the next meeting.

Councilmember Woestehoff stated that he likes getting 25 percent more roads done. He stated that as much as he does not love the reclaim light option, it does help to spread the improvements out better over time.

Chairperson Riley confirmed the consensus of the Committee that the available ARPA funds mentioned should be spent on road projects.

Councilmember Woestehoff asked if the police body cams were still funded using ARPA dollars.

Finance Director Lund replied was excluded from the numbers and noted the estimate of the police cameras was about $268,000 in total for the entire system.

Councilmember Musgrove asked if the ARPA funds have to be used within a certain period of time.

Finance Director Lund stated that the first half of funds were received in 2021 and the next half will be received in 2022. She stated that contracts have to be in place by December 2023 and the funds have to be spent one year after that date.

Councilmember Musgrove referenced the road rating which helps to categorize the improvements needed and asked if the subgrade information could also be included to identify the streets that would be available for reclaim light.

City Engineer Westby replied that geotechnical work would need to be done with soil borings to review the soil conditions.

Chairperson Riley asked if the radar would provide that information.

City Engineer Westby replied that only provides details on the bituminous and aggregate section depths but does not identify soil types.

Chairperson Riley asked if engineering would have sufficient time to plan for improvements next year if the additional funding is approved now.

City Engineer Westby commented that if staff can start moving on it right away, that should be possible. He commented that they would have a Civil Engineer working on plans full time after this construction season is done. He commented that Civil Engineer II Feriancek would also be working on plans.

Civil Engineer II Feriancek reviewed the projects currently scheduled for the following year and stated that with the additional staff person assisting, they should be able to complete those plans.

Councilmember Woestehoff asked if the intent would be to use the additional funds for reconstructs, or to focus on the reclaim light projects.

Chairperson Riley commented that is part of the discussion.

Community Development Director/Deputy City Admin Hagen commented that if the additional funding is used on roads, every project for 2023 would use that funding in order to ensure the funds are spent on time.

Councilmember Woestehoff stated that his question was more of whether this is focused on getting the most miles of roads done. He asked if staff has some of the geotechnical data on about half the roads scheduled for reconstruction.

City Engineer Westby did not believe that would be accurate. He noted that there may be data from previous projects or developments in that area. He stated that the next step for the 2023 projects was to award contracts for geotechnical and topographical surveys.

Councilmember Woestehoff asked the cost to have geotechnical work done on all the roads proposed on the CIP for the next set of years.

City Engineer Westby noted that there are some streets that have known issues and perhaps just a boring or two would be adequate to confirm that information.

Civil Engineer II Feriancek provided more details on the estimated cost for that service.

Chairperson Riley commented that there is a known CIP schedule and perhaps it would be a good idea to do the projects planned for 2023 and then attempt to get the most number of miles completed with the additional funding.

City Engineer Westby replied that if City Council approvals could be gained immediately, staff could focus on that task.

Chairperson Riley asked what that would mean.

City Engineer Westby replied that perhaps if a dome project were to come forward, that engineering work would need to be contracted out in order for City staff to stay focused on roads.

Councilmember Woestehoff asked how finance feels about spending those funds on roads.

Finance Director Lund replied that they are going into budget discussions and roads were planned to be on the levy, therefore she would assume they would stay on that tract with the additional funding for roads. She stated that roads would then be $1,800,000 within the proposed budget. She clarified that contracts would need to be in place by December of 2024 for ARPA funds and spent by December 2026.

City Engineer Westby stated that the plan for 2023 is great but they would still need a plan for the next ten years.

Councilmember Musgrove asked some of the options.

Chairperson Riley commented that most of these are residential streets and could not use MSA funding. He confirmed that an additional $2,500,000 is needed each year for the next ten years.

Finance Director Lund provided details on the typical terms of bonding.

Councilmember Woestehoff asked if it would be smarter to do a larger amount to get more work done if they were to use bonding.

Finance Director Lund provided details on bonding and the timeline in which the funds have to be used.

Councilmember Musgrove asked if there would be an opportunity to use the consortium if a larger amount were bonded for.

City Engineer Westby replied that the consortium does sealcoating and crack sealing. He stated that the City could bond a larger amount and that costs could be spread over up to ten years.

Chairperson Riley commented that it seems that roads need to be reconstructed rather than overlaid and asked what is driving that.

City Engineer Westby replied that these are the roads that were inherited and the roads are at or near their life expectancy. He stated that the City does about two times the number of overlays compared to reconstructs. He commented that is due to the age of the roads and lack of maintenance in the past. He explained that if there was additional maintenance done in the past, they could be doing move overlays but now the roads have deteriorated past that point and need to be reconstructed.

Chairperson Riley referenced Ute Street, south of Alpine, and asked why that would not qualify as an overlay.

City Engineer Westby replied it has a rating of three or four.

Public Works Superintendent Riemer commented on the number of potholes and wearing of the road.

City Engineer Westby replied that staff can move forward with the plan for 2023 as discussed, or staff could bring additional information back for the July meeting if desired.

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to recommend City Council approval to temporarily increase Pavement Management Program using the available ARPA funds, directing staff to move forward with the planned 2023 CIP road projects and use the additional funds to provide the most benefit to roads possible.

Further discussion:

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

Chairperson Riley commented that in terms of planning for the years after, it would make sense to hear more information about bonding and the use of outside engineering consultants.

Councilmember Woestehoff stated that it would also be helpful to have information on future impacts to taxpayers as well.

Finance Director Lund noted that she would need to know the amount that would be bonded for in order to provide that information.

Councilmember Woestehoff stated that he is comfortable with the plan for 2023 but would want more information following that because there are other costs, such as the Water Treatment Plant, that will have impacts.

City Engineer Westby stated that if the decision is to add projects, that work needs to be done in the fall, so the discussion cannot be pushed too far down the road as there is not a funding source identified.

Community Development Director/Deputy City Admin Hagen stated that this will need to be part of the budgeting discussions because funding may need to start increasing in 2023 in order to have the needed funding for the roads going forward and spread that cost out.

Finance Director Lund commented that because she does not know what the levy will be this year and with fluctuating costs, it is hard to project. She noted that the CIP costs are based on estimates prior to this market and those may increase as well. She stated that there has to be something locked in for the levy increase and did not believe five percent is accurate for a growing city.

Chairperson Riley recognized that is more of a budget discussion that could be discussed by the full Council. He stated that if staff has a recommendation that may help the Council make that decision, that would be helpful.

Finance Director Lund stated that for the July budget meeting she will be using the current proposal as the starting point.

Chairperson Riley referenced patching methods and costs and stated that he asked for more information on that and asked what else could be done.

Public Works Superintendent Riemer provided details on the different methods of patching and associated costs.

Chairperson Riley recognized that residents continue to demand repairs, and this helps to show the work that is being done. He asked if funds are available or whether funds need to be directed in order to allocate more funds towards patching.

Public Works Superintendent Riemer believed there would be funds in the budget that could absorb the additional cost.

Chairperson Riley commented that it seems to make sense to follow the more efficient path.

Councilmember Musgrove agreed that this would be more efficient and less impact to the public works staff people.

PW Street Supervisor Shane Turner provided additional details on the more efficient patching method. He confirmed that the machinery is trailered, and that the City has the trailers available.

Public Works Superintendent Riemer noted the only piece that would be new equipment.

PW Street Supervisor Shane Turner commented that there would be a secondary bucket that would go with the machine.

Councilmember Musgrove asked how soon the equipment could be obtained if approved.

PW Street Supervisor Shane Turner commented that there is one available right now at Lano Equipment, therefore it could be a quick turnaround.

Public Works Superintendent Riemer commented that even this method would not provide a solution for some roads that need to be reconstructed, but it would be more efficient for others.

Chairperson Riley asked if this information could be shared with residents to reassure them that their concerns are being addressed.

Finance Director Lund noted that the line item was budgeted for and therefore does not need additional approval.

6. COMMITTEE / STAFF INPUT

6.01: Staff Updates on Improvement Projects and Items of Interest

City Engineer Westby provided an update on current and proposed City, County, and MnDOT improvement projects and studies and on other items of interest to the Committee.

6.02: Review Future Topics Calendar

City Engineer Westby reviewed the future topics calendar.

Chairperson Riley recognized that this is the last Public Works Committee meeting for Public Works Superintendent Riemer. He thanked him for the contributions he has made to the City of Ramsey.

7. ADJOURNMENT

Motion by Councilmember Musgrove, seconded by Councilmember Woestehoff, to adjourn the Public Works Committee meeting.

Motion carried.

The regular meeting of the Public Works Committee adjourned at 8:11 p.m.

Respectfully submitted,

_____

Grant Riemer
Public Works Superintendent

Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.

2022
Spray Patching Needs

Legend

Spray Patch Need

- Spray Patch
- Road_Centerlines
- Municipal Boundary
- ScoutCamp
- Golf_Courses
- Parks
- Rivers
- Lakes_Ponds
- Creeks

Public Works Committee **5. 3.**

Meeting Date: 04/18/2023

By: Bruce Westby, Engineering/Public Works

Title:

Consider Recommending City Council Approval to Order Vactor Trailer

Purpose/Background:

The adopted 2023 - 2032 Capital Improvement Program includes a request to purchase a vactor trailer. See attached CIP sheet 165. As noted in the justification section, the vactor trailer would be used in areas where use of the current large vactor/jetter truck would not be practical, such as in back yards, off-road storm water systems, etc. The vactor trailer can also be used to pothole utilities for emergency utility locates and sign post installations.

Timeframe:

Staff estimates up to 10 minutes will be required to present this case and respond to questions.

Observations/Alternatives:

When the factor trailer purchase request was added to the 2023 - 2032 CIP, a boiler was not included. However, in order to use this equipment for thawing storm sewer pipes and culverts a boiler will be needed. The price obtained from the State Contract includes a boiler.

Funding Source:

The cost for this piece of equipment as identified on sheet 165 of the 2023 - 2032 CIP is $121,500. The current cost for this piece of equipment through the State Contract is $145,428. As noted earlier, one reason for the increased cost is due to the addition of a water boiler for use in unthawing storm sewer pipes and culverts, which was not previously included.

Funding is proposed to come from the Storm Water Utility Fund per attached sheet #165 of the 2023 - 2032 Capital Improvement Program.

Recommendation:

Staff recommends that the Committee recommend City Council approval to purchase this vactor trailer for reasons noted herein.

Action:

Motion recommending City Council approval to purchase the vactor trailer in 2023.

Attachments

2023 - 2032 CIP Sheet 165

Form Review

Inbox	Reviewed By	Date
Brian Hagen	Brian Hagen	04/13/2023 04:16 PM
Form Started By: Bruce Westby		Started On: 04/13/2023 11:18 AM
Final Approval Date: 04/13/2023		

Capital Improvement Program

2023 *thru* 2032

City of Ramsey, Minnesota

Project # PW-733

Project Name Vactor Trailer

Department Capital Equipment
Contact
Type Equipment
Useful Life 15
Category Capital Equipment
Priority 2-New Addition (High)
Status Active

Total Cost $121,500

Description

A new purchase. Not a replacement

Justification

The vactor trailer would be used in areas where use of current large vactor/jetter truck would not be practical, such as back yards, off-raod storm water systems, etc. Can also be used to pothole for emegency utility locates and sign post installations.

Expenditures	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Furnishings/Equipment	121,500										121,500
Total	**121,500**										**121,500**

Funding Sources	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Storm Water Utility Fund	121,500										121,500
Total	**121,500**										**121,500**

Public Works Committee **5. 4.**

Meeting Date: 04/18/2023

Submitted For: Joe Feriancek, Engineering/Public Works

By: Joe Feriancek, Engineering/Public Works

Title:

Consider Recommending City Council Approval of adding streets within Rivenwick 3rd and Rivenwick Village subdivisions to 2023 MSA Pavement Overlay Improvements, Improvement Project #23-06

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending City Council approval of adding streets within Rivenwick 3rd and Rivenwick Village subdivisions to 2023 MSA Pavement Overlay Improvements, Improvement Project #23-06.

Background:

On December 13, 2022, the Ramsey City Council ordered the City Engineer to prepare plans and specifications for Improvement Project #23-06, 2023 MSA Pavement Overlay Improvements. This project proposes to mill and overlay 0.61 miles of Riverdale Drive between Ramsey Boulevard and Feldspar Street.

In March of 2023, Staff received concerns from residents about the condition of 139th Lane and Jaspar Street, a loop road off of Riverdale Drive west of Feldspar Street. Staff followed up on the concerns with a site visit and noted significant pavement stripping is occurring on the streets within the Rivenwick 3rd and Rivenwick Village subdivisions. A street segment summary and pictures of the pavement conditions are attached to this case for reference.

The current 2023 through 2032 10-year Capital Improvement Program (CIP) proposes pavement mill and overlay improvement for Rivenwick 3rd and Rivenwick Village in 2025. Staff proposes to move the improvements up to 2023 and to include as part of the 2023 MSA Pavement Overlay Improvements for the following reasons:

- Pavement stripping exposes the bituminous pavement to further damage. If not treated, the pavement conditions may rapidly decay to the point where a mill and overlay is no longer the suitable treatment.
- By including this as a 2023 improvement, it frees up resources to patch other areas of the City during 2023 and likely 2024. Typically, once pavement stripping occurs, it will migrate to adjacent pavement.
- Because the subdivisions are immediately adjacent to Riverdale Drive, already proposed to be milled and overlaid, additional mobilization costs are avoided.
- The 2023 Neighborhood Pavement Overlay Improvements is already out for bid, with bids to be opened April 21, 2023. Adding these subdivisions to the 2023 MSA Pavement Overlay Improvements project avoids delays in starting the 2023 Neighborhood Overlay Improvements. The 2023 Neighborhood Overlays are proposed to be substantially complete by June 30, 2023.
- The CIP proposes funding these improvements from Pavement Management Funds in 2025. The same funds would be used, just moved up to 2023.

2023 MSA Pavement Overlay Improvements Proposed Schedule:

- May 23, 2023 City Council approve plans & authorize advertisement for bids
- May 26; June 2, 2023 Advertisement for bids
- June 19, 2023 Bid opening
- June 27, 2023 City Council award contract to lowest responsible bidder
- July 10, 2023 Approximate start of construction
- Sep 1, 2023 Substantial Completion

Timeframe:
Staff estimates 15 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Observations:
Rivenwick Village includes two existing pedestrian ramps not up to current ADA standards which require additional topographic survey. Staff proposes to complete the additional topographic survey required to reconstruct the pedestrian ramps to current ADA standards in-house.

Staff feels combining these subdivisions with the 2023 MSA Improvements will have an overall cost savings for the City by avoiding potentially 2-3 seasons of pothole patching maintenance. At the same time, this allows maintenance crews to focus their efforts in different neighborhoods.

Alternatives:
Alternative #1 – Motion to recommend City Council approval of adding streets within Rivenwick 3rd and Rivenwick Village subdivisions to 2023 MSA Pavement Overlay Improvements, Improvement Project #23-06.

Alternative #2 – Motion of other.

Funding Source:
Funding for the improvements within Riverdale Drive right of way is proposed to come from a combination of Municipal State Aid funds and Storm Sewer Utility Funds. Improvements within the Rivenwick 3rd and Rivenwick Village subdivisions is proposed to come from a combination of Pavement Management Funds and Storm Sewer Utility Funds.

CIP Level Estimates:

Subdivision	**MSA Funds**	**PM Funds**	**Storm Sewer Funds**	**Total**
Riverdale Drive (Ramsey Blvd / Feldspar St)	$190,625		$19,063	$209,688
Rivenwick 3rd		$61,200	$6,120	$67,320
Rivenwick Village		$102,000	$10,200	$112,200
Funding Totals	*$190,625*	*$163,200*	*$35,383*	***$389,208***

Recommendation:
Staff recommends alternative #1.

Action:
Motion to recommend City Council approval of adding streets within Rivenwick 3rd and Rivenwick Village subdivisions to 2023 MSA Pavement Overlay Improvements, Improvement Project #23-06.

Attachments

23-06 Project Scope - Revised 4_11_23

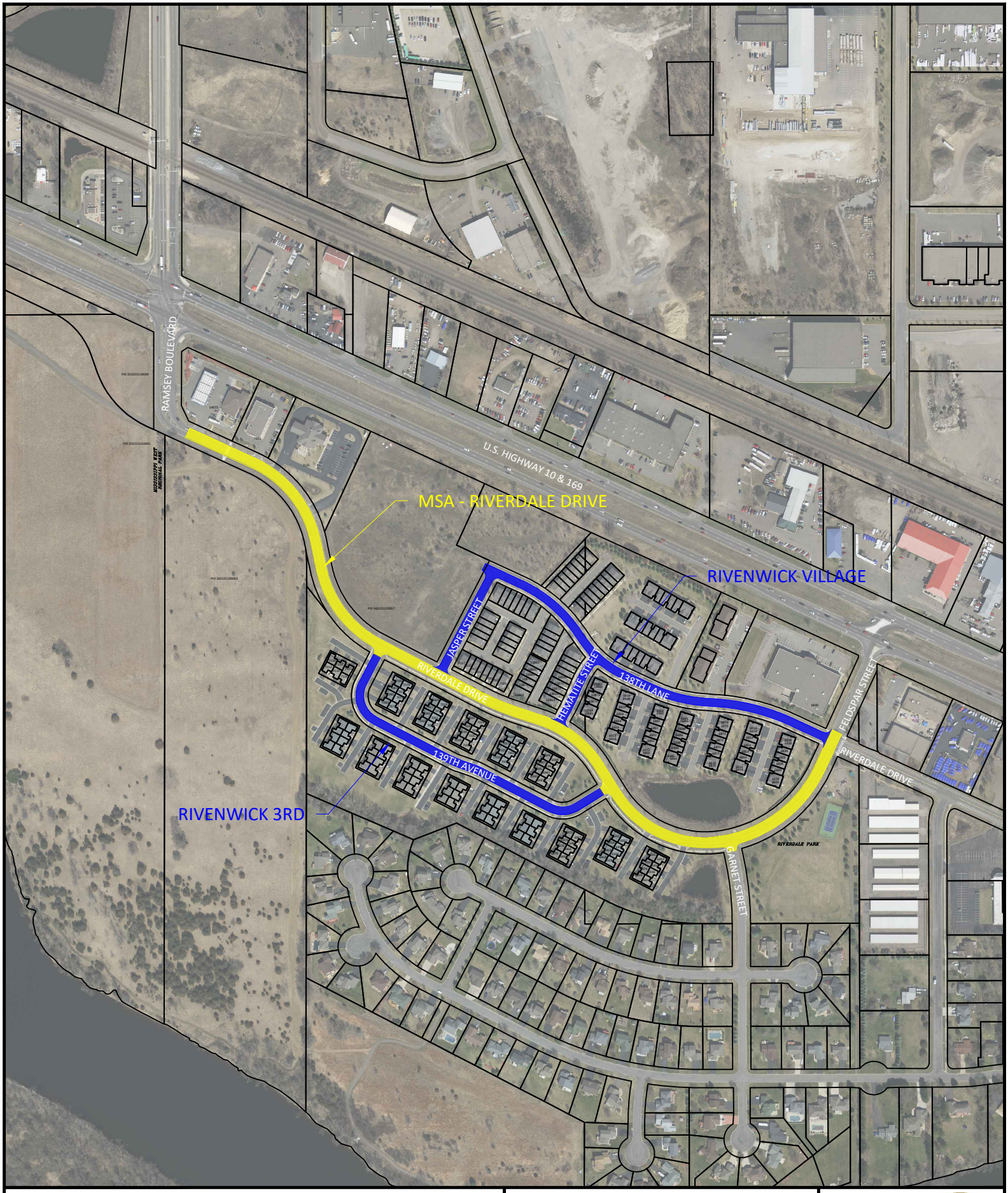
23-06 Street Summary - Revised 4_11_23

Rivenwick Existing Conditions Pictures

Form Review

Inbox	**Reviewed By**	**Date**
Bruce Westby	Bruce Westby	04/13/2023 01:46 PM
Bruce Westby	Bruce Westby	04/13/2023 02:02 PM

Brian Hagen	Brian Hagen	04/13/2023 04:20 PM
Form Started By: Joe Feriancek		Started On: 04/06/2023 08:17 AM
Final Approval Date: 04/13/2023		



IP 23-06
2023 MSA PAVEMENT OVERLAY
PROJECT SCOPE

0 1/12 1/6 1/4
SCALE (FEET)

N

City of RAMSEY

IP 23-06 2023 MSA Pavement Overlay Improvements
Street Segment Summary - Revised 4/11/2023

Subdivision	Street	Segment Description	Length (feet)	Section (Urban / Rural)	Curb (Bit / Conc.)	2021 PASER	Year Built	Maint. 1	Maint. 2	Avg HMA (inches)	Avg Agg. Base (inches)	Avg Section (inches)
MSA	Riverdale Drive	Ramsey Blvd / Garnet St	2702	Urban	Conc.	8	2003	SC 2009	SC 2018	4.0	5.6	9.6
	Riverdale Drive	Garnet St / Feldspar St	544	Urban	Conc.	8	1992	SC 1999	SC 2018	4.0	6.0	10.0
Rivenwick 3rd	139th Avenue	Riverdale Dr / Riverdale Dr	1277	Urban	Conc.	8	2003	SC 2009	SC 2016	3.5*	4.0*	7.5*
Rivenwick Village	139th Lane	Hematite St / Jaspar St	487	Urban	Conc.	8	2004	SC 2009	SC 2018	3.5*	4.0*	7.5*
	139th Lane	Riverdale Dr / Hematite St	939	Urban	Conc.	8	2004	SC 2009	SC 2018	3.5*	4.0*	7.5*
	Hematite Street	Riverdale Dr / 139th Ln	268	Urban	Conc.	8	2004	SC 2009	SC 2018	3.5*	4.0*	7.5*
	Jaspar Street	Riverdale Dr / 139th Ln	432	Urban	Conc.	8	2004	SC 2009	SC 2018	3.5*	4.0*	7.5*
2023 MSA Overlay Total Length			6649	1.26 mi.				* GPR data not available, depth per as-built plans				

Rivenwick 3rd & Rivenwick Village

Existing Conditions 4/11/2023

Figure 1 Rivenwick 3rd: 139th Avenue facing east

Figure 2 Rivenwick 3rd: 139th Avenue facing east

Figure 3 Rivenwick Village: 139th Lane facing west

Figure 4 Rivenwick Village: Pavement Striping close-up

Public Works Committee **5. 5.**

Meeting Date: 04/18/2023

Submitted For: Joe Feriancek, Engineering/Public Works

By: Joe Feriancek, Engineering/Public Works

Title:

Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for Barthel's Rum River Acres 2nd Street Reconstructions, Improvement Project #23-05

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending City Council approving plans and specifications and authorizing advertisement for bids for Barthel's Rum River Acres 2nd Street Reconstructions, Improvement Project #23-05.

Background:

City Improvement Project #23-05 proposes to reconstruct the streets within the Barthel's Rum River Acres 2nd subdivision, generally located between 161st Avenue and 164th Avenue, adjacent to the Rum River. The streets are 24 feet wide rural section with drainage swales along both sides of the streets, totaling 1.64 miles in length. A street segment summary is attached to this case for reference.

Project History

- 2023 – 2032 Capital Improvement Program – listed as street reconstruction for 2023
- August 23, 2022 City Council accepted proposals for geotechnical report and topographic survey
- November 15, 2022 Public Works Committee recommended City Council order plans and specifications
- December 13, 2022 City Council ordered plans and specifications
- February 28, 2023 City Council accepted a proposal for an addendum to the geotechnical report

Pavement History

The streets within the subdivision were built in 1988. Pavement maintenance has included an initial round of crack seal / seal coat improvements in 1994. In 1997 161st Lane and Dysprosium Street received overlay improvements. All street segments received 2 more rounds of crack seal / seal coat improvements in 2001 and 2009. Maintenance crews have performed patching over the last several years, including patching some areas of the road with clay subgrade coming to the surface. 2021 PASER values we 2 for all street segments. PASER values of 2 are as low as any street segments within the City.

Ground Penetrating Radar (GPR) was performed on the street segments. Bituminous pavement thickness averages were between 3.0 and 3.7 inches thick on the various street segment. Aggregate base thickness was found to vary between 4.0 and 4.6 inches thick. GPR data was not available for some street segments. The GPR summary is included in the attached street segment summary.

Proposed Improvements

Staff review of the geotechnical report found a mix of native sandy and clayey alluvial soils made up the sub-base material. The sandy materials are well suited for pavement support and are considered non-frost susceptible and are also free draining materials. The clayey soils are considered undesirable materials, and are proposed to be replaced with 2 feet of select granular material on top of geotechnical fabric. Generally, these subsoil corrections are proposed along 164th Avenue, the northern portion of Germanium Street, and 161st Avenue connecting into the Estates of Silver Oaks subdivision. Additionally, the southern portion of Germanium Street and adjacent 161st Lane was found to have a high-water table, which seasonally impacts the strength of the pavement section. The project proposes to raise the elevation of the pavement approximately 1-foot to allow the pavement section to be

dry during seasonally high-water. In the areas not requiring corrections, Staff is proposing to use a pavement section made up of 6-inches in-place reclamation material below 3.5-inches of new bituminous pavement.

This project proposes to remove the stub street at the corner of Dysprosium Street and 161st Lane, and create a true corner, since the development of the adjacent Scout Camp property is not currently proposed to occur.

In general, the current swales along the streets are not proposed to be re-graded as part of this project. Due to the nature of subsoil corrections, and raising the profile of the pavement, some areas of the project will have impacts to the in-slopes between the pavement and bottom of the swales. No changes to the current drainage pattern are proposed. The existing culverts crossing the streets are proposed to be removed and replaced, this is to ensure the culverts will last at least through the proposed 60-year design life of the street. Due to the subsoil corrections, drain tile will be added in the low areas to properly drain the pavement subbase. The drain tile is proposed to drain into the existing swales.

Preliminary Schedule Remaining

- Council Approves Plans and Specifications / Authorizes Ad for Bids
  - April 25, 2023
- Staff Receives Bids
  - May 19, 2023
- Council Awards Contract to the lowest responsible bidder
  - May 23, 2023
- Contractor begins construction
  - June 2023
- Contractor Substantially Completes construction
  - September 1, 2023
- Contractor Final Completion (verify final restoration, punch list created)
  - September 29, 2023

Final plans are not attached to this case to prevent potential bidders from downloading plans attached to the case to prepare and submit their bids, rather than purchasing the plans through QuestCDN, the electronic bidding software used by the City of Ramsey. This ensures all bidders are bidding off the same set of plans, and all bidders are notified of any plan revisions (addenda) issued during the bidding process. Attached is the title sheet showing the scope of the improvements, as well as a plan sheet showing the typical sections, which includes information on the proposed pavement section. Plans are available upon request from the City Engineer.

Timeframe:

Staff estimates up to 10 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Observations:

During project design and review of the initial geotechnical report, Staff noted a change in the subsoil conditions between gaps of several hundred feet in the soil borings. Additional soil borings within an addendum to the geotechnical report were acquired, which allowed Staff to more accurately place the limits to the subsoil correction areas, and expand the areas as necessary. Performing additional soil borings was discussed as a hopeful solution to change orders due to unforeseen subsoil conditions as part of the 2021 Tiger Street Reconstruction, Improvement Project #21-02.

Alternatives:

Alternative #1 – Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for Barthel's Rum River Acres 2nd Street Reconstructions, Improvement Project #23-05.

Alternative #2 – Motion of other.

Funding Source:

Funding for this improvement is proposed to come from Pavement Management Funds and Stormwater Utility Funds.

Staff has completed an estimated based on the final plans and anticipated 2023 construction costs, with a total estimated project cost of $2,128,746.75, which includes 23-percent indirect costs for administrative, engineering, finance, and legal costs.

- Street Project Costs $1,965,662.89
- Storm Sewer Project Costs $163,083.86
- Total Estimated Costs $2,128,746.75

Recommendation:

Staff recommends Alternative #1

Action:

Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for Barthel's Rum River Acres 2nd Street Reconstructions, Improvement Project #23-05.

Attachments

23-05 Title Sheet

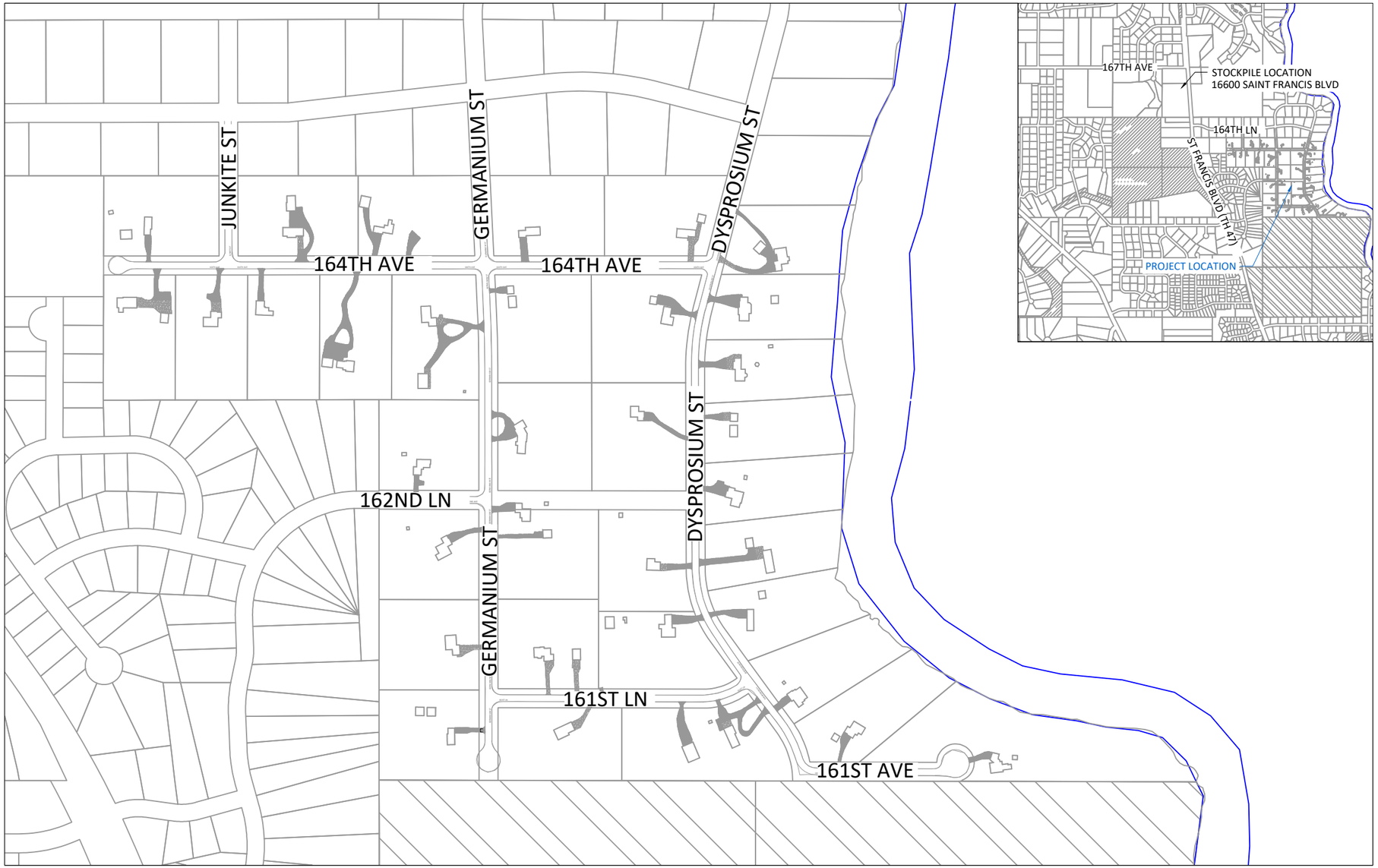
23-05 Typical Sections

23-05 Street Summary

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	04/13/2023 01:54 PM
Brian Hagen	Brian Hagen	04/13/2023 04:20 PM
Form Started By: Joe Feriancek		Started On: 04/06/2023 08:19 AM
Final Approval Date: 04/13/2023		

CITY OF RAMSEY
BARTHELS RUM RIVER ACRES 2ND RECONSTRUCTION
CITY IMPROVEMENT PROJECT NO. 23-05



GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL FEDERAL, STATE AND LOCAL LAWS, REGULATIONS AND ORDINANCES SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET INDEX

THIS PLAN CONTAINS 66 SHEETS

LEGEND

- SANITARY MANHOLE
- STORM SEWER MANHOLE
- CATCH BASIN MANHOLE
- CATCH BASIN
- CATCH BASIN - GROUT
- CATCH BASIN - RESET
- FLARED END SECTION
- CULVERT END SECTION
- HYDRANT
- VALVE
- TREE - CONIFEROUS
- TREE - DECIDUOUS
- SHRUB
- LIGHT POLE
- SIGN
- MAILBOX
- PEDESTAL - TELECOM
- PEDESTAL - ELECTRIC
- HAND HOLE
- DRIVE - BITUMINOUS
- DRIVE - CONCRETE
- DRIVE - GRAVEL
- CONCRETE WALK
- BITUMINOUS TRAIL
- REMOVE BIT PAVE
- REMOVE CONCRETE PAVE
- REMOVE GRAVEL SURFACE
- MILL BIT PAVEMENT
- RECLAIM BIT PAVEMENT
- CONSTRUCTION EXIT
- RIPRAP CLASSIII
- Easement - Drainage & Utility
- Easement - Northern Natural Gas
- Easement - Roadway
- LOT LINE
- ELECTRIC LINE
- ELECTRIC LINE - BURIED
- ELECTRIC LINE - OVERHEAD
- GAS LINE
- TELECOMMUNICATION LINE
- TELECOMM - OVERHEAD
- FIBER OPTIC LINE
- TREE LINE
- LANDSCAPE
- RETAINING WALL
- FENCE
- SILT FENCE
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- DRAIN TILE
- LANDSCAPE - ROCK
- LANDSCAPE - MULCH
- LANDSCAPE - RIP RAP
- PR. DRIVE - BITUMINOUS
- PR. DRIVE - CONCRETE
- PR. DRIVE - GRAVEL
- PR. CONCRETE WALK
- PR. CONCRETE
- PR. SEEDING AREA

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

57095 LIC. NO. DATE 04/11/23

JOE FERIANCEK, P.E.
ASSISTANT CITY ENGINEER

DATE	REVISION

SHEET 01 OF 66 SHEETS

0 200 400 600
SCALE (FEET)

N

City of RAMSEY

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

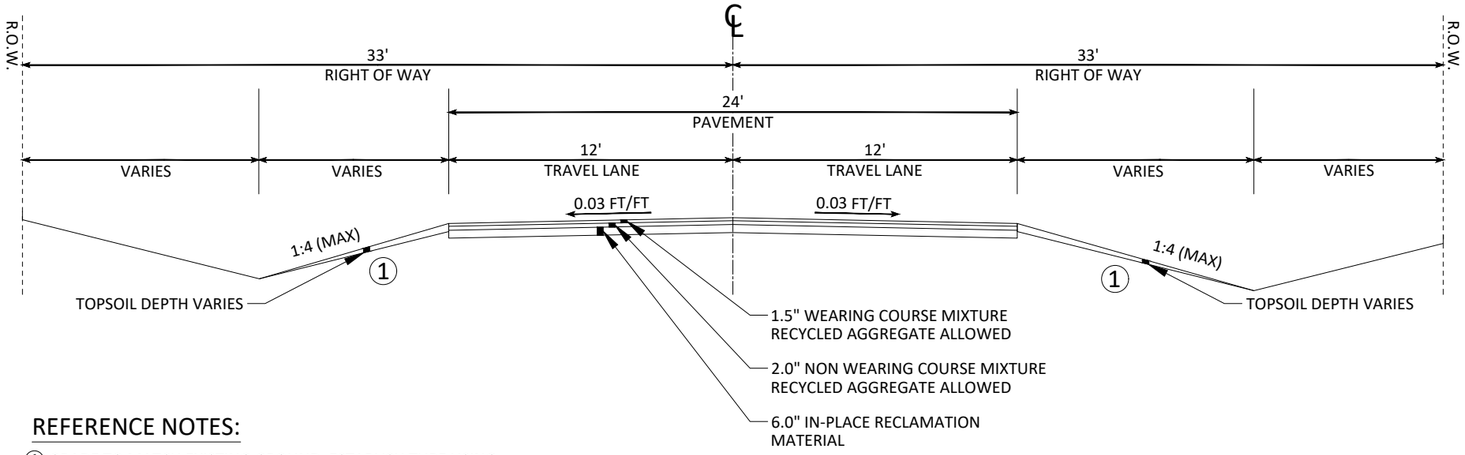
NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL 1-800-252-1166 OR 651-454-0002

GSOC

Call before you dig
811
651 454-0002 Metro
800 252-1166 Outstate
www.gopherstateonecall.org

Apr 11, 2023 - 10:57am
C:\Users\Czech\Documents\AutoCAD Sheet Sets\01 23-05 TITLE SHEET.dwg

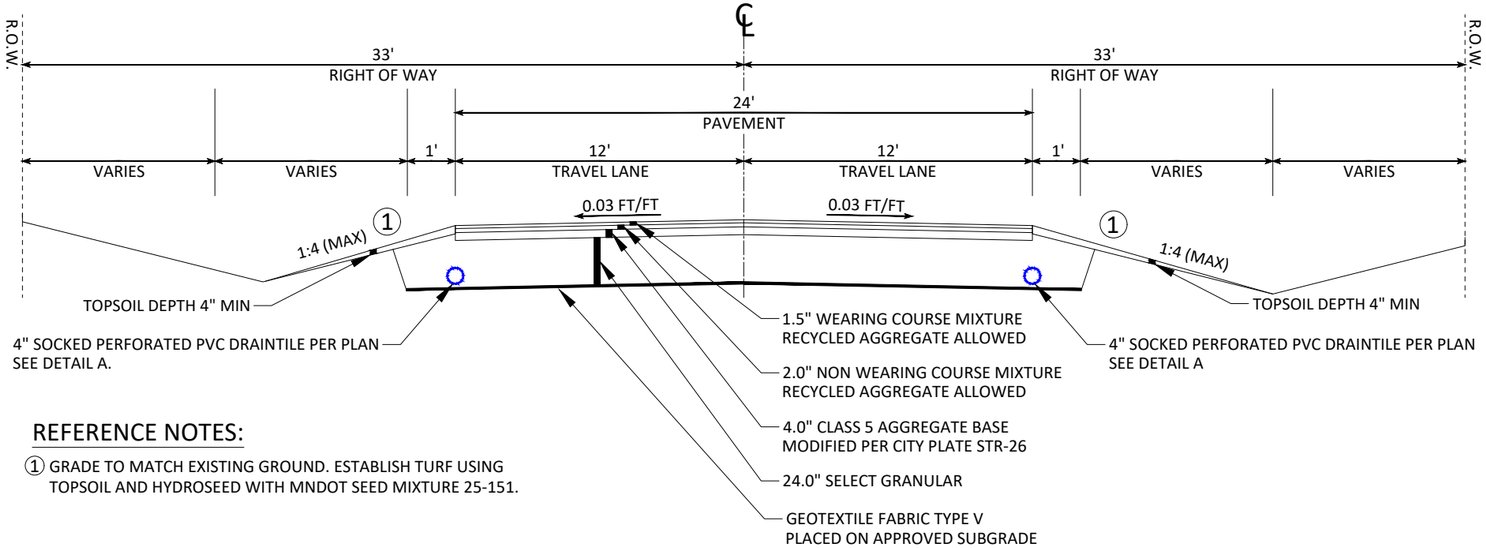
TYPICAL SECTION: RECONSTRUCTION



REFERENCE NOTES:

① GRADE TO MATCH EXISTING GROUND. ESTABLISH TURF USING TOPSOIL AND HYDROSEED WITH MNDOT SEED MIXTURE 25-151.

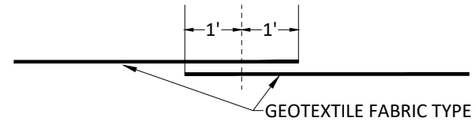
TYPICAL SECTION: SOIL CORRECTION AREA



REFERENCE NOTES:

① GRADE TO MATCH EXISTING GROUND. ESTABLISH TURF USING TOPSOIL AND HYDROSEED WITH MNDOT SEED MIXTURE 25-151.

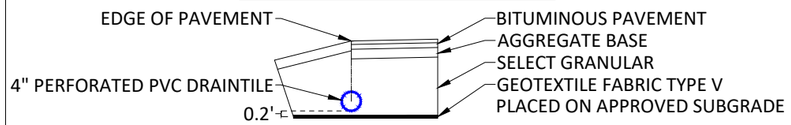
DETAIL B: GEOTEXTILE FABRIC SEAM



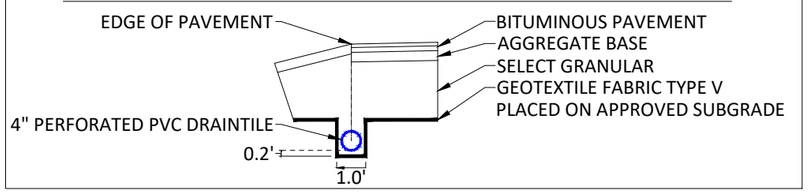
1. GEOTEXTILE FABRIC SHALL BE OVERLAPPED 2-FEET AS SHOWN.
2. THE GEOTEXTILE FABRIC MUST BE SECURED SO THAT IT IS NOT DISPLACED DURING SUBSEQUENT CONSTRUCTION. NO TRAFFIC OR CONSTRUCTION EQUIPMENT IS TO OPERATE DIRECTLY ON THE FABRIC, 1-FOOT OF SELECT GRANULAR FILL MUST BE PLACED FIRST.
3. MEASUREMENT FOR PAYMENT DOES NOT INCLUDE ALLOWANCE FOR SEAMS OR OVERLAPS.

DETAIL A: DRAINTILE INSTALLATION

TYPICAL DRAINTILE INSTALLATION



DRAINTILE INSTALLATION: DRAINTILE BELOW SELECT GRANULAR GRADE



DATE	REVISION

Apr 11, 2023 - 10:58am
C:\Users\jcoech\Documents\AutoCAD Sheet Sets\05 23-05 TYPICAL SECTION.dwg

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Engineer Name
Date 04/11/23 Lic. No. Eng. No.

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 04/11/23
CHECKED BY:	---	FILE: 23-05

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

23-05 TYPICAL SECTION

BARTHELS RUM RIVER ACRES 2ND RECONSTRUCTION
CITY PROJECT NO. 23-05
CITY OF RAMSEY, MINNESOTA

IP 23-05 Barthel's Rum River Acres 2nd
Street Segment Summary

Street Description				Street History							GPR Summary		
Street	**Segment Description**	**Length (feet)**	**Section (Urban / Rural)**	**2021 PASER**	**Year Built**	**Maint. 1**	**Maint. 2**	**Maint. 3**	**Maint. 4**	**Maint. 5**	**Avg HMA (inches)**	**Avg Agg. Base (inches)**	**Avg Section (inches)**
161st Avenue	Dysprosium St / E CDS	606	Rural	2	1988	SC 1994	SC 2001				3.7	4.6	8.3
161st Lane	Germanium St / Dysprosium St	926	Rural	2	1988			OL 1997	SC 2001	SC 2009	3.5**	4.5**	8.0**
162nd Lane	W EOP / Germanium St	375	Rural	2	1988	SC 1994	SC 2001				3.4	4.3	7.7
164th Avenue	Germanium St / Dysprosium St	786	Rural	2	1988	SC 1994	SC 2001				3.0	4.0	7.0
164th Avenue	Junkite St / Germanium St	889	Rural	2	1988	SC 1994	SC 2001				3.0	4.0	7.0
164th Avenue	W EOP / Junkite St	433	Rural	2	1988	SC 1994	SC 2001				3.0	4.0	7.0
Dysprosium Street	161st Ave / 161st Ln	384	Rural	2	1988			OL 1997	SC 2001	SC 2009	3.5**	4.5**	8.0**
Dysprosium Street	161st Ln / 162nd Ln	665	Rural	2	1988			OL 1997	SC 2001	SC 2009	3.5**	4.5**	8.0**
Dysprosium Street	162nd Ln / 164th Ave	828	Rural	2	1988			OL 1997	SC 2001	SC 2009	3.5**	4.5**	8.0**
Dysprosium Street	164th Ave / N EOP	326	Rural	2	1988			OL 1997	SC 2001	SC 2009	3.5**	4.5**	8.0**
Germanium Street	161st Ln / 162nd Ln	698	Rural	2	1988	SC 1994	SC 2001				3.5	4.5	8.0
Germanium Street	162nd Ln / 164th Ave	822	Rural	2	1988	SC 1994	SC 2001				3.5	4.5	8.0
Germanium Street	164th Ave / N EOP	309	Rural	2	1988	SC 1994	SC 2001				3.5	4.5	8.0
Germanium Street	S EOP / 161st Ln	272	Rural	2	1988	SC 1994	SC 2001				3.5	4.5	8.0
Junkite Street	164th Ave / N EOP	321	Rural	2	1988	SC 1994	SC 2001				3.0	4.5	7.5
	Total Length	**8,640**	**1.64 mi.**										

** GPR not able to detect Agg. Base*

*** Estimated Depths, GPR not available*

Public Works Committee **5. 6.**

Meeting Date: 04/18/2023

Submitted For: Joe Feriancek, Engineering/Public Works

By: Joe Feriancek, Engineering/Public Works

Title:

Consider Recommending City Council Approval of Ordering Request for Proposals for 2023 MSA Pavement Marking Improvements, Improvement Project #23-13

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending City Council approval of ordering request for proposals for 2023 MSA Pavement Marking Improvements, Improvement Project #23-13.

Background:

Previously pavement markings were completed on a 7-year cycle as part of the annual seal coat improvements project. Since the City suspended the seal coat program indefinitely in 2019, pavement markings are only triggered on Municipal State Aid (MSA) streets during reconstruction and pavement overlay improvements. The current 2023 – 2032 Capital Improvement Program (CIP) includes an annual MSA Pavement Marking Improvements project to perform pavement markings on a 7-year cycle, outside of reconstructions and pavement overlays.

Pavement markings are a critical component of driver and pedestrian safety, and are a required maintenance operation per MSA rules and standards.

A total of 8.26 miles of public streets segments is proposed to receive pavement marking improvements in 2023. These street segments were selected based on age since last treatment and the next proposed trigger for a treatment (i.e. seasons until a street reconstruction or pavement overlay).

If authorized, Staff will send the request for proposals to firms known to preform this work. The proposed schedule for this work is to occur in June 2023. This allows the pavement marking improvements to occur after crack seal improvements, completion by June 2, 2023, and before anticipated pavement rejuvenator improvements, which are anticipated to occur July 2023.

Plans for the 2023 MSA Pavement Marking Improvements are proposed to be prepared in-house as part of Staff's normal duties. The overall project map and street segment summary is attached to this case for reference.

Timeframe:

Staff estimates 10 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Alternatives:

Alternative #1 – Motion to recommend City Council approval of ordering request for proposals for 2023 MSA Pavement Marking Improvements, Improvement Project #23-13.

Alternative #2 – Motion of other.

Funding Source:

Funding for these services would come from a combination of Municipal State Aid Funds, Pavement Management Funds, and the respective Utility Funds.

Staff has completed a detailed engineer's estimate, with construction costs totaling $82,972.25.

Recommendation:

Staff recommends alternative #1.

Action:

Motion to recommend City Council approval of ordering request for proposals for 2023 MSA Pavement Marking Improvements, Improvement Project #23-13.

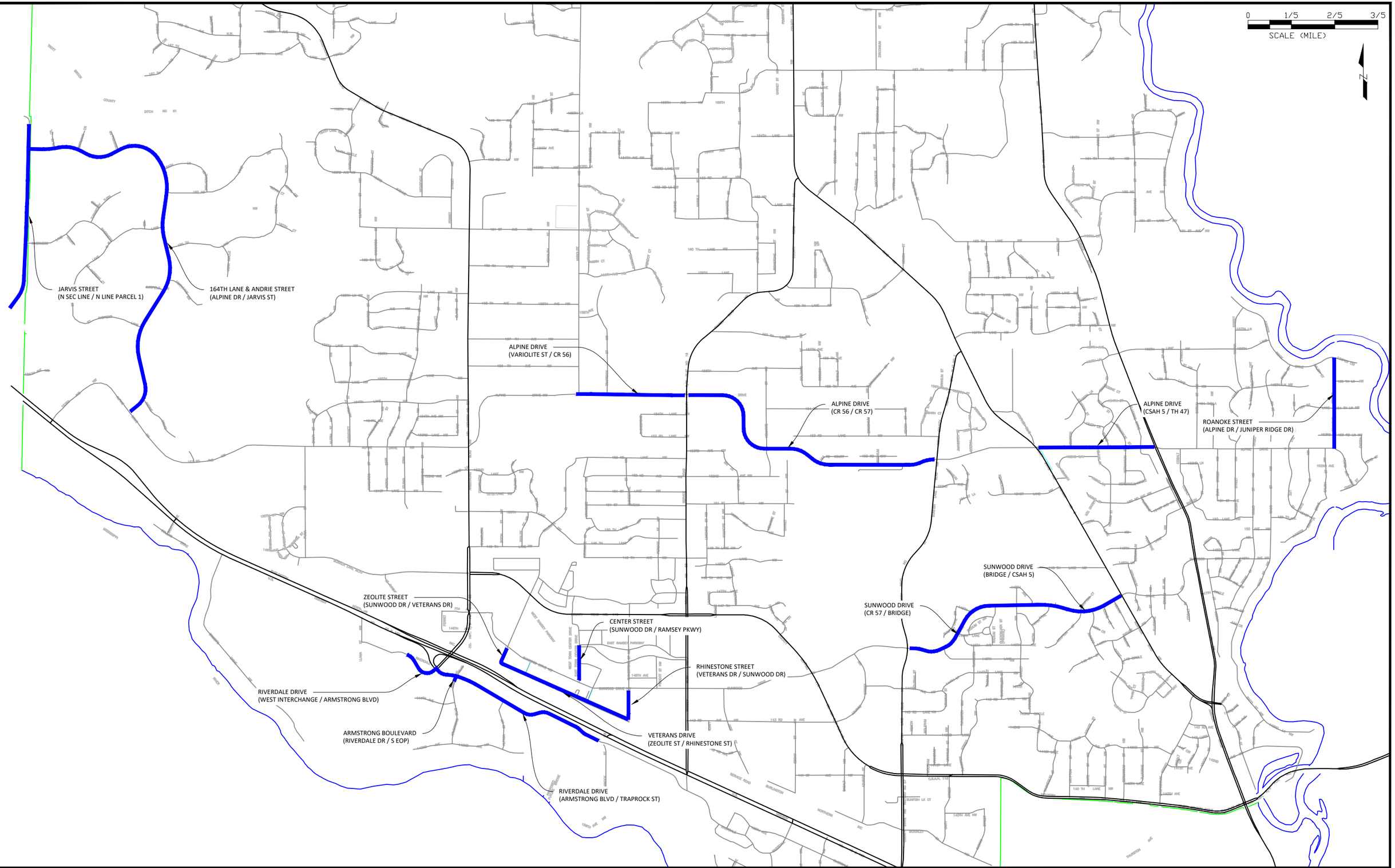
Attachments

23-13 Overall Project Map

23-13 Street Summary

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	04/13/2023 01:56 PM
Brian Hagen	Brian Hagen	04/13/2023 04:19 PM
Form Started By: Joe Feriancek		Started On: 04/06/2023 08:20 AM
Final Approval Date: 04/13/2023		



DATE	REVISION

Apr 10, 2023 - 3:22pm
G:\Engineering\AutoCad Dwgs\Projects N-Z\Pavement Marking\2023 Pavement Marking\Support Drawing\23-13 Base Map.dwg

DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 4/10/23
CHECKED BY:	JJF	FILE: 23-13

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

OVERALL PROJECT MAP

2023 MSA PAVEMENT MARKING IMPROVEMENTS
CITY PROJECT NO. 23-13
CITY OF RAMSEY, MINNESOTA

SHEET 1 OF 1 SHEETS

IP 23-07 2023 Neighborhood Pavement Overlay Improvements
Street Segment Summary

Subdivision	Street	Segment Description	Length (miles)	Year Built	Maint. 1	Maint. 2	Maint. 3	Maint. 4	2023 - 2032 CIP
MSA	164th Lane & Andrie Street	Alpine Dr / Jarvis St	1.90	1985	RC 2016	CS 2019			n/a
MSA	Alpine Drive	CSAH 5 / TH 47	0.56	1980	OL 2002	SC 2009			RC 2032
MSA	Alpine Drive	CR 56 / CR 57	1.34	1991	OL 2011 / 2012	CS 2019			OL 2031
MSA	Alpine Drive	Variolite St / CR 56	0.50	1983	OL 2002	SC 2007	SC 2014		RC 2031
MSA	Armstrong Boulevard	Riverdale Dr / South E.O.P.	0.06	1981	RC 2014	CS 2020			n/a
MSA	Center Street	Sunwood Dr / Ramsey Pkwy	0.17	2015	CS 2022				n/a
MSA	Jarvis Street	N Sec Line / N Line Parcel 18-32-0002	0.40	1974	RC 2015	CS 2022			n/a
MSA	Rhinestone Street	Veterans Dr / Sunwood Dr	0.16	2007	SC 2016				OL 2027
MSA	Riverdale Drive	West Arm. Interchange / Armstrong Blvd	0.26	2015	CS 2022				n/a
MSA	Riverdale Drive	Armstrong Blvd / Traprock St	0.64	1981	RC 2014	CS 2022			n/a
MSA	Roanoke Street	Alpine Dr / Juniper Ridge Dr	0.42	1987	OL 2011	CS 2020			n/a
MSA	Sunwood Drive	CR 56 / Bridge	0.84	1996	OL 2016	CS 2019			n/a
MSA	Sunwood Drive	Bridge / CSAH 5	0.27	1992	OL 2014	CS 2022			n/a
MSA	Veterans Drive	Zeolite St / Rhinestone St	0.65	2005 / 2007	SC 2016				OL 2027
MSA	Zeolite Street	Sunwood Dr / Veterans Dr	0.09	2005	SC 2016				OL 2027
		2023 Pavement Marking Total Miles	**8.26**						

Public Works Committee **6. 1.**

Meeting Date: 04/18/2023

By: Bruce Westby, Engineering/Public Works

Title:

Receive Updates on Improvement Projects, Studies and Items of Interest

Purpose/Background:

The purpose of this case is to update the Public Works Committee on current and proposed City, County and MnDOT improvement projects and studies, and on other items of interest to the Committee.

City Improvement Projects

- **161st Avenue Reconstruction (IP #23-01)**
  - Plans and specifications advertised for bids
  - Bid opening 04/19/23
  - ***Staff is meeting w/ property owners of west pond site on 04/14/23 - Meeting minutes will be attached to this case 04/14/23 as requested on 04/11/23***
  - ATIP trail grant funding denied
  - Summer/Fall 2023 construction proposed
- **Central Park Parking Lot Reconstruction (IP #23-02)**
  - Staff is preparing plans and specifications
  - Fall 2023 construction proposed (after Game Fair)
- **167th Avenue Reconstruction (IP #23-04)**
  - Bolton & Menk is preparing plans and specifications
  - ATIP trail grant funding denied
  - 2023 construction proposed
- **Barthels Rum River Acres 2nd Reconstruction (IP #23-05)**
  - ***See case on agenda***
  - 2023 construction proposed
- **2023 MSA Pavement Overlay Improvements (IP #23-06)**
  - Staff is preparing plans and specifications
  - 2023 construction proposed
- **2023 Neighborhood Pavement Overlay Improvements (IP #23-07)**
  - Plans and specifications are advertised for bids
  - Bid opening 04/21/23
  - 2023 construction proposed
- **2023 Crack Seal Improvements (IP #23-08)**
  - Contract awarded 04/11/23 to Northwest Asphalt
  - 2023 construction proposed
- **2023 Pavement Rejuvenator Improvements (IP #23-09)**
  - 2023 construction proposed
- **Whispering Pines Estates Plat 3 Reconstructions (IP #23-10)**
  - Staff is preparing plans and specifications
  - 2023 construction proposed
- **(Trott Brook Crossing) Sanitary Sewer Lift Station #10 Improvements (IP #23-11)**
  - Bolton and Menk is preparing plans and specifications
  - Coordinating design and project schedule w/ Trott Brook Crossing/TCLD
  - Final completion proposed for Fall 2023
- **HY-10 Ramsey Improvements (IP #23-12)**
  - Bids opened 04/13/23 (very competitive)
  - City Council to consider award of contract 04/25/23

- 2023 construction proposed
- **Highway 47 Sound Wall north of Xkimo Street (IP #22-17)**
  - MnDOT is preparing Cooperative Construction Agreement
  - Staff anticipates requesting Council approval to authorize bids 04/25/23
- **WTP Trunk Watermain Improvements (#21-08)**
  - Staff anticipates requesting Council approval to amend SEH, Inc. agreement late April/early May to revise plans and remove inspections
  - Staff anticipates requesting council approval to authorize bids Fall 2023
- **Centralized Water Treatment Plant (#21-09)**
  - Council awarded contract for construction 03/28/23
  - Preconstruction meeting scheduled for 04/26/23
  - Substantial completion scheduled for 05/01/25 (Final 08/01/25)
- **Ramsey Gateway Highway 10 Improvements (IP #20-11)**
  - Final design plans at 100-percent
  - Open Houses held 04/12/23
  - Construction schedule; June 2023 through early 2026 (2024 - 2025 majority)
  - Riverdale Drive east of SLB & temp US 10 widening Summer/Fall 2023
- **Riverdale Drive Extension – Llama Street to Bowers Drive (IP #20-05)**
  - Construction substantially complete è Hwy 10 improvements still needed
- **Wetland 114P Outlet Control Improvements (#19-07)**
  - Sanitary sewer manhole castings raised
  - DNR Permit issued
  - Grading & outlet control structure work to occur Spring/Summer 2023

City of Anoka Improvement Projects

- **Highway 47 Corridor Improvements**
  - Construction proposed for 2025
  - Anoka webpage https://clients.bolton-menk.com/anokahwy47/

Anoka County Improvement Projects

- **Roundabout at Armstrong Boulevard/CSAH 83 and Alpine Drive (IP #23-03)**
  - City cost share = $28,667.64 per JPA
  - Contract awarded
  - Construction began late March
  - Armstrong Boulevard will remain open to traffic at all times
  - Alpine Drive will close to traffic either side of Armstrong Boulevard at different times
  - Construction complete Fall 2023

MnDOT Improvement Projects

- **Anoka Solution Highway 10 Improvements**
  - Final completion Spring 2024
  - Anoka webpage https://clients.bolton-menk.com/hwy10/
  - MnDOT webpage http://www.dot.state.mn.us/metro/projects/hwy10-anoka/
- **US 10 / 169 & Ferry Street / TH 47 Interchange**
  - Final completion Spring 2024
  - MnDOT webpage http://www.dot.state.mn.us/metro/projects/hwy10-anoka/
- **Ferry Street / Trunk Highway 47 Grade Separation @ BNSF Rail Crossing**
  - Preliminary design suspended to explore S-curve realignment
  - $45M in bonds authorized October 2020
  - Construction proposed for 2024 or later
  - MnDOT webpage http://www.dot.state.mn.us/metro/projects/hwy47rr-anoka/
- **Rum River Bridge Replacement**

- Three lanes each direction
- Final completion Spring 2024
- MnDOT webpage http://www.dot.state.mn.us/metro/projects/hwy10-anoka/

Studies & Items of Interest

- **Sunfish Lake Sedimentation Basin Improvements**
  - Property owner indicated interest in pursuing filling of swale and grading a sedimentation basin
  - Staff delineated rear property line last Fall and notified property owner
  - Staff is working to contact property owner
- **Elk River Highway 10 Corridor Study**
  - Staff will present final report when available
  - Study website https://www.highway10corridorstudy.com/

Timeframe:

Staff estimates up to 15 minutes will be needed for updates and discussion.

Observations/Alternatives:

N/A

Funding Source:

N/A

Recommendation:

N/A

Action:

No formal action required. For Committee review and discussion purposes only.

Attachments

161st Ave Recon West Pond Mtg Minutes

Form Review

Inbox	Reviewed By	Date
Brian Hagen	Brian Hagen	04/13/2023 04:18 PM
Form Started By: Bruce Westby		Started On: 04/12/2023 02:24 PM
Final Approval Date: 04/13/2023		

Meeting Minutes
Improvement Project #23-01
161st Avenue Reconstruction
West Pond Construction Impacts
Friday, April 14, 2023
10:00 to 11:10 AM

Attendees: **City:**
Brian Hagen, Bruce Westby, Joe Feriancek, Aaron Madsen, Jake Hoel
Property Owners:
7833 159th Avenue (Alma and Rob Teigen) and 7826 161st Avenue (Jeff Lubarski)

Before the meeting started, Engineering staff set construction limit stakes on both properties.

Staff explained that the total drainage and impervious surface areas contributing stormwater runoff to the easement in their backyards is not changing, therefore the stormwater that will be treated in the new pond will have the same volume as it currently does. It was discussed that the drainage area for this pond includes approximately the south half of Central Park and the right of way along 161st Avenue between Armstrong Boulevard and just west of Xenoilith Street.

Staff also explained that stormwater runoff currently flows overland across Central Park, along 161st Avenue, and through a swale on the west side of 7826 161st Avenue to the easement within their backyards. However, stormwater runoff is now proposed to be captured in catch basins and conveyed through storm sewer pipes underground to the pond. The pond must therefore be excavated 6 feet to allow the storm sewer pipe to daylight and provide sufficient capacity and space for sediment to settle.

The property owners generally voiced the following concerns.

- Tree Removals
    - Will remove sightline buffering between neighboring properties?
    - Will increase noise originating in Central Park for 7833 159th Avenue
    - Staff noted that plans call for 7 coniferous trees approximately 6 feet tall to be planted at the top of the pond inslope on 7826 161st Avenue, and for 2 deciduous trees to be planted on 7833 159th Avenue.
    - 7833 159th Avenue property owners said 6-foot tall trees would not provide enough benefit and asked if the City would transplant the 8 existing Norway pine trees proposed to be removed along the top of the pond on their property. Staff will explore costs.

- Restrictive Use of Property
    - Staff explained that equipment and materials cannot be stored within the pond.
    - Staff explained that trees cannot be planted within the pond.
    - Staff explained that the pond would be a dry pond and would be vegetated allowing for normal use of their backyards unless standing water is present.
- Well Contamination from Central Park and 161st Avenue Pollutants
    - Staff explained that the reconstructed parking lot in Central Park is proposed to utilize swales between parking rows to help clean stormwater runoff lot and that sumped catch basins will help clean stormwater runoff even further before the runoff is conveyed to the pond. Runoff should therefore be cleaner now.
- Removing Soils Without Compensation
    - Staff explained the City has the right to remove fill from the easement but that this carries a very large cost and therefore does not generally benefit the City, even though the material may be used to fill City properties in The COR.

Staff informed the property owners that the Public Works Committee will review these meeting minutes on Tuesday, April 18, 2023, and that the property owners are welcome to attend.

Staff also informed the property owners that project bids are being received next week and that Staff plans to present bids to the City Council on April 25, 2023, and that the property owners are welcome to attend this meeting as well.

Public Works Committee **6. 2.**

Meeting Date: 04/18/2023

By: Bruce Westby, Engineering/Public Works

Title:

Review Future Topics Calendar

Purpose/Background:

Attached is a calendar of future topics for review and discussion by the Public Works Committee. The calendar includes topics drawn from Committee requests received during meetings and/or unresolved topics previously discussed by the Committee. Calendar dates are subject to change based on the availability of information and required attendees, staff workload, and competing interests and objectives.

Timeframe:

Less than 5 minutes is anticipated to be necessary to review the future topics calendar and address questions.

Observations/Alternatives:

N/A

Funding Source:

Dependent on discussion.

Recommendation:

Staff recommends reviewing the attached calendar and to either approve the calendar by consensus or to direct Staff to revise the calendar as follows; _____.

Action:

No formal action required. For Committee review and discussion purposes only.

Attachments

PWC Calendar Apr2023

Form Review

Inbox	Reviewed By	Date
Brian Hagen	Brian Hagen	04/13/2023 04:18 PM
Form Started By: Bruce Westby		Started On: 04/12/2023 02:25 PM
Final Approval Date: 04/13/2023		

Public Works Committee Future Topics Calendar *

Date	Topics for Discussion – Committee Action
June 2023	Sunfish Lake Sedimentation Basin Improvements *(Westby)*
Future/TBD	Sunwood Drive Roundabout Landscaping *(Riverblood)*
Date	**Topics for Discussion – Regulatory**
Future/TBD	Sunfish Lake Blvd./CSAH 57 Speed Study Results *(Westby)*
Future/TBD	Bunker Lake Blvd./CSAH 116 Speed Study Results *(Westby)*
Date	**Topics for Discussion – Policy**
Future/TBD	Landscaped Median Maintenance Policy *(Riverblood)*
May 2023	Draft Trail Maintenance Policy *(Riverblood)*
May 2023	Draft Stormwater Pond Maintenance Policy *(Westby)*
Date	**Topics for Discussion – Planning and Budget**
July 2023	Asset Management Programming Update *(Westby)*
Future/TBD	Replace City monument sign TH 47 & Bunker Lk Blvd. *(Riverblood)*
Future/TBD	Targeted Trail Gap Connection Planning *(Riverblood)*
Date	**Topics for Discussion – Staff Updates**
August 2023	Elk River Highway 10 Corridor Study *(Westby)*
Ongoing	Project Review Process Improvements *(Westby)*
Ongoing	Flashing Yellow Arrow Improvement Opportunities *(Westby)*
Ongoing	TH 47 Improvements, Bunker Lk Blvd to Hwy 10 *(Westby)*

* Dates subject to change based on availability of information, required attendees, staff workload, and competing interests and objectives.