



Application

10350 - 2018 Multiuse Trails and Bicycle Facilities

11003 - Central Greenway Multi-Use Trail Segments

Regional Solicitation - Bicycle and Pedestrian Facilities

Status:

Submitted

Submitted Date:

07/13/2018 2:23 PM

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## Primary Contact

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Stillwater

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55082

City

State/Province

Postal Code/Zip

Phone:\*

651-430-4338

Phone

Ext.

Fax:

What Grant Programs are you most interested in?

Regional Solicitation - Bicycle and Pedestrian Facilities

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## Organization Information

Name:

WASHINGTON CTY

Jurisdictional Agency (if different):



Organization Type:

Organization Website:

Address:

PUBLIC WORKS  
11660 MYERON RD

\*

STILLWATER Minnesota 55082  
City State/Province Postal Code/Zip

County:

Washington

Phone:\*

651-430-4325  
Ext.

Fax:

PeopleSoft Vendor Number

0000028637A10

## Project Information

Project Name

Central Greenway Regional Trail Segments in Woodbury and Cottage Grove

Primary County where the Project is Located

Washington

Cities or Townships where the Project is Located:

Cottage Grove, Woodbury

Jurisdictional Agency (If Different than the Applicant):



**Brief Project Description (Include location, road name/functional class, type of improvement, etc.)**

The Central Greenway Regional Trail is a vision for a continuous north/south trail in Washington County. The adopted trail master plan covers the two existing segments of trail as well as the proposed trail between I-94 and Cottage Grove Ravine Regional Park in Woodbury and Cottage Grove. This segment of the Central Greenway is designated as a Tier 2 alignment on the Metropolitan Council's Regional Bicycle Transportation Network. Washington County is asking for funds to construct a 10-foot wide (minimum) multi-use off-road trail that runs along two sections of CSAH 19 and two grade separated crossings as part of the Central Greenway Regional Trail. The first section is a 0.69 mile stretch running south from Dale Road in Woodbury and the second is a 1.78 mile stretch running from 80th Street to the new entrance to Cottage Grove Ravine Regional Park in Cottage Grove. The trail crossings will include a trail underpass south of 85th Street and a trail overpass at the new entrance to Cottage Grove Ravine Regional Park. This trail will close a gap in both the local trail network and in the Regional Bicycle Transportation Network (RBTN). The existing trail stops at these points and puts users on rural highway. This trail would close the remaining gaps in the southern segment of the trail system.

Central Greenway will provide a direct connection for the suburban communities of Lake Elmo, Cottage Grove and Woodbury. The long term vision of the trail will connect these communities through a safe and direct route to each other and surrounding destinations. It will be open to pedestrians and cyclists, and permitted electric ADA accessibility equipment. This trail will not be open to motorized vehicles or equestrian uses, except for maintenance or law enforcement. It will also allow users to cross the highway safely at the grade separated crossings.

This trail segments proposed in this application will



link users to existing and future housing developments creating more non-motorized transportation options for the community. The Central Greenway has the support of the Cities of Cottage Grove and Woodbury as they are dedicated to making safer commuting connections and trails for their communities. Implementing these trail segments will create a safe, off-road facility for users of all ages and abilities. The trail will also provide access to Washington County's Cottage Grove Service Center, Cottage Grove City Hall and Police Department, Cottage Grove Ravine Regional Park and multiple schools.

(Limit 2,800 characters; approximately 400 words)

**TIP Description** Guidance (will be used in TIP if the project is selected for funding)

CSAH 19 AT DALE RD TO .7 MILE SOUTH CONSTRUCT TRAIL, CSAH 19 AT 80TH STREET CONSTRUCT UNDERPASS, CSAH 19 AT COTTAGE GROVE RAVINE PARK ENTRANCE TO 80TH STREET CONSTRUCT TRAIL AND OVERPASS

**Project Length (Miles)**

2.5

to the nearest one-tenth of a mile

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## Project Funding

Are you applying for competitive funds from another source(s) to implement this project?

No

If yes, please identify the source(s)

**Federal Amount**

\$5,273,120.00

**Match Amount**

\$1,318,280.00

Minimum of 20% of project total

**Project Total**

\$6,591,400.00

**Match Percentage**

20.0%

Minimum of 20%

Compute the match percentage by dividing the match amount by the project total

**Source of Match Funds**

County State Aid

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources

**Preferred Program Year**

**Select one:**

2022

Select 2020 or 2021 for TDM projects only. For all other applications, select 2022 or 2023.



#### Additional Program Years:

Select all years that are feasible if funding in an earlier year becomes available.

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## Project Information

County, City, or Lead Agency	Washington County
Zip Code where Majority of Work is Being Performed	55106
(Approximate) Begin Construction Date	08/01/2018
(Approximate) End Construction Date	08/14/2018
Name of Trail/Ped Facility:	Central Greenway Regional Trail

(i.e., CEDAR LAKE TRAIL)

#### TERMINI:(Termini listed must be within 0.3 miles of any work)

**From:**  
(Intersection or Address) 80th Street at CSAH 19, Segment 1.

**To:**  
(Intersection or Address) E Pt Douglas at CSAH 19, Segment 1.

DO NOT INCLUDE LEGAL DESCRIPTION; INCLUDE NAME OF ROADWAY  
IF MAJORITY OF FACILITY RUNS ADJACENT TO A SINGLE CORRIDOR

**Or At:** Dale Road at CSAH 19 about .7 miles south, Segment 2.

**Primary Types of Work** Bike Path, Trail Bridge, Trail Underpass, Ped Ramps,  
Crosswalks, Fencing, Retaining Wall

Examples: GRADE, AGG BASE, BIT BASE, BIT SURF,  
SIDEWALK, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH,  
PED RAMPS, BRIDGE, PARK AND RIDE, ETC.

#### BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

**Old Bridge/Culvert No.:**

**New Bridge/Culvert No.:**

**Structure is Over/Under**  
(Bridge or culvert name):

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## Requirements - All Projects

### All Projects

1. The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan (2015), the 2040 Regional Parks Policy Plan (2015), and the 2040 Water Resources Policy Plan (2015).

Check the box to indicate that the project meets this requirement. Yes

2. The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan goals, objectives, and strategies that relate to the project.

**List the goals, objectives, strategies, and associated pages:** See "Local Planning Documents" attachment

(Limit 2500 characters; approximately 750 words)



3. The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.

List the applicable documents and pages:

See "Local Planning Documents" attachment

(Limit 2500 characters; approximately 750 words)

4. The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.

Check the box to indicate that the project meets this requirement. Yes

5. Applicants that are not cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes

6. Applicants must not submit an application for the same project in more than one funding sub-category.

Check the box to indicate that the project meets this requirement. Yes

7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.

**Multiuse Trails and Bicycle Facilities:** \$250,000 to \$5,500,000

**Pedestrian Facilities (Sidewalks, Streetscaping, and ADA):** \$250,000 to \$1,000,000

**Safe Routes to School:** \$150,000 to \$1,000,000

Check the box to indicate that the project meets this requirement. Yes

8. The project must comply with the Americans with Disabilities Act (ADA).

Check the box to indicate that the project meets this requirement. Yes

9. In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have, or be substantially working towards, completing a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA.

The applicant is a public agency that employs 50 or more people and has an adopted ADA transition plan that covers the public right of way/transportation.

Yes

09/30/2015

Date plan adopted by governing body

The applicant is a public agency that employs 50 or more people and is currently working towards completing an ADA transition plan that covers the public rights of way/transportation.

Date process started

Date of anticipated plan completion/adoption

The applicant is a public agency that employs fewer than 50 people and has a completed ADA self-evaluation that covers the public rights of way/transportation.

Date self-evaluation completed

The applicant is a public agency that employs fewer than 50 people and is working towards completing an ADA self-evaluation that covers the public rights of way/transportation.

Date process started

Date of anticipated plan completion/adoption

(TDM Applicants Only) The applicant is not a public agency subject to the self-evaluation requirements in Title II of the ADA.

10. The project must be accessible and open to the general public.



Check the box to indicate that the project meets this requirement. Yes

11. The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017.

Check the box to indicate that the project meets this requirement. Yes

12. The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match.

Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

Check the box to indicate that the project meets this requirement. Yes

13. The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

Check the box to indicate that the project meets this requirement. Yes

14. The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

Check the box to indicate that the project meets this requirement. Yes

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## Requirements - Bicycle and Pedestrian Facilities Projects

1. All projects must relate to surface transportation. As an example, for multiuse trail and bicycle facilities, surface transportation is defined as primarily serving a commuting purpose and/or that connect two destination points. A facility may serve both a transportation purpose and a recreational purpose; a facility that connects people to recreational destinations may be considered to have a transportation purpose.

Check the box to indicate that the project meets this requirement. Yes

### Multiuse Trails on Active Railroad Right-of-Way:

2. All multiuse trail projects that are located within right-of-way occupied by an active railroad must attach an agreement with the railroad that this right-of-way will be used for trail purposes.

Check the box to indicate that the project meets this requirement.

[Upload Agreement PDF](#)

Check the box to indicate that the project is not in active railroad right-of-way. Yes

### Safe Routes to School projects only:

3. All projects must be located within a two-mile radius of the associated primary, middle, or high school site.

Check the box to indicate that the project meets this requirement.

4. All schools benefitting from the SRTS program must conduct after-implementation surveys. These include the student travel tally form and the parent survey available on the National Center for SRTS website. The school(s) must submit the after-evaluation data to the National Center for SRTS within a year of the project completion date. Additional guidance regarding evaluation can be found at the MnDOT SRTS website.

Check the box to indicate that the applicant understands this requirement and will submit data to the National Center for SRTS within one year of project completion.

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## Requirements - Bicycle and Pedestrian Facilities Projects



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## Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$244,000.00
Removals (approx. 5% of total cost)	\$0.00
Roadway (grading, borrow, etc.)	\$0.00
Roadway (aggregates and paving)	\$0.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$0.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$0.00
Traffic Control	\$147,000.00
Striping	\$0.00
Signing	\$0.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$241,000.00
Bridge	\$2,500,000.00
Retaining Walls	\$136,500.00
Noise Wall (not calculated in cost effectiveness measure)	\$0.00
Traffic Signals	\$0.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$0.00
Other Roadway Elements	\$732,000.00
<b>Totals</b>	<b>\$4,000,500.00</b>

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## Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$1,978,900.00
Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00



Pedestrian Curb Ramps (ADA)	\$12,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$0.00
Pedestrian-scale Lighting	\$0.00
Streetscaping	\$0.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$600,000.00
Other Bicycle and Pedestrian Elements	\$0.00
<b>Totals</b>	<b>\$2,590,900.00</b>

## Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	\$0.00
Stations, Stops, and Terminals	\$0.00
Support Facilities	\$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	\$0.00
Vehicles	\$0.00
Contingencies	\$0.00
Right-of-Way	\$0.00
Other Transit and TDM Elements	\$0.00
<b>Totals</b>	<b>\$0.00</b>

## Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	\$0.00
Subtotal	\$0.00
Other Costs - Administration, Overhead,etc.	\$0.00

## Totals

Total Cost	\$6,591,400.00
Construction Cost Total	\$6,591,400.00
Transit Operating Cost Total	\$0.00



## Measure A: Project Location Relative to the RBTN

Select one:

Tier 1, Priority RBTN Corridor

Tier 1, RBTN Alignment

Tier 2, RBTN Corridor

Tier 2, RBTN Alignment Yes

Direct connection to an RBTN Tier 1 corridor or alignment

Direct connection to an RBTN Tier 2 corridor or alignment

OR

Project is not located on or directly connected to the RBTN but is part of a local system and identified within an adopted county, city or regional parks implementing agency plan.

Upload Map 1531485758750\_Pop & Employ Map - Overview.pdf

Please upload attachment in PDF form.

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## Measure A: Population Summary

Existing Population Within One Mile (Integer Only) 19830

Existing Employment Within One Mile (Integer Only) 2796

Upload the "Population Summary" map 1531485571468\_Pop & Employ Map - Overview.pdf

Please upload attachment in PDF form.

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## Measure 2B: Snow and ice control

Maintenance plan or policy for snow-removal for year-round use: Yes

(50 Points)

Response: If yes, please include a link to and/or description of maintenance plan.

The Cities of Woodbury and Cottage Grove have agreed to plow the trail if funded. See letters attached in "other attachments" section.

Upload Maintenance Plan (if no link is available)

Please upload attachment in PDF form.

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## Measure A: Connection to disadvantaged populations and projects benefits, impacts, and mitigation

Select one:

Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):



(up to 100% of maximum score)

**Project located in Area of Concentrated Poverty:**

(up to 80% of maximum score )

**Projects census tracts are above the regional average for population in poverty or population of color:**

(up to 60% of maximum score )

**Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:**

Yes

(up to 40% of maximum score )

1.(0 to 3 points) A successful project is one that has actively engaged low-income populations, people of color, children, persons with disabilities, and the elderly during the project's development with the intent to limit negative impacts on them and, at the same time, provide the most benefits.

Describe how the project has encouraged or will engage the full cross-section of community in decision-making. Identify the communities to be engaged and where in the project development process engagement has occurred or will occur. Elements of quality engagement include: outreach to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in the community engagement related to transportation projects; residents or users identifying potential positive and negative elements of the project; and surveys, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.



**Response:**

The proposed segments of Central Greenway Regional Trail will be a multi-use trail that runs along two sections of CSAH 19 including two grade separated crossings. The trail will connect with trail networks that provides users direct access to three County regional parks, which attract an estimated 831,000 visitors annually. These parks actively seek to engage underrepresented populations. Washington County Regional Parks are free to anyone using non-motorized transportation to access parks. This project will connect to Cottage Grove Middle School and benefit the students and staff who walk or bike to school. This trail will pass through a variety of neighborhoods with varying demographics, providing access to a wide range of social and cultural backgrounds for users.

This project was created in response to expressed demand for non-motorized transportation options in Washington County communities. Throughout the process, Washington County engaged the public in the planning of the trail (see master plan). Engagement included public open houses and pop-up meetings, including one at a public housing facility. Staff will continue to engage a full cross-section of the community as the project moves forward. Washington County will engage through public outreach aimed at including low income populations, people of color, children, people with disabilities, and the elderly.

*(Limit 1,400 characters; approximately 200 words)*

*2.(0 to 7 points) Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to safety; public health; access to destinations; travel time; gap closure; leveraging of other beneficial projects and investments; and/or community cohesion. Note that this is not an exhaustive list.*



The proposed segments of the Central Greenway Regional Trail are not located in an area that is above the regional average for low-income populations or people of color. However, this project is critical to the region as it creates a strong non-motorized north/south corridor throughout Washington County. There are many destinations and connections along the Central Greenway Regional Trail that serve underrepresented populations. Washington County's Cottage Grove Service Center is located along the Central Greenway alignment and offers a variety of services including a workforce center, public service center, and a Women, Infants, and Children (WIC) clinic for low-income families. Additionally, Cottage Grove Ravine Regional Park actively works to target underrepresented populations and offers free entry to all patrons who access the park using non-motorized transportation.

**Response:**

This project will bring the benefit of providing a safe, off-road trail facility for the area's residents and workforce in and around southern Washington County. The alignment connects primarily residential areas to the commercial nodes of Cottage Grove and Woodbury, allowing users to complete daily tasks or find employment without needing a car. The route provides limited elevation changes and would meet ADA standards to continue to serve users of all ages who want to safely travel to destinations without needing to access a car. Thrive 2040 MSP has forecasted a growth rate for the Central Greenway Trail's primary service area is anticipated to increase by close to 30,000 people by 2040. This portion of the overall project will be built next to a future housing development. With more people moving into the area, including an anticipated change in demographics from 24% to 40% people of color, the trail corridor will proactively provide a safe, non-motorized transportation option for this growing



community.

This trail will function as an arterial route, linking the local trail network and providing proximity and connectivity within the region. The trail will link users with local destinations such as schools, parks, commercial areas, the Washington County Service Center, and transit facilities. By linking the residents and workforce with destinations and facilities, this trail will embody the principles of the "active living by design" movement. The more opportunities for users to develop healthier lifestyles increases with more access to active safe transportation options close to home.

*(Limit 2,800 characters; approximately 400 words)*

*3. (-3 to 0 points) Describe any negative externalities created by the project along with measures that will be taken to mitigate them. Negative externalities can result in a reduction in points, but mitigation of externalities can offset reductions.*

*Below is a list of negative impacts. Note that this is not an exhaustive list.*

*Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.*

*Increased noise.*

*Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.*

*Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, etc.*

*Increased speed and/or cut-through traffic.*

*Removed or diminished safe bicycle access.*

*Inclusion of some other barrier to access to jobs and other destinations.*

*Displacement of residents and businesses.*

*Construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings. These tend to be temporary.*

*Other*



**Response:**

This project will not negatively impact low income populations, people of color, children, people with disabilities or the elderly. There will need to be coordination with utilities during the development of the design and implementation to minimize potential impact to commuters and residence.

During construction it is expected that there would be impacts to commuters using the roads near the trail work. To avoid unnecessary user impact, construction would be coordinated with road work when possible to avoid working on the same area multiple times. There would also be precautions taken to ensure that alternative routes have signage for all transportation modes.

While the project is being built there will be the above listed impacts, but the trail itself will create improvements to air quality, active living, and traffic congestion. By closing gaps in the trail system, there will be better access for pedestrians and bicyclists.

*(Limit 2,800 characters; approximately 400 words)*

**Upload Map**

1531486565078\_Soc & Econ Map - Overview.pdf

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## Measure B: Affordable Housing

City	Segment Length (For stand-alone projects, enter population from Regional Economy map) within each City/Township	Segment Length/Total Project Length	Score	Housing Score Multiplied by Segment percent
Woodbury	0.7	0.28	87.0	24.556
Cottage Grove	1.78	0.72	72.0	51.677

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## Total Project Length

Total Project Length (as entered in the "Project Information" form) 0



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## Affordable Housing Scoring

Total Project Length (Miles) or Population	2.48
Total Housing Score	76.233

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## Affordable Housing Scoring

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### Measure A: Gaps, Barriers and Continuity/Connections

Check all that apply:

*Gap improvements can be on or off the RBTN and may include the following:*

- *Providing a missing link between existing or improved segments of a regional (i.e., RBTN) or local transportation network;*
- *Improving bikeability to better serve all ability and experience levels by:*
  - *Providing a safer, more protected on-street facility;*
  - *Improving crossings at busy intersections (signals, signage, pavement markings); OR*
  - *Improving a bike route or providing a trail parallel to a highway or arterial roadway along a lower-volume neighborhood collector or local street.*
- *Barrier crossing improvements (on or off the RBTN) can include crossings (over or under) of rivers or streams, railroad corridors, freeways, or multi-lane highways, or enhanced routes to circumvent the barrier by channeling bicyclists to existing safe crossings or grade separations. (For new barrier crossing projects, data about the nearest parallel crossing (as described above) must be included in the application to be considered for the full allotment of points under this criterion).*

**Closes a transportation network gap and/or provides a facility that crosses or circumvents a physical barrier** Yes

*Improves continuity and/or connections between jurisdictions (on or off the RBTN) (e.g., extending a specific bikeway facility treatment across jurisdictions to improve consistency and inherent bikeability)*

**Improves Continuity and/or Connections Between Jurisdictions** Yes



**Response:**

The Central Greenway Regional Trail is designated at a Tier 2 alignment on the Metropolitan Council's Regional Bicycle Transportation Network (RBTN). The proposed segments will close an existing gap along RBTN corridor. This trail will address a north/south gap in the RBTN and connect to regional and local destinations and create continuous access on an efficient, off-road facility. The improvements to the RBTN would include creating a 10-foot-wide (minimum) paved trail that is separate from adjacent roadways allowing for many different types of users to access the trail. The overpass and underpass improvements will create a safe crossing environment for users along busy the busy roadway. This trail would access new housing developments proactively addressing needs for non-motorized transportation and recreation. In order to continue the vision of the RBTN's integrated seamless network of trails, this section will need to be built. As the area continues to develop, the trail network will be key in attracting users that are interested in active commuting.

Providing continuous access to the trail will allow users to commute longer distances in an efficient manner crossing or traveling on busy, high speed, motorized roads. The limited grade changes provide opportunities for travelers commuting to travel faster and easier, but also provides trail accessibility for people with limited mobility or families. The proposed project would include two grade-separated County Road 19 crossings. These improvements will provide safe direct access to the Washington County Service Center, Cottage Grove City Hall, and Cottage Grove Ravine Regional Park and multiple schools.

In addition to closing a gap for north/south bike access on the RBTN, this proposed segment allows users connect to other local trails for transportation to schools, city centers, and local businesses. This



trail will eventually be one of the few points in Washington County connecting users to the U.S. Bicycle Route 45 Mississippi River Trail (MRT) bikeway. Users on the national trail could then use this connection point to bike to some of the state trails and local businesses to the north of the Mississippi River Trail bikeway or connect to St. Paul and Minneapolis for commuting. For consistent year round use, snow will be removed along the route creating opportunities for individuals to use the trails in the winter.

*(Limit 2,800 characters; approximately 400 words)*

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## **Measure B: Project Improvements**



**Response:**

Although there are no reported bike or pedestrian crashes from 2011-2015 within the proposed project area, the current condition for users of the future Central Greenway trail alignment is hazardous as it places pedestrians and cyclists on CSAH 19 without designated bike lane or facilities. This area is expected to add many new residents as new housing developments in Woodbury (see attached development map) are being added. Vehicle speeds on this road are 55 mph. With no sidewalks or bike lanes, users need to expose themselves to hazards such as higher average speeds and a lack of protection against motorized vehicles. Cottage Grove Middle School and Grey Cloud Elementary School are located right off of CSAH 19. The addition of this off-road trail provides a safe facility for students and staff commuting to school. As southern Washington County continues to grow, those dependent on non-motorized transportation will be forced to expose themselves to the ever growing traffic which is expected to grow anywhere from 2,000 to 6,000 additional vehicles by 2040.

Also important to the safety of trail users is the points of conflict. The proposed project would include two grade-separated County Road 19 crossings. These improvements will provide safe, direct access to the Washington County Service Center and Cottage Grove Ravine Regional Park. By creating a grade separated crossings in these strategic locations, there will be a reduction in the amount of exposure trail users will have commuting and traveling on the regional network. These improvements will ensure the trail is safe and comfortable for users of all ages and abilities. This is inherently important as this is a critical north-south corridor for non-motorized transportation users.



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## Measure A: Multimodal Elements



Washington County has few connection points to the Metro Transit System even as 56.3% of the Washington County workforce worked in Ramsey and Hennepin County in 2015. The closest Metro Transit bus stop for Central Greenway Trail users is the Metro Transit 361 Express route located about 1 mile away from the proposed trail connecting users with express service to downtown Saint Paul. Since this area lacks public transit into Minneapolis and St. Paul it is critical to create a network of non-motorized transportation options for individuals that wish to take advantage of or are dependent on these options. Currently, Route 361 does not have trail connections that would bring users to a bus stop without using a high speed roadway. Adding this portion of the south segment of the Central Greenway Trail will allow users to travel safely to connecting trails that bring them into nearby city centers or transit stops.

**Response:**

The proposed trail segment will be an off-road facility with limited grade changes to give pedestrians and cyclists a better travel experience. These features will result in fewer motor-vehicle accidents with bicycles and pedestrians and allow users of all abilities and ages to use the trail. It will connect families and individuals to important regional destinations, such as the local schools, commercial areas, Cottage Grove Ravine Regional Park or the Washington County Service Center. This will enhance the regions multi-modal transportation network through connections and new users, while developing healthy, active living habits for students in the area.

The location of this trail is a connecting point for many different modes of transportation. Allowing users to connect to local trail systems means that bicyclists would be able to connect to transit stops to encourage active lifestyles for commuting to work. According to a U.S. Department of Justice report, pedestrian crashes are more likely to occur in urban areas, but are more likely to be fatal



in rural areas. This is likely due to higher vehicle speeds. The proposed trail segments offer safety to the growing community looking for alternative travel methods. Taking advantage of the area destinations means that walkers, skaters, and cyclists can confidently and safely access these destinations with their families or because of a consistent and efficient separated trail.

(Limit 2,800 characters; approximately 400 words)

---

## Transit Projects Not Requiring Construction

*If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.*

*Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.*

**Check Here if Your Transit Project Does Not Require Construction**

---

## Measure A: Risk Assessment - Construction Projects

### 1)Layout (30 Percent of Points)

*Layout should include proposed geometrics and existing and proposed right-of-way boundaries.*

**Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points.**

100%

**Attach Layout**

1531509629765\_11830\_Trail-KeatsAve\_CR19\_1\_180713.pdf

*Please upload attachment in PDF form.*

**Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points.**

Yes

50%

**Attach Layout**

*Please upload attachment in PDF form.*

**Layout has not been started**

0%

**Anticipated date or date of completion**

### 2)Review of Section 106 Historic Resources (20 Percent of Points)

**No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge**

100%



There are historical/archeological properties present but determination of no historic properties affected is anticipated. Yes

100%

Historic/archeological property impacted; determination of no adverse effect anticipated

80%

Historic/archeological property impacted; determination of adverse effect anticipated

40%

Unsure if there are any historic/archaeological properties in the project area.

0%

Project is located on an identified historic bridge

### 3)Right-of-Way (30 Percent of Points)

Right-of-way, permanent or temporary easements either not required or all have been acquired

100%

Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete

50%

Right-of-way, permanent or temporary easements required, parcels identified

25%

Right-of-way, permanent or temporary easements required, parcels not all identified Yes

0%

Anticipated date or date of acquisition

### 4)Railroad Involvement (20 Percent of Points)

No railroad involvement on project or railroad Right-of-Way agreement is executed (include signature page, if applicable) Yes

100%

#### Signature Page

Please upload attachment in PDF form.

Railroad Right-of-Way Agreement required; negotiations have begun

50%

Railroad Right-of-Way Agreement required; negotiations have not begun.

0%

Anticipated date or date of executed Agreement

---

## Measure A: Cost Effectiveness



Total Project Cost (entered in Project Cost Form):	\$6,591,400.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$6,591,400.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

---

**Other Attachments**



File Name	Description	File Size
11830_FeasibilityEstimate_SpecYr_2018_180713 FINAL.pdf	Engineers Cost Estimate	22 KB
2018-062 Regional Solicitation.pdf	Washington County Board of Commissioners Resolution	28 KB
Central Greenway Regional Trail Final Draft (Sept 2017).pdf	Central Greenway Regional Trail Plan	7.4 MB
Fair Haven Development Plat - Woodbury - Local trail connection.pdf	Local trail connection in the City of Woodbury: Fair Haven Development Plat	11.4 MB
Overview Map from Goolge My Maps.pdf	BEFORE Overview	318 KB
Pop & Employ Map - North Segment.pdf	Central Greenway, North Segment: Population/Employment Map	2.1 MB
Pop & Employ Map - Overview.pdf	Central Greenway, Overview: Population/Employment Map	4.3 MB
Pop & Employ Map - South Segment.pdf	Central Greenway, South Segment: Population/Employment Map	4.5 MB
Project Summary.pdf	Central Greenway Project Summary	227 KB
RBTN Map - North Segment.pdf	Central Greenway, North Segment: RBTN Map	856 KB
RBTN Map - Overview.pdf	Central Greenway, Overview: RBTN Map	2.9 MB
RBTN Map - South Segment.pdf	Central Greenway, South Segement: RBTN Map	3.0 MB
Road Turn.pdf	BEFORE Road Turn	266 KB
Sandberg, Wayne (Support For Proposed Central Greenway Trail Snow Remova....pdf	City of Cottage Grove Plowing Letter of Support	299 KB
Sandberg, Wayne (Support For Proposed Central Greenway Trail).pdf	City of Cottage Grove Letter of Support	326 KB
Service Center.pdf	BEFORE Service Center	227 KB
Soc & Econ Map - North Segment.pdf	Central Greenway, North Segment: Socio/Economic Map	749 KB
Soc & Econ Map - Overview.pdf	Central Greenway, Overview: Socio-Economic Map	2.6 MB
Soc & Econ Map - South Segment.pdf	Central Greenway, South Segment: Socio-Economic Map	2.5 MB
South of Dale Rd.pdf	BEFORE S of Dale	206 KB
SWWD Glacial Valley Park Master Plan.pdf	South Washington Watershed District Glacial Valley Interpretive Area Plan	53.1 MB
Trail start.pdf	BEFORE Trail Start	219 KB



WashCo Central Greenway_SWWD letter of Support.pdf	South Washington Watershed District Letter of Support	374 KB
Woodbury LOS Plowing.pdf	City of Woodbury Plowing LOS	301 KB
Woodbury LOS.pdf	City of Woodbury Letter of Support	340 KB



# Population/Employment Summary

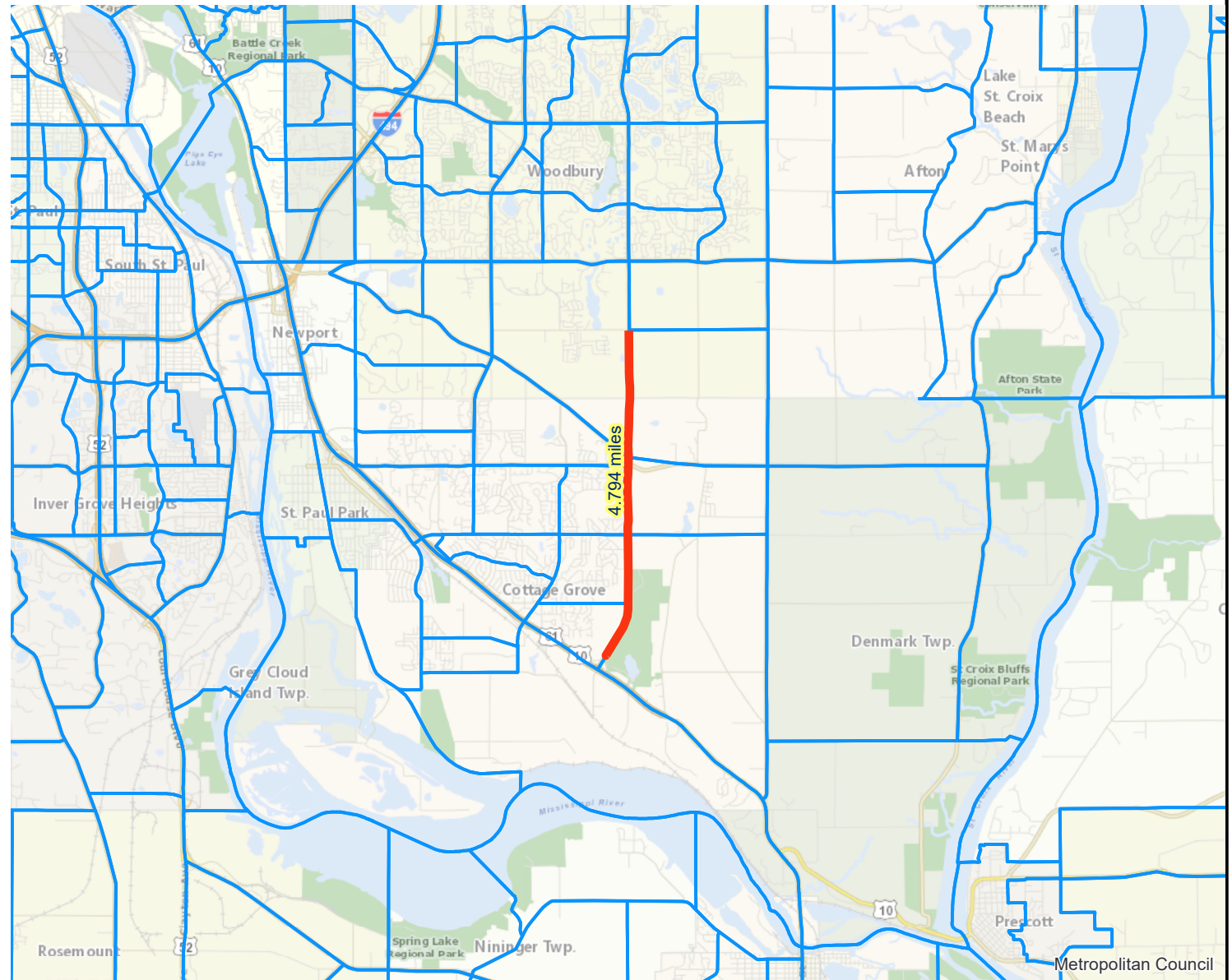
## Results

Within ONE Mile of project:  
Total Population: 19830  
Total Employment: 2796

Washington County's application is only for two smaller segments of this line. METC maps for each segment are attached.

When added together, the population and employment numbers from the segment maps are the same as this overview map.

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - Overview Map | Map ID: 15288267321



— Project  
□ 2010 TAZ

0 1.25 2.5 5 7.5 10 Miles

Created: 6/12/2018  
LandscapeRSA4



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



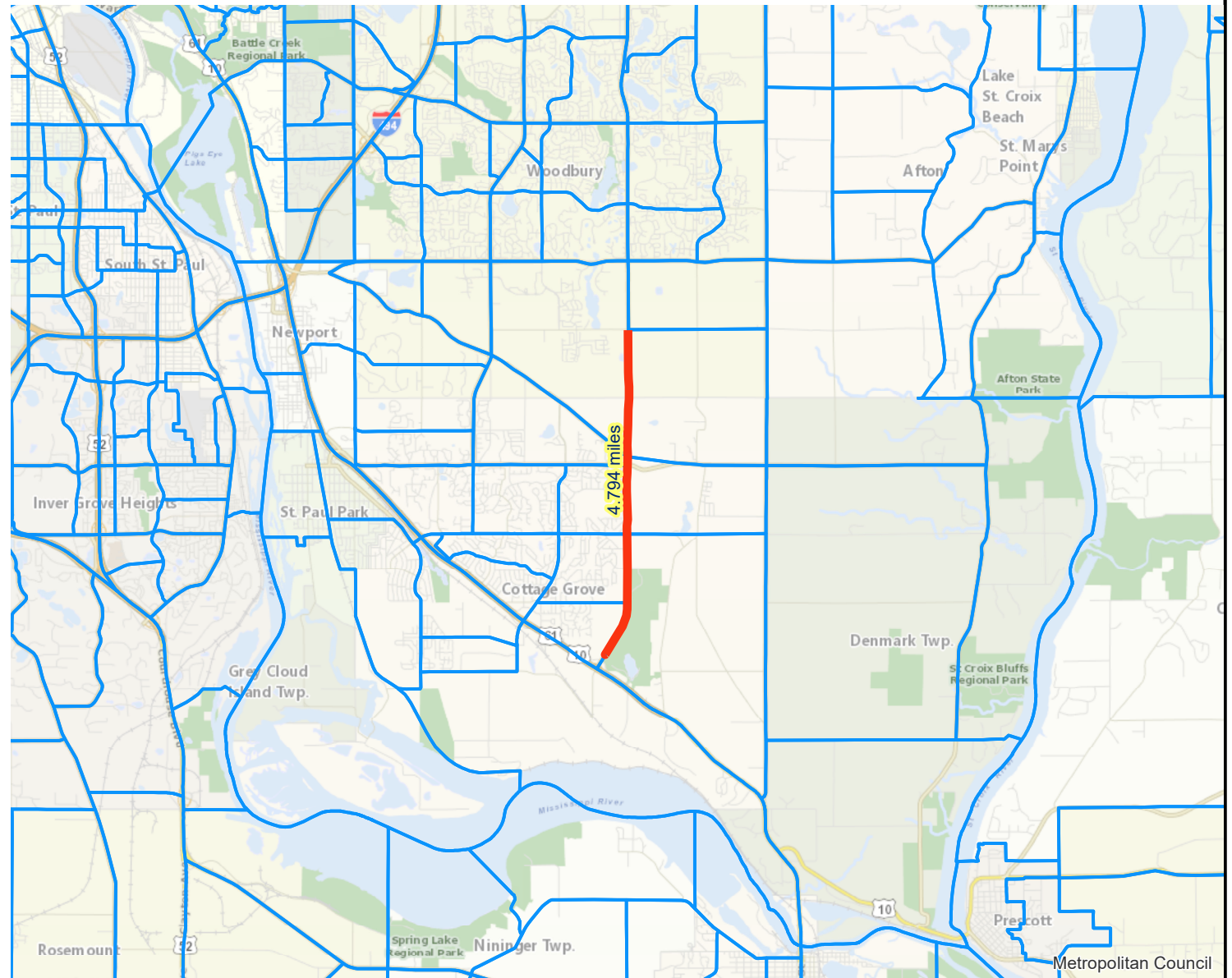


# Population/Employment Summary

## Results

Within ONE Mile of project:  
Total Population: 19830  
Total Employment: 2796

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - Overview Map | Map ID: 15288267321



— Project  
□ 2010 TAZ



Created: 6/12/2018  
LandscapeRSA4



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



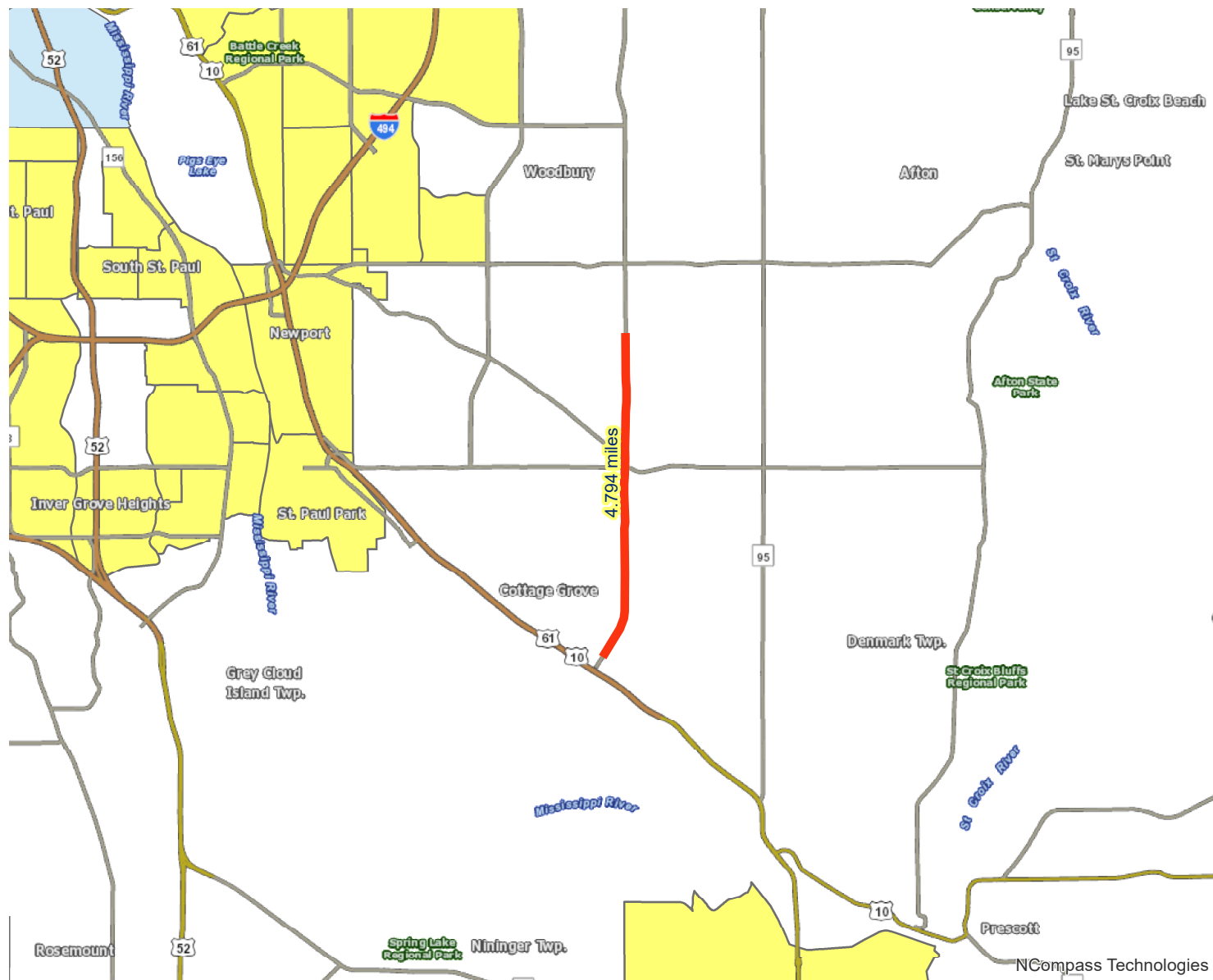


## Socio-Economic Conditions

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - Overview Map | Map ID: 1528826732194

### Results

Project located in a census tract that is below the regional average for population in poverty or populations of color, or includes children, people with disabilities, or the elderly:  
(0 to 12 Points)



Project



Area of Concentrated Poverty > 50% residents of color



Area of Concentrated Poverty



Above reg'l avg conc of race/poverty

0 1.25 2.5 5 7.5 10 Miles

Created: 6/12/2018  
LandscapeRSA2



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



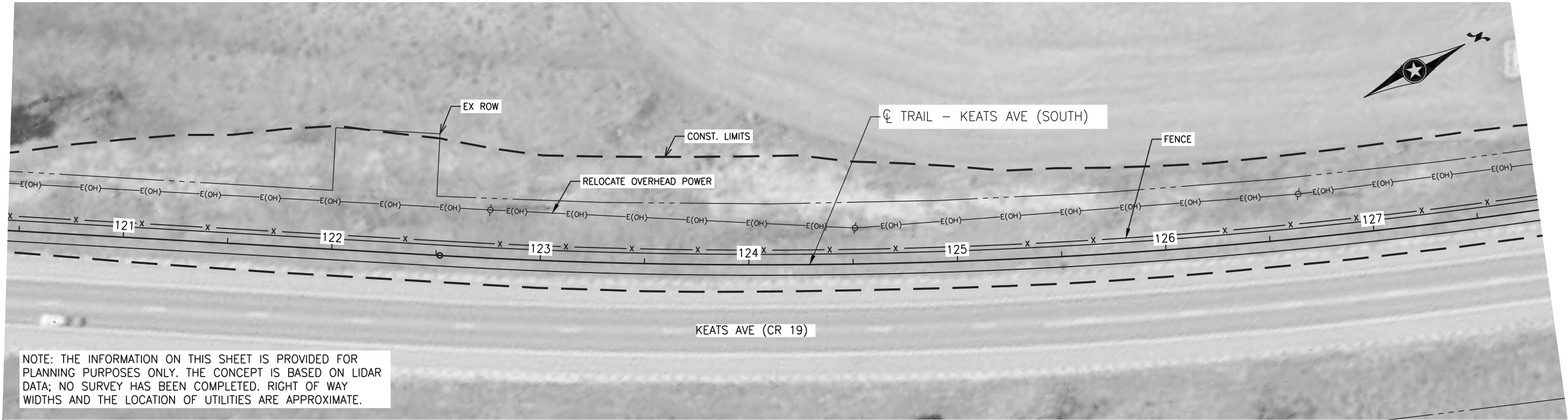
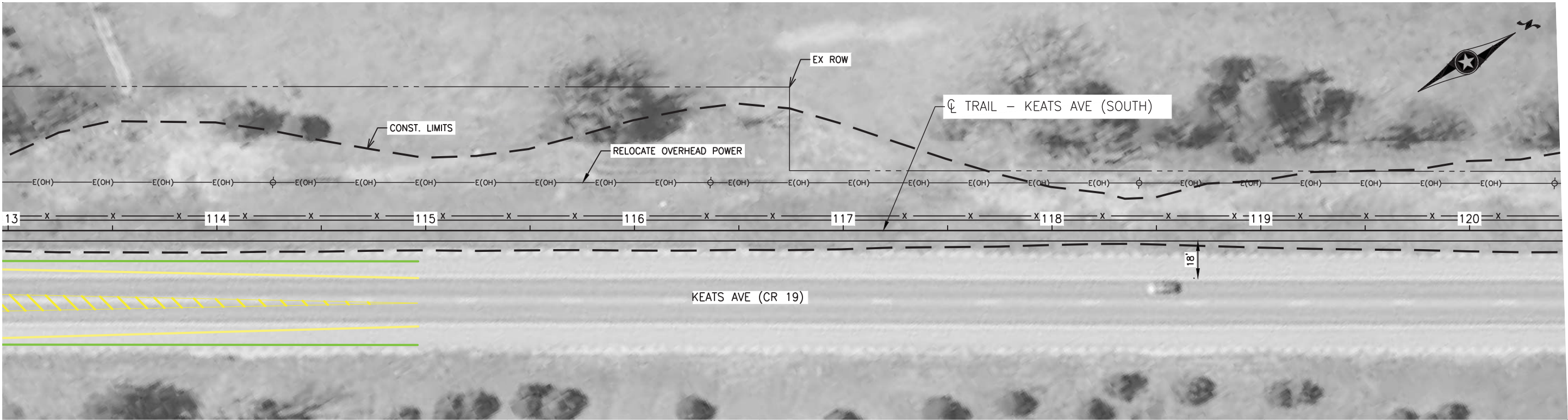












NOTE: THE INFORMATION ON THIS SHEET IS PROVIDED FOR PLANNING PURPOSES ONLY. THE CONCEPT IS BASED ON LIDAR DATA; NO SURVEY HAS BEEN COMPLETED. RIGHT OF WAY WIDTHS AND THE LOCATION OF UTILITIES ARE APPROXIMATE.

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DRAWN BY  
A. GARFIELD  
DESIGNED BY  
A. GARFIELD  
CHECKED BY  
S. PRUSAK  
COMM. NO. 11830



WASHINGTON COUNTY  
TRAIL PLAN  
KEATS AVE / CR 19 TRAIL - SOUTH SEGMENT  
PRELIMINARY DESIGN FOR PLANNING PURPOSES

SHEET  
3  
OF  
11









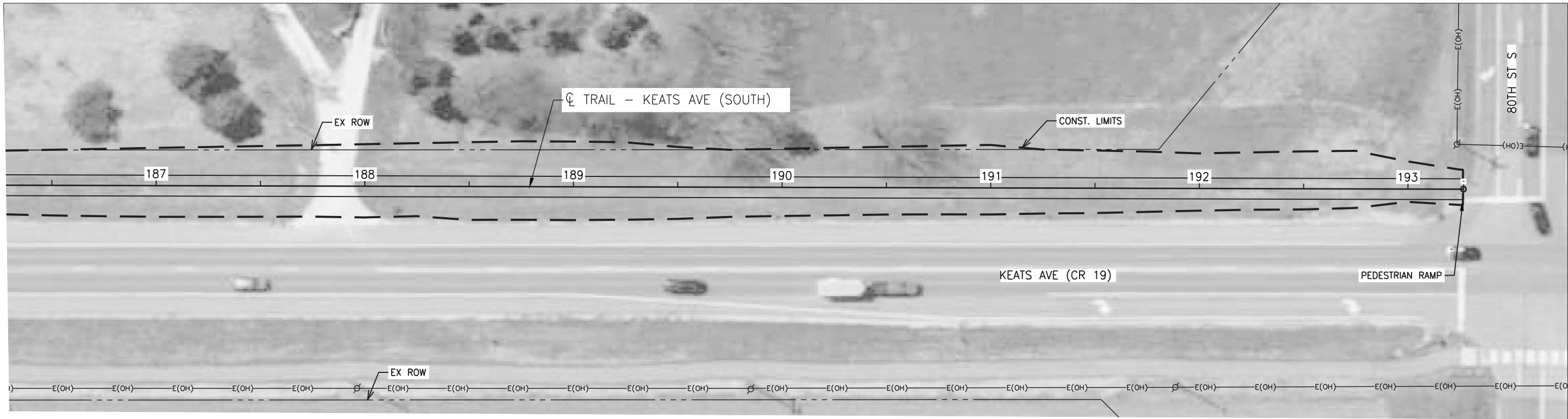












NOTE: THE INFORMATION ON THIS SHEET IS PROVIDED FOR PLANNING PURPOSES ONLY. THE CONCEPT IS BASED ON LIDAR DATA; NO SURVEY HAS BEEN COMPLETED. RIGHT OF WAY WIDTHS AND THE LOCATION OF UTILITIES ARE APPROXIMATE.

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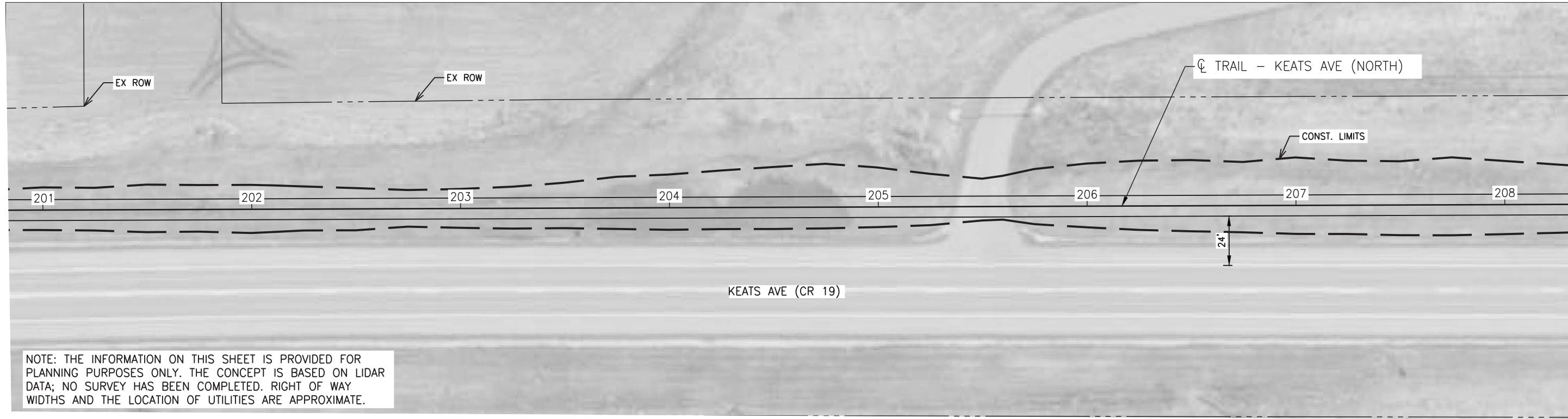
DRAWN BY A. GARFIELD
DESIGNED BY A. GARFIELD
CHECKED BY S. PRUSAK
COMM. NO. 11830



WASHINGTON COUNTY  
TRAIL PLAN  
KEATS AVE / CR 19 TRAIL – SOUTH SEGMENT  
PRELIMINARY DESIGN FOR PLANNING PURPOSES

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DRAWN BY  
A. GARFIELD  
DESIGNED BY  
A. GARFIELD  
CHECKED BY  
S. PRUSAK  
COMM. NO. 11830



WASHINGTON COUNTY  
TRAIL PLAN  
KEATS AVE / CR 19 TRAIL - NORTH SEGMENT  
PRELIMINARY DESIGN FOR PLANNING PURPOSES

SHEET  
9  
OF  
11













## KEATS AVE / CR 19 TRAIL

Concept Cost Estimate (based upon 2017 bid price information)  
Prepared By: SRF Consulting Group, Inc., July, 11th, 2018

				SOUTH SEGMENT		NORTH SEGMENT		TOTAL		
ITEM DESCRIPTION			UNIT	UNIT PRICE	EST. QUANTITY	EST. AMOUNT	EST. QUANTITY	EST. AMOUNT	EST. QUANTITY	EST. AMOUNT
PAVING AND GRADING COSTS										
GP 1a	2106 Excavation - common & subgrade		cu. yd.	\$6.00	9,200	\$55,200	3,200	\$19,200	12,400	\$74,400
GP 2a	2106 Common Embankment (CV)		cu. yd.	\$4.00	9,200	\$36,800	3,200	\$12,800	12,400	\$49,600
GP 4b	Bituminous Walk / Trail	(2)	lin. ft.	\$150.00	9,180	\$1,377,000	3,186	\$477,900	12,366	\$1,854,900
GP 4c	ADA Pedestrian Curb Ramp		each	\$1500.00	7	\$10,500	1	\$1,500	8	\$12,000
SUBTOTAL PAVING AND GRADING COSTS:						\$1,479,500		\$511,400		\$1,990,900
DRAINAGE, UTILITIES AND EROSION CONTROL										
Dr 7	Turf Establishment & Erosion Control		10%			\$148,000		\$52,000		\$200,000
Dr 8	Landscaping		2%			\$30,000		\$11,000		\$41,000
SUBTOTAL DRAINAGE, UTILITIES AND EROSION CONTROL						\$178,000		\$63,000		\$241,000
BRIDGE COSTS										
Br 1	Trail Overpass	(3)	l.s.	\$1,500,000	1	\$1,500,000			1	\$1,500,000
Br 2	Trail Underpass- Box Culvert	(4)	l.s.	\$1,000,000	1	\$1,000,000			1	\$1,000,000
SUBTOTAL BRIDGE COSTS:						\$2,500,000				\$2,500,000
RETAINING WALLS & OTHER MINOR STRUCTURAL COSTS										
RW 22	Modular Block Gravity Wall		sq. ft.	\$35	3,900	\$136,500			3,900	\$136,500
SUBTOTAL RETAINING WALLS & OTHER MINOR STRUCTURAL COSTS:						\$136,500				\$136,500
SUBTOTAL CONSTRUCTION COSTS:						\$4,294,000		\$574,400		\$4,868,400
MISCELLANEOUS COSTS										
M 1	Mobilization		5%			\$215,000		\$29,000		\$244,000
M 2	Non Quantified Minor Items		10%			\$430,000		\$58,000		\$488,000
M 7	Temporary Pavement & Drainage		5%			\$215,000		\$29,000		\$244,000
M 8	Traffic Control		3%			\$129,000		\$18,000		\$147,000
SUBTOTAL MISCELLANEOUS COSTS:						\$989,000		\$134,000		\$1,123,000
ESTIMATED TOTAL CONSTRUCTION COSTS without Contingency:						\$5,283,000		\$708,400		\$5,991,400
1	Contingency or "risk"		10%			\$529,000		\$71,000		\$600,000
ESTIMATED TOTAL CONSTRUCTION COSTS PLUS CONTINGENCY:						\$5,812,000		\$779,400		\$6,591,400
INFLATION COST (CURRENT YR. TO YR. OF OPEN			Years	3%	3	\$600,000				\$600,000
TOTAL PROJECT COST (OPENING YEAR DOLLARS)						\$6,412,000		\$779,400		\$7,191,400

NOTE: (1) Unit pricing based on 2017 average bid price information.  
(2) Includes aggregate base class 5.  
(3) Trail overpass cost includes contingency for utility relocation, traffic control, construction and contractor safety. Assumes 10'x14' concrete box culvert structure.  
(4) Trail underpass cost includes contingency for utility relocation, traffic control, construction and contractor safety. Assumes prefabricated steel structure on concrete abutments.  
(5) R/W Acquisitions based upon: average cost per acre for adjacent parcels with data from Washington County Tax website.



DATE June 19, 2018

DEPARTMENT

Public Works

MOTION

SECONDED BY

BY COMMISSIONER Karwoski

COMMISSIONER Weik

---

---

**RESOLUTION AUTHORIZING SUBMITTAL OF APPLICATIONS TO  
THE METROPOLITAN COUNCIL FOR FUNDING  
UNDER THE METROPLITAN COUNCIL REGIONAL SOLICITATION**

**WHEREAS**, the Regional Solicitation process started with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991; and

**WHEREAS**, as authorized by the most recent federal surface transportation funding act, FAST ACT, projects will be selected for funding as part of three federal programs: Surface Transportation Program (STP), Congestion Mitigation and Air Quality Improvement (CMAQ) Program, and Transportation Alternatives Program (TAP); and

**WHEREAS**, pursuant to the Regional Solicitation and the regulations promulgated there under, eligible project sponsors wishing to receive federal grants for a project shall submit an application first with the appropriate metropolitan planning organization (MPO) for review and inclusion in the MPO's Transportation Improvement Program (TIP); and

**WHEREAS**, the Metropolitan Council and the Transportation Advisory Board (TAB) act as the MPO for the seven county Twin Cities region and have released the Regional Solicitation for federal transportation funds for 2022 and 2023; and

**WHEREAS**, Washington County is an eligible project sponsor for Regional Solicitation funds; and

**WHEREAS**, Washington County is proposing to submit grant applications for the following projects to the Metropolitan Council as part of the 2018 Regional Solicitation:

1. Trail segment implementation of the Central Greenway Regional Trail along County State Aid Highway (CSAH) 19 (Woodbury Drive) between 80<sup>th</sup> Street and the entrance of Cottage Grove Ravine Regional Park and the segment along CSAH 19 at Dale Road extending 3000 feet south in the City of Cottage Grove; and
2. Trail improvements and ADA compliant enhancement along CSAH 12 (75<sup>th</sup> Street North) from CSAH 29 (Hilton Trail) to CSAH 15 (Manning Avenue) existing trails in the Cities of Grant and Mahtomedi; and
3. Trail implementation along CSAH 38 from the pedestrian bridge crossing TH (Trunk Highway) 61 to the Wakota Bridge in the City of Newport; and
4. Construction of a roundabout at CSAH 19 (Keats Avenue) and CSAH 10 (10<sup>th</sup> Street) in the City of Lake Elmo; and
5. Construction of the roadway lanes of the Helmo-Bielenberg bridge over I-94 in collaboration with the Gold Line Bus Rapid Transit (BRT) guideway in the Cities of Oakdale and Woodbury; and



**WHEREAS**, the projects will be of mutual benefit to Metropolitan Council, Washington County, and the Cities of Cottage Grove, Grant, Mahtomedi, Oakdale, Lake Elmo and Woodbury; and

**WHEREAS**, Washington County is committed to providing the county share of the costs if the projects are selected as part of the 2018 Regional Solicitation; and

**WHEREAS**, Washington County is committed to completing the project, if selected, and funding is provided as part of the 2018 Regional Solicitation;

**NOW, THEREFORE, BE IT RESOLVED**, that Washington County is requesting funding from the federal government through the Metropolitan Council's 2018 Regional Solicitation and the county is committed to completing the projects identified above and providing the county share of funding.

ATTEST:



COUNTY ADMINISTRATOR



COUNTY BOARD CHAIR

YES

NO

MIRON  
KARWOSKI  
KRIESEL  
LAVOLD  
WEIK

X  
X  
X  
X  
X

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# CENTRAL GREENWAY

## Regional Trail Master Plan

South Segment: Interstate 94 to Cottage Grove Ravine Regional Park



September 6, 2017  
Draft

Washington  
County







# Central Greenway Regional Trail

## South Segment: Interstate 94 to Cottage Grove Ravine Regional Park Master Plan

**Washington County, MN**

Draft, September 6, 2017

Prepared for:



Prepared by:









# Acknowledgments

The Central Greenway Regional Trail Master Plan has been a team effort led by a dedicated group consisting of Washington County staff, along with local city and agency staff.

## Project Steering Committee

- » Connor Schaefer, Washington County
- » John Elholm, Washington County
- » Peter Mott, Washington County
- » Ann Pung-Terwedo, Washington County
- » Patricia Galligher, Washington County
- » Bob Klatt, City of Woodbury
- » Zac Dockter, City of Cottage Grove
- » Matt Moore, South Washington Watershed District
- » John Loomis, South Washington Watershed District
- » Andy Schilling, South Washington Watershed District

## Consulting Team

- » SRF Consulting Group, Inc.







# Executive Summary

The Central Greenway Regional Trail will enhance the region's multi-modal transportation and recreation system by providing a safe and accessible trail connection between three of the region's premier regional park facilities, Big Marine Park Reserve, Lake Elmo Park Reserve and Cottage Grove Ravine Regional Park. The Central Greenway Regional Trail will provide direct connections for people living in the suburban communities of Lake Elmo, Cottage Grove and Woodbury to vital employment, retail, and recreational sites in the east metropolitan area – providing safety, economic development, mobility, and environmental benefits.

## Trail Location

This trail master plan will cover segments of existing and proposed trail between I-94 and Cottage Grove Ravine Regional Park. The 4.0 mile trail segment between I-94 and County Road 18/Bailey Road is developed. This plan includes designating these segments as a regional trail. This plan also proposes developing 5.65 miles of trail that will connect County Road 18/Bailey to Cottage Grove Ravine Regional Park. A majority of the trail distance exist on both the east and west side of County Road 19/Keats Avenue.

## Natural Resource Description

The Central Greenway Regional Trail corridor is located in a suburban edge area with connections to local and regional trails and parks in both the City of Woodbury and the City of Cottage Grove. The trail corridor is mostly flat. The Central

Greenway Regional Trail provides access high quality nature resources in the Cottage Grove Regional Park. The park's terrain includes hardwood and dry oak forest, oak savanna, and prairie.

The Minnesota Land Cover Classification System (MLCCS) identifies the majority of the Central Greenway Regional Trail route as two main land covers. North of Bailey Road the land cover is predominantly impervious. South of Bailey Road the land cover is predominantly agricultural land, except southwest of 70th Street S., which the MLCCS identifies as impervious. There are several locations adjacent to the corridor that the MLCCS identifies as forest and short grasses, including Eagle Valley Golf Course and Prestwick Golf Club.

## Development Concept

A fully developed Central Greenway Regional Trail will act as a central arterial route. This is an important link in Washington County's trail network and will connect to many of region's amenities. When fully developed, the Central Greenway Regional Trail will provide residents of Washington County with direct access to a regional trail that connects three premier regional park facilities: Big Marine Park Reserve, Lake Elmo Park Reserve and Cottage Grove Ravine Regional Park. In addition, the regional trail will provide a separated, off-road facility for recreation and transportation purposes that will connect with adjacent local trails and other recreation amenities, such as Eagle Valley Golf Course and a future city park along the west side of Keats Avenue in Cottage Grove.



Central Greenway Regional Trail Segments				
Segment	From	To	Along	Length
A	I-94	Valley Creek Road	County Road 19/Keats Avenue	2.0 Miles
B	Valley Creek Road	Bailey Road	County Road 19/Keats Avenue	2.0 Miles
C	Bailey Road	Crossroads Church	County Road 19/Keats Avenue	1.85 Miles
D1	Crossroads Church	Military Road	County Road 19/Keats Avenue	1.0 Mile
D2	Crossroads Church	Military Road	Off-Road Alignment West of Crossroads Church	1.6 Miles
E	Military Road	85th Street	County Road 19/Keats Avenue	1.6 Miles
F	85th Street	Park Entrance	County Road 19/Keats Avenue	1.2 Miles

Figure I: Central Greenway Regional Trail Proposed Alignment

### Trail Segments

The section of the Central Greenway Regional Trail covered in this master plan has been divided into six segments (Figure 15) that are composed of developed and undeveloped trail. The trail segments generally follow the County Road 19/Keats Avenue alignment but there are two exceptions. The first is in Lake View Knolls Park where the trail follows existing park trails south until Valley Creek Road. The second location is west of Crossroads Church, where an alternate alignment has been identified that would extend the trail off-road for a distance of 1.6 miles, connecting at Military Road with the proposed trail corridor as it extends south along the west side of County Road 19/Keats Avenue. Washington County will determine which alignment is best suited for trail development at a future date.

### Implementation

It is anticipated that the regional trail will be implemented in stages, with the construction of various stages driven by available funding and local factors, such as timing of adjacent roadway improvements, and public desire to expand the

regional trail system. Until the corridor is fully developed, gaps in the regional trail will exist. However, the ultimate trail geometry will consist of a 10-foot-wide (minimum) paved surface, separate from any adjacent roadway, so that trail users will not share the roadway with motorized vehicles.

### Development Costs

Regional trail development includes the cost to prepare the site; reconfigure roadways as required; modify drainage patterns where necessary; pave the trail; and install signage, striping, and landscaping. In total, the estimated development cost for the Central Greenway Regional Trail is \$7,901,000. The cost for development from I-94 to Bailey Road, including rest stops, signage and pedestrian crossing upgrades is estimated to be \$1,299,000, including contingencies. Improvements for the existing segment of trail from Bailey Road to the Cottage Grove Ravine Regional Park entrance is estimated to cost \$6,602,000, including contingencies. The total cost for acquisitions within the proposed corridor is \$470,500.



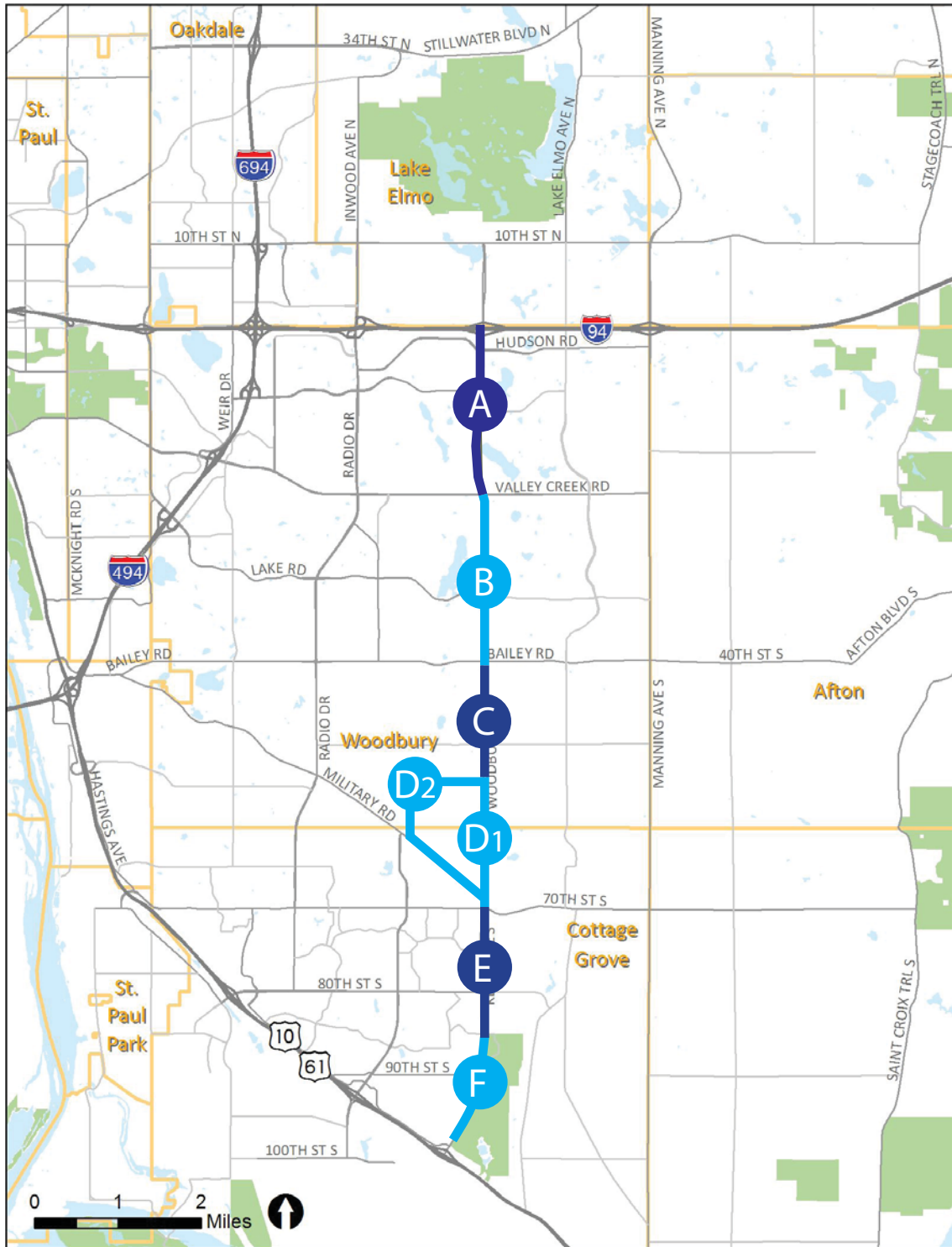


Figure II: Central Greenway Regional Trail Segment Map.







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# Introduction

The Central Greenway Regional Trail will enhance the region's multi-modal transportation and recreation system by providing a safe and accessible trail connection between three of the region's premier regional park facilities, Big Marine Park Reserve, Lake Elmo Park Reserve and Cottage Grove Ravine Regional Park. The Central Greenway Regional Trail will provide direct connections for people living in the suburban communities of Lake Elmo, Cottage Grove and Woodbury to vital employment, retail, and recreational sites in the east metropolitan area – providing safety, economic development, mobility, and environmental benefits.

When completed, the trail route will measure approximately 25 miles from Big Marine Park Reserve at the north end of the corridor to Cottage Grove Ravine Regional Park at the south end of the corridor. Opportunities for local trail connections will exist along the proposed trail route, and there will be connections to other local attractions including community parks and golf courses.



*The Central Greenway Regional Trail will extend south along County Road 19/ Keats Avenue through the Cities of Woodbury and Cottage Grove.*



*The Central Greenway Regional Trail will connect with trails in Cottage Grove Ravine Regional Park.*



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# Section I: Boundaries & Acquisitions

## Location and Contextual Relationship

The Central Greenway Regional Trail will extend from Big Marine Park Reserve in May Township south to Cottage Grove Ravine Regional Park in the City of Cottage Grove. The trail will be a Regional Linking Trail, as defined by the Metropolitan Council. Linking trails are intended to provide connections between regional parks or park reserves. The Central Greenway Regional Trail will provide a connection between Big Marine Park Reserve and Cottage Grove Ravine Regional Park, generally along the County Road 19/Keats Avenue corridor. County Road 19/Keats Avenue is also referred to as Woodbury Drive, Keats Avenue North, Chemolite Road South and Innovation Road. For this master plan, the roadway will be referred to as County Road 19/Keats Avenue.

This trail master plan will cover the two segments of existing and proposed trail between I-94 and Cottage Grove Ravine Regional Park. The 4.0 mile trail segment between I-94 and County Road 18/Bailey Road is developed, and for a majority of this distance, trails exist on both the east and west side of County Road 19/Keats Avenue. One purpose of this master plan is to identify which existing trail segments will become part of the Central Greenway Regional Trail, and which segments will remain local trails.

South of County Road 18/Bailey Road, there are only small segments of existing trail, interspersed along both sides of County Road 19/Keats Avenue, and in varying conditions. The purpose of the master plan for this 5.65 mile segment of trail is to identify the best location for the trail to connect

the existing trails north of County Road 18/Bailey Road to Cottage Grove Ravine Regional Park.

The Cities of Woodbury and Cottage Grove have plans for extensive local trail systems. Woodbury's local trail system is more fully developed than Cottage Grove's system, due, in part, to the level of development within the cities, in this part of Washington County. As development in Cottage Grove expands to the south, the local trail system will expand accordingly.

In addition to the local trail systems, South Washington Watershed District owns several parcels of property along the County Road 19/Keats Avenue corridor, which may play an important role in providing locations for local trails to connect between existing and future neighborhoods and connections to the Central Greenway Regional Trail.

## Acquisition Status

The Central Greenway Regional Trail consists of developed and undeveloped segments in the corridor between Interstate 94 and Cottage Grove Ravine Regional Park. Existing local trails between Interstate 94 and Bailey Road will be identified as segments of the regional trail. No land acquisitions are needed for this segment of trail.

The Central Greenway Regional Trail south of County Road 18/Bailey Road is mostly undeveloped. As a general guideline, Washington County Parks will attempt to work within the established right-of-way along County Road 19/Keats Avenue. Washington County will coordinate with the local municipalities and other potentially affected agencies,





Figure 1: Central Greenway Regional Trail Location



including MnDOT, as needed. The proposed trail alignments along County Road 19/Keats Avenue south of Bailey Road have been identified with the understanding that future roadway improvements, such as widening the road to four lanes, would require additional right-of-way. If, in the future, the County expands the roadway and additional land is acquired, it is assumed that the proposed roadway plans will include trail in the design. As such, additional right-of-way acquisitions, if needed for incorporating the regional trail adjacent to a future county road widening project, was not studied as part of this master plan.

In the event Washington County does not expand County Road 19/Keats Avenue or trail development precedes roadway improvements, additional right-of-way will be required to develop the proposed trail. The amount of right-of-way required depends on the existing conditions. There are three locations identified in this master plan where additional right-of-way may be required to develop or improve the proposed regional trail. These segments and the right-of-way needed are identified in more detail below and in Figure 3.

#### **Acquisition Area A**

Segment C is the proposed trail segment that will extend the regional trail along the west side of County Road 19/Keats Avenue from Bailey Road to Crossroad Church. This plan calls for an underpass located north of Dale Road and south of Bailey Road (see Figure 16). 0.25 acres of additional right-of-way is needed to accommodate the underpass.

#### **Acquisition Area B**

Segment D2 is the alternate alignment that would extend the trail west from County Road 19/Keats Avenue north of Crossroads Church south to Military Road on land that

is owned by the City of Woodbury, South Washington Watershed District and is presently in agricultural use. One parcel is owned by a private corporation. This segment is approximately 1.75 miles long and would require a corridor twenty feet wide to accommodate a new trail with clear zones and room for drainage and grading modifications. The total estimated acquisition needed for this segment is 4.25 acres.

#### **Acquisition Area C**

There is an existing trail between 80th Street and 85th Street on the east side of County Road 19/Keats Avenue that is eight feet wide. The trail is adequate on a short-term basis, until a permanent trail on the west side of County Road 19/Keats Avenue can be developed. This segment is approximately 0.50 miles long and to develop a trail along the west side of the County Road, an additional ten feet of right-of-way would be needed to accommodate a new trail with clear zones and room for drainage and grading modifications. The total estimated acquisition needed for this segment is 0.60 acres.

#### **Acquisition Area D**

Segment F is the proposed trail segment that will extend the regional trail along the west side of County Road 19/Keats Avenue between 85th Street South and the proposed new entrance to Cottage Grove Ravine Regional Park. There are nine parcels along this proposed segment of trail that may be impacted. Land use includes five single-family lots, a church and agricultural fields. This segment is approximately 0.85 miles long and would require an additional twenty feet of right-of-way to accommodate a new trail with clear zones and room for drainage and grading modifications. The total estimated acquisition needed for this segment is 2.0 acres.



## Boundaries & Acquisition Costs

The Central Greenway Regional Trail corridor is planned for development within the County Road 19/Keats Avenue right-of-way, with an alternate alignment that may extend west into Woodbury and Cottage Grove. Several segments of the proposed regional trail exist and need little or no improvement. Three segments may need additional right-of-way for development. These segments are described in Section I: Boundaries & Acquisitions. The anticipated cost to acquire the necessary right-of-way for these segments is approximately \$470,500, as shown in Figure 16. Development of trail underpasses may require additional right-of-way, which will depend on the final alignment. Determination of the final alignment of potential underpasses will require coordination with other Washington County agencies, adjacent communities, MnDOT and the South Washington Watershed District.

It is estimated that the underpass located south of 85th Street will require additional right-of-way. The right-of-way needed is included in the 2.0 acres acquisition measurement indicated for the Acquisition Area D in Figure 2.

An additional 0.25 acres of right-of-way is needed for the underpass north of Dale Road. This includes widening the ROW an extra 15 feet, both on the west and east side of County Road 19/Keats Avenue for a short segment indicated on Figure 3. The estimated cost for this acquisition is indicated in Figure 2.

### Willing Seller Policy

The regional trail acquisition process is typically a “willing-seller” approach. This means parcel acquisition typically occurs when a property owner is willing and ready to sell, and several acquisition alternatives are often evaluated to best meet the needs of the property owner and the implementing agency. In addition, it is also common for an

implementing agency to closely coordinate with local and regional agencies to partner on other opportunities that may assist in securing the required trail right-of-way. In turn, it is difficult to determine when acquisition will occur and when the trail construction will begin. Acquisition alternatives may include the following:

- » Route the regional trail to use portions of the property with marginal development potential. This could include land adjacent to wetland or flood fringes.
- » Acquire regional trail easements for the trail route through owner/developer negotiations that may include redevelopment incentives.
- » Work with the city and owner/developer to secure park dedication lands for the regional trail in advance of the actual development as applicable.
- » Coordinate with city initiatives that may result in the acquisition of the entire property/parcel, with the intent to resell the property subject to easements for the regional trail.
- » Acquire the development rights to the property. Development areas would then be negotiated with the developer.
- » Accept donations for portions of the property for the regional trail corridor.
- » Acquire a portion of the property through purchase.

Future Acquisition Summary	Acres	Cost*
Acquisition Area A	0.25	\$20,000
Acquisition Area B	4.25	\$164,000
Acquisition Area C	0.6	\$11,500
Acquisition Area D	2.0	\$275,000
Total	7.1 (approx.)	\$470,500
* Based on 2017 tax assessed value of adjacent property.		

Figure 2: Land Acquisition and Acreage Summary



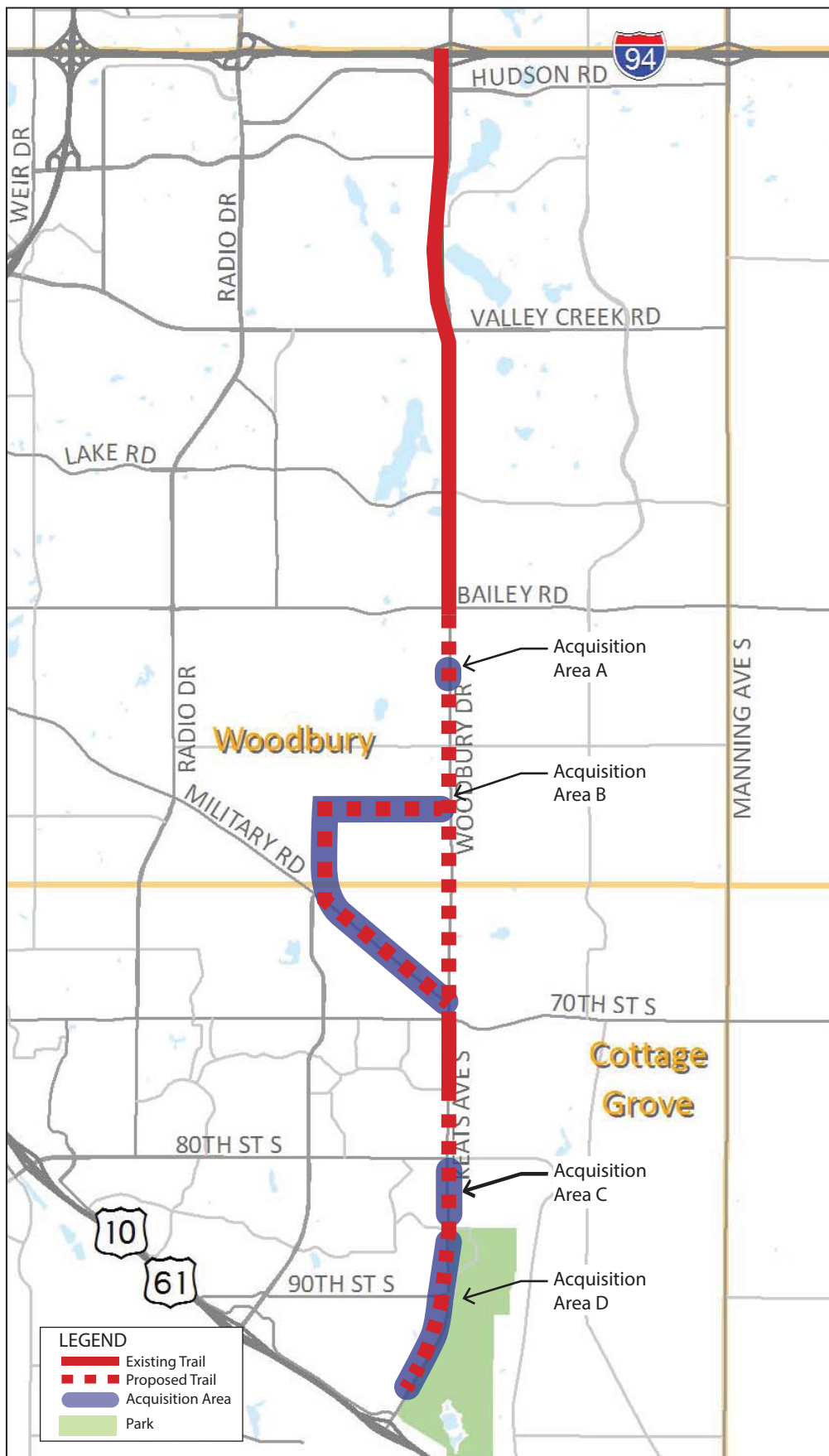


Figure 3: Land Acquisition Map



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## Section II: Natural Resources

The Central Greenway Regional Trail corridor is located in a suburban edge area with connections to local and regional trails and parks in both the City of Woodbury and the City of Cottage Grove. The trail corridor is mostly flat.

The Minnesota Land Cover Classification System (MLCCS) identifies the majority of the Central Greenway Regional Trail route as two main land covers. North of Bailey Road the land cover is predominantly impervious. South of Bailey Road the land cover is predominantly agricultural land, except southwest of 70th Street S., which the MLCCS identifies as impervious. There are several locations adjacent to the corridor that the MLCCS identifies as forest and short grasses, including Eagle Valley Golf Course and Prestwick Golf Club.

The Minnesota Department of Natural Resources (DNR) has documented several rare species and high-quality plant communities near the Central Greenway Regional Trail corridor. A one-mile buffer surrounding the project limits was evaluated for the presence of rare plants, animals, native plant communities, and other rare features using Geographical Information Systems (GIS) in conjunction with the MnDNR's Natural Heritage Information System (NHIS) (Copyright 2014 State of Minnesota, Department of Natural Resources). The Natural Heritage data is provided by the Division of Ecological Resources, Minnesota DNR, and was current as of December 2014 (license agreement 625). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.

All documented observances are not directly adjacent to the regional trail and are not anticipated to be impacted by the regional trail. There were seven species identified within three-mile of the Central Greenway Regional Trail. A complete list of species is provided in Appendix B.

No specialized maintenance or construction is proposed for the regional trail corridor to manage any wildlife adapted to urbanized conditions. The Central Greenway Regional Trail provides access high quality natural resources in the Cottage Grove Ravine Regional Park. The park's terrain includes hardwood and dry oak forest, oak savanna, and prairie.

### Native Plantings & Pollinator Habitats

Washington County is committed to providing healthy habitat for wildlife. This includes pollinators, such as bees, birds, bats, and other insects, who play a crucial role in flowering plant reproduction and in the production of most fruits and vegetables. Providing habitat for pollinators has a number of benefits:

- » Native flowers and the wildlife they attract will add visual interest to the corridor.
- » Habitat corridors provide the connectivity of habitats that are important for species migration, dispersal, and mixing.
- » Prairie plants help infiltrate water, one acre of established prairie can absorb 9" of rainfall per hour before runoff occurs - capturing stormwater pollutants and increasing groundwater recharge.
- » Cost savings from a reduction in mowing area and frequency.
- » Reduced noise and air pollution.
- » Increases food production for neighborhood gardens and farms.
- » Habitat offers opportunities for people to connect to the land via education, volunteering and community involvement.



In the development of the Central Greenway Regional Trail, the County will consider planting pollinator-friendly vegetation along the trail buffer, outside a 2-foot mowed shoulder. The vegetation will be planted where appropriate, as to match the aesthetic of the adjacent landscape. Specific locations will be determined during the design and development phase. In particular, the portion of the trail south of Bailey Road will be considered because it is surrounded by undeveloped or rural land and most of the trail segments are yet to be built. Diverse seed mixes will be comprised of native grasses and flowers, as recommended by the Minnesota Department of Natural Resources Field Guide to the Eastern Broadleaf Forest Province Native Plant Communities.

Where pollinator-friendly vegetation is planted, Washington County will coordinate the necessary maintenance. This will include annual mowing during the first one to two years of establishment to provide sunlight and to decrease competition for seedlings. Once established, the following maintenance activities will be used; controlled burns, haying and mowing, and noxious weed control on an as-needed basis, based on yearly staff assessments.

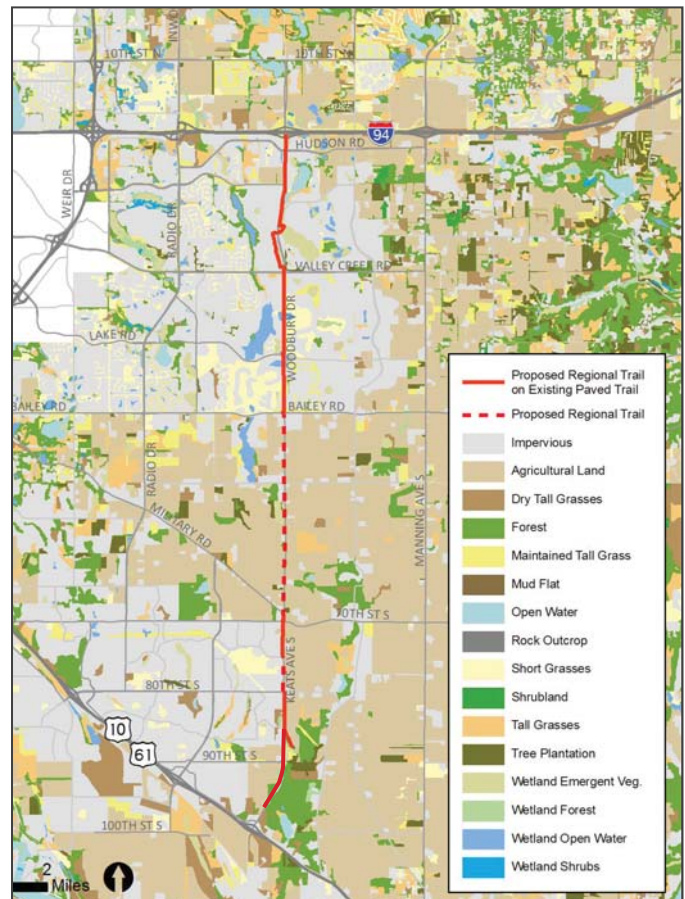


Figure 4: MLCCS Map



## Section III: Demand Forecast

### Demographic Overview

In general, recreation use trends are affected by demographic trends. By analyzing statewide and regional data, Washington County can begin to assess how the Central Greenway Regional Trail will function within the larger trail network.

### Statewide and Regional Trends

The 2014-2018 State Comprehensive Outdoor Recreation Plan (SCORP), published by the Minnesota DNR, gives outdoor recreation decision-makers and managers a focused set of priorities and suggested actions to guide them as they make decisions about outdoor recreation. The SCORP outlines outdoor recreation trends, challenges, and issues, including protecting existing natural resources, sustaining existing facilities, promoting healthy lifestyles, connecting people with nature, and an increasing demand for a diverse range of recreation opportunities based upon population changes.

The Metropolitan Council's 2040 Regional Parks Policy Plan notes that, according to SCORP, several studies show that involvement in nature-based outdoor recreation among young adults and their children had decreased since the 1990s. SCORP also notes that location plays an important role because many users of the regional trail system live within three miles of the park or trail that they utilize. Regional trails play an important role because they provide healthful forms

of exercise for people of all age groups that can be carried out by families, groups, or individuals.

According to SCORP, Minnesota's growth rate has increased since 2000, but at a slower rate than in the 1990s. Although population growth in the state has slowed, the geographic pattern of growth remained largely the same with the high growth areas centered on the Twin Cities metropolitan area. This new growth will fuel demands for near-home recreation opportunities in these areas. The Metropolitan Council's Thrive 2040 MSP forecasted growth rate for the Central Greenway Trail's primary service area is anticipated to increase by close to 30,000 people (Figure 9). Outside factors such as gas prices, trail infrastructure improvements, and increased local sidewalk and trail network connectivity, may also promote increased use as trail users look for more recreation opportunities closer to home and use of the regional trail system as part of their transportation network. Within fully developed areas where population levels are expected to remain relatively stable, trail visitation levels and type of use will also reflect shifting demographics of those areas.

### Methodology

To analyze demographics specific to the Central Greenway Regional Trail, Washington County used a quantitative measuring methodology that identifies a primary service area that is three miles on all sides of the proposed trail corridor



(Figure 5). This methodology provides detail specific to the primary service area for the proposed trail corridor, which is defined as users within three miles of the trail corridor. The demographic data on the following pages is based on the primary service area.

### Aging Population

While the trend of young adults and their children shows a reduction in their involvement in nature-based recreation, SCORP notes that older adults have maintained a more stable involvement in outdoor recreation. Older adult recreation habits are well established and demand for their preferred activities will continue to be strong. However, as this group ages, physical limitations will require some park and trail visitors to change their recreational activities from higher

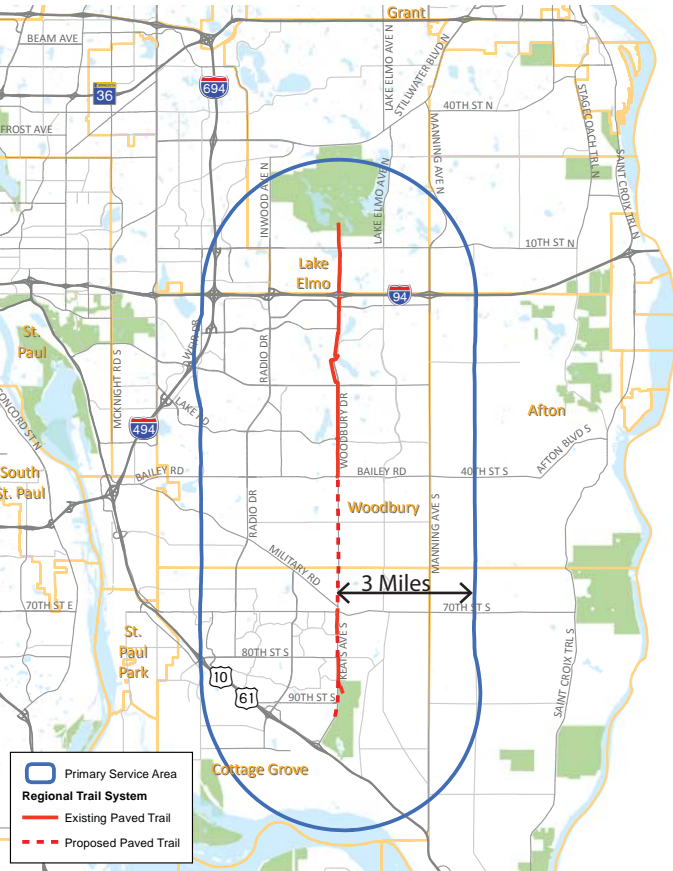


Figure 5: Trail Primary Service Area Map

intensity activities such as running, in-line skating, and biking to lower-impact recreational activities such as walking, nature observation, and educational opportunities. Figure 7 shows that approximately 25 percent of the residents in the primary service area are currently between the ages of 40 and 55. Many of these activities are accommodated by the regional trail system. The Central Greenway Regional Trail provides a

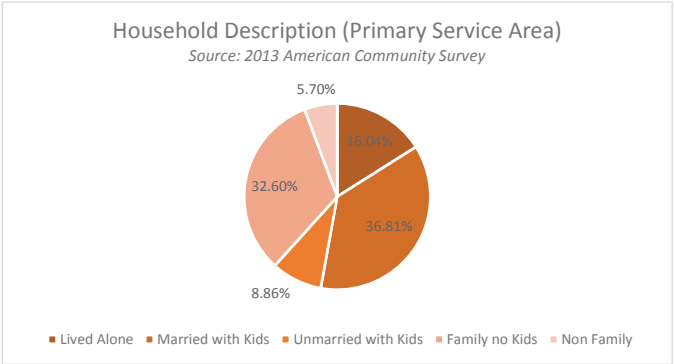


Figure 6: Household Description

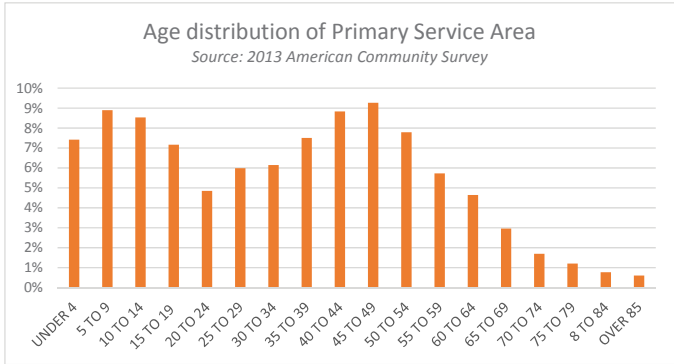


Figure 7: Age Distribution

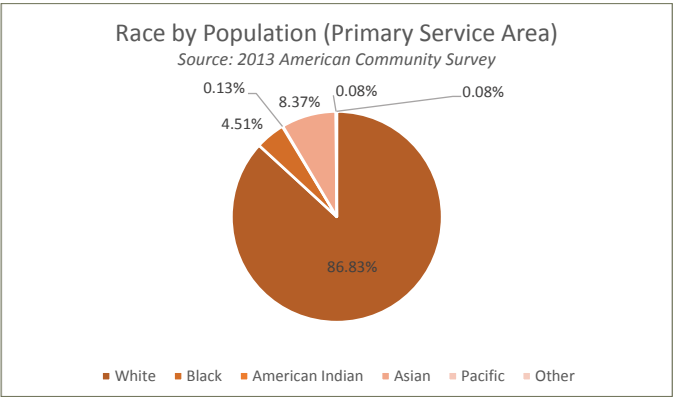


Figure 8: Race



recreational opportunity for older residents. A continuous, wide, and separated trail with limited elevation changes will serve this population well.

## Minority Populations

Metropolitan Council demographers anticipate that by 2040, 40 percent of the region's population will be people of color, compared with 24 percent in 2010. Within the region, there are three prevalent immigrant groups: Hmong/Southeast Asians, Hispanic/Latino, and Somali/West Africans. Within the primary service area, 13 percent of the population are non-white (Figure 8). Washington County will look to provide trail amenities to accommodate trail users of all backgrounds. One strategy that will be explored is providing multi-lingual signage.

## Other Trends Affecting Recreation

A 2013 study by the Minnesota Department of Health found that statewide 26 percent of adults were obese and 36 percent were overweight. Obesity is a key predictor for many future health problems, including diabetes. Lack of adequate exercise – partially resulting from inadequate outdoor recreation facilities or opportunities – is often cited as a contributor to obesity. Many young people are not getting enough exercise and face future health risks as a result. The economic health of the state relies on continued use and enjoyment of our outdoor recreation resources. Availability

of a wide range of outdoor recreation opportunities is one of the factors most often cited as contributing to the state's perceived high quality of life. Participation in outdoor recreation may correspond to a greater interest in and support for measures to protect land, facilities, and resources necessary to ensure those same activities are available for future generations.

Population growth in the region and the primary service area will lead to an increase in the demand for recreational opportunities within Washington County. New trails, such as the Central Greenway Regional Trail, will be needed to accommodate the increase in demand.

## Active Living By Design – A Complementary Vision

The “active living by design” movement gaining momentum across the country complements the vision for the regional trail. As stated by one of the initiators of the movement, active living by design “is a way of life that integrates physical activity into daily routines.” Key principles of this movement as it pertains to this plan include:

» Physical activity is a behavior that can favorably improve health and quality of life.

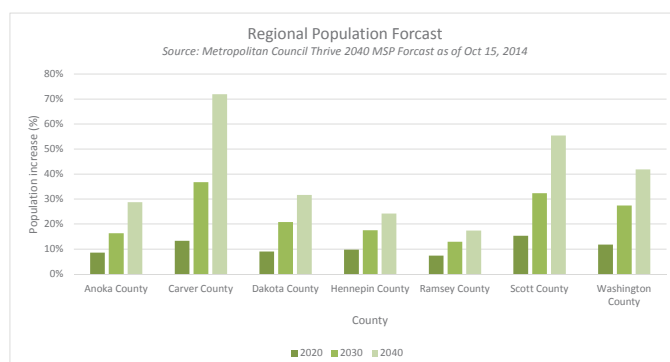


Figure 9: Regional Population Forecast

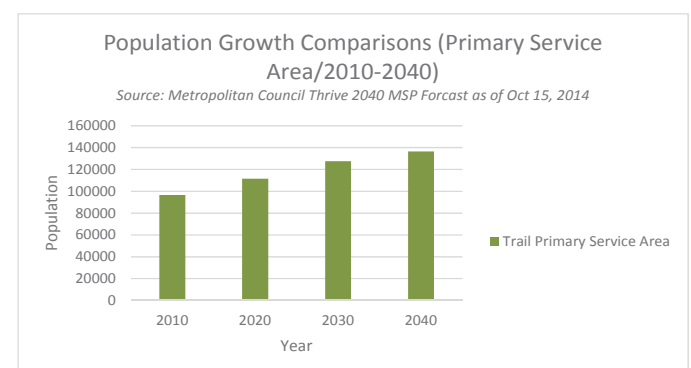


Figure 10: Population Growth Comparisons



»Everyone, regardless of age, gender, language, ethnicity, economic status or ability, should have safe, convenient and affordable choices for physical activity.

»Parks and trails, should be safe, accessible and part of a transportation network that connects destinations of interest, such as other parks, housing, schools, work sites, transit, community services and businesses.

»Municipalities and other governing bodies should plan for ongoing interdisciplinary collaboration, promotion of facilities, behavioral supports, policies that support the vision of active living, and routine maintenance that ensures continued safety, quality and attractiveness of the physical infrastructure and the natural environment.

The following provides an overview of pertinent findings from research that supports the active living movement and development of this regional trail.

### Physical Activity/Preventing Obesity

Physical inactivity causes numerous physical and mental health problems, is responsible for an estimated 200,000 deaths per year in the United States, and contributes to the obesity epidemic. The design of communities and the presence or absence of parks, trails, and other quality public recreational facilities affects people's ability to reach the recommended 30 minutes each day of moderately intense physical activity. A growing number of studies show that people in activity-friendly environments are more likely to be physically active in their leisure time.

For example, research findings clearly indicate that better access to facilities, pleasant surroundings, safe places, walkable neighborhoods, and activity-friendly environments all encourage higher levels of active recreation. Proximity, connectivity, and design quality of trails can be added to this list to encourage more active lifestyles.

This is especially the case with children, where better access to healthy choices is vital to reducing the rate of obesity. Since the 1970s the percentage of obese children 6 to 11 years old has tripled. Obesity has doubled among preschool children and adolescents. Turning these statistics around means increasing children's physical activity and improving what they eat.

### Connectivity and Accessibility

Being able to reach or access a variety of destinations (e.g., parks, retail areas, tourist site, workplaces, health services, grocery stores) via trails is critical to many dimensions of a healthy community and healthy personal lifestyle. Ensuring that trails meet ADA standards is important to accommodate the broadest cross-section of user groups.

### Mental Health

A number of studies have demonstrated how being outdoors and in direct contact with nature leads to improved mental health and psychological development. Recent data show that mental health disorders will account for some of the world's largest health problems in upcoming decades. People do not have to actively use nature to benefit from it; rather, visual exposure is enough. The outdoor experience offered along the Central Greenway Regional Trail will, at some level, contribute positively to the collective well-being of the communities along the trail corridor.

### Statewide Health Improvement Program (SHIP)

Washington County, through the SHIP program, has developed the Living Healthy in Washington County initiative in order to implement policies and practices that create active communities by increasing opportunities for non-motorized transportation and access to community resources and recreation facilities.



## Section IV: Development Concept

When fully developed, the Central Greenway Regional Trail will provide residents of Washington County with direct access to a regional trail that connects three premier regional park facilities: Big Marine Park Reserve, Lake Elmo Park Reserve and Cottage Grove Ravine Regional Park. In addition, the regional trail will provide a separated, off-road facility for recreation and transportation purposes that will connect with adjacent local trails and other recreation amenities, such as Eagle Valley Golf Course and a future city park along the west side of County Road 19/Keats Avenue in Cottage Grove.

### Regional Bicycle Transportation Network

Washington County trails and the local trail network are further supported and enhanced by the Regional Bicycle Transportation Network (RBTN), which is identified as part of the 2040 Transportation Policy Plan (TPP). The RBTN helps define the region's on-street bikeways and off-street trail connections, and how they work together to serve regional transportation trips by bicycle. The RBTN is also used to identify corridors and alignments for future trail development and infrastructure investments. These corridors and alignments provide transportation connectivity to outlying regional destinations within and beyond the urban/suburban areas and serve to connect priority regional bicycle transportation corridors/alignments. County Road 19/Keats Avenue from I-94 to the Cottage Grove Ravine Regional Park entrance is recognized as a Tier 2 Corridor and assigned the second tier priority for regional transportation funding. Thus, the proposed alignment for the Central Greenway Regional Trail should be considered for inclusion as a Tier 2 alignment in the TPP update (2018), making it fully eligible for the Metropolitan Council's Regional Solicitation for federal transportation funds.

### Development Plan

#### Permitted Regional Trail Uses

The regional trail will be open to the general public. Its intended uses include walking, jogging, in-line skating, bicycling, and

other uses mandated by state law including, but not limited to, non-motor electric personal assisted devices. Motorized vehicle and equestrian uses will be prohibited, except for motorized vehicles used by the Washington County and partner cities for maintenance or law enforcement activities or otherwise permitted for ADA access.

### Regional Trail Design Guidelines

The trail design for the Central Greenway Regional Trail is a 10-foot-wide paved surface separated from vehicular traffic. There may be instances that require the trail to be temporarily reduced in width for short segments until funding is available to improve sections that do not meet typical regional trail design guidelines (Figure 14). A bituminous trail surface is preferred because it is cost-effective, less prone to erosion than aggregate surfaces, provides for a more desirable trail user experience.

A number of factors will be taken into consideration as final designs for unconstructed segments are implemented, such as:

- » Right-of-way width
- » Topography and drainage impacts
- » Existing vegetation
- » Curb cuts and driveway crossings
- » Overhead and subsurface utilities
- » Intersection crossings
- » Proximity to adjacent buildings, homes, farms, businesses and churches

In circumstances with limited right-of-way, trails will still be located off-road, but with less boulevard between the trail edge and back of curb. In these locations, the trail will be separated from the road by a minimum paved two-foot-wide clear zone. This paved clear zone between the back of curb and trail edge provides a buffer between the trail users and



motorists and will be striped to delineate the edge of the trail. Curb ramps will be used at all roadways. Regional trails should have a maximum of five percent grade and a cross slope of two percent for drainage. A regional trail may be wider than 10 feet if forecasted user volumes warrant an increased width and space is available for the trail. In addition, where right-of-way allows, final trail design will attempt to maximize the boulevard width to account for sign placement and snow storage.

Regional trail segments will be designed in accordance with all applicable federal, state, and local codes. In addition, the following sources will be referred and adhered to when preparing the design and construction plans as appropriate:



Figure 11: Typical Trail Cross-Section

- » Guide for the Development of Bicycle Facilities, prepared by the American Association of State Highway and Transportation Officials (AASHTO), 2012
- » MnDOT Bikeway Facility Design Manual, Minnesota Department of Transportation (MnDOT), March 2007
- » State Aid Rule 8820.9995 Minimum Bicycle Path Standards, State Aid for Local Transportation
- » Trail Planning, Design, and Development Guidelines, Minnesota Department of Natural Resources (MnDNR)
- » Manual on Uniform Traffic Control Devices (MUTCD), MnDOT, 2014
- » Public Right-of-way Access Guidelines (PROWAG)
- » Best Practices for Traffic Control at Regional Trail Crossings, A collaborative effort of Twin Cities road and trail managing agencies, July 2011
- » Selecting Roadway Design Treatments to Accommodate Bicycles, Federal Highway Administration, January 1994
- » Bicycle and Pedestrian Wayfinding, Metropolitan Council, October 2011



## Primary Trail Design Elements

### Trail Crossings

The suburban setting for the Central Greenway Regional Trail requires that it coexist with higher volume roadways. There are numerous locations where the regional trail crosses such roadways, including:

- Hudson Road
- Commerce Drive
- Valley Creek Road
- Lake Road
- Bailey Road
- 70th Street S.

The types of trail crossing treatments appropriate for each crossing location will be designed in accordance with industry best practices, in order to minimize conflicts between trail users and roadway traffic.

In all cases, existing roadway configuration, infrastructure elements, vegetation, and other potential visual obstructions will be evaluated so sight lines can be maintained. Special provisions, such as mirrors, may be added to improve trail visibility from driveways if deemed appropriate. As vehicular traffic fluctuates, there may be a need for additional traffic signals or modifications to existing signalized intersections. These type of design considerations and trail enhancements will be addressed during the trail design development phase.

### Trail Underpasses

In some situations where the regional trail crosses higher volume roadways it may be appropriate to install a grade-

separated trail underpass. The benefit of a trail underpass is that it provides safe access to the other side of a high-volume roadway without interaction with vehicular traffic. Several factors need to be considered when planning the location for underpasses. Groundwater levels, existing grades and sufficient right-of-way are all important considerations to assess when locating underpasses. These types of design considerations and trail enhancements will be addressed during the trail design development phase.

## Supporting Trail Elements

Trail wayfinding signage, traffic signage and devices, rest stops, and drainage are important elements of regional trails. Their proper design and placement add both aesthetic and functional value to the trail.

### Trail Amenities

**Wayfinding Signage:** Regional trail wayfinding signage provides trail users with orientation and location information for amenities and services. Wayfinding signage may provide:

- » An overview map of the regional trail network in Washington County, and the specific regional trail.
- » Directions and distances to major destinations and points of interest along the regional trail.
- » Directions for long-term detours or interim routes when there are gaps within the regional trail.
- » Location information for nearby amenities such as local parks and local trails. The Cities of Woodbury and Cottage Grove's parks and trail plans are included in the appendix.
- » Location information for nearby services, such as drinking water, public restrooms, and public parking.



» Visual identification of the regional trail network through physical kiosk/signage structures.

The suburban nature of the Central Greenway Regional Trail requires wayfinding signage at strategic delineated points (Figure 12 & Figure 13). These typically include major roadway intersections with other trails, trailheads, parks or other adjacent public facilities. The exact location and content of wayfinding signage will be determined in conjunction with local community input and is often dictated by available public right-of-way.

Washington County Parks uses kiosks in their parks as wayfinding signage to identify trail routes and system amenities. Developing directional signage for the Central Greenway Regional Trail that includes visual indication of direction and location of points of interest along the trail will benefit trail users along the trail route. The design of the directional sign can include arrow blades and/or text to identify features. Descriptions of each are as follows:

**Kiosks:** A free-standing structure that provides trail users with a map of the park or trail system, the park or trail rules, and general information about the park or trail.

**Directional Signage:** A post structure depicting the direction, the name, and the distance to major destinations and points of interest on the trail.

**Rest Stops:** Rest stops are located at key locations and provide places for trail users to stop and rest along the trail and an area for amenities such as benches, and bicycle racks. These simple but important amenities can serve to reinforce the identity of the regional trail route. Locations for rest stops will be evaluated and incorporated into Central

Directional Sign	Kiosk
I-94 Bridge	City Walk Drive
Markgrafs Lake	Powers Lake Park
Powers Lake Park (2)	Future Cottage Grove City Park
Lakeview Knolls Park	Cottage Grove Middle School
Valley Creek Road Intersection	Cottage Grove Ravine Regional Park
Lake Road Intersection	
Bailey Road Intersection	<b>Rest Stop</b>
Dale Road Intersection	Bailey Road
Watershed District Property (Alignment D2)	Cottage Grove Middle School
Military Road (2) (Alignment D2)	
80 <sup>th</sup> Street South Intersection	
Cottage Grove Ravine Regional Park Entrance	

Figure 12: Wayfinding Signage Locations

Greenway Regional Trail as appropriate during design and implementation. The cost per rest stop is approximately \$6,000 each (2016 dollars).

### Traffic Signage and Devices

In addition to wayfinding signage, the regional trail will incorporate traffic control signs and devices, such as trail stop signs and trail crossing signage. These signs and devices will reflect the physical characteristics and usability of individual trail segments and the system as a whole. Therefore, as trail segments are developed (or reconstructed), trail signs and devices may require modification. The cost to add traffic control signs and devices, to a regional trail is approximately \$1.50 per linear foot.



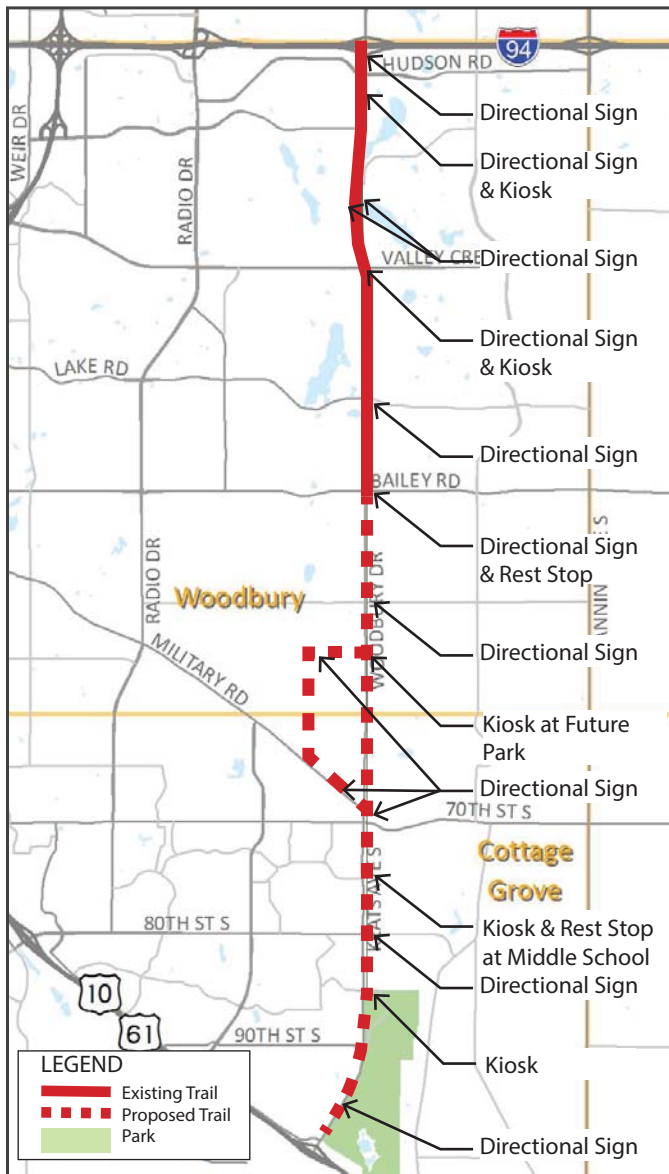


Figure 13: Wayfinding Signage Location Map



Example of kiosk concept and signage for Washington County trails. (Artwork provided by Washington County)



Hardwood Creek kiosk and rest stop. (Photo provided by Washington County)



## Drainage

In many locations, the drainage of the regional trail is similar to that of a typical sidewalk. Stormwater sheet flows over the trail pavement and onto the adjacent roadway, where it is collected and conveyed by the roadway stormwater drainage system. In areas where the regional trail is on an independent route, such as through parks or other green spaces, alternative stormwater best management practices, such as rain gardens and infiltration swales, may be explored during the design



phase of the regional trail. Stormwater must shed rapidly from the surface of the trail to prevent hazardous situations for the users, such as water pooling on the trail surface.

## Sub-Standard Trail Segments

Three existing trail segments do not meet regional trail design standards, which are identified in Figure 14. The proposed trail widening in Lakeview Knolls Park and between 70th Street and Indian Boulevard will fit within existing public right-of-way and no additional acquisition is needed to widen these segments of trail. The trail segment from 80th Street to 85th Street is proposed as a temporary trail alignment, until a

permanent trail can be developed on the west side of County Road 19/Keats Avenue, which is identified as Acquisition Area C in Section I: Boundaries & Acquisitions of this report. It is the intent of Washington County to bring existing segments of trail into compliance when reconstruction is needed, or other opportunities present themselves.

From	To	Length
Lakeview Knolls Park	Valley Creek Road	.60 Miles
70th Street	Indian Blvd.	.50 Miles
80th Street*	85th Street	.50 Miles
*Temporary alignment		

Figure 14: Existing Eight-Foot Wide Trail Segments

## Route Assessment

The section of the Central Greenway Regional Trail covered in this master plan has been divided into six segments (Figure 15) that are composed of developed and undeveloped trail. To preserve and protect the longevity of the trail and rights and responsibilities associated with owning, operating, and maintaining a regional trail, public trail easements are recommended for the entire corridor, regardless of the compliance of existing segments with the design standards of the governing agency. Securing easements to bring non-compliant trail segments into compliance is important, but it is less important than securing easements for trail sections that currently do not exist.

The trail segments are described on the following page.



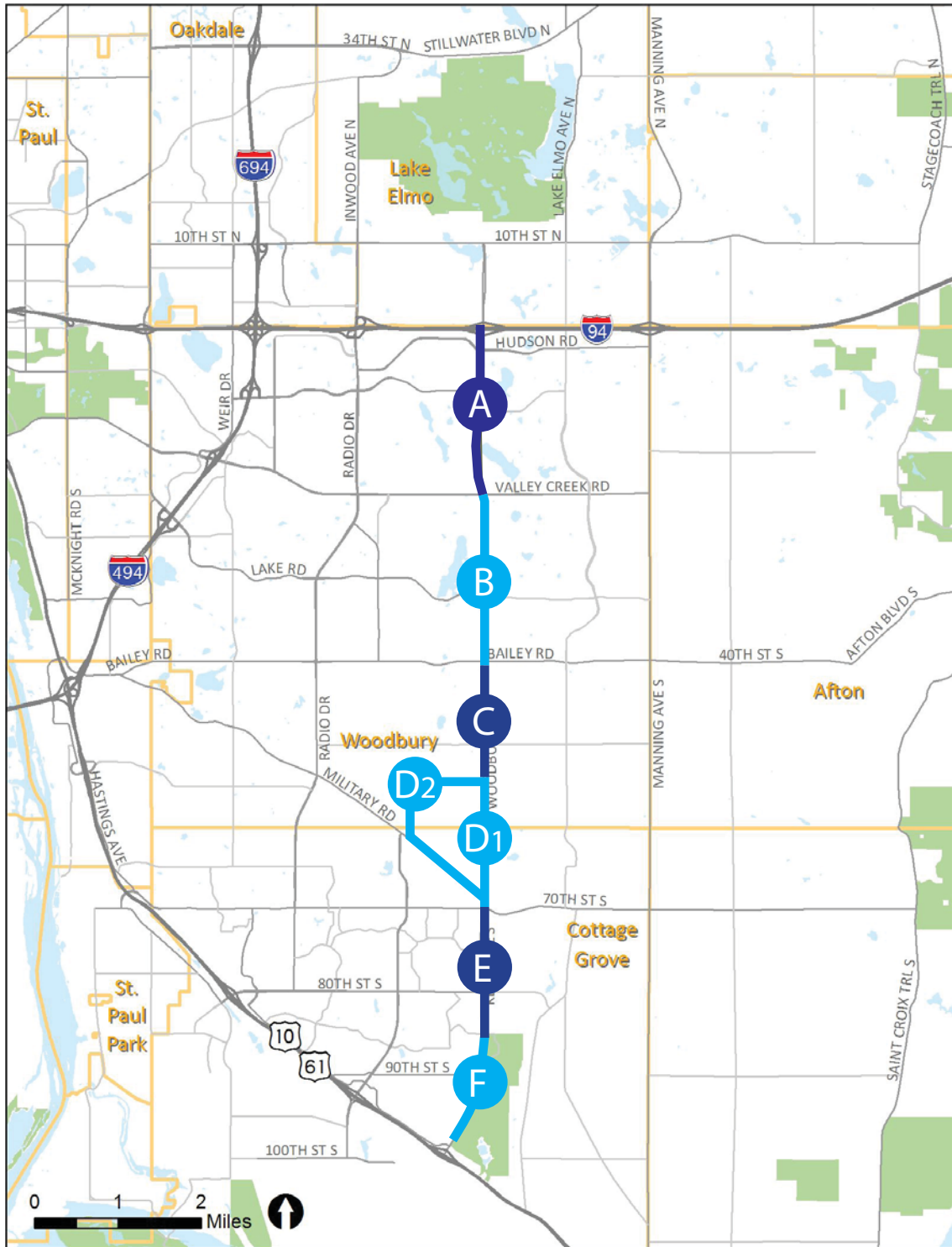


Figure 15: Central Greenway Regional Trail Segment Map



Central Greenway Regional Trail Segments				
Segment	From	To	Along	Length
A	I-94	Valley Creek Road	County Road 19/Keats Avenue	2.0 Miles
B	Valley Creek Road	Bailey Road	County Road 19/Keats Avenue	2.0 Miles
C	Bailey Road	Crossroads Church	County Road 19/Keats Avenue	1.85 Miles
D1	Crossroads Church	Military Road	County Road 19/Keats Avenue	1.0 Mile
D2	Crossroads Church	Military Road	Off-Road Alignment West of Crossroads Church	1.6 Miles
E	Military Road	85th Street	County Road 19/Keats Avenue	1.6 Miles
F	85th Street	Park Entrance	County Road 19/Keats Avenue	1.2 Miles

### Segment A- I-94 to Valley Creek Road

Segment A measures approximately two miles long and extends from I-94 to Valley Creek Road. South of I-94, the Central Greenway Regional Trail will utilize the existing trail along the east side of County Road 19/Keats Avenue, through signalized intersections at Hidden Road, Markgrafs Lake Drive, Tamarack Road, and along the shore of Markgrafs Lake. South of Markgrafs Lake, the regional trail will continue along the existing trail, extending south through a signalized intersection at Wynstone Drive before entering Powers Lake Park. In Powers Lake Park the trail will pass under County Road 19/Keats Avenue through an existing trail underpass, where the trail will cross through Lakeview Knolls Park, still continuing along the existing trail corridor. The trail width through the park and extending to Valley Creek Road is 8-feet wide. The trail will be widened to ten feet at a future date in conjunction with park or roadway improvements. From this point south, the trail will continue on the west side of County Road 19/Keats Avenue. Trail underpass improvements will also be considered at this time.

South of Lakeview Knolls Park, the trail crosses Regatta Drive at a mid-block crossing that is striped, and includes Americans with Disabilities (ADA) compliant pedestrian ramps with raised truncated domes and trail stop signs. Continuing south, the trail extends along an independent alignment, crossing Regatta Alcove, which includes ADA compliant pedestrian ramp on the north side, but requires a new pedestrian ramp on the south side to meet current ADA standards. South of Regatta Alcove, the trail continues south across Catalina Drive and a second crossing of Regatta Drive, both requiring upgraded pedestrian ramps to be ADA





compliant. A short distance further south, the trail crosses Valley Creek Road, which also requires upgraded pedestrian ramps.

#### Segment B- Valley Creek Road to Bailey Road

South of Valley Creek Road, the trail extends south along the west side of County Road 19/Keats Avenue, passing Valley Crossing Community School and across Park Crossing, a signalized four-way intersection that includes striped crosswalks, but needs upgraded pedestrian ramps. The trail extends south along the existing trail to Hidden Lake Drive.

From Hidden Lake Drive south to Lake Road, the trail will continue to follow the existing trail along the west side of County Road 19/Keats Avenue. Upgraded pedestrian ramps have been incorporated at crossings of Edgewater Drive, the roundabout at Lake Road, Antrim Road and the Bailey Road roundabout.

#### Segment C- Bailey Road to Crossroads Church

Segment C measures approximately 1.85 miles long and extends from Bailey Road to Crossroads Church. There is no existing trail along the west side of County Road 19/Keats Avenue between Bailey Road and just north of Crossroads Church. A new, ten-foot-wide trail will be constructed in the

County Road right-of-way. A new pedestrian crossing will be required at Dale Road, which is a stop condition only for Dale Road, but is a through-street for County Road 19/Keats Avenue.

A new pedestrian underpass is planned to pass under County Road 19/Keats Avenue approximately 0.30 miles north of Dale Road to provide a mid-block crossing and a future connection to development on the east side of County Road 19/Keats Avenue. It is anticipated that this trail underpass will not be constructed until significant development has occurred on the east side of County Road 19/Keats Avenue.

There are 15 driveway crossings and three field access roads along the west side of County Road 19/Keats Avenue between Bailey Road and Crossroads Church that will require trail stop signs or yield signs for trail users.

#### Segment D

There are two alternatives for Segment D between Crossroads Church and Military Road that include an alignment along the west side of County Road 19/Keats Avenue and off-road to the west of Crossroads Church. Washington County Parks will determine which alignment is best suited for trail development at a future date. There





Segment D Alternatives				
Segment	From	To	Along	Length
D1	Crossroads Church	Military Road	County Road 19/Keats Avenue	1.0 Mile
D2	Crossroads Church	Military Road	Off-Road Alignment West of Crossroads Church	1.60 Miles

are several unknown circumstances in this area including patterns of residential development, future local park locations and land protection for water quality that may provide suitable locations and connections for the regional trail. Both trail alternatives are described below.

### Segment D Alternatives

Washington County will determine which alignment is best suited for implementation at a future date. This decision will be based on a number of factors, including available resources, stakeholder input, timing of corresponding projects, and the development in the region.

#### Segment D1

Segment D1 extends along the west side of County Road 19/Keats Avenue between Crossroads Church and Military Road. There are three driveway crossings and two field access drives that will require stop or yield signage for trail users. Military Road is a three-way stop intersection, but will require pedestrian ramps and a crosswalk across Military Road.

Segment D1 would provide the trail user a more direct connection through this corridor. This alternative follows a county-operated road, so implementation and maintenance may be easier to coordinate. This route would best serve trail

users looking to get from one destination to another in a quick and direct fashion.

#### Segment D2

Segment D2 extends west from County Road 19/Keats Avenue and south to Military Road in an off-road alignment through several undeveloped parcels that are currently in agricultural production. Properties include one parcel owned by the City of Woodbury, one parcel owned by a private entity and two parcels owned by the South Washington Watershed District. Once the alignment reaches Military Road, it extends southeast along the north edge of Military Road to County Road 19/Keats Avenue. In this section, the proposed alignment crosses three private parcels.

Segment D2 intends to offer a more scenic experience, since it would direct trail users off of County Road 19/Keats Avenue and through an area of open space owned by the South Washington Watershed District. This alternative would add .6 more miles and \$1,094,800 to the route than Segment D1. If Segment D2 was to be implemented, the trail shall be strategically placed to mitigate adverse impacts to the surrounding natural resources, in collaboration with project partners.





## Segment E

South of Military Road, there is a roundabout at 70th Street South and intersections at Jorgensen Lane South, Jordan Avenue South and Indian Boulevard South. An existing eight-foot-wide trail exists between 70th Street South and Indian Boulevard South that will need to be widened to ten feet, at a later date, to meet regional trail standards. The pedestrian ramps at these intersections do meet current ADA standards.

South of Indian Boulevard South, the trail will pass by Cottage Grove Middle School, where a rest stop could be developed that would provide a kiosk for trail users. The trail will cross intersections at 77th Street South, 80th Street South and 82nd Street South.



*Safe Routes to School funding will be utilized to develop a segment of trail along County Road 19/Keats Avenue.*

The City of Cottage Grove has acquired Safe Routes to School funding to develop the trail segment between Indian Boulevard South and 80th Street South for development in 2017. This trail segment will be constructed to meet regional trail standards.

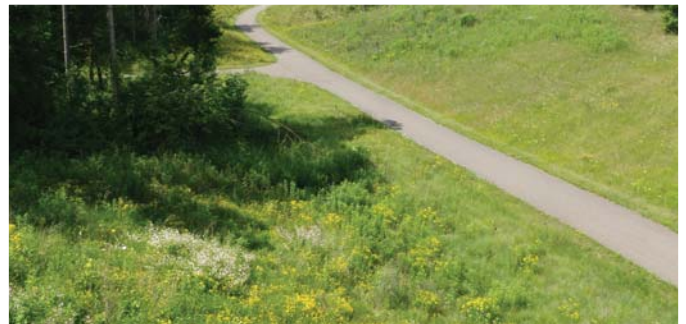
When the trail reaches 80th Street South, it will extend south along the west side of County Road 19/Keats Avenue to 85th Street South. This segment of trail is currently undeveloped. A temporary alignment will cross County Road 19/Keats Avenue at the existing marked pedestrian crossing to join the existing eight-foot trail that extends along the east side of County Road 19/Keats Avenue until it enters Cottage Grove Ravine Regional Park.



*Existing 8-foot trail segments will be reconstructed at a later date to regional trail width standards of 10-feet.*



*Trail access into Cottage Grove Ravine Regional Park at 85th Street S.*



*Trails in Cottage Grove Ravine Regional Park that will connect with the Central Greenway Regional Trail.*



## Segment F

Segment F will extend south along the west side of County Road 19/Keats Avenue between 85th Street South and the proposed new entrance to Cottage Grove Ravine Regional Park. The new park entrance will be located approximately 1/3 mile north of Highway 61. The trail will cross 90th Street South at-grade and will require pedestrian ramps on both sides of the intersection. The trail will cross three driveways between 85th Street South and 90th Street South. Two new pedestrian underpasses will be developed to provide grade-separated crossings under County Road 19/Keats Avenue to access Cottage Grove Ravine Regional Park. One will be south of 85th Street South. The other will be located south of 90th Street South, at the park's future entrance.

## Implementation

It is anticipated that the regional trail will be implemented in stages, with the construction of various stages driven by available funding and local factors, such as timing of adjacent roadway improvements, and public desire to expand the regional trail system. Until the corridor is fully developed, gaps in the regional trail will exist. However, the ultimate trail geometry will consist of a 10-foot-wide (minimum) paved surface, separate from any adjacent roadway, so that trail users will not share the roadway with motorized vehicles.

The development and implementation of unconstructed trail segments and upgrading of certain trail segments to regional trail standards will require additional activities beyond the master plan phase. These activities typically include the preparation of final construction documents, additional property and natural resource analysis, final cost

estimates, city staff review, trail-way cooperative agreements, and public approval meetings (such as City Council and Park Commission and County Board meetings).

## Estimated Costs & Funding

Regional trail implementation has both initial costs (acquisition and development) and on-going costs (operations and maintenance). Trail development will occur as opportunities to coordinate with other agencies/projects occur, funding becomes available, and at the discretion of the Washington County Board of Commissioners, Woodbury City Council and Cottage Grove City Council. Individual development projects may move ahead of schedule to coincide with development adjacent to the trail corridor that can result in cost savings.

## Development Costs

Regional trail development includes the cost to prepare the site; reconfigure roadways as required; modify drainage patterns where necessary; pave the trail; and install signage, striping, and landscaping. In total, the estimated development cost for the Central Greenway Regional Trail is \$7,901,000. The cost for development from I-94 to Bailey Road, including rest stops, signage and pedestrian crossing upgrades is estimated to be \$1,299,000, including contingencies. Improvements for the existing segment of trail from Bailey Road to the Cottage Grove Ravine Regional Park entrance is estimated to cost \$6,602,000, including contingencies. The total cost for acquisitions within the proposed corridor is \$470,500. See Appendix A. Detailed Cost Estimate for further information.



Figure 16: Trail Corridor Maps















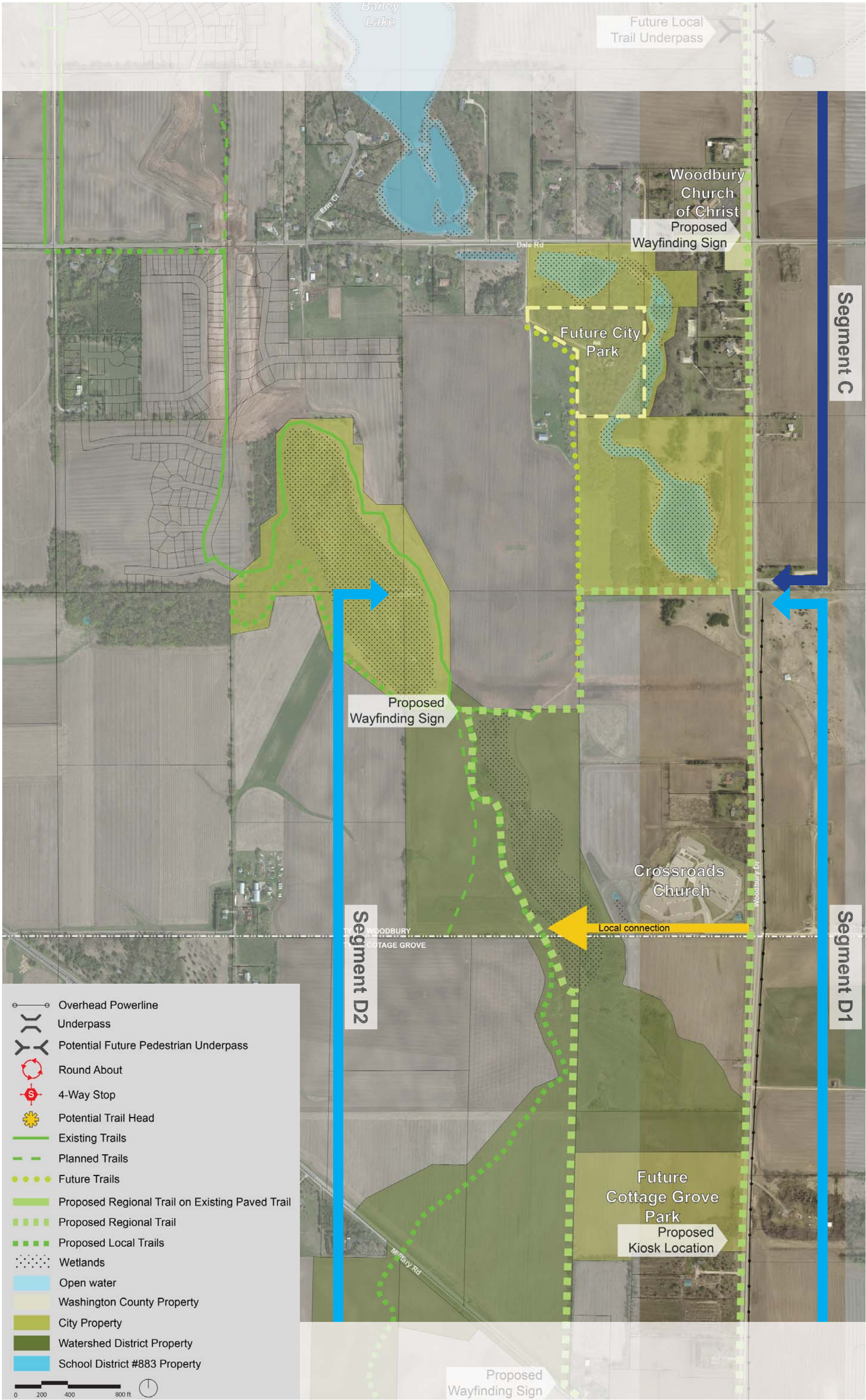








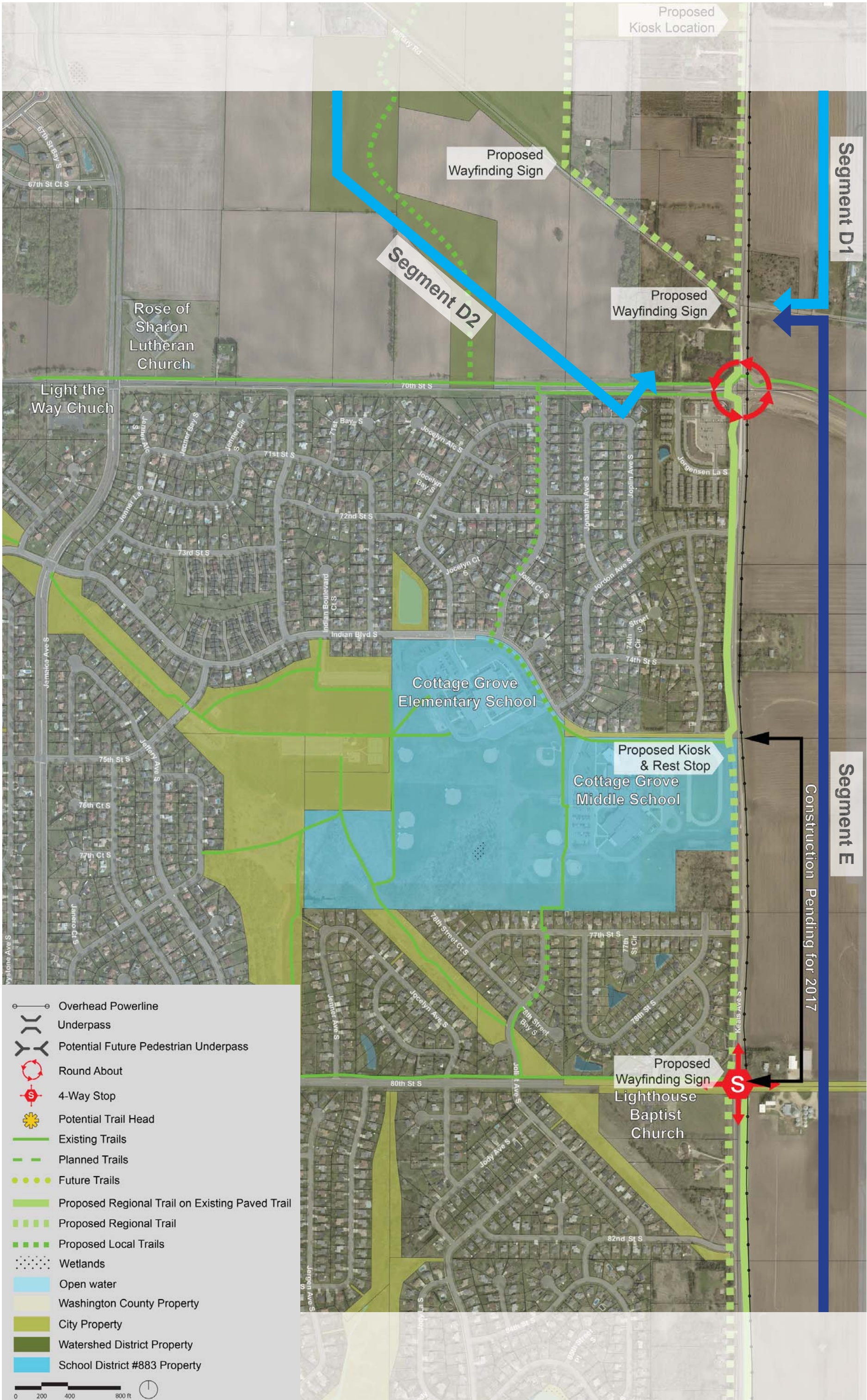






















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## Section V: Conflicts and Coordination with Adjacent Public Services

The Central Greenway Regional Trail is proposed to be developed within public right-of-way along County Road 19/Keats Avenue. Additional right-of-way may be needed to develop some segments of the trail, and for the development of trail underpasses. Final determination of right-of-way needs will be identified when the underpasses are proposed, which may coincide with road widening projects or adjacent property development. The total estimated cost of additional right-of-way is \$470,500.

There are buried utilities, including gas and sanitary sewer along portions of the County Road 19/Keats Avenue right-of-way, and high-voltage overhead power lines cross the proposed trail corridor in two locations. Coordination with utilities will be required during design development to ensure that the trail is constructed without imposing on utility easements or otherwise impacting the utility corridors.

The City of Cottage Grove and the South Washington Watershed District own property on the west side of County Road 19/Keats Avenue north of Military Road that may be beneficial for future trail development. The City of Cottage Grove is planning to develop a park on a parcel west of County Road 19/Keats Avenue. Coordination with the City of Cottage Grove and South Washington Watershed District when the trail is developed may provide opportunities for local connections and developing alternative trail alignments.



*Trail rest stop example, which is located on Ravine Parkway South.*



*Existing conditions along the west side of County Road 19/Keats Avenue.*



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## Section VI: Operations & Maintenance

Washington County manages and operates its park and trail system with internal staff including 19 permanent employees. In addition, approximately 100 seasonal employees are hired each year as life guards, maintenance workers and gate attendants. The Parks Division has an annual operations and maintenance budget of approximately \$3,025,700 to operate and maintain the County's park and trail system.

The Central Greenway Regional Trail will be overseen by professional public safety, operations and maintenance staff operating out of the South Maintenance Unit based at St. Croix Bluffs Regional Park.

This trail will add new mileage to the Washington County's regional trail system and operations and maintenance costs will increase because of the expansion of the system. Additional staff time and equipment will be needed to maintain the new trail segments. No new equipment will be needed as the County will utilize existing trucks and mowers to maintain the trail. It is anticipated that the annual cost to maintain the trail upon full build out will be \$16,000, including additional staff and time and resources. An additional \$2,000 annually will be needed for the first five years to establish the

prairie and pollinator plantings along the trail, as proposed in the natural resources section of the master plan.

### Proposed Maintenance Activities

Maintenance operations will include seasonal condition assessments and periodic inspections, followed by necessary maintenance actions. Inspections will address possible safety issues, vandalism, and non-routine maintenance concerns. Washington County will also respond to maintenance issues identified by the public, on a timely basis, as funding permits. Extraordinary maintenance may be required to respond to storm damage, vandalism and other unplanned circumstances.

The Central Greenway Regional Trail will receive scheduled seal coating and reconstruction in accordance with Washington County standards, and as funding permits.

Washington County will provide routine maintenance as identified below.

- » Sign inventory and replacement, spring cleanup, trail sweeping, trash pickup, erosion repair, fence repair, bituminous patching, and striping replacement, as needed.
- » Mowing adjacent to the trails will be coordinated by Washington County.
- » Washington County will coordinate snow removal maintenance for the trail south of Bailey Road if appropriate.



*Mowing turf trail shoulders.*



## Public Safety

Washington County Sheriff's Department, along with the Woodbury and Cottage Grove Police officers will provide public safety services on Central Greenway Regional Trail.

## Sources of Revenue

Washington County budgets annually for operating the park and trail system. The budget includes maintenance of recreation facilities and management of natural resources within the parks. Revenue for these expenditures originates from three primary sources:

- Vehicle passes and campground reservations at County parks
- County levy
- Operations and maintenance grants consisting of State general funds and lottery in-lieu sales tax funds that are disbursed through the Metropolitan Council

Washington County does not charge for trail use.

## Ordinances

Washington County has adopted Ordinance No. 174 which establishes rules and regulations for park and trail use and management under its jurisdiction. The ordinance incorporates Minnesota statutes that address regulations for:

- » Public Use
- » General Conduct

## » General Parkland Operation

- » Protection of Property, Structures and Natural Resources
- » Recreational Activities
- » Motorized Vehicles, Traffic and Parking

A copy of the ordinance is available for review through Washington County.

Rules and regulations are posted, as needed, throughout Washington County park properties and facilities. Posted information includes park hours, permitted and prohibited activities, fees, map of the parks and trails, and who to contact in case of an emergency.



*Regular trail maintenance including pavement repair will be scheduled by Washington County to keep the trail functional and operational.*



# Section VII: Public Engagement and Participation

## Overview

Washington County strives to provide an inclusive public engagement process for its trail planning efforts. To reach a diverse cross-section of the community and to engage people of diverse races, ethnicities, classes, ages, abilities and national origin, Washington County staff developed a plan to provide information to the public in multiple ways with an emphasis on trying to make it easy and accessible for all interested citizens to participate in the planning process. The public engagement process included several meetings with a technical advisory committee, updates to the Washington County Parks Commission on the plan development progress, conducting public open houses and pop-up meetings to provide public updates and presenting information at local city council meetings to keep the communities updated about the master plan process. The general public, including park and trail users and Washington County residents are important stakeholders in the master planning process and their input is highly valued. Comments received have been addressed in revisions to the master plan.

## Regional Trail Planning

Planning for the Central Greenway Regional Trail is in response to expressed demand for recreational and non-motorized transportation options in suburban edge communities. The Central Greenway Regional Trail is identified as a Regional Trail Search Corridor in the Metropolitan Council 2040 Regional

Parks Policy Plan. As such, the Central Greenway Regional Trail needs an approved master plan to become eligible for Metropolitan Council regional parks system funding for development.

## Central Greenway Regional Trail Technical Advisory Committee

A Central Greenway Regional Trail Technical Advisory Committee was established to guide the trail master plan and coordinated planning efforts within the local communities and greater region. Members of the Task Force included representatives from the following stakeholders: City of Woodbury, City of Cottage Grove, Washington County and the South Washington Watershed District.

The responsibilities of the Task Force included:

- » Coordinating with respective governing bodies, such as City Councils, Planning Commissions, Park Commissions and other staff/departments within the respective city/agency.
- » Assisting in implementing public participation opportunities.
- » Providing information and support necessary to identify feasible trail routes and review/complete the trail master plan that meets city and applicable agency goals.
- » Assisting Washington County in local municipality/agency approval processes.



The full Task Force met six times:

- » May 12, 2015
- » June 30, 2015
- » July 15, 2015
- » September 1, 2015
- » September 30, 2015
- » January 12, 2016

Throughout the master planning process, Washington County staff met with Task Force members to identify opportunities and address and resolve their issues and concerns. These meetings often involved other individuals, groups, and organizations as detailed route information was exchanged.

### Washington County Park Commission

The Washington County Park Commission reviewed planning updates and the final draft master plan four times throughout the planning process, including:

- » September 17, 2015
- » November 19, 2015
- » December 17, 2015
- » January 21, 2016

### Municipal Presentations & Input

Washington County staff presented updates on the master plan process to local city councils, city government

committees and watershed district meetings several times throughout the master plan process to keep local authorities updated and to solicit additional input about the master plan. Meetings were held on the following dates:

- |                      |   |
|----------------------|---|
| » September 14, 2015 | City of Cottage Grove Parks and Recreation Commission                       |
| » September 29, 2015 | City of Woodbury Park, Planning and Economic Development staff presentation |
| » February 17, 2016  | Cottage Grove City Council presentation                                     |
| » February 24, 2016  | Woodbury City Council presentation  |

Washington County received letters of support from Woodbury and Cottage Grove. These are included in the appendix.

### Public Communications/ Social Media

Online and social media tools were identified as alternative ways to get information and updates to the public. The Washington County website was the primary on-line portal for meeting information and for posting draft plans for public review. All open houses and pop-up meetings were listed on the County's website. The County utilized its Facebook and Twitter accounts to promote the pop-up events. In addition, fliers were printed and posted at County facilities to promote the pop-up events.



A MySidewalk social media site was developed for the master plan, but the site was not made public because this phase of the master plan process coincided with a county-wide update of on-line and social media materials, which impacted opportunities to utilize this on-line tool in a timely fashion for appropriate public engagement.

Public Open Houses & Pop-up Meetings

Washington County, with the support and assistance of select Technical Advisory Committee members presented the Central Greenway Regional Trail planning efforts and held six public engagement events where the public had an opportunity to review the status of planning efforts and provide comments. In an effort to reach out to a variety of Washington County residents, Washington County held meetings at public buildings accessible to the public. In addition, one open house was held at a public housing facility to provide easier access to the information. Public presentations were held on the following dates:

- » July 28, 2015            Open House at the Washington County South Service Center
- » September 22, 2015    Open House at the Washington County South Service Center
- » November 18, 2015    Open House at the Washington County South Service Center
- » December 12, 2015    Open House at The Woodlands Apartment Complex

Washington County initiated two additional public pop-up events to seek more public input about the master plan update. The 2040 Regional Parks Policy Plan requires that the public engagement process seek to mitigate existing racial, ethnic, cultural, or linguistic barriers and include people of diverse races, ethnicities, classes, ages, abilities and national origin. In order to reach out to populations that may not feel comfortable attending open houses or public meetings, the County set up two pop-up events designed to “meet people where they are already located.” Staff set up tables at strategic locations and times that are frequented by Washington County residents of all backgrounds. Pop-up style tabling allowed for more in-depth, one-on-one conversations. The County received positive feedback on conducting this type of engagement, as several members of the public mentioned they would not typically attend an open house, but were happy they were given the opportunity to provide feedback in this setting. The pop-up meetings were held on the following dates:

- » April 24, 2017    Central Park Atrium in Woodbury
- » April 26, 2017    Park Grove Library in Cottage Grove

Open House #1 Approach & Findings

The first public open house was held on July 28, 2015 at the Washington County South Service Center. The Service Center is located adjacent to the trail corridor in an easily accessible public building with ample parking. Attendance at the open house included 21 members of the public and



representatives from Washington County, the City of Cottage Grove, the City of Woodbury and the South Washington Watershed District. The proposed trail alignment maps were presented at the meeting. Feedback from the first open house was positive with interest in developing a linking regional trail along County Road 19/Keats Avenue with connections to Cottage Grove Ravine Regional Park. Specific comments from the open house are listed in Figure 17.

### **Open House #2 Approach & Findings**

A second open house was held on September 22, 2015 at the Washington County South Service Center. Attendance at the open house included ten members of the public and representatives from Washington County, the City of Cottage Grove, the City of Woodbury and the South Washington Watershed District. In addition to the analysis graphics presented at the first open house, revisions to the trail alignment maps were shown. While attendance was light at this open house, those in attendance provided input on the proposed revisions to the trail alignments. Positive feedback was given about the proposed regional trail. A complete list of comments from the public meetings is included in Figure 17.

### **Open House #3 Approach & Findings**

The third open house, held on November 18, 2015 at the Washington County South Service Center was meant to provide the public with another opportunity to learn about and comment on the proposed trail master plan. Attendance at the open house included three members of the public and representatives from Washington County, the City of Cottage Grove, the City of Woodbury and the South Washington Watershed District. A complete list of comments from the public meetings is included in Figure 17.

### **Open House #4 Approach & Findings**

The public engagement opportunity that was added to the public process was an open house at the Woodlands Apartments in Cottage Grove, located just a couple miles from the trail corridor. County staff felt it was important to reach out to nearby residents who may not have easy access to the South Service Center or other public meeting venues. The draft trail corridor was presented at the open house on December 12, 2015. Attendance was light at this open house with three members of the public providing input. Staff was surprised at the low attendance and discussed additional ways to solicit input from existing and future trail users. A complete list of comments from the public meetings is included in Figure 17.

All open house materials were also posted on the Washington County website for public review and comment.



*The open house meetings included presentations and numerous information boards and maps describing the current trail plan. Attendees were given the opportunity to write comments on comment cards to add their ideas.*



### Pop-Up Event #1 Approach & Findings

In an effort to obtain more input from the public about the Central Greenway Regional Trail Master Plan, Washington County held two pop-up meetings. The first pop-up event was held at Central Park Atrium in Woodbury on April 24, 2017. This pop-up event was strategically located here because this is a popular mid-day destination for many community members that would be potential trail users. The facility connects to Washington County R.H. Stafford Library, Woodbury YMCA, Lookout Ridge Indoor Playground, and Stonecrest Senior Living. Several County service buildings, multifamily developments, and schools are also located within walking distance. The Central Park Atrium is located adjacent to the trail corridor. Several comments were made about the trail amenities that are planned for this corridor. These comments were used in locating signage/kiosks/rest stops. Twenty visitors asked questions about the master plan and provided input.

### Pop-up Event #2 Approach & Findings

The second pop-up event was held at the Park Grove Library in Cottage Grove on April 26, 2017. Four people stopped by the pop-up event to provide comments and ask questions about the trail master plan.

This pop-up meeting was scheduled during the morning, providing an alternative to evening meeting times. The library is located approximately three miles west of the park in an area with several apartment complexes and nearby two schools. The library's story time program was scheduled for the same



*Washington County held two pop-up meetings in April 2017 to seek additional public input about the master plan update.*

time frame and this created the opportunity for families and youth trail users to provide input. Input from this event included new residents to Washington County, one of which who does not have access to a vehicle and relies on a bicycle as his only method of transportation. These new perspectives were helpful in planning the regional trail connections to the local network.

### Community Engagement Results

The various meetings and public outreach events that were conducted as part of the Central Greenway Regional Trail Master Plan process provided the project team with beneficial input about what the public wants for this regional trail. The comments received in the community engagement process supported the County's sentiment to expand the regional trail



system and develop the trail in a safe and thoughtful way. Several themes and ideas came out during the public process. These included:

- » A trail by nature is a linear feature that not only passes through its surroundings, but becomes part of the community fabric.
- » Make local trail connections a priority.
- » Provide connectivity with established points and destinations.
- » Provide safe route with least amount of driveway crossings, utility poles, etc.
- » Minimize adjacent property impacts.
- » Provide consistency with existing agency planning and policies.
- » Provide preferred trail route that is politically palatable.

### Summary of Public Engagement Comments

The following table summarizes the comments that were received at the open houses and pop-up meetings throughout the master planning process. Several of the comments were repeated at multiple events but are listed only once for clarity.



Public Comment/Question	Response
<b>Open House Meetings</b>	
Avid road biker who likes the proposed regional trail alignment	Regional Trail will be developed for all trail user types
Can a Nice Ride bike rental facility be added?	Nice Ride Minnesota is an independent non-profit not affiliated with Washington County Parks
Plow paved trails in winter.	Winter maintenance will be covered in the master plan
Why does the County need a regional trail along a County Road?	This trail type is a regional connector, designed to link regional parks and facilities, and this is the most direct route.
Preserve the underpass south of 85th as a way to cross CR 19 safely	This crossing has been added to the master plan
Wayfinding signage is needed	Signage will be addressed in the master plan
<b>Pop-Up Meeting #1</b>	
There are a lot of bicyclists in the area that would benefit from the trail.	The plan addresses this comment.
It will be good to have a trail connection to Cottage Grove Ravine Regional Park.	The plan addresses this comment.
The underpass into Cottage Grove Ravine Regional Park is a really good idea.	The plan addresses this comment.
Traffic along CR 19 travels too fast [for bikers].	The independent trail will address this concern.
A comment was made that the alternate route does not fit with the purpose of a linking regional trail.	An alternate alignment is included so future study at implementation is allowed to determine the best route.
Include intermediate stops with water fountains and benches placed along the trail.	Rest stops are noted on the plan.
Develop space at intersections for pop-up events or food trucks.	Better addressed during design development.
Kiosk signage depicting local destinations near trail, distance and estimated minutes of travel to next kiosk, information on local history.	Important information that will be addressed during design development.
Look for ways to avoid bike and pedestrian spacing conflicts.	Trail will be minimum ten feet wide.
A north-south arterial trail through the entire County is needed.	The plan addresses this comment.
Preference for separated trails over sidewalks.	The plan addresses this comment.
<b>Pop-Up Meeting #2</b>	
Biking in Washington County can feel dangerous due to lack of bike infrastructure and high speed roadways.	The master plan includes separate trail alignment.
Users who do not own cars find it difficult to move around the county safely.	The regional trail system benefits all users in the region and city.
Trail connections to shopping centers and major areas of employment will improve bikeability in the county.	The plan addresses this comment.
Concerns over pedestrian bike conflict of sidewalks.	The plan addresses this comment.
Concerns over steep climbs along trail.	The trail typically follows County Road 19/Keats Avenue and will mirror grades on the adjacent roadway.
Amenities suggested that would improve the Central Greenway Trail include: drinking fountains, signage to local trails, signage indicating time to major destinations, shelters to provide cover during rain and snow events, and restrooms.	The plan addresses this comment with rest stops planned and connections to local and regional parks and facilities.
Winter plowing of trails would be great.	The plan addresses this comment.
Include signage for connecting to local trail network.	The plan addresses this comment.

Figure 17: Summary of public comments and responses



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## Section VIII: Public Awareness

Washington County uses public relations, marketing, and media relations tools, such as a website, event planning, press releases, and promotional materials to promote their parks and trails. Washington County also collaborates with a wide array of community, business, and government organizations to promote their facilities, programs, and services and to educate the public about the available resources.

Washington County Parks engages the public through several on-line and social media tools. The County website has a page dedicated to parks and trails that provides information on the parks and trails across the county, lists information about programs and events, explains how individuals can support the park system by donating or volunteering, and provides information and a link for reservations and permits. Washington County actively posts information on Twitter and Facebook to share news and information about the park system.

Opportunities for expanding social media and on-line resources for public awareness will likely expand in the future as new media tools and new platforms become available. Younger park users frequently access public service information on-line and will continue to seek additional ways to engage with the County about the park system through social media.



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## Section IX: Accessibility

Washington County is committed to providing access and recreational opportunities to all people, including persons with disabilities, minorities, and other special-population groups. Washington County meets this commitment through appropriate facility design and programming considerations and by actively addressing potential barriers to participation.

All regional trail facilities described in the master plan will be developed in accordance with Americans with Disabilities Act (ADA) standards and guidelines. More specifically, the Central Greenway Regional Trail will adhere to the Minnesota Bikeway Facility Design Manual (MnDOT 2007); Trail Planning, Design and Development Guidelines (MnDNR 2007); Designing Sidewalks and Trails for Access, Part I and II: Best Practices Design Guide (FHWA); ADA Accessibility Guidelines for Outdoor Developed Areas (United States Access Board); and ADA Accessibility Guidelines for Buildings and Facilities (U.S. Access Board) unless more current guidelines and standards exist at the time of development.

All unconstructed segments and those associated with regional trail reconstruction, associated trailheads and trail amenities, such as rest stops, parking, rest rooms and water access, will be designed to accommodate individuals with disabilities. In addition, the paved trail will safely accommodate two-way directional non-motor vehicle traffic and incorporate periodic rest stops to provide users an opportunity to rest, overlook the natural environment, and comfortably interact with other trail users.

Compliance with ADA standards is an important goal of trail design. Routing the trail within existing street right-of-way makes it a challenge to fully comply with ADA standards in certain areas. Washington County and local municipalities have made every attempt to identify a trail route that minimizes these occurrences. Parking is available at existing local parks, shopping centers, and regional parks on and along the trail. Regional and community parks function as trailheads for the proposed trail in addition to other identified key orientation points along the trail.

Crossing major roadways is necessary because the trail passes through fully developed urban areas. Washington County will investigate opportunities to coordinate grade-separated pedestrian crossings with appropriate agencies, modify, or add traffic signal timing, crosswalks and signage to ensure the trail meets all relevant design guidelines. The trail has also been planned to provide access to important local community destinations such as parks, commercial areas, community facilities, and transit facilities. The regional trail passes through a variety of neighborhoods with varying demographics, providing access to people with a wide range of social and cultural backgrounds.

On a broader scale, the Central Greenway Regional Trail provides direct access to the metropolitan regional trail system for an area currently under served by regional trails. Communities adjacent to the trail will not only have access to the Central Greenway Regional Trail, but also gain direct access to three existing regional parks/park reserves. Local trail connections are anticipated at regular intervals along the trail to further increase access to neighboring communities.



### Affordability

Trails are free to use in Washington County, providing a recreational opportunity to residents of all income levels. The Central Greenway Regional Trail will also provide access to the Cottage Grove Ravine Regional Park without purchase of a parking pass. Park access fees are not charged for patrons who walk or bicycle into parks. Trail users who access Washington County parks will have access to free programming for park users including campfire talks, fitness hikes, bird walks and other programs coordinated with free Tuesdays.

The Washington County Parks Division and Community Services is working to provide free park permits to individuals who receive financial assistance from the County.

## References

- » Metropolitan Council, "Annual Use Estimate of Metropolitan Regional Parks System for 2014," Metropolitan Council, July 2015.
- » Metropolitan Council, "2040 Regional Parks Policy Plan," Metropolitan Council, St. Paul, MN. February 2015.
- » Minnesota Department of Natural Resources, "Minnesota's State Comprehensive Outdoor Recreation Plan 2014-2018". Minnesota Department of Natural Resources, St. Paul, MN 2014.
- » Health and obesity data retrieved from Minnesota Department of Health website: [https://apps.health.state.mn.us/mndata/obesity\\_basic#byage](https://apps.health.state.mn.us/mndata/obesity_basic#byage).



# Appendix A: Detailed Cost Estimate

Estimated Project Construction Cost	Estimated Quantity	Unit of Measurement	Estimated Unit Cost	Estimated Total Cost	Notes
<b>North Segment (I-94 to Bailey Road)</b>					
Existing 8' Trail Removal	3,200	Lin Ft	\$16.00	\$51,200	
Trail Construction	3,200	Lin Ft	\$90.00	\$288,000	
Pedestrian Ramps	9	Each	\$2,000.00	\$18,000	
Wayfinding Directional Signage	7	Each	\$4,000.00	\$28,000	
Wayfinding Kiosk	2	Each	\$20,000.00	\$40,000	
Rest Stops	1	Each	\$6,000.00	\$6,000	
Traffic Control Signs and Devices (includes MUTCD signage)	21,120	Lin Ft	\$1.00	\$21,120	
<b>North Segment Total</b>				<b>\$452,000</b>	
<b>South Segment (Bailey Road to Ravine Park Entrance)</b>					
Existing 8' Trail Removal	5,230	Lin Ft	\$16.00	\$83,680	3
Trail Construction	27,700	Lin Ft	\$90.00	\$2,493,000	5
Wayfinding Directional Signage	4	Each	\$4,000.00	\$16,000	10
Wayfinding Kiosk	3	Each	\$20,000.00	\$60,000	
Rest Stops	1	Each	\$6,000.00	\$6,000	
Traffic Control Signs and Devices (includes MUTCD signage)	30,000	Lin Ft	\$1.50	\$45,000	
Pairie and Pollinator Habitat Planting	14	Acres	\$6,000.00	\$81,000	8
<b>South Segment Total</b>				<b>\$2,785,000</b>	
<b>Trail Underpasses</b>					
Underpass north of Valley Creek Road (Improvements)	1	Lump Sum	\$450,000.00	\$450,000	9
Underpass at 85th Street South (New Structure)	1	Lump Sum	\$900,000.00	\$900,000	9
Underpass at future Cottage Grove Ravine Regional Park entrance (south of 90th Street South) (New Structure)	1	Lump Sum	\$900,000.00	\$900,000	9
<b>Underpasses Total</b>				<b>\$2,250,000</b>	
<b>Subtotal Construction Cost Estimate</b>				<b>\$5,487,000</b>	
<b>20% Construction Contingency</b>				<b>\$1,097,000</b>	
<b>Subtotal Construction Cost Estimate with Construction Contingency</b>				<b>\$6,584,000</b>	
<b>20% Design and Engineering Contingency</b>				<b>\$1,317,000</b>	
<b>Total Estimated Construction Cost</b>				<b>\$7,901,000</b>	

<b>Future Property Acquisitions (2017 tax assessed values)</b>	<b>Acres</b>	<b>Cost</b>
Acquisition Area A	0.25	\$20,000.00
Acquisition Area B	4.25	\$164,000.00
Acquisition Area C	0.6	\$11,500.00
Acquisition Area D	2	\$275,000.00
<b>Total Anticipated Acquisition Cost in 2017 Dollars</b>	<b>7.1</b>	<b>\$470,500.00</b>

<b>D2 Segment</b>					
Trail Construction	8,500	Lin Ft	\$90.00	\$765,000	
Traffic Control Signs and Devices (includes MUTCD signage)	8,500	Lin Ft	\$1.00	\$8,500	
Wayfinding Directional Signage	2	Each	\$4,000.00	\$8,000	
<b>D2 Segment Total</b>				<b>\$782,000</b>	
20% Construction Contingency for D2 Segment				\$156,400	
20% Design and Engineering Contingency for D2 Segment				\$156,400	
<b>Total Estimated Cost for D2 Segment</b>				<b>\$1,094,800</b>	

<b>Estimated Annual Operations &amp; Maintenance Costs</b>	<b>Estimated Cost</b>	<b>Notes</b>
Equipment Costs	\$7,100	11
Staff Wages	\$8,900	12
<b>Total Estimated Annual Operations &amp; Maintenance Costs</b>	<b>\$16,000</b>	

## Estimate Notes

1. Construction cost estimate includes a 20% design and administration fee and an additional 20% construction contingency factor for unforeseen costs.
2. Estimates are based on current 2017 construction costs.
3. Existing trail removal assumes 8' wide bituminous trail or concrete walk. Actual dimensions may vary.
4. Estimate does not include any utility relocation costs except as noted for trail underpass.
5. Existing trail construction assumes 10' wide bituminous trail, turf establishment, and signage. Estimate does not include any retaining walls or streetscaping such as boulevard trees and decorative lighting.



6. Estimate includes items such as removing and reinstalling curb and gutter, driveway aprons and storm sewer catch basins.
7. Segments of existing trail do not conform to regional trail design standards. In light of recent construction of certain segments, the trail will stay in its current condition. When road reconstruction occurs in the future, the trail will be reconstructed to meet regional trail design standards.
8. Native prairie planting for pollinator species assumes planting area is 20 feet wide, length of segments C-F. Cost includes seed purchase, planting, mowing, burn and weed control by hired contractor. Assuming internal County staff undertakes work, cost estimated at \$1,256 per acre.
9. Trail underpass price includes contingency costs for utility relocation, traffic control, construction and contractor safety.
10. Directional signs will increase from 4 to 6 if Segment D2 is implemented.
11. Equipment costs based on anticipated service needs; including, plowing, sanding, mowing, sweeping, and grooming.
12. Based on estimated 184 staff hours needed to annually to perform maintenance tasks.



# Appendix B: Rare Species List

This appendix includes a complete list of rare species found within one mile of the Central Greenway Regional Trail.

A one-mile buffer surrounding the project limits was evaluated for the presence of rare plants, animals, native plant communities, and other rare features using Geographical Information Systems (GIS) in conjunction with the MnDNR's Natural Heritage Information System (NHIS)<sup>1</sup>. The Natural Heritage data is provided by the MnDNR's Division of Ecological Resources and Water Resources, and was current as of December 2014 (License Agreement 625). These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.

## Species:

- » Bald Eagle
- » Loggerhead Shrike
- » Western Fox Snake
- » Blanding's Turtle
- » Peregrine Falcon
- » Pugnose Shiner
- » Least Darter

<sup>1</sup> Copyright 2014 State of Minnesota, Department of Natural Resources.



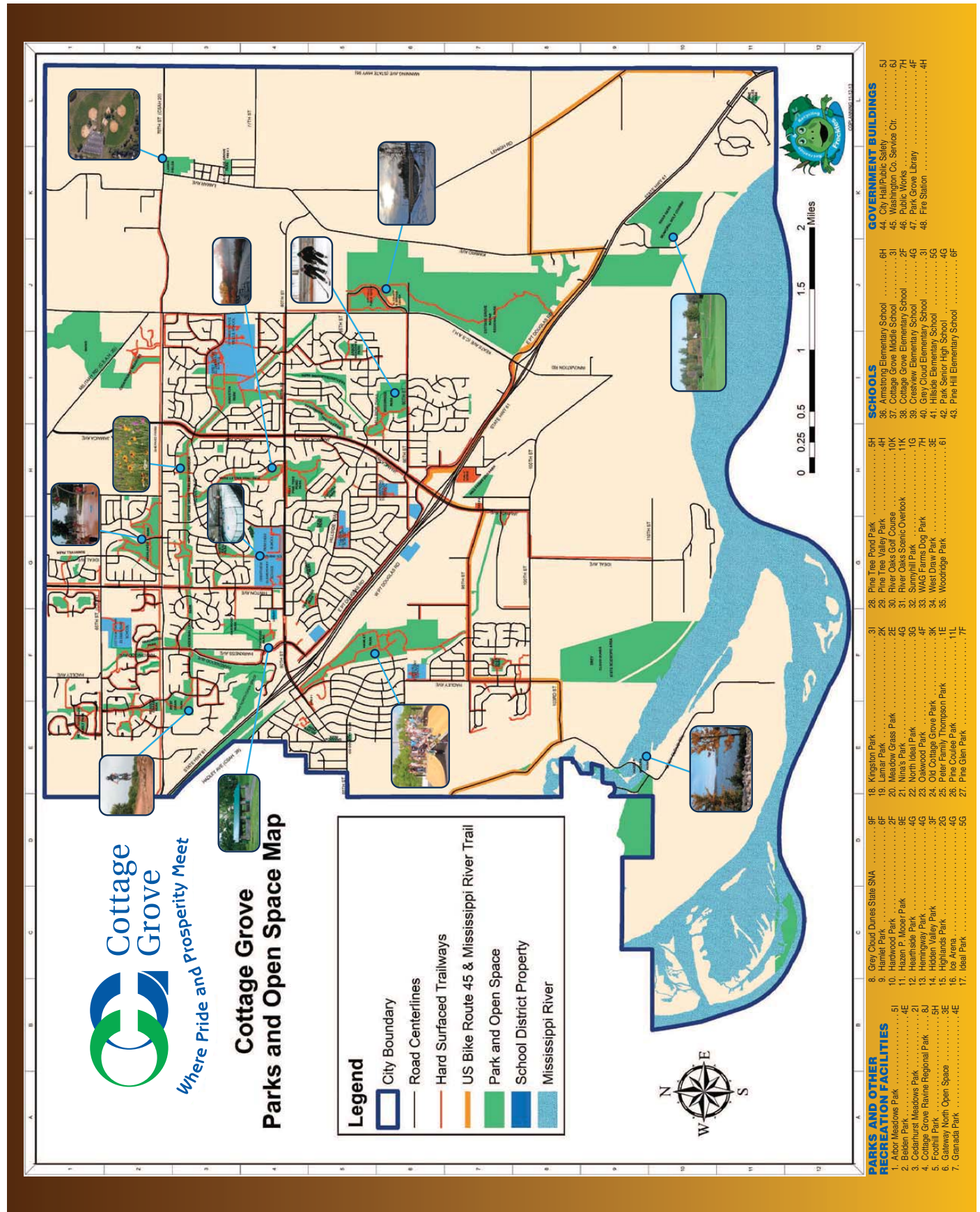
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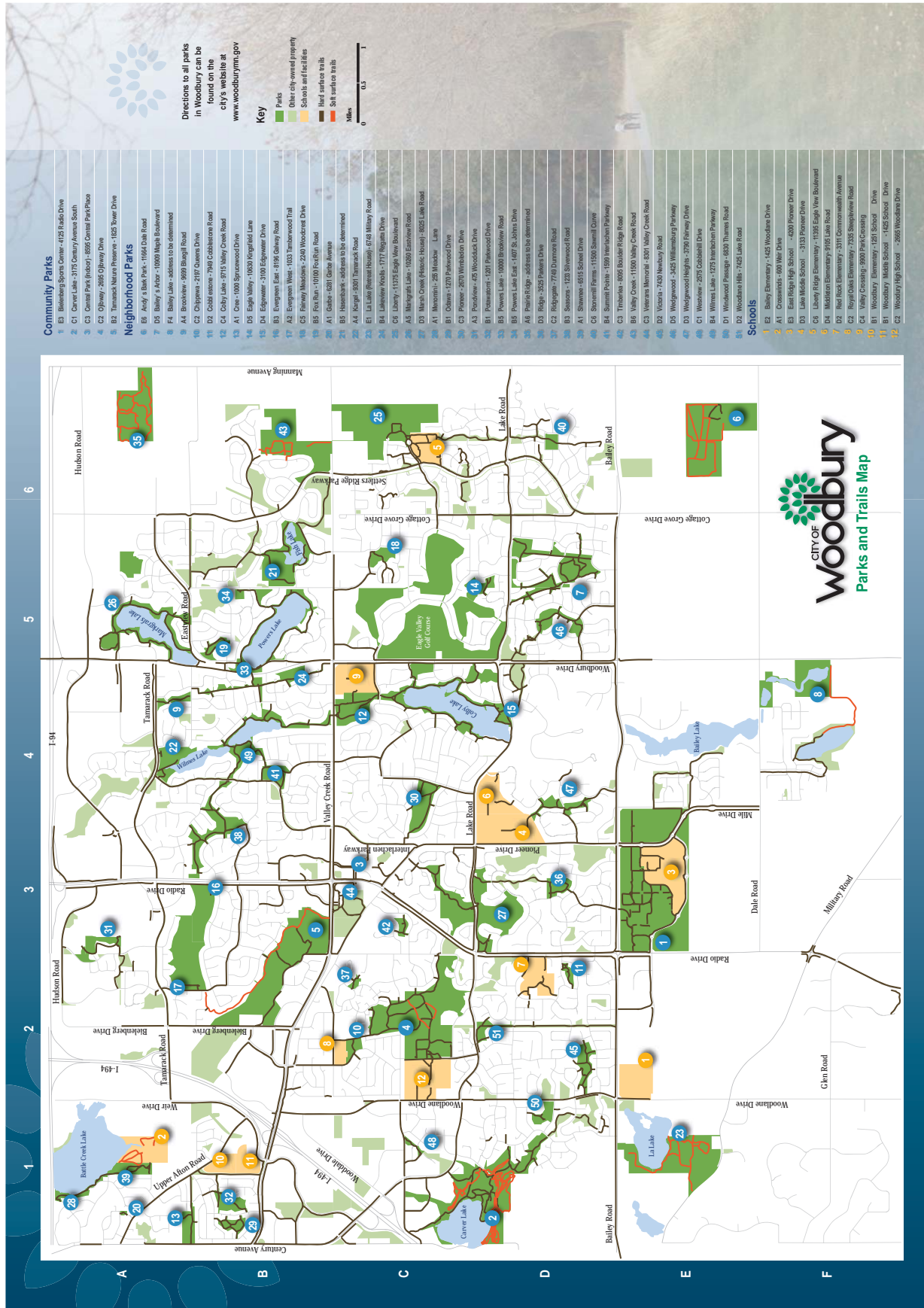
# Appendix C: Local Trail Maps

## City of Cottage Grove Park and Trail Map





# City of Woodbury Park and Trail Map





# Appendix D: Resolutions of Support



August 25, 2017

Metropolitan Council  
390 North Robert Street  
St. Paul, MN 55101

**Support for the Central Greenway Regional Trail Master Plan submitted to the Metropolitan Council**

Dear Metropolitan Council Parks and Open Space Commission:

The City of Cottage Grove is pleased to provide this letter of support for Washington County's Central Greenway Regional Trail master plan proposal to the Metropolitan Council. The planned development of this trail in the City of Cottage Grove is an important part of the regional trail system. The master plan conforms to the City's 2030 Comprehensive Plan and will be identified in the upcoming 2040 Comprehensive Plan.

The Central Greenway Regional Trail will benefit surrounding communities and further the development of a trail network within Cottage Grove. The trail will run along County Road 19/Keats Avenue allowing trail users safe off-road access to Cottage Grove Ravine Regional Park. Ultimately, this trail will provide a needed link in the regional trail system that will connect Cottage Grove Ravine Regional Park, Lake Elmo Park Reserve, and Big Marine Park Reserve.

Thank you for your consideration of this important project. If you have any questions, comments, or concerns, please do not hesitate to contact me at 651-458-2808.

Sincerely,

A handwritten signature in black ink, appearing to read 'Zac Dockter', followed by a horizontal line.

Zac Dockter  
Parks and Recreation Director

CITY OF COTTAGE GROVE • 12800 Ravine Parkway • Cottage Grove, Minnesota 55016  
www.cottage-grove.org • 651-458-2800 • Fax 651-458-2897 • Equal Opportunity Employer







8301 Valley Creek Road • Woodbury, Minnesota 55125-3330 • [www.ci.woodbury.mn.us](http://www.ci.woodbury.mn.us)  
651/714-3500 • TDD 651/714-3568 • FAX 651/714-3501

August 30, 2017

Metropolitan Council  
390 Robert Street North  
St. Paul, Minnesota 55101

**Re: Support for the Central Greenway Regional Trail Master Plan  
Submitted to the Metropolitan Council**

Dear Metropolitan Council Parks and Open Space Commission:

The City of Woodbury is pleased to provide this letter of support for Washington County's Central Greenway Regional Trail master plan proposal to the Metropolitan Council. The planned development of this trail in the City of Woodbury is an important part of the local and regional trail system. The master plan conforms to the City's 2030 Comprehensive Plan and will be identified in the upcoming 2040 Comprehensive Plan.

The Central Greenway Regional Trail will benefit surrounding communities and further the development of a trail network within Woodbury. The trail will run along County Road 19/Keats Avenue allowing trail users safe off-road access to Cottage Grove Ravine Regional Park. Ultimately, this trail will provide a needed link in the regional trail system that will connect Cottage Grove Ravine Regional Park, Lake Elmo Park Reserve, and Big Marine Park Reserve.

Thank you for your consideration of this important project. If you have any questions, comments, or concerns, please do not hesitate to contact me at (651) 714-3576.

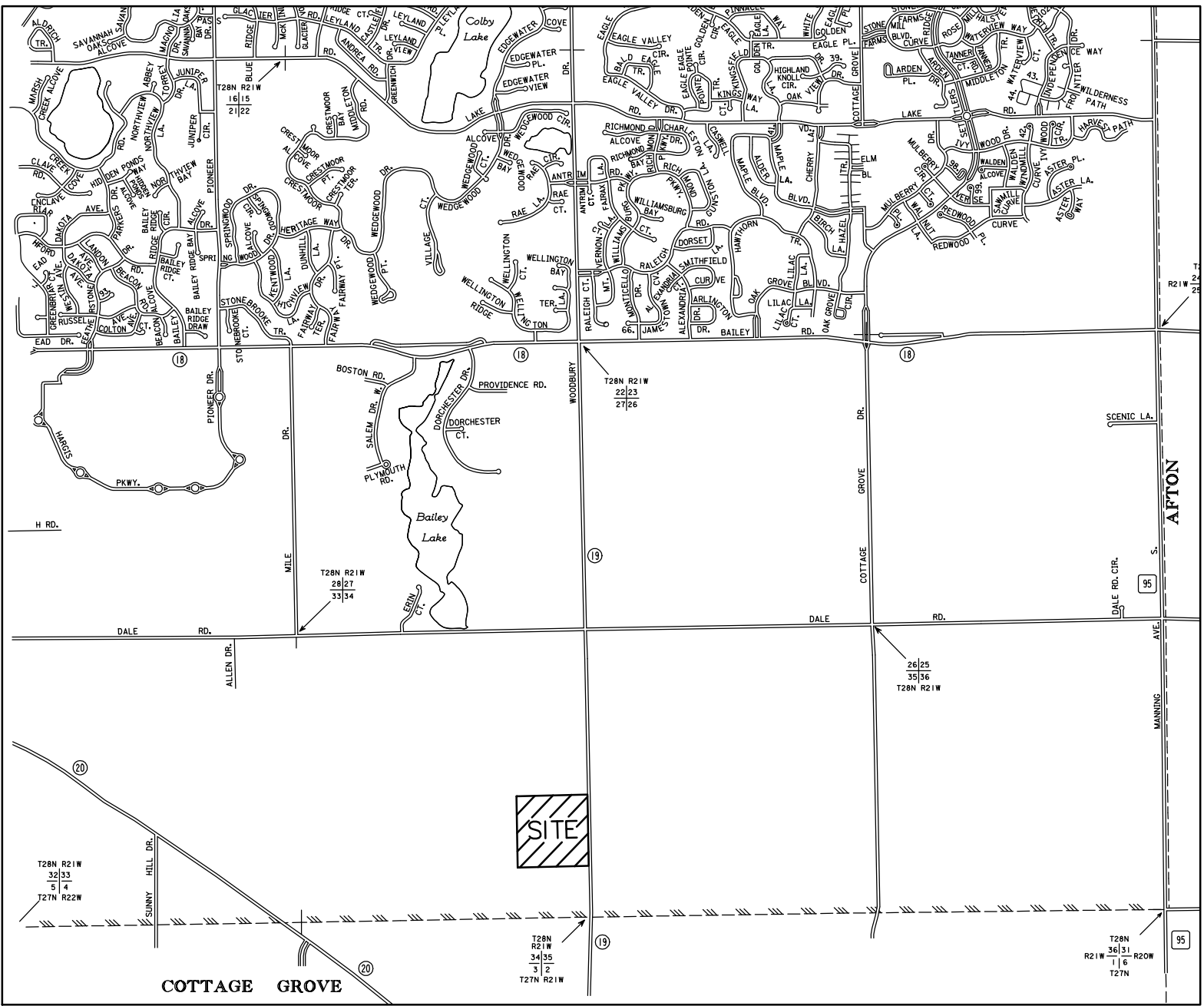
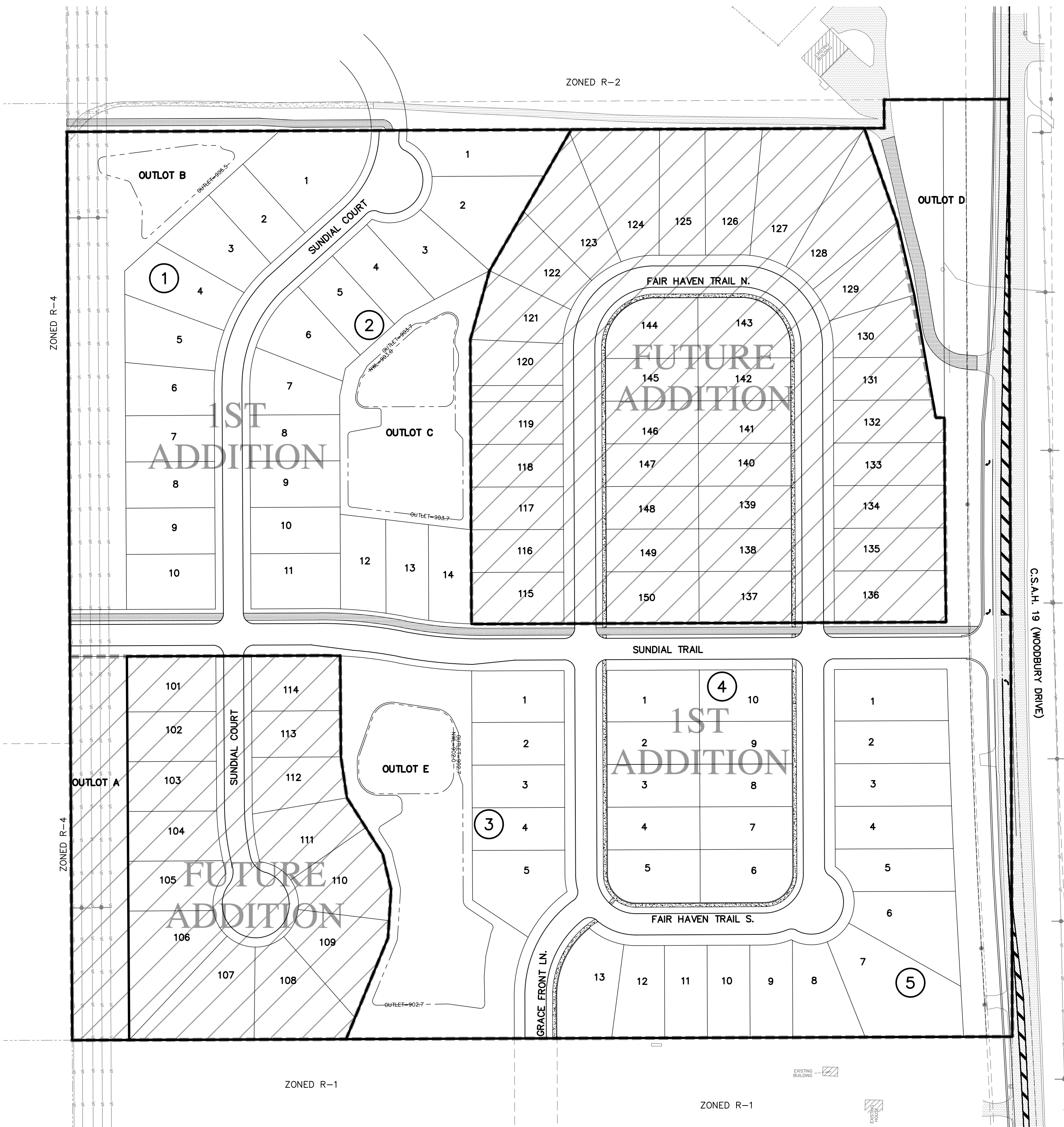
Sincerely,

Mary Giuliani Stephens  
Mayor

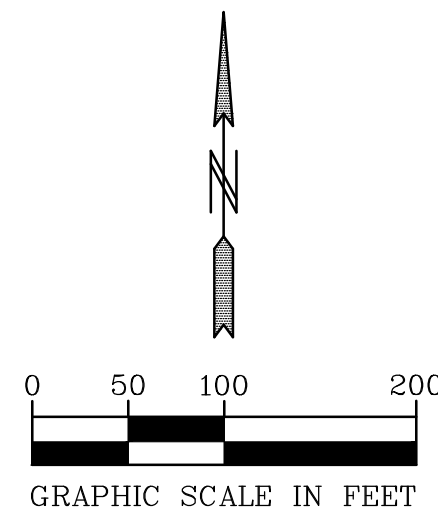
MA/bjr



# FAIR HAVEN 1ST & 2ND ADDITION FINAL GRADING & EROSION CONTROL PLAN WOODBURY, MINNESOTA



LOCATION MAP



- SHEET INDEX**
- 1. COVER SHEET
  - 2. LEGEND SHEET
  - 3-4. GRADING PLAN
  - 5-6. STORM BASIN PLAN
  - 7-8. EROSION CONTROL PLAN
  - 9. SEEDING PLAN
  - 10-11. STREET PROFILES
  - 12-13. GRADING DETAILS
  - 14. CITY DETAILS

**PHASING NOTE:**  
MASS GRADING TO BE COMPLETED  
IN ONE PHASE



**PIONEER**engineering  
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2422 Enterprise Drive  
Mendota Heights, MN 55120  
(651) 681-1914  
Fax: 681-9488  
www.pioneereng.com

I hereby certify that this plan 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

Name Paul J. Chernie  
Reg. No. 19860 Date 3-9-2017

Revisions  
1. 04-11-2017 Client Comments  
2. 04-13-2017 City Comments

Date 3-9-2017  
Designed BNM/JDM  
Drawn BNM/JDM

COVER

**LENNAR**  
16305 36TH AVENUE NORTH  
PLYMOUTH, MINNESOTA 55446

**FAIR HAVEN 1ST & 2ND ADD.**  
WOODBURY, MINNESOTA

1 OF 14

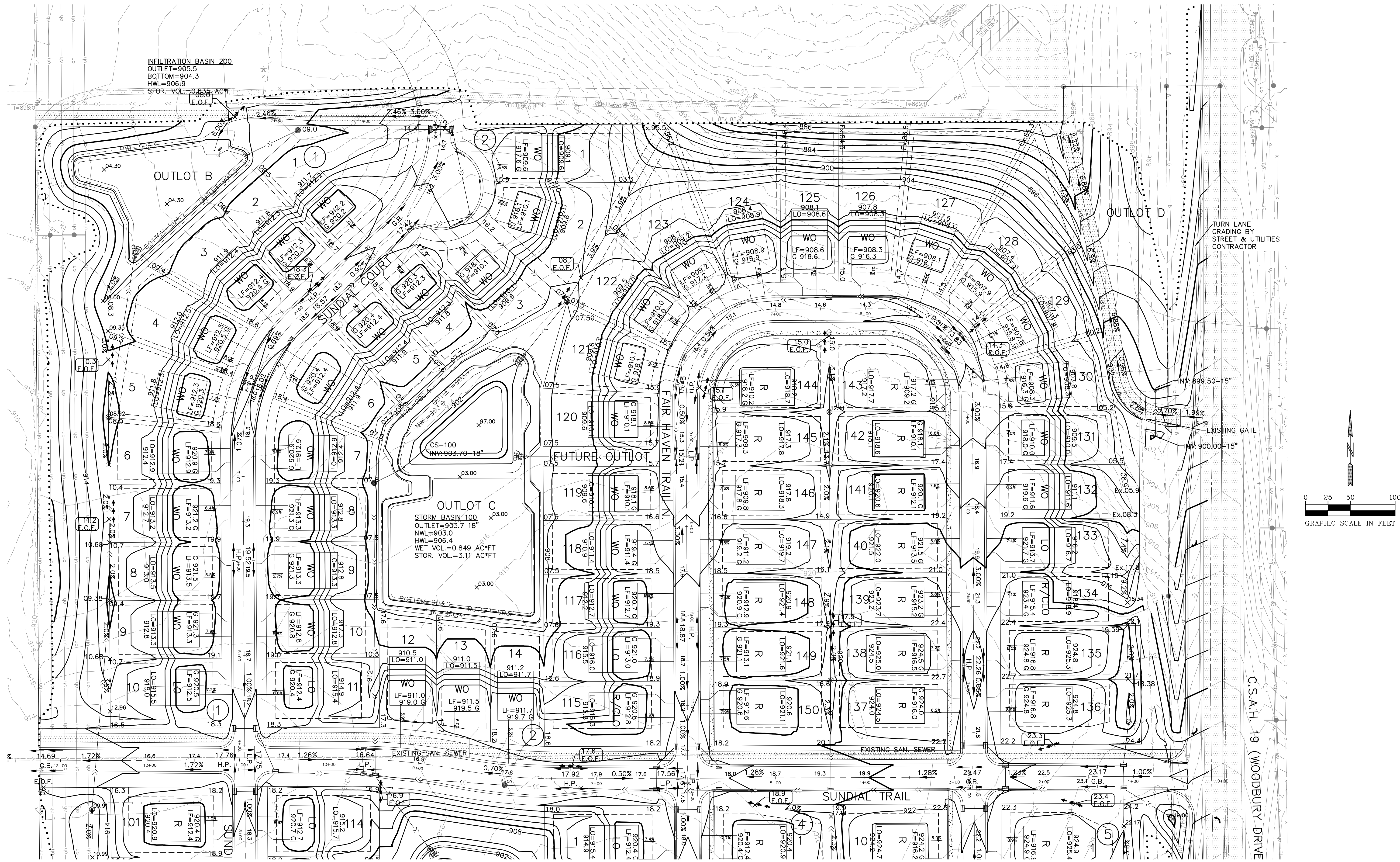


LEGEND			
UTILITY LINES			
EXISTING	PROPOSED	FUTURE	DESCRIPTION
			SANITARY MANHOLE
			SANITARY SEWER (SANITARY & WATERMAIN PLANS)
			SANITARY SEWER (STORM SEWER PLANS)
			FORCE MAIN
			HYDRANT
			GATE VALVE
			REDUCER
			CURB STOP
			WATERMAIN (SANITARY & WATERMAIN PLANS)
			WATERMAIN (STORM SEWER PLANS)
			CATCH BASIN
			BEEHIVE
			STORM MANHOLE
			FLARED END SECTION
			CONTROL STRUCTURE
			STORM SEWER (SANITARY & WATERMAIN PLANS)
			STORM SEWER (STORM SEWER PLANS)
			CULVERT
			PERFORATED DRAINTILE
			SOLID DRAINTILE SERVICE
			CASING
			UNDERGROUND ELECTRIC LINE
			UNDERGROUND FIBER OPTIC LINE
			UNDERGROUND GAS PIPELINE
			UNDERGROUND PETROLEUM PIPELINE
			UNDERGROUND TELEPHONE LINES
			UNDERGROUND TELEVISION LINE
			OVERHEAD UTILITY LINES
SITE LINES			
EXISTING	PROPOSED	FUTURE	DESCRIPTION
			SURMOUNTABLE CURB & GUTTER
			B-STYLE CURB & GUTTER
			RIBBON CURB & GUTTER
			EDGE OF BITUMINOUS
			YELLOW PAVEMENT STRIPING (SINGLE/DOUBLE)
			WHITE PAVEMENT STRIPING (SINGLE/DOUBLE)
			PHASE LINE
			CENTERLINE
			2' CONTOUR LINE
			10' CONTOUR LINE
			BASIN OUTLET LINE
			BASIN HIGH WATER LINE
			PROPOSED SPOT ELEVATION
			EMERGENCY OVERFLOW
			DRAINAGE FLOW ARROW
			DELINEATED / PROPOSED WETLAND LINE
			WETLAND BUFFER
			TREE LINE
			FEMA FLOODPLAIN BOUNDARY
			RETAINING WALL
			FENCE (BARBED WIRE)
			FENCE (CHAIN LINK)
			FENCE (WOOD)
			CONSERVATION AREA SIGN
			WETLAND BUFFER SIGN
			TYPE III BARRICADE
			LIGHT POLE
			STREET SIGNS
			PEDESTRIAN RAMP
SURVEY LINES			
EXISTING	PROPOSED	FUTURE	DESCRIPTION
			BOUNDARY
			RIGHT OF WAY
			LOT LINE
			EASEMENT
			SET BACK LINE
			SECTION LINE
			RESTRICTED ACCESS
HATCH PATTERNS			
	GRAVEL SURFACE		WETLAND
	BITUMINOUS SURFACE		WETLAND UPLAND BUFFER
	CONCRETE SURFACE		WETLAND MITIGATION
	RIP RAP		PERMANENT TURF RESTORATION
	SELECT BACKFILL MATERIAL		PERMANENT WET BASIN SEEDING
	EROSION CONTROL BLANKET		UPLAND/NATURAL AREA SEEDING
	MNDOT CATEGORY PER PLAN		

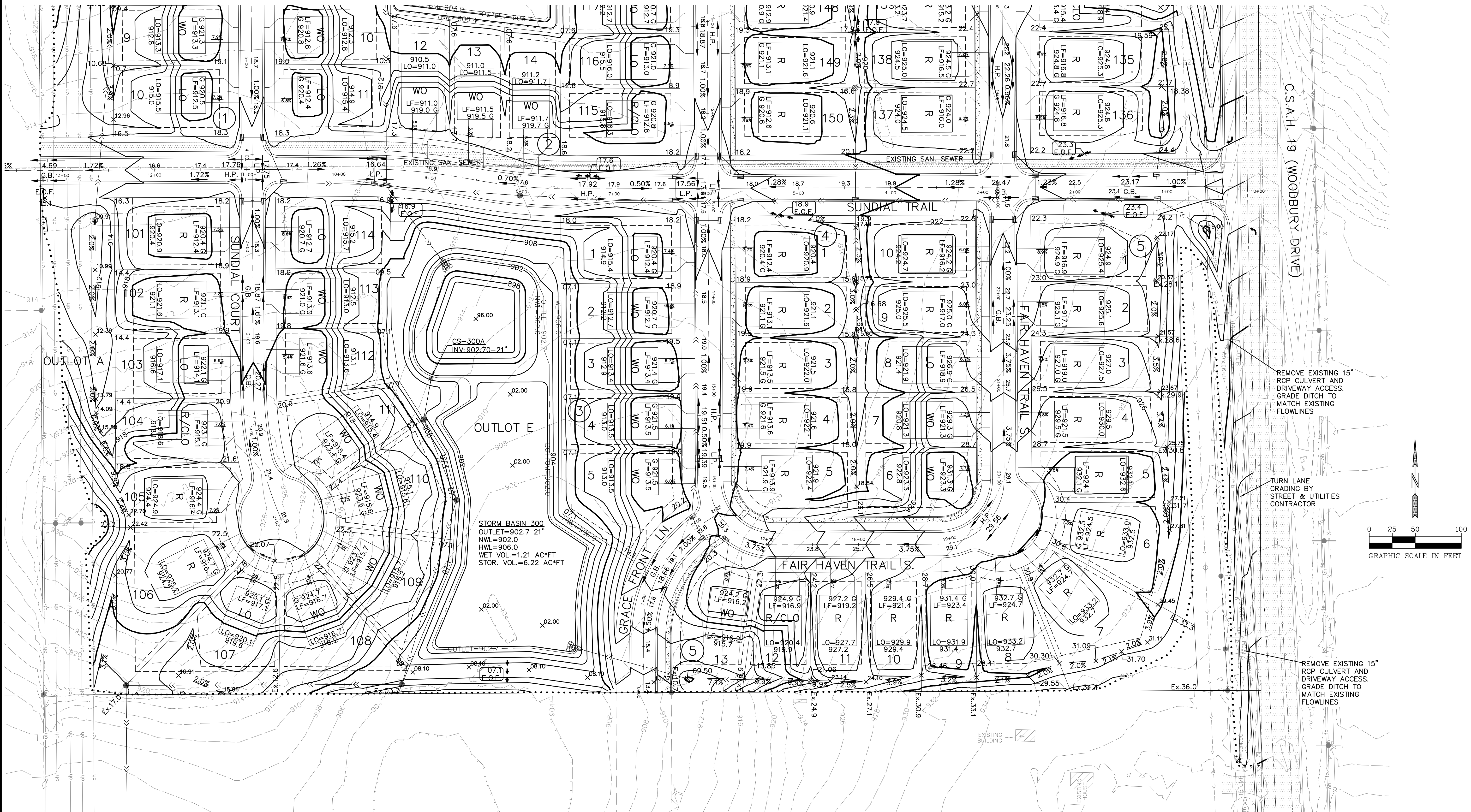
TOPOGRAPHIC SYMBOLS	
	CATCH BASIN
	CATCH BASIN BEEHIVE
	FLARED END SECTION
	GATE VALVE
	HYDRANT
	WATER SERVICE
	WATER WELL
	MONITORING WELL
	CLEANOUT
	HAND HOLE
	MANHOLE OTHER THAN SANITARY OR STORM
	SANITARY OR STORM MANHOLE
	LAWN SPRINKLER VALVE
	LAWN SPRINKLER HEAD
	UTILITY POLE
	TRANSFORMER BOX
	FIBER OPTIC BOX
	ELECTRIC BOX
	NATURAL GAS METER
	LIGHT POLE
	SEMAPHORE
	TELEPHONE BOX
	CABLE BOX
	CAST IRON MONUMENT
	FOUND IRON PIPE
	JUDICIAL LAND MARK
	PK NAIL
	CONTROL POINT
	SPIKE
	FLAG POLE
	TEST HOLE
	MAILBOX
	SIGN
	BOLLARD
	CONSERVATION POST
	DECIDUOUS TREE
	CONIFEROUS TREE
	SHRUB / BUSH
EROSION & SEDIMENT CONTROL	
	STANDARD EROSION CONTROL
	HEAVY-DUTY EROSION CONTROL
	SECONDARY EROSION CONTROL FENCE
	EROSION CONTROL AT BACK OF CURB
	TREE FENCE
	TEMPORARY DIVERSION DITCH
	CATCH BASIN INLET PROTECTION
	STRAW BIO ROLLS
	ROCK BERM
	SUMPED RIP RAP PERMANENT ENERGY DISSIPATER
	DISCHARGE LOCATION
	GRAVEL CONSTRUCTION ENTRANCE
	TEMPORARY OUTLET FLOATING SKIMMER
	BASIN ACCESS 8% SLOPE MAX.
	STABILIZED EMERGENCY OVERFLOW
	STEEP SLOPE 3:1 (H:V) (33.3%) OR STEEPER GRADE
CURB LEGEND	
	= TOP OF CURB ELEVATION FOR SURMOUNTABLE CURB
	= TOP OF CURB ELEVATION FOR SURMOUNTABLE CURB (TIP OUT GUTTER)
	= TOP OF CURB ELEVATION FOR B618 CURB
	= TOP OF CURB ELEVATION FOR B618 CURB (TIP OUT GUTTER)
	= BITUMINOUS ELEVATION

ABBREVIATIONS	
A	ALGEBRAIC DIFFERENCE
B-B	BACK TO BACK
BV	BUTTERFLY VALVE
BOC	BACK OF CURB
BFE	BASE FLOOD ELEVATION
BMP	BEST MANAGEMENT PRACTICE
CL	CENTER LINE
CB	CATCHBASIN
CBMH	CATCHBASIN MANHOLE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CS	CURB STOP
DIP	DUCTILE IRON PIPE
DT	DRAINTILE
EL/ELEV	ELEVATION
EX	EXISTING
FES	FLARED END SECTION
F-F	FACE TO FACE
FM	FORCEMAIN
GB	GRADE BREAK
GND	GROUND
GV	GATE VALVE
HP	HIGH POINT
HYD	HYDRANT
HWL	HIGH WATER LEVEL
INV	INVERT
K	CURVE COEFFICIENT
L	LENGTH
LF	LOWEST FLOOR
LO	LOOKOUT
LO	LOWEST OPENING
LP	LIQUID PETROLEUM
LP	LOW POINT
MH	MANHOLE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PVT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
R	RAMBLER
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SSWR	SANITARY SEWER
STA	STATION
STRM	STORM SEWER
SWPPP	STORM WATER POLLUTION PROTECTION PLAN
TNH	TOP NUT HYDRANT
TYP	TYPICAL
WM	WATER MAIN
WO	WALKOUT
LOT INFORMATION	
(TYPICAL SECTION NOT TO SCALE)	
DRAINAGE & UTILITY EASEMENT	
FINISHED GROUND ELEVATION	
LOWEST OPENING ELEVATION	
STEP HEIGHT (IF REQUIRED)	
LOWEST FLOOR ELEVATION	
GARAGE ELEVATION	
RECOMMENDED GARAGE SIDE	
FINISHED ELEVATION @ LOT CORNER	
BLOCK NO.	
LOT NO.	
HOUSE TYPES	
R — RAMBLER OR SPLIT ENTRY	
LO — RAMBLER LOOKOUT OR SPLIT ENTRY WALKOUT	
WO — RAMBLER WALKOUT	
SE — SPLIT ENTRY	
SEWO — SPLIT ENTRY WALK OUT	
SLO — SIDE LOOKOUT	
SWO — SIDE WALKOUT	
CL STREET	

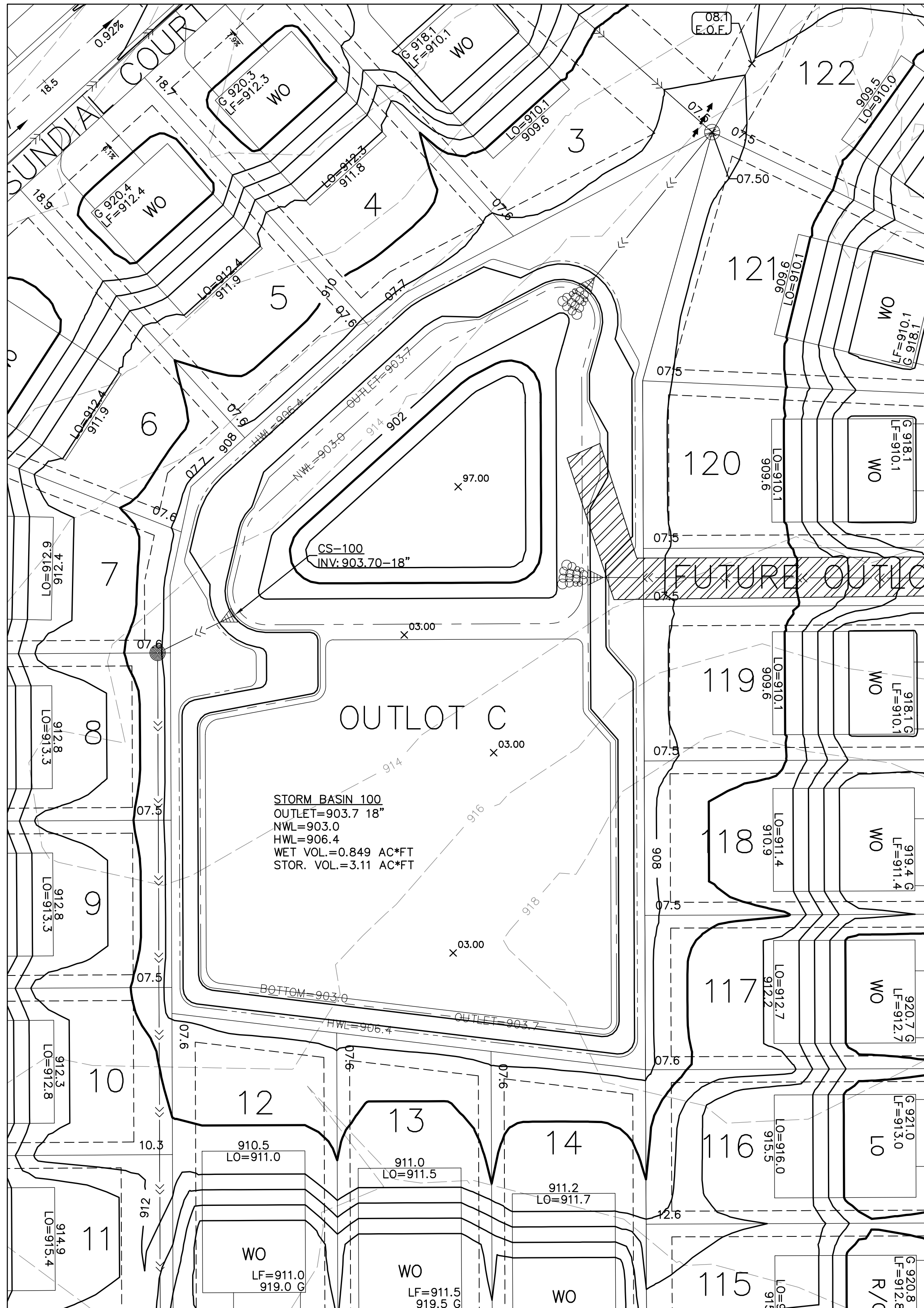




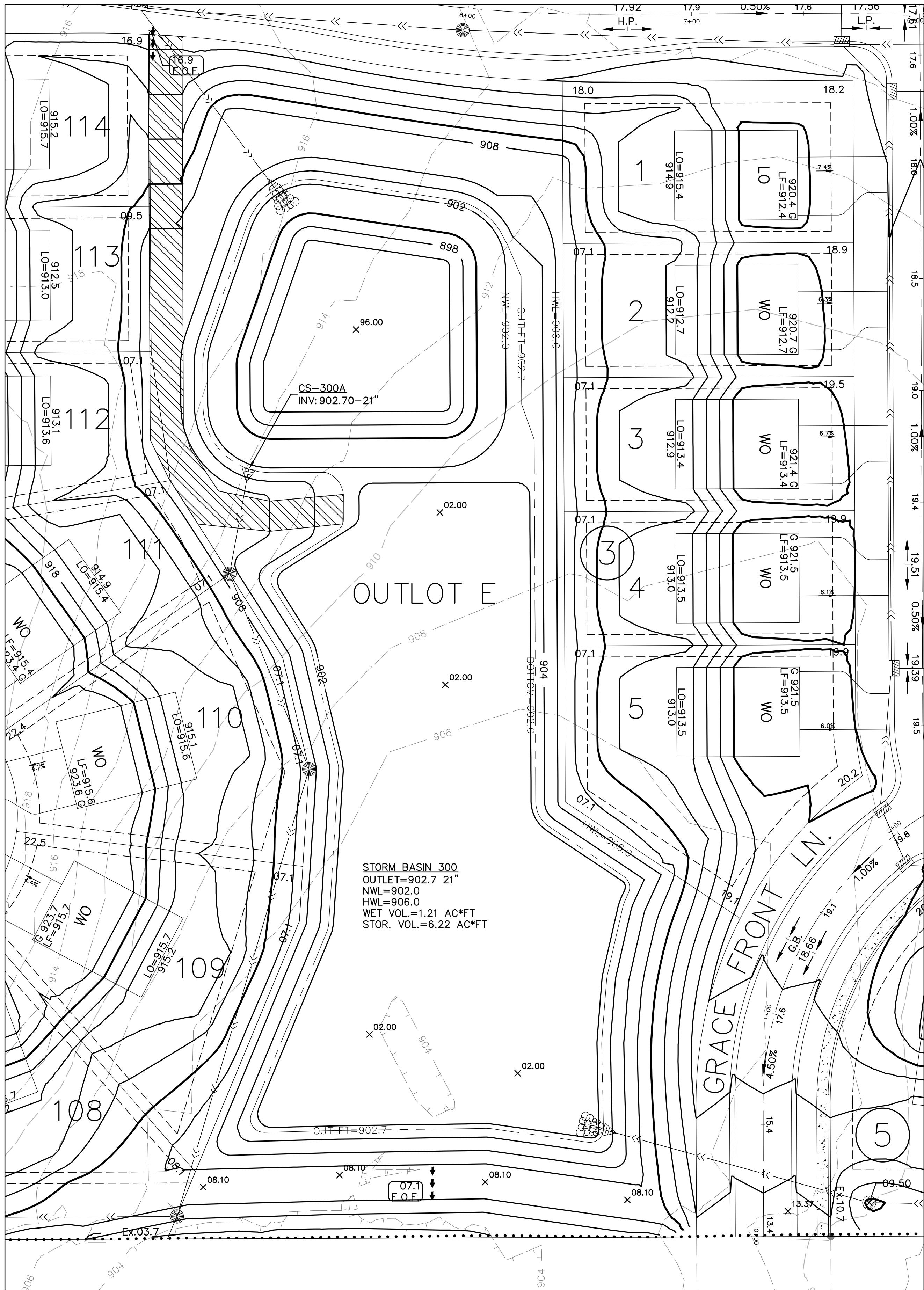




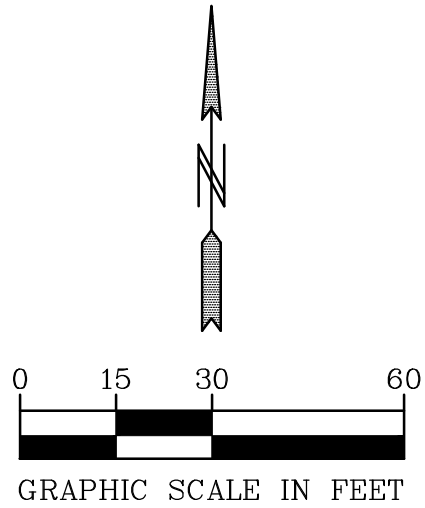




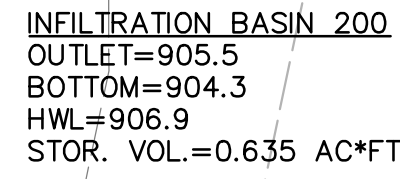
STORM BASIN 100



STORM BASIN 300

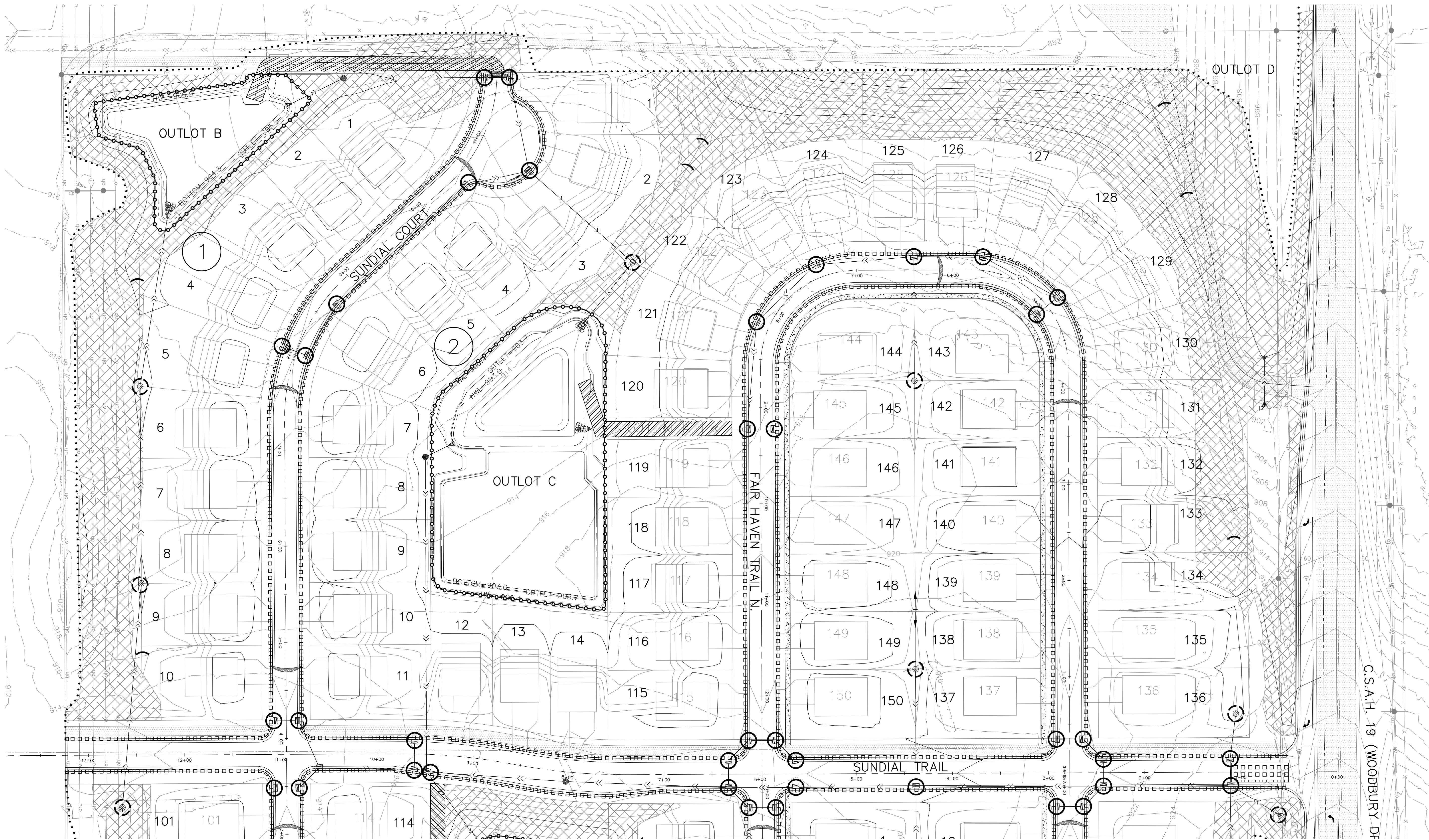




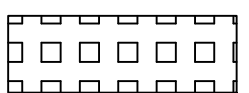
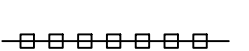









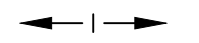


A horizontal graphic scale bar with tick marks at 0, 15, 30, and 60 feet. The bar is divided into alternating black and white segments. Below the bar is the text "GRAPHIC SCALE IN FEET". Above the bar, a north arrow points upwards, with the letter "N" positioned between the 15 and 30-foot marks.





LEGEND

- |  |   |  |  |
|--|---|--|--|
|  ROCK CONSTRUCTION ENTRANCE<br>INSTALL BEFORE START OF GRADING                                |  2' SOD OR EROSION CONTROL FENCE AT<br>BACK OF CURB. TO BE INSTALLED AFTER<br>COMPLETION OF SIDEWALK CONSTRUCTION. |  CATCH BASIN INLET PROTECTION<br>TO BE INSTALLED WITH CATCH<br>BASIN GRATE.   |  MNDOT CAT 3 EROSION CONTROL BLANKET.<br>INSTALL WITHIN 7 DAYS OF GRADING<br>COMPLETION |
|  PERIMETER EROSION CONTROL FENCE.<br>INSTALL BEFORE START OF GRADING                          |  SUMPED RIP RAP PERMANENT ENERGY<br>DISSIPATER, INSTALL WITHIN 24 HOURS<br>AFTER CONNECTION TO A SURFACE WATER.    |  STRAW BIO ROLLS. INSTALL WITHIN 7 DAYS<br>OF GRADING COMPLETION OR BEFORE 1ST<br>RAINFALL EVENT WHICHEVER IS FIRST |  ROCK BERM  |
|  SECONDARY EROSION CONTROL FENCE.<br>TO BE INSTALLED 48 HOURS AFTER<br>COMPLETION OF GRADING. |  CATCH BASIN INLET PROTECTION<br>TO BE INSTALLED AFTER 1ST LIFT<br>OF BITUMINOUS.                                  |  BASIN ACCESS 10% SLOPE MAX.  |  DRAINAGE SPLIT   |

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me or under my direct supervision and that I  
am a duly Licensed Professional Engineer  
under the laws of the State of Minnesota

Name

*Paul J. Chene*  
Paul J. Chene

Reg. No.

19860

Date 3-9-2017

Revisions

1.04-11-2017 Client Comments  
2.04-13-2017 City Comments

Date

3-9-2017

Designed

BNM/JDM

Drawn

BNM/JDM

EROSION CONTROL PLAN

LENNAR

16305 36TH AVENUE NORTH  
PLYMOUTH, MINNESOTA 55446

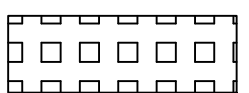
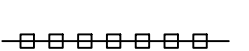



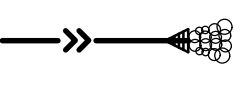


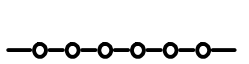


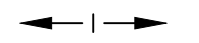
FAIR HAVEN 1ST & 2ND ADD.  
WOODBURY, MINNESOTA

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LEGEND

- |   |  |   |   |   |  |   |  |
|---|--|---|---|---|--|---|--|
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|  | PERIMETER EROSION CONTROL FENCE.<br>INSTALL BEFORE START OF GRADING                          |  | SUMPED RIP RAP PERMANENT ENERGY<br>DISSIPATER, INSTALL WITHIN 24 HOURS<br>AFTER CONNECTION TO A SURFACE WATER.    |  | STRAW BIO ROLLS. INSTALL WITHIN 7 DAYS<br>OF GRADING COMPLETION OR BEFORE 1ST<br>RAINFALL EVENT WHICHEVER IS FIRST |  | ROCK BERM  |
|  | SECONDARY EROSION CONTROL FENCE.<br>TO BE INSTALLED 48 HOURS AFTER<br>COMPLETION OF GRADING. |  | CATCH BASIN INLET PROTECTION<br>TO BE INSTALLED AFTER 1ST LIFT<br>OF BITUMINOUS.                                  |  | BASIN ACCESS 10% SLOPE MAX.  |  | DRAINAGE SPLIT   |

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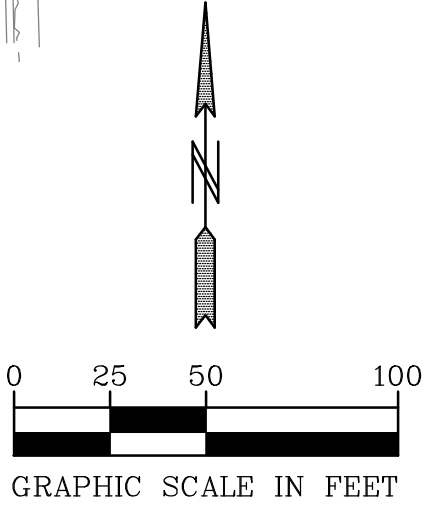
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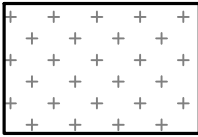
EROSION CONTROL PLAN

**LENNAR**  
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WOODBURY, MINNESOTA



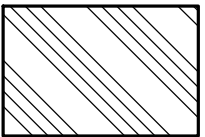




OPEN SPACE AREAS

NATIVE DRY PRAIRIE SOUTHEAST  
(STATE SEED MIX 35-621 FORMERLY U6)

35-621 Dry Prairie Southeast					
Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/ sq ft
side-oats grama	<i>Bouteloua curtipendula</i>	1.27	1.13	10.23%	2.48
blue grama	<i>Bouteloua gracilis</i>	0.76	0.68	6.19%	10.00
kalm's brome	<i>Bromus kalmii</i>	0.35	0.31	2.78%	0.90
nodding wild rye	<i>Elymus canadensis</i>	1.68	1.50	13.81%	2.86
slender wheatgrass	<i>Elymus trachycaulus</i>	1.32	1.18	10.76%	3.00
junegrass	<i>Koeleria macrantha</i>	0.46	0.41	3.71%	30.00
little bluestem	<i>Schizachyrium scoparium</i>	1.69	1.51	13.70%	8.30
sand dropseed	<i>Sporobolus cryptandrus</i>	0.25	0.22	1.98%	16.00
prairie dropseed	<i>Sporobolus heterolepis</i>	0.29	0.26	2.32%	1.50
Total Grasses		8.07	7.20	65.28%	75.04
butterfly milkweed	<i>Asclepias tuberosa</i>	0.07	0.06	0.52%	0.09
whorled milkweed	<i>Asclepias verticillata</i>	0.01	0.01	0.11%	0.05
bird's foot coreopsis	<i>Coreopsis palmata</i>	0.06	0.05	0.50%	0.20
white prairie clover	<i>Dalea candida</i>	0.10	0.09	0.78%	0.60
purple prairie clover	<i>Dalea purpurea</i>	0.17	0.15	1.32%	0.80
ox-eye	<i>Helopsis helianthoides</i>	0.07	0.06	0.51%	0.13
round-headed bush clover	<i>Lespedeza capitata</i>	0.03	0.03	0.31%	0.10
rough blazing star	<i>Liatris aspera</i>	0.02	0.02	0.17%	0.11
dotted blazing star	<i>Liatris punctata</i>	0.02	0.02	0.23%	0.08
wild bergamot	<i>Monarda fistulosa</i>	0.03	0.03	0.30%	0.85
horsemint	<i>Monarda punctata</i>	0.02	0.02	0.22%	0.80
stiff goldenrod	<i>Oligoneuron rigidum</i>	0.07	0.06	0.56%	0.98
large-flowered beard tongue	<i>Penstemon grandiflorus</i>	0.04	0.04	0.35%	0.20
black-eyed susan	<i>Rudbeckia hirta</i>	0.10	0.09	0.86%	3.20
gray goldenrod	<i>Solidago nemoralis</i>	0.01	0.01	0.14%	1.65
skyblue aster	<i>Symphyotrichum oolentangense</i>	0.01	0.01	0.06%	0.20
silky aster	<i>Symphyotrichum sericeum</i>	0.02	0.02	0.19%	0.20
bracted spiderwort	<i>Tradescantia bracteata</i>	0.01	0.01	0.12%	0.05
heart-leaved alexanders	<i>Zizia aptera</i>	0.02	0.02	0.21%	0.10
Total Forbs		0.90	0.80	7.49%	10.37
Oats or winter wheat (see note at beginning of list for recommended dates)		3.36	3.00	27.23%	1.33
Total Cover Crop		3.36	3.00	27.23%	1.33
Totals:		12.33	11.00	100.00%	86.75
Purpose:	Regional dry prairie reconstruction for wetland mitigation, ecological restoration, or conservation program plantings.				
Planting Area:	Eastern Broadleaf Forest Province excluding Hardwood Hills subsection. Mn/DOT Districts Metro & 6.				



INFILTRATION BASIN AND POND ABOVE NWL

DRY SWALE/POND  
(STATE SEED MIX 33-262 FORMERLY W4)

33-262 Dry Swale / Pond					
Common Name	Scientific Name	Rate (kg/ha)	Rate (lb/ac)	% of Mix (% by wt)	Seeds/ sq ft
big bluestem	<i>Andropogon gerardii</i>	1.68	1.50	3.40%	5.50
American slough grass	<i>Beckmannia syzigachne</i>	1.68	1.50	3.42%	27.60
fringed brome	<i>Bromus ciliatus</i>	1.68	1.50	3.40%	6.05
nodding wild rye	<i>Elymus canadensis</i>	4.48	4.00	9.09%	7.64
slender wheatgrass	<i>Elymus trachycaulus</i>	4.48	4.00	9.10%	10.15
Virginia wild rye	<i>Elymus virginicus</i>	2.80	2.50	5.67%	3.85
switchgrass	<i>Panicum virgatum</i>	0.45	0.40	0.91%	2.05
fowl bluegrass	<i>Poa palustris</i>	1.79	1.60	3.64%	76.50
Indian grass	<i>Sorghastrum nutans</i>	1.68	1.50	3.40%	6.60
Total Grasses		20.74	18.50	42.03%	145.94
marsh milkweed	<i>Asclepias incarnata</i>	0.07	0.06	0.13%	0.10
purple prairie clover	<i>Dalea purpurea</i>	0.10	0.09	0.21%	0.50
Canada tick trefoil	<i>Desmodium canadense</i>	0.10	0.09	0.21%	0.19
ox-eye	<i>Helopsis helianthoides</i>	0.10	0.09	0.20%	0.20
black-eyed susan	<i>Rudbeckia hirta</i>	0.08	0.07	0.17%	2.49
blue vervain	<i>Verbena hastata</i>	0.11	0.10	0.23%	3.50
Total Forbs		0.56	0.50	1.15%	6.98
Oats or winter wheat (see note at beginning of list for recommended dates)		28.02	25.00	56.82%	11.14
Total Cover Crop		28.02	25.00	56.82%	11.14
Totals:		49.32	44.00	100.00%	164.06
Purpose:	Temporarily flooded swales in agricultural settings.				
Planting Area:	Tallgrass Aspen Parklands, Prairie Parkland, and Eastern Broadleaf Forest Provinces. Mn/DOT Districts 2(west), 3B, 4, Metro, 6, 7 & 8.				

SEEDING NOTES:  
USE TEMPORARY SEED MIX 22-111 FOR PONDS AND OPEN SPACE TO STABILIZE OUTSIDE OF NATIVE SEEDING DATES:  
MINNESOTA STATE SEED MIXTURE 22-111 @ 40 LBS. PER ACRE OR APPROVED EQUIVALENT DOUBLE SEED RATE FOR DORMANT SEEDING AFTER NOVEMBER 1ST.

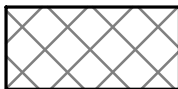
- MULCH SHALL BE MNDOT TYPE 1 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMU, 90% COVERAGE OF THE SURFACE AREA DISTURBED
- TYPE 1 FERTILIZER, 10-10-20 @ 200 LBS. PER ACRE



OPEN SPACE AREAS TO BE SEEDIED WITH MIX 35-621 (FORMERLY U6) OR EQUIVALENT



INFILTRATION BASINS AND POND ABOVE NWL BE SEEDIED WITH SEED MIX 33-262 (FORMERLY W4) OR EQUIVALENT. SEE GRADING PLANS FOR MORE STORMWATER MANAGEMENT DETAILS



PERMANENT SEEDING AREAS TO BE SEEDIED WITH MN MIX 25-141

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Reg. No.

19860

Date

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Revisions

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2. 04-13-2017 City Comments

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Designed

BNM/JDM

Drawn

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SEEDING PLAN

LENNAR

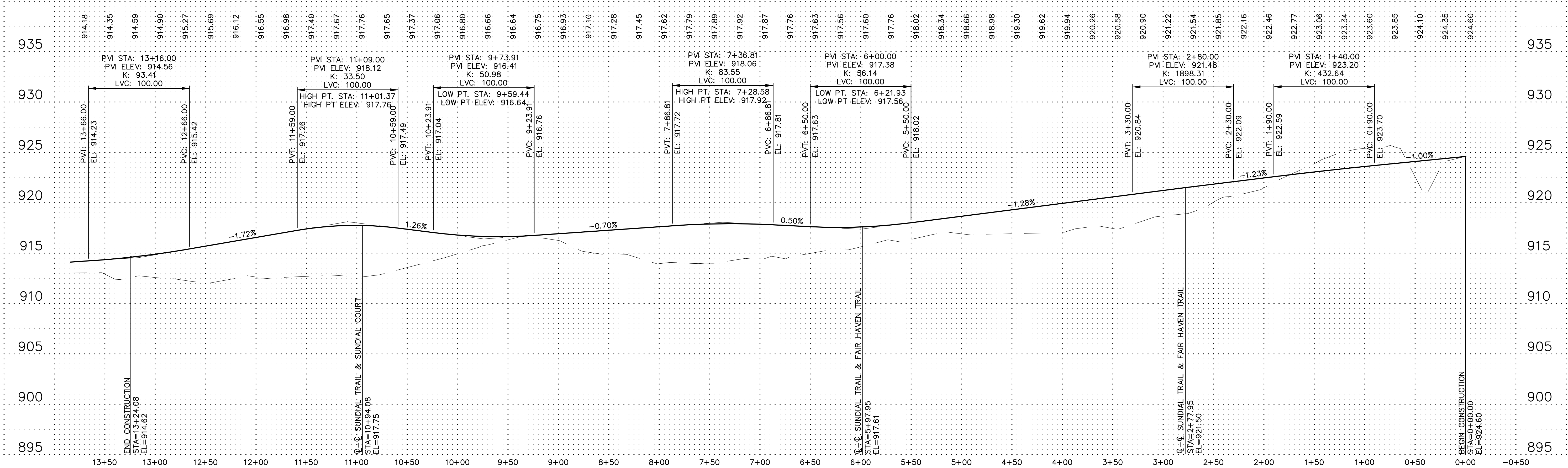
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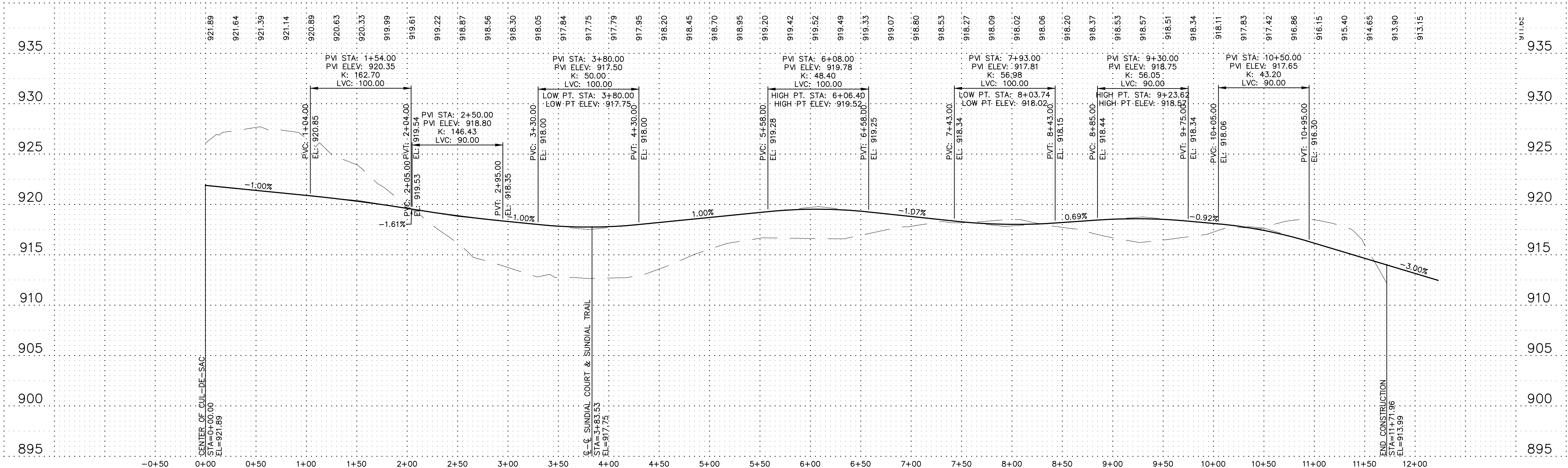
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SUNDIAL TRAIL



SUNDIAL COURT



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Reg. No. 19860 Date 3-9-2017

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STREET PROFILES

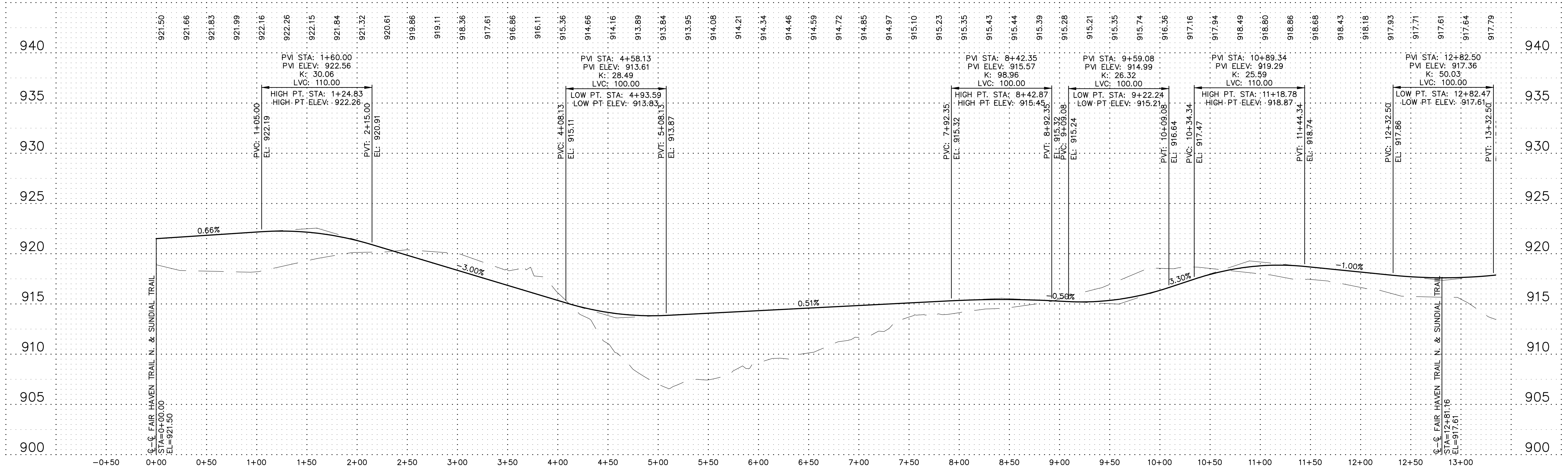
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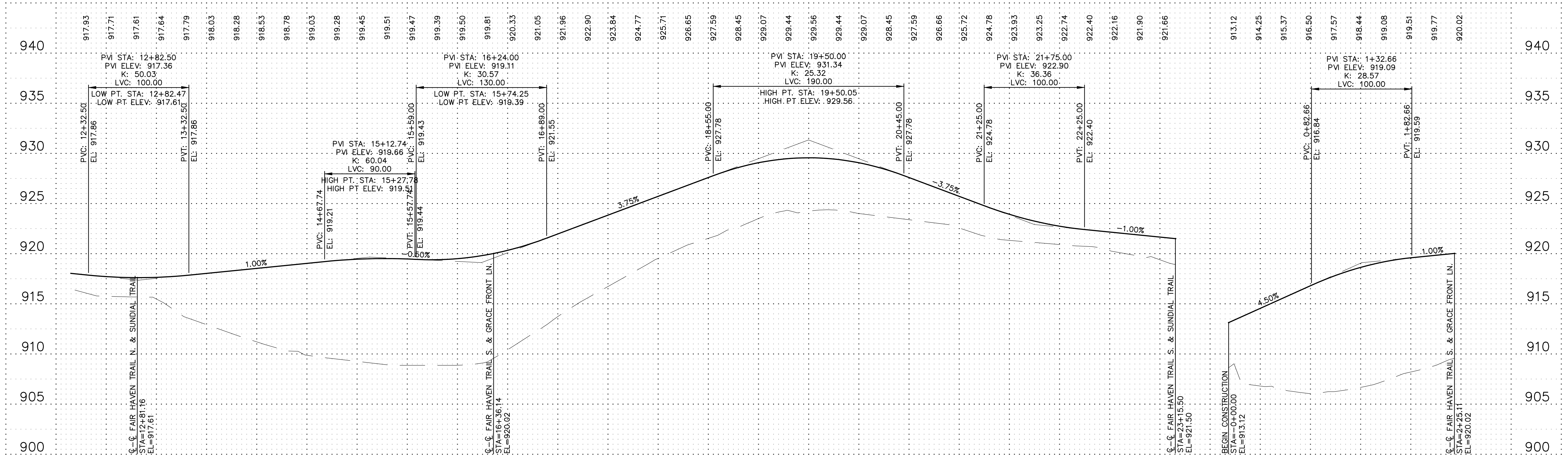
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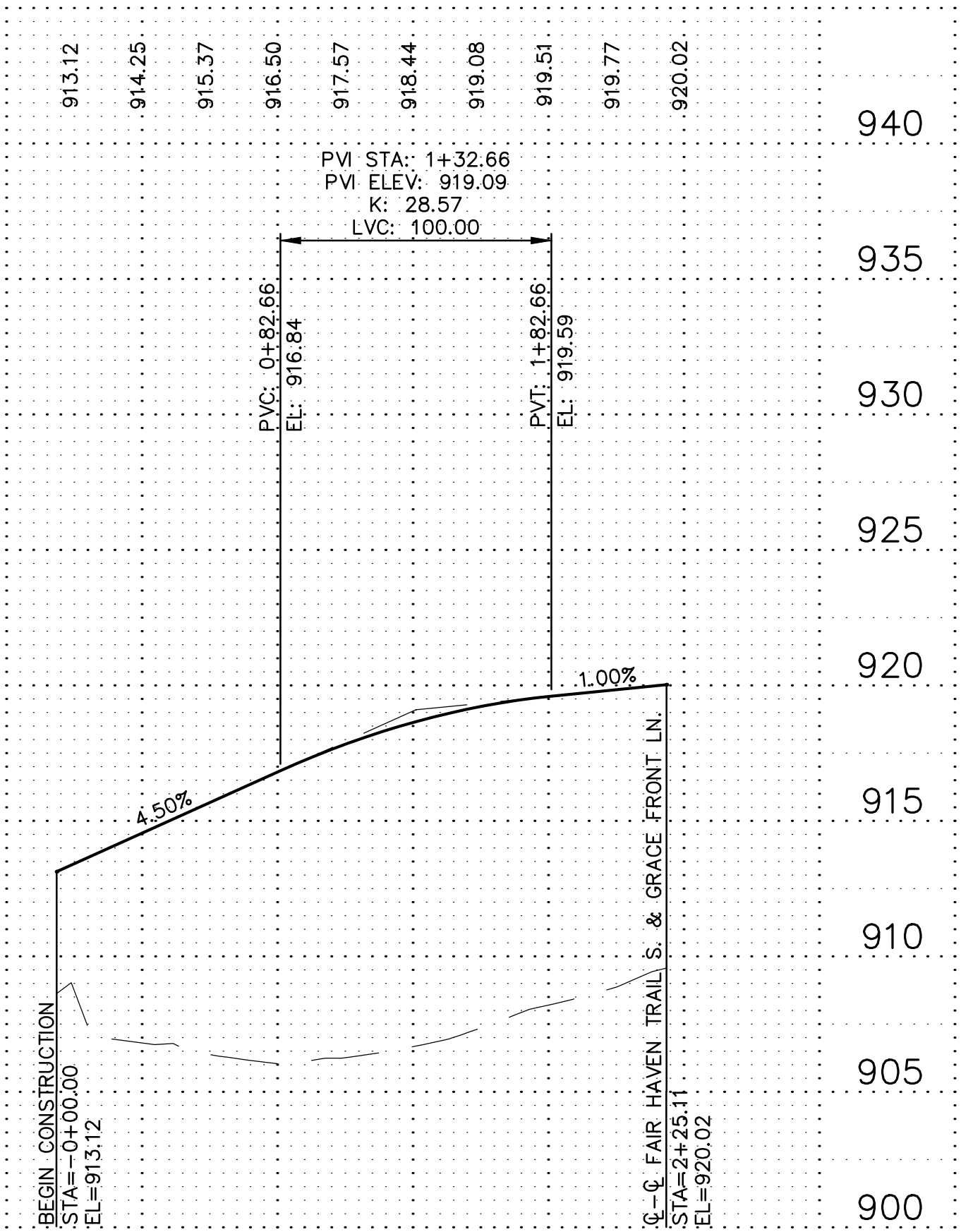
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# FAIR HAVEN TRAIL S.



# GRACE FRONT LN.



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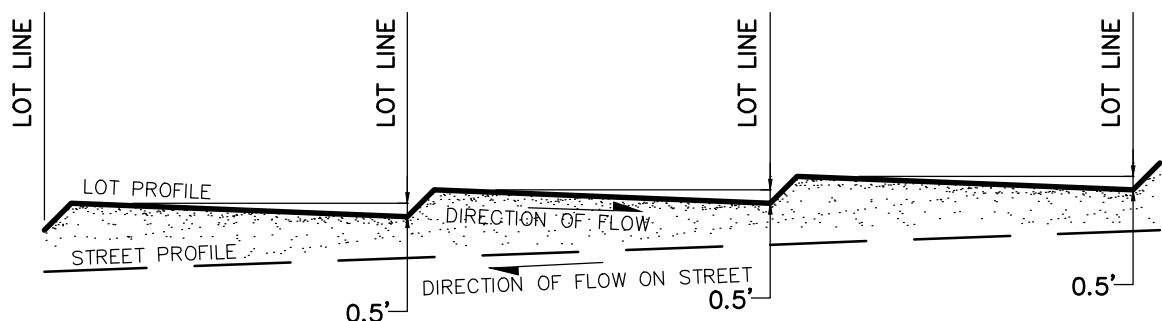


GRADING SEQUENCE

1. INSTALL ROCK CONSTRUCTION ENTRANCE
2. INSTALL PERIMETER SEDIMENT CONTROL DEVICES (SILT FENCE).
3. STRIP TOPSOIL, STOCKPILE AND STABILIZE IN BERM FOR FUTURE SPREADING.
4. DIG TEMPORARY SEDIMENT BASIN, BASIN TO BE 1800 CF/ACRE OF AREA STRIPPED. CLEAN TEMP BASIN ONCE 50% FULL.
5. ALL SOILS WILL BE COMPACTED PER SPECIFICATIONS.
6. MAINTAIN DRAINAGE DURING GRADING OPERATION TO TEMPORARY SEDIMENT BASIN.
7. COMPLETE SITE GRADING PER PLAN.
8. RESPREAD TOPSOIL MAINTAIN A MINIMUM OF 4" DEPTH.
9. MAINTAIN DRAINAGE TO TEMP SEDIMENT BASIN UNTIL NEXT PHASE BEGINS.
10. STABILIZE DENUDED AREAS AND STOCKPILES WITHIN TIME FRAME LISTED IN EROSION PREVENTION PRACTICES

GENERAL NOTES

1. THE STORM WATER POLLUTION PREVENTION MANAGER SHALL BE A PERSON TRAINED, KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMP'S WHO WILL OVER SEE THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S BEFORE AND DURING CONSTRUCTION.
2. CONTRACTOR TO ADHERE TO ALL REQUIREMENTS OF THE MINNESOTA POLLUTION CONTROL AGENCY N.P.D.E.S. PERMIT, INCLUDING THE REQUIREMENT TO MINIMIZE THE AREA DISTURBED BY GRADING AT ANY GIVEN TIME AND TO COMPLETE TURF RESTORATION WITHIN THE TIME REQUIRED BY THE PERMIT AFTER TEMPORARY CEASING GRADING OR COMPLETION OF GRADING.
3. A COPY OF THESE PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
4. BMP'S REFER TO EROSION AND SEDIMENT CONTROL PRACTICES DEFINED IN THE MPCA PROTECTING WATER QUALITY IN URBAN AREAS AND THE MINNESOTA CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PLANNING HANDBOOK.
5. ALL EROSION AND SEDIMENT CONTROL FACILITIES (BMP'S) SHALL BE INSTALLED AND IN OPERATION PRIOR TO LAND DISTURBANCE ACTIVITIES. SOME EROSION CONTROLS SUCH AS CHECK DAMS AND TEMPORARY SILT PONDS MAY BE INSTALLED AS GRADING OCCURS IN THE SPECIFIC AREA. THEY SHALL BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR EROSION HAS PASSED.
6. THE BMP'S SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, THE PERMITTEE SHALL ANTICIPATE THAT MORE BMP'S WILL BE NECESSARY TO ENSURE EROSION AND SEDIMENT CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE PERMITTEE TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION ACTIVITIES AND/OR CLIMATIC EVENTS AND TO PROVIDE ADDITIONAL BMP'S OVER AND ABOVE THE MINIMUM REQUIREMENTS SHOWN ON THE PLANS THAT MAY BE NEEDED TO PROVIDE EFFECTIVE PROTECTION OF WATER AND SOIL RESOURCES.
7. ALL TREES NOT LISTED FOR REMOVAL SHALL BE PROTECTED. DO NOT OPERATE EQUIPMENT WITHIN THE DRIP LINE, ROOT ZONES OR WITHIN TREE PROTECTION FENCE AREAS.
8. WHEREVER POSSIBLE, PRESERVE THE EXISTING TREES, GRASS AND OTHER VEGETATIVE COVER TO HELP FILTER RUNOFF.
9. OPERATE TRACK EQUIPMENT (DOZER) UP AND DOWN EXPOSED SOIL SLOPES ON FINAL PASS, LEAVING TRACK GROOVES PERPENDICULAR TO THE SLOPE. DO NOT BACK- BLADE. LEAVE A SURFACE ROUGH TO MINIMIZE EROSION.
10. TEMPORARY SEED SHALL BE DONE IN ACCORDANCE TO MNDOT 2575 & 3876. CONSISTING OF:
  - MN SEED MIX 22-111 @ 40 LBS. PER ACRE OR APPROVED EQUAL.
  - MULCH SHALL BE MNDOT TYPE 3 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED.
  - TYPE 1 FERTILIZER, 10-10-20 @ 200 LBS. PER ACRE
11. PERMANENT TURF RESTORATION SHALL BE DONE IN ACCORDANCE WITH MNDOT 2575 & 3876. CONSISTING OF:
  - MN SEED MIX 25-141 AT 75 POUNDS PER ACRE.
  - MULCH SHALL BE MNDOT TYPE 1 @ 2 TONS PER ACRE OR APPROVED EQUAL AND DISK ANCHORED IN PLACE OR APPROVED EQUAL, INSTALLED TO MINIMUM 90% COVERAGE OF THE SURFACE AREA DISTURBED. MULCH AT 90 % COVERAGE WITH DISC ANCHOR.
  - TYPE 3 FERTILIZER, 22-5-10 80%W.N @ 350 LBS PER ACRE.
12. SLOPES AT 3:1 OR STEEPER, AND/OR WHERE INDICATED ON THE PLANS SHALL BE SEEDED AND HAVE AN EROSION CONTROL BLANKET TYPE 3 INSTALLED OR MAY BE HYDROSEEDED WITH TACKIFIER MULCH.
13. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS.
14. IF BLOWING DUST BECOMES A NUISANCE. THE CONTRACTOR SHALL APPLY WATER FROM A TANK TRUCK TO ALL CONSTRUCTION AREAS.
15. WITHIN 7 DAYS OF COMPLETION OF THE SITE GRADING OPERATIONS THE ENTIRE SITE (EXCEPT ROADWAYS) SHALL HAVE BEEN SEEDED AND MULCHED AND SILT FENCE SHALL INSTALLED AROUND ALL PONDS.
16. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
17. THE MINIMIZATION OF SOIL COMPACTION MUST BE USED ON AREAS OUTSIDE OF SPECIFIC COMPACTION REQUIRED AREAS. THESE PRACTICES INCLUDE: PREVENTING HEAVY EQUIPMENT TRAFFIC AND CONSTRUCTION TRAFFIC FROM AREAS, USING PRACTICES TO PREVENT CONCENTRATED FLOW OCCURRING OVER THE SOIL, PROVIDE LIGHT TRACKED EQUIPMENT TO CONSTRUCT AREA TO FINAL GRADE. THE AREAS REQUIRING LOOSE SOIL INCLUDE ALL TOPSOIL PLACEMENT AND INFILTRATION/FILTRATION BASINS.
18. ALL GARBAGE, DEAD TREES, EXISTING FENCE LINE AND/OR POSTS AND OTHER DEBRIS SHALL BE REMOVED BY THE DEVELOPER PRIOR TO OUTLOTS TO THE CITY. THE DEVELOPER SHALL SCHEDULE A SITE WALK WITH THE APPROPRIATE STAFF MEMBERS FOR A FIELD INSPECTION PRIOR TO ANY ISSUANCE OF BUILDING PERMITS.
19. TRAIL AND SIDEWALK LOCATION SUB GRADE CORRECTIONS SHALL BE COMPLETED WITH MASS SITE GRADING IF FOUND NECESSARY.
20. ALL EXISTING DRIVEWAY ACCESSES AND EXISTING CULVERTS ALONG C.S.A.H. 19 SHALL BE REMOVED AND THE DITCH GRADED TO MATCH EXISTING FLOWLINES AS PART OF THE MASS GRADING.



LOT BENCHING DETAIL  
NO SCALE

CONSTRUCTION ACTIVITY REQUIREMENTS

A. EROSION PREVENTION PRACTICES

1. THE CONTRACTOR SHALL IMPLEMENT CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION. THE LOCATION OF AREAS NOT TO BE DISTURBED MUST BE DELINEATED (E.G. WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.) ON THE DEVELOPMENT SITE BEFORE WORK BEGINS.
2. TEMPORARY STABILIZATION MUST BE INITIATED IMMEDIATELY WHENEVER ANY CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION IF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS. STABILIZATION MUST BE COMPLETED NO LATER THAN 7 CALENDAR DAYS AFTER THE CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED.
3. ALL EXPOSED SOIL AREAS WITHIN 200 FEET OF A SURFACE WATER OR ANY STORMWATER CONVEYANCE SYSTEM WHICH IS CONNECTED TO A SURFACE WATER MUST BE STABILIZED WITHIN 7 DAYS. THESE AREAS INCLUDE POND SIDE SLOPES, EXPOSED SOIL AREAS WITH A POSITIVE SLOPE TO A CURB AND GUTTER SYSTEM, STORM SEWER INLET, DRAINAGE DITCH, OR OTHER SYSTEM THAT DISCHARGES TO A SURFACE WATER.
4. THE NORMAL WETTED PERIMETER OF ANY DRAINAGE DITCH MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE TO ANY SURFACE WATER (WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER).
5. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

B. SEDIMENT CONTROL PRACTICES

1. SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT ENTERING SURFACE WATERS. DITCHES AND SEDIMENT BASINS REQUIRE SEDIMENT CONTROL PRACTICES ONLY AS APPROPRIATE FOR SITE CONDITIONS. IF DOWN GRADE SYSTEM IS OVERLOADED, ADDITIONAL UPGRADE PRACTICES MUST BE INSTALLED, AND THE SWPPP MUST BE AMENDED. THERE SHALL BE NO UNBROKEN SLOPE LENGTH OF GREATER THAN 75 FEET FOR SLOPES WITH A GRADE OF 3:1 OR STEEPER. SLOPES MAY BE BROKEN WITH SILT FENCE, ROCK CHECK DAMS, COMPOST SNAKES, OR OTHER APPROVED METHODS AND/OR AS SHOWN ON THE EROSION CONTROL PLAN.
2. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON DOWNGRADE PERIMETERS BEFORE UPGRADE LAND DISTURBING ACTIVITIES BEGIN.
3. THE TIMING OF SEDIMENT CONTROL PRACTICES MAY BE ADJUSTED TO ACCOMMODATE SHORT TERM ACTIVITIES. HOWEVER, THESE PRACTICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.
4. CONTRACTOR MUST PROTECT ALL STORM DRAIN INLETS BY APPROPRIATE BMP'S DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
5. TEMPORARY STOCKPILES MUST HAVE SILT FENCE AROUND THE PERIMETER OF THE BASE OF THE STOCKPILE AND CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORM WATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS OR DITCHES.
6. CONTRACTOR MUST INSTALL TEMPORARY (OR PERMANENT) SEDIMENTATION BASINS WHERE TEN OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION AND/OR AS SHOWN ON THE EROSION CONTROL PLAN.

C. DEWATERING AND SURFACE DRAINAGE

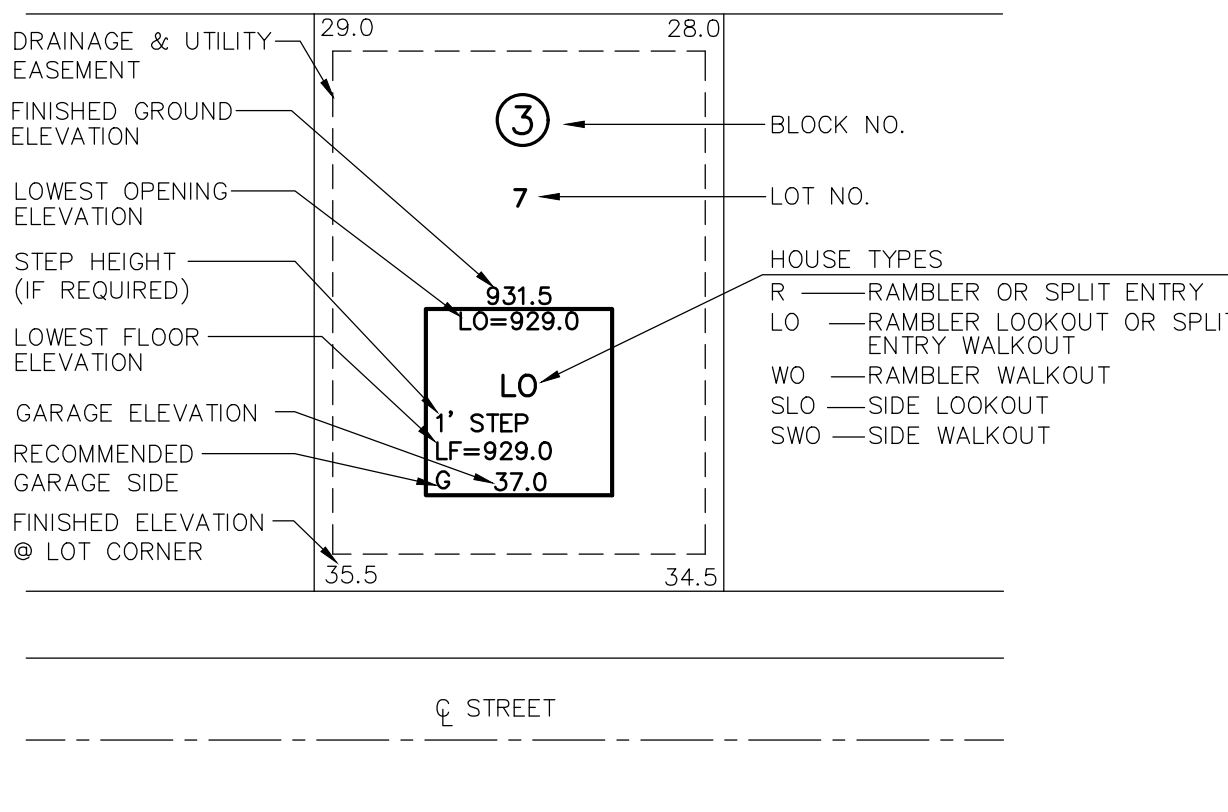
1. DEWATERING OR ANY TYPE OF SURFACE DRAINAGE THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO AN APPROVED SEDIMENT BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMP'S SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM LANDOWNERS. THE CONTRACTOR MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIP RAP, SAND BAGS, PLASTIC SHEETING, OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES.
2. ALL WATER FROM DEWATERING MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE NUISANCE CONDITIONS, EROSION, OR INUNDATION OF WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.

D. INSPECTIONS AND MAINTENANCE

1. THE CONTRACTOR MUST APPOINT SOMEONE TO INSPECT THE CONSTRUCTION SITE ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF GREATER THAN 0.5 INCHES IN 24 HOURS. ALL INSPECTIONS MUST BE RECORDED IN WRITING AND RETAINED PER M.P.C.A. N.P.D.E.S. REQUIREMENTS. (NOTE: LOCAL JURISDICTION MAY REQUIRE A MORE FREQUENT INTERVAL OF INSPECTION.)
2. ALL NONFUNCTIONAL BMP'S MUST BE REPAIRED, REPLACED OR SUPPLEMENTS WITH FUNCTIONAL BMP'S BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS UNLESS ANOTHER TIME FRAME IS SPECIFIED. (SEE MPCA NPDES PERMIT IV.E.5).

E. POLLUTION PREVENTION MANAGEMENT MEASURES

1. SOLID WASTE MUST BE DISPOSED OF PER M.P.C.A. REQUIREMENTS.
2. HAZARDOUS MATERIALS MUST BE STORED AND DISPOSED OF PER M.P.C.A. REGULATIONS.
3. EXTERNAL WASHING OF CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DECREASING IS ALLOWED ON SITE.



LOT INFORMATION  
(TYPICAL SECTION NOT TO SCALE)









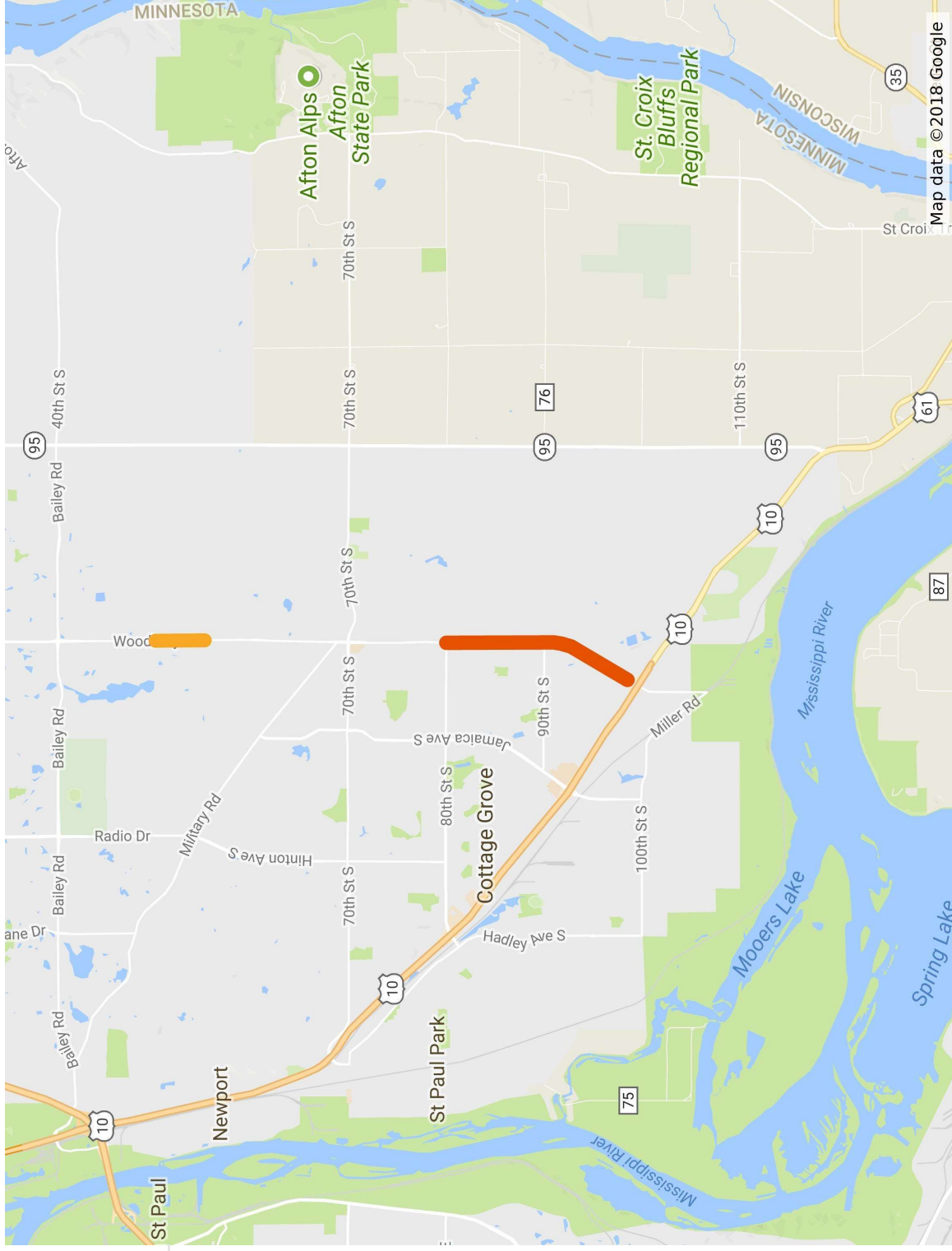




# Central Greenway

## Central Greenway

-  North Segment
-  South Segment



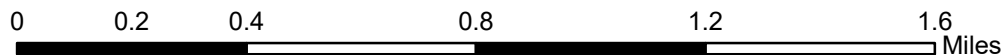


# Population/Employment Summary

## Results

Within ONE Mile of project:  
Total Population: 1956  
Total Employment: 208

Project  
2010 TAZ



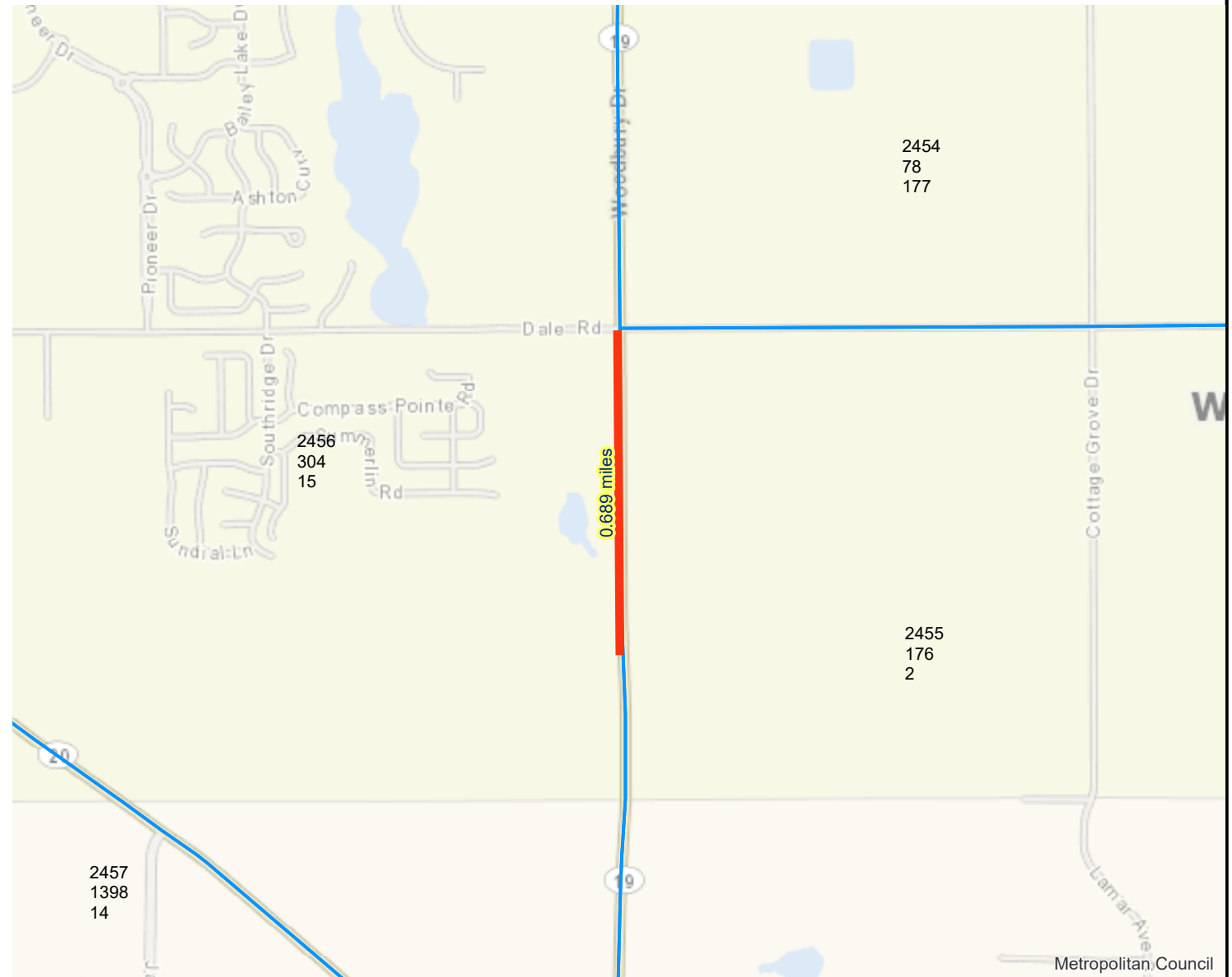
Created: 7/3/2018  
LandscapeRSA4



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - North Segment | Map ID: 1530642073



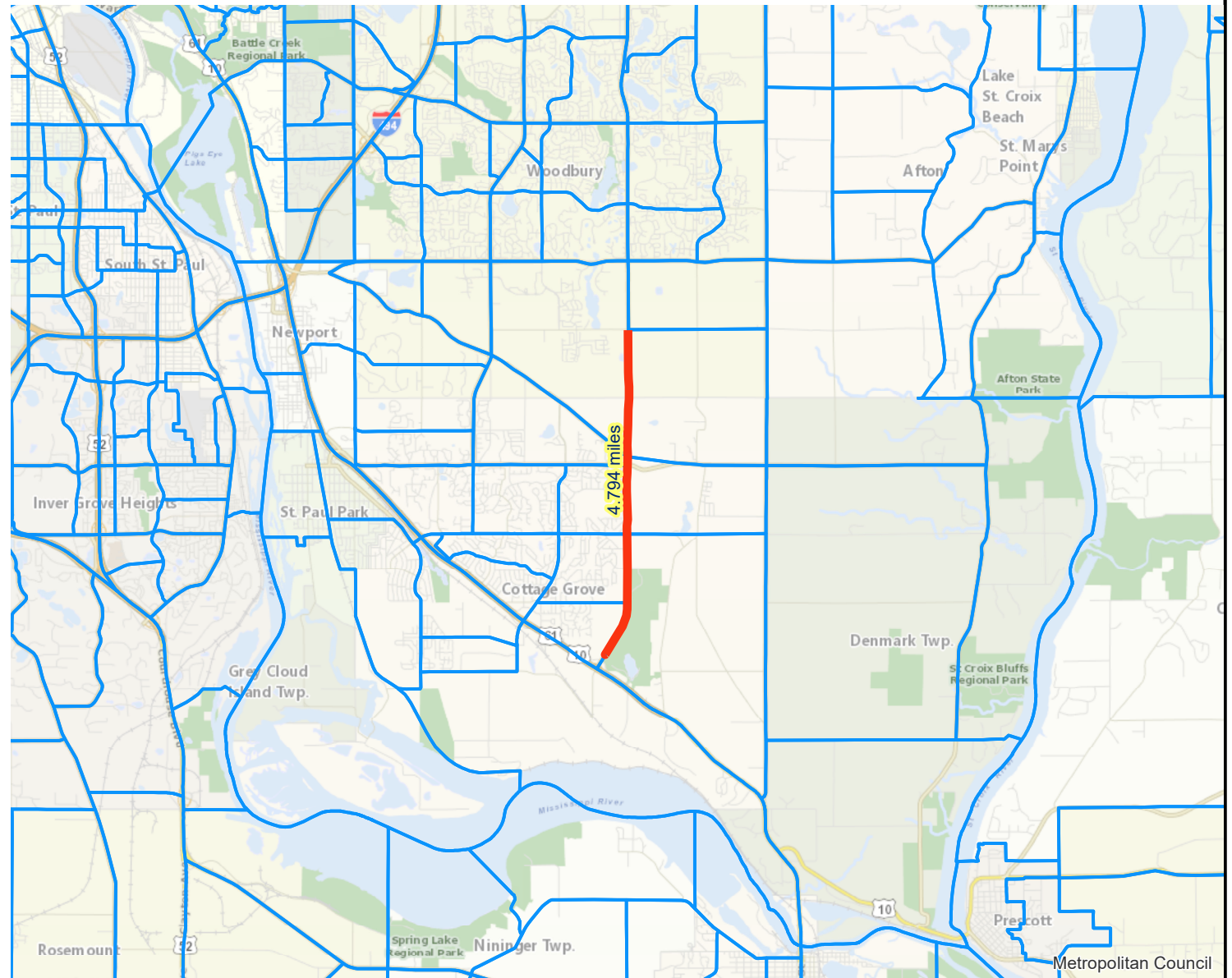


# Population/Employment Summary

## Results

Within ONE Mile of project:  
Total Population: 19830  
Total Employment: 2796

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - Overview Map | Map ID: 15288267321



Project  
2010 TAZ

0 1.25 2.5 5 7.5 10 Miles

Created: 6/12/2018  
LandscapeRSA4



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<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



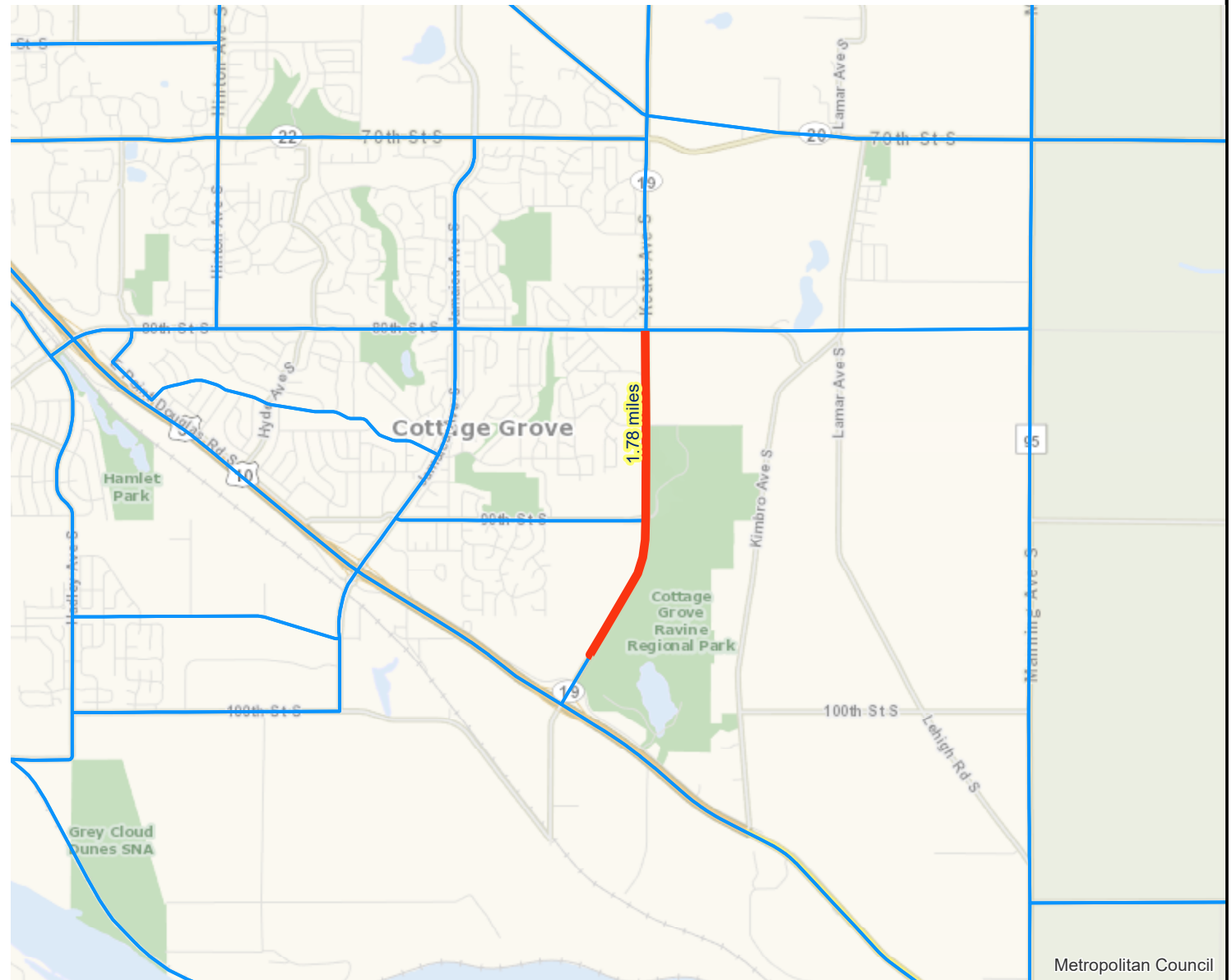


## Population/Employment Summary

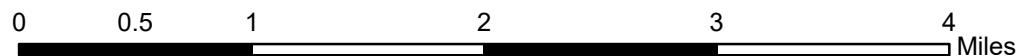
Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - South Segment | Map ID: 1528828308

## Results

Within ONE Mile of project:  
Total Population: 17874  
Total Employment: 2588



— Project  
□ 2010 TAZ



Created: 6/12/2018  
LandscapeRSA4



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<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>





## **Project Summary: Central Greenway Regional Trail Segments and Crossing along CSAH 19 in the Cities of Cottage Grove and Woodbury**

The Central Greenway Regional Trail is a vision for a continuous north/south trail in Washington County. The adopted trail master plan covers the two existing segments of trail as well as the proposed trail between I-94 and Cottage Grove Ravine Regional Park in Woodbury and Cottage Grove. This segment of the Central Greenway is designated as a Tier 2 alignment on the Metropolitan Council's Regional Bicycle Transportation Network. Washington County is asking for \$5,273,120 in funding to construct a 10-foot wide (minimum) multi-use off-road trail that runs along two sections of CSAH 19 and two grade separated crossings as part of the Central Greenway Regional Trail. The first section is a 0.69 mile stretch running south from Dale Road in Woodbury and the second is a 1.78 mile stretch running from 80<sup>th</sup> Street to the new entrance to Cottage Grove Ravine Regional Park in Cottage Grove. The trail crossings will include a trail underpass south of 85<sup>th</sup> Street and a trail overpass at the new entrance to Cottage Grove Ravine Regional Park. This trail will close a gap in both the local trail network and in the Regional Bicycle Transportation Network (RBTN). The existing trail stops at these points and puts users on rural highway. This trail would close the remaining gaps in the southern segment of the trail system.

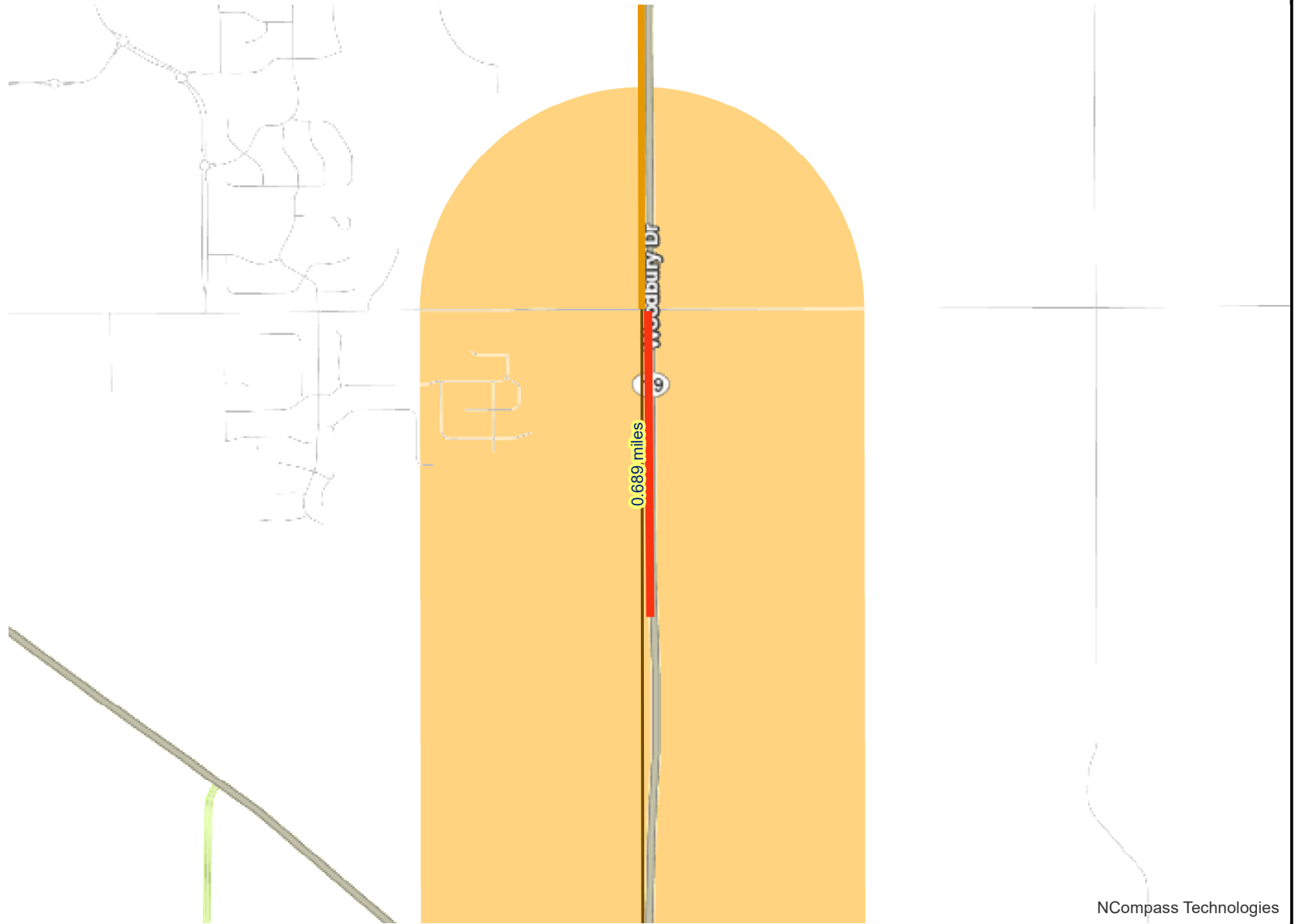
Central Greenway will provide a direct connection for the suburban communities of Lake Elmo, Cottage Grove and Woodbury. The long term vision of the trail will connect these communities through a safe and direct route to each other and surrounding destinations. It will be open to pedestrians and cyclists, and permitted electric ADA accessibility equipment. This trail will not be open to motorized vehicles or equestrian uses, except for maintenance or law enforcement. It will also allow users to cross the highway safely at the grade separated crossings.

This trail segments proposed in this application will link users to existing and future housing developments creating more non-motorized transportation options for the community. The Central Greenway has the support of the Cities of Cottage Grove and Woodbury as they are dedicated to making safer commuting connections and trails for their communities. Implementing these trail segments will create a safe, off-road facility for users of all ages and abilities. The trail will also provide access to Washington County's Cottage Grove Service Center, Cottage Grove City Hall and Police Department, Cottage Grove Ravine Regional Park and multiple schools.



# Project to RBTN Orientation

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - North Segment | Map ID: 1530642073090



- Project
- RBTN Corridor Centerlines
- RBTN Tier 2 Alignment
- RBTN Tier 1
- RBTN Tier 2
- Minor Arterials
- Principal Arterials

0 0.2 0.4 0.8 1.2 1.6 Miles

Created: 7/3/2018  
LandscapeRSA6



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<https://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>





# Project to RBTN Orientation

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - Overview Map | Map ID: 1528826732194



- Project
- RBTN Corridor Centerlines
- RBTN Tier 1 Alignment
- RBTN Tier 2 Alignment
- RBTN Tier 1
- RBTN Tier 2



Created: 6/12/2018  
LandscapeRSA6



For complete disclaimer of accuracy, please visit  
<https://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>

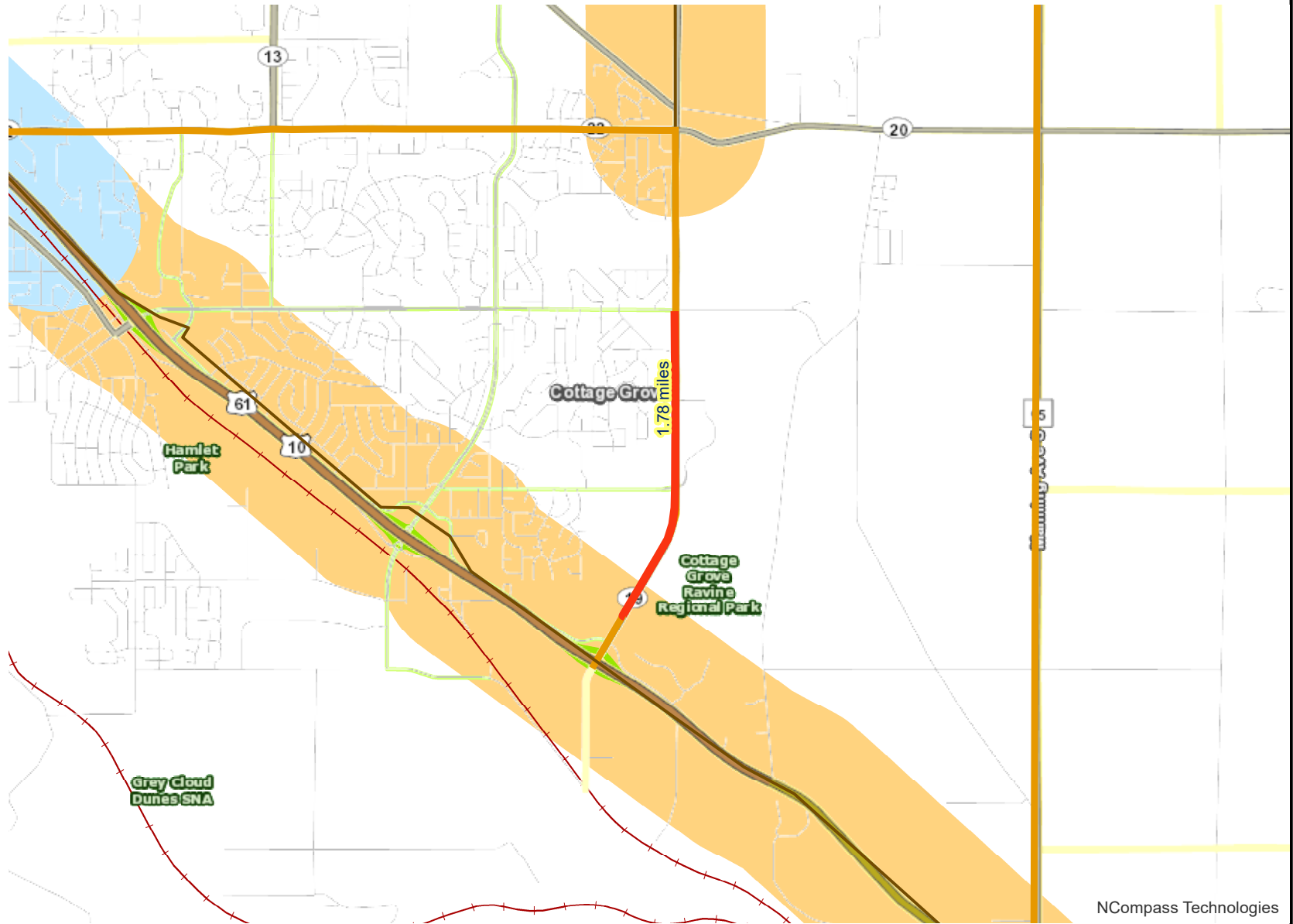


NCompass Technologies



# Project to RBTN Orientation

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - South Segment | Map ID: 1528828308910



- Project
- RBTN Corridor Centerlines
- RBTN Tier 2 Alignment
- RBTN Tier 1
- RBTN Tier 2
- Principal Arterials
- Minor Arterials
- Railroads

0 0.5 1 2 3 4 Miles

Created: 6/12/2018  
LandscapeRSA6



For complete disclaimer of accuracy, please visit  
<https://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>

NCompass Technologies



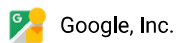


## Google Maps 10194 County Rd 19

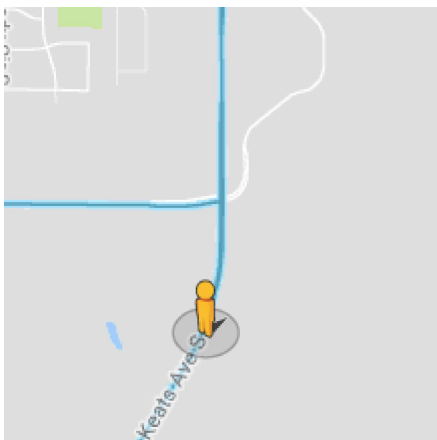


Image capture: Jul 2015 © 2018 Google

Cottage Grove, Minnesota



Street View - Jul 2015





June 28, 2018

Wayne Sandberg  
Washington County Engineer  
11660 Myeron Road North  
Stillwater, MN 55082

Snow-Removal Support for Year-Round Use of Proposed Central Greenway Regional Trail – South Segments in the 2018 Regional Solicitation Program

Dear Mr. Sandberg,

The City of Cottage Grove strongly supports Washington County's application to the Metropolitan Council's 2018 Regional Solicitation program for federal funds for the proposed multi-use trail along County State Aid Highway 19 (CSAH 19) from Dale Road to an existing trail 0.56 miles south and between 80th Street and the new Cottage Grove Ravine Regional Park entrance. Locally, the proposed trail will fill a critical gap in the existing bicycle and pedestrian network. This project also has regional significance as it is part of Regional Bicycle Transportation Network (RBTN).

Applications in the Multiuse Trails category of the Regional Solicitation receive points if the application can demonstrate a commitment to snow removal. The City of Cottage Grove is committed to providing snow removal for the proposed segments of trail along CSAH 19 that reside within the city's boundary, if the County receives 2018 Regional Solicitation funding. Ensuring safe transportation for community members by providing year-round use of trails is a high priority for Cottage Grove.

Thank you for the opportunity to send our support and your commitment to get this project completed. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Sincerely,



Charlene Stevens  
City Administrator

CC: Jan Lucke, Public Works Planning Director



June 28, 2018

Wayne Sandberg  
County Engineer  
Washington County Public Works  
11660 Myeron Road  
Stillwater, MN 55082

Support for Washington County's Application for the Proposed Central Greenway Regional Trail – South Segments in the 2018 Regional Solicitation Program

Dear Mr. Sandberg,

The City of Cottage Grove supports Washington County's application to the Metropolitan Council's 2018 Regional Solicitation for federal funds for the proposed Central Greenway Regional Trail on County State Aid Highway 19 (CSAH 19) from Dale Road to an existing trail 0.56 miles south and between 80th Street and the new Cottage Grove Ravine Regional Park entrance.

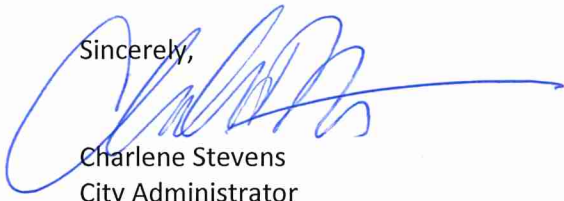
The proposed project will fill an existing gap in the pedestrian and bicycle network. Locally, these trail improvements will strengthen multimodal transportation for community members and allow users to safely access Cottage Grove Ravine Regional Park, Washington County Service Center, Glacial Valley Park, Grey Cloud Elementary School, Cottage Grove Middle School, and other local destinations. Trail facilities are becoming more and more critical as Cottage Grove continues to grow and attract more residents and businesses.

Additionally, the proposed trail improvements follow a Tier 2 alignment of the Regional Bicycle Transportation Network (RBTN). This connectivity promotes active living and creates opportunities for the public to utilize consistent and safe multimodal transportation options.

The City of Cottage Grove will continue to support Washington County's efforts to improve the County pedestrian and bicycle network. These improvements are consistent with Cottage Grove's plans and policies.

Thank you for the opportunity to send our support and your commitment to get this project completed. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Sincerely,



Charlene Stevens  
City Administrator

CC: Jan Lucke, Public Works Planning Director





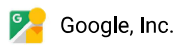
## Washington Co Hwy 19

Washington County Service Center

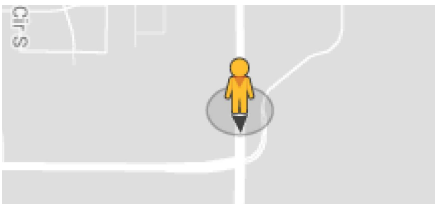


Image capture: Jul 2015 © 2018 Google

Cottage Grove, Minnesota



Street View - Jul 2015



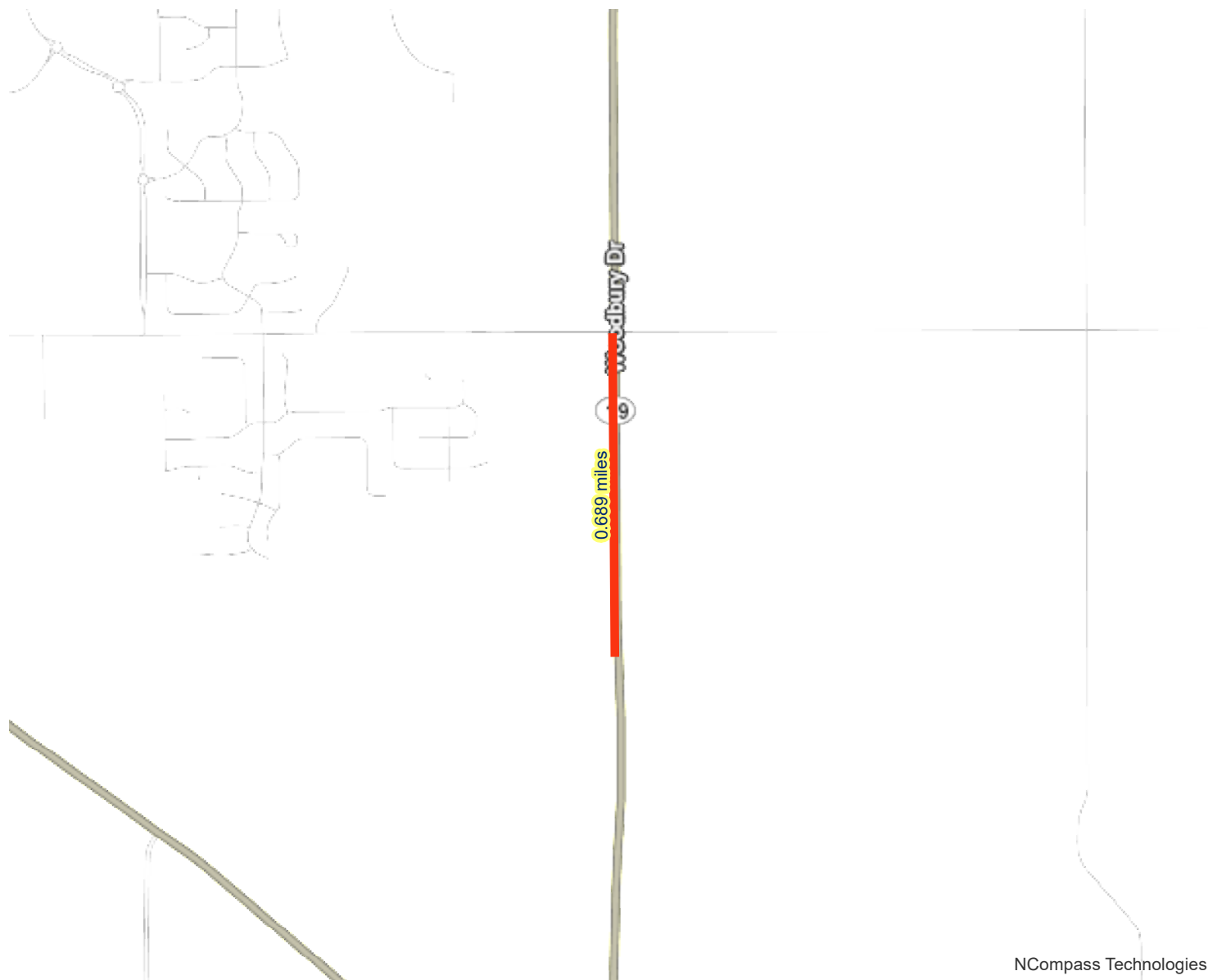


## Socio-Economic Conditions

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - North Segment | Map ID: 1530642073090

### Results

Project located in a census tract that is below the regional average for population in poverty or populations of color, or includes children, people with disabilities, or the elderly:  
(0 to 12 Points)



NCompass Technologies

Project



Area of Concentrated Poverty > 50% residents of color



Area of Concentrated Poverty



Above reg'l avg conc of race/poverty

0 0.2 0.4 0.8 1.2 1.6 Miles

Created: 7/3/2018  
LandscapeRSA2



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



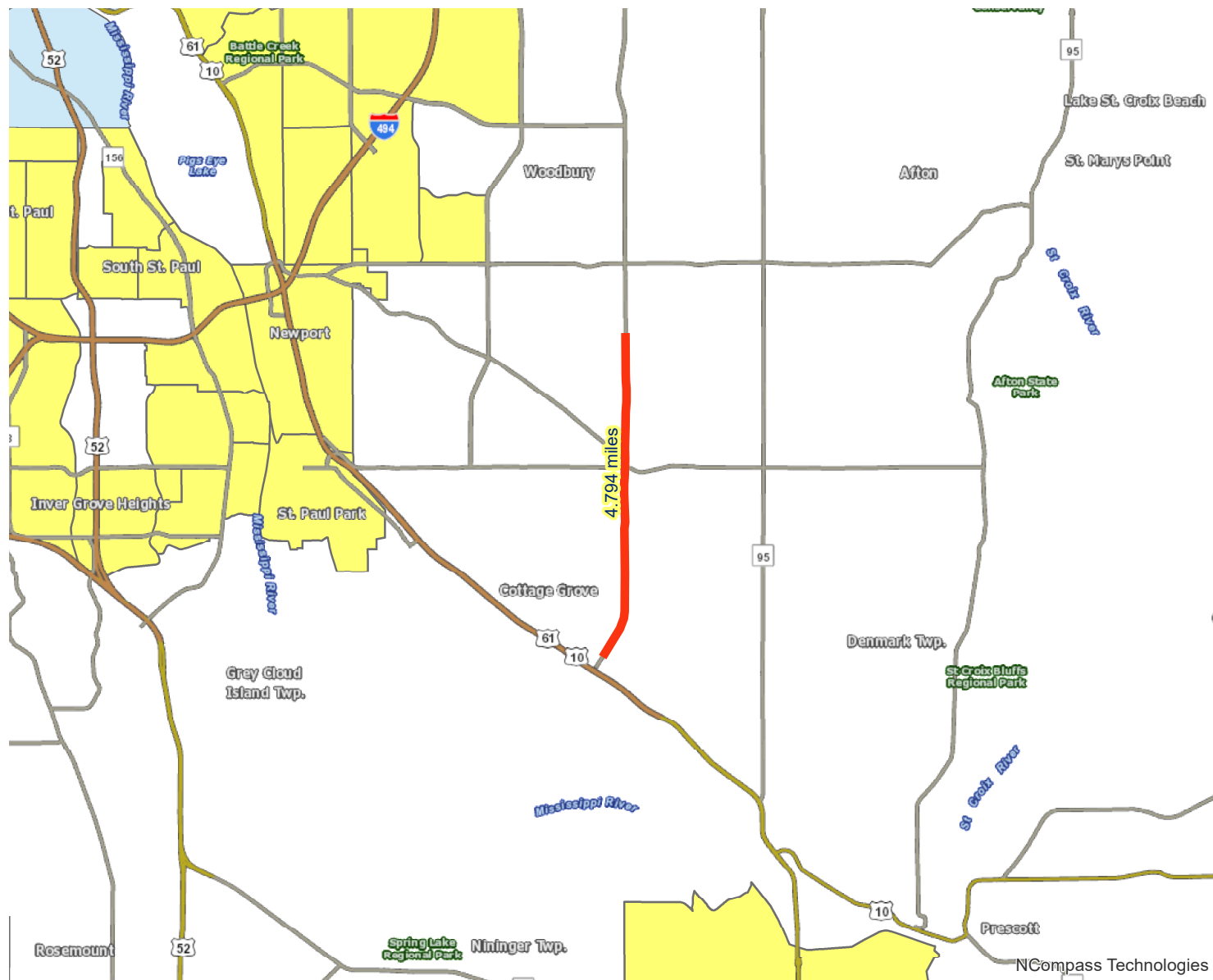


## Socio-Economic Conditions

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - Overview Map | Map ID: 1528826732194

### Results

Project located in a census tract that is below the regional average for population in poverty or populations of color, or includes children, people with disabilities, or the elderly:  
(0 to 12 Points)



Project



Area of Concentrated Poverty > 50% residents of color



Area of Concentrated Poverty



Above reg'l avg conc of race/poverty

0 1.25 2.5 5 7.5 10 Miles

Created: 6/12/2018  
LandscapeRSA2



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



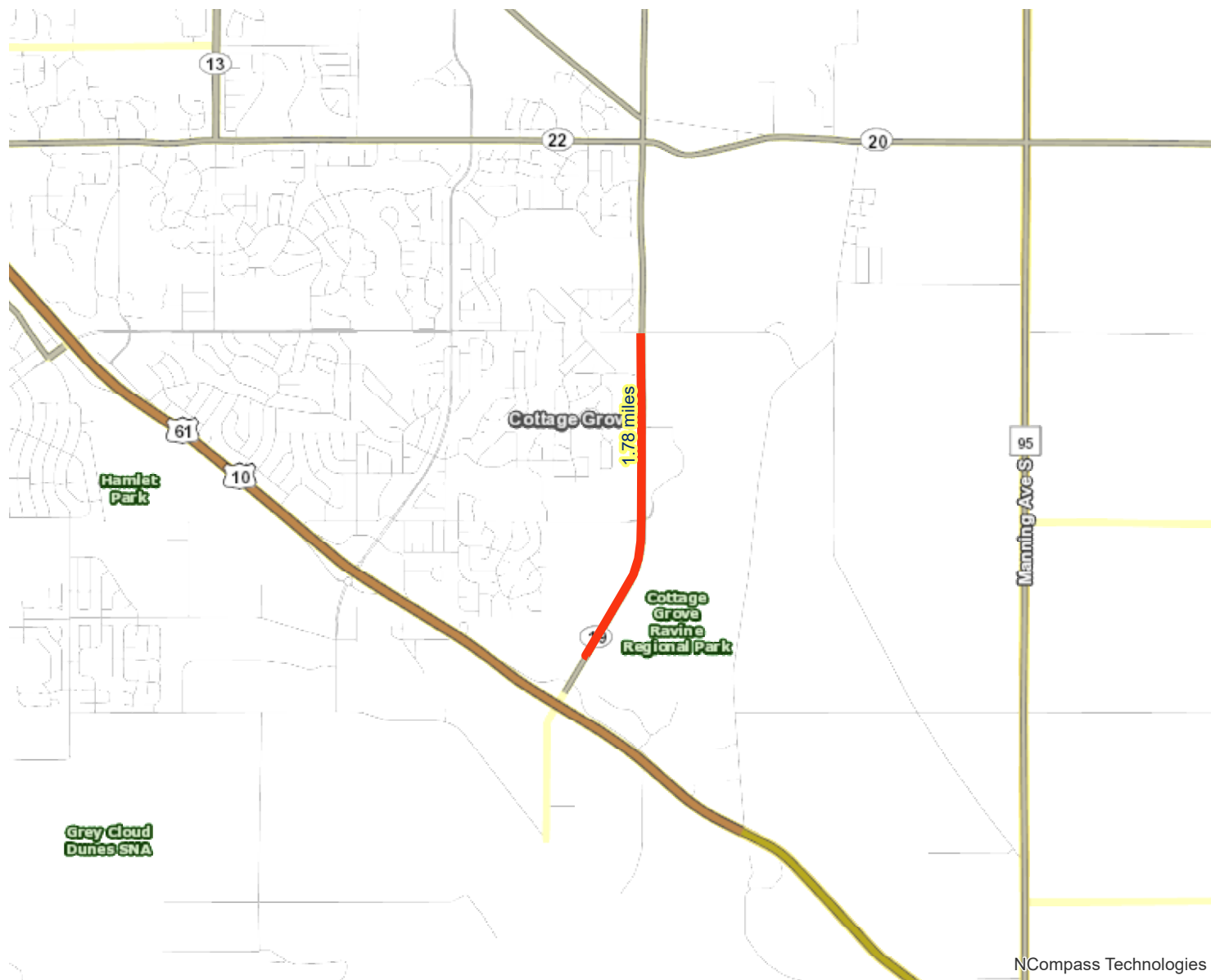


## Socio-Economic Conditions

Multiuse Trails and Bicycle Facilities Project: Central Greenway Regional Trail - South Segment | Map ID: 1528828308910

### Results

Project located in a census tract that is below the regional average for population in poverty or populations of color, or includes children, people with disabilities, or the elderly:  
(0 to 12 Points)



Project



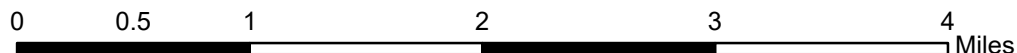
Area of Concentrated Poverty > 50% residents of color



Area of Concentrated Poverty



Above reg'l avg conc of race/poverty



Created: 6/12/2018  
LandscapeRSA2



For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>







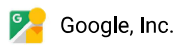
5096 Woodbury Dr

South of Dale Rd

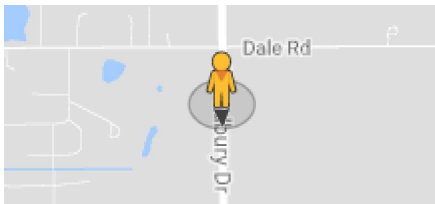


Image capture: Jul 2016 © 2018 Google

Woodbury, Minnesota



Street View - Jul 2016







# SOUTH WASHINGTON WATERSHED DISTRICT GLACIAL VALLEY INTERPRETIVE AREA

FINAL February 23, 2018



# SITE CHARACTER

BUILDING SITE AND VIEW

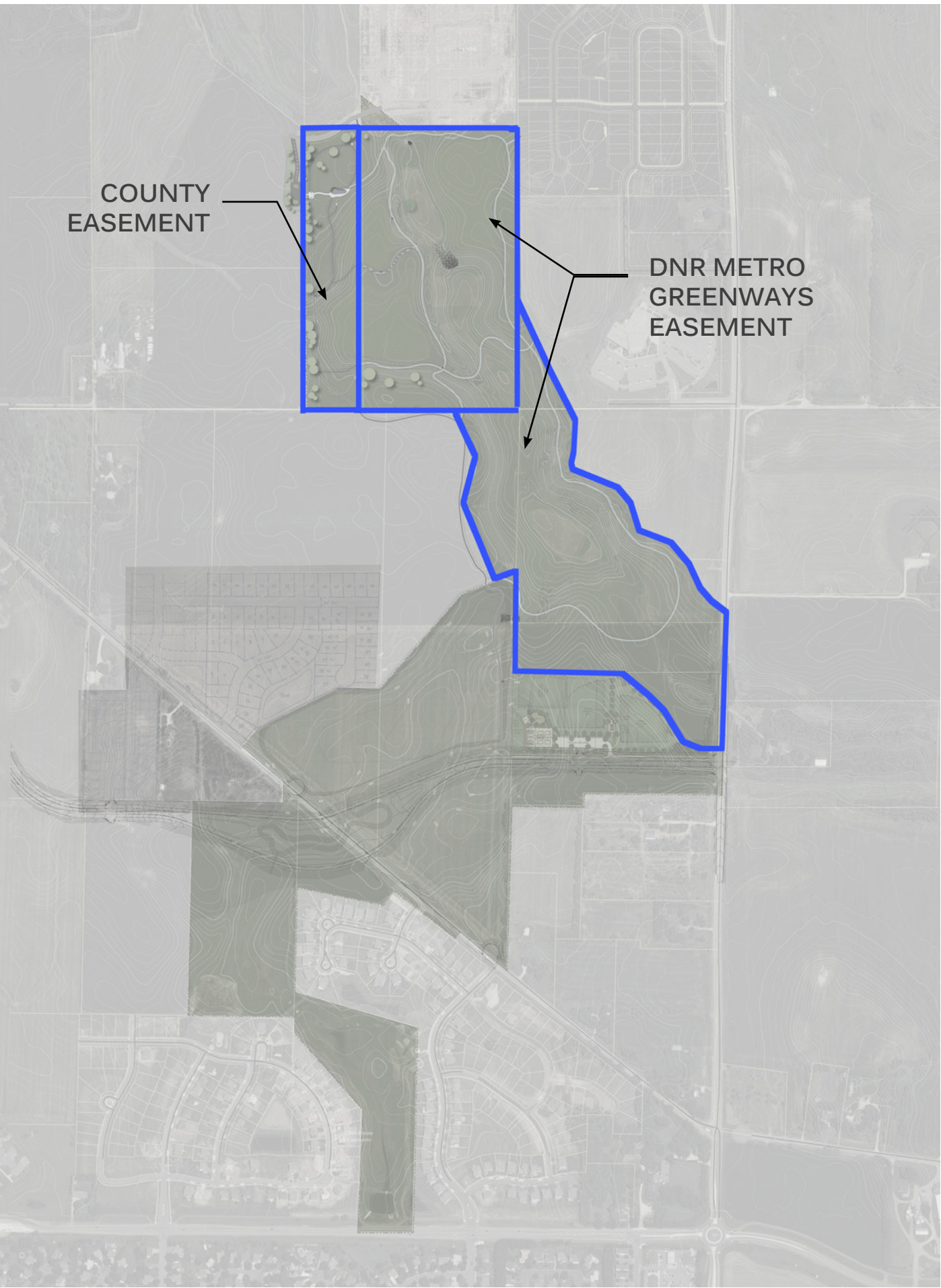




# CONTEXT

*“This is a learning site.* This protected natural landscape at the center of existing and future development will tell multiple histories and explain current ecologies and its primary role as a piece of green infrastructure. The stories that are told on the site should be communicated in a variety of ways in order that visitors of different ages, backgrounds, group size and ability level can experience the layered meanings inherent to the site. The structure should offer 3-season comfort and a unique architectural expression, clearly identifying it as a regional attraction rather than a neighborhood park.”

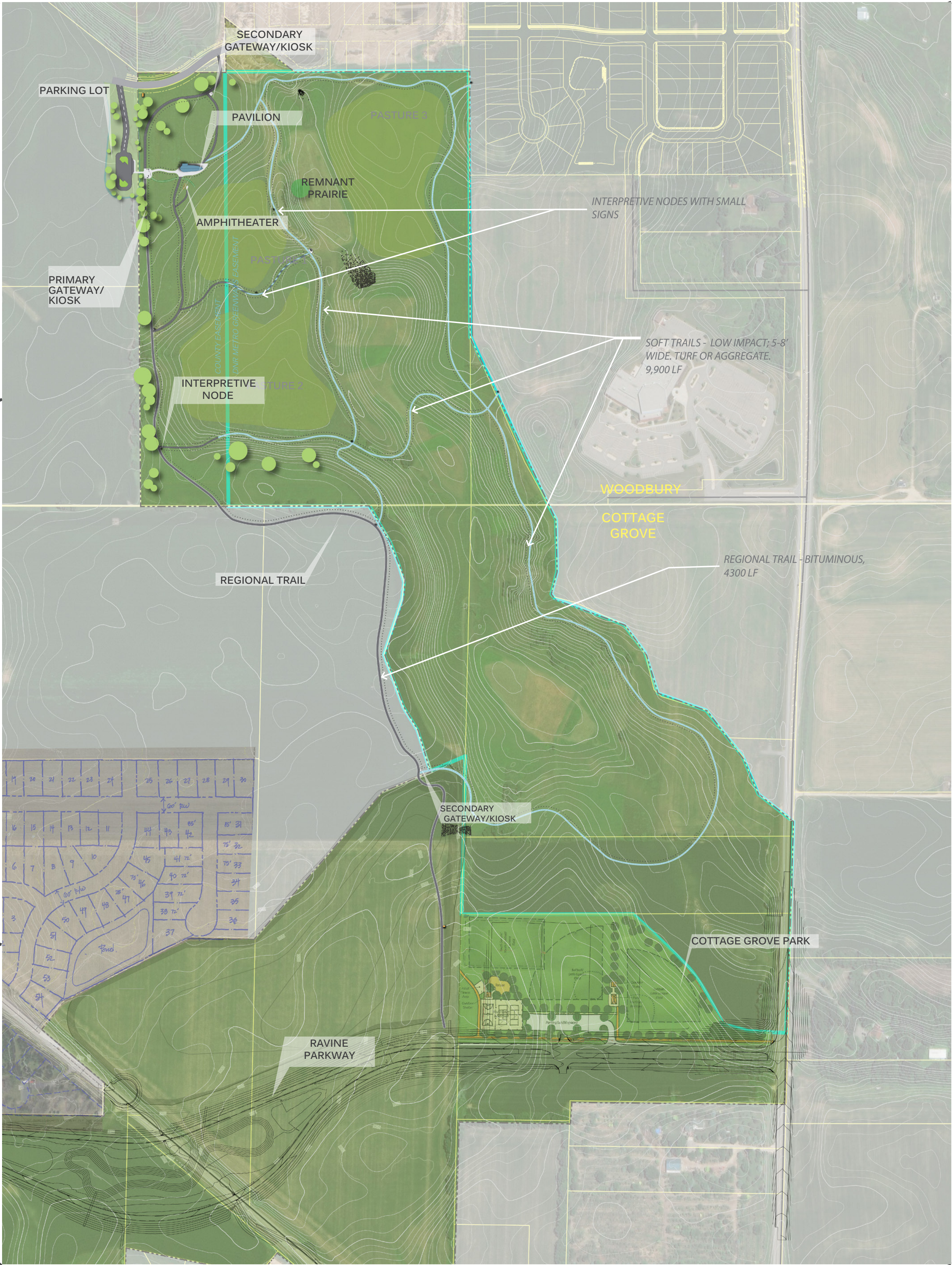
- VISION FROM CONCEPT PLANNING, 2017



EASEMENT AREAS



CONTEXT MAP





# PROGRAM ELEMENTS

## PROGRAMMING

### SITE

- Parking - outside SWWD property boundaries
- Grazing for restoration
- Interpretation
  - ◊ Signs
  - ◊ Demonstration (prairie, paddocks, farming, water)
  - ◊ Stormwater/Green Infrastructure
  - ◊ Rotating displays
- Bee-keeping
- Trailhead
  - ◊ Double as gateways
  - ◊ Two by structure, one by Cottage Grove park
- Hiking/walking.
  - ◊ Trails will be concrete, grass and/or gravel
  - ◊ Select destinations in prairie to be accessible
- Biking (regional trail)
  - ◊ Bituminous
- Nature Play - modest and concentrated. Combine into trail between parking and structure.

### BUILDING

- Shelter
- Gathering for 30 comfortably seated. 60 standing.
- Informal classroom (5-130)
- Trail head
- Interpretation

### PROGRAMMING PARTNERS

- Refuge Friends, Inc
- Washington Conservation District
- Dodge Nature Center
- Washington County Parks
- City of Woodbury Parks
- DNR
- City of Cottage Grove

## INTERPRETATION THEMES

- Resiliency/Green Infrastructure: infiltration capacity
- Glacial: Bedrock valley full of sand
- Farming legacy
- Native people
- Edible plants
- Native plants
- Land use/Landcover
- Military Road
- Water Quality and Designed Flooding: HWL is 906
- Ongoing research: pollinators, haying, grazing
- Pollution

## PRECEDENTS

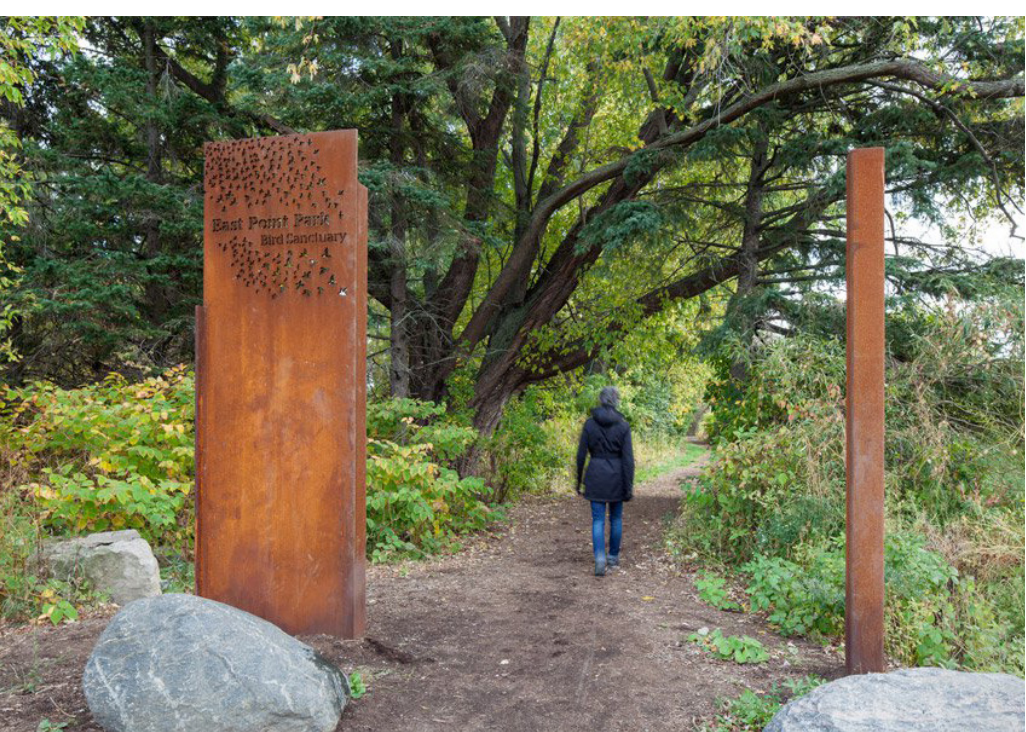
### ARRIVAL



GATEWAY/MONUMENT SIGN



PARKING LOT



SIMPLE, VERTICAL

### INTERPRETATION



LOW, INTEGRATED SIGNAGE



CLEAR STATEMENTS



ARTFUL AND INTERACTIVE

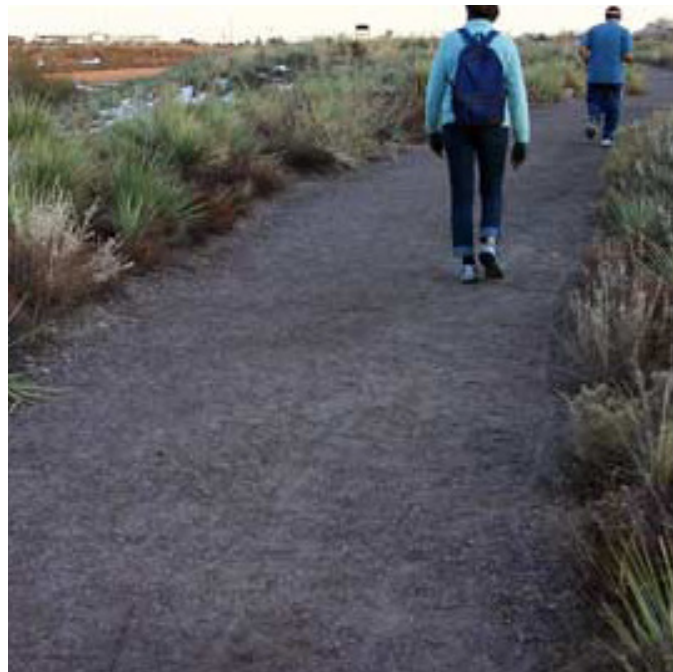


TALL, MINIMAL

### TRAILS



8' WIDE BITUMINOUS



SOFT TRAILS



NATURE PLAY

### STRUCTURE



CONCRETE AND METAL



TENSILE AND TIMBER



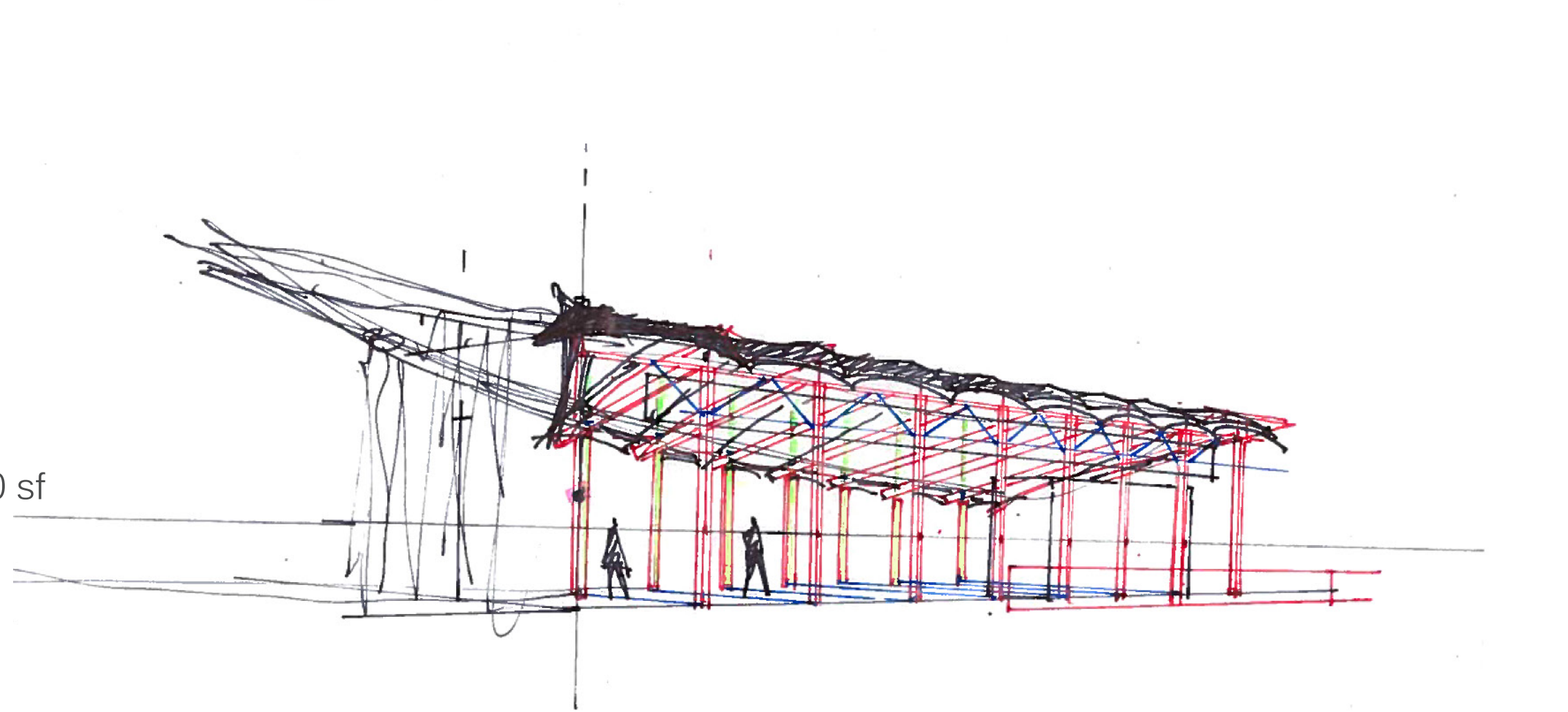
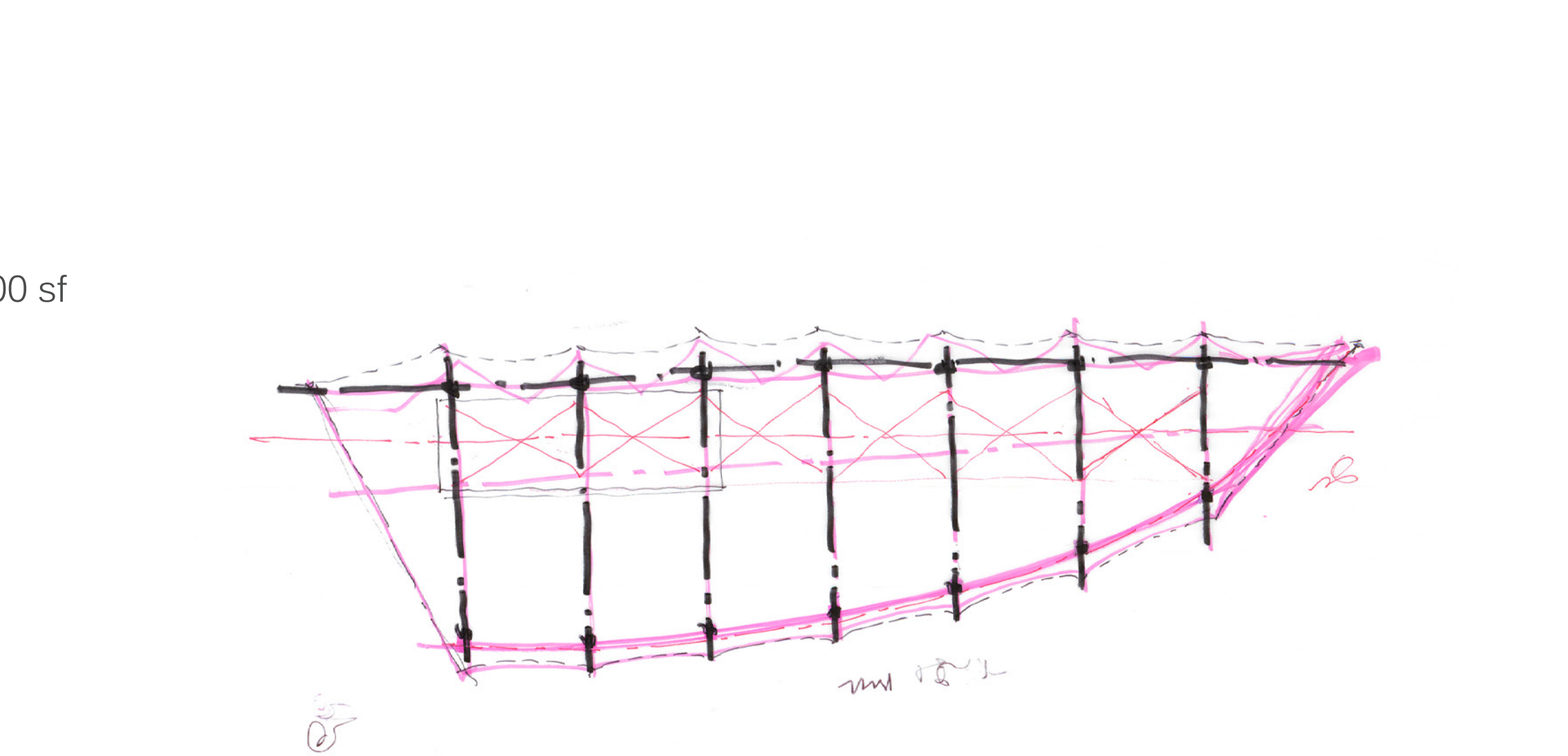
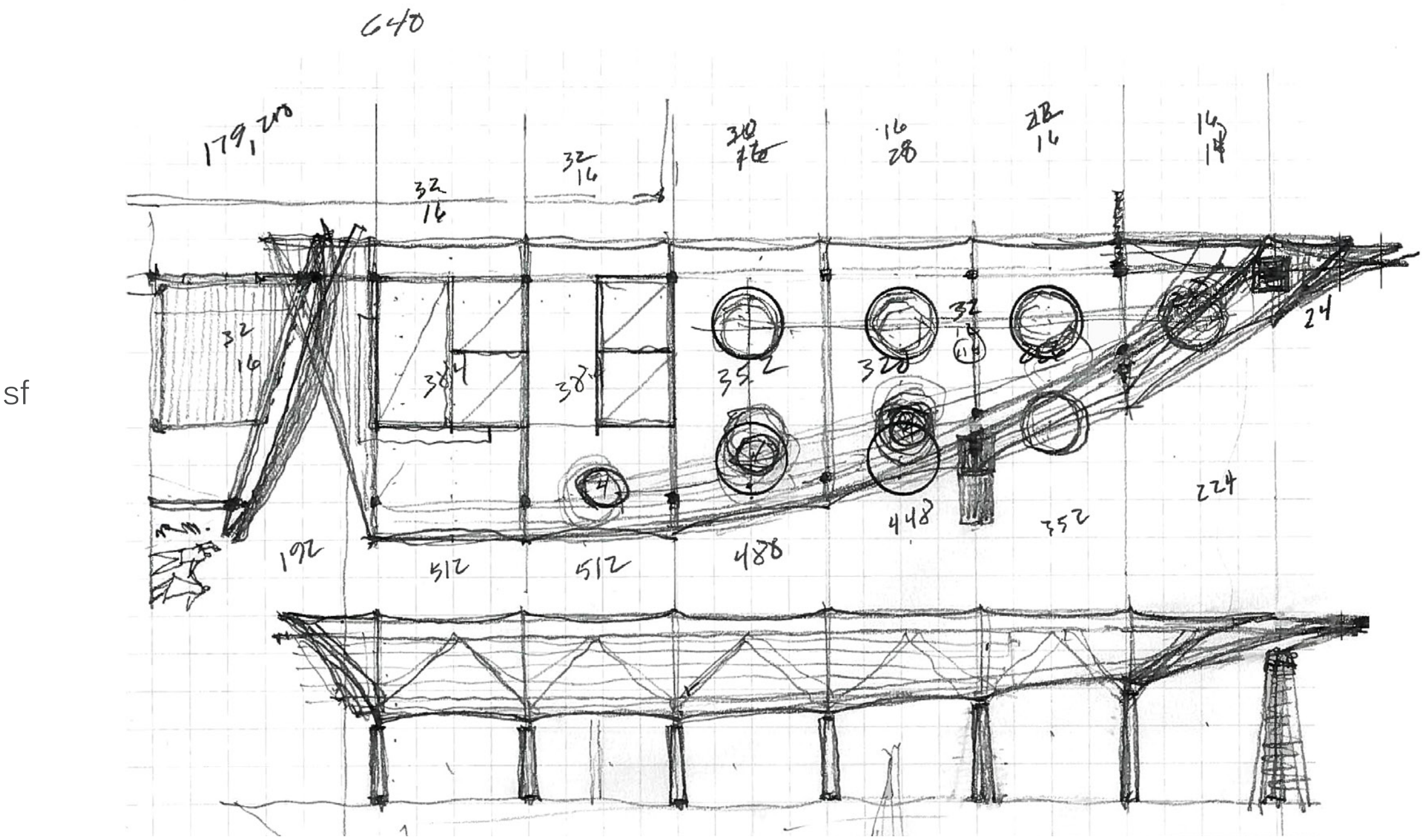
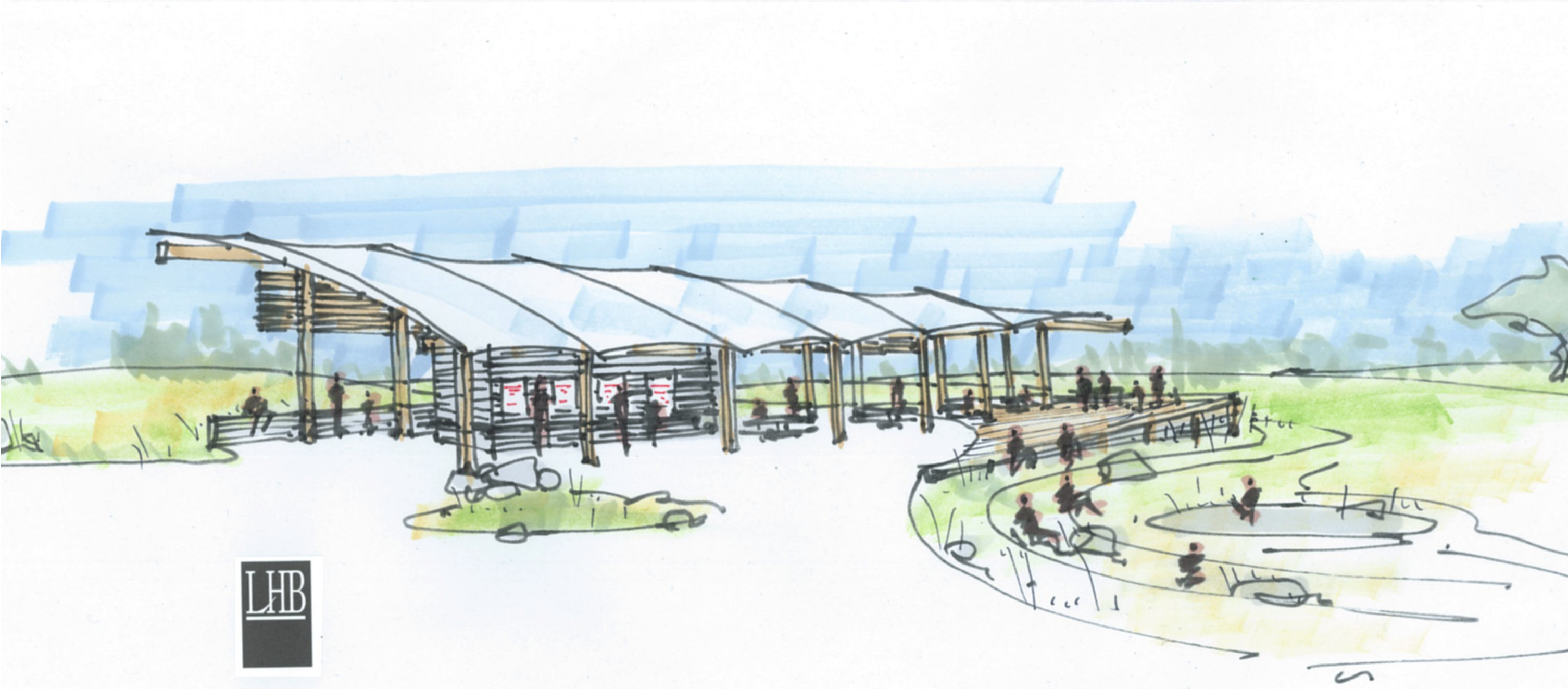
LATH AND TIMBER



# CONCEPT EVOLUTION

## SCALING THE PAVILION TO FIT THE PROGRAM

- STARTED AT 3600 SF
- METAL ROOF TRANSITIONS TO TENSILE
- AS FOOTPRINT GETS SMALLER TENSILE NO LONGER FEASIBLE
- WING TRANSITIONS TO “LEAF” CONCEPT - ARCHING ROOF LINE IN ELEVATION AND RETURN TO METAL ROOF



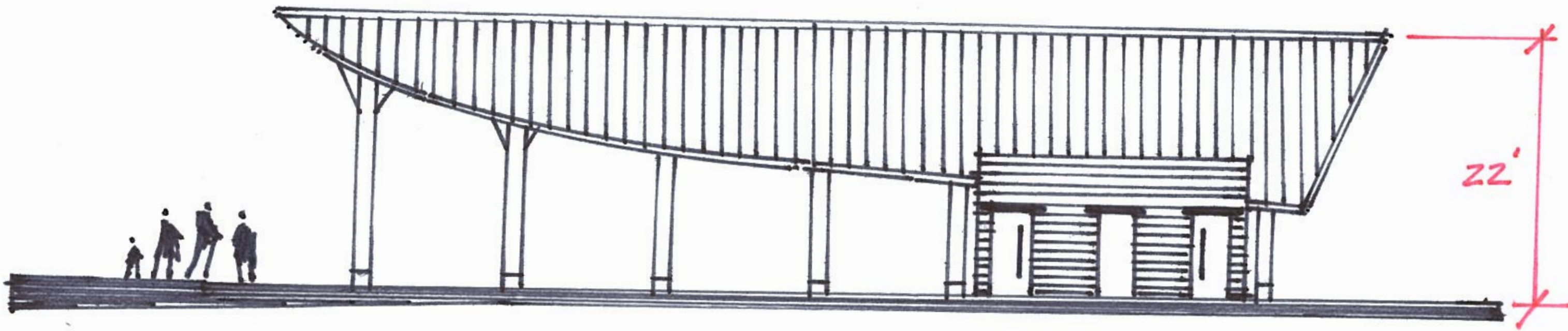


# LEAF CONCEPT

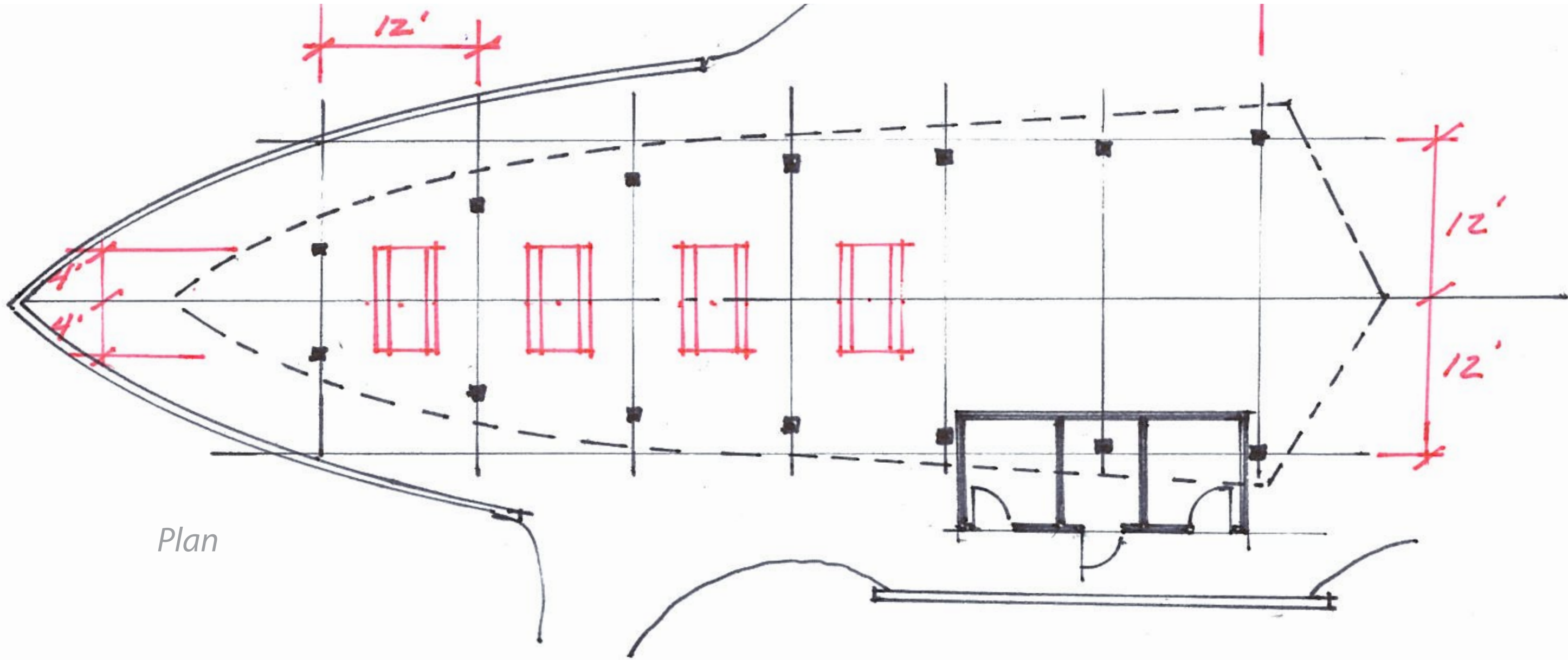
- 1900 SF
- METAL ROOF
- ARCHING ROOF LINE
- 22' AT HIGHEST POINT
- SEATING FOR FOUR 8-PERSON PICNIC TABLES UNDER ROOF
- TWO UNISEX BATHROOMS WITH SMALL STORAGE/MECHANICAL ROOM



Perspective from East (with Primary Gateway Beyond)



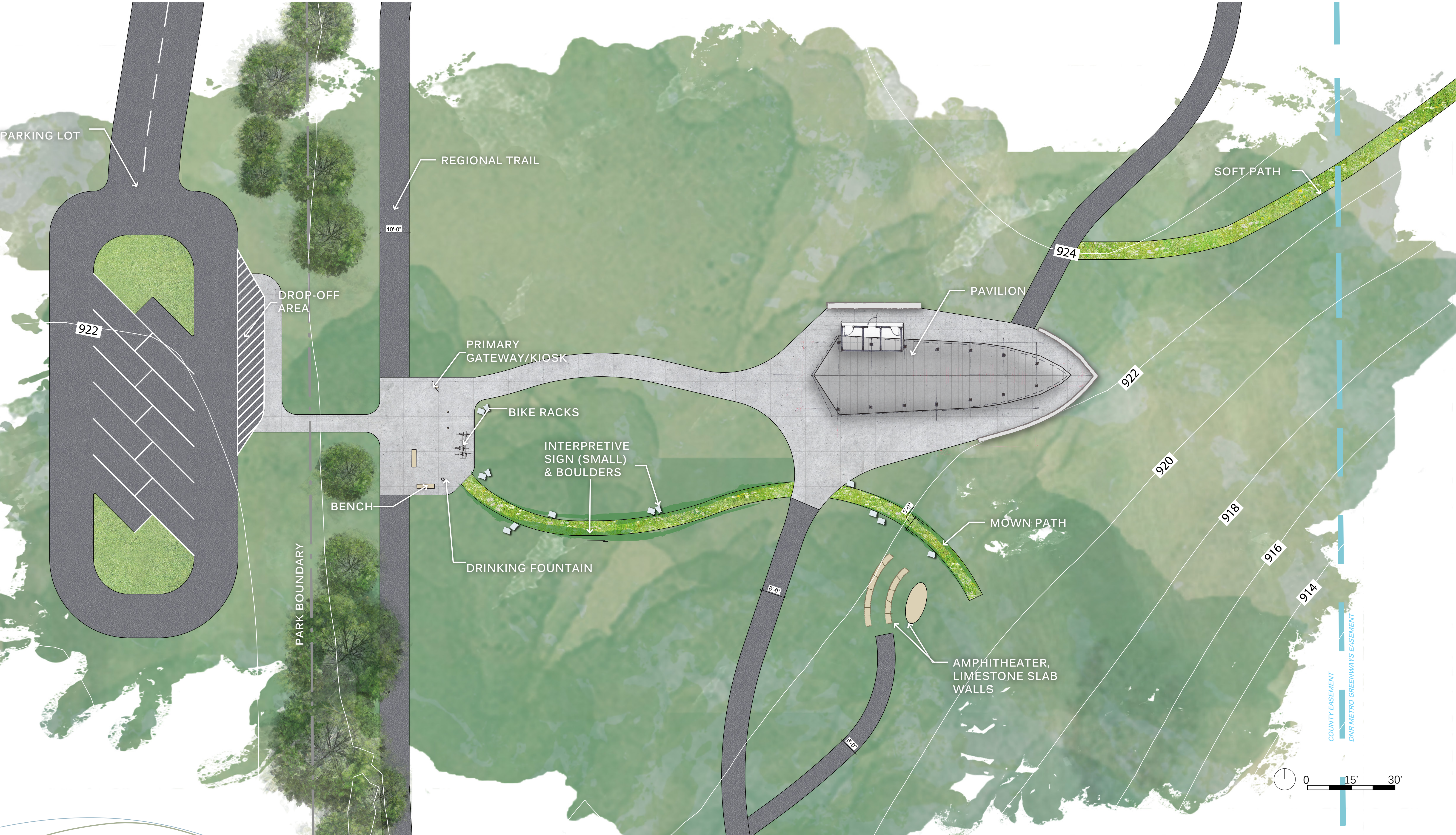
North Elevation



Plan



# LEAF SITE PLAN



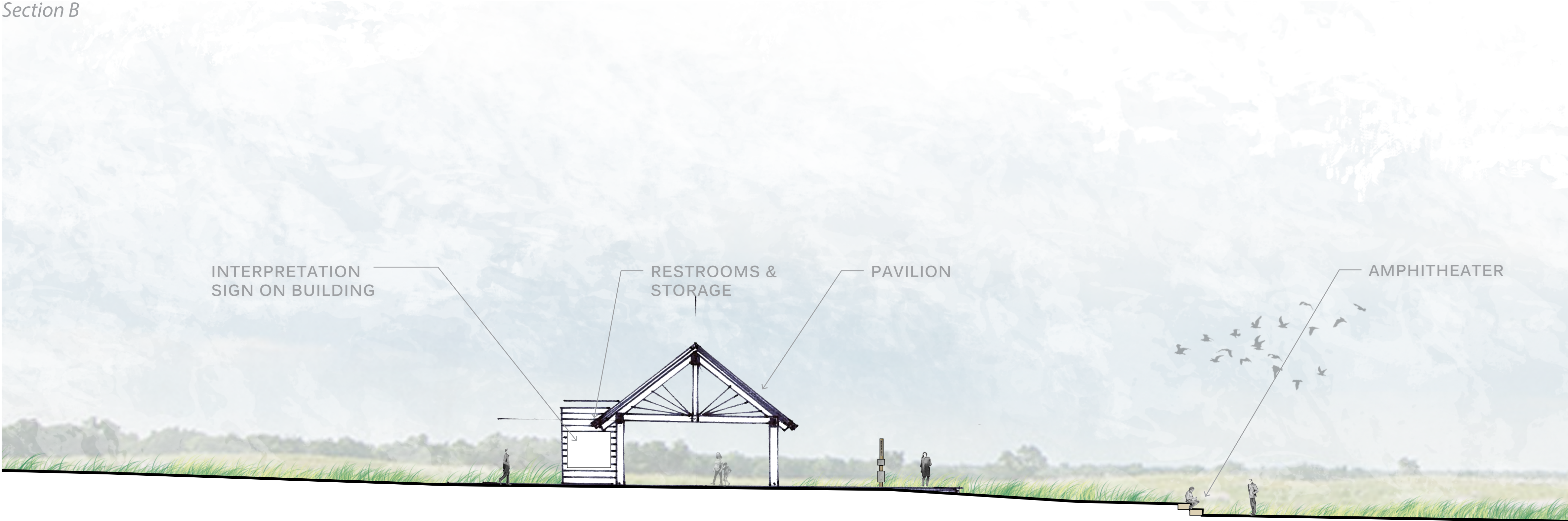


# SITE SECTIONS

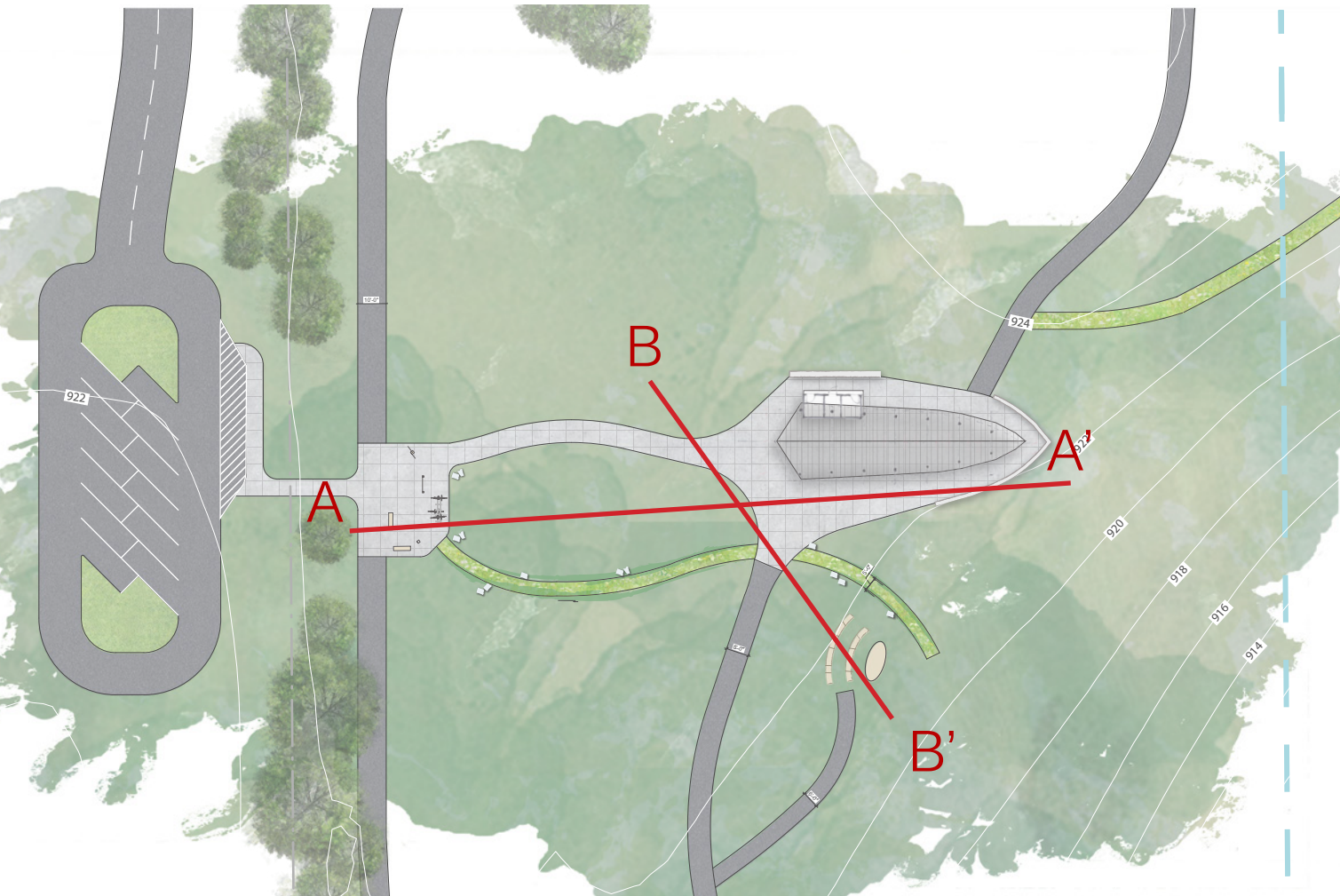
Section A



Section B



Site Map





# ELEMENTS IN PERSPECTIVE

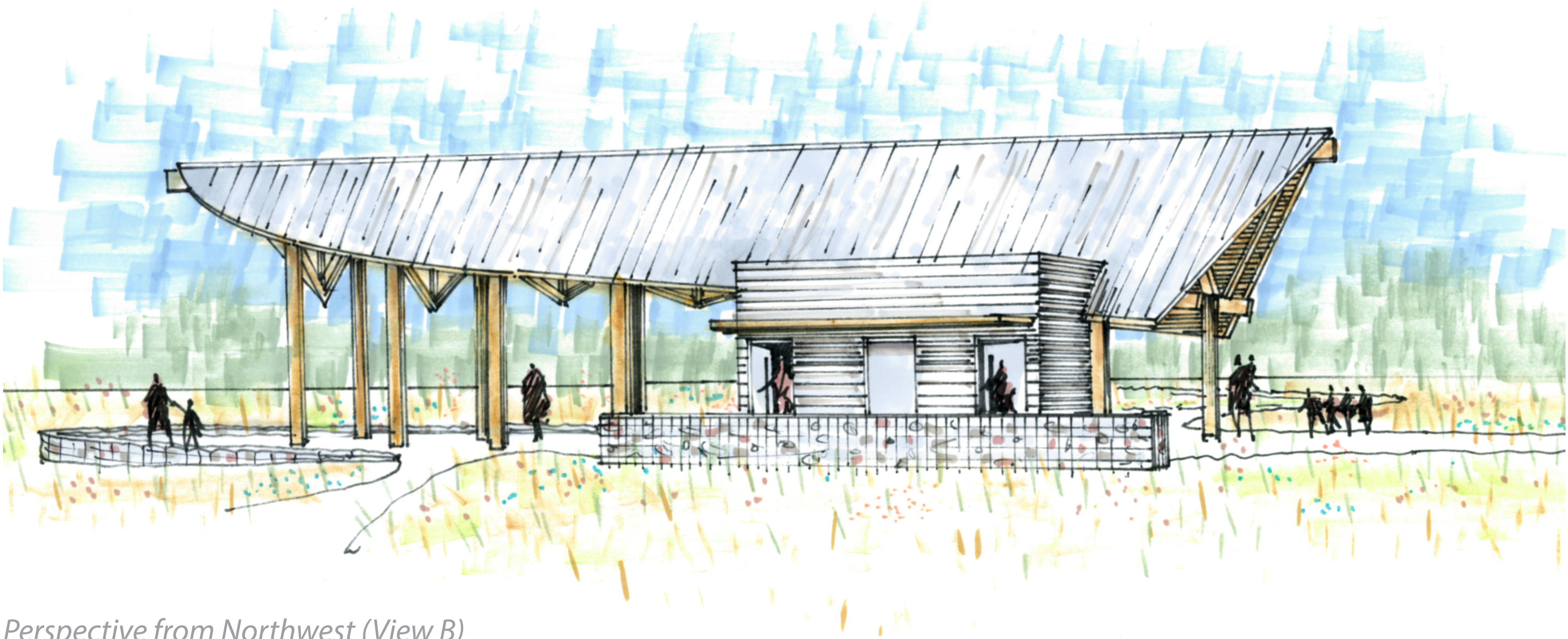


Perspective from Primary Gateway (View A)



Perspective from West (View C)

Site Map

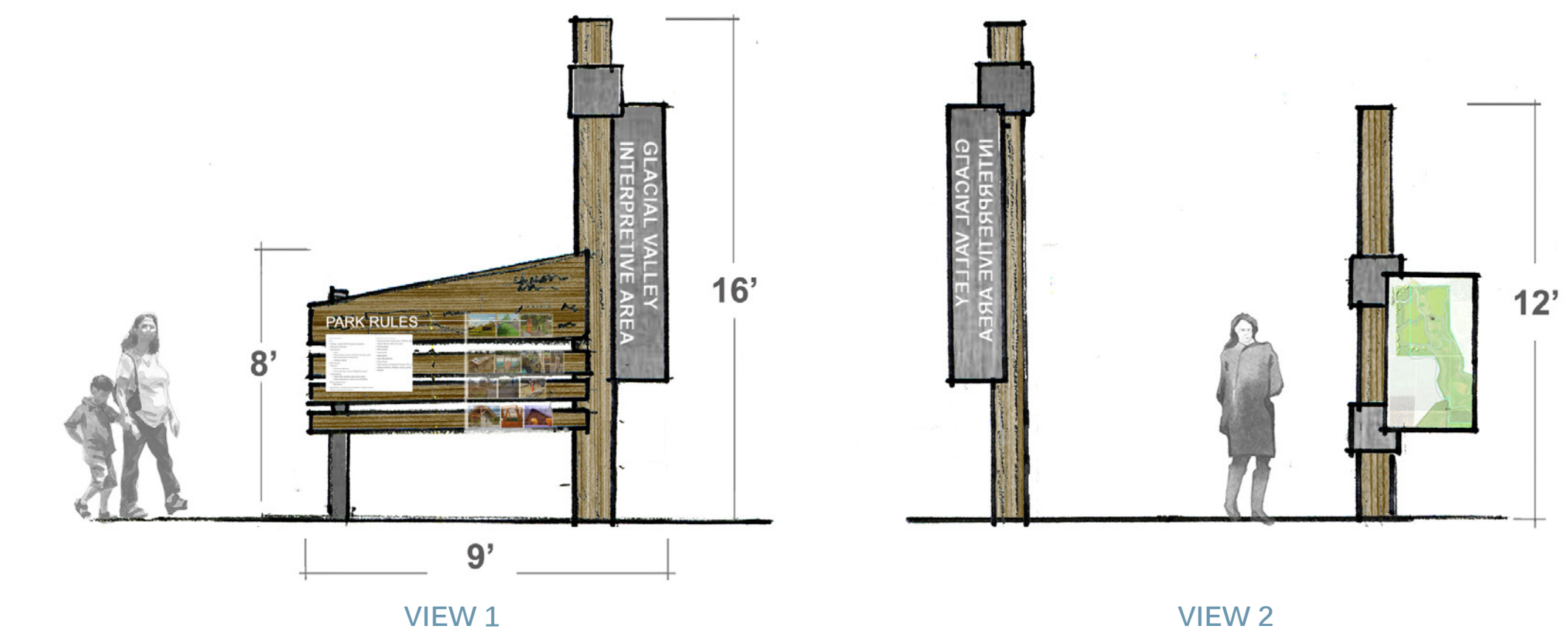


Perspective from Northwest (View B)

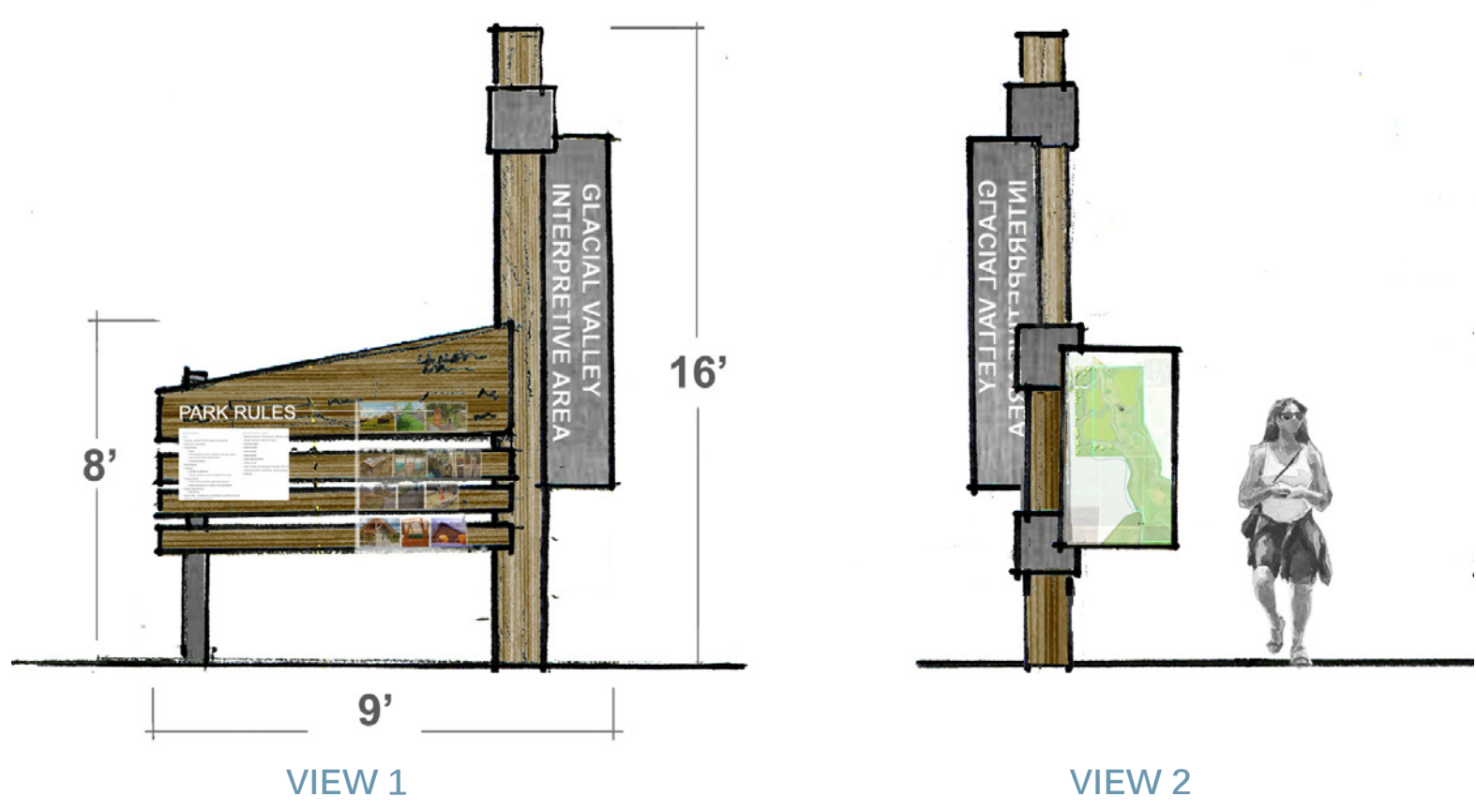


# INTERPRETIVE SIGNS

## PRIMARY GATEWAY WITH LAYERS OF INTERPRATATION

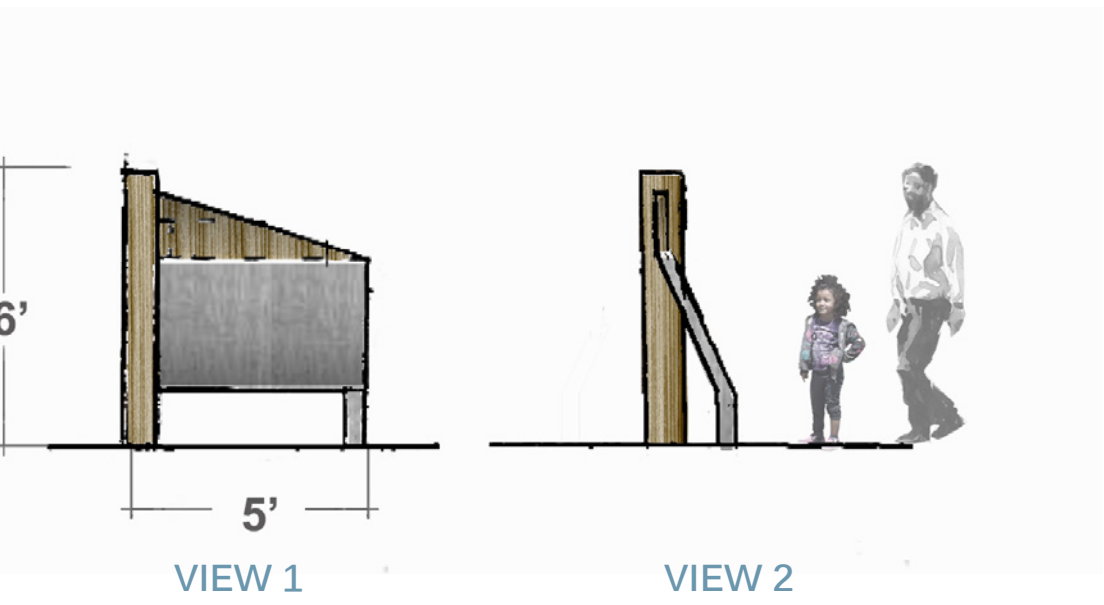


## SECONDARY GATEWAY

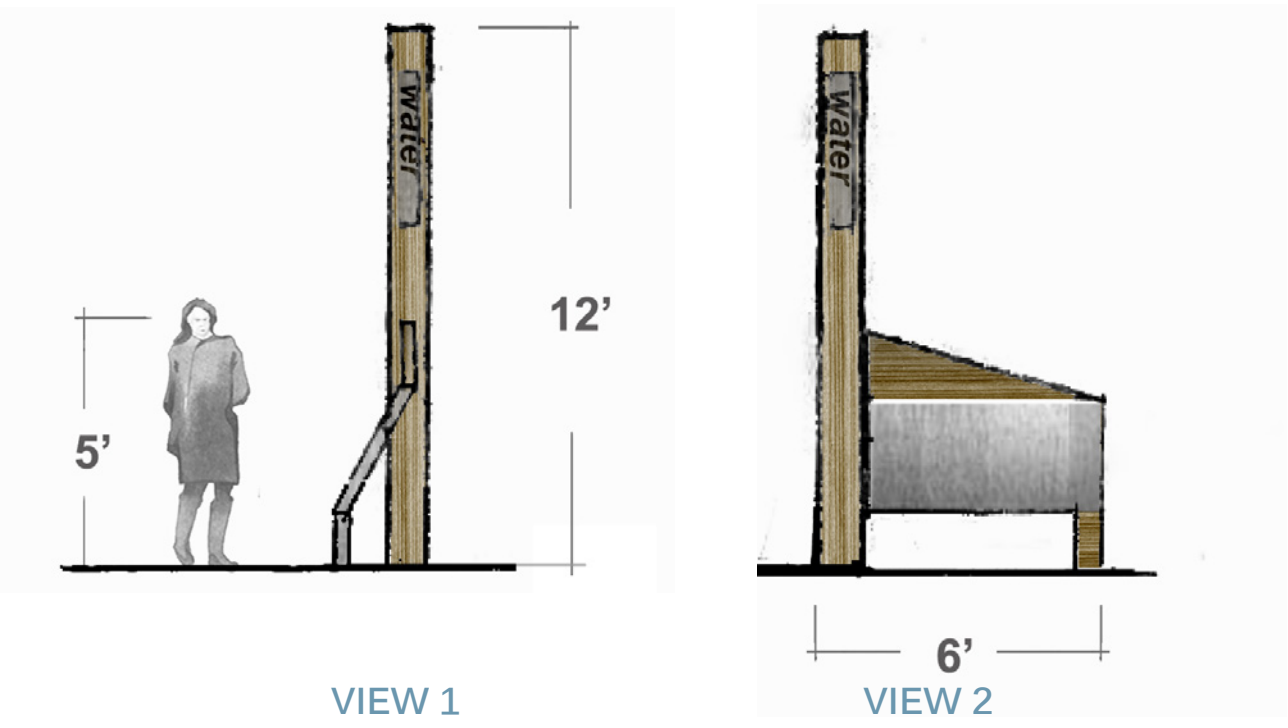


## INTERPRETATION NODE OPTIONS

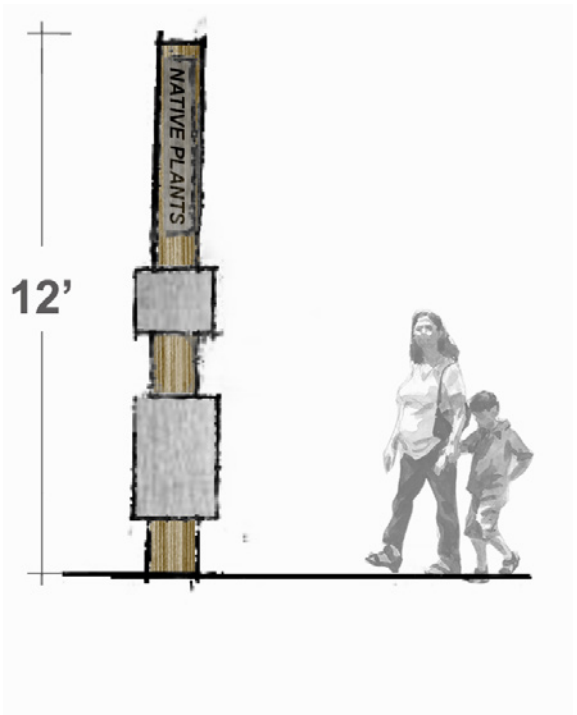
### LOW INTERPRETIVE SIGN



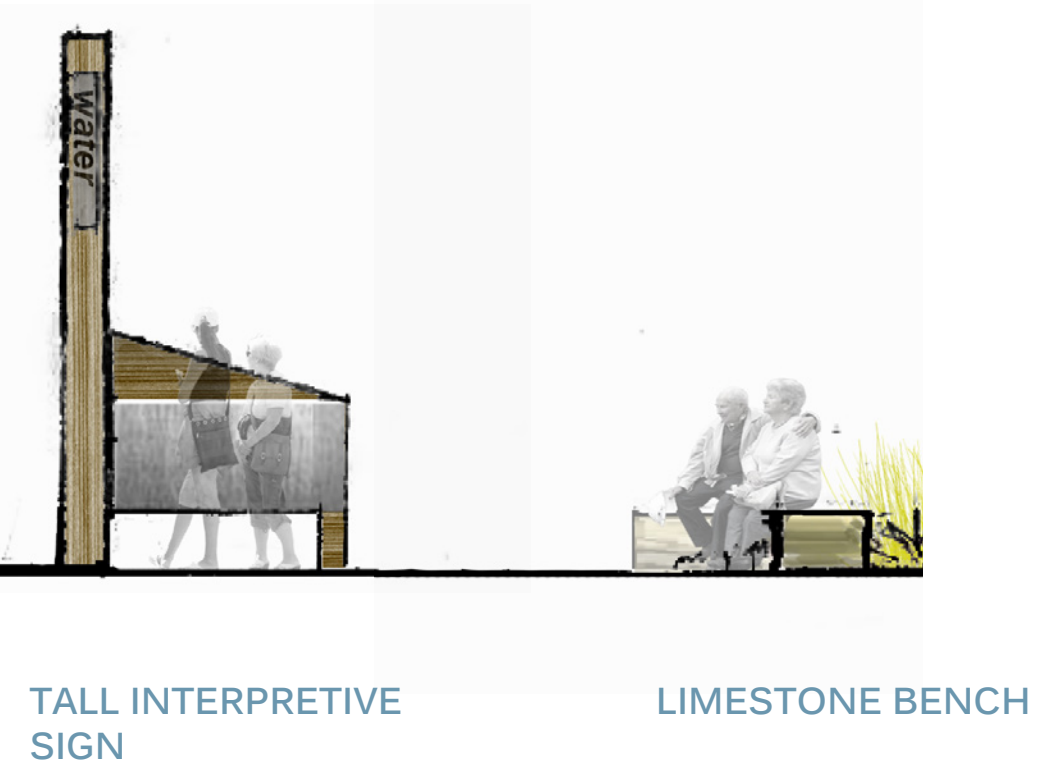
### TALL INTERPRETIVE SIGN



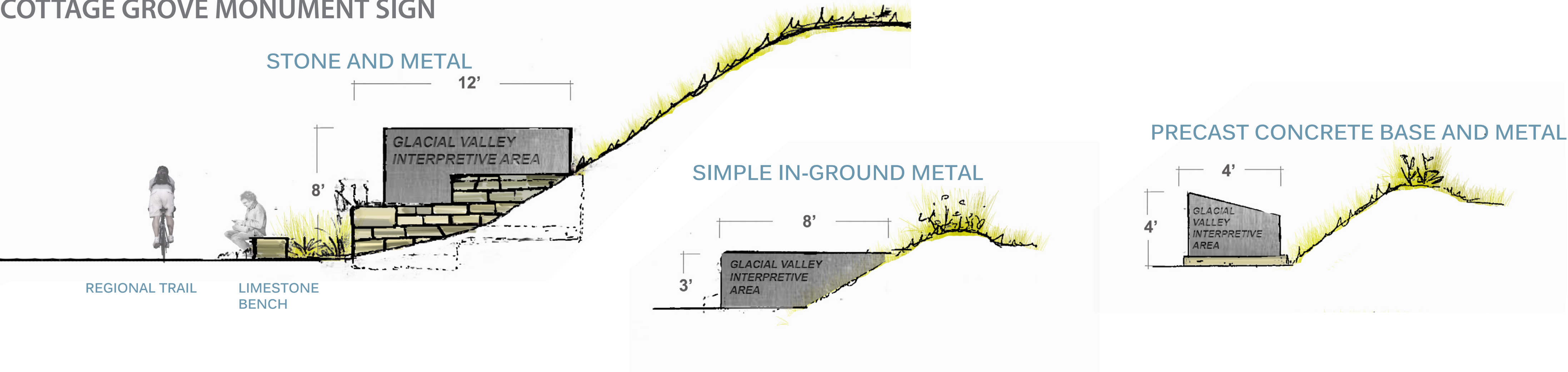
### TERTIARY AND NEIGHBORHOOD



### INTERPRETIVE NODE WITH GATHERING AREA



## COTTAGE GROVE MONUMENT SIGN





# MASTERPLAN







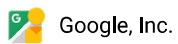
10998 County Rd 19

Trail start

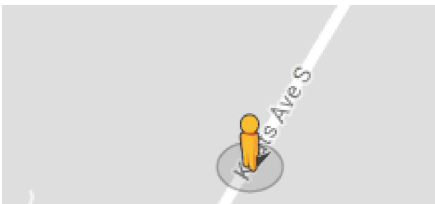


Image capture: Jul 2015 © 2018 Google

Cottage Grove, Minnesota



Street View - Jul 2015





June 28, 2018

Wayne Sandberg  
County Engineer  
Washington County Public Works  
11660 Myeron Road  
Stillwater, MN 55082

**Support for Washington County's Application for the Proposed Central Greenway Regional Trail – South Segments in the 2018 Regional Solicitation Program**

Dear Mr. Sandberg,

The South Washington Watershed District supports Washington County's application to the Metropolitan Council's 2018 Regional Solicitation for federal funds for the proposed Central Greenway Regional Trail on County State Aid Highway 19 (CSAH 19) from Dale Road to Glacial Valley Road and between 80<sup>th</sup> Street and the new Cottage Grove Ravine Regional Park entrance.

The proposed project will fill an existing gap in the pedestrian and bicycle network. Locally, these trail improvements will strengthen multimodal transportation for community members and allow users to safely access Cottage Grove Ravine Regional Park, Washington County Service Center, Glacial Valley Park, schools, and other local destinations. Trail facilities are becoming more and more critical as south Washington County continues to grow and attract more residents and businesses.

Additionally, the proposed trail improvements follow a Tier 2 alignment of the Regional Bicycle Transportation Network (RBTN). This connectivity promotes active living and creates opportunities for the public to utilize consistent and safe multimodal transportation options.

The South Washington Watershed District will continue to support Washington County's efforts to improve the County pedestrian and bicycle network. These improvements are consistent with the South Washington Watershed District's plans and policies.

Thank you for the opportunity to send our support and your commitment to get this project completed. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Regards,



*Matt Moore - Administrator, South Washington Watershed District*

Cc: Jan Lucke, Public Works Planning Director





8301 Valley Creek Road • Woodbury, MN 55125-3330 • woodburymn.gov  
(651) 714-3500 • TDD (651) 714-3568 • FAX (651) 714-3501

June 29, 2018

Wayne Sandberg  
Washington County Engineer  
11660 Myeron Road North  
Stillwater MN 55082

**Snow-Removal Support for Year-Round Use of Proposed Central Greenway Regional Trail – South Segments in the 2018 Regional Solicitation Program**

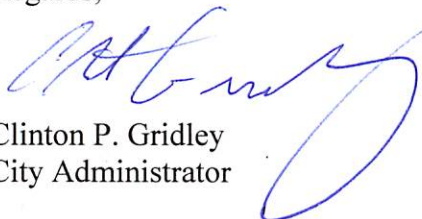
Dear Mr. Sandberg,

The City of Woodbury strongly supports Washington County's application to the Metropolitan Council's 2018 Regional Solicitation program for federal funds for the proposed multi-use trail along County State Aid Highway 19 (CSAH 19) from Dale Road to Glacial Valley Road and between 80th Street and the new Cottage Grove Ravine Regional Park entrance. Locally, the proposed trail will fill a critical gap in the existing bicycle and pedestrian network. This project also has regional significance as it is part of Regional Bicycle Transportation Network (RBTN).

Applications in the Multiuse Trails category of the Regional Solicitation receive points if the application can demonstrate a commitment to snow removal. The City of Woodbury is committed to providing snow removal for the proposed segments of trail along CSAH 19 that reside within the city's boundary, if the County receives 2018 Regional Solicitation funding. Ensuring safe transportation for community members by providing year-round use of trails is a high priority for Woodbury.

Thank you for the opportunity to send our support and your commitment to get this project completed. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Regards,



Clinton P. Gridley  
City Administrator

Cc: Jan Lucke, Public Works Planning Director





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June 29, 2018

Wayne Sandberg, County Engineer  
Washington County Public Works  
11660 Myeron Road  
Stillwater, MN 55082

**Support for Washington County's Application for the Proposed Central Greenway Regional Trail – South Segments in the 2018 Regional Solicitation Program**

Dear Mr. Sandberg,

The City of Woodbury supports Washington County's application to the Metropolitan Council's 2018 Regional Solicitation for federal funds for the proposed Central Greenway Regional Trail on County State Aid Highway 19 (CSAH 19) from Dale Road to Glacial Valley Road and between 80<sup>th</sup> Street and the new Cottage Grove Ravine Regional Park entrance.

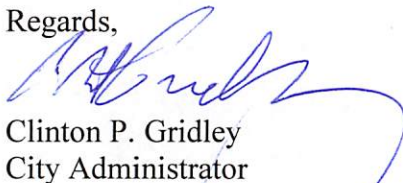
The proposed project will fill an existing gap in the pedestrian and bicycle network. Locally, these trail improvements will strengthen multimodal transportation for community members and allow users to safely access Cottage Grove Ravine Regional Park, Washington County Service Center, Glacial Valley Park, Powers Lake Park, Valley Crossing Elementary School, Woodbury Commons, and other local destinations. Trail facilities are becoming more and more critical as Woodbury continues to grow and attract more residents and businesses.

Additionally, the proposed trail improvements follow a Tier 2 alignment of the Regional Bicycle Transportation Network (RBTN). This connectivity promotes active living and creates opportunities for the public to utilize consistent and safe multimodal transportation options.

The City of Woodbury will continue to support Washington County's efforts to improve the County pedestrian and bicycle network. These improvements are consistent with Woodbury's plans and policies.

Thank you for the opportunity to send our support and your commitment to get this project completed. If you have any questions, comments, or concerns, please do not hesitate to contact me.

Regards,



Clinton P. Gridley  
City Administrator

Cc: Jan Lucke, Public Works Planning Director