



Three Rivers

PARK DISTRICT



CP Rail Regional Trail Draft master plan

March 21, 2019

The **mission** of Three Rivers Park District is to **promote environmental stewardship through recreation and education** in a natural resources-based park system.

Three Rivers Park District was established in 1957 after legislation was enacted in 1955 allowing for the activation of park districts whose primary duties are “acquisition, development and maintenance of large parks, wildlife sanctuaries, forest and other reservations and means for public access to historic sites and to lakes, rivers and streams and to other natural phenomena” (Minnesota State Statutes, Chapter 398.07).

There are more than 12.3 million annual visits to more than 26,500 acres of park reserves, regional parks and special-use areas in Hennepin and five adjoining counties and 145 miles of regional trails. Current outdoor-recreation activities in regional parks and trails include camping, hiking, cross-country and downhill skiing, tubing, bicycling, in-line skating, horseback riding, nature interpretation, golfing, fishing and swimming. Three Rivers Park District also operates a natural resources management program, which administers the restoration and perpetuation of both native wildlife and plants in order to provide park and trail visitors opportunities for high-quality recreational experiences.

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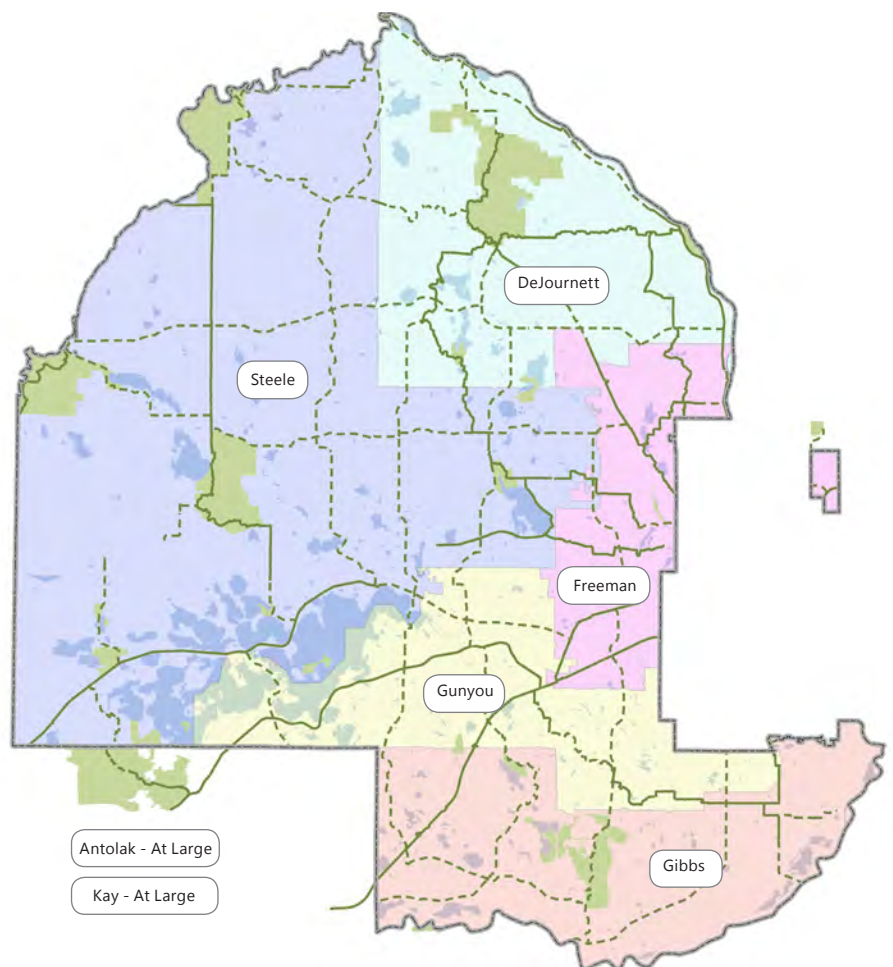
Bloomington, Chanhassen, Eden Prairie, Fort Snelling, Richfield (precincts 6 & 9)

Steven Antolak, Term Expires 12/31/20

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Gene Kay, Term Expires 12/31/18

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ACKNOWLEDGEMENTS

RECOGNIZING CONTRIBUTORS

Three Rivers Park District (Park District) gratefully acknowledges the staff, agency partners, community members and other participants who contributed to the CP Rail Regional Trail Master Plan. The Park District extends a special thank you to the individuals listed below who provided guidance, time, questions and critical insight throughout the process.

Agency Partners

Mark Nolan, AICP

City of Edina
Transportation Planner

Amy Marohn, PE

City of Bloomington
Civil Engineer

Bob Byers, PE

Hennepin County
Transportation Planning Engineer

Jordan Kocak, AICP

Hennepin County
Bicycle & Pedestrian Coordinator

Three Rivers Park District

Danny McCullough

Regional Trail System Manager

Stephen Shurson, PLA

Landscape Architect

Kelly Grissman

Director of Planning

Ann Rexine, ASLA

Principal Planner

Jonathan Vlaming

Associate Superintendent

Consultant



Greta Alquist, AICP

Connor Cox

Chris Bower, PE

Brian Tang, EIT

Cindy Zerger, AICP, ASLA

Ciara Schlichting, AICP

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Hyland-Bush-Anderson Lakes Park Reserve | Bloomington, MN

EXECUTIVE SUMMARY

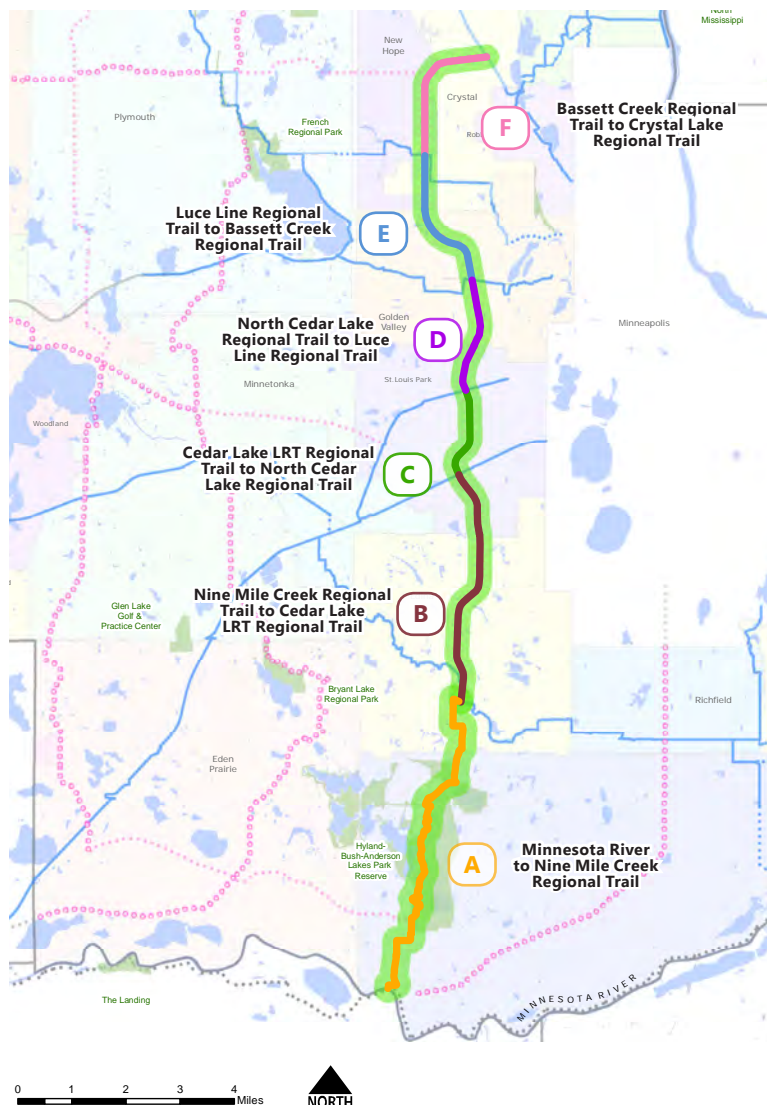
A LINKING REGIONAL TRAIL

The Canadian Pacific Rail Regional Trail (CP Rail Regional Trail, or CPRRT) is a planned, 21-mile regional trail corridor that traverses six communities in Hennepin County - Bloomington, Edina, St. Louis Park, Golden Valley, New Hope and Crystal (Map 1). The CPRRT will fill a critical north-south gap in the regional trail system and provide a highly desirable recreation amenity to adjacent communities and the greater region.

The CPRRT's route will provide an exclusively off-road trail experience for an estimated 305,000 users that is a safe and enjoyable recreation and active transportation option for all users regardless of age or abilities. The CPRRT will link and expand access to numerous local and regional trails, residential neighborhoods, local and regional parks, local businesses and destinations and natural open spaces such as the Minnesota River and Hyland-Bush-Anderson Lakes Park Reserve.

The proposed trail alignment will connect to three regional trail search corridors and six regional trails: Nine Mile Creek, Cedar Lake LRT, North Cedar Lake, Luce Line, Bassett Creek and Crystal Lake. The trail is divided into six segments - Segment A through Segment F. The segments generally connect one regional trail to another, starting at the southern terminus of the trail alignment at the Minnesota River in Bloomington.

Map 1: CP Rail Regional Trail Segments



the BL THE BOTTOM LINE

key message

The CPRRT will be 21 miles long, connect to several existing regional trails and six communities including Bloomington, Edina, St. Louis Park, Golden Valley, New Hope and Crystal.

This master plan is envisioned as a working master plan that will be updated every 1-3 years to eventually include a thorough route alignment evaluation, community engagement process and preferred route selection for each segment. The completion dates of each master plan segment is shown in **Table 1**.

The total acquisition and development costs to complete proposed and upgrade existing CPRRT segments are summarized in **Table 2**. The total estimated cost for all future trail segments is \$27.7 million.

Acquisition and construction costs for Segments B-F are estimated values since no specific route alignment has been selected. These cost estimates are subject to change and should be updated when the route alignment has been selected. At this time it is assumed that Segments B-F will all be constructed on new facilities, rather than utilizing existing facilities. It is further assumed that these segments will be constructed primarily within existing right-of-way, with a 5'-wide easement to be acquired along the entirety of the trail for initial construction, at an average cost of \$8 per square foot. Trail construction costs are assumed at \$300 per linear foot which is the current unit cost estimate for urban construction.

When the 21-mile CPRRT corridor is fully constructed, routine maintenance operation costs including additional staffing are estimated to increase by \$52,500/year (2019 dollars). Additional costs for trail surface preservation and rehabilitation (e.g. trail surface repairs, striping requirements and pavement requirements) are anticipated to increase by \$72,500/year assuming a 30-year pavement life. The combined annual maintenance operation estimated cost for both route and trail surface preventative maintenance is \$125,000/year.

Table 1: Master Plan Segments Completion Date

Segment	Master Plan Completion Date
Segment A: Minnesota River to Nine Mile Creek Regional Trail	2017-2019
Segment B: Nine Mile Creek Regional Trail to Cedar Lake LRT Regional Trail	TBD
Segment C: Cedar Lake LRT Regional Trail to North Cedar Lake Regional Trail	TBD
Segment D: North Cedar Lake Regional Trail to Luce Line Regional Trail	TBD
Segment E: Luce Line Regional Trail to Bassett Creek Regional Trail	TBD
Segment F: Bassett Creek Regional Trail to Crystal Lake Regional Trail	TBD

Table 2: CPRRT Acquisition and Construction Cost Estimates

SEGMENT A: Master Plan Estimate				
Minnesota River to Nine Mile Creek Regional Trail				
Existing Mileage	Future Construction Mileage	Acquisition Cost	Construction Cost	Subtotal Cost
5.62 miles	1.40 miles	\$100,000	\$3,000,000	\$3,100,000

SEGMENT B: Generalized Cost Estimate				
Nine Mile Creek Regional Trail to Cedar Lake LRT Regional Trail				
Existing Mileage	Future Construction Mileage	Acquisition Cost	Construction Cost	Subtotal Cost
0 miles	4.47 miles	\$950,000	\$7,100,000	\$8,050,000

SEGMENT C: Generalized Cost Estimate				
Cedar Lake LRT Regional Trail to North Cedar Lake Regional Trail				
Existing Mileage	Future Construction Mileage	Acquisition Cost	Construction Cost	Subtotal Cost
0 miles	1.68 miles	\$360,000	\$2,650,000	\$3,010,000

SEGMENT D: Generalized Cost Estimate				
North Cedar Lake Regional Trail to Luce Line Regional Trail				
Existing Mileage	Future Construction Mileage	Acquisition Cost	Construction Cost	Subtotal Cost
0 miles	2.12 miles	\$450,000	\$3,350,000	\$3,800,000

SEGMENT E: Generalized Cost Estimate				
Luce Line Regional Trail to Bassett Creek Regional Trail				
Existing Mileage	Future Construction Mileage	Acquisition Cost	Construction Cost	Subtotal Cost
0 miles	2.7 miles	\$570,000	\$4,250,000	\$4,820,000

SEGMENT F: Generalized Cost Estimate				
Bassett Creek Regional Trail to Crystal Lake Regional Trail				
Existing Mileage	Future Construction Mileage	Acquisition Cost	Construction Cost	Subtotal Cost
0 miles	2.66 miles	\$570,000	\$4,250,000	\$4,820,000

Acquisition and Construction Cost Estimates - Rounded Totals			
Total Future Construction Mileage	Acquisition Cost	Construction Cost	Total Cost
15.03 miles	\$3,000,000	\$24,600,000	\$27,600,000



CPRRT will connect to Nine Mile Creek Regional Trail on West 70th Street | Edina, MN

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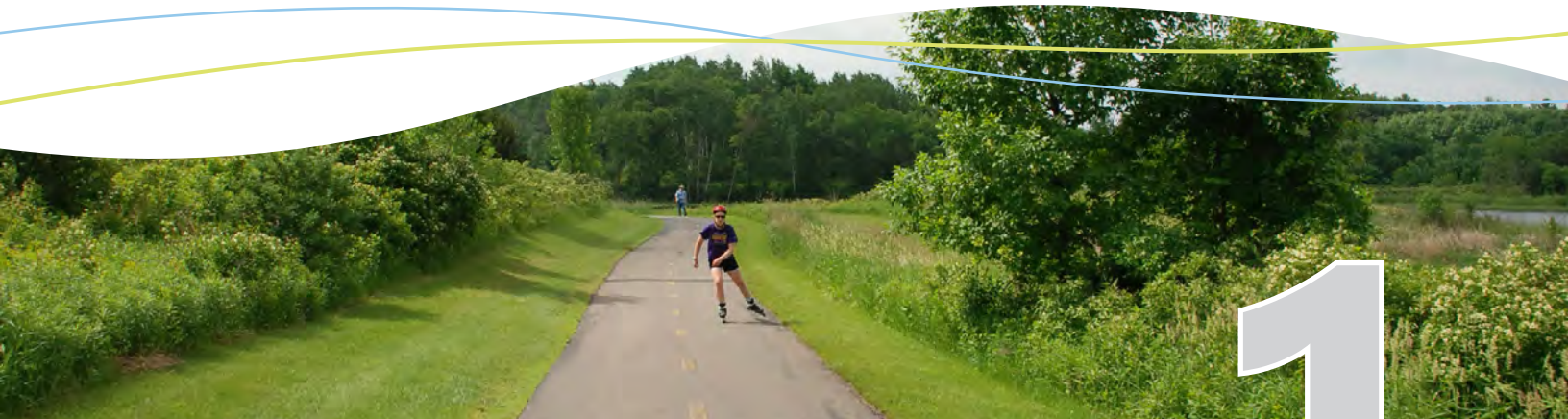
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A roller skater along the CP Rail Regional Trail through Hyland-Bush-Anderson Lakes Park Reserve | Bloomington, MN



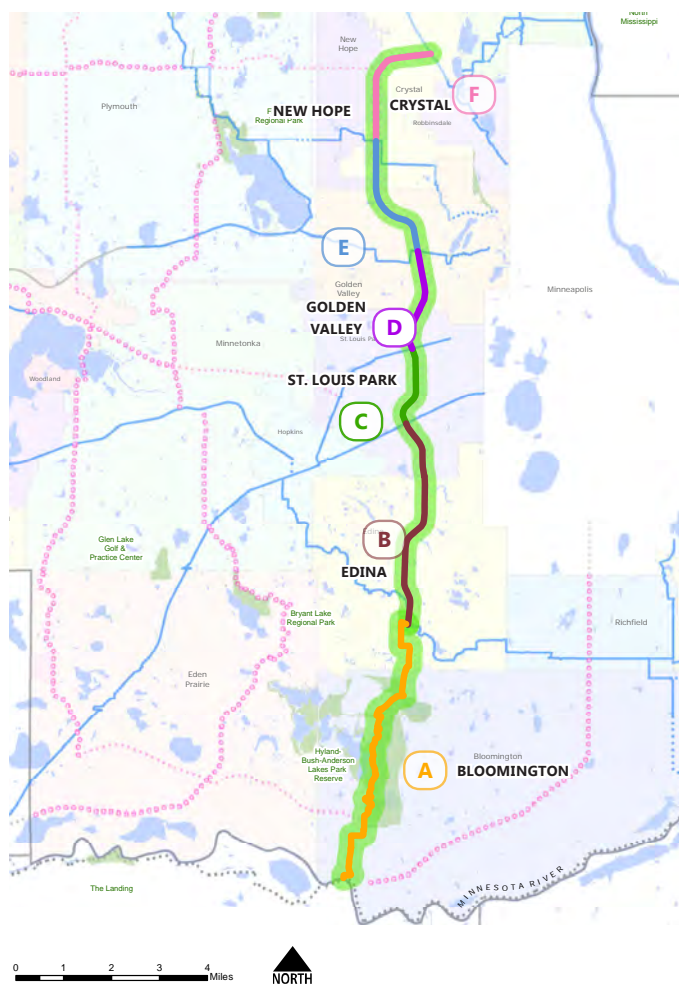
INTRODUCTION PLANNING FRAMEWORK

When complete, the Canadian Pacific Rail Regional Trail (CPRRT) will span 21 miles and connect the communities of Bloomington, Edina, St. Louis Park, Golden Valley, New Hope and Crystal. The trail alignment generally parallels the Canadian Pacific Rail line (CP Rail), which stretches south to north from the planned MN River State Trail to Crystal Lake Regional Trail. This future paved, multi-use, regional trail will expand recreational and transportation access to park and trail facilities, residential neighborhoods and commercial nodes. The CPRRT route is divided into six planning segments - each segment representing a connection between existing regional trails (**Map 2, Table 3**). The context of the CPRRT in relation to other planned and existing Three Rivers Park District regional trails is shown in **Map 3**.

Table 3: Master Plan Segments Completion Date

Segment	Segment Extents	Master Plan Completion	City	Chapter
A	Minnesota River to Nine Mile Creek Regional Trail	2019	Bloomington and Edina	6
B	Segment B: Nine Mile Creek Regional Trail to Cedar Lake LRT Regional Trail	TBD	Edina and St. Louis Park	7
C	Cedar Lake LRT Regional Trail to North Cedar Lake Regional Trail	TBD	St. Louis Park	8
D	North Cedar Lake Regional Trail to Luce Line Regional Trail	TBD	St. Louis Park and Golden Valley	9
E	Luce Line Regional Trail to Bassett Creek Regional Trail	TBD	Golden Valley, New Hope and Crystal	10
F	Bassett Creek Regional Trail to Crystal Lake Regional Trail	TBD	New Hope and Crystal	11

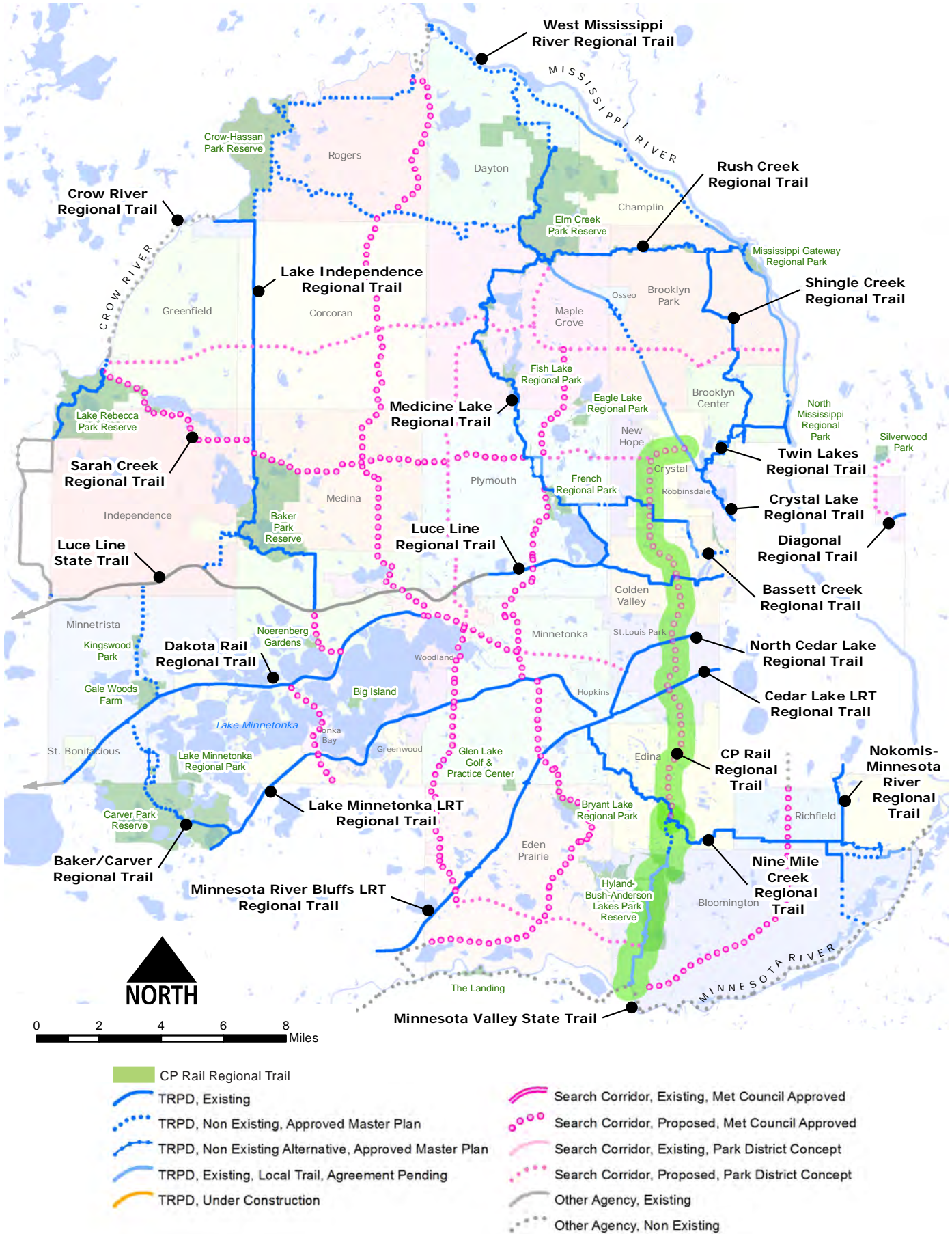
Map 2: CP Rail Regional Trail Segments



the QT THE QUICK TAKE-AWAY key message

The CPRRT's principle goal is to provide a comfortable and attractive south-north regional trail that connects the six communities along its route while also connecting to local destinations and regional trails.

Map 3: Three Rivers Park District Existing and Planned Regional Trails



PLANNING PROCESS

The CPRRT will be planned in phases, one phase for each of the six segments of the trail. During each phase, a segment’s exact route alignment will be solidified. When an update to the Master Plan is adopted, that segment officially becomes a planned regional trail as defined by the Metropolitan Council and becomes eligible for Regional Parks funding for implementation. Each phase of the planning process will include community engagement and a route evaluation process to select a preferred alignment for each segment of the regional trail. Detailed descriptions of the planning process for each segment will be provided in Chapters 6-11.

METROPOLITAN COUNCIL

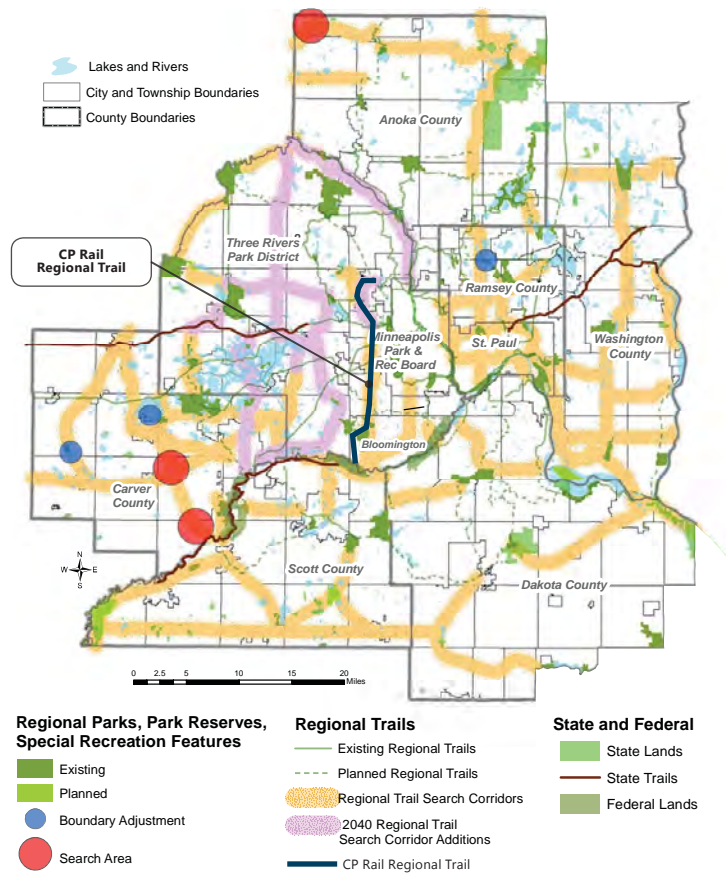
The Twin Cities nationally renowned Metropolitan Regional Parks System significantly contributes to the area’s high quality of life. Establishing green space for recreation and resource protection enhances the region’s livability and economic strength. The Metropolitan Regional Parks System includes 62 regional parks, park reserves and special recreation features - plus 340 miles of regional trails. Currently, there are 54,286 acres of protected land open for public use with planned acquisition of an additional 70,000 parkland acres and 760 regional trail miles over the next 25 years to meet the region’s growth expectations. The Metropolitan Regional Parks System is made up of 10 park implementing agencies consisting of six county park departments, three city park departments and Three Rivers Park District.

Metropolitan Council is the regional planning agency that oversees and provides partial funding of the acquisition, development and operation of the Metropolitan Regional Parks System. Metropolitan Council and park implementing agencies also develop regional park policies to protect the region’s water quality; promote best management practices; and help integrate the parks system with housing, transportation and other regional priorities.

Metropolitan Council provides guidance in the development of regional park and trail master plans and the CPRRT reflects that guidance. Each regional park or trail must have a master plan approved by Metropolitan Council prior to receiving Metropolitan Council funding. The master plan must address boundaries and acquisition, demand, development concept, implementation schedule, development and operational costs and natural resources. Public input is encouraged throughout the master planning process. Metropolitan Council’s

planning requirements help ensure consistency between the implementing agencies and their regional plans. The CPRRT regional trail search corridor is identified in Metropolitan Council’s 2040 Regional Parks System Plan (**Map 4**).

Map 4: Metropolitan Council’s 2040 Regional Parks System Plan



THREE RIVERS PARK DISTRICT

Three Rivers Park District (Park District) is an independent special park district charged with the responsibilities of acquisition, development and maintenance of regional parks and trails for the benefit and use of residents and visitors of suburban Hennepin County, the seven-county Twin Cities metropolitan area and the State of Minnesota. The Park District works cooperatively with local communities, counties, public agencies, the Metropolitan Council, and the State Legislature.

The Park District’s mission is to promote environmental stewardship through recreation and education in a natural resources-based park system. The Park District was established in 1957 by the Minnesota State Legislature when prominent members of the community promoted the benefits of parks in the outlying areas of Hennepin County.

Park District Overview

12 million

annual visitors

26,500+ acres
park reserves, regional parks
& special recreation features

145 +
regional trail
miles

Regional Trail Planning Guidelines

The Park District manages its lands under four categories of regional open space: regional park reserves, regional parks, regional special recreation features and regional trail corridors.

Regional trail corridors like the CPRRT are intended to provide recreational travel along linear pathways that transcend multiple jurisdictions and may, or may not, also serve a transportation function. In addition, regional trails follow criteria established by the Metropolitan Council and Park District:

“Regional trail corridors are carefully selected to follow natural or cultural linear features with scenic appeal and/or historical, architectural and developmental interest, connect people with places, help create a sense of place amongst the greater community, intersect with local trail, sidewalk and bicycle networks, provide access to mass transit and link components of the regional park system together.”

Regional trails may function as a destination or linking regional trail or both. For either regional trail type, adjacent land with significant natural or cultural resources may be acquired as part of the trail corridor.

- **Destination regional trails** are developed as greenways or linear parks, and are distinct in that the trail itself is a destination. This type of regional trail typically is an independent facility and includes a wide corridor providing opportunities for improving wildlife habitat, protecting natural/cultural resources and providing recreational opportunities.
- **Linking regional trails** serve a greater transportation function and act as the back bone to the regional trail system by connecting the regional park system to itself and the people it serves in a logical and efficient manner.

The CPRRT will serve as a linking regional trail, connecting six communities and many regional trails, including Nine Mile Creek Regional Trail, Cedar Lake LRT Regional Trail, North Cedar Lake Regional Trail, Luce Line Regional Trail, Bassett Creek Regional Trail and Crystal Lake Regional Trail.

PRECEDENT PLANNING DOCUMENTS

The CPRRT Master Plan builds off of the CPRRT Feasibility Report, which was completed by the Park District in 2010. The report includes a technical feasibility section with descriptions of individual trail segments and potential construction and environmental impacts. The report also includes social feasibility, economic feasibility, railroad approval and phasing strategies, and potential funding sources.

In addition to the feasibility report, the CPRRT is consistent with the vision of several agencies along the trail corridor. This master plan serves to solidify those independent visions into one documented trail route, supported by agencies, residents and users. The CPRRT corridor, generally aligned adjacent to the Canadian Pacific Railway, is identified and defined by the following plans:

- Metropolitan Council ‘2040 Regional Parks Policy Plan’ as a regional trail search corridor
- Metropolitan Council ‘Regional Bicycle System Study’ (2014) identified the CPRRT alignment in the regional bicycle transportation network
- Metropolitan Council ‘Regional Bicycle Barriers Study’ (2018) identified fifteen barrier crossings along the CPRRT: five in Tier 1, nine in Tier 2, and one in Tier 3
- Hennepin County ‘2040 Bicycle Transportation Plan’ as a ‘planned off-street bikeway search corridor’ (Hennepin County Planned Bikeway System, April 2015)

In addition, portions of the CPRRT corridor have been identified in local bicycle, pedestrian, trail, or comprehensive plans:

- City of Bloomington ‘Alternative Transportation Plan’ (2016) identifies the alignment of the CPRRT, although the trail is labeled as the ‘Hyland Regional Trail’
- City of Edina ‘Bicycle and Pedestrian Plan’ (Draft 2018), identifies two small portions of Subsegment A4 (described in more detail in Chapter 6 of this master plan) as new planned shared-use paths, including West 78th Street, Dewey Hill Road and a small portion of Bush Lake Road between Dewey Hill Road and West 76th Street
- City of St. Louis Park ‘Active Living: Sidewalks and Trails Plan’ (2007) identifies a portion of the CPRRT on the southern end of the city
- City of Golden Valley ‘Comprehensive Plan 2040’ (Draft 2018) identifies the CPRRT as a proposed north-south route from the City of New Hope boundary to City of St. Louis Park boundary
- New Hope Comprehensive Plan (2008) identifies the CP Rail Corridor as a “Potential Rail ROW sharing”
- City of Crystal ‘Park and Recreation System Master Plan’ (2017) identifies a regional trail connection from Winnetka Avenue North, through Valley Place Park, Bassett’s Creek Park and continuing southeast past Highway 100 that generally follows the CP rail trail corridor





Children bicycling on a regional trail.



RESEARCH TRENDS, DEMANDS & FORECASTS

CPRRT is anticipated to become a significant regional trail destination due to its connectivity with recreational amenities including existing and proposed regional trails, regional park reserves and to various retail and commercial nodes. National, state, regional and Park District recreational use trend studies support continued expansion, improvement and implementation of trails. Recreational studies also indicate that of the wide varieties of recreation activities, trails appear to be the common thread across most demographics groups.

the BL THE BOTTOM LINE key message

Parks and trails support an active, healthy lifestyle for all who use them. **Parks and trails build strong families and communities, nourish bodies and minds, attract economic development and growth and preserve and protect the natural environment.**

NATIONAL RECREATION TRENDS

According to the Outdoor Recreation Participation Topline Report (2017), nearly half of all Americans – 48.6 percent – participated in at least one outdoor activity in 2016. That equates to 144 million participants who went on a collective 11 billion outdoor outings. While the participation rate and number of participants slightly increased over the past year, the number of total outings decreased due to a decline in outings per participant. Aspirational participation, which measures the physical activities that interest non-participants, showed that many Americans were drawn to outdoor recreation over sports, fitness and leisure activities. In fact, all aspirational participants — regardless of age — reported bicycling in their top six most appealing activities. The report details youth, young adult and adult participation rates and frequencies for popular types of recreation. Running, jogging and trail running topped each age cohorts recreation participation list, followed closely by bicycling.

The Outdoor Recreation Trends and Futures technical document (2010) has reported that the number and percentage of people ages 16 and older participating in walking and bicycling continue to increase nation-wide, giving a positive outlook for regional trail development. Walking for pleasure and bicycling report in at over 200 and 88.3 million participants respectively (2005-2009) - numbers that have been steadily increasing since the report's first recorded numbers in 1982.

The Outdoor Recreation Trends and Futures document further investigates recreational participation by ethnic populations, concluding that minority populations nation-wide are still underrepresented in outdoor recreation overall - which is also consistent with Minnesota data. However, of those minority populations that were surveyed who did participate in outdoor activities (the largest minority groups in the United States being African Americans, Asian/Pacific Islander and Hispanics), running/jogging and trail running ranked highest as their top selection (ages 6 and older).



The number and percentage of people ages 16 and older who walk and bike continue to increase nation-wide.

Source: Outdoor Recreation Trends and Futures (2010)

MINNESOTA RECREATION TRENDS

The Minnesota's State Comprehensive Outdoor Recreation Plan (SCORP), published by Minnesota Department of Natural Resources (MnDNR), provides goals and strategies that reinforce the vision and strategic directions that comprise the Parks and Trails Legacy Plan. It further defines the geographic

pattern of high growth continuing in the greater Twin Cities metropolitan area. This new growth will fuel demands for near-home recreation opportunities in these areas. Two-thirds of all recreation use occurs within a half-hour drive from home; creating the need for outdoor recreation lands near areas of higher population density and growth. Sustaining existing outdoor recreation facilities for future generations remains a key issue.

The primary goal of the SCORP is to increase participation in outdoor recreation by all Minnesotans and visitors. By increasing recreation facilities and increasing them in or near populated areas and populated areas with increasingly diverse populations, the CPRRT will help meet this goal and start to respond to some of the trends and issues identified in the SCORP.

The SCORP cites several studies showing that involvement in nature-based outdoor recreation among young adults and their children has decreased since the 1990s. The relative participation of different segments of the population in nature-based outdoor recreation, together with their respective population growth rates, create significant challenges ahead in terms of park and trail utilization, as well as maintaining broad-based public support for park and trail investments.

TWIN CITIES REGIONAL RECREATION TRENDS

The Metropolitan Council notes the Twin Cities metropolitan area is projected to be home to almost 3.7 million people by 2040, a gain of 824,000 residents from 2010. With this growth will come new jobs, greater racial and ethnic diversity, expanded economic opportunities and increased tax revenues. In addition, the Twin Cities population is changing in ways that will influence park and trail decision making:

- Our region is aging rapidly. More than one in five residents will be age 65 and older in 2040, compared to one in nine in 2010.
- The region will gain 391,000 households by 2040.
- By 2040, 40% of the population will be people of color, compared to 24% in 2010. The share of people of color is greater among younger age groups; 54% of residents under age 18 will be people of color in 2040.
- Broad-based trends consistently indicate that recreation participation is far greater for white and/or non-Hispanic populations within the state and nation than for people of color, according to the SCORP.

Metropolitan Council demographers have identified that about half of the total increase in population for the region from 1990 to 2000 was contributed to immigration of first-generation U.S. citizens and the births of their children. This trend was expected to continue through 2010, if not longer. Within the region, there are several prevalent immigrant groups: Hmong/Southeast Asian, Hispanic/Latino, Somali and West Africans.

To date, this influx of new immigrant groups are generally not participating in regional trail use at the same rates as non-immigrant populations. The Park District is committed to better understanding this phenomenon and will continue to study this further with the ultimate goal of attracting regional trail

users which mirror the demographics of the region. Once this is understood, this will be reviewed to consider steps to better serve those community groups which may include signage in multiple languages, learn to bike/commute classes, bike rental/ bike share or similar.

GENERATIONAL RECREATION TRENDS

In the U.S., there are six living generations, which are six distinct groups of people. They have had collective experiences as they aged and therefore have similar ideals and stereotypes. Social generational theory provides an opportunity to help understand current and projected generational tendencies related to outdoor recreational trends. Regional trails appeal in some form to all six generations for various reasons - whether that be healthy living objectives or quality of life factors.

The Park District continues to explore how to retain existing regional trail users and remain relevant to the changing needs of future generations. This may be in the form of more identified vehicle parking for users with ambulatory needs or more pet-waste stations for young adults that use Park District trails with dogs. These generational recreation trends require occasional review - because as trail users age, so do their desires and needs for a robust regional trail system (**Table 4, following page**).



Photo credits (this page and next): Sixty and Me, Quikbyke, MnDNR, Bike Bandit, Ann Rexine & Momentum Magazine

Table 4: Generational Recreation Theory

Source: Three Rivers Park District & various sources

Generation Class	Collective Experiences	Recreation Trends	Design Recommendations
Greatest Generation • Born 1901-1926 • 4 million population	<ul style="list-style-type: none"> Suffered and persevered through Great Depression and then fought in WWII Known for personal responsibility, humble nature, work ethic, prudent saving and faithful commitment. 	<ul style="list-style-type: none"> Mature adults who are interested and able, connect with outdoor recreation through walking, hiking and light exercise. Interest in biking has increased, as mature adults look to keep muscles and joints healthy and strong. Biking also maintains range of motion, movement and balance. This does decline however, as this cohort ages. Spending time outdoors and staying physically active can have significant health benefits for older adults. Physical and mental benefits include increased vitamin D levels, improved immunity, reduced feelings of anxiety and depression, increased energy, more restful sleep, better attention levels and better recovery rates from injury and illness. 	<ul style="list-style-type: none"> Multi-use trails are important for aging adults - however they feel more safe when bicyclists and pedestrians are separated. Trail intersections and crossings must have truncated dome treatments with adequate crossing times. Pavement must be well-maintained, free of obstructions, non-slip and wide enough for wheelchairs. Seating at predictable intervals is imperative.
Silent Generation/ Traditionalists • Born 1927-1945 • 30 million population	<ul style="list-style-type: none"> Grew up during the Great Depression and WWII and either fought in WWII or were children. Majority are retirees who are known for traditional family values, simplicity and comfort, demand for quality and financial security. 		
Baby Boomers • Born 1946-1964 • 76 million population	<ul style="list-style-type: none"> Born during a spike in population after WWII and was known as the largest living generation until the Millennials recently outpaced them. Grew up during the Civil Rights Movement and Cold War. Known for experimentalism, individualism and social cause orientation. Can be distrustful of government. 		
Generation X • Born 1965-1980 • 66 million population	<ul style="list-style-type: none"> Generation born between two larger generations (Boomers and Millennials). First generation to develop ease and comfort with technology. Known for informality, independence, multi-tasking, entrepreneurs and family time values. Can be distrustful of institutions. 	<ul style="list-style-type: none"> Take a more lighthearted attitude than their predecessors and approach outdoor activity more as a sport. Risk, challenge and adrenaline are important motivators for participating in outdoor activities. They embraced competition and particularly risk, pushing back the limits of every outdoor sport - and inventing some new ones of their own. The term "extreme sports" is associated with Generation X. 	<ul style="list-style-type: none"> High demand for local trail access to parks, trails and destinations (library, restaurant, commercial etc.) - which complements active family lifestyles. This generation has influenced the real estate market and community planners to answer this recreational need nationwide - promoting access to parks, recreation amenities and programming.
Generation Y/Millennials • Born 1981-2004* • 80 million population	<ul style="list-style-type: none"> Grew up with technology (computers, cell phones, internet, etc.). Largest living generation (surpassing Boomers). Expected to continue growing until 2036 as a result of immigration. Known to be informal, more culturally and racially tolerant, entrepreneurs, acceptant of change, achievement oriented and financially savvy with need for instant gratification. 	<ul style="list-style-type: none"> Due to social media and access to the internet, Millennials are not used to feeling alone. Thus, they are not looking to spend a quiet day alone in a park. Readily share recreation experiences in real-time. As this generation delays traditional marriage and families, pet ownership has increased. 	<ul style="list-style-type: none"> Millennials like to stay active, so parks with trails for biking, running and open fields for group activities are attractive. Park and trails with water access and pet waste stations for dogs is appealing.
Generation Z/ Digital Natives • Born 2004 - present • 74 million population and growing	<ul style="list-style-type: none"> First living generation to exclusively grow up with technology (computers, cell phones, internet, etc.), which equates to true digital natives. Growing up in a world where options are unlimited but their time is not. Quick adapters to sorting and assessing large amounts of information. 	<ul style="list-style-type: none"> While this generation's recreational identity and interests are still developing, enticing them away from screen-time and into the outdoors will continue to be a challenge for park and recreation planners, practitioners and designers. Recreation planners and practitioners are currently strategizing how to incorporate quality screen-time into outdoor play, nature and exercise. 	

GENERAL NOTE: Generation classes, years, ages and populations are estimates - varying sources will all offer slightly difference estimates.

* Pew Research Center defines Millennials as being born from 1981 onwards, with no chronological end point set yet. Demographers William Straus and Neil Howe define Millennials as born between 1982 -2004.



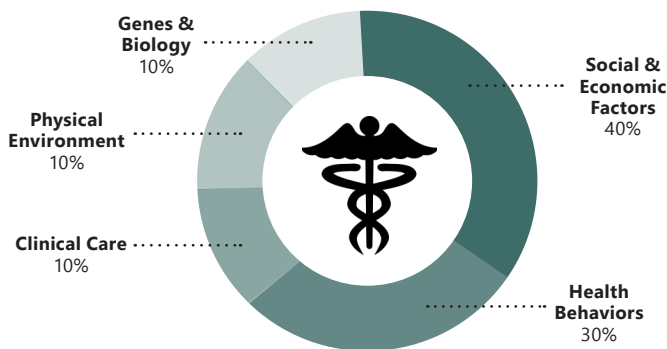
CREATING HEALTH EQUITY

Minnesota, on average, ranks among the healthiest states in the nation. But those averages do not tell the whole story. Minnesota has some of the greatest health disparities in the country between whites and people of color. America ranks 27th among affluent nations in life expectancy and 30th in infant mortality. At the same time, our nation spent more than \$3.2 trillion dollars on health care in 2015, more than any other country.¹ Health care spending per person continues to grow faster than the American economy. Annual premiums for family coverage have nearly doubled from 2002 - 2012.²

Yet, as seen in **Graph 1**, clinical care only accounts for 10 percent of a person's health determinant. The largest determinants of a person's health is based upon social and economic factors (income, housing, insurance coverage, care giving) and health behaviors (activity/exercise, nutrition, smoking, obesity, substance abuse, etc.).

Graph 1: Determinants of Health

Source: Minnesota Department of Health



Recreation providers can have a direct and positive impact on a person's health by creating accessible and affordable access to parks and trails. Direct exposure to nature is essential for healthy childhood development and for the physical and emotional health of children and adults. Research findings recognize the following health benefits:

- Improved physical activity
- Improved nutrition
- Reduced stress
- Enhanced cognitive abilities
- Improved self discipline
- Improved academic performance
- Reduced ADD symptoms
- Improved creative problem solving
- Improved social relationships

A recent MnDOT study³ has described that physical activity can prevent illness and death from chronic diseases - specifically MnDOT concludes that bicycling three times per week provides the following:

- 46% lower odds of metabolic syndrome
- 31% lower odds of obesity
- 28% lower odds of hypertension

In turn, these bicycling benefits are estimated to save Minnesota residents between \$100 - \$500 million per year in medical related costs. This study's research allows recreation planners the ability to more accurately represent the cost/benefits of

new trail projects. It also provides clear direction to promote active transportation through fostered relationships between park and trail agencies, transportation departments and health care officials.

PARK DISTRICT REGIONAL TRAIL TRENDS

Visitation to the Park District's regional trails is now estimated at over 5 million visits per year. The number of trail miles has grown from 56 miles (2009) to 145 miles (2018). Use patterns within the Park District's system of parks and trails have also changed. The Boomers who used to bring their children to Park District parks are now empty-nesters and have flocked to the regional trails to get exercise and to get outdoors. Biking, as a form of transportation, has gained traction over the past five years throughout the metro region and more users are now bike commuting. The Park District's work with local communities and Hennepin County has resulted in a regional trail network that is better connected to the local "feeder" trail, sidewalk and bike lane networks, making the system more accessible to a larger portion of the population.

In 2011, Cedar Lake LRT Regional Trail surpassed 500,000 visits - marking the first time in the Park District's history that a regional trail received a half million visits. Now seven years later, Cedar Lake LRT Regional Trail remains the most visited in the Park District's system; third only to Minnehaha Parkway Regional Trail (1,386,200 visits in 2017) and Kenilworth Regional Trail (746,400 visits in 2017) within the Metropolitan Regional Parks System.

Of the 16 Park District regional trails that received visitor counts in 2017, six received 500,000 or more visits. For comparison purposes, five of the 21 park reserves, regional parks and/or special recreation features received 500,000 or more visits. As of 2017, regional trail visits accounted for over 40 percent of all visits to the Park District's facilities. Trail visitation is expected to continue to increase at a rate greater than the expected increase in population and to increase at a rate faster than expected visitation increases to the Park District's park units.

Regional Trail | User Data

Metropolitan Council data reveals that regional trails are most heavily visited during the spring, summer and fall seasons with summer receiving 35 percent of annual visits, spring and fall each receiving 27 percent of annual visits and winter receiving 11 percent of annual visits. Winter has seen more seasonal growth, in part due to warmer winters, the increased use of trails for commuting and the use of trails for year-round exercise regimens.

Park District research shows that summer trends continue to indicate that biking is, and will remain, the predominant regional trail activity at 72 percent, followed by walking (18 percent) and running (8 percent). In-line skating, users with mobility-devices and other miscellaneous uses make up the balance of trail users. However, Park District winter data reveals a different narrative. Bicycling drops significantly during the winter season, while the walking and running groups continue to utilize regional trails (**Graph 2**).

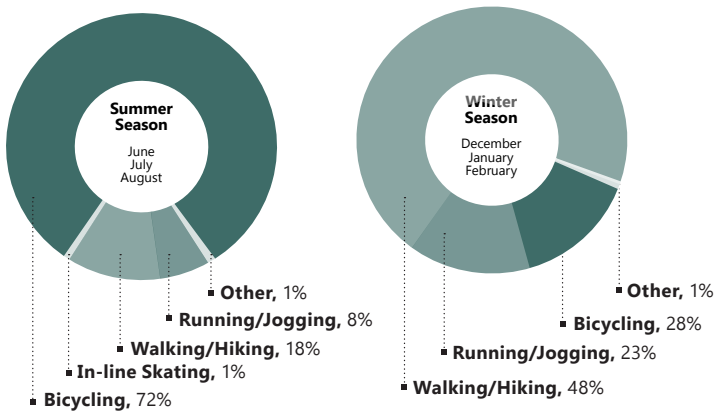
¹ Center for Health and Learning

² Kaiser Institute

³ Assessing the Economic Impact & Health Benefits of Bicycling in Minnesota, MnDOT, 2016.

Graph 2: Regional Trail Use by Activity & Season

Source: Three Rivers Park District



The vast majority of regional trail visitors use trails for recreation and exercise. However, regional trail use for commuting/transportation purposes is on the rise. Recently, the Park District significantly expanded the regional trail system within urban, fully-developed communities. This increased commuting/transportation regional trail use is captured in current Park District data that shows 23 percent of all regional trail visits are now for commuting purposes (up from about 1 percent in 1998, and up from 12 percent in 2009). Regional trails that are paved, with few stop conditions, limited interactions with motor vehicles and with seamless connections to employment, retail and commercial centers have a greater percentage of regional trail visits attributed to commuting than regional trails without these three attributes. While these certainly are not the only factors in determining the desirability of a regional trail corridor for commuting purposes, they appear to play an important role.



Bicycle commuting is increasing as more residential housing opportunities arise near regional trail access points.
Source: Cup of Jo, Joanna Goddard

Regional Trail | Visitor Preferences

Bicycle and pedestrian studies from across the country, and over the last 25 years, have come to the same general conclusions regarding user preferences - regardless of user type. Trails with the following characteristics will attract visitors from greater distances, will have greater annual use and will produce more enjoyable experiences for trail users:

- Natural settings (scenic, vegetation, limited evidence of the built environment, etc.)

- A diversity of natural settings (woodlands, wetlands, prairies, etc.)
- Visual and physical separation from motor vehicles
- A continuous and contiguous route with limited stop conditions
- A smooth surface (either paved or aggregate)
- Connectivity with destinations and other bicycle/pedestrian facilities
- Opportunities for loops
- Trail amenities - drinking water, mileage markers, restrooms and wayfinding

Some bicycle and pedestrian studies also indicate that participants are willing to spend more money and travel longer distances to utilize facilities that incorporate these preferences. In recognition of user preferences, the CPRRT route was selected to provide linkages to regional recreation destinations; balance recreation and natural resources; minimize stop conditions, provide a safe, off-road, multi-modal transportation option, and ultimately, increase the desirability of the regional trail.

CPRRT Projected Use and Visitation

The percentage breakdown by activity of CPRRT will generally mirror Park District regional trail activity trends. Bicycling will be the primary regional trail use, with ancillary uses such as walking, running and in-line skating capturing a smaller percentage of the total use. These expected uses remain consistent throughout the trail corridor with the exception of where the regional trail passes through commercial areas. In these locations, it is anticipated that the regional trail will receive an increased percentage of pedestrian activity associated with the sidewalk network.

Seasonal use percentages for the CPRRT are expected to be consistent with regional trail seasonal use with 88 percent of visitation occurring in the spring, summer and fall seasons. Winter use of the CPRRT is dependent on weather conditions, available budget and the assistance of local communities to maintain the trail. Local communities will maintain the regional trail during the winter months as resources allow and demand warrants it. The Park District currently partners with cities to encourage winter maintenance of regional trails by offering financial contributions to help offset plowing costs. This payment to cities is based on the number of miles within each city's borders.

When fully-constructed, the CPRRT is projected to generate 305,000 annual visits. This visitation estimate is calculated based on the following cumulative methodology: 1) Metropolitan Council's annual estimated visits to a comparable regional trail (Luce Line Regional Trail) and 2) population within 1.5 miles of the regional trail (**Appendix A, Visitation Methodology**). Park District studies indicate that 50 percent of regional trail users live within 1.5 miles from the trail (core service area) and 75 percent of users live within 3.5 miles of the trail (primary service area) (**Map 5, following page**).

DEMOGRAPHIC EQUITY ANALYSIS

The racial and ethnic composition of the primary service area of the CPRRT is expected to generally mirror the demographics of the surrounding community in which the trail is located. Based on research conducted by Three Rivers at trails from similar areas of the metro region, it is expected that 50% of the trail users will live within 1.5 miles of the trail (Core Service Area), and 75% of the trail users will live within 3.5 miles of the trail (Primary Service Area).

Three Rivers research also reveals that the primary under-represented groups of people using Three Rivers Park District regional trails today are:

- People of color
- People older than sixty years of age
- People from households that earn less than \$50,000

Based on the 2010 U.S. Census and the 2016 American Community Survey data, the following chart shows the demographic analysis of the expected CPRRT users from under-served populations in the Twin Cities metropolitan area. It also compares the demographics of the CPRRT service areas to Three Rivers Park District's jurisdiction, suburban Hennepin County, as well as all of Hennepin County.

Table 5. Demographic Analysis of Service Area

Classification	Within 1.5 miles of CPRRT (Core Service Area)		Within 3.5 miles of CPRRT (Primary Service Area)		Suburban Hennepin County (TRPD jurisdiction)		Hennepin County	
	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
All People of Color (Adults)*	26,954	17%	94,320	23%	109,156	19%	210,795	24%
Non-Hispanic Black (Adults)*	11,569	7%	45,958	11%	43,310	7%	92,529	10%
Non-Hispanic Indian (Adults)*	983	1%	3,165	1%	3,337	1%	9,275	1%
Non-Hispanic Asian (Adults)*	8,155	5%	25,400	6%	37,026	6%	54,591	6%
Non-Hispanic Hawaiian (Adults)*	88	<1%	232	<1%	286	<1%	500	<1%
Non-Hispanic Other (Adults)*	263	<1%	692	<1%	884	<1%	1,562	<1%
Non-Hispanic Mixed (Adults)*	530	<1%	1,842	<1%	1,873	<1%	3,878	<1%
Hispanic (Adults)*	5,366	3%	17,031	4%	22,440	4%	48,460	5%
People > 60 years of age**	54,512	34%	113,192	28%	111,013	19%	213,157	24%
Households with Income < \$50,000**	37,402	35%	97,915	39%	73,371	28%	189,397	39%

Sources:

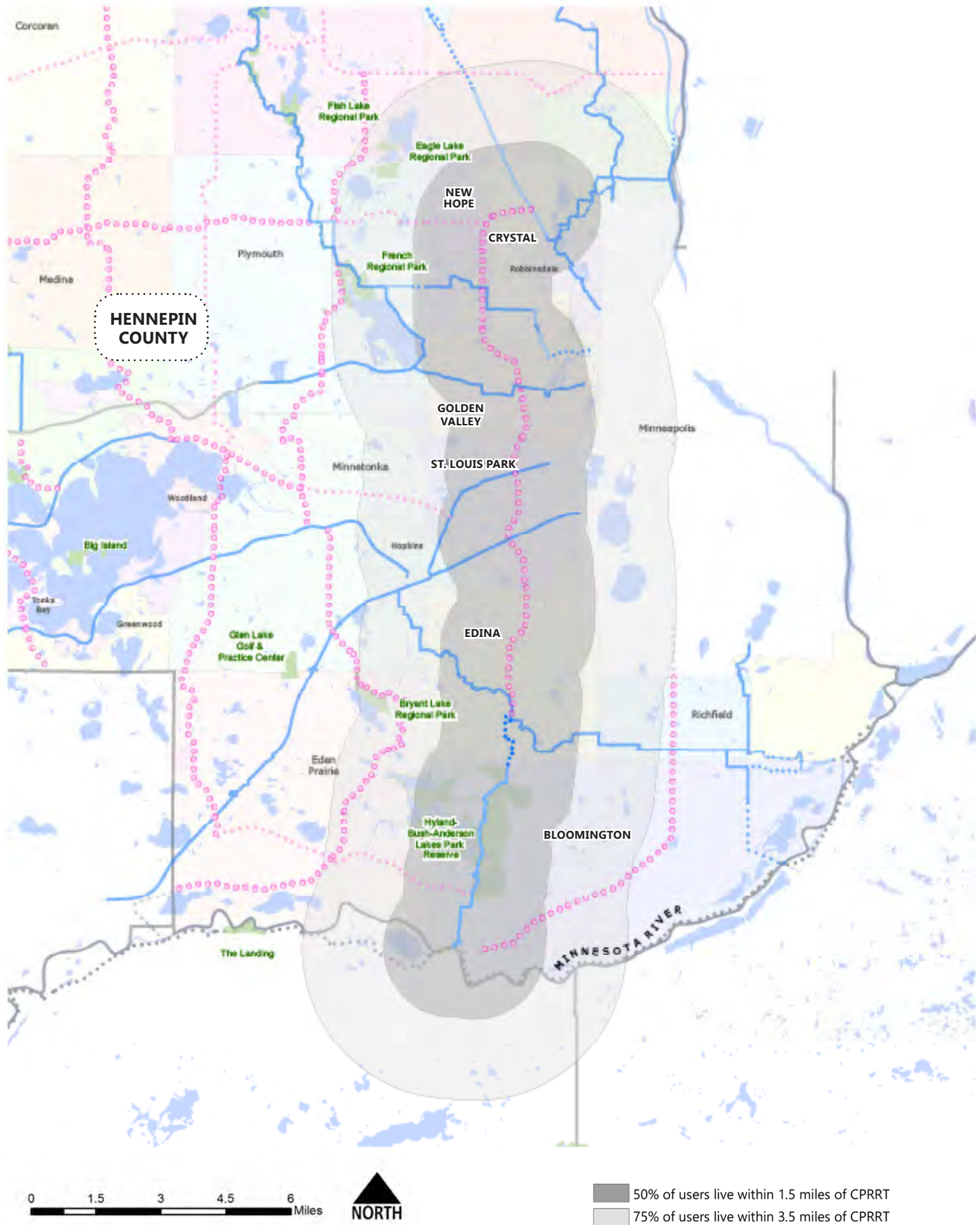
* 2010 Census, US Census Bureau

** 2012-2016 American Community Survey 5-year estimates, US Census Bureau

The CPRRT will serve approximately the same proportion of minority populations as compared to County as a whole. It will serve a higher proportion of people 60 years of age and households with less than \$50,000 as compared to the county.

Map 5: CP Rail Regional Trail | Service Area

Source: Three Rivers Park District



50% of users live within 1.5 miles of CPRRT
75% of users live within 3.5 miles of CPRRT

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Park District staff conducting field work along segment A4 of the CPRRT | Edina, MN

3

DESIGN GUIDANCE DEVELOPMENT CONCEPT

The routing of the CPRRT will provide regional trail users the opportunity to enjoy and experience some of the region’s scenic landscapes and parks, as well as connect to existing regional trails including the Nine Mile Creek, Cedar Lake LRT, North Cedar Lake, Luce Line, Bassett Creek and Crystal Lake Regional Trails. The regional trail will incorporate safe crossings of significant pedestrian and bicycle barriers including county/state highways and connections to adjacent local trails.

The CPRRT is intended to safely accommodate 305,000 annual visits, an array of non-motorized uses, a variety of skill levels and persons with special needs. In addition, the regional trail is intended to support both recreation and commuting uses and incorporate trail amenities that enhance trail users’ experiences.

Similar to many regional trail corridors, the CPRRT corridor includes several challenges associated with constructing a regional trail where trail right-of-way does not exist, providing access to and across natural resources areas and balancing safety, public expectations, natural resource protection and potential private property impacts. In areas where physical challenges exist, and in accordance with the route evaluation criteria, willing-seller property acquisition will be considered.

The CPRRT will be designed and constructed in a manner that meets user expectations and needs, meets industry standards and best management practices and is financially responsible. As such, the Park District utilizes a series of regional trail practices and guidelines in respect to trail design and support amenities. These practices and guidelines are summarized in this chapter and will serve as the basis for design and construction of the CPRRT.

PERMITTED USES

CPRRT intended uses include walking, jogging, in-line skating, bicycling and other uses mandated by state law including, but not limited to, non-motorized electric personal assisted devices. Motorized vehicles will be prohibited, except for motorized vehicles used by the Park District and partner cities for maintenance or law enforcement activities or otherwise permitted for ADA (Americans with Disabilities Act) access.

ACCESS TO ALL

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



the BL THE BOTTOM LINE key message

The CPRRT is planned as a linking regional trail - offering an important connection between Hyland-Bush-Anderson Lakes Park Reserve and Crystal Lake Regional Trail.

All regional trail facilities, including associated trailheads and trail amenities, will be designed to accommodate individuals with disabilities and developed in accordance with ADA standards and guidelines. Specific design guidelines are discussed below in this section.

The Park District pursues promotional outreach activities and works with special-interest organizations such as the Courage Kenny Rehabilitation Institute and Wilderness Inquiry to further encourage participation in activities and use of park facilities by persons with special needs. If arrangements are made in advance, interpreters and alternative forms of printed material are available at programmed events.

In addition to accommodating individuals with disabilities, the trail corridor passes through several Hennepin County cities, providing access to people with different social and cultural backgrounds and connecting those persons with important local community destinations such as parks, commercial areas, community facilities, cultural destinations and transit facilities.

On a broader scale, communities adjacent to the trail will not only have access to the CPRRT but also gain direct and indirect access to several existing park reserves, regional parks and regional and state trails. To improve local access, neighborhood trail connections are anticipated at regular intervals.

The Park District does not charge entrance fees for its regional trails; therefore, the regional trail is available for all users to enjoy regardless of financial status.

DESIGN GUIDELINES

In accordance with its regional designation and associated anticipated use, the CPRRT will be designed as an off-road 10-foot-wide, non-motorized, paved, multi-use trail. A bituminous trail surface is preferred because it is cost-effective, less prone to erosion than aggregate surfaces, provides a desirable trail user experience and is more appropriate given the anticipated visitation and connections to other paved facilities. Curb ramps will be used at all roadway crossings. The preferred maximum trail grade is 5 percent with a 2 percent cross slope for drainage.

Much of the CPRRT is anticipated to be an independent trail corridor separate from roadways, including urban, curbed rural and park sections (**Figures 1 & 2, following page**). Descriptions and associated costs for those regional trail typicals are included in **Table 5**.

In areas where the trail will be located adjacent to a roadway, the following design considerations apply. Where right-of-way allows, final trail design will attempt to maximize the boulevard width to account for sign placement, snow storage and possibly trees or other complementary enhancements. In circumstances with limited right-of-way, the trail is still planned to be located off-road, but with less boulevard between the trail edge and back of the 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 the curb and the trail edge provides a buffer between the trail users and motorists and will be striped to delineate the edge of the trail.

In the event there are instances where the trail will not initially meet the preferred design, trail designers will evaluate a wide variety of design tools to determine the best fit for the unique situation. Unless the alternative trail design is an acceptable long range solution, it is anticipated that noncompliant trail segments would be improved as funding, right-of-way or other opportunities present themselves.

A number of factors will be considered during the design phase, such as:

- Right-of-way width/acquisition needs
- Topography and drainage impacts
- Existing vegetation
- Driveway/road crossings
- Overhead and subsurface utilities
- Proximity to adjacent buildings, homes, businesses and industrial facilities
- Wetlands/floodplain locations, potential impacts and rules
- Wildlife (species, nesting/breeding areas and times and concentrations)
- Existing infrastructure
- Connectivity with other trail/sidewalk/bicycle facilities
- Safety
- Cost
- Obstructions
- Trail user preferences/desired trail user experience
- Opportunities to coordinate with other projects/agencies

Table 5: Regional Trail Typical Cost and Descriptions

New Construction		
Trail Type	Unit Cost (2019 dollars)	Description
Urban	\$325 / LF	Trail construction replacing an existing curb/gutter, cut/remove existing pavement, relocating storm sewer and other utilities, working under traffic controls.
Curbed Rural	\$300 / LF	Trail construction in a rural/suburban environment that has no existing curb/gutter, converting it to a curb/gutter design with storm sewer as needed.
Rural	\$120 / LF	Trail construction through a rural road ditch area with enough separation with the road to not require a curb/gutter. No major extra fill or excavation.
Park	\$120 / LF	Trail construction through a park or open space where curb and gutter is not required and ample space is provided for signage and rest stops.



Regional trails are designed and developed to meet ADA standards and guidelines.

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

- 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, May 2015
- 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
- Bicycle and Pedestrian Wayfinding, Metropolitan Council, October 2011
- 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 and ABA Accessibility Guidelines for Buildings and Facilities (U.S. Access Board)
- Guidance for Three Rivers Park District Trail Crossings, December 2013

Throughout the design process of the CPRRT, the Park District will work closely with the local communities to route the trail in a manner that has the greatest public benefit and least amount of private property impacts.

Trail/Road Crossings

There are several locations where the regional trail crosses roadways and in which careful attention to detail is required to provide a safe and user friendly crossing. The types of trail crossing treatments will be designed in accordance with industry best standards to ensure conflicts between trail users and roadway traffic are minimal.

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 phase.

Figure 1: Urban and/or Curbed Rural Trail Section

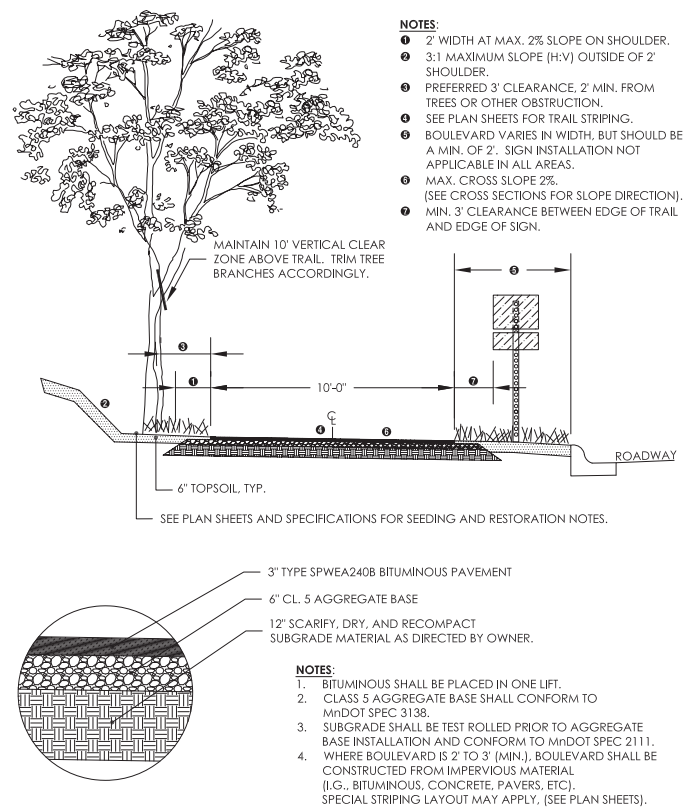
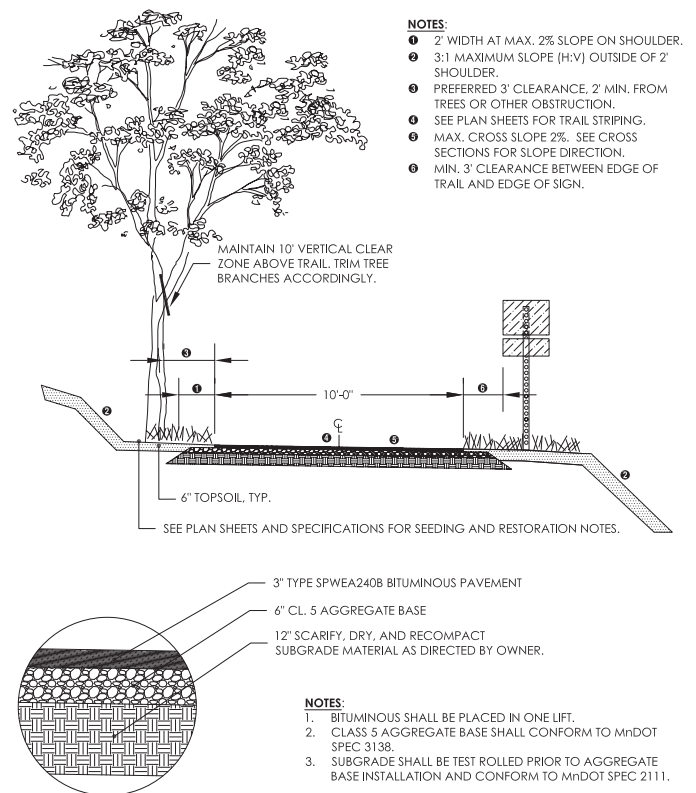


Figure 2: Rural and/or Park Trail Section



Wetland & Floodplain Crossings

There may be portions of the regional trail that traverse wetlands and floodplains. In these instances, the regional trail design may incorporate bridges, boardwalks and other creative solutions to minimize potential natural resources impacts while maintaining a contiguous and continuous trail corridor. Design and implementation of bridges and boardwalks will be coordinated with the appropriate regulatory agencies to ensure all requirements are met and any potential impacts are minimized.

Drainage

In locations where the regional trail is adjacent to a roadway, the drainage of the regional trail is similar to that of a typical sidewalk. Stormwater sheet flows over the trail pavement and onto adjacent urban roadways, 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, or adjacent to rural road segments, 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 and not pool on the trail surface to prevent hazardous situations for the users. Design of stormwater management practices will be coordinated with regulatory and other affected parties to ensure all requirements are met and any potential impacts are minimized.

Traffic Signage & Devices

In addition to wayfinding signage, the regional trail will incorporate traffic control signs and devices, such as trail stop signs and center line pavement markings. These signs and devices will reflect the physical characteristics and usability of individual trail segments and the system as a whole. The cost to add traffic control signs and devices, including striping, to a regional trail is approximately \$1 per linear foot (2018 dollars).

Physical Challenges

There are several instances where the CPRRT route presents physical challenges which require design modifications or upgrades to existing infrastructure. To date, these existing barriers have only been reviewed at the planning level. Maps outlining where these areas exist along the corridor is included in **Appendix B**. More details are required as these improvements move from planning to programmed projects.

Trailheads

The CPRRT will have three trailhead kiosks, located at the beginning, middle, and end of the trail corridor. The southern end of the trail will feature a trailhead kiosk in Bloomington near the Minnesota River. Trailhead kiosks are also planned to be located near the midpoint of the trail, and one at the northern terminus of the trail in the City of Crystal.

Additional trailhead improvements may be necessary to adequately support the regional trail while not negatively affecting the existing function of facilities. The Park District will collaborate with local communities where trailhead improvements are necessary.



A trailhead kiosk on an existing Three Rivers Park District Regional Trail.

ADDITIONAL TRAIL ELEMENTS

Unifying elements such as trail identity, crossings, wayfinding, traffic signage and devices, rest stops, drainage and trailheads are important elements of regional trails. Their proper design and placement add both aesthetic and functional value to the trail. As a linking regional trail, a primary design goal is to create a trail system that is comfortable and intuitive to navigate. Designing the trail with unifying elements and incorporating local parks and adjacent natural resources will help achieve a cohesive CPRRT corridor.

Wayfinding

Regional trail wayfinding signage provides trail users with orientation and location information for amenities and services. Wayfinding signage typically provides:

- An overview map of the agency partner’s regional trail system 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.
- 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 Park District employs three types of wayfinding signage structures: system kiosks, regional trail kiosks and directional signage (**Table 6**).

Table 6: Wayfinding Signage Components

Source: Three Rivers Park District

System Kiosk	Free-standing, roofed structure	Displays map of regional trail systems and the regional trail rules.
Regional Trail Kiosk	Free-standing, roofed structure	Displays aerial map, description of trail highlights and a map of the entire regional trail that depicts local trails, amenities and services nearby.
Directional Sign	Post structure with description blades attached	Displays the direction, name and distance to major destinations and points of interest on the trail. Each post structure has the capability of holding up to 12 description blades.

Table 7: Wayfinding Signage and Other Regional Trail Configurations*

LEVEL A		
Location	Components	Estimated Cost
Beginning/end of regional trail and at halfway point if regional trail is greater than 10 - 15 miles.**	<ul style="list-style-type: none"> System kiosk Regional trail kiosk Directional sign Bike repair station (optional) 	\$46,500-\$47,700 Includes signage panels, bicycle repair station, bench(es), trash can and concrete pad

LEVEL B		
Location	Components	Estimated Cost
Approximately every 2 miles along regional trail. For new Level B locations, consider establishing on trails north side**	<ul style="list-style-type: none"> Regional trail kiosk Directional sign 	\$28,500 (Includes signage panels and concrete pad)

LEVEL C		
Location	Components	Estimated Cost
Approximately every 1 mile along regional trail. For new Level C locations, consider establishing at intersections with other regional trails or comprehensive trail systems (not trail spurs).**	<ul style="list-style-type: none"> Directional sign 	\$9,000 (Includes signage panels and concrete pad)

REST STOPS		
Location	Components	Estimated Cost
Approximately every 1 mile along regional trail.	<ul style="list-style-type: none"> Trash receptacles Benches Bicycle Racks 	\$6,000

* 2018 dollars
 ** Exact location & content determined in conjunction with local community input.

Placement of wayfinding signage structures along regional trails typically follows one of three configurations listed as Level A, B or C (Table 7). The wayfinding is intended to complement and work in collaboration with local and regional wayfinding efforts as well as adjacent land uses and development initiatives. There may be conditions along the regional trail corridor where the wayfinding signage is altered or otherwise enhanced to better serve the trail user and appropriately fit the surrounding environment.

The wayfinding plan for the CPRRT includes signage at strategic delineated points. 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. Further wayfinding details are included in the planning budget analysis (Appendix C).

Rest Stops

Rest stops are generally located every mile and provide places for trail users to stop and rest and an area for amenities such as trash receptacles, benches and bicycle racks. These simple but important amenities can serve to reinforce the identity of the regional trail route and better support trail users with mobility challenges. General locations will be further evaluated during the design phase. The rest stop design may be modified to best meet the available right-of-way, adjacent land use and complimentary facilities such as a bus stop. Further rest stop details are included in the planning budget analysis (Appendix C).

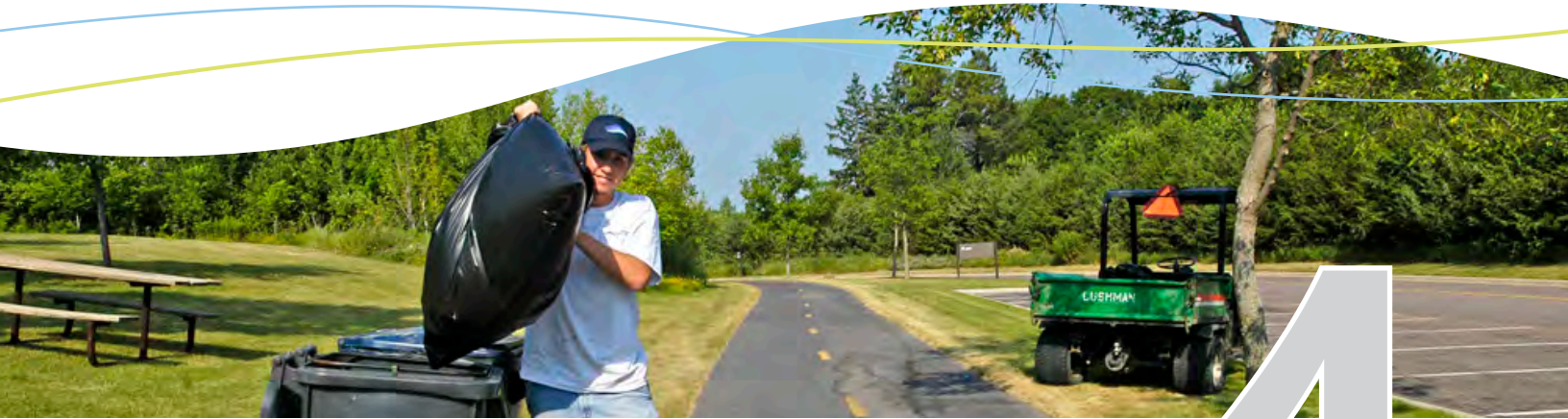
Bicycle Repair Stations

Recently, the Park District has been installing bicycle repair stations which provide tools necessary to perform basic bike repairs and maintenance - from changing a flat to adjusting brakes and derailleurs. The tools and air pump are securely attached to the stand with stainless steel cables and tamper-proof fasteners. Hanging the bike from the hanger arms allows the pedals and wheels to spin freely while making adjustments. Bicycle repair stations are recommended at Level A wayfinding configurations and as-needed throughout the regional trail corridor.



A bicycle repair station located along Bloomington Ferry Road in Subsegment A1 of the CPRRT in Bloomington.

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Maintenance along the regional trails.
Image Credit: Three Rivers Park District

OPERATIONS & MAINTENANCE PLANS & DETAILS

The Park District and its partners will operate the CPRRT using a wide variety of professional staff and in accordance with Park District policies, guidelines and ordinances. This chapter outlines the operations and maintenance guidelines; however, as with all regional trail initiatives, further maintenance expectations are solidified within subsequent Trailway Cooperative Agreements with local municipalities, Hennepin County, MnDOT and/or other governmental partners as needed. In addition, it is anticipated that regional park agencies will assume operation and maintenance responsibilities for trail sections they have jurisdictional control or responsibility. In such cases, those regional park agencies will operate and maintain the trail in a manner that provides a seamless user experience with trails owned and operated by the Park District.

GENERAL OPERATIONS

The Park District Ordinance specifies rules and regulations in order to provide for the safe and peaceful public use of Park District areas and facilities; for the educational and recreational benefit and enjoyment of the public; for the protection and preservation of the property, facilities and natural resources of the Park District; and for the safety and general welfare of the public.

Regional trails are open to the public year-round, from 5 AM to 10 PM. The Park District's present policy provides for the operation and maintenance of regional trails from April 1 to November 14. Subsequently, the Park District does not anticipate plowing or otherwise maintaining the CPRRT during the winter season. Local communities may elect to operate and maintain the regional trail segment during winter months with a winter

use permit. The Park District may revise this policy at a future date and elect to operate and maintain the trail year-round. Regional trail staffing levels fluctuate to account for seasonal use patterns, maintenance requirements and available funding.

At the time this master plan was written, general regional trail rules to be observed by users are as follows:

- No motorized vehicles and no horses.
- Obey traffic signs and rules.
- Dogs must be leashed (6-foot, non-retractable max). Owners must pick up pet waste.
- Yield to slower trail users.
- Keep right except when passing.
- Warn others when passing.
- Respect adjoining landowner's rights and privacy.
- Be alert and be courteous.

PUBLIC SAFETY

Three Rivers Park District Public Safety Department, in partnership with local public safety departments, will provide a safe environment for regional park and trail users and assist with trail education and enforcement. Public Safety officers strive to educate and inform trail users on safe trail usage but also have arrest and enforcement authority as a fully-licensed police department within the State of Minnesota.

Patrol Plan

Public Safety Officers will utilize a variety of specialized patrol methods. Public Safety Officers will be supported by volunteer Trail Patrollers which will assist with patrol and incident response along the CPRRT. Frequencies of Public Safety Officers and the volunteer Trail Patrol will be adjusted as necessary to account for trail use, incident level, other concerns which may arise, and available funding. In addition to routine patrol, Three Rivers Public Safety Officers may be dispatched through the Hennepin County Dispatch System to respond to incidences as they occur.

the BL THE BOTTOM LINE key message

CPRRT will be open to the public 7 days a week, 365 days per year - from 5AM - 10PM. It will be maintained by the Park District or its partners from April 1 - November 15.

Mutual Aid

While Three Rivers Park Police will assume the lead role in providing public safety services to most regional trails in suburban Hennepin County, a statewide mutual aid program assists to facilitate assistance and sharing public safety resources from surrounding police agencies in times of emergency or other unusual conditions.

Public Safety Equipment & Staffing

Due to the creative deployment of existing Park District Police Officers, utilization of seasonal staff, statewide mutual aid program, and a successful Trail Patrol volunteer program, no additional equipment or full-time Public Safety positions are anticipated to serve the CPRRT. As such, no additional operational funds are needed to provide public safety services along the CPRRT.



Park District public safety officers and trail ambassadors patrol regional trails.

Maintenance Plan

The Park District and its partners will maintain the CPRRT in a safe, clean and usable manner. Maintenance is an important part of providing high-quality customer service and meeting trail user expectations.

Routine Maintenance

Maintenance operations typically include seasonal condition assessments and periodic inspections, followed by necessary maintenance actions. Inspections address possible safety issues, vandalism and non-routine maintenance concerns (Table 8). The Park District and its partners will also respond to maintenance issues identified by the public on a timely basis as funding permits. Extraordinary maintenance will occur in response to storm damage, vandalism or other unplanned circumstances.

When the 21-mile CPRRT corridor is fully realized, routine maintenance operation costs, including additional staffing, are estimated to increase by \$52,500/year (2019 dollars). Additional costs for trail surface preservation and

Table 8: TRPD Routine Trail Maintenance Calendar

Time of Year	Routine Maintenance
SPRING April & May	<ul style="list-style-type: none"> • Sign inventory and replacement • Spring clean-up • Minor bridge and underpass repair (as needed)
SUMMER June, July, August & September	<ul style="list-style-type: none"> • Erosion repair • Fence repair • Sign and post replacement • Trash pickup • Bridge and boardwalk repair (as needed) • Vegetation control (as needed)
FALL October & November	<ul style="list-style-type: none"> • Bituminous patching and striping replacement (as needed)
Throughout the season and/or in response to storm-related damage	<ul style="list-style-type: none"> • Mowing • Periodic trail sweeping • Trash pickup • General clean-up and similar tasks

rehabilitation (trail surface repairs, striping requirements and pavement requirements) are anticipated to increase by \$72,500/year assuming a 30-year pavement life. The combined annual maintenance operation estimated cost for both routine and trail surface preventative maintenance is \$125,000/year for the entire trail. These costs will be incurred by the Park Districts and its partners for the segments they respectively manage.

Maintenance of regional trail segments with limited property rights or segments that do not meet standard regional trail characteristics may require atypical maintenance.

In addition, the following specialized maintenance procedures are anticipated:

Preventative Surface Treatment

CPRRT will receive scheduled striping, seal coating and redevelopment under the established pavement management program and in accordance with regional trail standards and

as funding permits. Partner agency’s pavement management plan may be on a different schedule than the Park District’s. Pavement management is estimated to cost approximately \$3,368/year/mile. The Park District and its partners will also seek opportunities to work with Hennepin County and local cities in conjunction with road projects to improve trail design and surfacing.

Trail/Bridge Inspection & Maintenance

Trails are inspected annually in the spring as part of the pre-season maintenance program and are then inspected periodically by Park District maintenance staff as part of ongoing operations. Minor trail repair is handled on a timely basis and probable major repair needs are evaluated and recommended to Park District management for planning or engineering review. Major trail rehabilitation projects are submitted to the Park District Board of Commissioners or partners for funding as part of annual operating budgets, preservation and rehabilitation programs or capital improvement programs.

While no new pedestrian bridges and underpasses are anticipated at this time, it is possible that they may be needed at a future date to accommodate changing traffic patterns and volumes and unforeseen safety concerns. The ownership and maintenance responsibilities associated with any new pedestrian bridges/underpasses constructed as part of the CPRRT will be determined at which point funding is requested.

Existing grade separated CPRRT crossings owned by other agencies such as I-494/MN 5 are the responsibility of MnDOT. The Park District, and its partners, only maintains the trail use of said bridges and underpasses.

Noxious Weed Management

The Park District and its partners mechanically or chemically removes noxious weeds within the defined trail corridor at the request of cities.

Edge/Trail Shoulder Vegetation Management

The Park District and its partners will maintain vegetative clearances so as not to negatively affect trail use on any sections where trail shoulder vegetation exists.

Regional Trail Maintenance Staffing

The CPRRT will be primarily maintained by the Park District’s regional trail maintenance crew with some support from partner agencies. In the event additional mitigation requirements are necessary such as rain gardens or other best management practices, additional seasonal staffing may be required to complete the work. If necessary, seasonal staffing budgets will be developed and evaluated during the design development phase.

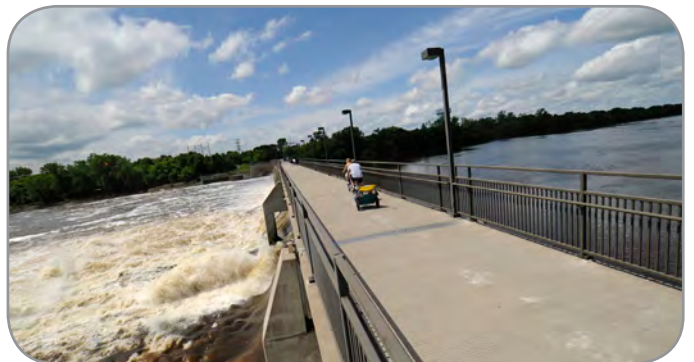
Maintenance Staffing

Maintenance will be completed by regional trail maintenance crew. In consideration of the future increased responsibilities, an additional 0.5 FTE maintenance position will be required to provide regional trail maintenance in accordance with current Park District regional trail maintenance practices and procedures.

\$35,000/year
0.5 FTE (full time employee)



Regional trail maintenance includes maintaining vegetative clearances (where appropriate, per Trailway Cooperative Agreements).



Park District regional trails are maintained to a high level of standard for trail user experience and enjoyment.

NATURAL & CULTURAL RESOURCES

The Park District and its partners will protect and enhance natural and cultural resources along the CPRRT corridor where deemed appropriate.

Resource Protection Plan

The Park District, under the guidance of existing natural and cultural resource management plans, will utilize best practices to minimize any potentially negative impacts, work with adjacent property owners on how to best protect and manage significant resources and incorporate opportunities to enjoy and interpret the resources present.

If additional property along the regional trail which encompasses significant natural or cultural resources is acquired, the acquiring agency will develop a stewardship plan specific to that resource and in accordance with other existing natural and cultural resource management plans. Potential natural or cultural resource impacts as a result of trail design and construction are addressed in Chapters 6-11.

Resource Staffing

Much of the CPRRT will likely be routed along existing public road right-of-way with limited natural and cultural resources. Areas of significant width will be more of the exception than the rule and directly relate to the resource value, direct and indirect costs, recreation benefit, willingness of the property owner and support of the local municipality. To account for minimal resource management along the trail corridor, additional seasonal or contract staffing such as Conservation Corps of Minnesota, is anticipated.

Sustainability

The updated 2016 Sustainability Plan guides the Park District's efforts toward achieving established sustainability goals and targets by outlining broad strategies for organizational implementation.

The following goals provide guidance and intent to the Park District's sustainability efforts in respect to regional trails:

- Manage and operate Park District parklands and facilities in a manner that ensures ecological, financial and social integrity of the park system in perpetuity.
- Reduce dependence on fossil fuels to minimize green house gas (GHG) emissions and reduce public expenditures.
- Reduce Park District environmental impacts to demonstrate (or model) organizational commitment to environmental stewardship.
- Design parks and trails that maximize the ability of the public to use non-motorized transportation.

Specific to regional trails, the 2016 Sustainability Plan provides the following strategies:

- Place priority on regional trail routes that have the potential for the greatest number of non-motorized commuting trips over routes with lesser commuting potential;
- Work collaboratively with municipalities and neighborhoods to reconfigure park and regional trail access points to encourage pedestrian and bicycle access.

The Park District strives to utilize appropriate sustainable best management practices and guidelines such as the Minnesota Sustainable Building Guidelines (B3 Project) and Leadership in Energy and Environmental Development (LEED) Rating System on construction projects that support the CPRRT. Additionally, for regional trails, best management practices may include utilizing porous pavement, rain gardens and recycled construction materials. It is anticipated that partner agencies share these same goals and desire to increase sustainability as well.

PUBLIC AWARENESS

The Marketing & Community Engagement Department manages a centralized marketing communications function that oversees the Park District's website, public relations, marketing, media relations, social media, brand management, event planning and promotion. A number of effective marketing and outreach tools are used to promote the Park District, including but not limited, to events calendars, maps, digital and social media, direct mail,

press releases, a centralized reservation system, brochures, advertising, and on-site promotion.

The Park District collaborates with a wide array of community, business and government organizations to promote its facilities, programs and services and to educate the public about its resources. The Park District also works with the Metropolitan Council Regional Parks System, the State Office of Tourism and other partners to leverage shared opportunities for creating awareness and visibility. Additionally, a focus is placed on developing partnerships and programming opportunities that allow the Park District to better serve all residents of Suburban Hennepin County, especially those with less access to its facilities and programs.

Since the CPRRT is envisioned to be owned and operated jointly with Park District partners, Additional care and coordination will occur to ensure shared messaging and cross marketing occurs.

Share the Trail

Safety for all regional trail users is a top priority. Regional trails are a shared public space which serve a variety of user groups. However, from time to time, trail users may find themselves in conflict with other users. Everyone benefits when people respect each other's mode of travel. The Park District encourages users to respect each other through a "Share the Trail" safety campaign. Park District partners are anticipated to support this campaign along their trail segments.

The most common conflicts involve cyclists and pedestrians as they move at very different speeds and take up different spaces. Cyclists often do not alert pedestrians when passing at high speeds, which can cause sudden and startled responses from those on foot. Sometimes groups of walkers can take up both lanes, which leaves cyclists nowhere to pass as they move through. Both users have a responsibility to share the trail.

Another common safety concern revolves around obeying traffic signs. Cyclists are sometimes required to stop at roadway crossings and there is often confusion between motorists and cyclists regarding right-of-way. Overall, cyclists need to obey traffic signs in order to stay safe.



Share the Trail signage example - located along regional trails.
Source: Three Rivers Park District - artwork by Adam Turman



The CPRRT weaves through the Hyland-Bush-Anderson Lakes Park Reserve | Bloomington, MN

IMPLEMENTATION

ESTIMATED COSTS & FUNDING

The CPRRT Master Plan includes a cohesive implementation plan with estimated costs and funding strategies. Implementation will occur at the discretion of the Park District and its partners and only when they are financially prepared to assume the operation and maintenance responsibilities and costs of the regional trail.

Construction of non-existing CPRRT segments will occur as opportunities present themselves and as resources allow. A phased approach allows for trail segments to be constructed in a logical manner and respond to the demand and support from the local community, collaboration with other projects and maximizing internal and external funding opportunities. The timing of implementation is also dependent on the acquisition of the corridor (where necessary) which, under a predominantly willing-seller approach, may take decades to realize.

TRANSITION OF EXISTING LOCAL TRAILS TO REGIONAL TRAILS

Over five miles of the CPRRT already exists, in varying conditions, completing nearly 25 percent of the 21-mile trail corridor. Those completed segments are currently owned, operated and maintained by local municipalities (**Table 9**). The CPRRT Master Plan directs that the existing CPRRT segments be elevated to regional status, thus allowing the Park District and its partners to enter into Trailway Cooperative Agreements with local municipalities to own, operate and/or maintain said segments. When the timing of these agreements will occur, are at the discretion of the Park District and its partners. In addition, the Park District will not assume ownership, operation and maintenance responsibilities of existing trail segments until they are regionally significant (i.e. connect to greater regional park and trail segments, are long enough to have regional draw etc.).

Anticipated Costs

The total acquisition, development and operations and maintenance costs to complete proposed and upgrade existing CPRRT segments are summarized in **Table 10** and detailed in **Appendix C**.

Table 9: Existing CPRRT Subsegments for Future Inclusion in Park District Regional Trail System

Subsegment	Miles	Municipal Jurisdiction	Anticipated Costs
A1	0.75	Bloomington	\$90,000
A2	4.35	Bloomington	\$210,000
A3	0.52	Bloomington	\$30,000
Total	5.62 miles		

Table 10: Future CPRRT Segments

	Municipality	Acquisition Costs	Construction Cost	Total Cost
A	Bloomington & Edina*	\$100,000	\$2,830,000	\$2,930,000
B	Edina & St. Louis Park	\$950,000	\$7,100,000	\$8,050,000
C	St. Louis Park	\$360,000	\$2,650,000	\$3,010,000
D	St. Louis Park & Golden Valley	\$450,000	\$3,350,000	\$3,800,000
E	Golden Valley, New Hope & Crystal	\$570,000	\$4,250,000	\$4,820,000
F	New Hope & Crystal	\$570,000	\$4,250,000	\$4,820,000

Rounded Cost Estimates \$3,000,000 \$24,430,000 \$27,430,000

*Segment A cost estimates based on Master Plan alignment



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key message

CPRRT implementation will be phased as available land and financial resources prohibit the entire 21-mile corridor from being constructed as one project in the near future.

The estimated master planning level acquisition and construction cost estimate for the unbuilt trail sections and upgrades to existing segments is estimated at \$27.4 million. Acquisition costs are estimated at \$3 million and construction costs are estimated at \$24.4 million. In recognition of the anticipated acquisition phase duration and amount of resources and coordination necessary to construct the remaining 15 miles of regional trail, it is anticipated that the CPRRT will not be fully-constructed for another 10-20 years.

ACQUISITION

The proposed CPRRT segments are a combination of trail adjacent to roads (off-street, within road right-of-way), trail through public property and trail through private property (**Table 11**). Acquisition costs could be reduced by waiting for the regional trail to be realized through land use development and/or road reconstruction. A detailed analysis of the acquisition costs are outlined in **Appendix C**.

Due to the willing-seller approach, the CPRRT acquisition phase may take years to fully realize. There may be additional acquisition opportunities to acquire a wider trail and ultimately create a more desirable user experience by buffering the trail from surrounding development and by incorporating areas of natural or cultural resource significance. The acquisition needs presented in this master plan are the minimal acquisition requirements to achieve a continuous and contiguous corridor. Cost estimates assume that a 5'-wide easement will be required throughout the entire trail corridor at a cost of \$8/SF.

DEVELOPMENT

The development costs for the remaining 15 miles include all foreseeable costs to construct the trail to regional trail standards including site preparation, reconfiguration and upgrade of rural to urban roadways (addition of curb and gutter), modification of drainage patterns, storm water treatment, bridges and boardwalks, wetland mitigation, utility relocation and installation of signage, striping, kiosks, rest stops, landscaping and similar support elements. Cost estimates assume bituminous trail construction costs at \$300/linear foot. Preliminary implementation cost estimates are summarized in **Appendix C**.

Regional trail development will be phased and significantly tied to opportunities that take advantage of external funding sources, road reconstruction projects, development initiatives and local and regional political will. At the time of this plan, Segment A through Bloomington is mostly complete. In the short term, connecting Hyland Park Reserve to Nine Mile Creek Regional Trail has been recognized as an achievable gap and would begin to establish the trail as part of the greater regional trail network. Mid and long-term projects require significant funding which often take a substantial amount of time to coordinate.

Table 11: Acquisition Needs for Future CPRRT Segments

Scenario	Description	Type of Property Right	Acquisition Strategy	Acquisition Cost
Public right-of-way	For segments immediately adjacent to roads	Right-of-way certificates, limited use permits, and/or easements	Secure through Trailway Cooperative Agreement negotiations or development projects	No Cost
Public Property	For segments through publicly held land	Limited use permits, and/or easements	Secure through Trailway Cooperative Agreement negotiations or development projects	No cost
Private Property	For segments across and along private property	Fee-title or easements	Willing-seller approach. Acquisition will occur when land owners are ready and interested in selling their property or are considering development of their property - providing an opportunity to negotiate the designation of the regional trail corridor as part of development. Creative acquisition strategies such as easements, lot splits, resale of surplus property, transfer of development rights and similar to best meet the needs and expectations of all involved parties will be explored.	Minimum: \$3,000,000

FUNDING PLAN

The CPRRT Master Plan outlines funding strategies and opportunities for future property acquisition, physical trail development and ongoing operations and maintenance.

Acquisition Funding

As a component of the Metropolitan Council’s Regional Park and Trail System Acquisition, it is anticipated that up to 75 percent of all acquisition funding will come from the Metropolitan Council. This funding is generated by Metropolitan Council bond funds, Environmental Natural Resources Trust Fund and Parks and Trails Opportunity Legacy Fund, with the remaining 25 percent of acquisition coming from the Park District’s Land Acquisition Development and Betterment Fund or general obligation bonds and its partners.

Development Funding

Regional trail development is anticipated to be funded through a variety of funding sources and partners including Federal Transportation Department: Federal Land Access Program, Federal Transportation grants, Federal Recreation Trail Program, Metropolitan Council: Bonds and Parks and Trails Legacy Funds, Park District: general obligation bonds, Hennepin County Bikeway Grant Program, local communities and similar.

Operations & Maintenance

Operation and maintenance costs for new Park District CPRRT segments will be primarily funded through the Park District Operating Budget. The Operating Budget’s primary source of funds is local property taxes with some revenue from the State of Minnesota as part of the Operations and Maintenance Fund allocations from the Metropolitan Council.

Additional costs associated with pavement maintenance will be funded from the Park District’s Asset Management Program, which includes revenue allocated to the Park District from the State of Minnesota as well as the Park District general obligation bonds. All operation and maintenance costs are subject to the annual budget preparation process approved by the Park District Board of Commissioners.

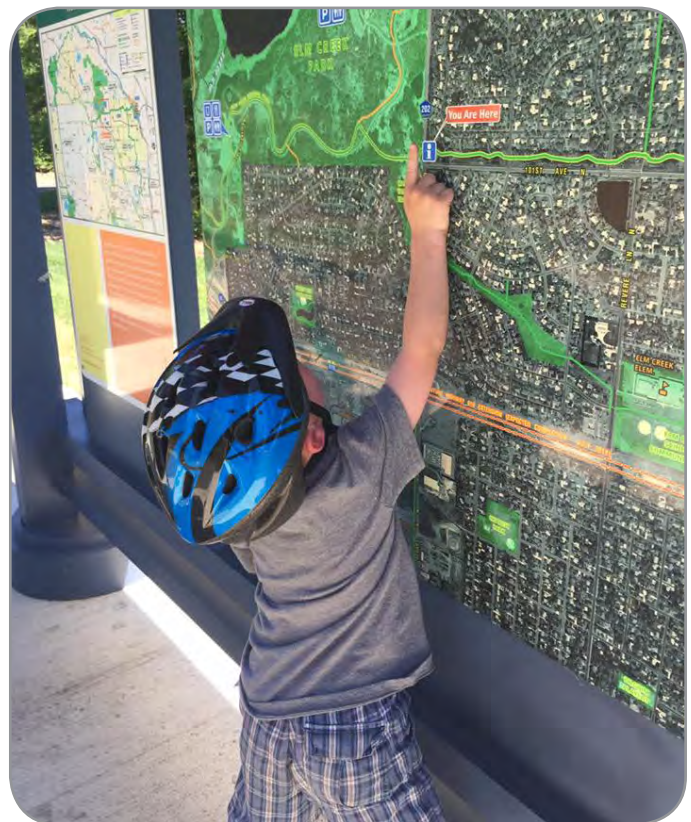
The City of Bloomington is a Regional Park/Trail Implementing Agency, the operations and maintenance of the Bloomington trail segments, outside of Hyland Park Reserve, will be the responsibility of the City of Bloomington.

The operations and maintenance cost summary is summarized in **Table 12** by existing and future CPRRT segments. Greater detail is provided in **Chapter 4**.

Table 12: Operations & Maintenance Costs Summary*

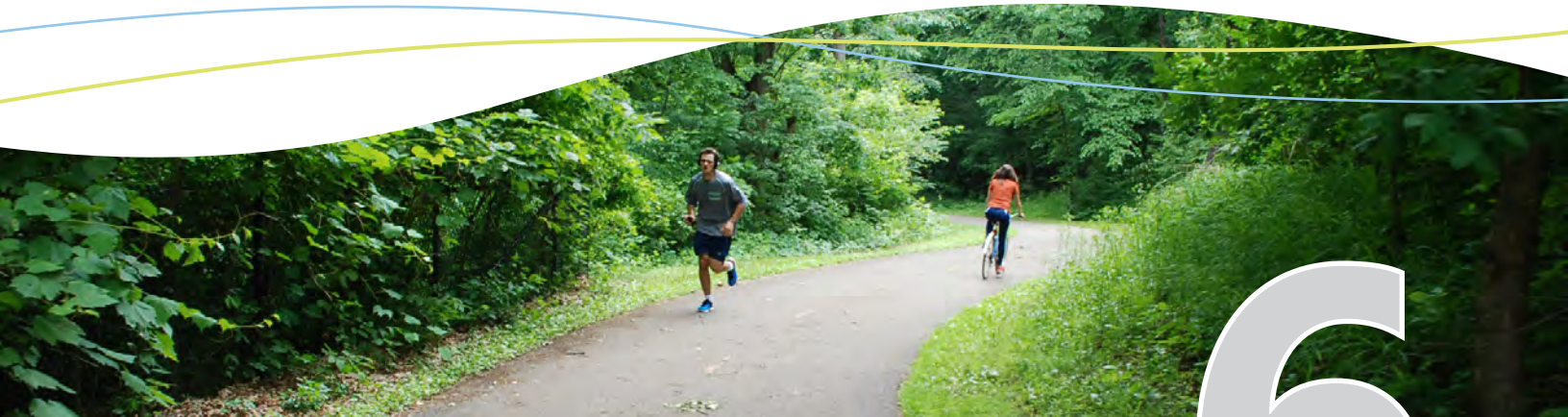
	Mileage	Annual Cost	Additional Basic Operation Services
• Segment A: Bloomington-owned/operated, existing & planned trail (Subsegments A1, part of A2, A3)	2.86	\$17,300	Routine Operations and Maintenance \$52,500/year Pavement Management \$72,500/year
• Segment A: TRPD-owned/operated, existing & planned trail (Subsegments: part of A2 & A4)	4.16	\$25,200	
• Segments B, C, D, E and F: TRPD-owned/operated planned trails	13.63	\$82,500	
Total	20.65 miles	\$125,000	

*based on Park District estimated costs; agency partner cost estimates may differ.



Park District regional trails provide various user experiences and wayfinding.

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Trail users enjoy Segment A of the CPRRT in the Hyland-Bush-Anderson Lakes Park Reserve | Bloomington, MN

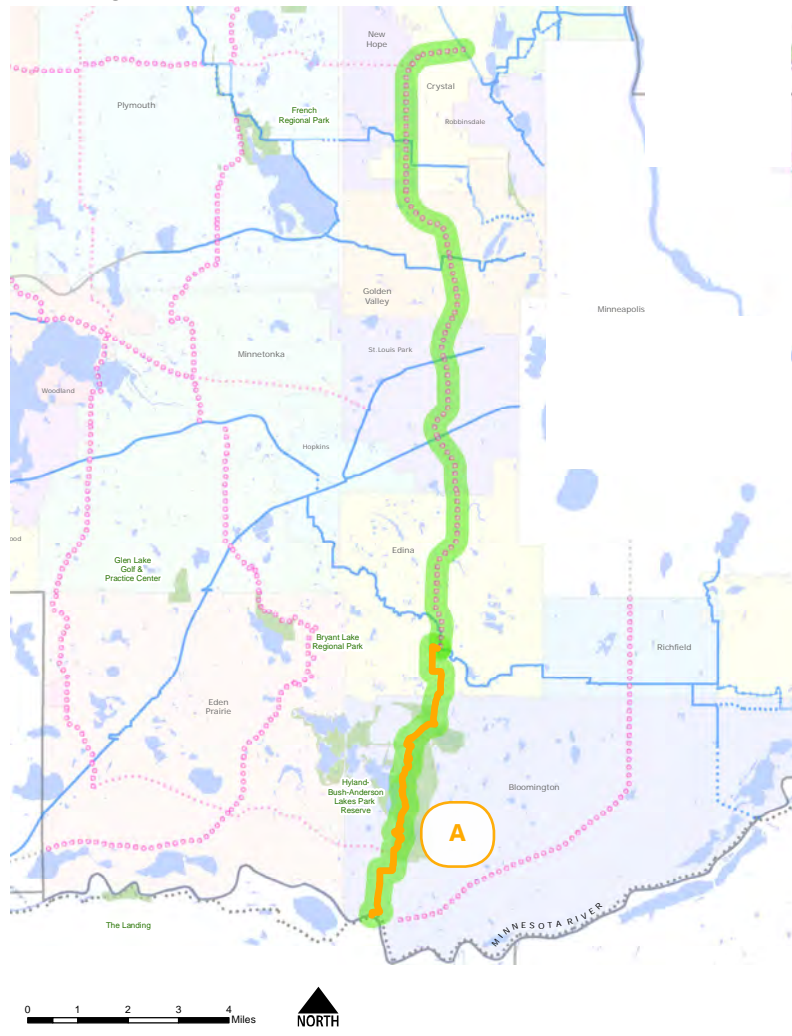
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SEGMENT A Minnesota River to Nine Mile Creek Regional Trail

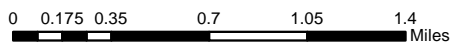
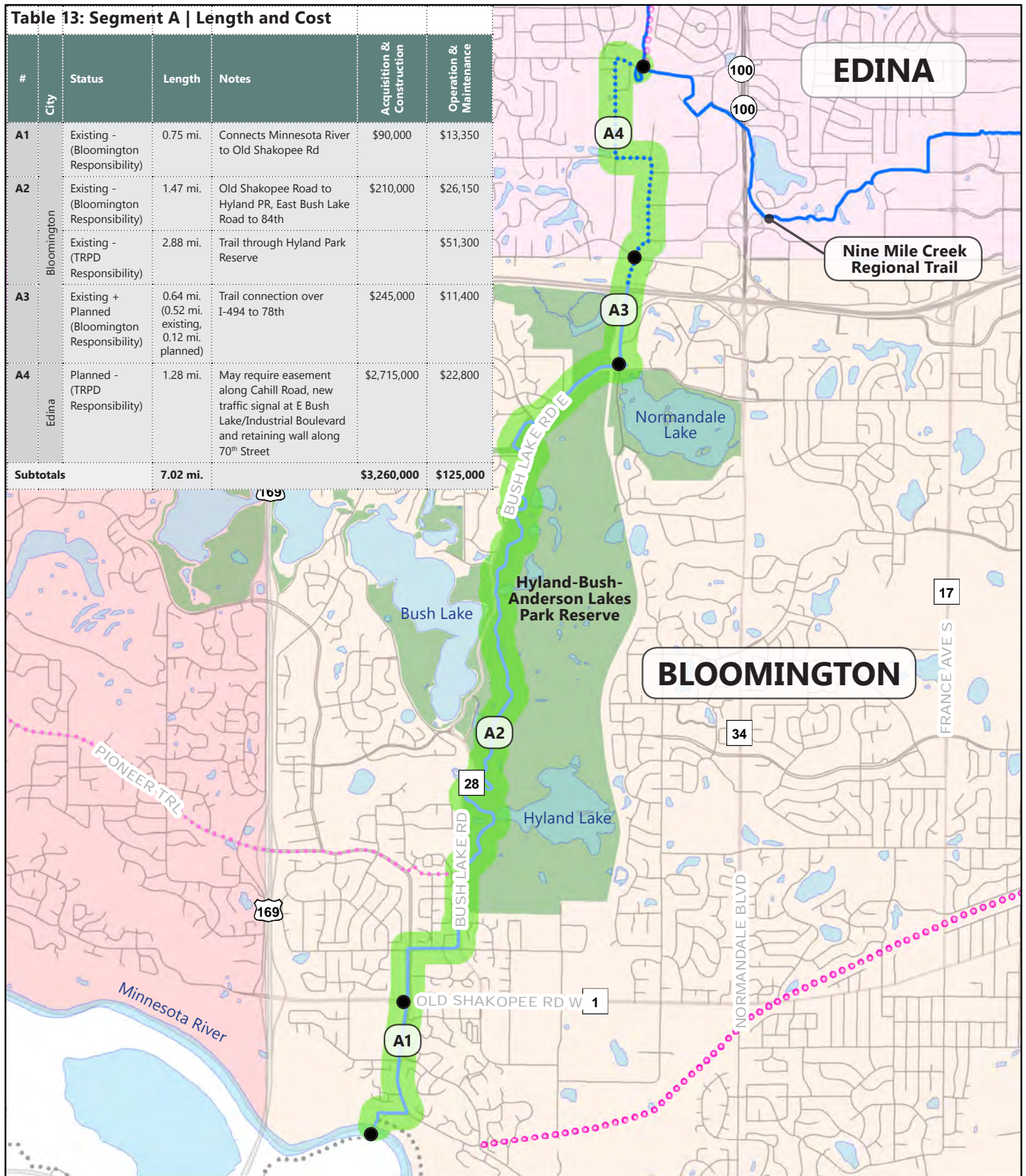
SEGMENT A OVERVIEW

This 7-mile trail segment begins at the Minnesota River on the south end of Bloomington and runs north into the southern portion of Edina. Segment A connects the Minnesota River Valley State Trail in the south to the Hyland-Bush-Anderson Lakes Park Reserve, Bush Lake, Normandale Lake to Nine Mile Creek Regional Trail (**Maps 6 & 7 and Table 13**).

Map 6: Segment A Context



Map 7: CPRRT - Segment A Overview



- TRPD, Existing Regional Trail
- TRPD, Planned Regional Trail, Approved Master Plan
- Search Corridor, Proposed, Met Council Approved
- Search Corridor, Proposed, Park District Concept
- Other Agency, Planned Trail



SUBSEGMENT A1

The entire length of Subsegment A1 is an existing trail built by the City of Bloomington. Subsegment A1 (0.75 miles) stretches from the Minnesota River at Crest Avenue (Old Bloomington Ferry Bridge) to Old Shakopee Road (Map 8). The trail is along the north side of Crest Avenue, then along the west side of Bloomington Ferry Road which passes directly alongside the Dred Scott Playfield. The planned MN River State Trail will also connect to this segment of the CPRRT.

A portion of the existing trail in Subsegment A1 separates bicycle and pedestrian trail users. Though this separated trail design is satisfactory, and no changes are required, it is not the anticipated standard design for future CPRRT trail segments. Subsegment A1 is owned, operated and maintained by the City of Bloomington. Future operations, maintenance and improvements of this subsegment will remain the responsibility of the City of Bloomington. The Park District will recognize Subsegment A1 as part of the CPRRT. This segment will also remain as a part of the City of Bloomington’s local bicycle and pedestrian network identified as the “Hyland Trail”. Both agencies will work together to create and fund a wayfinding signage solution that identifies the segment as part of the greater CP Rail Regional Trail alignment as well as part of the Bloomington bicycle and pedestrian network.



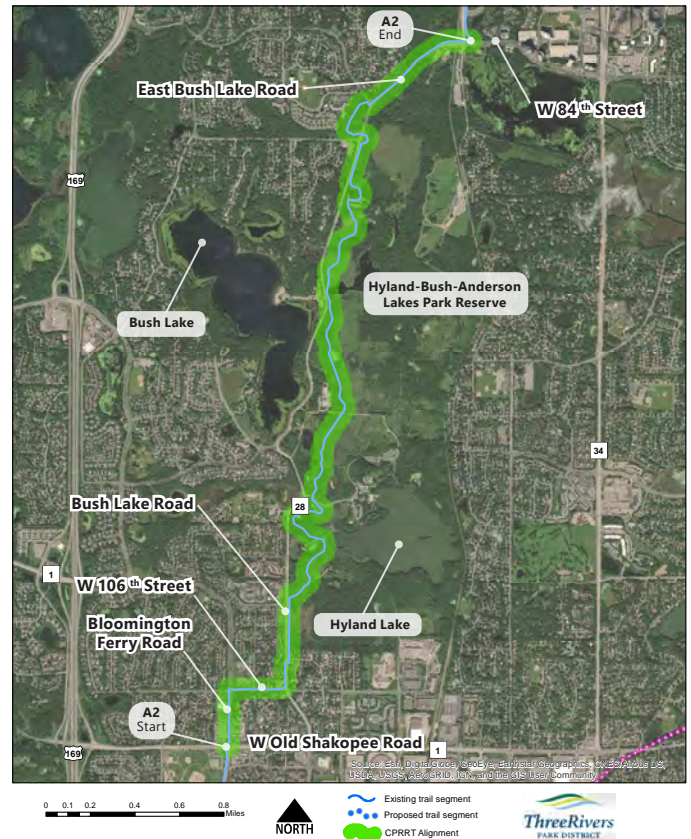
SUBSEGMENT A2

Subsegment A2 (4.35 miles) is an existing trail built by the City of Bloomington that follows the west side of Bloomington Ferry Road from Old Shakopee Road to West 106th Street, then along the north side of West 106th Street to Bush Lake Road. The trail then follows along the west side of Bush Lake Road (Map 9) up to Maryland Road where the trail crosses the street and runs up the north side of Bush Lake Road before it goes through the Hyland-Bush-Anderson Lakes Park Reserve. The trail goes through the west side of the Hyland-Bush-Anderson Lakes Park Reserve, roughly paralleling East Bush Lake Road until reaching the intersection of West 84th Street and Chalet Road. The Park District will recognize the existing trail segments of Subsegment A2 as part of the CPRRT.

Map 8: Subsegment A1



Map 9: Subsegment A2





Trail users enjoy the scenic landscape of the Hyland-Bush-Anderson Lakes Park Reserve in Subsegment A2 in Bloomington.

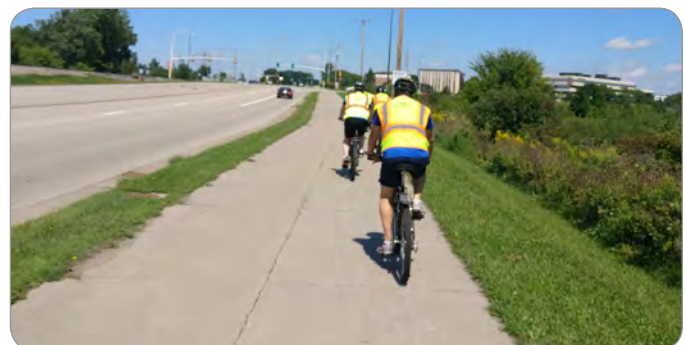
The trail segments of Subsegment A2 outside of Hyland Park Reserve are owned, operated and maintained by the City of Bloomington. The trail segments within Hyland Park Reserve, including the underpass on East Bush Lake Road at 86th Street, are owned, operated and maintained by The Park District. The Rectangular Rapid Flashing Beacon for the trail crossing of Bush Lake Road (County Road 28) just north of Maryland Road, is owned and maintained by Hennepin County. Future operations, maintenance and improvements of this subsegment will remain the responsibility of the agency for their respective trail segment or facility.

SUBSEGMENT A3

Subsegment A3 (0.64 miles) consists of a combination of existing and proposed trails. The subsegment is located along East Bush Lake Road between West 84th Street and the Bloomington/Edina city limits at the intersection of East Bush Lake Road and West 78th Street (**Map 10**). From West 84th Street though the East Bush Lake Road/I-494 interchange, the existing trail largely meets the CPRRT design standards, including the portion of the trail that was reconstructed as part of the 2018 East Bush Lake Road interchange project. The existing trail segments of Subsegment A3 were built and are owned by Hennepin County. Under an agreement between Hennepin County and the City of Bloomington, the existing trails within County right-of-way are operated and maintained by the City of Bloomington. Future operations, maintenance and improvements of this subsegment will remain the responsibility of the City of Bloomington, with the exception of the infrastructure operations and maintenance of the MnDOT bridge over I-494. In the event that future improvements are planned, both agencies will work collaboratively, through a Partnership Agreement, to fund and complete the improvements, with each agency likely being responsible for the costs associated with their respective trail segment. The Park District will recognize the existing trail segments of Subsegment A3 as part of the CPRRT.

North of the interchange, additional right-of-way is required to expand the existing 6' sidewalk to a 10' trail. At the intersection of West 78th Street, the existing northbound right turn slip lane will be eliminated to provide sufficient space to add the wider trail, as well as reducing motor vehicle speeds to improve pedestrian and bicyclist safety.

Map 10: Subsegment A3



The project team riding along an existing trail on the east side of East Bush Lake Road in Subsection A3 in Edina.

SUBSEGMENT A4

Subsegment A4 will connect Nine Mile Creek Regional Trail in Edina and will serve users looking to cross I-494 at East Bush Lake Road, providing key connections to job centers and regional parks in the area. Subsegment A4 (1.28 miles) will consist of a new trail from West 78th Street in Edina to the intersection with Nine Mile Creek Regional Trail underpass of West 70th Street (**Map 11**). Subsegment A4 will owned, operated and maintained by the Park District, along with potentially a partnership with the City of Edina for certain trail segments that are identified in the City's Pedestrian and Bicycle Master Plan.

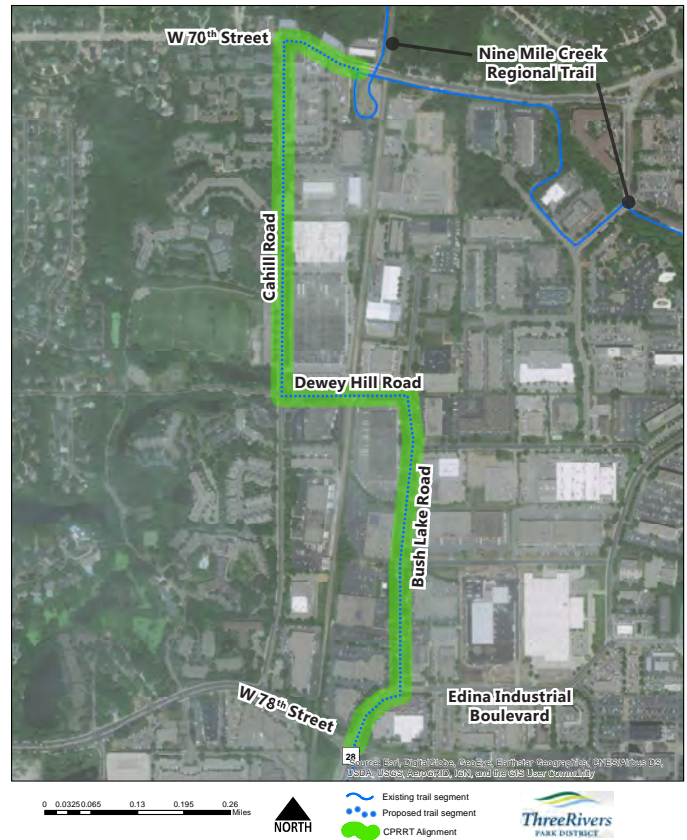
From West 78th Street to Dewey Hill Road, Subsegment A4 may follow the east side or west side of East Bush Lake Road. At this preliminary planning stage, it is assumed the trail will follow the east side of the road, which will require the installation of a traffic signal or an all-way stop at the intersection of Edina Industrial Boulevard and Bush Lake Road to facilitate a safe pedestrian and bicycle crossing. The cost estimates assume a traffic signal will be installed. A more detailed traffic engineering study is necessary to evaluate both alternatives and arrive at a preferred option.

A potential alternative would be to route the trail along the west side of East Bush Lake Road; however, this alternative may present other safety/operational concerns with the southbound right turn slip lane at the intersection of West 78th Street and East Bush Lake Road. It would require the construction of a retaining wall to facilitate trail construction near West 78th Street. A final alignment will be determined at a later date after additional analysis is completed. The costs for both alternatives are likely to be similar.

At Dewey Hill Road, the trail will turn west to connect to Cahill Road, across the Canadian Pacific Railway tracks. In preliminary conversations with Canadian Pacific, they indicated that to accommodate a trail crossing, the existing crossing surface would require widening and no major improvements to the warning devices at the crossing would be required.

Continuing north along Cahill Road, additional right-of-way is required to accommodate the proposed trail (in lieu of reducing the width of Cahill Road, to avoid impacts to the current on-street bicycle lanes). The proposed trail continues north along Cahill Road to West 70th Street before turning east to connect to the existing Nine Mile Creek Regional Trail underpass. The City of Edina anticipates future redevelopment on the east side of Cahill Road near West 70th street. This could create an opportunity to route the CP Rail Regional Trail to a more direct connection to Nine Mile Creek Regional Trail

Map 11: Subsegment A4



Project team evaluating CPRRT Subsegment A4 route options.

SEGMENT A ROUTE MASTER PLANNING

Segment A is divided into four subsegments - A1 through A4. The project team worked closely with staff from the cities of Edina and Bloomington to select a preferred route alignment for Subsegments A3 and A4 of the CPRRT in Edina and Bloomington. The four subsegments had different route planning processes which are described in the following sections.

SUBSEGMENTS A1 & A2

Subsegments A1 and A2 are existing trails that travel through the City of Bloomington from the Minnesota River to West 84th Street. Both trail subsegments have been constructed to meet or exceed CPRRT trail design standards so no additional analysis was required.

SUBSEGMENT A3

Subsegment A3 is a short, 0.6-mile trail alignment on the northern border of Bloomington along East Bush Lake from the I-494/MN-5 interchange to the 78th Street intersection in Edina. The alignment of Subsegment A3 was determined to be along East Bush Lake Road. The project team analyzed if the trail should be located on the east or west side of the road. The east side of East Bush Lake Road was chosen by the Project Team as the route alignment for the following reasons:

- A 12' wide sidewalk already exists on the east side of the I-494 bridge
- Constructing a trail on the west side of East Bush Lake Road would mean a total reconstruction of the road and bridge
- A 10' wide sidewalk already exists south of the 494 bridge
- MnDOT is reconstructing the I-494/MN-5 interchange and the design includes improvements to pedestrian ramps to accommodate a 10-foot-wide path on the east side
- Right of way south of the I-494 bridge is limited

SUBSEGMENT A4

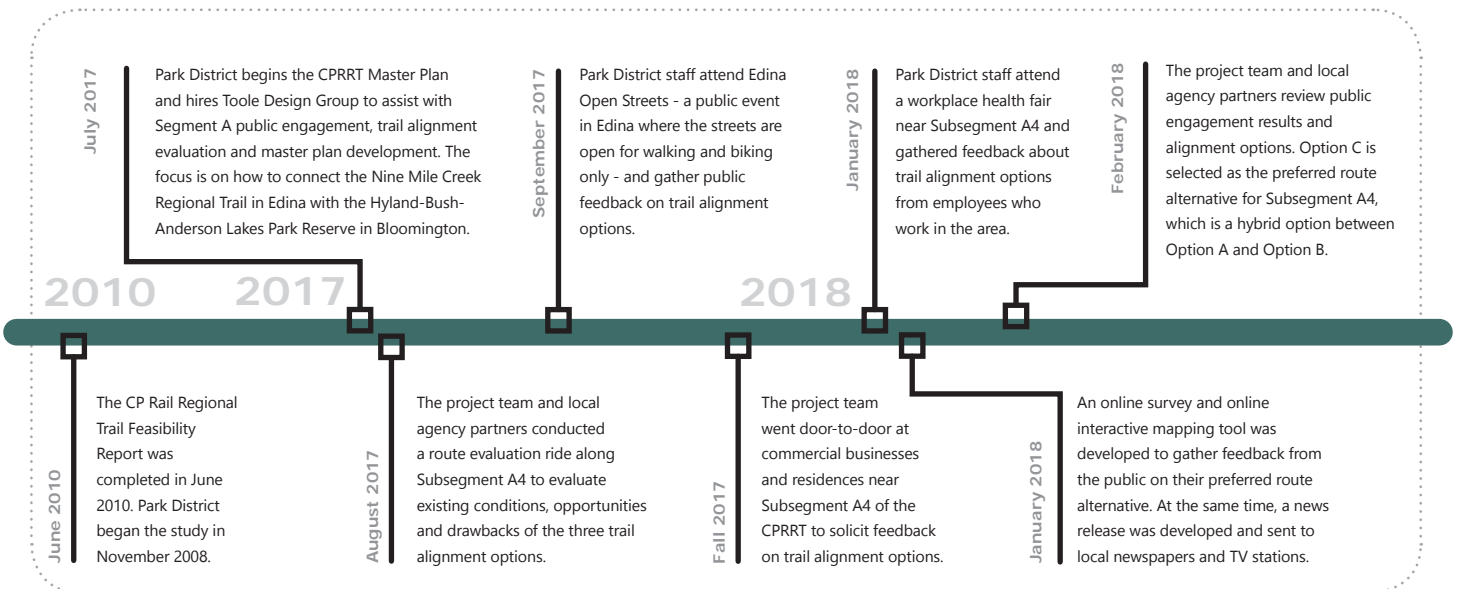
Subsegment A4 is an 1.28-mile trail alignment starting at the southern border of Edina that stretches from the 78th Street and East Bush Lake intersection to 70th Street, connecting to Nine Mile Creek Regional Trail. From Bush Lake Road the trail route would cross I-494 and connect to the existing trail at West 84th Street that connects to Hyland-Bush-Anderson Lakes Park Reserve in Bloomington. The majority of the master planning focus was on this subsegment because it was the only missing trail segment of Segment A. The planning timeline for Subsegment A4 is shown in **Figure 3**.

The Park District worked closely with staff from the cities of Edina and Bloomington to understand local municipality issues, coordinate with existing or planned projects and give agency staff opportunities to provide input on the CPRRT route. The local agency partners were engaged throughout the entire project process. The City of Edina and the City of Bloomington each hosted a project meeting and were involved in the decision-making process for determining the route alignments for Subsegments A3 and A4. City of Edina staff also participated in a route evaluation bike ride to analyze existing conditions of route options for Subsegment A4. A table with detailed results of the route evaluation bike ride is in **Appendix D**.



Project team members review a portion of Subsegment A4 on West 70th Street near the connection to the Nine Mile Creek Regional Trail.

Figure 3: Subsegment A4 Planning Timeline



Route Options

The Project Team began by analyzing two route alignments - Option A and Option B. Route alignment preferences between Option A and Option B were very balanced, both from the public as well as from project staff. Each route had advantages and disadvantages identified (Table 14, page 34 and Map 13, page 35) but there was no clear preference. Since there was no clear preferred alignment for Subsegment A4, a hybrid alignment of Option A and Option B, Option C, was considered which incorporated the pros and cons of Options A and B. Each route was evaluated thoroughly by project staff and significant public engagement helped determine a preferred route. Descriptions for each alignment option are below. (Map 12)

Option A

Beginning at the intersection of East Bush Lake Road and 78th Street, Option A goes west along 78th Street over the railroad bridge to Cahill Road, north on Cahill Road up to 70th Street, then east to connect to Nine Mile Creek Regional Trail.

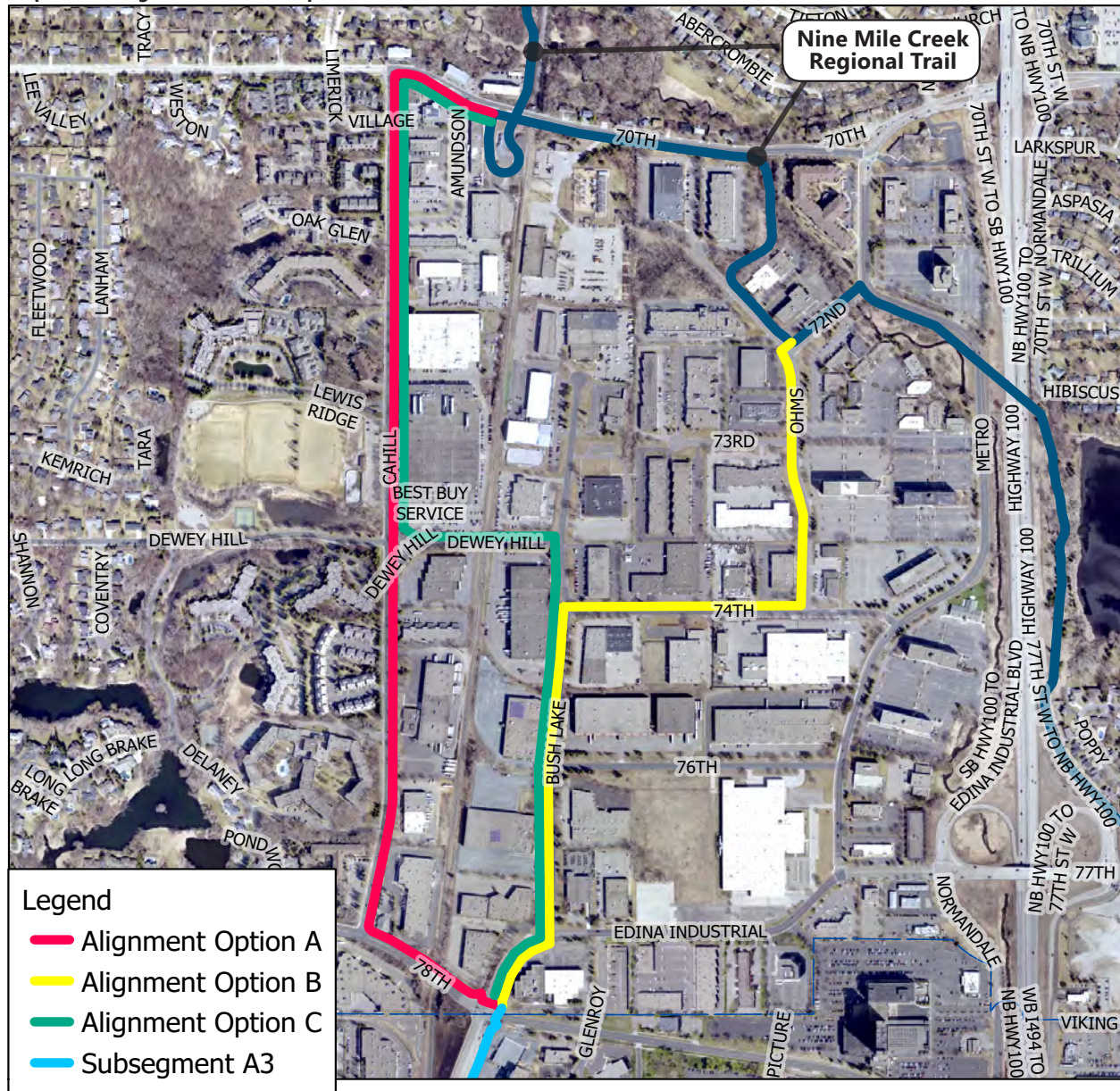
Option B

Option B weaves through an industrial park area before connecting with Nine Mile Creek Regional Trail at Ohms Lane. Starting at East Bush Lake Road and 78th Street, Option B goes north along East Bush Lake Road to the intersection of Bush Lake Road and Edina Industrial Boulevard, continues north on Bush Lake Road up to 74th Street, east on 74th Street to Ohms Lane, then north on Ohms Lane to Nine Mile Creek Regional Trail.

Option C

The hybrid option, or Option C, follows Option B on the southern portion of the subsegment and Option A on the northern portion of the subsegment. Beginning at the intersection of East Bush Lake Road and 78th Street, Option C follows East Bush Lake Road north to the intersection of Bush Lake Road and Industrial Boulevard, continues north on Bush Lake Road up to Dewey Hill Road, west on Dewey Hill Road to Cahill Road, north along Cahill Road to 70th Street, then east on 70th Street to connect to Nine Mile Creek Regional Trail.

Map 12: Subsegment A4 Route Options



Public Engagement

Since Subsegments A1-A3 are existing trails, public engagement for Segment A focused on Subsegment A4. The planning and public input process for selecting Subsegment A4, which connects the existing trail in Subsegment A3 to Nine Mile Creek Regional Trail, was very robust due to the many variables involved in selecting a route alignment. The process included analyzing three route alignment alternatives with involvement from local agency partners and community members. The route alignment alternatives for Subsegment A4 were determined by the Park District and were presented to the public to discuss.

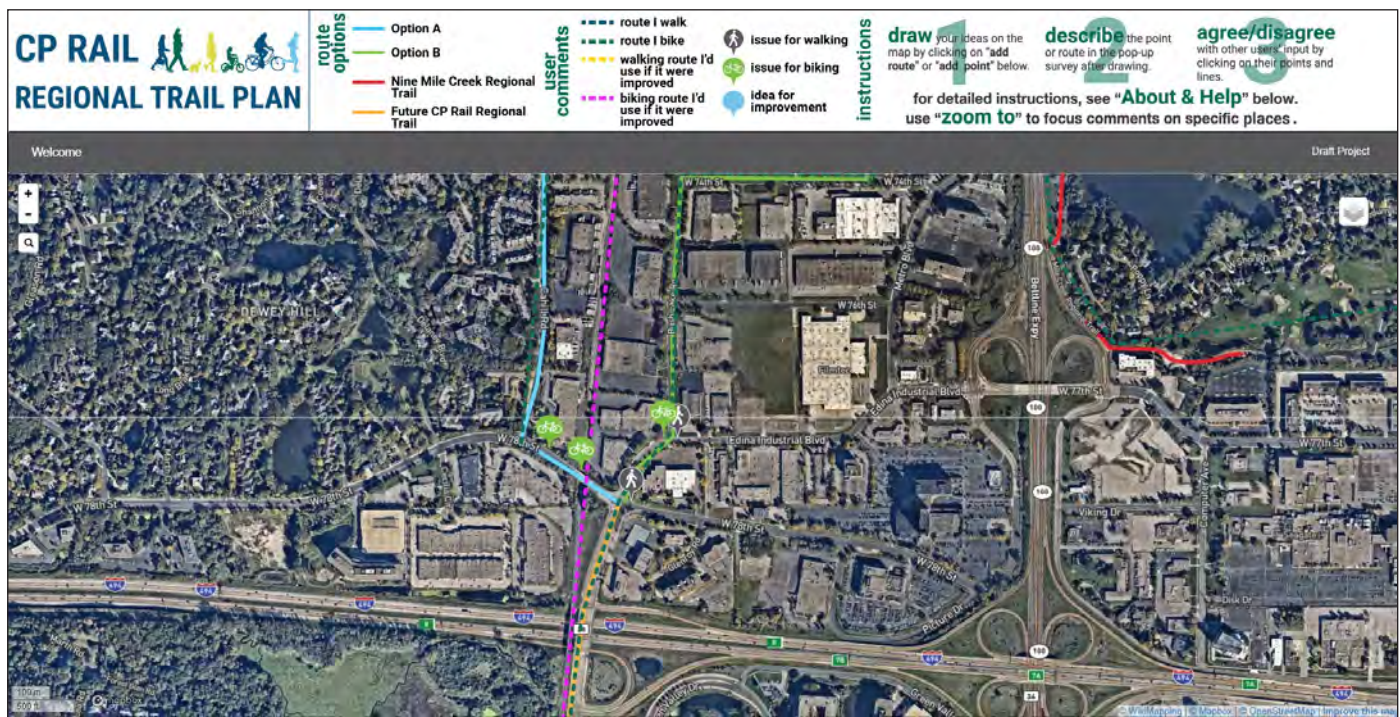
Several public outreach strategies were used to gather feedback from people who live or work near the project area. The team developed tailored strategies to include community members who may not be able to attend a traditional project open house due to work, family and child care obligations, transportation issues or other barriers. The following engagement strategies were used to garner public feedback:

1. A project website was developed and included information on the project background, project extents, and links to an online public survey and interactive map.
2. An online survey was developed to solicit feedback on the two proposed route options in Subsegment A4. The survey asked respondents which route options would have the most positive impact on biking or walking to various destinations such as school, work, retail or restaurants and for general exercise. The survey was posted from October 2017 to January 2018 and was available through direct and referral links to the project website. In total, the survey received 210 responses. Generally, participants were

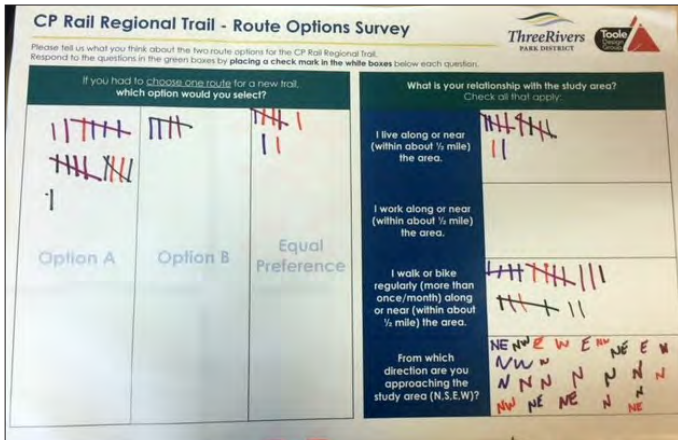
supportive of the trail connection and there was not a clear preference for one alignment over another. Respondents also had the opportunity to describe why they prefer one alignment over the other; their verbatim responses are documented in **Appendix D**.

3. An online interactive map was developed to gather feedback from the public on their preferred route alternative using the platform WikiMap (**Figure 4**). The WikiMap displayed the alignment of the existing segments of the CPRRT in Bloomington as well as route options for Segment A4 in Edina. Wikimap respondents were encouraged to identify routes where they walk and bike and routes where they would walk or bike if the infrastructure was improved. Respondents were also able to identify specific points on the map where they think there are issues for biking or walking, or where they have an idea for an improvement.
4. A press release was developed and sent to local newspapers and cable TV stations. The press release included project background and project process information, web links to the online survey and online interactive map, as well as general information on Three Rivers Park District.
5. The Park District Facebook page was used to post information about the project and direct the public to the online survey and online interactive map.
6. A door-to-door engagement strategy was used to target specific residents, businesses and workers. The Project Team wanted to reach people that live or work near the future trail; therefore, Park District staff went door-to-door in neighborhoods surrounding the Subsegment A4 route location.

Figure 4: The online interactive map was used to gather feedback from the public about Subsegment A4 route options.



- Edina Open Streets, a public event in Edina where the streets are open for walking and biking only, was attended by Park District staff in September 2017. Park District staff spoke to dozens of people at the event and used an engagement activity board to gather public feedback on trail alignment options. More detailed event results are documented in **Appendix D**.



An activity board used to collect input from the public at Edina Open Streets.

- A local health fair was attended by project team members in January 2018 at BI Worldwide in Edina. BI Worldwide is located at 7700 Bush Lake Road in Edina and has over 500 employees in the CPRRT Subsegment A4 study area. The purpose of attending the event was to gather feedback on route alignment preferences from people who work in the area near the future trail.



Route Selection

The Project Team analyzed each of the options extensively, including examining several alignment characteristics of each route (**Table 14**) and various factors that influence trail construction cost estimates (**Map 13, page 35**). Park District staff and agency partners generally agreed that Option C was the preferred alignment and was ultimately selected as the proposed alignment for Subsegment A4.

Option C has several advantages over Option A and B, including cost, directness, job access and coordination with local planning efforts. Option A was the most direct alignment, but requires the construction of a new bicycle and pedestrian bridge that parallels the existing bridge over the railroad. Option C was the second most direct alignment and does not require a costly bridge construction or retaining walls.

A portion of Option C on Bush Lake Road and Dewey Hill Road is identified in the City of Edina’s DRAFT Pedestrian and Bicycle Plan as a recommended new shared use path. Neither Option A nor Option B is routed along the recommended new shared use path. The City of Edina is also undergoing a small area planning process near 70th Street, Amundson Avenue and Cahill Road, which is included in their 2018 Comprehensive Plan. Option C will benefit from future redevelopment that results from the small area planning process.

Cost Estimate Analysis

In addition to general trail construction costs, there are several physical challenge areas that will require special construction expenses and/or property acquisition costs for subsegment A4. These areas and associated cost estimates are illustrated in **Appendix B – Physical Challenge Areas**, which include:

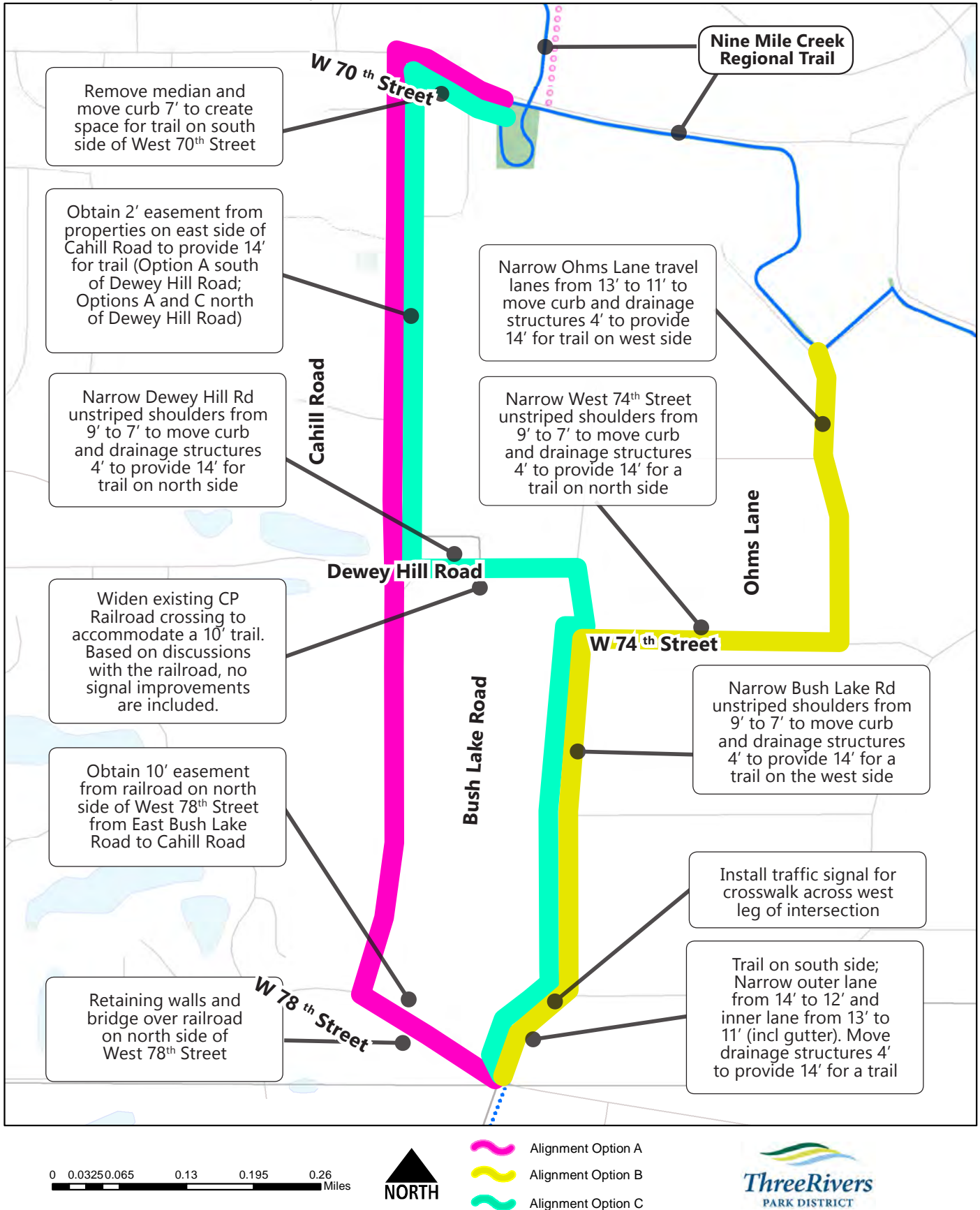
- 640’ of easement for trail construction along East Bush Lake Road/I-494 north ramp and West 78th Street - \$20,480
- Traffic signal at East Bush Lake Road/Industrial Boulevard - \$300,000
- Widening the existing railroad crossing surface on Dewey Hill Road - \$125,000 (based on figures provided by CP Rail)
- 2,650’ of easement along Cahill Road - \$84,000
- Retaining wall along West 70th Street - \$27,500

These costs are shown alongside general trail construction costs in **Appendix C – Cost Estimates**.

Table 14: Subsegment A4 Route Option Characteristics

CHARACTERISTIC	OPTION A	OPTION B	OPTION C
Approximate Length	1 mile	1.2 miles	1.3 miles
Signalized Intersections	2	1	1
Driveway & Intersection Crossings (range varies depending on side of street)	18-27	20-22	22-23
Benefits to Pedestrians	Sidewalks exist on Cahill Road and West 70 th Street, but not on West 78 th Street	Greater benefit to pedestrians due to lack of existing sidewalks along route	Sidewalks exist on Cahill Road and W 70 th , but not on Bush Lake Road or Dewey Hill Road
Number of Turns Along Route	2	3	4
Residential Access	Adjacent to several residential developments along west side of Cahill Road	None	Adjacent to several residential developments along west side of Cahill Road
Job Access	Adjacent to several businesses on Cahill Road	Adjacent to several businesses in the industrial park area on Bush Lake Road, 74 th Street and Ohms Lane	Adjacent to several businesses in industrial park area on Bush Lake Road, Dewey Hill Road and Cahill Road
Major Cost Factors	Requires new bike/pedestrian bridge over railroad on West 78 th Street (~\$525,000)	Requires new signalized intersection at Bush Lake Road and Industrial Boulevard	Requires new railroad crossing over Dewey Hill Road; Requires new signalized intersection at Bush Lake Road and Industrial Boulevard
Estimated 2019 Engineering + Construction Administration Costs	\$420,000	\$148,000	\$325,000
Estimated 2019 Construction Costs	\$1,670,000	\$592,000	\$1,300,000
Estimated 2019 Total Costs	\$2,090,000	\$740,000	\$1,625,000

Map 13: Subsegment A4 Alternatives Analysis Cost Estimate Assumptions



*This map illustrates considerations that were included in the cost estimate for the alternatives analysis. It is not intended to serve as recommendations for the final trail design of Subsegment A4. Additional engineering analysis will be required to arrive at a final trail design.

SEGMENT A LAND COVER AND NATURAL HERITAGE INFORMATION

Segment A travels through landcover areas that are primarily classified as artificial surfaces. The three route alignment options analyzed for Subsegment A4 all travel through landcover areas classified as artificial surfaces. Therefore, the landcover classification had no implication on the route alignment selection for Subsegment A4.

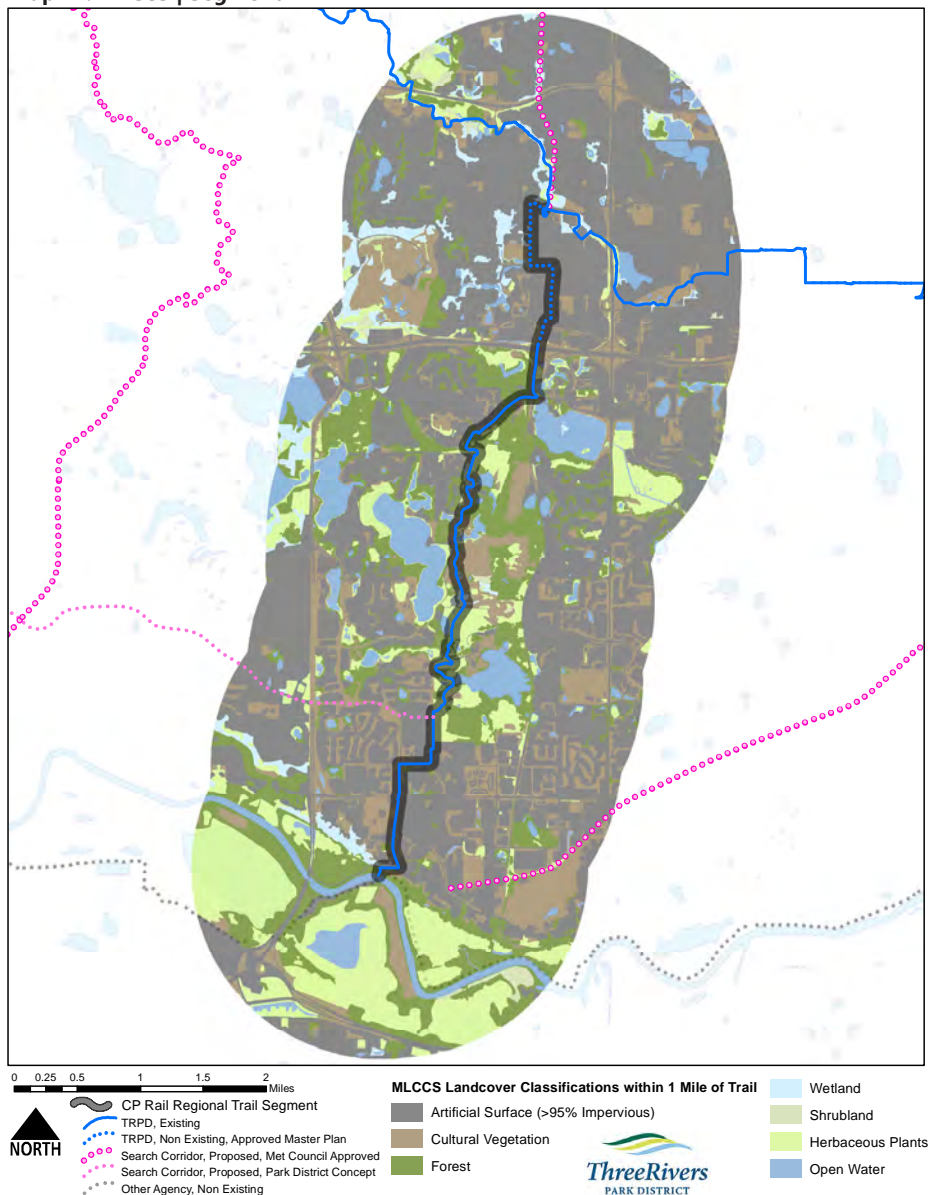
Minnesota Land Cover Classification System

MnDNR's Minnesota Land Cover Classification System (MLCCS) defines the land cover through Bloomington as a mix of forest, herbaceous plants, cultural vegetation, and open water ponds. The southern portion of the segment through Bloomington runs through a mix of artificial surfaces and cultural vegetation. The proposed trail segment connecting from Bloomington to Nine Mile Creek Regional Trail in Edina is entirely on land classified as artificial surface. There are wetlands in the area—mainly near Highway 169, in a neighborhood west of Cahill Road, and along Nine Mile Creek. There are some small areas classified as shrubland that border wetlands. **(Map 13).**

Natural Heritage Information System

MnDNR's Natural Heritage Information System (NHIS) includes the following rare plants and animals, native plant communities, geologic features and/or animal aggregations within one-mile of Segment A: *Actinonaias ligamentina* (Mucket), *Ammodramus henslowii* (Henslow's Sparrow), *Pituophis catenifer* (Gophersnake), *Pleurobema coccineum* (Round Pigtoe), and *Tritogonia verrucosa* (Pistolgrip), none of which are anticipated to be negatively affected by the development of the CPRRT.

Map 14: MLCCS | Segment A





Bicyclists overlooking the Mississippi River | Minneapolis, MN

SEGMENT B

Nine Mile Creek Regional Trail to Cedar Lake LRT Regional Trail

SEGMENT B OVERVIEW

This 4.47-mile trail segment is located in the cities of Edina and St. Louis Park, spanning from Nine Mile Creek Regional Trail in the south to Cedar Lake LRT Regional Trail in the north (Table 15 and Map 14). This segment is currently unplanned and will be planned in a future phase. Future planning work will include route evaluation, community engagement, and route selection.

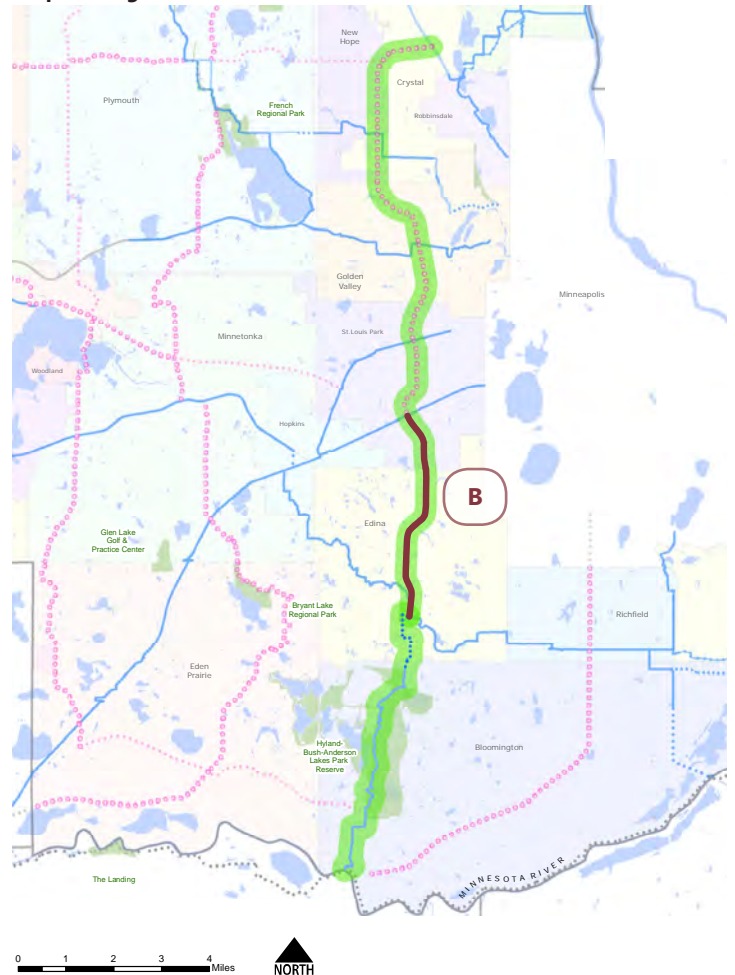
Table 15: Segment B | Length and Cost (TBD)

SEGMENT B Nine Mile Creek Regional Trail to Cedar Lake LRT Regional Trail						
#	City	Status	Length	Notes	Acquisition & Construction	Operations & Maintenance
B1						
B2						
B3						
B4						

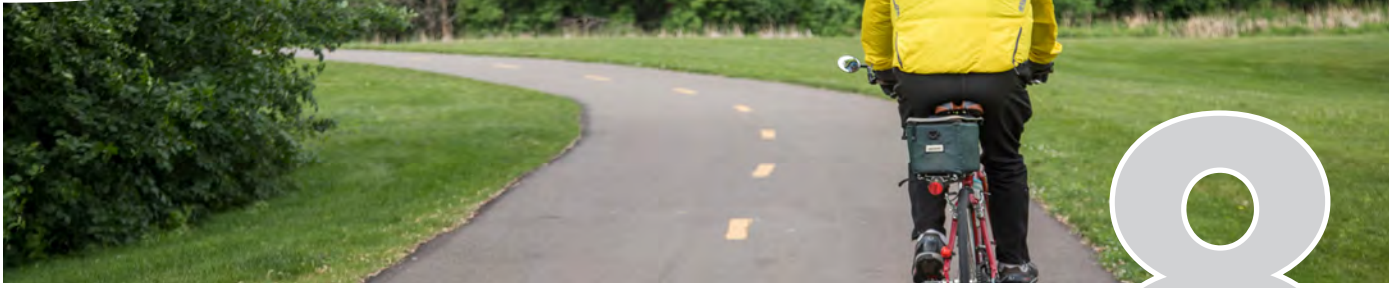
Subtotal 4.47 miles

\$3,120,903

Map 15: Segment B Context



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Caption here | City name here, MN

8

SEGMENT C Cedar Lake LRT Regional Trail to North Cedar Lake Regional Trail

SEGMENT C OVERVIEW

This 1.68-mile trail segment is located in the City of St. Louis Park, spanning from Cedar Lake LRT Regional Trail to North Cedar Lake Regional Trail (**Table 16 and Map 15**). This segment is currently unplanned and will be planned in a future phase. Future planning work will include route evaluation, community engagement, and route selection.

Map 16: Segment C Context

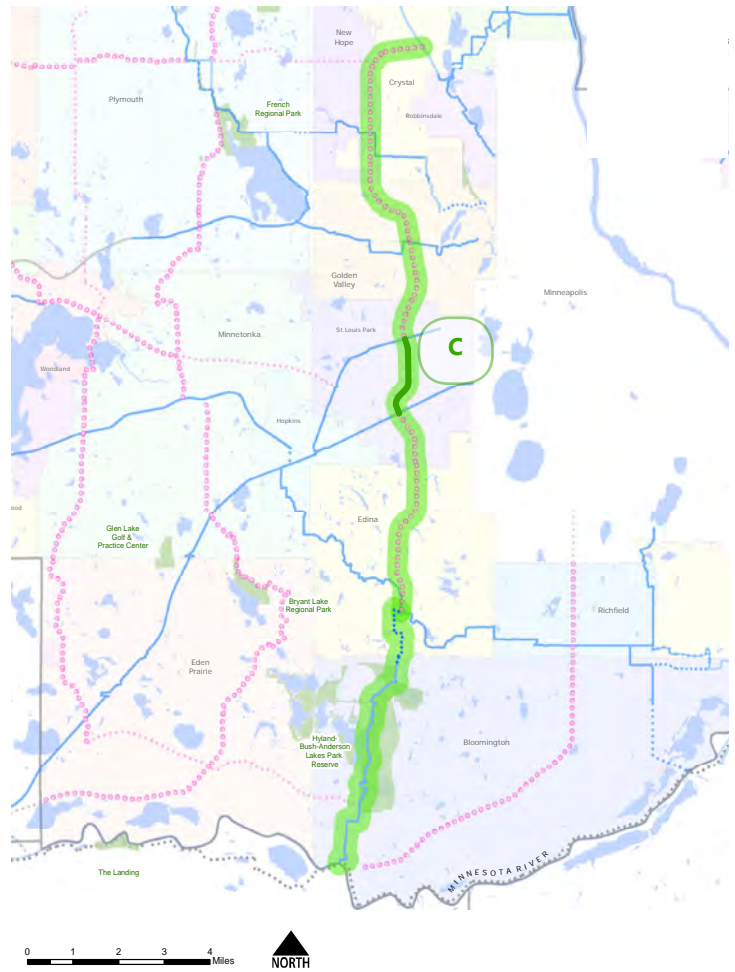


Table 16: Segment C | Length and Cost (TBD)

SEGMENT C Cedar Lake LRT Regional Trail to North Cedar Lake Regional Trail						
#	City	Status	Length	Notes	Acquisition & Construction	Operations & Maintenance
C1						
C2						
C3						
C4						
Subtotal			1.68 miles		\$xx	

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Dog bundled up for winter walking



SEGMENT D

North Cedar Lake Regional Trail to Luce Line Regional Trail

SEGMENT D OVERVIEW

This 2.12-mile trail segment is located in the cities of St. Louis Park and Golden Valley, spanning from North Cedar Lake Regional Trail to Luce Line Regional Trail (**Table 17 and Map 16**). This segment is currently unplanned and will be planned in a future phase. Future planning work will include route evaluation, community engagement, and route selection.

Map 17: Segment D Context

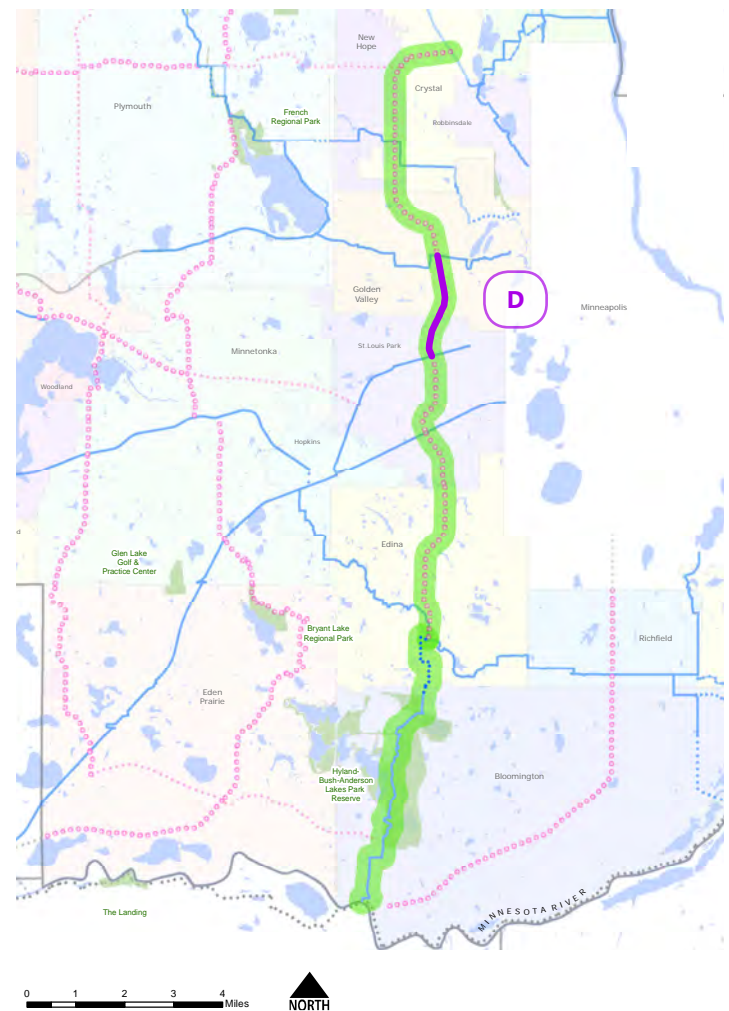


Table 17: Segment D | Length and Cost (TBD)

SEGMENT D North Cedar Lake Regional Trail to Luce Line Regional Trail						
#	City	Status	Length	Notes	Acquisition & Construction	Operations & Maintenance
D1						
D2						
D3						
D4						
Subtotal			2.12 miles		\$xx,xxx,xx	

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Caption here | City name here, MN

10

SEGMENT E Luce Line Regional Trail to Bassett Creek Regional Trail

SEGMENT E OVERVIEW

This 2.7-mile trail segment is located in the cities of Golden Valley, New Hope and Crystal, spanning from Luce Line Regional Trail to Bassett Creek Regional Trail (**Table 18 and Map 17**). This segment is currently unplanned and will be planned in a future phase. Future planning work will include route evaluation, community engagement, and route selection.

Map 18: Segment E Context

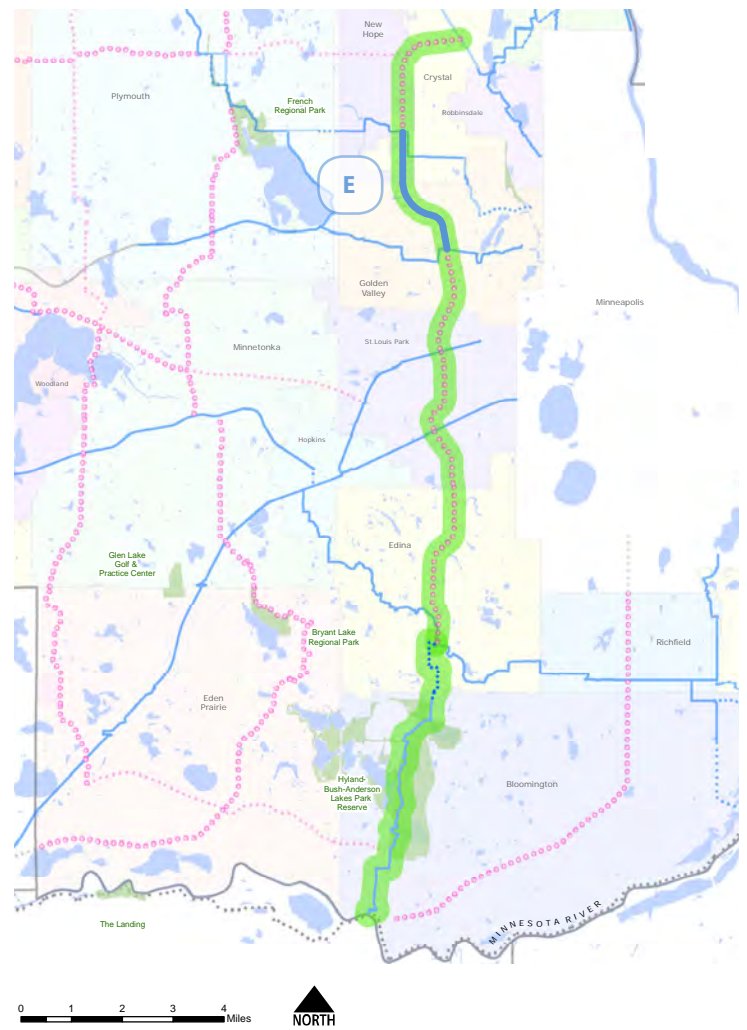


Table 18: Segment E | Length and Cost (TBD)

SEGMENT E Luce Line Regional Trail to Bassett Creek Regional Trail						
#	City	Status	Length	Notes	Acquisition & Construction	Operations & Maintenance
E1						
E2						
E3						
E4						
Subtotal			2.7 miles		\$xx,xxx,xx	

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The CPRRT travels along Bush Lake Road adjacent to the Hyland-Bush-Anderson Lakes Park Reserve | Bloomington, MN

11

SEGMENT F Bassett Creek Regional Trail to Crystal Lake Regional Trail

SEGMENT F OVERVIEW

This 2.66-mile trail segment is located in the cities of New Hope and Crystal, spanning from Bassett Creek Regional Trail to Crystal Lake Regional Trail (**Table 19 and Map 18**). This segment is currently unplanned and will be planned in a future phase. Future planning work will include route evaluation, community engagement, and route selection.

Map 19: Segment F Context

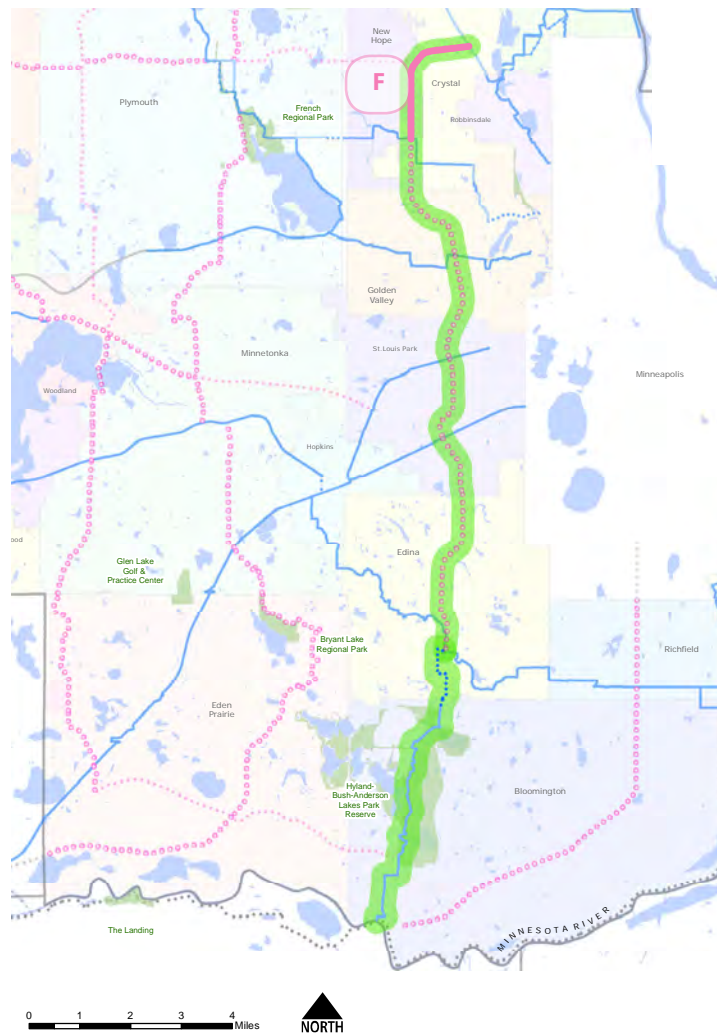


Table 19: Segment F | Length and Cost (TBD)

SEGMENT F Bassett Creek Regional Trail to Crystal Lake Regional Trail						
#	City	Status	Length	Notes	Acquisition & Construction	Operations & Maintenance
F1						
F2						
F3						
F4						
Subtotal			2.66 miles		\$xx,xxx,xx	

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The CPRRT travels through the Hyland-Bush-Anderson Lakes Park Reserve | Bloomington, MN

A

APPENDIX A VISITATION METHODOLOGY

The Park District’s Research and Evaluation Section provides visitation estimates for new regional trails. They are based on an estimating methodology, which treats each regional trail as a unique entity with its own set of specific characteristics. The projected annual visits are based on a fully-built, contiguous regional trail corridors.

When fully constructed, the CPRRT is projected to generate 305,000 annual visits. This visitation estimate is calculated based on the following methodology: 1) Metropolitan Council’s annual estimated visits to a comparable regional trail (Luce Line Regional Trail) and 2) population within 1.5 miles of the regional trail. **Table A-1** shows the methodology used to determine the annual visitation estimates.

Table A- 1: Future Visitation Estimate Methodology

Annual Visits to Luce Line Regional Trail (Comparison trail to CPRRT) based on 2017 Metropolitan Council estimate	521,000 visits
50% of Annual Visits to Luce Line Regional Trail	260,500 visits
Distance that 50% of visitors live from Luce Line Regional Trail (2014 TRPD Visitor Survey)	1.5 miles
*Assumption: 50% of CPRRT’s annual visits will be from residents that live within 1.5 miles	
Population within 1.5 miles of Luce Line Regional Trail	88,076 people
Average annual visits to Luce Line Regional Trail by people living within 1.5 miles	2.95 Visits (260,500 visits/88,076 residents)
Population within 1.5 miles of CPRRT	51,439 people
Projection for 50% of CPRRT’s Annual Visits	152,140 visits (2.95 visits/resident X 51,439 residents)
Projected Annual Visits to CPRRT	Approximately 305,000 visits (152,140 visits x 2)

the **BL** THE BOTTOM LINE key message

When fully constructed, the CPRRT is estimated to attract **305,000 annual visits.**

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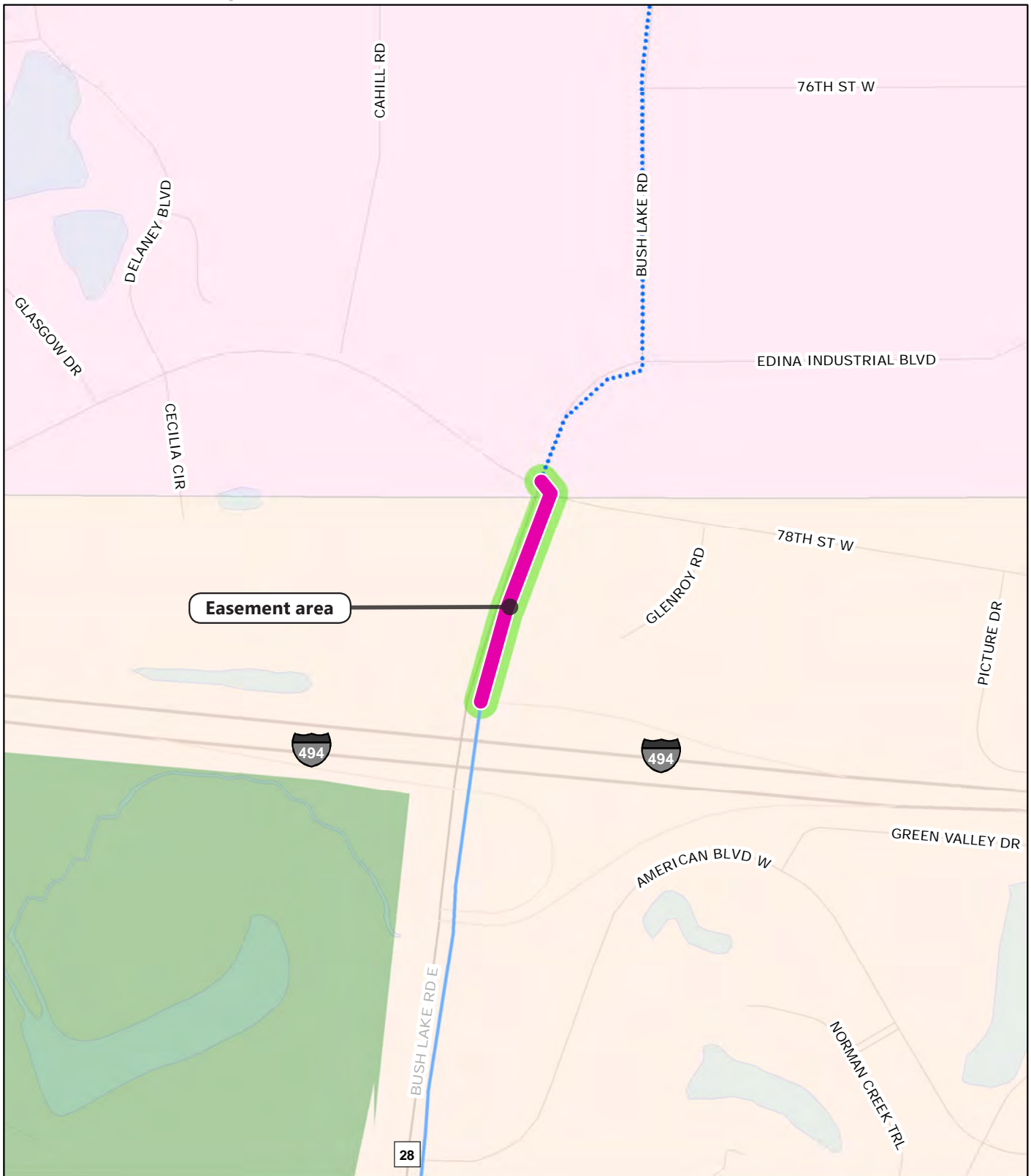
Regional trail user passes Level A wayfinding signage configuration.

APPENDIX B

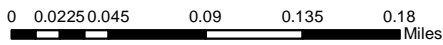
PHYSICAL CHALLENGE AREAS





B

BLOOMINGTON | SUBSEGMENT A3



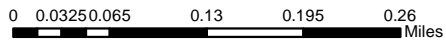
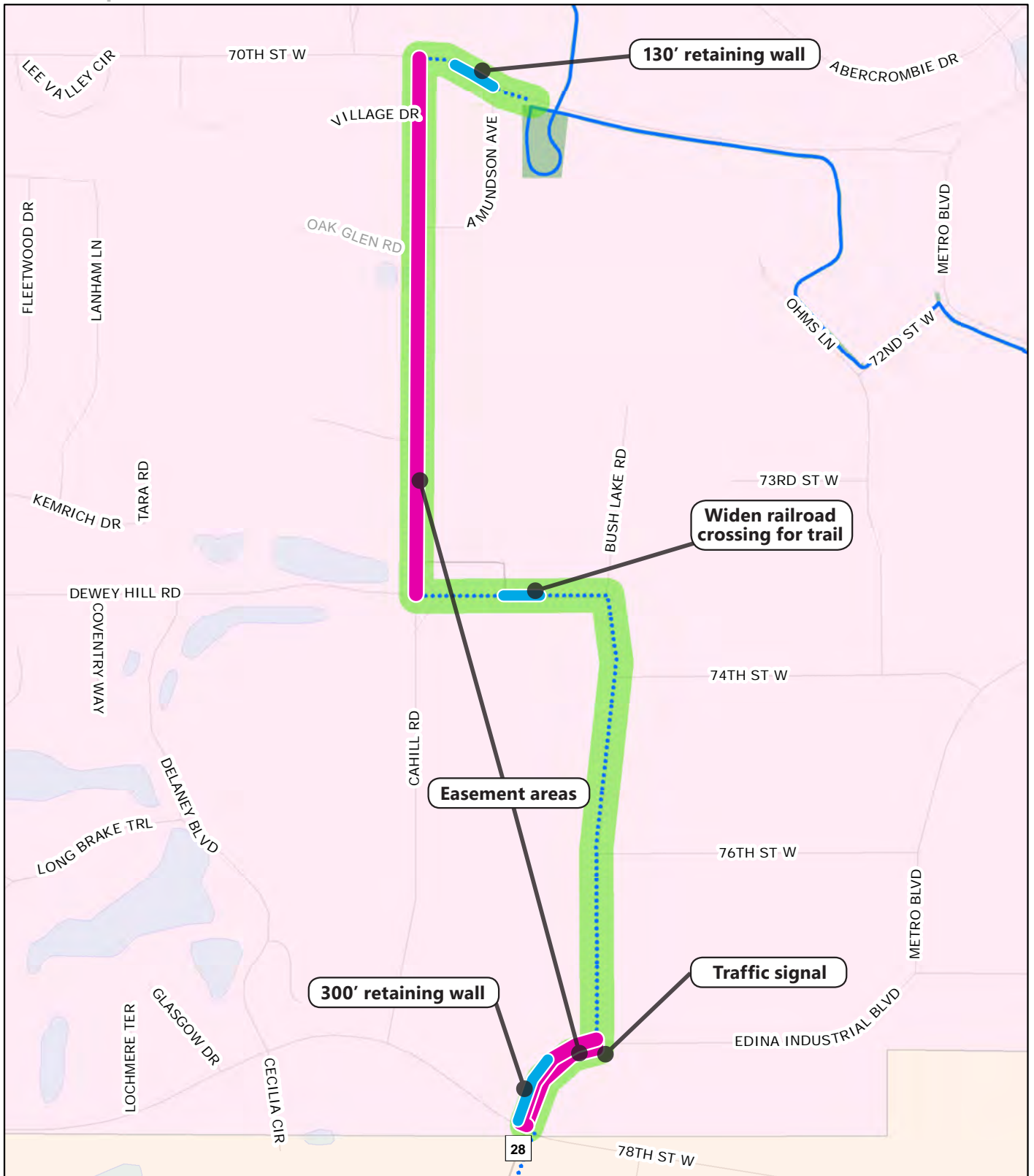
October 4, 2017 AR



-  Existing trail segment
-  Proposed trail segment
-  Special Construction
-  Easement Area



EDINA | SUBSEGMENT A4



- Existing trail segment
- Proposed trail segment
- Special Construction
- Easement Area

October 4, 2017 AR



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The CPRRT crosses Bush Lake Road near the Hyland-Bush-Anderson Lakes Park Reserve | Bloomington, MN

APPENDIX C

COST ESTIMATES

APPENDIX C | SEGMENT A: Minnesota River to Nine Mile Creek Regional Trail

Sub-segment	Implementation Notes	Miles	Linear Feet	Bituminous Cost	Proposed Design Consideration(s)			Rest Stops & Amenities		Private Property Impacts			Special Construction	Total Subsegment Cost (rounded)
					Construct New Bituminous	Reconstruct Substandard Bituminous	Maintain Existing Bituminous	Trailheads & Rest Stops	Site Amenities & Signage	Property Acquisition	Temporary Easements			
A1	<ul style="list-style-type: none"> Maintenance on existing trail, including sealcoat/stripping (\$7 LF) (1) Level A Kiosk, (1) Level C Sign, update existing signs. 	0.75	3,956	\$27,692	--	--	X	--	\$60,000	--	--	--	\$90,000	
A2	<ul style="list-style-type: none"> Maintenance on existing trail, including sealcoat/stripping (\$7 LF) (1) Level B Kiosk, (2) Level C Signs 	4.35	23,075	\$161,525	--	--	X	--	\$50,000	--	--	--	\$210,000	
BLOOMINGTON & EDINA	A3	<ul style="list-style-type: none"> Maintenance on existing trail, including sealcoat/stripping (\$7 LF) 640' of easement and trail construction between E. Bush Lake Road/I-494 north ramp and W. 78th St. (1) Level C Sign 	0.64	3,290	\$212,300	X	--	--	--	\$10,000	\$20,480	--	--	\$245,000
	A4	<ul style="list-style-type: none"> Traffic signal at E. Bush Lake Road/Industrial Blvd. - \$250,000 Wider crossing surface at CP Rail Crossing - \$120,000 2,650' of easement along Cahill Road 528 SFF retaining wall along W. 70th St. (fill) - \$52/SFF (1) Level B Kiosk, (1) Level C Sign 	1.28	6,745	\$2,192,125	X	--	--	--	\$40,000	\$84,800	--	\$397,500	\$2,715,000
MASTER PLAN COST ESTIMATE TOTALS		7.02	37,066	\$2,593,642				--	\$160,000	\$105,280	--	\$397,500	\$3,260,000	

APPENDIX C | SEGMENT B: Nine Mile Creek Regional Trail to Cedar Lake LRT Regional Trail

Sub-segment	Implementation Notes	Miles	Linear Feet	Bituminous Cost	Proposed Design Consideration(s)			Rest Stops & Amenities		Private Property Impacts		Special Construction	Total Subsegment Cost (rounded)	
					Construct New Bituminous	Reconstruct Substandard Bituminous	Maintain Existing Bituminous	Trailheads & Rest Stops	Site Amenities & Signage	Property Acquisition	Temporary Easements			
EDINA & ST. LOUIS PARK	B1	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
	B2	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
	B3	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
	B4	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
GENERALIZED COST ESTIMATE TOTALS		4.47	--	\$7,100,000					\$XX	\$XX	\$950,000	\$XX	\$XX	\$8,050,000

APPENDIX C | SEGMENT C: Cedar Lake LRT Regional Trail to North Cedar Lake Regional Trail

Sub-segment	Implementation Notes	Miles	Linear Feet	Bituminous Cost	Proposed Design Consideration(s)			Rest Stops & Amenities		Private Property Impacts		Special Construction	Total Subsegment Cost (rounded)	
					Construct New Bituminous	Reconstruct Substandard Bituminous	Maintain Existing Bituminous	Trailheads & Rest Stops	Site Amenities & Signage	Property Acquisition	Temporary Easements			
ST. LOUIS PARK	C1	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
	C2	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
	C3	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
	C4	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
GENERALIZED COST ESTIMATE TOTALS		1.68	--	\$2,650,000				\$XX	\$XX	\$360,000	\$XX	\$XX	\$3,010,000	

APPENDIX C | SEGMENT D: North Cedar Lake Regional Trail to Luce Line Regional Trail

Sub-segment	Implementation Notes	Miles	Linear Feet	Bituminous Cost	Proposed Design Consideration(s)			Rest Stops & Amenities		Private Property Impacts		Special Construction	Total Subsegment Cost (rounded)	
					Construct New Bituminous	Reconstruct Substandard Bituminous	Maintain Existing Bituminous	Trailheads & Rest Stops	Site Amenities & Signage	Property Acquisition	Temporary Easements			
ST. LOUIS PARK & GOLDEN VALLEY	D1	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
	D2	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
	D3	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
	D4	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
GENERALIZED COST ESTIMATE TOTALS		2.12	--	\$3,350,000					\$XX	\$XX	\$450,000	\$XX	\$XX	\$3,800,000

APPENDIX C | SEGMENT E: Luce Line Regional Trail to Bassett Creek Regional Trail

Sub-segment	Implementation Notes	Miles	Linear Feet	Bituminous Cost	Proposed Design Consideration(s)			Rest Stops & Amenities		Private Property Impacts		Special Construction	Total Subsegment Cost (rounded)
					Construct New Bituminous	Reconstruct Substandard Bituminous	Maintain Existing Bituminous	Trailheads & Rest Stops	Site Amenities & Signage	Property Acquisition	Temporary Easements		
E1	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
E2	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
E3	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
E4	• XX • XX	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
GENERALIZED COST ESTIMATE TOTALS		2.7	--	\$4,250,000				\$XX	\$XX	\$570,000	\$XX	\$XX	\$4,820,000

GOLDEN VALLEY, NEW HOPE & CRYSTAL

APPENDIX C | SEGMENT F: Bassett Creek Regional Trail to Crystal Lake Regional Trail

Sub-segment	Implementation Notes	Miles	Linear Feet	Bituminous Cost	Proposed Design Consideration(s)			Rest Stops & Amenities		Private Property Impacts		Special Construction	Total Subsegment Cost (rounded)
					Construct New Bituminous	Reconstruct Substandard Bituminous	Maintain Existing Bituminous	Trailheads & Rest Stops	Site Amenities & Signage	Property Acquisition	Temporary Easements		
F1	<ul style="list-style-type: none"> • XX • XX 	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
F2	<ul style="list-style-type: none"> • XX • XX 	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
F3	<ul style="list-style-type: none"> • XX • XX 	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
F4	<ul style="list-style-type: none"> • XX • XX 	--	--	\$XX	--	--	--	\$XX	\$XX	\$XX	\$XX	\$XX	\$XX
GENERALIZED COST ESTIMATE TOTALS		2.66	--	\$4,250,000				\$XX	\$XX	\$570,000	\$XX	\$XX	\$4,820,000

NEW HOPE & CRYSTAL

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Project team members and agency partners participate in a route evaluation bike ride | Edina, MN



APPENDIX D - SEGMENT A

PUBLIC AND AGENCY COMMENTS

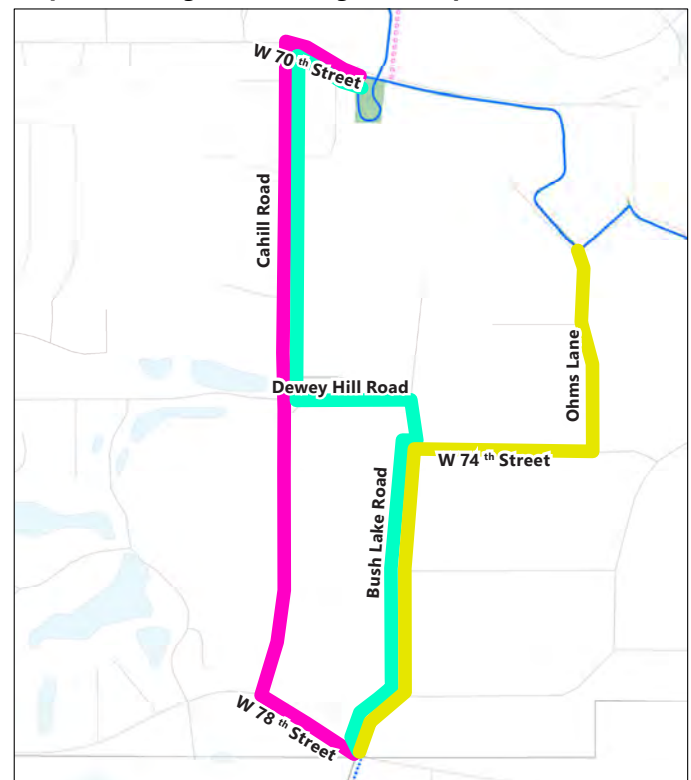
The Project Team utilized a number of different engagement strategies to gather feedback from members of the public and staff from the Cities of Edina and Bloomington on Subsegment A4 alignment options (**Map D-1**). Detailed engagement results from the online survey, route evaluation ride and Edina Open Streets event are provided in this section.

ONLINE SURVEY

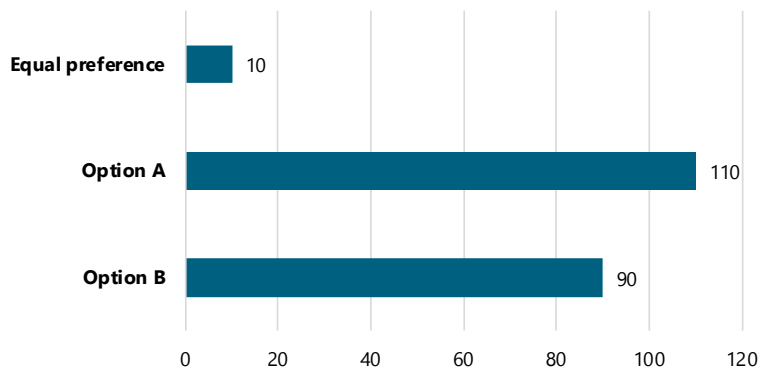
An online survey was developed through Google Forms to solicit feedback on route Options A and B in Subsegment A4 of the CPRRT. The survey was posted from October 2017 to January 2018 and was available through direct and referral links through the project website and Three Rivers Park District Facebook page. The survey received 210 responses.

Respondents views were fairly balanced on alignment preferences in general, as 52% chose Option A (110 responses) and 43% chose Option B (90 responses) and 5% had equal preference.

Map D-1: Subsegment A4 Alignment Options

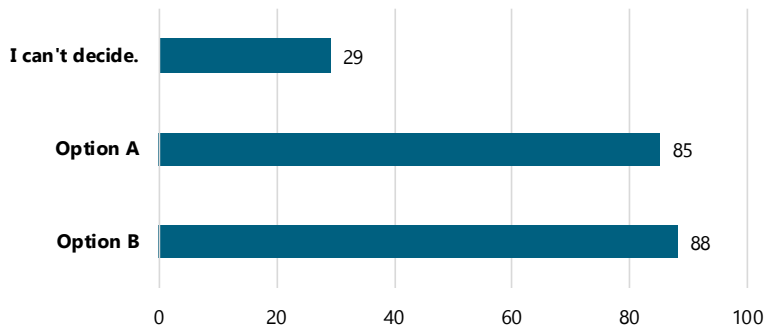


If you had to choose Option A or Option B, which would it be?

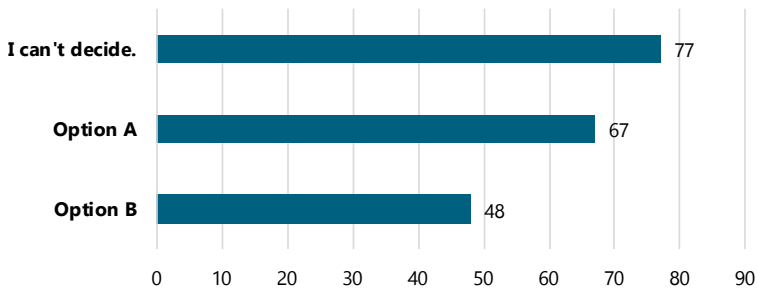


The survey also asked respondents which route options would have the most positive impact on biking or walking to various destinations such as school, work, retail or restaurants and for general exercise. The charts below show survey responses in regards to walking or biking to specific destinations.

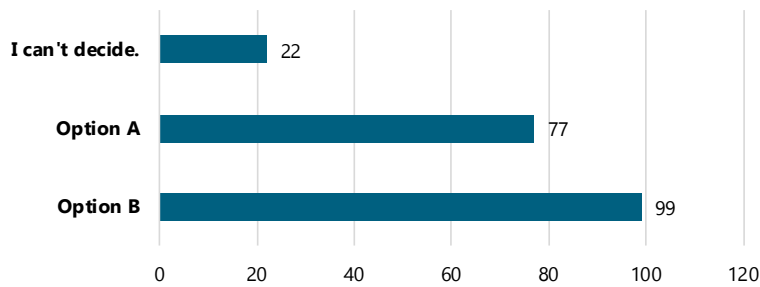
Which route do you think would have more positive impact on **biking to work?**



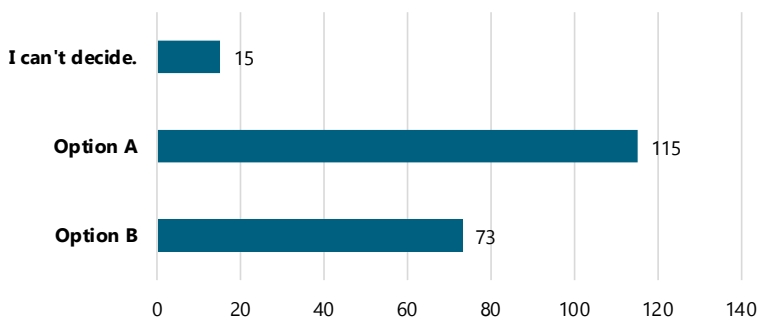
Which route do you think would have more positive impact on **biking to school?**



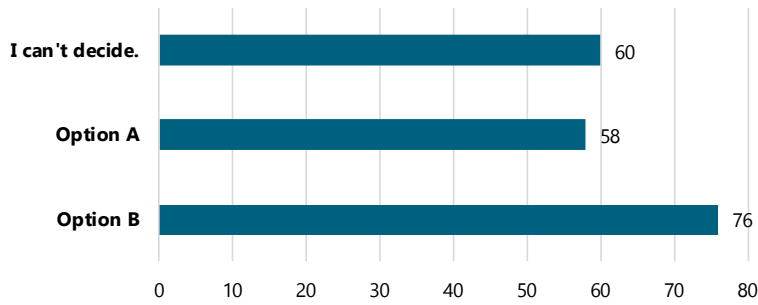
Which route do you think would have more positive impact on **biking to restaurants?**



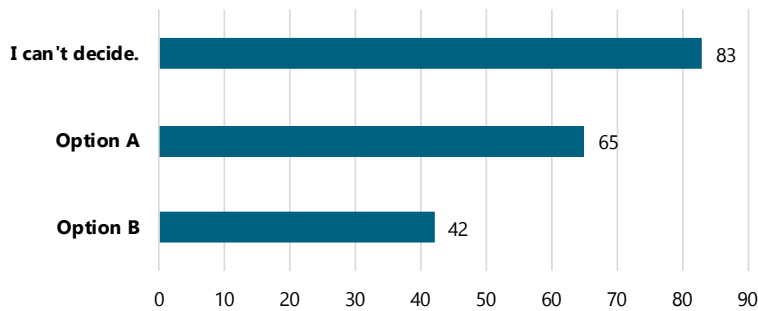
Which route do you think would have more positive impact on **biking for fun or exercise?**



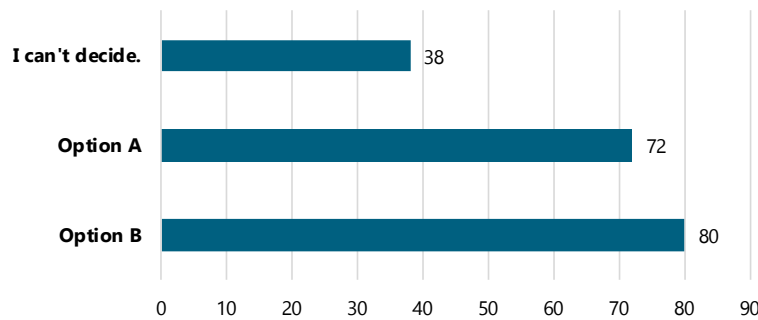
Which route do you think would have more positive impact on **walking to work**?



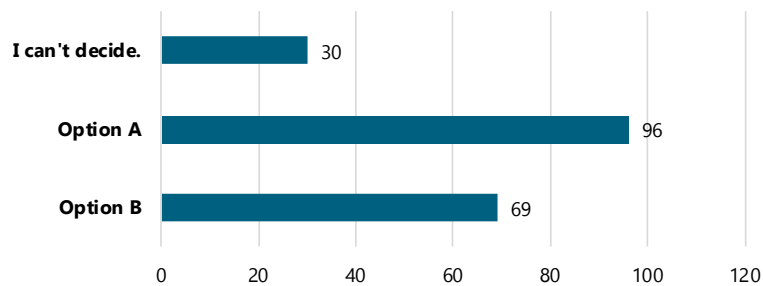
Which route do you think would have more positive impact on **walking to school**?



Which route do you think would have more positive impact on **walking to restaurants**?



Which route do you think would have more positive impact on **walking for fun or exercise**?



Survey respondents also had the opportunity to describe why they prefer one alignment over the other; their verbatim responses are documented below:

Why did you choose Option A?

- Less traffic than Bush Lake Road
- More direct
- A route thru an industrial park is not ideal. Going down Cahill and along Lewis Park is much prettier and attractive.
- Less need to cross traffic
- Far less traffic, more scenic
- More direct route, less turns
- Close to my work
- Less winding, more inclusive of parks (on Cahill Rd)
- I prefer Cahill Rd. because it is more residential and prettier. I also like that option A includes a path along the very scary, treacherous stretch on 78th St. The sidewalk on Cahill currently dumps you off at 78th with no options. With the curve, sight line problems and speeding by motorists is a scary problem in need of a solution. I also like it that the Cahill section is closer to Edina High & Valley View Schools. The current trail on 70th ends near Cahill and option A appears to close that gap.
- Goes by retail and parks
- Cahill is already a bike route. It is less industrial location
- Less street crossings.
- Possibly better views
- There are retail businesses on Cahill but not Ohms Lane
- Park is on option A, apartments are on option A so easy to get on the trail. Option B is all industrial.
- Much better option away from vehicle traffic.
- As a rider who likes to go fast, I would choose Option A. Also Option A is the in between mark where you can get to the school and/or workplace. Option B is nice for those who want to get around the business sites, however i think more users would like the more scenic route.
- I work at Edina Industrial Blvd. & Bush Lake Road. When people would be biking to work or back home, that intersection is crazy busy, and I would expect it to be a danger to bikers and quite a complication for auto traffic.
- Biking south on E Bush Lake Rd and trying to turn left onto Bush Lake Rd is dangerous. Cahill seems like the safer option and if you are trying to get into the industrial zone that option B goes through you can just turn east onto Dewey Hill Rd from Cahill. Basically, the car traffic on Edina Industrial Blvd makes Option B less desirable for pedestrians and cyclists.
- It's straight
- Closer to Braemar facilities and less industrial traffic interference.
- Option A is a nicer, more direct route.
- Rather bike past nature and parks instead of commercial and industrial space.
- More convenient for my work.
- Supporting friends
- The alignment is much better for the area
- It is more accessible to residents. It provides better bike access to Lewis Park.
- Very convenient to our home location
- I come from the west
- More direct, makes more sense
- I prefer biking on Cahill, this has been a part of my commute for years
- Despite the increased risk by drivers entering and exiting side streets and various parking lots, the Cahill route is much more efficient and direct. Out of the few thousand miles of commuting I've done in 2017 alone, I've chosen the Cahill route 9 out of 10 times. Thank you so much for evaluating this area and continuing to give the communities safe routes to work and school!
- Long, straight road with good sightlines for drivers. While traffic is present on both routes, my experience is better with route A as it has lower overall traffic volume. Option A heading south requires one cross-traffic turn, but has a turn light. Option A heading north also only has one cross-traffic turn, again with a light. B includes several more and a turn-specific light is not always present.
- Option A is more linear than option B, it also would have a slightly less industrial feel along that route.
- I like the scenery along Cahill road better - the other area is pretty industrial, also it seems like a lot of turns.
- Option A is a much easier, straightforward route that is not tucked away in a business park. There are not really any significant retail shops along route B that would benefit from a bike path through the area.
- I live on the west side of town and work at QBP so the further west the route, the more likely I would be to use it.
- It is the best choice
- Commonly used if commuting to QBP. The roads are in rough condition for commuting.
- Looks better for my commute and passes closer to some restaurants
- I like the more direct route A through the neighborhood. Routing through the industrial park creates lots of driveways and businesses with distracted rush hour drivers. Route A also creates a safe corridor for cyclists moving north. Most important to me, whether the route is A or B, is a safe way through the Bush Lake, 78th intersection as currently it's quite busy.
- This is more direct, and provides better non-motorized access to Lewis park
- More direct, clearer line of sight, less potential for conflict

with motorists. Only issue that exists is the crossover on 70th. I have no problem jumping the median when coming from the north, but I think many users would. I personally love this route and can't wait for Google maps to update their bike route suggestion (I'm new to the area).

- Easier to follow
- More direct route to the trail
- Riding through this southern part of Edina during rush hour can be dangerous. Taking the left from BLR/Edina Industrial Blvd is dangerous in a car, via bike it would be a death wish. While Cahill has dangerous points (Dewey Hill Rd intersection). The road is long and straight with good sight-lines. It also has a (mostly) good designated bike lane. The most ideal option would be convert and pave the railroad line running parallel.
- Straighter, greener, away from industrial traffic
- Direct, straight route, wide road with bike lanes.
- In my view the trail will serve more people if it runs near commercial AND residential.
- Walking or biking through that depressing industrial park is not fun for anyone. I'd like the path to serve the neighborhood community better, and ideally help link to the Cahill Shops (when redeveloped into a someplace that's not a soul-sucking dumpster of buildings!).
- Straight route that doesn't wind through industrial area. Passes directly next to Lewis Park for convenient access. Limits time on busy, low-visibility Bush Lake Road.
- More direct
- Cahill Rd is straighter
- Cahill is a lovely location and less industrial.
- Likely a more aesthetically pleasing route rather than through warehouses...
- That area is already so industrial and I think this would be a nice way to add green space to an otherwise ugly area. Having Lewis Park directly across the street would also be really nice to tie the two spaces together!
- There is currently not a good path to get to the Cahill and 70th restaurants and retail and this would provide a safe, designated space.
- Cahill is straight, near Lewis Park, attractive, and seems safer
- The other option (B) weaves people through an industrial park. The scenery and environment is not all that appealing. Option A allows for a more scenic path as well as stops at Lewis Park.
- More visually appealing to go on Cahill and near Lewis park
- Near housing and I would feel safer because of auto traffic passing by
- Safest and most pleasant route
- Most direct route....no turns
- I currently bike on Cahill and enjoy it.. it even currently has

a bike lane. Granted, I've never taken Option B, so take that with a grain of salt.

- More direct. Better connection point from the north.
- Less turning, easier to follow...
- Looks like it would be shorter, so I could get to Hyland park faster--I wouldn't necessarily take this trail with the purpose of going to retail/restaurants along the route, I would take it in order to have a safe way to get to Hyland.
- Straighter
- Seems the most straightforward
- Safer / less traffic
- I ride on Cahill now very often and it's a nice, straight, flat route. Option is a very direct route that would be easy to follow. Option B has quite a few turns and people could become confused.
- A is not through congested, low visibility industrial area
- Shortest distance in a boring area.
- More direct
- The more scenic, less industrial or "built up the better whether for commuting or pleasure.
- Provides access to park area in Edina- it is also a somewhat less industrial route
- More scenic than warehouses.
- Less turns makes it safer
- Option A is more unbending and linear and Option B takes many different turns and is therefore less efficient.
- The whole route should be along the CP Rail line
- More straightforward
- Option B is the route I drive to work but I think option A would be used more by bikers and walkers.
- More direct, less turns and industrial but must be wide enough and safe on Cahill
- Most direct route and does not go through so much industrial/commercial area. This option could be screened with landscaping from the residential and commercial properties adjacent, protecting both from unwanted noise and views.
- Less traffic on that route
- Straightest, easiest, fairly good road.
- Location provides for easier access to retail space, school, parks, etc.
- Option A would be a better choice due to the nicer scenery. It would also make it easier for people to access Lewis Park and there are less corners and turns compared to option B
- It looks more scenic
- Far less traffic and cars
- Biking to work at Norman Lake Center
- While I don't live in this area, I can see that option A goes

through a residential area and would provide for a good corridor for traveling throughout the neighborhood and into the bordering retail area. I also believe that this trail would be more useful and productive than one that goes through what appears to be an industrial or commercial area.

- Cahill road is the most direct
- Cahill road is shaded
- I like Cahill but either route would be fine

Why did you choose Option B?

- It seems more direct and is shorter.
- Nicer scenery because of the additional Nine Mile Creek Trail routing.
- Makes a direct connection to my place of work.
- It would better serve the many jobs in the Edina Industrial Park
- Safer roads
- Less traffic?
- It works great for my personal use and I see a lot of people walking on the Ohm and the traffic gets very busy as times. I believe families would use option B to get to Hyland also!
- It's away from my house
- Less traffic
- More people would use it because streets are quieter and it avoids the 70th/Cahill hill. I do like the Option A connection to Lewis Park, though. Both are good, but both also cross the hairy 78th/Bush Lake Road intersection. That's the hard part
- Many people enjoy walking over lunch in the industrial park. Currently it is not very pedestrian-friendly, and Option B would really help.
- Because it passes my work and a few restaurant options.
- I work on Option B
- There is a brewery & taproom opening soon right on the option B route at Bush Lake Road and 74th. This would make it easier and safer to bike there.
- Covers more ground within the area.
- Convenient
- Near things I'd want to visit
- More would be accessible
- Option B goes by Wooden Hill Brewing Company and then goes right by my work. Perfect!
- Work in the industrial park that option b runs through
- Close to work
- Cahill is too busy of a street to accommodate a bike path and option B will link to the brewery and go near the ice arena

- Seems to make the most sense with current trails in place
- Better access to retail and other parks from where I live
- Access
- Live by
- For all the above reasons.
- Connects to everything and has less major intersections making it safer for bikers
- Because it ties the residential part of the area into the commercial part. It shows off more of the community. Makes it feel a lot more like Northeast Minneapolis in that sense that there is access by foot, bike, and car to all of the local businesses. Would bring much needed vibrancy to an otherwise small-scale stale area.
- It would lead to my workplace from the south
- I just like to use that route
- This is the route I ride on my way to work - I work at QBP
- Closer to my church so we could bike to church from home.
- Closer to my point of entry onto the path
- I live in South Minneapolis so this route is more direct.
- This is already the route I use for biking to work at QBP from SW Mpls
- Proximity to where I live
- Safer on a bike
- This is the more direct route between my home (South Minneapolis) and my work in West Bloomington.
- Would be more direct if I came through this corridor headed to/from Hyland park
- Side streets
- Job location
- I bike through this area in a regular basis and B is the typical direction I go. It has a good flow to it.
- Option B provides better connection from east. Plus with bike lanes already on Cahill could add bike lanes to 78th to provide Option A connection for commuter cyclists. The two are very close in positive impact. Option A likely slightly more pleasant experience especially for walking. However, Option B is the better overall route connecting from north and east. And perhaps in future Ohms Lane area redevelops to provide better commercial, restaurants, public space, housing, business, etc opportunities.
- Most accessible
- Closer to my house
- Preferred route from my location to Hyland.
- Less traffic, less hilly
- I am more likely to use the path for fun/exercise than other purposes
- Cahill is pretty but it is long and flat, with traffic that goes much faster

- The Cahill-78th street intersection scares me as a cyclist.
- More directional variety
- Cahill is a very busy road, I'd be concerned with interacting with traffic, especially at the intersection of Cahill and 70th
- No sidewalk there, would be nice to have to walk from BI to retail
- Closer to my work!
- I bike near here often - Option B just makes more sense
- Passes by my workplace
- More convenient to more business and school traffic. In addition, I would use this option more.
- It would open up a safe route to my workplace.
- While option A might offer a more tranquil route, Option B offers closer access to restaurants/a coffee shop. Either Option, though, will be welcomed and I will cycle it frequently.
- I would prefer biking on a route that is not along a busy car route as on Cahill.
- More scenic, less traffic

SUBSEGMENT A4 ROUTE EVALUATION RIDE

On August 23, 2017, project team members from the Park District, Toole Design Group and the City of Edina conducted a route evaluation bike ride to analyze Option A and Option B in Subsegment A4 of the CPRRT. Aerial maps and property line data was referenced during the analysis and route alignment notes were recorded. During the bike ride the group stopped at various points along the route to discuss criteria for a regional trail, including implementation feasibility, community connectivity, safety and comfort, anticipated trail users and existing guidance from other local plans. **Table D-1** on the following pages displays notes from the ride that evaluated route Option A and Option B against various criteria.



Table D-1: Subsegment A4 Options A and B route alignment evaluation

Category	Criteria	Option A: Cahill Road	Option B: Industrial Park	Notes	A or B?
Safety and Comfort	Sight lines	Route evaluation ride participants generally agreed the sight lines were good along this route	Route evaluation ride participants generally agreed the sight lines were good along this route		Inconclusive based on route evaluation ride
	Trees/shade	Route evaluation ride participants generally agreed there was good tree shade along this route	Route evaluation ride participants generally agreed there was moderately good tree shade along this route		Inconclusive based on route evaluation ride
	# of driveway/intersections	18-27	20-22		Inconclusive based on route evaluation ride and the count depends on side of street for each option
	Complexity of driveway/intersections	Bush Lake Road at 78 th Street needs adjustment to signal timing and configuration; Cahill at 78 th Street is constrained and includes turning movements and a lot of traffic	Bush Lake Road at 78 th needs signal timing adjustments; Bush Lake Road is unsignalized as it jogs east then north and would need some improvements		Inconclusive based on route evaluation ride
	Directness	3-4 turning movements between the I-494 bridge and the trail entrance on 70 th Street	3 turning movements between the I-494 bridge and the trail entrance on 72 nd Street		Inconclusive based on route evaluation ride

Category	Criteria	Option A: Cahill Road	Option B: Industrial Park	Notes	A or B?
Implementation Feasibility	ROW constraints/opportunities	Likely more resistance to getting rid of bicycle lanes to make up space for a trail; Needs more analysis (parcel data)	Needs more analysis (parcel data)	As for changes to existing bicycle infrastructure, participants in the route evaluation ride indicate a higher likelihood of resistance to removing bicycle lanes on Cahill (Option A)	B, but needs more analysis of ROW
	Requires redesign of major intersection(s)	Two intersections: Bush Lake Road/78 th Street and Cahill/78 th Street	Two intersections: Bush Lake Road/78 th Street and Bush Lake Road/Edina Industrial Boulevard	Based on the route evaluation ride, it appears Bush Lake Road/78 th Street has more room for addressing intersection redesign, but further analysis would be needed; Cahill Road/78 th Street is constrained because of the bridge	Likely B, but needs further analysis of intersections
	Requires redesign of bridge(s)	Two: Bush Lake Road/I-494 and 78th/railroad	One: Bush Lake Road/I-494	Bush Lake Road/I-494 bridge will require some adjustments for both options; The bridge at 78th Street over the RR/industrial area would need more ROW for a trail; Vehicular traffic is at capacity according to the City of Edina, so reallocating existing space is not feasible	Likely B. A new trail bridge over the railroad is possible, but very expensive
	Utilities in the way	Most utilities near the roadway edge on the east side of Cahill Road	Fewer utilities than Option A	Based on the route evaluation ride, it appears Option A has more utilities and that they are located closer to the roadway than Option B, but further analysis would be needed to confirm	B, but needs further analysis to confirm
	Number of street crossings (controlled)	3-4 depending on side of street	1-2 depending on side of street	Difficult to assess without assuming side of street	B, but depends on configuration
	Number of street crossings (uncontrolled)	1-2 depending on side of street	2-4 depending on side of street	Difficult to assess without assuming side of street	A, but depends on configuration
	Existing lighting/opportunity for good lighting	Not noted on route evaluation ride	Not noted on route evaluation ride		Needs further observation
	School bus, industrial vehicle conflicts	Likely fewer heavy vehicles than the industrial park area	Likely heavier truck traffic due to industrial land use	Based on land use, likely more potential for heavy vehicle presence in Option B, but further analysis needed to quantify the difference	A, but needs further analysis

Category	Criteria	Option A: Cahill Road	Option B: Industrial Park	Notes	A or B?
Community Connectivity	Connects people to parks	Soccer field	Trail connection to the east		Inconclusive based on route evaluation ride
	Connects residential	Connects to residential area west of Cahill Road	Connects to some residential, but less directly than Option A		A
	Improves walking opportunity	Existing sidewalk along Cahill Road; Sidewalk between trailhead on 70 th Street and Cahill Road has a gap and a desire line (worn "goat path") on the south side of 70 th Street	Many sidewalk gaps; Observed pedestrian walking in a bike lane	There is greater potential to increase walking trips in Option B because of the sidewalk gaps; The gap in Option A was relatively short	Likely B
	Serves lower income residents	Anecdotally during the route evaluation ride it was noted A is closer to middle income housing; Needs further analysis (look at Census data)	Anecdotally during the route evaluation ride it was noted B is closer to low income housing; Needs further analysis (look at Census data)		Possibly B, but needs further analysis
	More likely to serve interested-but-concerned riders	Soccer field nearby indicates families and kids as potential users	Anecdotally during the route evaluation ride it was noted B would capture more "interested-but-concerned" bicyclists		Inconclusive based on route evaluation ride
	Connects schools	Anecdotally during the route evaluation ride it was noted A would connect with high schools			Inconclusive based on route evaluation ride
	Connects people to jobs	Connects commute trips (north/south)	Currently popular QBP commuter route; Traverses a job center		Option B
	Improves commuter connections	Connects commute trips currently (north/south); Already has bike lanes, people would likely be resistant to getting rid of bicycle lanes even if a trail replaced them	Currently popular QBP commuter route; Connects to office an industrial jobs; Already has some bike lanes		Inconclusive based on route evaluation ride

Category	Criteria	Option A: Cahill Road	Option B: Industrial Park	Notes	A or B?
Community Connectivity (continued)	Benefits commuters from the north (South Minneapolis)		Route evaluation ride participants indicated B would be a better connection for South Minneapolis commuters than A		B
	Benefits commuters from the east		Route evaluation ride participants indicated B would be "less inconvenient" for riders to the west than A would be for riders to the east		B
	Benefits commuters from the west		Route evaluation ride participants indicated B would be "less inconvenient" for riders to the west than A would be for riders to the east		A
	Complements transit routes	Transit routes observed along Cahill Road	Transit routes observed in industrial park	These observations are based on the route evaluation ride, further analysis would provide more information about transit routes and connections	Inconclusive based on route evaluation ride

Category	Criteria	Option A: Cahill Road	Option B: Industrial Park	Notes	A or B?
Anticipated Users	Connects people to jobs	Likely connects commute trips (north/south)	Currently popular QBP commuter route; Traverses a job center		Inconclusive based on route evaluation ride
	Improves commuter connections	Likely connects commute trips currently (north/south); Already has bike lanes, people would likely be resistant to getting rid of bicycle lanes even if a trail replaced them	Currently popular QBP commuter route; Connects to office an industrial jobs; Already has some bike lanes		Inconclusive based on route evaluation ride

Category	Criteria	Option A: Cahill Road	Option B: Industrial Park	Notes	A or B?
Plan Guidance	Opportunity to be integrated in other planning effort	Option A falls within Small Area Plan zone for City of Edina			A
	Referenced in Metropolitan Council RBTN	RBTN alignment indicates north of I-494 the alignment continues on Bush Lake Road until it meets Edina Industrial, then terminates at Metro Boulevard; Neither alignment (A or B) takes this path, but Route B aligns with it more than A does; Both options (A and B) fall within the Tier 1 Corridor search area	RBTN alignment indicates north of I-494 the alignment continues on Bush Lake Road until it meets Edina Industrial, then terminates at Metro Boulevard; Neither alignment (A or B) takes this path, but Route B aligns with it more than A does; Both options (A and B) fall within the Tier 1 Corridor search area.		
	Referenced in Edina Bicycle Plan	The plan does not identify a particular alignment for the connection, but it does indicate the general southern terminus at 70 th Street and Cahill Road	The plan does not identify a particular alignment for the connection, but it does indicate the general southern terminus at 70 th Street and Cahill Road		
	Referenced in Bloomington Active Transportation Plan	There is a desire line identified north of Bush Lake Road, heading directly north, but no specific alignment is identified for that segment	There is a desire line identified north of Bush Lake Road, heading directly north, but no specific alignment is identified for that segment		

EDINA OPEN STREETS

Project team members attended Edina Open Streets in September 2017, a public event in Edina where the streets are open for walking and biking and a variety of businesses and vendors set up booths in the street. Project team members gathered public feedback on an activity board, including trail alignment preferences and respondents' relationship with the study area. The results of trail alignment preferences are below:

- Option A: 18
- Option B: 5
- Equal Preference: 8

Staff also documented comments that people made in individual conversations. Respondents that prefer Option A made the following comments:

- Cahill road is the most direct
- Cahill road is shaded
- I like Cahill but either route would be fine

Respondents that prefer Option B made the following comments:

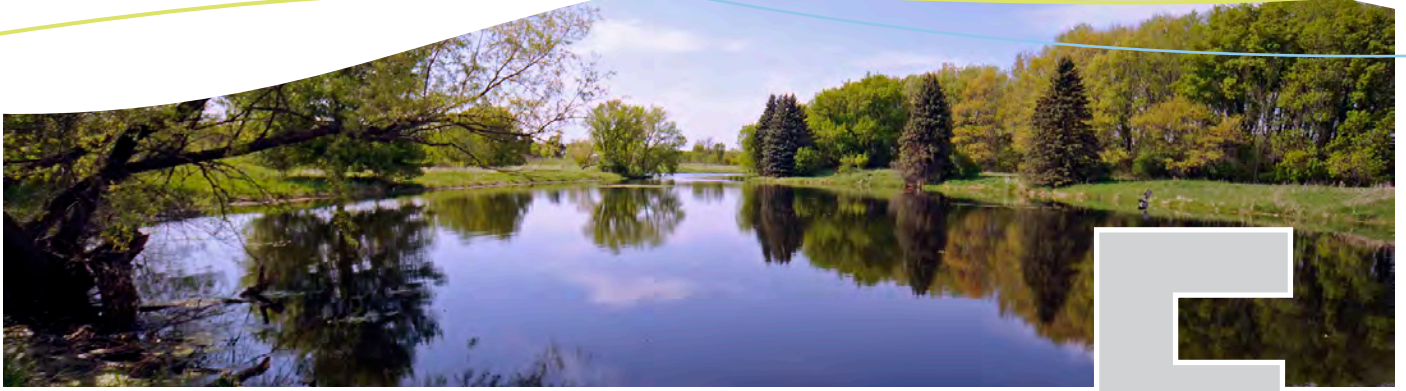
- I don't want anything to happen to Cahill road - no construction
- The intersection of Bush Lake Rd and 78th is bad for cyclists
- Cahill has a lot of traffic
- Ohms Lane is right by my office

The image shows a survey board titled "CP Rail Regional Trail - Route Options Survey" with logos for "Three Rivers Park District" and "Toole Board". The board is divided into two main sections. The left section asks, "If you had to choose one route for a new trail, which option would you select?" and has three columns: "Option A", "Option B", and "Equal Preference". The right section asks, "What is your relationship with the study area?" and has three rows of questions. Handwritten responses are provided using checkmarks and tally marks.

Question	Option A	Option B	Equal Preference
If you had to choose one route for a new trail, which option would you select?	18 checkmarks	5 checkmarks	8 checkmarks
I live along or near (within about 1/2 mile) the area.	18 checkmarks	5 checkmarks	8 checkmarks
I work along or near (within about 1/2 mile) the area.	18 checkmarks	5 checkmarks	8 checkmarks
I walk or bike regularly (more than once/month) along or near (within about 1/2 mile) the area.	18 checkmarks	5 checkmarks	8 checkmarks
From which direction are you approaching the study area (N.S.E.W)?	18 checkmarks	5 checkmarks	8 checkmarks

An engagement activity board used by project staff to gather public input at Edina Open Streets.

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APPENDIX E

RESOLUTIONS OF SUPPORT

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