

Bruce Vento Trail Master Plan Amendment
Draft

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1. PLANNING FRAMEWORK

1. 1. OVERVIEW

The Bruce Vento Trail is a seven-mile multi-use trail from downtown Saint Paul to Buerkle Road in Maplewood and is part of a planned thirteen-mile trail that will extend an additional six miles from its current terminus at Buerkle Road to County Road J/the Ramsey County line with Washington County. The purpose of the Bruce Vento Trail Master Plan Amendment is to guide the development, preservation, management, and improvement of the Bruce Vento Trail under the jurisdiction of Ramsey County. The entire extent of the future trail once built will bisect Ramsey County from Kellogg Boulevard in Downtown Saint Paul to County Road J at the border of Ramsey and Washington County in White Bear Township. The extent of Bruce Vento Trail and its context within the Twin Cities metro area is shown in Figure 1.



Figure 1. Location of Bruce Vento Trail Within the 7-County Metropolitan Area

This Master Plan Amendment replaces and updates the 1993 Ramsey County Master Plan for Burlington Northern Regional Trail Corridor. The length of trail which is covered by this Master Plan Amendment is the northern section of the trail under Ramsey County Parks and Recreation jurisdiction, which extends from Larpenteur Avenue to the border of Washington County at County Road J. The segment of Bruce Vento Trail south of Larpenteur Avenue is under the jurisdiction of the City of Saint Paul and discussion of this segment is included only for reference - no proposals are made for the trail south of Larpenteur Avenue. This Master Plan Amendment is written to fulfill the requirements of the Metropolitan Council for regional linking trails for as outlined in the 2040 Regional Parks Policy Plan and the expectations set in the 2018 Ramsey County Parks and Recreation System Plan, included as Appendix B.

1. 2. HISTORY

Before it became the Bruce Vento Trail, the corridor was once 7 miles of a railroad that linked the cities of Saint Paul and Duluth, Minnesota. Originally laid in 1870, the rail line eventually came to be owned by Burlington Northern as part of the Burlington Northern Corridor/Phalen Creek Line in 1970. By 1986, the southern portion of the railway – from Kellogg Bridge in Saint Paul to Beam Avenue in Maplewood - was abandoned and track was removed by Burlington Northern. In 1992 the right-of-way of this section was purchased by Ramsey County Regional Railroad Authority and was designated as a regional recreational trail with potential future use as a light rail transit line. The City of Saint Paul, Ramsey County, and the Ramsey County Regional Railroad Authority agreed to a joint powers agreement for development and operation of the future trail.

1. 2. 1. 1993 MASTER PLAN FOR BURLINGTON NORTHERN REGIONAL TRAIL CORRIDOR

In 1993 Ramsey County Parks and Recreation published its Master Plan for Burlington Northern Regional Trail Corridor. The extents of the 1993 Master Plan included the abandoned Kellogg Avenue to Beam Avenue section (approximately six miles of trail), as well as a plan for extending the trail to the Ramsey/Washington County line to the north. At the time, the existing railroad corridor north of Beam Avenue to the county line was still in operation. However, the 1993 Master Plan anticipated future abandonment of the northern railroad segment and thus included it in the document as a future alignment for the trail.

Through the 1990s, portions of the trail extent south of Beam Avenue were paved. It was designated the Bruce Vento trail in 2001 honoring Bruce Vento, a member of the US House of Representatives recognized for his environmental efforts. By 2005, the Phalen Boulevard segment was completed and paved creating the continuous seven-mile segment of the Bruce Vento Trail between Kellogg Avenue and Buerkle Road as it is known today. The remaining trail to the Washington County line/County Road J as envisioned remains unbuilt. The trail plan outlined in the 1993 Master Plan is updated and revised in this Master Plan Amendment.

This Master Plan Amendment document covers the portion of trail under Ramsey County Parks and Recreation jurisdiction and includes references to the Saint Paul segment only for reference. The trail is divided between jurisdictions at Larpenteur Avenue. Between the trailhead at Bruce Vento Nature Sanctuary in Downtown Saint Paul and Larpenteur Avenue in Maplewood, the trail is operated and maintained by Saint Paul. Between Larpenteur Avenue and County Road J/the Washington County Line in White Bear Township, the trail is owned and operated by Ramsey County Parks and Recreation. This Master Plan Amendment updates the 1993 Master Plan for the Ramsey County Parks and Recreation owned and operated section of the trail.



Figure 2. Historical Image of the Burlington Northern Railroad Station in Maplewood, MN¹

¹ Historical image from the City of Maplewood website, accessed 11/6/2019 <https://maplewoodmn.gov/1695/Bruce-Vento-Trail>

1. 2. 2. CONNECTION TO RUSH LINE BRT

Since the completion of the Bruce Vento Trail to Buerkle Road, there have been new developments which could alter the trail’s current location. The 7-mile segment of the Ramsey County Parks and Recreation-controlled rail right-of-way from Johnson Parkway in Saint Paul to Beam Avenue in Maplewood has for years been open for potential transit use. Early planning efforts identified this corridor as a possible light rail transit (LRT) route, but further studies determined bus rapid transit (BRT) as the preferred and most effective transit mode to provide for the transportation needs of northern Ramsey County communities. An Environmental Assessment phase with advancement to approximately 25% Preliminary Design is currently underway to evaluate the Rush Line BRT Line, which will extend from Union Depot in downtown Saint Paul 14 miles north to downtown White Bear Lake. This environmental assessment is expected to be completed by early 2021.

In the Ramsey County Parks and Recreation rail right-of-way, the BRT guideway will be co-located with a reconstructed Bruce Vento Trail. As a part of Environmental Assessment effort, a design guide is been developed as a planning tool for comprehensively designing the corridor’s improvements. It is informed through in-depth community and stakeholder input including a visioning workshop, numerous events on the Bruce Vento Trail, and through informational mailings and online surveys. The design guide area extends from the Arcade Street station on the south to the Buerkle Road station on the north, the extent of trail which will be realigned as part of the Rush Line BRT project. While the final alignment of this portion of the Bruce Vento Trail will remain in approximately the same location as the current trail, the construction of Rush Line will alter the specific position and access points of the Bruce Vento Trail.

Figure 3 shows a preliminary section perspective of the Rush Line guideway and the Bruce Vento Trail. The Rush Line’s Ramsey County Rail Right-of-Way Design Guide and plan sheets from the Rush Line BRT Environmental Assessment phase illustrating the current alignment and configuration of the trail and BRT is included as Appendix D.

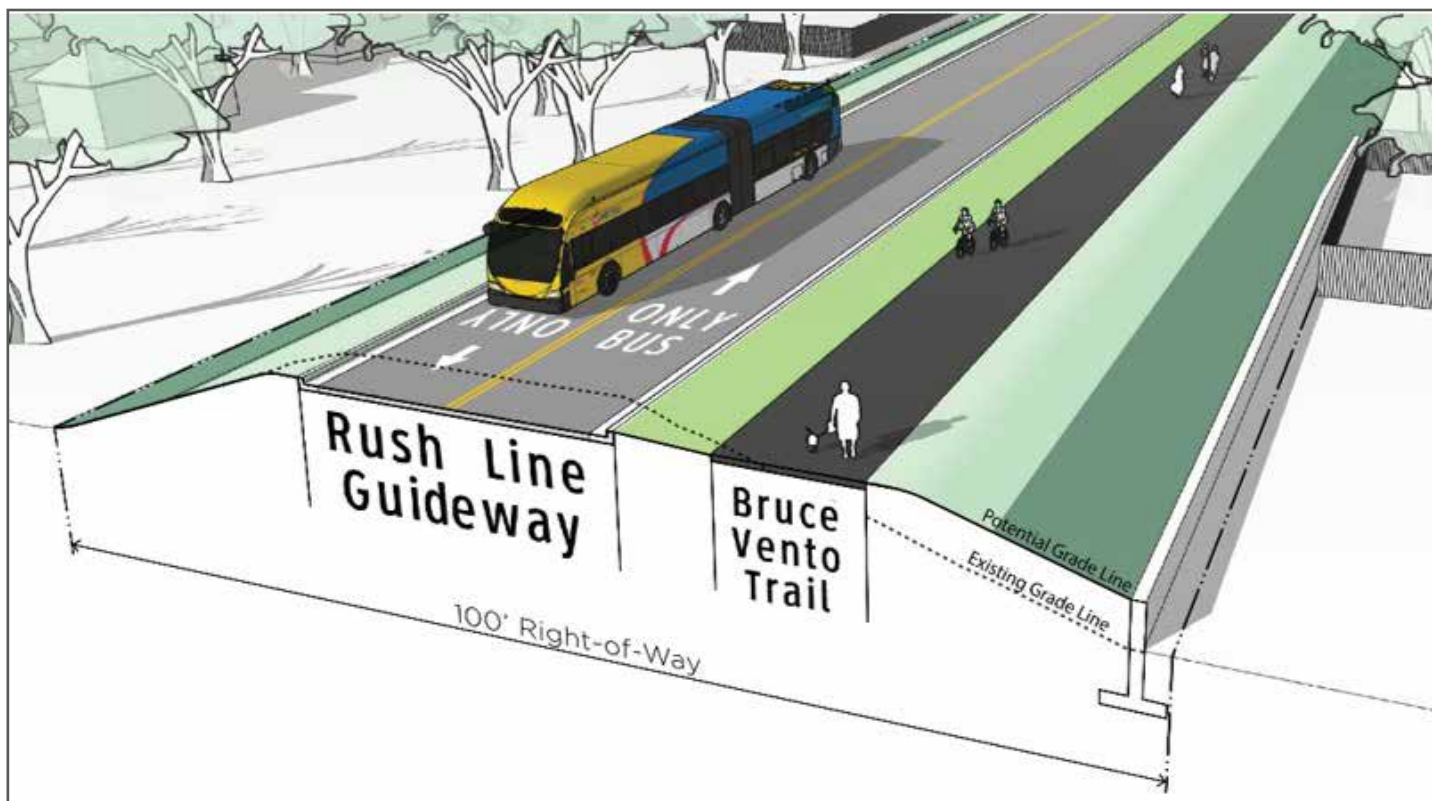


Figure 3. Section Perspective of a Typical Segment of the Rush Line BRT Guideway and Bruce Vento Trail Within the Ramsey County Rail Right-of-Way

1. 2. 3. TRAIL SEGMENTS OVERVIEW

For the purposes of this Master Plan, the trail is divided in to six segments:

- Segments under Saint Paul jurisdiction:
 - Segment 1: Downtown Saint Paul to Arcade Street - Built trail, included for reference but no modifications are proposed.
 - Segment 2A: Arcade Street to Larpenteur Avenue - Built trail, also included for reference, but modifications are proposed as part of Rush Line BRT.
- Segments under Ramsey County Parks and Recreation jurisdiction:
 - Segment 2B: Larpenteur Avenue to Buerkle Road - Built trail to be realigned as part of Rush Line BRT.
 - Segment 3: Buerkle Road to Whitaker Street - Trail currently under design and anticipated to be constructed in 2024 or 2025 pending solicitation of federal funds.
 - Segment 2C: Whitaker Street to White Bear Avenue - Future trail construction anticipated to be completed as part of Rush Line BRT.
 - Segment 4: White Bear Avenue to County Road J - Northern extension alignment for future construction.

These above segments are shown in Figure 4. The scope of this Master Plan includes only the segments that are operated and maintained by Ramsey County Parks and Recreation, starting at Larpenteur Avenue and north to County Road J, Segments 2B, 3, 2C, and 4. The trail between Downtown Saint Paul and Larpenteur Avenue is under the jurisdiction of the City Saint Paul and discussion of these segments is provided for reference only. The segments which will be designed and constructed as part of the Rush Line BRT project (further detailed in Section 1. 4. 1) are labeled as segments 2A, 2B, and 2C.

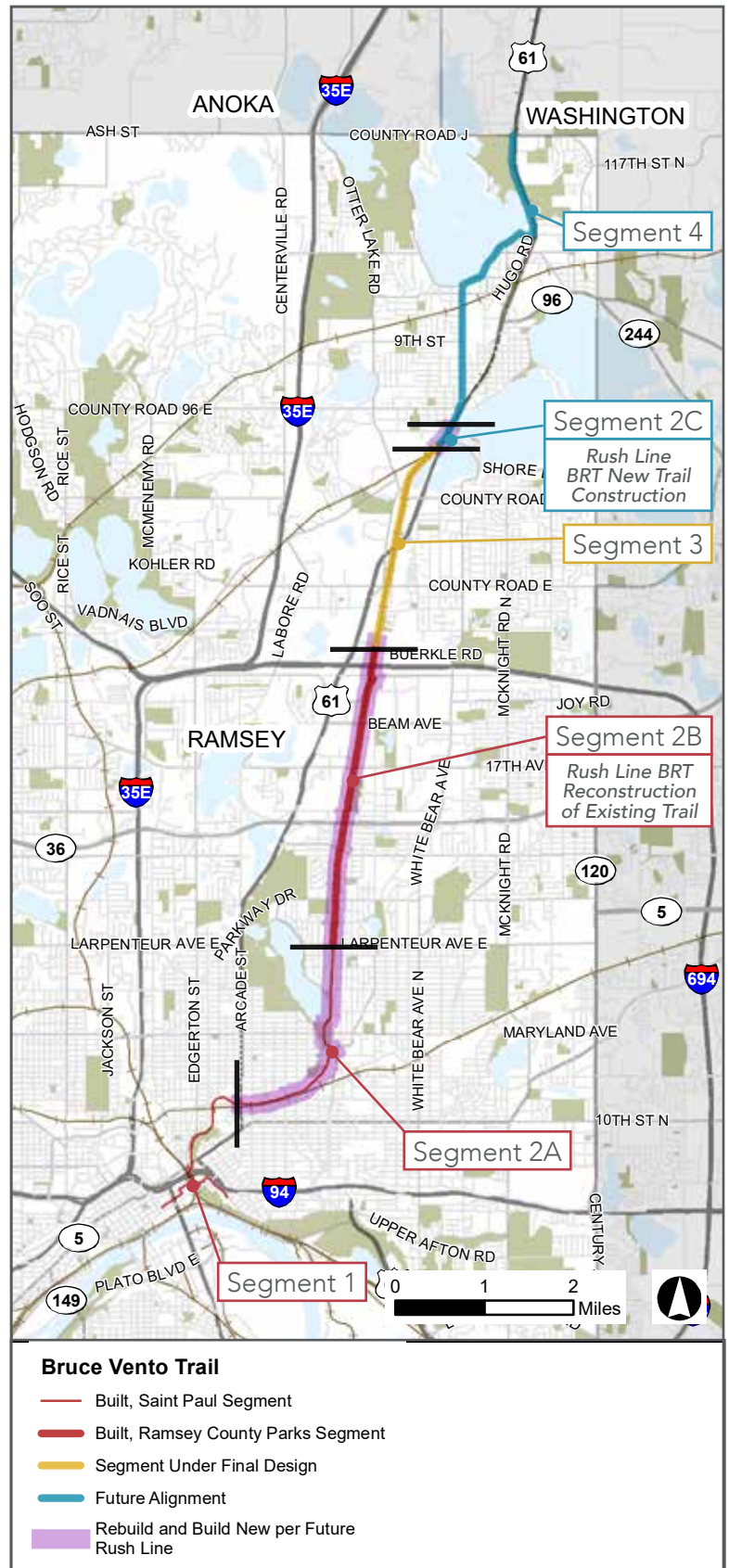


Figure 4. Bruce Vento Trail Segment Status

1. 3. PUBLIC ENGAGEMENT AND MUNICIPAL SUPPORT

Public, stakeholder, and agency engagement for the Bruce Vento Trail occurred over the development of multiple projects and planning studies over the course of several years. The sections below summarize the engagement events conducted.

1. 3. 1. ENGAGEMENT RELATED TO RUSH LINE BRT

During the summer of 2019, Ramsey County Public Works and Ramsey County Parks and Recreation performed engagement activities to develop a visioning framework to guide the design of the Ramsey County rail right-of-way corridor which considered both the Rush Line BRT and the Bruce Vento Trail facilities. Tools used included a virtual tour of the Ramsey County Rail Right-of-Way area and a visual preference survey addressing elements such as trail/BRT separation, grade separation, landscaping, stormwater treatment, fencing, buffer/screening, trail lighting, trailhead, and amenities. This information was valuable in informing the development of the Ramsey County Rail Right-of-Way Design Guide document, which includes general to detailed design treatment objectives for both BRT and trail facilities. The 2020 Rush Line BRT Ramsey County Rail Right-of-Way Design Guide can be found in Appendix F.



Figure 5. Ramsey County Rail Right-of-Way Design Guide “Tuesdays on the Trail” Event, June 2019

Key preferences and takeaways understood during this engagement series included:

- The top priority for right-of-way elements was safety and security.
- Participants indicated that they would continue to primarily use the right-of-way once Rush Line BRT was completed for recreational walking, running, bicycling, or using a mobility device.
- Strong preference for the preservation of existing vegetation to both retain the natural character of the corridor and provide a buffer/screen of the proposed improvements from adjacent residential properties.
- The preferred separation treatment between the trail and the BRT guideway was a linear stormwater swale (a shallow channel used to manage stormwater, with vegetation to slow the movement of water and aid in removing pollutants).
- Preference for trash/recycling receptacles, drinking fountains, and information kiosks among the trail amenities presented.

1. 3. 2. RAILROAD ENGAGEMENT

The proposed trail alignment is adjacent to the existing BNSF Railway-owned railroad for the entire length of Segment 3 and approximately half the length of Segment 4. Ramsey County Parks and Recreation initiated meetings with BNSF Railway and Minnesota Commercial Railway representatives to discuss project issues given the proximity of the proposed Bruce Vento Trail to the railroad corridor. The first set of railroad engagement meetings were held from 2014 to 2016 as part of the preliminary design study. As part of later design meetings, four more meetings occurred with representatives of Ramsey County Public Works, Ramsey County Parks and Recreation, BNSF Railway and Minnesota Commercial Railway in 2018 and 2019.

Discussion topics and key takeaways from these meetings included:

- An understanding of the railroad's concerns and requirements for improvements adjacent to or within railroad property
- Potential opportunities to close an existing roadway crossing south of White Bear Avenue and make improvements to an existing pedestrian crossing at Whitaker Street. No new at-grade or grade-separated crossings are proposed as part of either the Bruce Vento Trail or Rush Line projects.
- Constructing trail improvements within the railroad property will be considered where feasible alternatives do not exist and when it is possible to maintain minimum of 50 feet of separation from track centerline. Trail within BNSF right of way will need to include safety/security fencing to keep trail users away from track.
- For deterring trail users from encroaching into the railroad property, including a fence in the trail project between the trail and railroad was strongly encouraged by railroad representatives.
- Trail alignment under the County Road E and Highway 61 bridges will occur within the railway right-of-way and should be located a minimum of 50 feet from the existing track centerline.
- Segment 3 plans will be provided to railroad representatives at design milestones for review and approval of proposed trail elements within BNSF right of way.
- Discussion of potential trail alignments adjacent to the BNSF track through downtown White Bear Lake (Segment 4) concluded that inadequate separation could be achieved to allow a trail within BNSF right-of-way north of County Road J.
- The trail located with railway right-of-way would be by permit instead of acquisition of easement.

1. 3. 3. BRUCE VENTO TRAIL PUBLIC ENGAGEMENT

While Segments 3 and 4 are separated into different design projects, engagement events were held in order to facilitate public input on both the current design project (Segment 3) and the future northern alignment to County Road J (Segment 4). Engagement events occurred prior to the identification of Rush Line BRT station areas, and included discussion of trail alignments between Buerkle Road and Highway 96. Ramsey County Parks and Recreation held two initial public open houses for the trail extension north of Buerkle Road alignment of Bruce Vento Trail on May 18, 2016 and May 25, 2016. The public meetings offered and opportunity for residents and other stakeholders to provide input on the proposed alignments and design considerations related to a future extension of the Bruce Vento Trail. A combined total of 55 residents and stakeholders attended the two open house events.

When it became clear that the future Bruce Vento Trail could not be constructed in railroad right-of-way due to the continued operation of BNSF rail north of Buerkle road, engagement events were held to further refine alternative options for getting the trail to County Road J on alternative corridors. In 2018, Ramsey County Parks and Recreation initiated a planning study to refine alternative regional trail alignment corridors outside of the right-of-way and provide a basis for this Master Plan document. This second study was specific to the trail between Highway 96 and County Road J (Segment 4) and included two engagement meetings on October 4, 2018 and October 25, 2018.

The alignment of the future trail segment was further refined following the two rounds of 2018 engagement. Over the following year, the concept was further narrowed down to a single alignment following an additional open house in November 2019. The comments received in the final open house informed and ultimately selected the preferred alignment, with two potential alternative alignments, for the Bruce Vento Trail. A list of comments received and images of engagement materials from all five of these events are included in Appendix E. In addition to feedback received at open house events, Ramsey County Parks and Recreation also met with individual homeowners and commercial companies to discuss the trail alignment between Buerkle Road and County Road E.

General takeaways from these events and meetings included:

- 2016 events:
 - General support for trail design and proposed links to existing and proposed trails (Lake Links, Hwy 96 South Lake Shore, County Road E).
 - Overall connection for northern Ramsey County communities to the greater Saint Paul area was frequently mentioned as an advantage.
- 2018 events:
 - Relation of Bruce Vento Trail to downtown White Bear Lake was important.
 - Attendees liked that trail could make the downtown White Bear Lake area more bicycle and pedestrian friendly.
 - Flexible trail use was important to balance multiple modes in one area.
- 2019 event:
 - General support for the trail alignment and design by most.
 - Some concerns by avid bicyclists about the north segment trail routing through residential neighborhoods and not along Highway 61.
 - Ski club members concerned with maintaining trail access and loss of on-street parking along Hoffman Road during summer shows and events on Goose Lake.

1. 3. 4. INTERAGENCY COORDINATION

Ramsey County staff maintains working relationships with public agencies with jurisdiction over the trail corridor including the Cities of Saint Paul, Maplewood, White Bear Lake, Vadnais Heights and White Bear Township. Planning activities related to the trail corridor are communicated with the appropriate agency staff for input and feedback. Ramsey County also coordinates with the Minnesota Department of Natural Resources relative to the intersection of the Gateway Trail and Bruce Vento Trail in Maplewood and watershed organizations with jurisdiction over construction activities.

As a part of the development and refinement of plans for Segment 3 Ramsey County convened a Project Management Team which consisted of representatives from the City of White Bear Lake, White Bear Township, Vadnais Heights, BNSF railroad and Ramsey County Public Works and Rush Line leadership. This group provided feedback and direction on plan alignment alternatives, typical section details and identified planned local projects for consideration in the design of Segment 3 of the trail. Ramsey County staff were also members of the Rush Line Project Management Team, participating in decision-making on Rush Line issues, specifically those that required coordination with the Bruce Vento Trail planning and design.

1. 4. EXISTING CONDITIONS

The BNSF railroad right of way occupied by Bruce Vento Trail varies in width from 60 to 150 feet. In the built and future Rush Line BRT segments the paved trail is 12 feet in width. Adjacent amenities typically include benches and trash and recycling receptacles, as well as wayfinding and informational signage. In a few locations where the trail intersects with other trail facilities, there are bicycle repair stations and other special use facilities. The trail passes through a variety of areas, each with a different character depending on the land use of the adjacent property. It varies from a narrow industrial corridor on the east side of Saint Paul to a wider, more natural corridor in suburban sections.

The following sections outline the existing conditions of the Bruce Vento Trail by segment. An overall map of the trail is in Figure 4. As Segments 1 and 2A are under the jurisdiction of the City of Saint Paul, they are not included in discussion of this section except for where 2A will be reconstructed as part of Rush Line BRT.

1. 4. 1. SEGMENTS 2B AND 2C: SEGMENTS TO BE CONSTRUCTED BY RUSH LINE BRT

Segments 2A, 2B, and 2C are all segments of the trail that will be reconstructed or built new as part of Rush Line BRT. Segment 2A between Arcade Street and Larpenteur Avenue is under the jurisdiction of Saint Paul and is only included for reference. Segment 2B extends from Larpenteur Avenue through Buerkle Road. Both Segments 2A and 2B already have a completed, existing multi-use trail but will be realigned and reconstructed as part of the Rush Line BRT project. Segment 2C is farther north, from Whitaker Street to White Bear Avenue. This segment is not yet built and will be constructed as part of one of the future station areas included in Rush Line BRT. For these segments, the design and alignment of the trail is determined by the 2020 Rush Line BRT Ramsey County Rail Right-of-Way Design Guide, included in Appendix F. Final design for these segments is to be completed with the Rush Line design and construction schedule.

The following maps and images show what these existing trail segments look like today. A summary of the proposed changes to these trail segments under Rush Line BRT are included in Section 2.1.

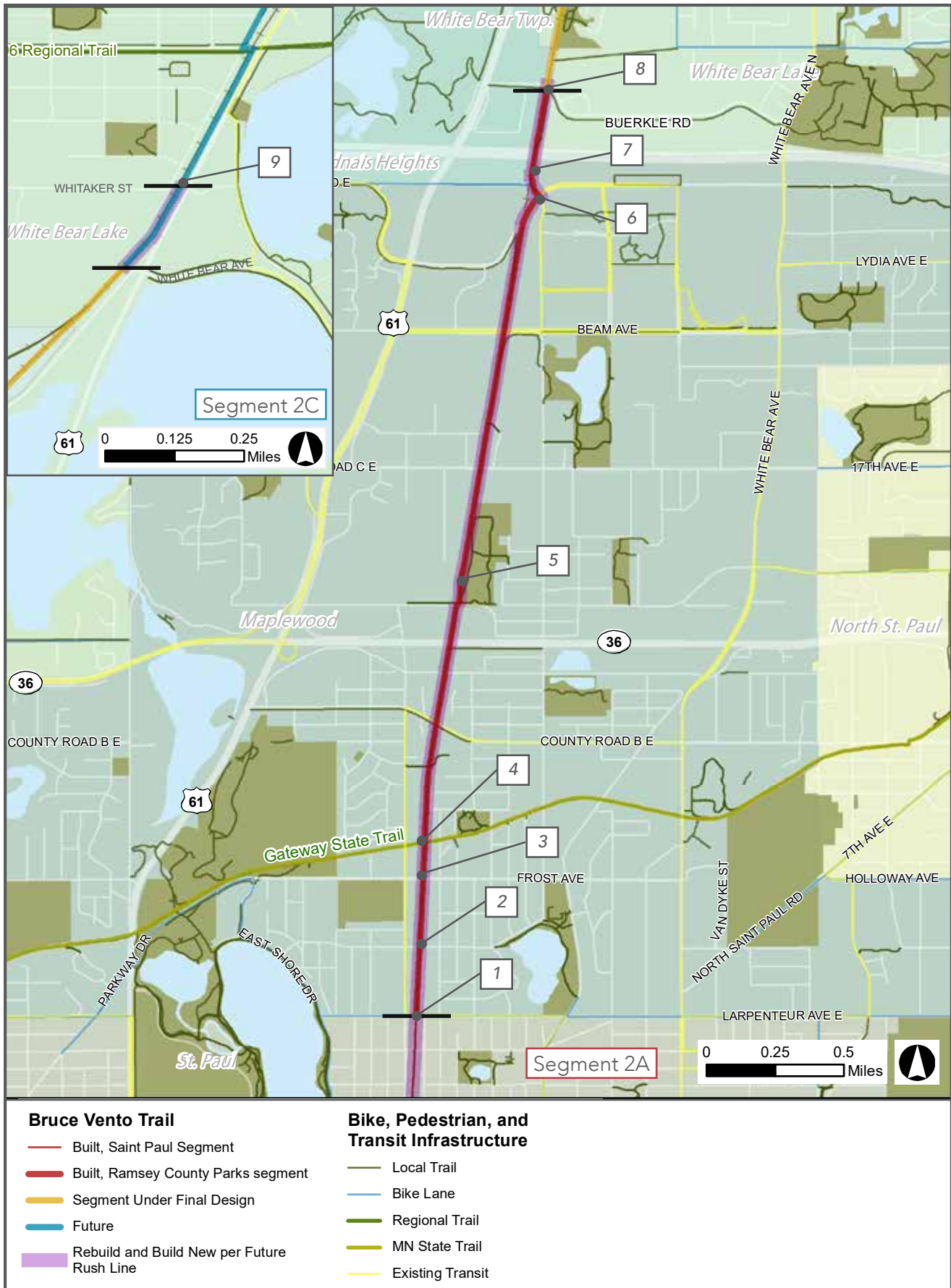


Figure 6. Segment 2B, Larpenteur Avenue to Buerkle Road; and Segment 2C, White Bear Avenue to Whitaker Street



1 *Trail crossing of Larpenteur Avenue, which delineates the Saint Paul segment from the Ramsey County segment.*



4 *Trail signage and bicycle repair facilities at the intersection with Gateway State Trail.*



7 *As the trail approaches its terminus at Buerkle Road the character becomes less wooded.*



2 *Trail signage with Ramsey County wayfinding standards.*



5 *Informational signage and bench along the trail.*



8 *Existing trail terminus at Buerkle Road.*



3 *The typical character for this segment of trail is residential, flat, and wooded.*



6 *Trail crossing at County Road D/ Hazlewood Street.*



9 *Intersection of Whitaker Street and Highway 61.*



Figure 7. Segment 3, Buerkle Road to White Bear Avenue

1. 4. 2. SEGMENT 3: CURRENT DESIGN PROJECT

Segment 3 is currently under design and will extend the trail from Buerkle Road to White Bear Avenue, essentially spanning the gap between the two Rush Line segments. This 2.7-mile extension will utilize City of White Bear Lake property, Ramsey County Public Works Property and BNSF railroad right-of-way to provide a trail where there are no current trail facilities. A map of this segment is to the left, along with existing conditions images, below. The plans for this section are described in Section 2.2 of this Master Plan.



1 *Vegetation and greenery adjacent to the BNSF right-of-way.*



3 *Highway 61 bridge crossing over BNSF.*



2 *Typical character of BNSF right-of-way.*



4 *Bicycle and pedestrian facilities are provided as wide shoulders along Hoffman Road.*



5 *Existing trail terminus at Buerkle Road.*

1. 4. 3. SEGMENT 4: FUTURE NORTHERN EXTENSION SEGMENT

After the Rush Line BRT realignment at Whitaker Street, the Bruce Vento Trail will travel north through White Bear Lake and White Bear Township to the Ramsey County/Washington County line at County Road J. Because the original trail alignment considered sharing the right-of-way with active railroad service, two feasibility studies for the northern extension starting at Highway 96 were conducted by Ramsey County, the first in 2016 and the second in 2018. The goal of the studies were to determine an alternative trail alignment outside of railway right-of-way. Initially there were multiple alignments under consideration determined by the first feasibility study, which are shown in Figure 8.



Figure 8. Northern Extension Potential Alignments from the 2017 Study

Based on public engagement comments and coordination with other agencies, the multiple alignments shown in the figure above were narrowed down to three main options for the Bruce Vento Trail in the later feasibility study. They are shown in Figure 9, with justification for the selection of Route 1 as the preferred route below:

- Route 1: Route 1 was identified as the preferred route through the downtown area for connection to Hugo Road. The route would extend along Bald Eagle Avenue to Bald Eagle Boulevard to Taylor Avenue and make connection to Hugo Road to reach County Road J. Buffalo Street and Park Avenue could be considered as alternative trail corridors for connection onto Hugo Road depending one-way consideration of Bald Eagle Boulevard.
 - Scored the highest in the routes survey at the November 19, 2019 community meeting.
 - Provided the most appealing trail alignment and atmosphere for a regional trail.
 - Less turns.
 - Good connections to the High School.
 - High quality viewing to Bald Eagle Lake.
 - Potential partnership/coordination with the White Bear Lake and Ramsey County Public Works for railway crossing improvements.
 - White Bear Lake desire to incorporate trail connections from Bald Eagle Avenue to downtown area.
 - Sections of Bald Eagle Boulevard should be reviewed for possible 1-way road configuration east of Bald Eagle Avenue.

- Could provide long-term trail loops between Bruce Vento Trail and Lakes Link Regional Trail. This would require partnership for potential city connections to create this loop.
- Route 2 and 3: Both routes were not favored due to the amount of turns through the residential areas for connection into either Division Avenue or Long Avenue. It was anticipated this route may be confusing to users of the regional trail corridor.
 - Scored the lowest at the November 19, 2019 community meeting.
 - Does not provide high quality trail use and atmosphere for a regional trail.
 - Does not fit into overall regional trail context for planning alignment routes.
 - High amount of turns.
 - Get you closer to downtown area.
 - Potential impact with existing road right-of way and public infrastructure.



Figure 9. Three Route Options from the 2019 Community Meeting

Section 2.3 provides more detail on the specific plan for this segment, based on the findings of the feasibility study. Route 1 is the preferred route that is shown but may be altered in the future due to continued studies in downtown White Bear Lake for potential long-term development of the school, Rush Line BRT project, and surrounding business development on Long Avenue. Investigations are anticipated to be completed over the summer of 2020 which will determine the impact of these studies on the Bruce Vento Trail northern extension alignment and provide a basis for an alternative to the preferred route or a reevaluation of the proposed alignment.

A map showing existing conditions in the northern extension feasibility study area and the preferred alignment is shown in Figure 10, with existing conditions images following.



Figure 10. Segment 4, Whitaker Street to County Road J



1 *Cul-de-sac at the southern end of Bald Eagle Avenue facing the intersection of Highway 61/County 96.*



4 *No shoulders or separated facilities exist along the narrow stretches of Bald Eagle Boulevard.*



2 *Parking and pedestrian facilities along Bald Eagle Avenue.*



5 *Existing conditions of Hugo Road.*



3 *The shoulder along Bald Eagle Avenue narrows as the road extends north.*

1. 5. EQUITY ANALYSIS & DEMAND FORECAST

Metropolitan Council adopted equity as one of the outcomes of the Thrive MSP 2040, stating that it “connects all residents to opportunity and creates visible housing, transportation, and recreation options for people of all races, ethnicities, incomes, and abilities so that communities share the opportunities and challenges of growth and change.”² In order to fulfill the requirements of the Metropolitan Council 2040 Regional Parks Policy Plan, the Bruce Vento Trail Master Plan Amendment must address the ways in which the proposed trail will strengthen equitable use of the Regional Park System. The Bruce Vento Trail is supportive of the following regional goals as set forth in this plan:

- Expanding the regional parks system to conserve, maintain, and connect natural resources identified as being of high quality or having regional importance.
 - The trail will directly benefit populations in multiple cities across Ramsey County, including Saint Paul, Maplewood, Gem Lake, Vadnais Heights, White Bear Township, and White Bear Lake. The trail will also connect to communities and trail facilities in Washington County, providing enhanced trail connections to communities across the metro area. Once the entire 13-mile trail is completed, it will fill a large gap in the Regional Bicycle Transportation Network (RBTN) as established by the Metropolitan Council, as well as provide separated facilities between Saint Paul and White Bear Lake, filling a gap in a largely urban portion of U.S. Bicycle Route 41 (USBR 41) between the cities of Saint Paul and Duluth, Minnesota.
- Providing a comprehensive regional park and trail system that preserves high-quality natural resources, increases climate resiliency, fosters healthy outcomes, connects communities, and enhances quality of life for the region.
 - The trail will expand the regional parks system to connect populations to natural resources and high-quality regional multimodal infrastructure. Further discussion of natural resources related to the trail is included in section 1.6. Bruce Vento Trail will serve as a new trail facility which will improve multimodal access throughout Ramsey County. Providing a multimodal trail encourages healthy transportation options, particularly in the area north of Buerkle Road where there are fewer separated bicycle and pedestrian facilities compared to more urban areas of the metro area.
- Promoting expanded, multimodal access to regional parks, regional trails, and the transit network, where appropriate.
 - As the Bruce Vento Trail is highly integrated with the future Rush Line BRT, the trail will enhance connections for those who bicycle, walk, or roll with transit facilities enhancing connections across the Ramsey County community and quality of life for the region. Multiple opportunities exist for the partnership between Bruce Vento Trail and Rush Line BRT to be complementary facilities, including enhanced intersection crossings, protected pedestrian and bicycle infrastructure and shared parking lots.
- Strengthening equitable use of regional parks and trails by all our region’s residents, such as across age, race, ethnicity, income, national origin, and ability.
 - Ensuring equitable use of the Bruce Vento Trail is a key component of this Master Plan Amendment. The trail will improve multimodal access between downtown Saint Paul and northern Ramsey County communities. An analysis of populations that will be served by the trail is included in sections 1.5.2 and 1.5.3.

2 <https://metrocouncil.org/about-us/why-we-matter/Equity.aspx#:~:text=Equity%20is%20recognizing%20institutional%20and,PROMOTE%20EQUITY%20IN%20THE%20REGION>. Accessed 7/16/2020

In addition to addressing regional goals set forth by Metropolitan Council, Bruce Vento Trail will fulfill specific equity goals set forth by Ramsey County. Ramsey County recognizes its role and responsibility in advancing racial and health equity within the county. The Ramsey County Racial Equity Policy³ specifically aims to advance racial equity by taking the following action, met by the Bruce Vento Trail: “apply an equity lens in all county programs, services, and decisions with an emphasis on transparency and inclusivity.” The Bruce Vento Trail project included multiple rounds of community engagement in order to ensure that the future alignment of the trail will best meet the needs of the communities that it serves. Preliminary studies for Bruce Vento Trail also included identification of low-income and minority populations within Ramsey County that will be served directly by the trail and the enhanced multimodal access to those communities that are more likely to not own a car. The trail will include links to local and regional park systems, in order to provide recreational access for residents whose mobility is limited by lack of vehicle ownership. The outcomes of engagement were accessible to the public and published on Ramsey County’s website to generate transparency in the planning process.

1. 5. 1. DEMAND FORECAST

Park and trail usage in Ramsey County and the greater metropolitan area is growing. As of 2018, Bruce Vento Trail saw 279,560 visits⁴, which is expected to increase once the trail is fully built. The trail extension to the north of Buerkle Road to County Road J will add multiple trail connections to other Ramsey County Parks and Recreation facilities which will increase access and usage for multiple communities within Ramsey County and for other users of the regional bicycle network. Additionally, the Ramsey County 2040 Comprehensive Plan projects population growth out to 2040, which is shown in the table below. This growing population will be served by the enhanced transit and trail connectivity of the Bruce Vento Trail.

Table 1. Ramsey County Population Estimates

2010 Census	2020 Estimate	2040 Estimate
508,640	550,120	595,220 (Metropolitan Council estimate) 583,771 (Ramsey County estimate)

The 2040 Regional Parks Policy Plan established by the Metropolitan council provides an understanding of what population will most benefit from a trail: “1/2 of trail users live within a 3/4 mile of a trail while 3/4 of users live within 3 miles”. The sections below show the populations within a 3/4-mile and 3-mile radius of the Bruce Vento Trail. These populations will receive the most direct benefit of the new trail connection provided by Bruce Vento Trail, alongside those regional trail users that will benefit from a new safe, separated trail throughout the RBTN and users that will benefit from the trail’s relationship with Rush Line BRT.

³ <https://www.ramseycounty.us/your-government/projects-initiatives/strategic-priorities/advancing-racial-and-health-equity-all-decision-making/advancing-racial-equity-policy>. Accessed 7/16/2020.

⁴ From the Metropolitan Council 2018 Use Estimates for the regional park and trail system.

1. 5. 2. INCOME AND ECONOMIC CHARACTERISTICS

The Bruce Vento Regional Trail benefits people with low-incomes, minority populations, populations with disabilities, youth, and elders by providing a safe, multi-use trail between housing, shopping, schools, jobs, services, and transit facilities. Based on land use and the job and activity centers shown below in Figure 11, the trail corridor is primarily residential, with pockets of commercial and industrial developments at Frost Avenue, Highway 36, Highway 694, Buerkle Road, and near the Maplewood Mall area. Because the trail is directly linked to Rush Line BRT, the trail will provide enhanced transit access to communities and businesses in these job centers, as well as to the residential areas to the north and south.

In Saint Paul, the existing trail already passes through a large job and activity center, as well as a large Area of Concentrated Poverty. The income in the area of the trail in Ramsey County is typically between \$50,000 and \$75,000, 50-75% of the area median income for the Twin Cities metropolitan area, shown in Figure 12. In White Bear Lake, the trail corridor includes median income slightly higher than Saint Paul. The Bruce Vento Trail will enhance access for communities of low-income in Saint Paul with communities, jobs, and activity centers in northern Ramsey County. The trail's planned connections to Rush Line BRT and to the existing Metro Transit bus route 265 (Saint Paul to White Bear Lake) will provide safe and comfortable bicycle and pedestrian network for transit riders in Ramsey County, which will benefit low-income populations more likely to rely on foot, bicycle, or transit to reach their destinations.

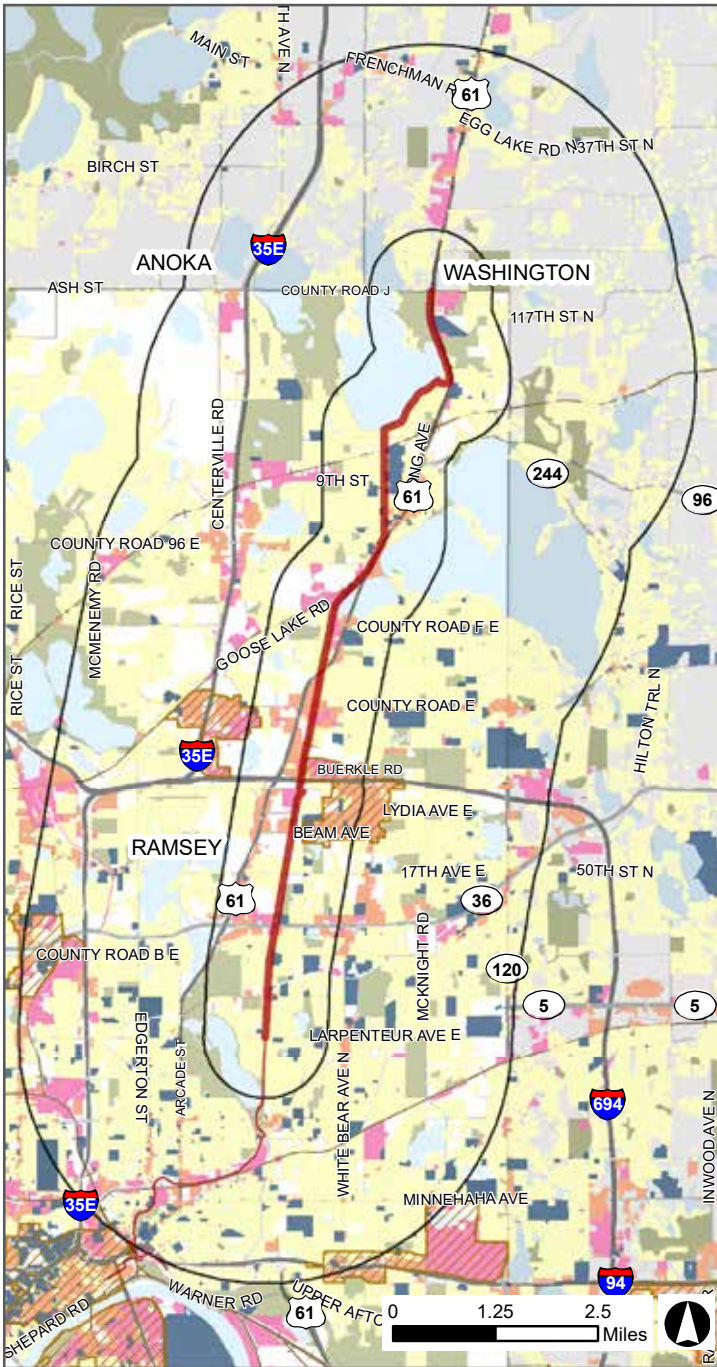


Figure 11. Land Use, Jobs and Activity Centers

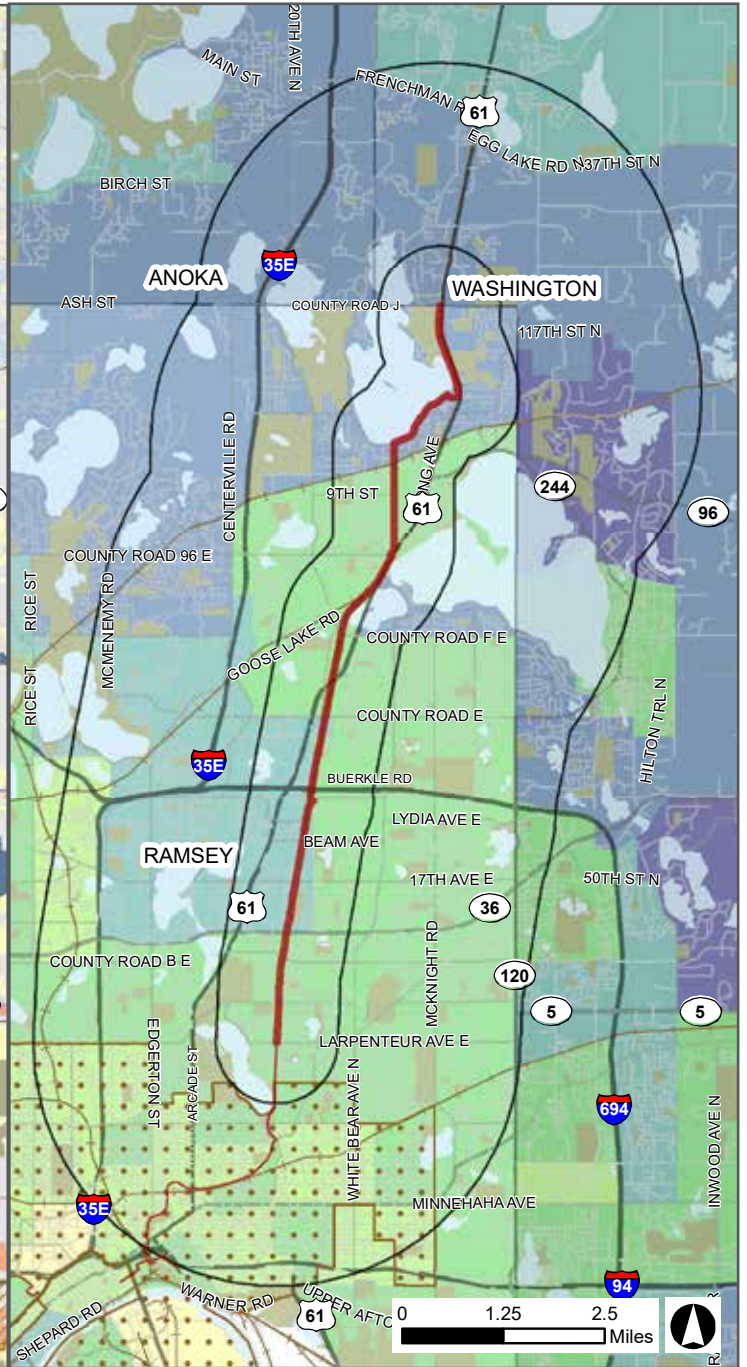


Figure 12. Median Income and Areas of Concentrated Poverty

1. 5. 3. DEMOGRAPHIC CHARACTERISTICS

The Bruce Vento Trail will serve populations of all ages, from 8 to 80 along the trail. As seen in Figure 13, there are a number of pockets with high populations of youth under 18 near the trail at its southern terminus at Larpenteur Avenue and another pocket near the commercial area adjacent to Highway 494. At its northern terminus, the project provides a connection for a substantial population of children in White Bear Township census tract 405.04, where 20% of residents are under age 15. Bruce Vento Trail provides a safe walking and biking route to families, children and students within a half-mile of multiple schools including Willow Lane Elementary, White Bear Lake Area High School, White Bear Lake Area Middle School, Weaver Elementary, Frassati Catholic Academy, and Central Middle School.

There are also significant populations of elderly over 65 in White Bear Lake and White Bear Township, shown in Figure 14, which will equally benefit from multimodal trail access in order to access the regional trail system and the Rush Line BRT. Several senior housing properties are located within a half-mile of the trail, including the Walker Methodist Pioneer Manor, the Waters of White Bear Lake, the Willow Wood Apartments, the Ecumen Seasons at Maplewood, and Gracewood Senior Living. Expanded trail and transit access provided by the trail will allow these populations more recreation opportunities and access to places to shop, work, and play.

The Bruce Vento Trail will provide significant multimodal access to minority populations living near the proposed trail, which are shown in Figure 15. The trail alignment includes two areas in White Bear Lake with higher than average shares of the population that are people of color. Additionally, the southern end of the trail at Larpenteur Avenue connects neighborhoods in northern Saint Paul with high concentrations of minority populations (greater than 30% of the population) to northern communities in northern Ramsey County. The full alignment of the Bruce Vento Trail will greatly enhance multimodal connectivity throughout the region, allowing communities in Saint Paul to reach Maplewood, White Bear Lake, Vadnais Heights, and White Bear Township on new facilities that enhance connectivity across the RBTN. The Bruce Vento Trail will provide long-term benefits to populations that are more likely to rely on public transit or multimodal facilities to reach their destinations.

Disabled populations, shown in Figure 16, will benefit from the Bruce Vento Trail in its close relationship to Rush Line BRT. High concentrations of disabled populations exist in White Bear Lake, which aligns with higher concentrations of elderly populations as described in the previous section. White Bear Lake census tract 404.01 identifies 15% of residents living with a disability. Rebuilding the trail with Rush Line will improve transit access for those populations getting to and from Saint Paul and provide separated, ADA-accessible trail facilities for disabled populations looking to access communities in northern White Bear Lake. There are 10 Rush Line BRT station-stops that will be directly adjacent to Bruce Vento Trail and at all of these locations enhanced pedestrian crossings, improved ADA infrastructure, and multimodal design will increase intermodal access throughout the region. These locations will include ADA improvements to ease the transition between the multimodal trail and transit facilities for disabled users

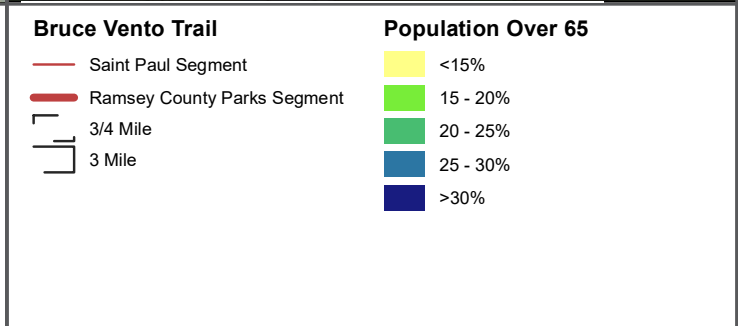
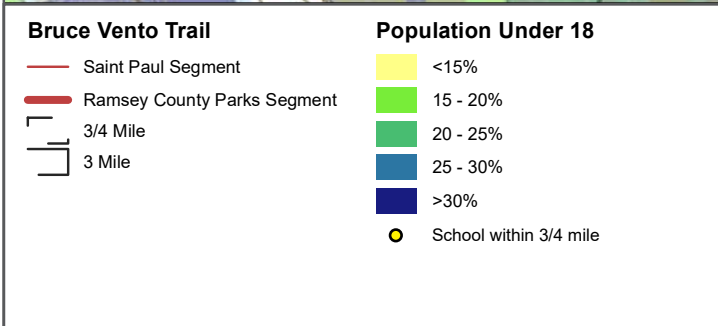
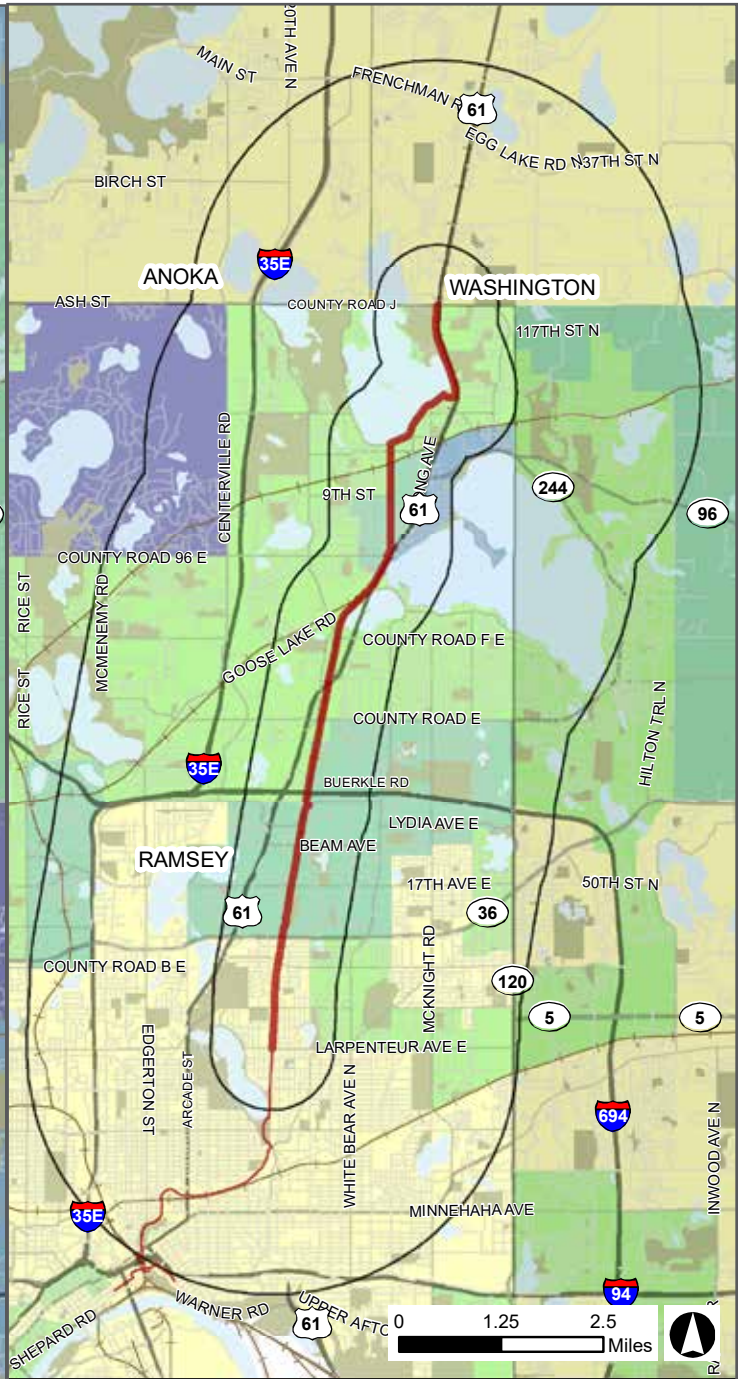
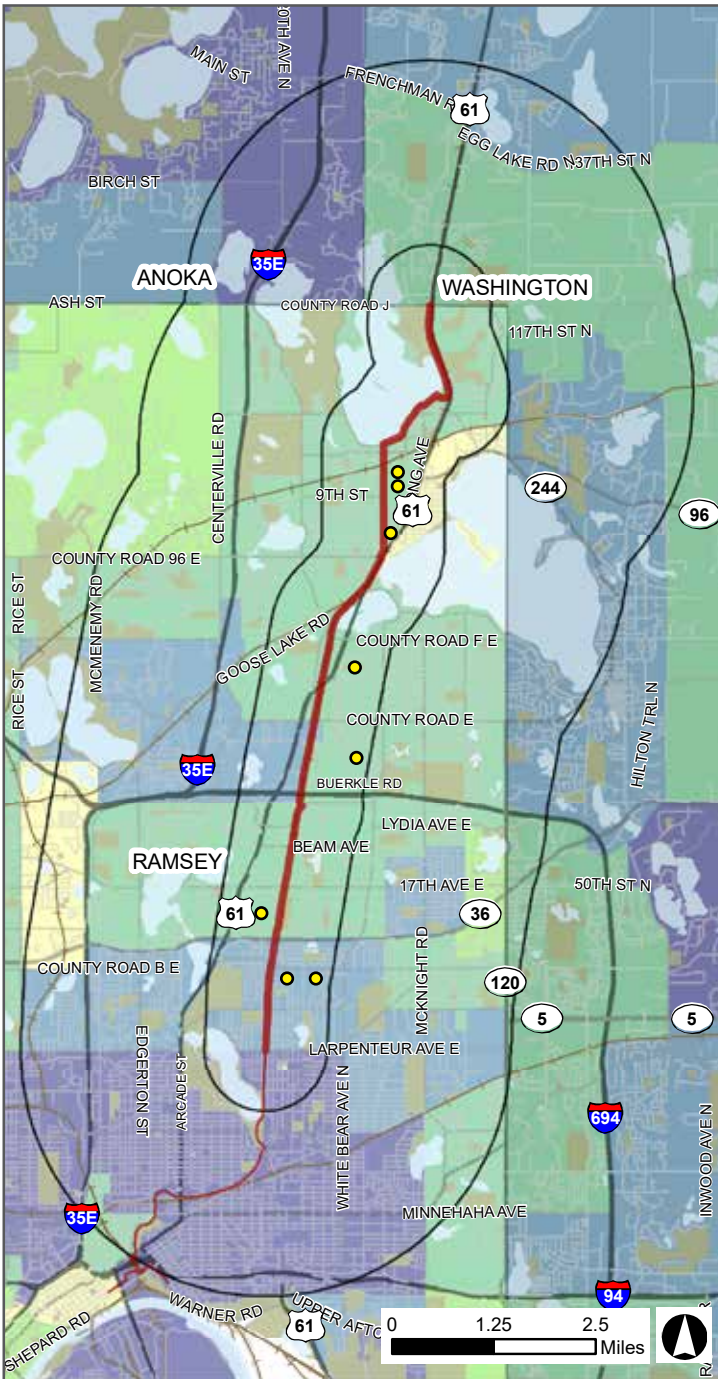


Figure 13. Percentage of Population 18 and Under Figure 14. Percentage of Population 65 and Over

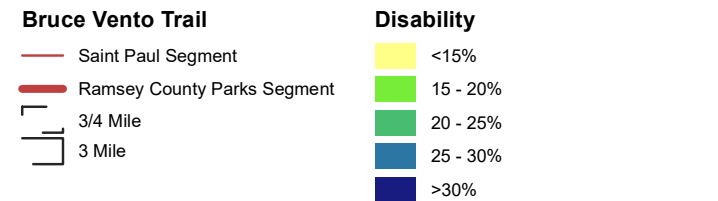
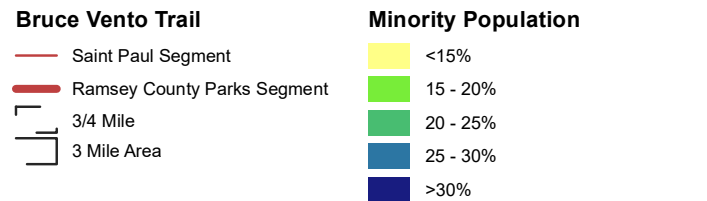
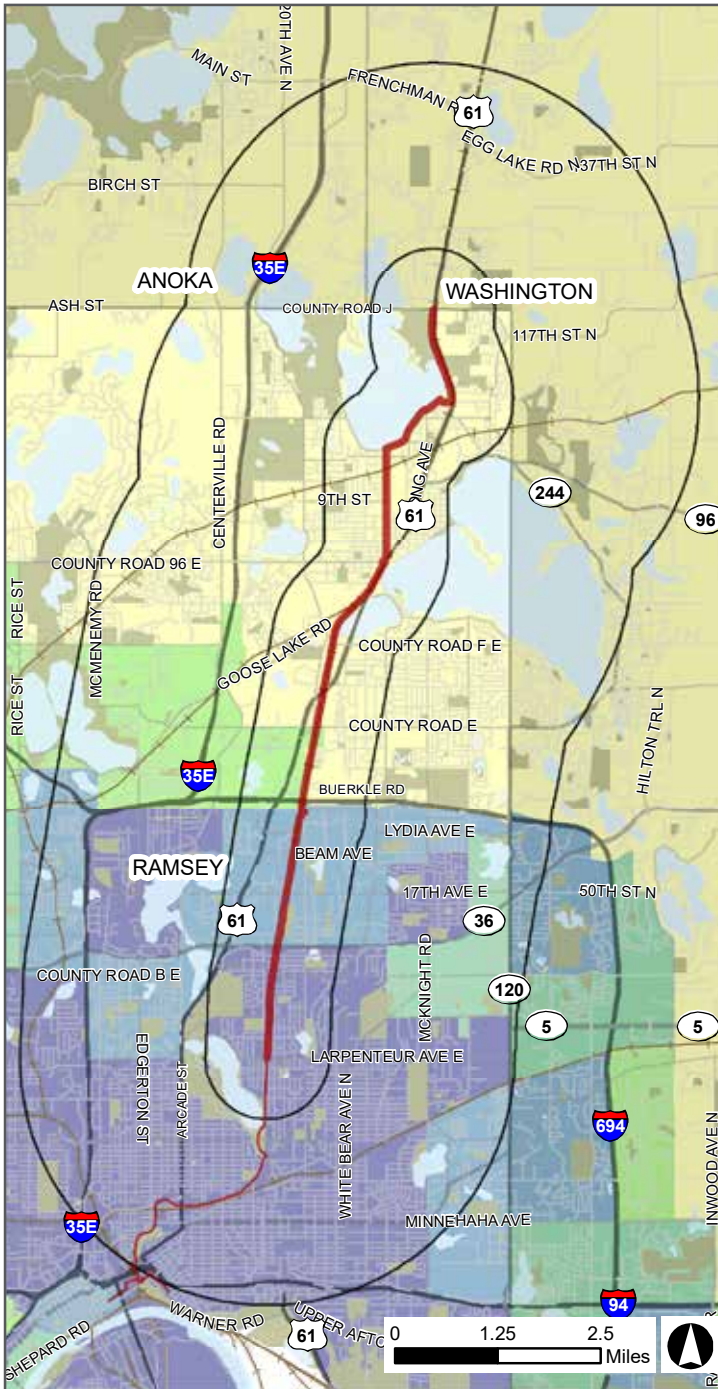


Figure 15. Percentage of Minority/Non-White Population

Figure 16. Percentage of Disabled Population

1. 6. NATURAL RESOURCES

The 2018 Ramsey County Parks and Recreation System Plan (Appendix B) provides guidance on the management of natural resources that will be used in the development and maintenance of the Bruce Vento Trail. Ramsey County Parks and Recreation's mission in managing plant, animal, and water resources is to provide an adequate sustainable habitat to support populations of native wildlife species within the county's park system. To sustain these native wildlife populations will require the maintenance and restoration of large areas of habitat containing a vast number and variety of natural resources. The Ramsey County Parks and Recreation Department will work to manage the diversity and quantity of natural resources to provide the largest possible tracts of land that contain key wildlife habitats within the Ramsey County park and trail system.

1. 7. BOUNDARIES AND ACQUISITIONS

Within Segment 3, portions of the following parcel is anticipated to be acquired to construct the proposed trail:

PID 343022420013
BBC II LLC
1755 Buerkle Road, White Bear Lake

Parts of property owned by entities other than Ramsey County Parks and Recreation are anticipated to require agreements, ownership transfer through turnback processes or permits to construct the Segment 3 improvements:

- Metropolitan Council Environmental Services (portion of lift station parcel)
- Burlington Northern Santa Fe Railroad
- City of White Bear Lake (portions of Willow Lake Marsh)
- White Bear Township (portion of old township hall site)
- Right-of-way on city streets:
 - Hoffman Road
 - Scheuneman Road

As Segment 4 planning only recently established a preferred conceptual alignment, the need to acquire specific parcels is undetermined. Given the alignment is conceptual, the following generally describes the assumptions related to potential parcel acquisition:

- Whitaker Street to Highway 96 – The trail may be located within the Lincoln Avenue right-of-way and no acquisitions are assumed.
- Highway 96 to Bald Eagle Boulevard East - The trail may be located within the Bald Eagle Avenue right-of-way and no acquisitions are assumed.
- Bald Eagle Avenue to Taylor Avenue and to Hugo Road – The trail may be located along Bald Eagle Boulevard East and Taylor Avenue. Further studies are required as trail design advances to determine if sufficient right-of-way exists for both roadway and trail functions. Acquisitions for this segment are to be determined.

- Hugo Road to Bald Eagle Regional Park – The trail may be located along Hugo Road adjacent to approximately 20 existing residential properties. Further studies are required as trail design advances to determine if sufficient right-of-way exists for both roadway and trail functions. Acquisitions for this segment are to be determined
- Hugo Road to County Road J – The trail may be located either within the Hugo Road right-of-way or within Ramsey County’s Bald Eagle Regional Park and no acquisitions are assumed.

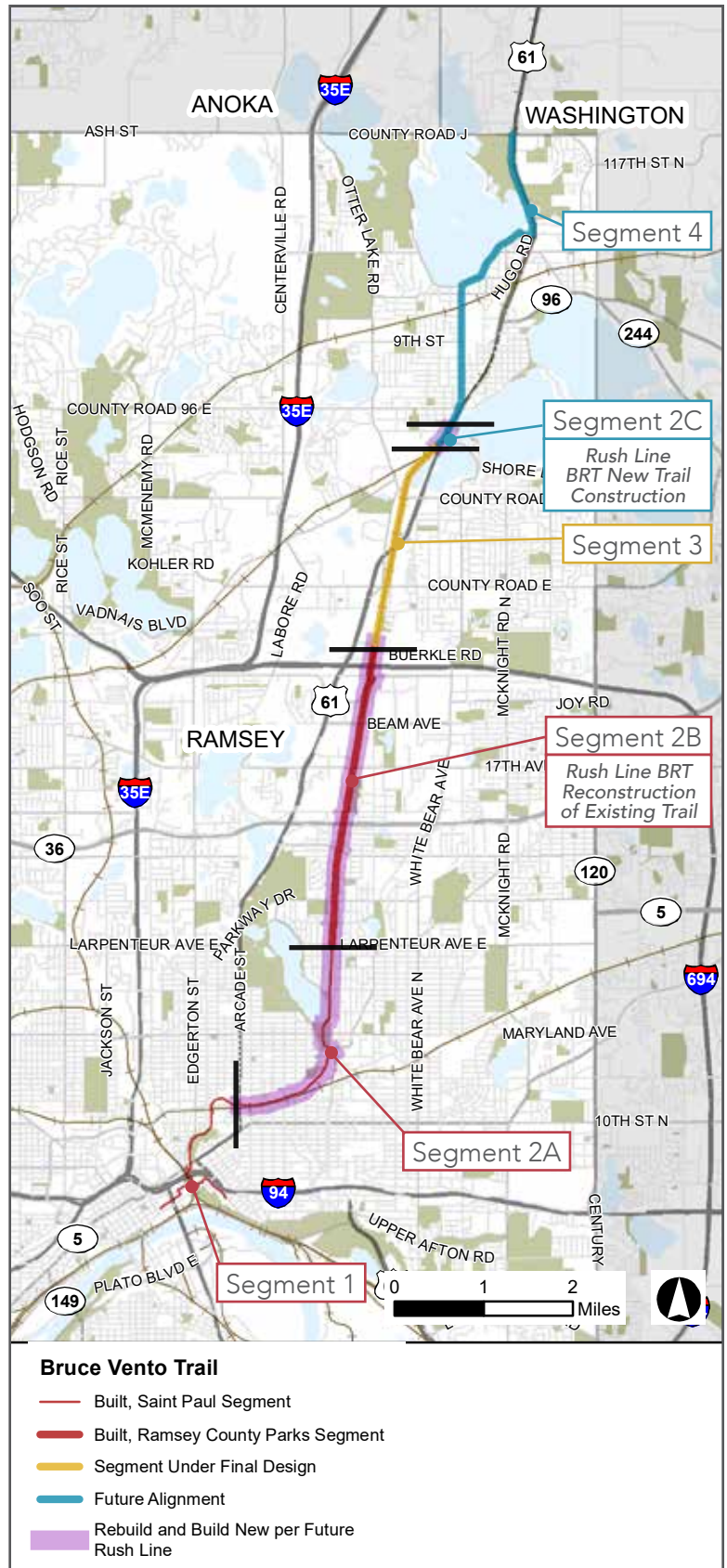
Portions of property owned by entities other than Ramsey County Parks and Recreation are anticipated to require agreements, ownership transfer through turnback processes or permits to construct the Segment 4 improvements:

- White Bear Township
- Right-of-way on city streets:
 - Lincoln Avenue
 - Bald Eagle Avenue
 - West Bald Eagle Boulevard
 - Taylor Avenue
 - Hugo Road

Temporary construction easements may be needed for construction of the trail. These will be identified as the projects approach construction.

2. THE PLAN

This section outlines the Master Plan elements related to the future alignment and construction of Bruce Vento Trail. Segment 1 and Segment 2A (Downtown Saint Paul to Larpenteur Avenue) are operated and maintained by the City of Saint Paul and are not included as it is built and there are no current plans for renovation or reconstruction. Figure 4 (repeated on this page for reference) illustrates the location of this segment in the context of the complete Bruce Vento Trail corridor and provides context for the individual Segments that make up this section. The segments which will be designed and constructed as part of the Rush Line BRT project are labeled for consistency as segments 2A, 2B, and 2C.



2. 1. SEGMENTS 2B & 2C: SEGMENTS TO BE CONSTRUCTED BY RUSH LINE BRT

While the extent of this Master Plan Amendment extends from Larpenteur Avenue to County Road J, a portion of the trail that is being realigned as part of Rush Line BRT extends further south to Arcade Street (Segment 2A). Plans illustrating the design and location of the Bruce Vento Trail are located within Appendix D of this document.

Master Planning activities for the development of the Rush Line BRT corridor from downtown Saint Paul to White Bear Lake started in 2014. Because of those activities, an alignment and plan for the Bruce Vento Trail segments from Arcade Street to Buerkle Road and from White Bear Avenue to Whitaker Street was created. Figure 4 illustrates the location of this segment in the context of the complete Bruce Vento Trail corridor. The Rush Line BRT's Ramsey County Rail Right-of-Way Design Guide document and 15% plans illustrate current planning and design and are included as Appendices G and E, respectively.

In summary, the Rush Line BRT constructed segments will include:

- Reconstruction of the Bruce Vento Trail to current design standards with convenient access to adjacent proposed BRT stations to promote intermodal connectivity including the following proposed stations:
- Improved pedestrian access points to the regional trail corridor including extension of sidewalks into the adjacent residential and commercial properties and neighborhoods.
- Reconstruction of existing trail crossings of local streets to improve access and safety while crossing roads.
 - Existing at-grade crossings
 - Realignment of access points
 - Safety signaling
 - Trail transition areas
 - Updated ADA infrastructure
- Trail amenities to current design standards which include benches, trash and recycling containers and trail signage.
- Related improvements which include revegetation of disturbed landscaping and stormwater management facilities.
- Potential trailhead facility located south of the Frost Avenue Station. Should this concept be advanced, a partnership with the City of Maplewood and Rush Line BRT will be necessary.



Figure 17. Rush Line BRT Concept Plan for a Potential Bruce Vento Trailhead Site Located South of Frost Avenue and East of English Street

The following list identifies the proposed Rush Line BRT stations connecting to Bruce Vento Trail Segments 2B and 2C, and stations that are near to and potentially include connection to Segments 3 and 4, as well as a general description of how each will directly connect to the proposed Bruce Vento Trail:

- Segment 2B:
 - Larpenteur Avenue Station - The trail is proposed to be located adjacent and connecting to the southbound platform.
 - Frost Avenue Station - The trail is proposed to be located adjacent and connecting to the southbound platform.
 - Highway 36 Station - The trail is proposed to be located adjacent and connecting to the northbound platform. Plaza and trailhead facilities are currently proposed at the station site.
 - Maplewood Mall Transit Center/Station - The trail is proposed to be located approximately ½ mile west of the station, and existing sidewalks on Beam Avenue will provide this connection.
 - St. Johns Boulevard Station - The trail is proposed to be located approximately 1/8 mile west of the station, and existing sidewalks on Hazelwood Street and Beam Avenue will provide this connection.
 - Buerkle Road Station - The trail is proposed to be located adjacent and connecting to the northbound platform.

- Segment 2C:
 - Whitaker Street Station - The trail is proposed to be located adjacent and connecting to the northbound platform.
- Segment 3:
 - County Road E Station - The trail is proposed to be located east of Highway 61 approximately ¼ mile from the station, and sidewalks are proposed for this connection.
 - Cedar Avenue Station - The trail is proposed to be located west of Hoffman Road, with is approximately 500 feet west of the station, and sidewalks are proposed for this connection.
- Segment 4:
 - Downtown White Bear Lake Station - The trail is proposed to be located approximately 4 blocks west of the station, and existing sidewalks will provide this connection.

Graphics and plan sheets developed as part of the Ramsey County Rail Right-of-Way Design Guide are included as Figure 18 through Figure 20. The inclusion of these graphics is intended for reference only and the content of this Master Plan Amendment does not alter the design intent of the Rush Line BRT segments. The graphics shown in this Master Plan Amendment show a typical section and may vary throughout the corridor depending on existing conditions and as the plans for Rush Line BRT advance.

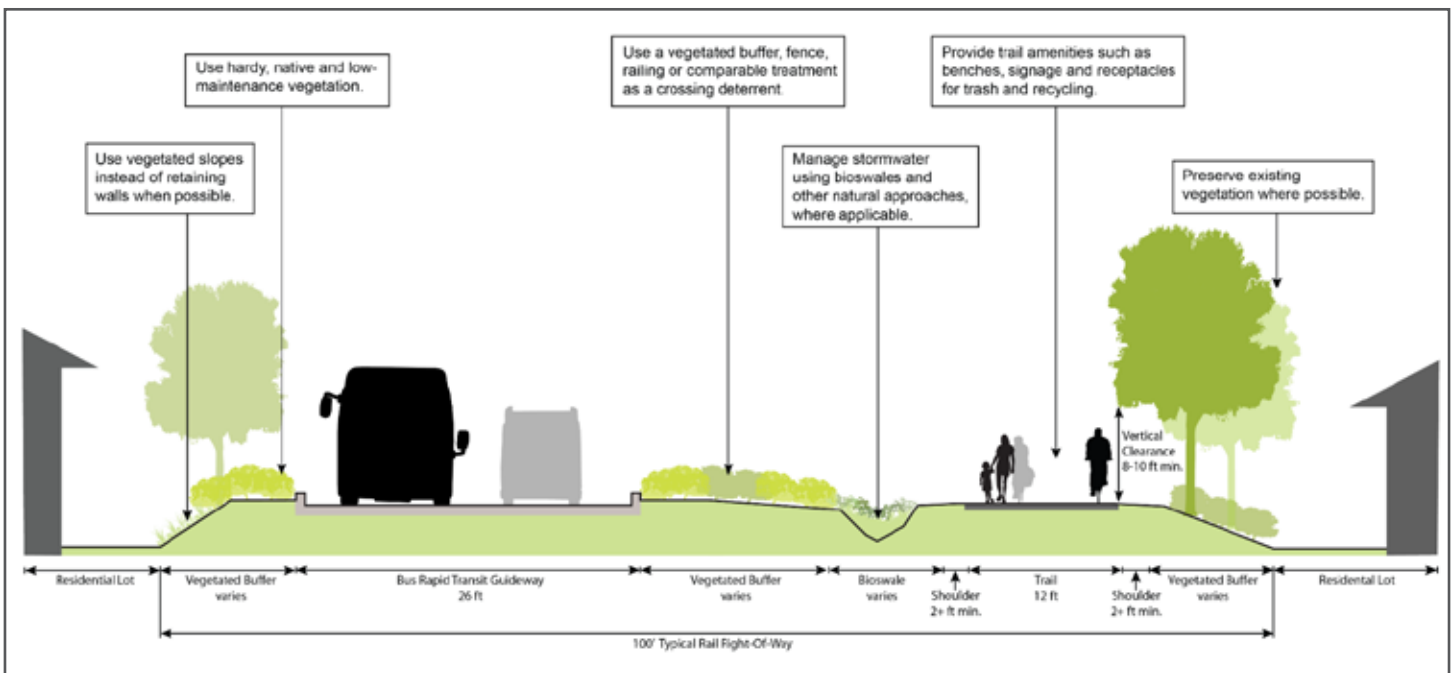


Figure 18. Design Guide Section Showing the Typical Ramsey County Rail Right-of-Way Corridor



Figure 19. Ramsey County Rail Right-of-Way Design Guide Graphics Highlighting Connectivity Between the Bruce Vento Trail and Proposed Rush Line BRT Stations

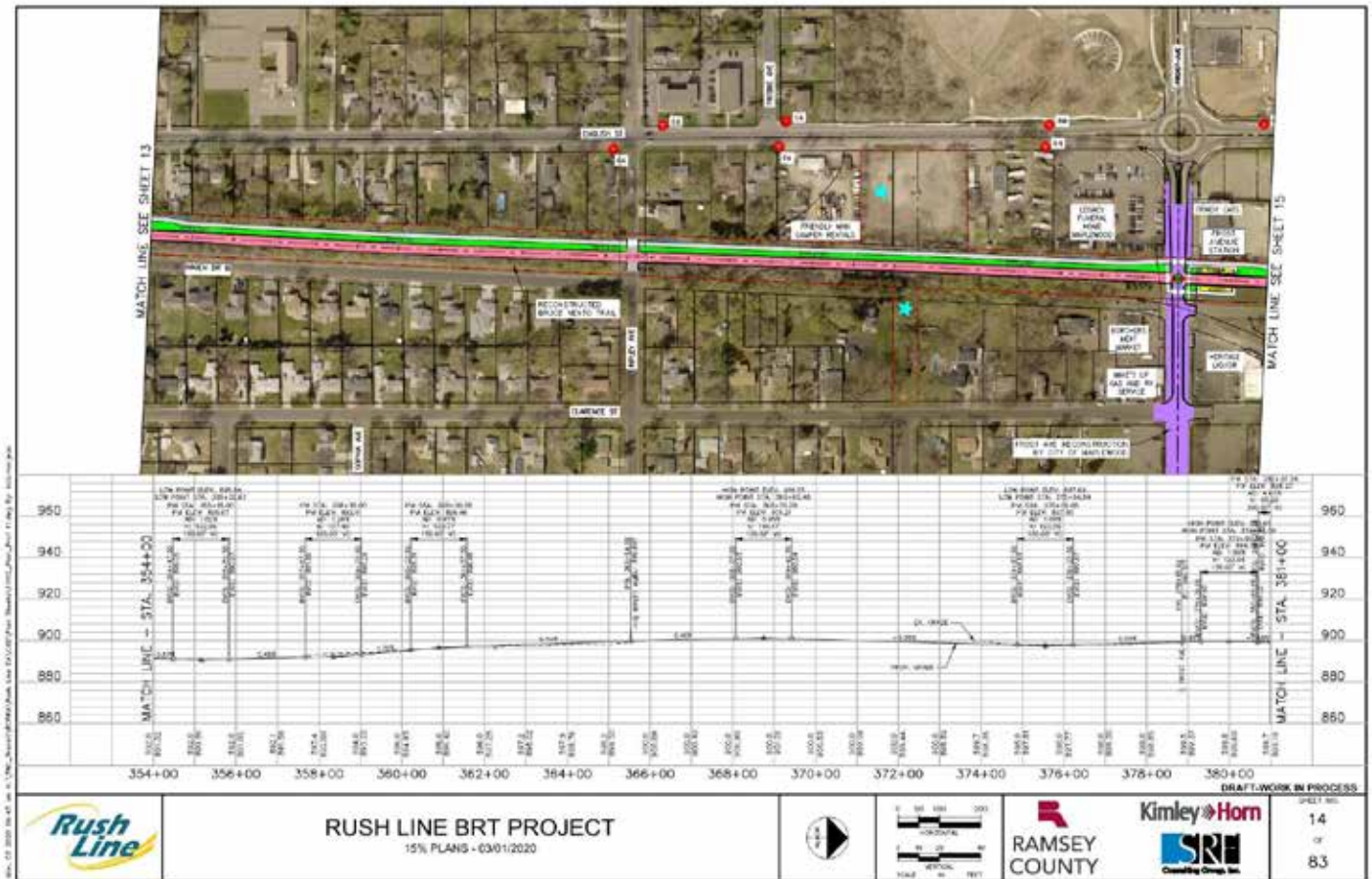


Figure 20. Sample Sheet from the Rush Line BRT 15% Plans Near the Frost Avenue Station Illustrating the Existing and Reconstructed Bruce Vento Trail

2. 2. SEGMENT 3: CURRENT DESIGN CONCEPT

Segment 3 is a 2.7-mile segment being designed and constructed separately from the reconstructed and new Bruce Vento Trail implementation as part of the Rush Line BRT project. This project is led by Ramsey County Parks and Recreation and extends from Buerkle Road to White Bear Avenue. This project is the first of two segments to eliminate half of the remaining six-mile trail gap in the regional and national trail system and will also set the stage for future connections north of Whitaker Street to County Road J for future connection to the Hardwood Creek Trail. Figure 4 illustrates the location of this segment in the context of the complete Bruce Vento Trail corridor.

The proposed trail will be designed to meet Federal State Aid Standards for multi-use trails and bicycle facilities. The trail is planned to be a twelve-foot wide trail section consisting of bituminous pavement, trail underpasses utilizing existing roadway bridges at County Road E and Highway 61 and one at-grade crossing at Scheuneman Road. The design includes narrowing of segments of Hoffman Road to accommodate the trail and boulevard. The project includes fencing, landscaping and restoration, wayfinding and safety signage, and site amenities. The project is intended to be constructed in conjunction with Rush Line BRT improvements which will include intersection safety improvements at Buerkle Road, Hoffman Road/Highway 61 and the at-grade crossing of the BNSF tracks at Whitaker Street.

Trail amenities envisioned as a part of Segment 3 construction include wayfinding, wayside rest areas with benches and trash receptacles landscaping for buffers and vegetation replacement.

A potential trailhead location is envisioned near County Road E and Hoffman Road in conjunction with a City of White Bear Lake redevelopment. Another potential trailhead location has been identified near Goose Lake in conjunction with redevelopment of a vacant White Bear Township parcel. Ramsey County will continue to work with local cities and the township on potential planning and design of future trailheads.

During the design process, efforts were made to provide a trail that meets ADA and other accessibility goals, reduces impacts to vegetation and other natural features, provides interesting and diverse trail user experience, and provides opportunities to improve adjacent community infrastructure that includes drainage and roadways.

Benefits of the Segment 3 Bruce Vento Trail Construction Project include:

- Eliminates several barriers and provides north-south multi-use trail and pedestrian facilities from Maplewood to downtown White Bear Lake through an area that does not have facilities currently.
- Provides alternate regional trail alignment outside of BNSF rail property on public land where possible.
- Provides connections to the Rush Line BRT.
- Reduces the risk of crashes and conflicts between pedestrians/bicycles and vehicles.
- Provides safe access to jobs and recreation opportunities for residents within northern Ramsey County.
- Trail amenities for wayfinding, comfort and convenience to include trail signage, benches, trash/recycling containers and landscaping.

Graphics and plan sheets from the current trail project that illustrate key trail location and issues are shown in Figure 21 through Figure 23.

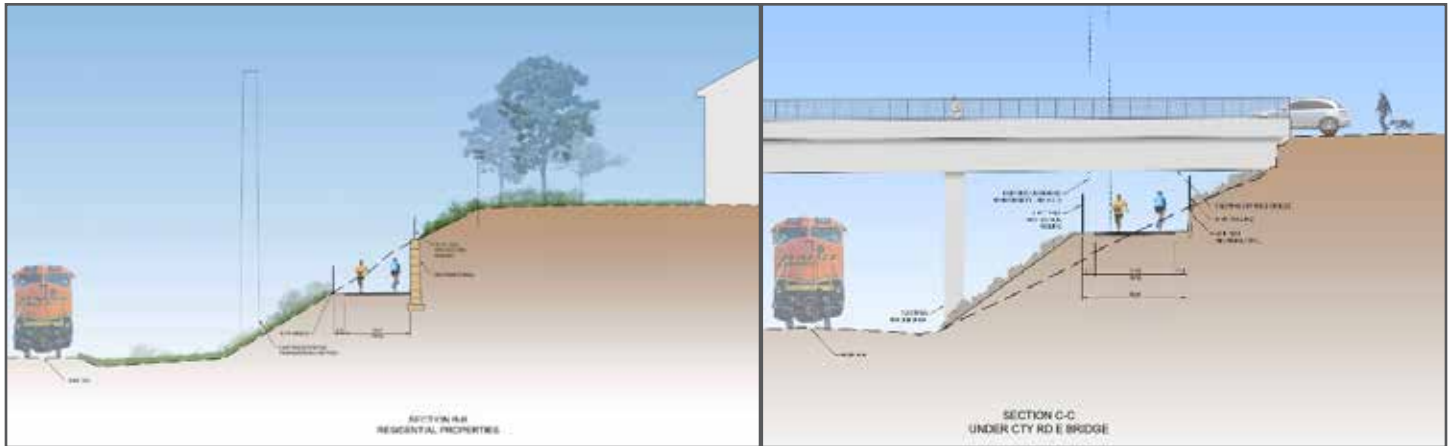


Figure 21. Cross-Sections Illustrating Two of the Numerous and Diverse Bruce Vento Trail Location Conditions

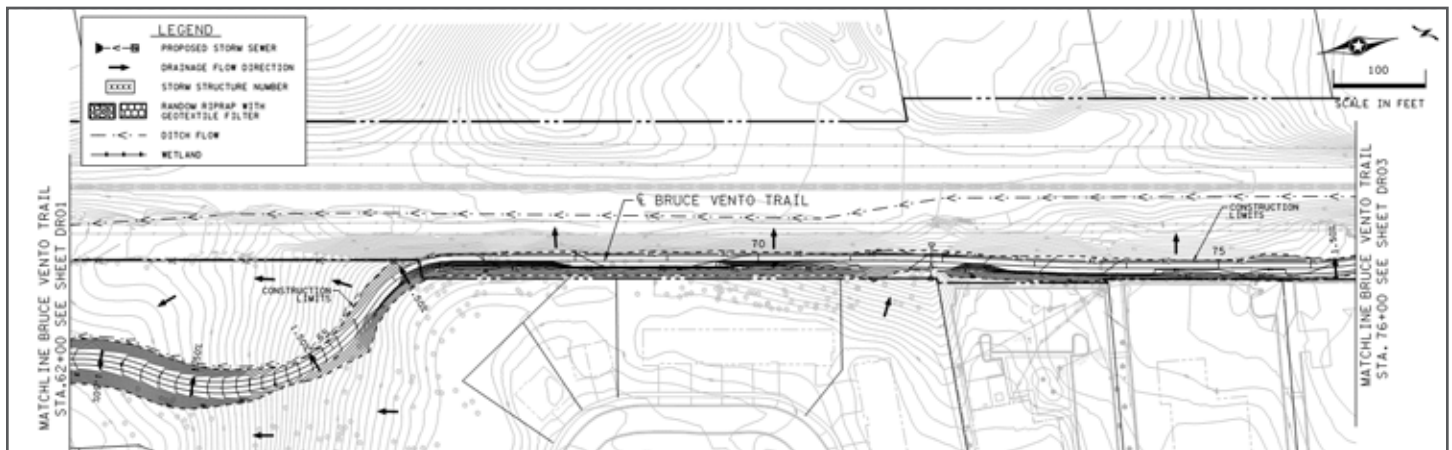


Figure 22. A Plan Sheet Example of the Bruce Vento Trail Segment 3 Construction Plans Showing the Relationship of the Bruce Vento Trail to the BNSF Rail Corridor Along with Grading and Drainage Construction Requirements

Figure 23. Materials Graphic Identifying Proposed Bruce Vento Trail Amenities, Wall and Fencing Design Treatments



Design examples shown from Ramsey County Parks and Recreation Wayfinding Masterplan

Example from existing sign along Bruce Vento Trail

Secondary Kiosk Sign Tertiary Post Sign

TRAIL WAYFINDING SIGNAGE



BNSF RR ROW Fencing - 6' Ht. Black vinyl clad chain link



Fall Protection Fencing - 5' Ht. Black vinyl clad chain link on top of retaining walls

FENCING



Bench
TRAIL FURNISHINGS

Use furnishings per current Ramsey County Parks and Recreation standards



Trash/Recycling Receptacle



Kiosk Sign



Trash/Recycling Receptacle



Picnic Bench

TRAILHEAD FURNISHINGS

Use furnishings per current Ramsey County Parks and Recreation standards



Limestone Wetcast Block Wall Examples



RETAINING WALLS

2. 3. SEGMENT 4: FUTURE NORTHERN EXTENSION SEGMENT(S)

Ramsey County Parks and Recreation is currently planning the second of two segments to eliminate the six-mile trail gap in the regional and national trail system as described in Segment 3. It extends from Whitaker Street in White Bear Lake north to County Road J. Figure 4 illustrates the location of this segment in the context of the complete Bruce Vento Trail corridor. Discussion of the feasibility study which led to the selection of the preferred route is in section 1.4.3.

For a short length of this trail segment from Whitaker Street to Hwy 96, the Bruce Vento Trail is planned to be located within City of White Bear Lake Lincoln Avenue right-of-way, and adjacent to the BNSF railroad corridor. The configuration is illustrated in Figure 24. For the remainder of this segment from Highway 96 to County Road J, eight different routes and alignments were studied over a 2-year period. A major component of this study was investigating the feasibility of locating the Bruce Vento Trail within or adjacent to the BNSF right of way and Highway 61 corridor through the heart of downtown White Bear Lake, a consistent choice expressed by many in the community. Numerous design alternatives were prepared for work sessions with BNSF staff and conversations with White Bear Lake City staff related to potential public and private property impacts. Two primary routes were studied adjacent to the Hwy 61 corridor, one located on the west side and the other on the east side of Hwy 6. Both alternatives revealed numerous conflicts with BNSF right-of-way and City of White Bear Lake roadway and adjacent private property improvements. It was concluded that there were no feasible solutions for locating the trail within the BNSF right-of-way or Highway 61 corridor.

Based on community outreach feedback, accessibility, trail user experience considerations, cost of construction and overall feasibility, Route 1 was determined as the preferred route. The process for this selection is outlined in Section 1. 4. 3.

Route 1 was identified as the preferred route through the downtown area for connection to Hugo Road, extending along Bald Eagle Avenue to Bald Eagle Boulevard to Taylor Avenue and making its final connection into Hugo Road. Buffalo Street and Park Avenue could be considered alternate trail corridors for connection into Hugo Road depending on one-way consideration of Bald Eagle Blvd.

Funding has not been secured for the implementation of Segment 4, however Ramsey County Parks and Recreation is actively exploring potential funding opportunities to construct all or portions of Segment 4.

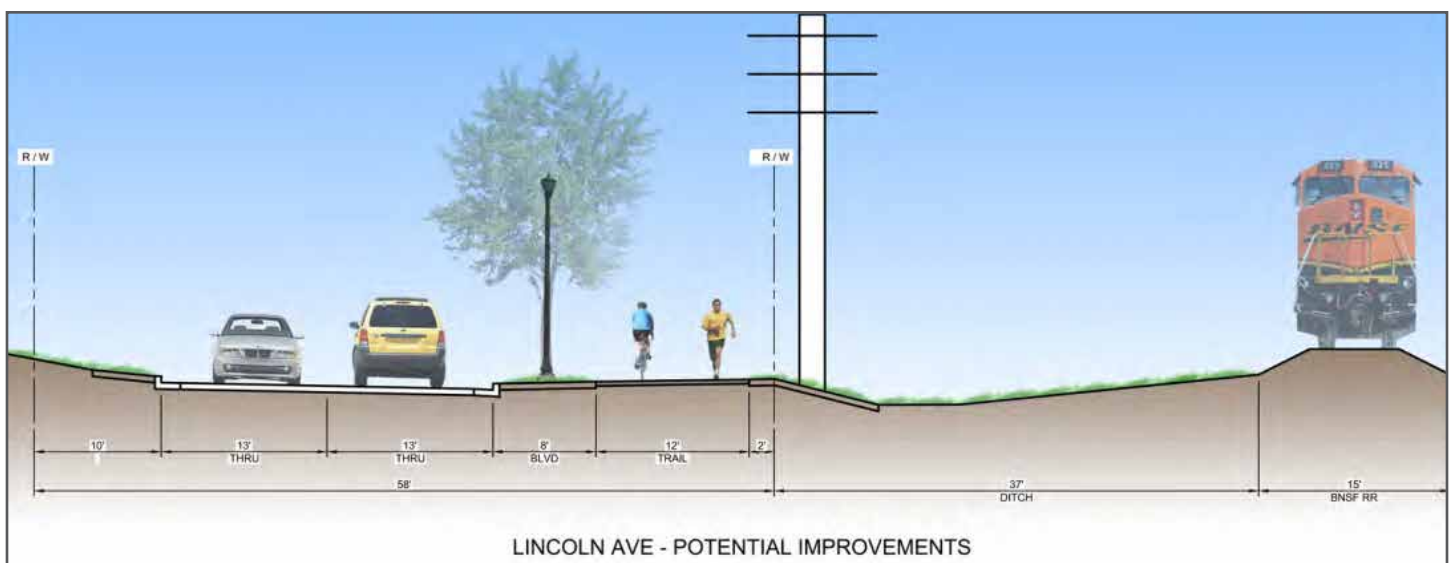


Figure 24. Section Illustrating the Bruce Vento Trail within the Lincoln Ave ROW Between Whitaker Street and Highway 96

2. 4. TRAIL AMENITIES

The Bruce Vento Trail offers many opportunities to connect trail users to amenities. In some locations, redevelopment of existing facilities is sufficient wherein at others, new access points or amenities should be added. Redevelopment of the existing trail will be required during implementation of the Rush Line BRT within the regional trail corridor, as the trail will be shifted to allow for construction of the BRT line, terminals and parking facilities. Therefore, the location of trail amenities for Segments 2B and 2C will be identified and completed as part of Rush Line BRT.

Appendix H illustrates the preliminary proposed trail amenities on Segment 3 to include benches, trash and recycling containers, picnic tables, signage and landscaping. Future trail amenities and locations for Segment 4 will be determined once design is underway for the segment, but they will generally include the standard amenities as proposed for Segment 3. As planning advances, local connections to city parks and key destinations will be considered for inclusion in the northern extension. Additionally, Ramsey County Parks and Recreation will prioritize maximizing views and recreation opportunities around Bald Eagle Lake.

2. 4. 1. WAYFINDING

Improved pedestrian signage will be provided for trail accesses, trail crossings and other amenities. Interpretive signage in natural areas will provide increased nature and local education opportunities. Examples of Ramsey County Parks and Recreation wayfinding can be seen in Figure 25. The design of future wayfinding on the Bruce Vento Trail will follow the Ramsey County Parks Wayfinding Master Plan, included as Appendix A. The wayfinding shown and included in this Master Plan is based on this 2011 Ramsey County Parks and Recreation document and future wayfinding for the trail will follow any branding changes that may occur after its publication. The location of wayfinding along Bruce Vento Trail proposed in the Ramsey County Parks Wayfinding Master Plan is shown in Figure 26.

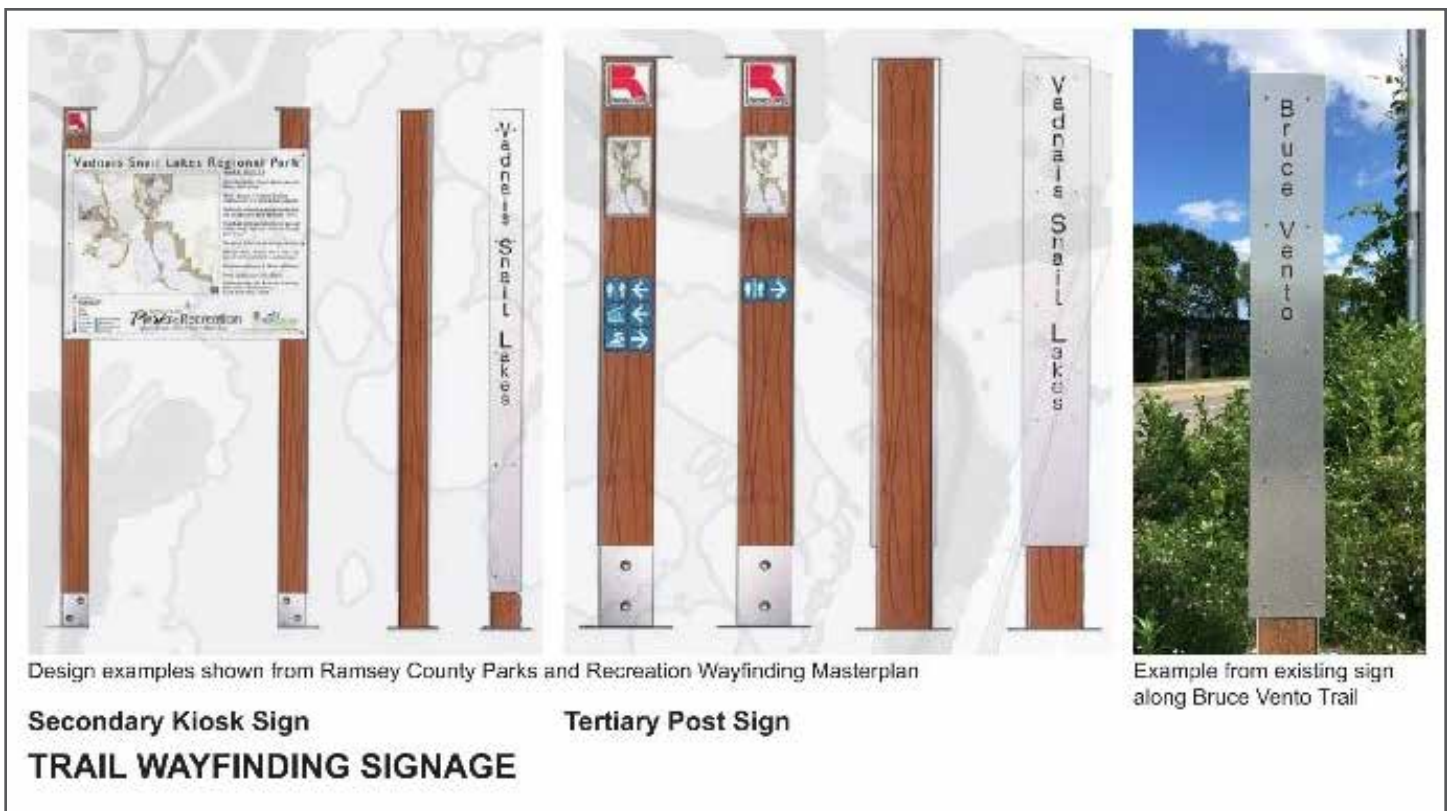
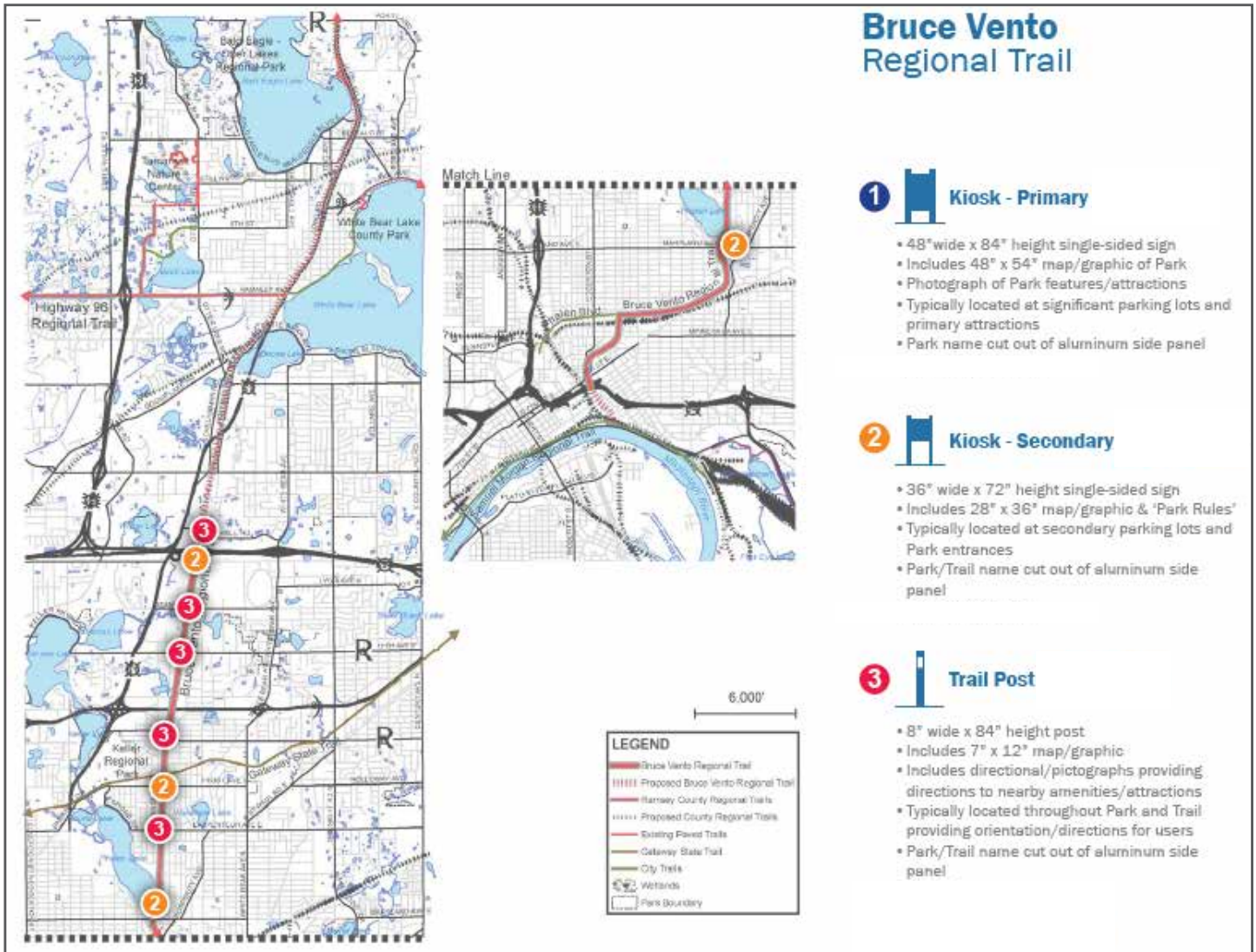


Figure 25. Design Standards for Ramsey County Parks and Recreation Wayfinding

Bruce Vento Regional Trail



1 Kiosk - Primary

- 48" wide x 84" height single-sided sign
- Includes 48" x 54" map/graphic of Park
- Photograph of Park features/attractions
- Typically located at significant parking lots and primary attractions
- Park name cut out of aluminum side panel

2 Kiosk - Secondary

- 36" wide x 72" height single-sided sign
- Includes 28" x 36" map/graphic & "Park Rules"
- Typically located at secondary parking lots and Park entrances
- Park/Trail name cut out of aluminum side panel

3 Trail Post

- 8" wide x 84" height post
- Includes 7" x 12" map/graphic
- Includes directional/pictographs providing directions to nearby amenities/attractions
- Typically located throughout Park and Trail providing orientation/directions for users
- Park/Trail name cut out of aluminum side panel

Figure 26. Proposed Locations for Wayfinding on Bruce Vento Trail Segment 2B

2. 4. 2. TRAILHEAD DEVELOPMENT

As proposed in the 2018 Ramsey County System Plan, there are multiple opportunities for trailhead development on the Bruce Vento Trail. These are divided in to two categories:

- Pedestrian trail connections - Increasing pedestrian access points to the regional trail corridor to improve connectivity to adjacent residential and commercial real estate.
- Access points at roadway corridors - Several access points to the regional trail are in existing roadway corridors, and there is a demand to redevelop many of these points for improved access and safety while crossing roads. Proposed improvements include:
 - Redevelopment of existing at-grade crossings.
 - Realignment of access points.
 - Safety signaling.
 - Trail transition areas.

2. 4. 3. RECREATION OPPORTUNITIES

The 2018 Ramsey County Parks and Recreation System Master Plan (Appendix B) indicates that the future alignment of the Bruce Vento Trail will provide multiple recreation opportunities. In that document, Ramsey County Parks and Recreation indicated the following activities are a priority:

- Public Art: Provide the opportunity and appropriate infrastructure to accommodate public art to improve community connections.
- Culturally Significant Areas: Provide connections and interpretive education to culturally significant areas along the railway corridor. Proposed improvements would consist of interpretive educational signage and pedestrian connections for viewing opportunities.
- Programming: Increase recreation and nature programming activities. This may be accomplished through interpretive and educational signage.
- Wildlife Areas: Provide visual and interpretive educational signage and pedestrian connections to wildlife areas. If federally or state listed protected plants or animals are discovered statutes and guidelines will be followed.

Within the Bruce Vento Trail corridor encompassed by this Master Plan Amendment, opportunities exist to realize these items along the Bruce Vento Trail. These include:

- Maplewood
 - Gladstone Savanna / Gloster Park
 - Harvest Park, Maplewood
 - Other nearby local parks
 - Maplewood Mall area
- White Bear Lake
 - Willow Marsh, White Bear Lake
 - Goose Lake
 - Marina Triangle
 - South Boulevard Shore Trail
 - Other nearby local parks
 - White Bear Lake downtown area
 - White Bear Lake High School
- White Bear Township
 - Other nearby local parks
- Ramsey County
 - Keller-Phalen Regional Park
 - Lakes Link Regional Trail
 - Highway 96 Regional Trail
 - Bald Eagle Lake
 - Bald Eagle-Otter Lakes Regional Park
 - TCO Sports Garden (formerly Vadnais Sports Center)
 - Several direct connections to the Rush Line BRT
- State of Minnesota
 - Gateway State Trail

Opportunities for public art and programming will be developed as the design and alignment of the final trail segment is realized. Opportunities exist along Bruce Vento Trail for the incorporation of future public art, which will be coordinated with Ramsey County and the local municipalities.

2. 5. CONNECTIVITY

The Bruce Vento Trail will be highly connected to both existing and future transit routes as well as to many bicycle and pedestrian routes and trails between Saint Paul and White Bear Lake. As the trail that exists today originates in downtown Saint Paul, the trail is already highly connected to transit and trail facilities at its southern terminus, which benefits the multimodal connectivity for the trail as a whole. However, this Master Plan Amendment only discusses the Ramsey County Parks and Recreation portion of the trail from Larpenteur Avenue to County Road J, and thus the connections discussed in this section are specific to these Segments of the trail corridor. The following sections outline those connections to both the existing trail and those that will be added with the extension of the future trail, and considers planned additions to future transit, bicycle and pedestrian infrastructure.

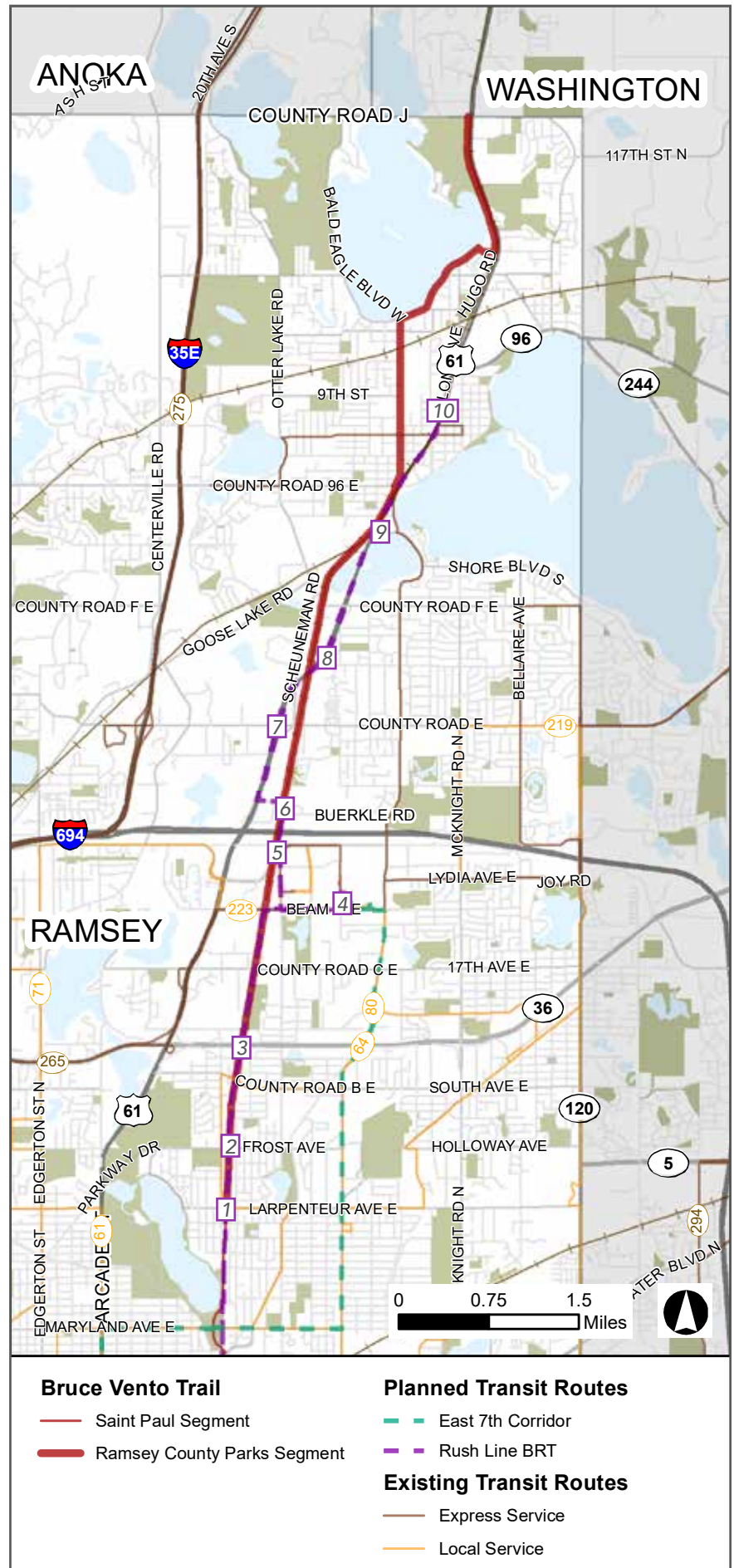
2. 5. 1. TRANSIT

The existing Bruce Vento Trail from Larpenteur Avenue to Buerkle Road is within a half-mile or a 10-minute walk from Metro Transit stops serving local routes 64, 270, 223, 219, 54, 64 and 80. It is within a half-mile of the Maplewood Mall Transit Center which provides multiple transit connections across the region. The future trail will add one new local route connection to route 265 in White Bear Lake. The planned Rush Line BRT alignment will greatly improve transit access along Bruce Vento Trail, including five new Saint Paul stations and the following ten stations north of Larpenteur Avenue:

- Larpenteur Avenue Station (1)
- Frost Avenue Station (2)
- Highway 36 Station (3)
- Maplewood Mall Transit Center/Station (4)
- St. Johns Boulevard Station (5)
- Buerkle Road Station (6)
- County Road E Station (7)
- Cedar Avenue Station (8)
- Whitaker Street Station (9)
- Downtown White Bear Lake Station (10)

These transit connections are shown in Figure 29, with Rush Line BRT stations identified by number. The future use of Bruce Vento Trail is closely linked to the future of the Rush Line BRT, as outlined in sections above. The future of the Bruce Vento Trail is highly linked to future transit throughout Ramsey County and the greater Twin Cities region as the trail will directly serve Rush Line BRT in locations, enhancing transit access for trail users.

Figure 29. Existing and Future Transit Routes Near the Bruce Vento Trail



2. 5. 2. LINKS TO OTHER TRAIL SYSTEMS

The Metropolitan Council Regional Bicycle Transportation Network⁵ classifies Bruce Vento Trail as a Tier 1 Regional Bicycle Transportation Network corridor which saw around 279,500 visits in 2018⁶. The trail is also part of national bicycle route USBR 41⁷, the North Star bicycle Route, from Saint Paul to Grand Portage State Park at the Canadian Border. The existing Bruce Vento Trail intersects with multiple major trail facilities in its current extent between downtown Saint Paul and White Bear Lake. Once the trail is completed, it will connect to Hardwood Creek Trail at the county line with Washington County, which becomes Sunrise River Trail in Chisago County. Once Bruce Vento Trail is complete, it will contribute to a chain of off-road trail facilities totaling 25-miles from Saint Paul to Hugo and North Branch.

As shown in Figure 30, the existing Bruce Vento Trail connects to numerous bicycle and walking facilities. The trail between Larpenteur Avenue and County Road J is within a half-mile or 10-minute walk Frost Trail and County Road B. The trail also intersects directly with the Gateway State Trail/Munger State Trail before it crosses Highway 694 and terminates at Buerkle Road. The future trail alignment will add a trail intersection in White Bear Lake with the Highway 96 Regional Trail, Lake Links Regional Trail and Lake Avenue Trail as well as provide a connection to the bicycle facilities around Bald Eagle Lake and White Bear Lake. Future planning efforts by Ramsey County Parks and Recreation will determine specific connections to local trails and destinations that can be made with Bruce Vento Trail. These connections could include the Willow Marsh trails in White Bear Lake.

In addition to providing connection to off-road trail facilities, the trail connects to many existing on-road bicycle facilities like bicycle lanes, bicycle boulevards and widen shoulders. The trail will be connected to multiple sidewalk networks, improving pedestrian connections in addition to bicycle connections. In completing Bruce Vento Trail, Ramsey County will assess connection points to local systems, including these on-street facilities and sidewalks. Access to these types of facilities, particularly in northern Ramsey County where there are fewer separated bicycle facilities, will greatly improve connectivity across the regional network.

Planned future trails which will connect to Bruce Vento Trail include the South Shore Trail along the south side of White Bear Lake, which will follow South Shore Boulevard. This trail will complete the remaining gap in trail facilities around White Bear Lake within Ramsey County limits and connect trail users to Bruce Vento Trail. South Shore Trail is in preliminary design and is scheduled for construction in 2022.

5 <https://metrocouncil.org/Transportation/Planning/Transportation-Resources/Regional-Bikeways.aspx>

6 Based on Metropolitan Council 2018 Use Estimates for the regional park and trail system.

7 <https://www.adventurecycling.org/routes-and-maps/us-bicycle-route-system/maps-and-route-resources/>

Figure 30. Existing Trails and Bicycle Facilities Near Bruce Vento Trail



2. 6. COST ESTIMATE

Anticipated cost associated with the construction and maintenance of the future Bruce Vento Trail are listed by segment in the table below. No costs are associated with segments 2B or 2C as they will be paid for under Rush Line BRT.

Table 2. Cost Estimate by Segment

<i>Segment</i>	<i>Cost Item</i>	<i>Amount</i>
Segment 3	Construction	\$5,860,000
	Engineering and Administrative Costs	\$1,000,000
	TOTAL:	\$6,860,000
Segment 4	Construction	\$7,500,000
	Engineering and Administrative Costs	\$1,250,000
	TOTAL:	\$8,750,000

2. 7. CONFLICTS

No major conflicts will affect the viability of the recommendation of this Master Plan Amendment. Adjacent land uses include residential, commercial and railroad. Ongoing coordination with the railroads, road authorities, and private properties will be necessary in order to complete Bruce Vento Trail and any potential conflicts are in the following sections.

2. 7. 1. RAILROADS

Final design of Segment 3 will need to be approved by the BNSF railway in order to proceed with construction. Recently, BNSF has provided correspondence to Ramsey County documenting their conditional approval of the Bruce Vento Trail being located adjacent to and within the rail right-of-way.

Segment 4 includes an at-grade crossing of a Canadian Pacific track as well as a section of alignment within BNSF corridor along Hugo Road. Coordination with the railroads will be necessary to finalize plans for this segment.

2. 7. 2. ROAD AUTHORITIES

The trail design for portions of Segment 3 and 4 located within local roadway right of ways (Hugo Road, Taylor Avenue, West Bald Eagle Boulevard, Bald Eagle Avenue, Lincoln Avenue and Hoffman Road) will need to be reviewed and approved by the appropriate roadway jurisdiction (Ramsey County, White Bear Lake, White Bear Township) as the trail construction will require narrowing of some streets. In addition, the Segment 4 alignment may require conversion of Bald Eagle Boulevard from two-way traffic to one-way traffic to facilitate trail construction to desired standards. Ramsey County is in discussions with the City of White Bear Lake and White Bear Township regarding potential turnback of Hoffman Road and Bald Eagle Boulevard which may impact the design of the trail.

2. 7. 3. PRIVATE PROPERTY EASEMENTS

Segment 3 includes only one private property easement to construct and initial discussions with that owner indicate a willingness to cooperate with the project. As design progresses on Segment 4 additional easements with private property owners may be required to be obtained in areas to facilitate desired trail construction.

3. IMPLEMENTATION

3. 1. PHASING AND PRIORITIES

The Bruce Vento Trail will be constructed in phases. The first priority and phase will be the completion of Segment 3, from Buerkle Road to White Bear Avenue. Final design of this segment is anticipated to be complete by 2021 and construction will take place once funding is secured, likely in 2024 or 2025. This timeline aligns with the planned construction timeline for Rush Line BRT, wherein segments 2B and 2C will be completed sometime in 2024 or 2025. Segment 4 will complete the final gap to Washington County and the Hardwood Creek trail, and design is anticipated to begin after the completion of Segment 3 and Rush Line BRT, after 2024 or 2025.

3. 2. ACQUISITION COSTS

As detailed in section 1.7, Boundaries and Acquisitions, the following properties are anticipated to be required to construct the improvements proposed. Acquisition timing will follow the planned construction timing in the section above. The table below lists those properties and the anticipated cost by segment. Acquisitions are not anticipated for any of the Rush Line BRT segments under Ramsey County Parks and Recreation jurisdiction (2B and 2C) and are anticipated to be acquired under Rush Line BRT.

Table 3. Acquisition Costs by Segment

Segment	Property	Ownership	Amount
Segment 3	PID 343022420013, BBC II LLC, 1755 Buerkle Road, White Bear Lake	Private	\$16,000
	Lift Station Parcel	Metropolitan Council Environmental Services	\$0
	Burlington Northern Santa Fe Railroad	BNSF	\$2,500 ⁸
	Portions of Willow Lake Marsh, Hoffman Road	City of White Bear Lake	\$0
	Portion of Old Township Hall Site	White Bear Township	\$0
	TOTAL:		\$18,500
Segment 4	Private Parcels	Multiple	\$50,000
	Burlington Northern Santa Fe Railroad	BNSF	\$2,500 ⁸
	TOTAL:		\$52,500

⁸ Trail construction in BNSF property will be by permit/lease, actual costs anticipated to be related to licensing process vs. easement acquisition and will not be based on square foot.

3. 3. OPERATIONS

Operations of the regional trail will be the responsibility of the Ramsey County Parks and Recreation department. Operations and maintenance services will be provided at a level that is appropriate for the designated use and consistent with proposed development. The level of services (LOS) will be directly influenced by budget limitations and the county’s operation and maintenance policies. Funding for maintenance and operation is appropriated from county tax revenue, supplemented by State of Minnesota appropriation for Regional Parks Operation and Maintenance Funding.

3. 3. 1. OPERATING HOURS

Regional parks and trails have general operating hours from ½ hour before sunrise to ½ hour after sunset. Ramsey County Parks and Recreation is in the process of assessing their operating hours for all park and trail facilities, and future ordinances may change these operating hours. The operating hours for Bruce Vento Trail will be the same as other trail facilities in the same jurisdiction and incorporate similar signage and communication of those changes.

3. 3. 2. ORDINANCES

Public use and enjoyment of the Ramsey County park system is controlled by “An Ordinance for the Control and Management of Park, Recreation and Open Space Areas and Facilities under the Jurisdiction of the Ramsey County Board of Commissioners.” This ordinance, adopted in 1992 and amended in 2007, will govern the conduct of the public during the use of the regional trail corridor, its facilities and resources. Ramsey County Parks and Recreation is in the process of assessing their park and trail ordinances and may amend the existing ordinances. Bruce Vento Trail will operate under the same ordinances as other trail facilities in the same jurisdiction and incorporate similar signage and communication of those changes to the public. The current ordinance, incorporates pertinent Minnesota statutes and includes the following sections:

- Purpose/Definitions
- Regulations of Motorized Vehicles, Traffic and Parking
- Regulations of Public Use
- Enforcement
- General Conduct
- Miscellaneous
- Regulation of Recreation Activity
- Effective Date



Figure 31. Existing Bruce Vento Trail Ordinance and Operating Hours Sign

Table 4. Estimated Annual Operating Budget

Activity	Cost
Trash and Recycling Collection	\$10,700
Spring Cleanup	\$11,000
Mowing and Turf Maintenance	\$12,200
Brush Cutting and Tree Trimming	\$12,200
Amenities (Benches, Signs, Picnic Tables, etc.) Maintenance	\$6,100
Snow Removal	\$4,900
Paved Trail Maintenance	\$7,300
Total Annual Operating Budget:	\$64,400

All costs in the table above are shown are in 2020 dollars. Costs are for the entire Ramsey County Parks and Recreation portion of the trail, from Larpenteur Avenue to County Road J. Costs reflect staff labor only and are not reflective of materials or equipment costs.

3. 3. 3. MAINTENANCE

Maintenance responsibilities are divided between Ramsey County Parks and Recreation and the city of Saint Paul at Larpenteur Avenue as identified in the Joint Powers Agreement. On all current and future segments between Larpenteur Avenue and County Road J, Ramsey County Parks and Recreation will use the standard maintenance level of service to upkeep Bruce Vento Trail. Standard regional trail maintenance activities (daily or weekly maintenance) include:

- Spring maintenance
 - Assess damaged pavement and adjacent turf and complete repairs needed after frost thaw.
 - Remove downed trees or branches and blow trail off.
- Summer/fall maintenance
 - Weekly mowing, or as-needed if rain lessons.
 - Tree and brush trimming as needed to trim overgrowth adjacent to trails. Additional removal to be assessed if further action is needed.
 - Removal of trash and recycling weekly or twice weekly depending on use.
 - Assess site amenities (benches, wayfinding, trail crossings, fencing, etc.) for damage, graffiti, or general repair and repair or replace as needed.
- Winter maintenance
 - Assess weekly for snow build-up and plow if snowfall is 2" or greater.
 - Assess weekly for ice build-up; salting not required unless freezing rain conditions or ice build-up is assessed.

The typical annual operations and maintenance costs for these activities is detailed in the table to the left. Standard pavement schedule for regional trails is based on the pavement maintenance conditions as identified in the Park and Trails Bituminous Management Report. Regional trails are set on a 6-year pavement maintenance schedule, started from new construction and assessed every 6 years following. Bruce Vento Trail will follow this maintenance plan.

3.3.4. ENFORCEMENT AND SAFETY

The Ramsey County Parks and Recreation Department, in conjunction with the Ramsey County Sheriff's Department, will educate and direct the public in appropriate use, provide ordinance enforcement, assist with first aid, and ensure security along the regional trail. The Ramsey County Sheriff will be responsible for enforcement of park hours. All trailhead access roads are equipped with gates that can be controlled to limit access. Ramsey County Parks and Recreation will supplement the regular Sheriff's Department patrol as needed. Fire services as needed are provided by the cities that the trail traverses including the cities of Saint Paul, Maplewood and White Bear Lake.

3.4. PUBLIC SERVICES

The construction of Segments 2B, 2C, 3 and 4 of the Bruce Vento Trail all include significant coordination with County and local road authorities as well as the Metropolitan Council in order to incorporate roadway modifications, (narrowing, realignments, conversion to one-way) that will be necessary to provide the intended physical space for the trail. The trail construction will also include modifications to existing storm drainage infrastructure and construction of new storm drainage infrastructure in conjunction with roadway modifications. Stormwater quality infrastructure will also need to be incorporated into Segments 2B, 2C, 3 and 4. Construction plans will be developed and coordinated with the appropriate road authorities to ensure that completed roadway infrastructure meets the required standards and maintenance operations are established for roadway, drainage and trail.

3.5. ACCESSIBILITY

Ramsey County Parks and Recreation is committed to providing universal accessibility at all trail facilities and are free of charge. Ramsey County is part of the Ramsey County Active Living Communities partnership which works to bring about and sustain changes in design, transportation and public/private policies to cultivate and support a way of life that makes physical activity in our neighborhoods and communities safer and easier. Ramsey County uses the following to assess and implement these changes:

- ADA Transition & Implementation Plan - The department is implementing a plan to bring its sites and facilities into compliance with the requirements of Title II of the American with Disabilities Act of 1990, and updated 2010 standards.
- Ramsey County Pedestrian and Bicycle Plan - The Ramsey County Pedestrian and Bicycle Plan, developed through collaboration between Active Living Ramsey Communities, Ramsey County Parks and Recreation and other county departments, municipalities, state agencies, residents and other organizations, establishes a vision and strategy for providing safe and comfortable facilities for pedestrians and bicyclists throughout the county.
- All Abilities Transportation Network -The All Abilities Transportation Network unifies regional transportation efforts under a shared vision and implementation strategy to realize an integrated and fully interconnected multi-modal transportation system providing safety, health, mobility and connectivity for residents of all abilities.

Bruce Vento Trail will be designed and built following the most current ADA standards in order to provide accessible trail facilities to all trail users.

3. 6. PUBLIC AWARENESS

The Ramsey County Parks and Recreation department will use a variety of tools to promote awareness and use of the regional trail system. Ramsey County Parks and Recreation will make the public aware of when the trail is open as well as how to access the trail by transit. This communication includes electronic and print communication methods such as websites, trail maps, brochures, email notification, Twitter, Facebook and press releases to local newspapers.

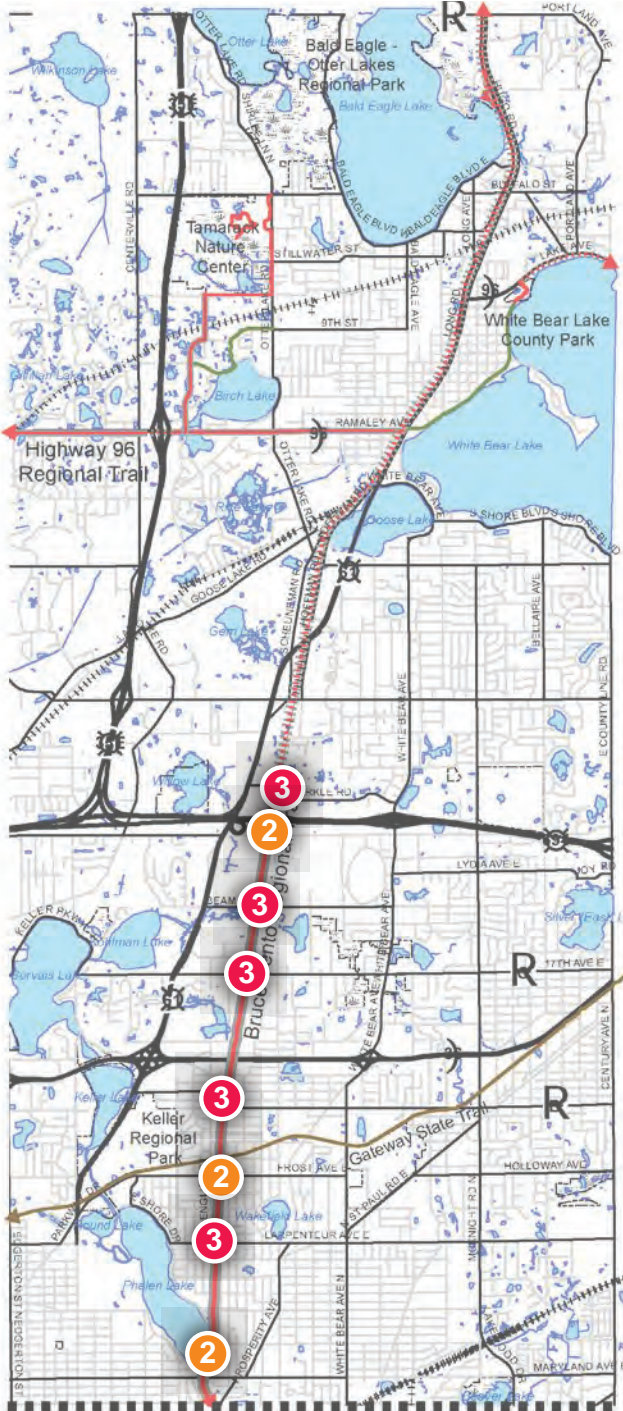
Ramsey County Parks and Recreation will also collaborate with the cities of Saint Paul, Maplewood, Gem Lake, White Bear Lake, White Bear Township, and with the Metropolitan Council to promote the trails through their websites, newsletters, and brochures. Wayfinding signage within the trail corridor will be updated as needed following the existing Ramsey County Parks and Recreation Department Wayfinding Master Plan for consistency with other regional parks and trails.

Appendix A

2011 Ramsey County Parks Wayfinding Masterplan (Bruce Vento Trail Only)

The full Ramsey County Parks Wayfinding Masterplan will be provided upon request to Ramsey County Parks and Recreation.

Bruce Vento Regional Trail



1 Kiosk - Primary

- 48" wide x 84" height single-sided sign
- Includes 48" x 54" map/graphic of Park
- Photograph of Park features/attractions
- Typically located at significant parking lots and primary attractions
- Park name cut out of aluminum side panel

2 Kiosk - Secondary

- 36" wide x 72" height single-sided sign
- Includes 28" x 36" map/graphic & 'Park Rules'
- Typically located at secondary parking lots and Park entrances
- Park/Trail name cut out of aluminum side panel

3 Trail Post

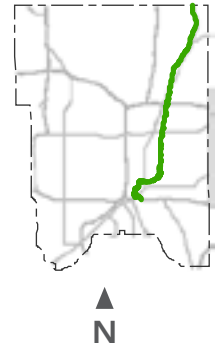
- 8" wide x 84" height post
- Includes 7" x 12" map/graphic
- Includes directional/pictographs providing directions to nearby amenities/attractions
- Typically located throughout Park and Trail providing orientation/directions for users
- Park/Trail name cut out of aluminum side panel

Appendix B

2018 Ramsey County Parks and Recreation System Plan (Bruce Vento Trail Only)

The full Ramsey County Parks and Recreation System Plan can be accessed on the Ramsey County Parks and Recreation website, at <https://www.ramseycounty.us/residents/parks-recreation/parks-trails/parks-planning-projects/parks-system-plan>

BRUCE VENTO REGIONAL TRAIL



EXISTING SITE CONDITIONS

MASTER PLAN DATE: 1989



LOCATION AND SIZE

The Bruce Vento Regional Trail is 13 miles in length and extends from the east side of downtown Saint Paul northwest to the north county line in White Bear Township. The trail is located on the former right of way of the Burlington Northern Santa Fe (BNSF) Railroad. The trail passes through the cities of Saint Paul, Maplewood, Vadnais Heights, Gem Lake, White Bear Lake, and White Bear Township. Although the designated trail extends the entire length of the BNSF Railroad right of way, only the southern 7 miles have been acquired for public use. The Ramsey County Regional Rail Authority has acquired the abandoned sections of the right of way for future light rail and transit use. A joint powers agreement between the Ramsey County Regional Rail Authority, Ramsey County, and the city of Saint Paul provides for continued use of a portion of the right of way for regional trail.



SITE CHARACTERISTICS

The BNSF Railroad right of way varies in width from 60 to 150 feet. It passes through a variety of areas, each with a different character depending on the land use of adjacent property. It varies from a narrow industrial corridor on the east side of Saint Paul to a wider, more natural corridor in suburban sections.



RECREATION DEVELOPMENT

The trail has been developed from East Seventh Street in the city of Saint Paul to Buerkle Road in the city of White Bear Lake, a distance of 7 miles. The section south of Phalen Regional Park was constructed by the city of Saint Paul, while sections north of Phalen Regional Park were constructed by Ramsey County. Larpenteur Ave is identified in the Joint Powers Agreement as the separation of maintenance responsibilities between Ramsey County and the city of Saint Paul. The completed section of the Bruce Vento Regional Trail intersects the Gateway Section of the Willard Munger State Trail and other local trails.

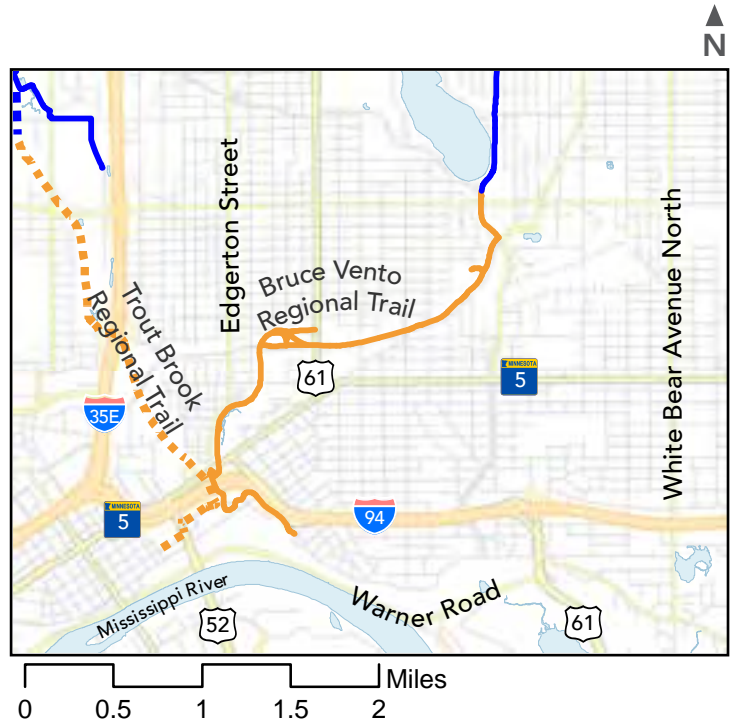
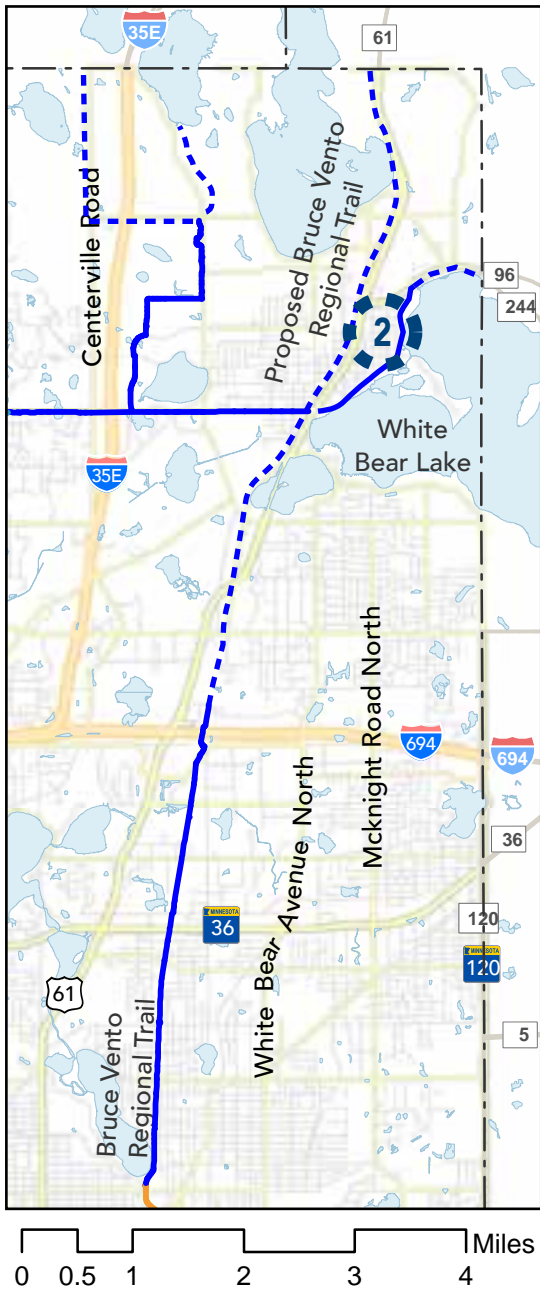


MAINTENANCE

Winter Maintenance:

- Plow trail from Lake McCarron's County Park to Arlington Ave E.

EXISTING CONDITIONS



Legend

- Park Border Park Paved Trail Regional Trail
- Proposed Development Park Turf Trail Proposed Regional Trail
- Proposed Development Node 1 Municipal Trail Proposed Paved Park Trail
- Metro Tranist Stop T Municipal Ped/Bike Facility

PLANNING CONSIDERATIONS

The BNSF Railroad right of way north of Buerkle Road is currently licensed to the Minnesota Commercial Railroad for operations and maintenance. The Minnesota Commercial Railroad provides delivery and transloading service to a limited number of customers. Consolidation of the delivery and transloading at the M and D junction located in the city of White Bear Lake would enable the BNSF Railroad to abandon the railroad right of way south of that point. Once abandoned, the Ramsey County Regional Rail Authority would be in a position to purchase the right of way and provide easement access for trail purposes. North of that point, the railroad right of way is immediately adjacent to the Highway 61 right of way. With the anticipated return of Highway 61 from the State of Minnesota to Ramsey County, it is possible that a future trail north of the M and D junction could be located within the right of way of Highway 61. Redevelopment of Highway 61 should incorporate the regional trail extension to the north county line.

The abandoned railroad right of way was acquired by the Ramsey County Regional Rail Authority for future light rail or transit use. The majority of the trail constructed to date was placed in the center of the right of way in the former track bed. The trail utilizes former railroad bridge crossings on major roadways including Highway 36, Beam Avenue, and Interstate 694. Future transit improvements will likely require that the trail be relocated within the corridor. The specific design of the future transit improvements should incorporate the trail including accommodation for grade separated crossing at major roadway intersections.

Segments of the BNSF Railroad right of way have been abandoned in Washington and Chisago counties. Washington County has constructed the Hardwood Creek Trail and Chisago County has constructed the Sunrise River Trail on this right of way. Collectively, these trails extend from the city of Hugo to the city of North Branch, a total distance of 25 miles. The connection between the Bruce Vento Regional Trail and these trail segments will be coordinated with Washington County.

There is also a proposed connection from the Bruce Vento Regional Trail to the Trillium Trail and Trout Brook Regional Trail as well as Lake McCarron's County Park. As the county has participated in the Trillium Trail procurement, the Parks & Recreation department will work with the city of Saint Paul, community groups, and the Minnesota Department of Transportation to complete this connection.

PROPOSED DEVELOPMENT

1. Master Planning

The master plan for the Bruce Vento Regional Trail is a joint regional trail master plan between Ramsey County and the city of Saint Paul and was approved in 1989 by the Ramsey County Board of Commissioners, city of Saint Paul, and the Metropolitan Council. Several changes to the existing regional trail and additional development is proposed throughout the regional trail corridor which will require additional master planning activities.

- A master plan amendment is planned for 2019 due to proposed changes within the regional corridor and recreational development opportunities. Currently the railway lines north of Buerkle Road in the city of White Bear Lake to Hugo are active. It is undetermined how long this section of railway will stay active. As a result the master plan will address trail realignment for areas north of Buerkle Road to County Road J in the Cities of White Bear Lake, Vadnais Heights, and White Bear Township to County Road J. Improvements throughout the corridor for recreational needs due changing trends, demographics, and recreational amenities will also be addressed. Continued development of the regional trail corridor will follow items addressed in the 2019

PROPOSED DEVELOPMENT

master plan amendment until future changes are required.

- Develop partnerships with Ramsey County Regional Rail, the Cities of Saint Paul, Maplewood, Vadnais Heights, Gem Lake, White Bear Lake, and White Bear Township, the Minnesota Department of Transportation (MNDOT), Washington County Park & Recreation department, local schools adjacent to the corridor, Burlington Northern Santa Fe (BNSF) and Minnesota Commercial Railway, Rice Creek Watershed District (RCWD), Ramsey Washington Metro Watershed District (RWMWD), and private properties adjacent to the corridor for funding strategies, increased recreational opportunities, and proposed improvements.

2. Rush Line Bus Rapid Transit (BRT)

Ramsey County Regional Rail started master planning activities in 2014 for development of the Rush Line BRT from downtown Saint Paul to the downtown area of White Bear Lake. The majority of the Rush Line BRT is proposed to be located within the existing former BNSF right-of-way from downtown Saint Paul to Buerkle Road in the city of White Bear Lake. The north extension of the Rush Line BRT is planned to follow Buerkle Road and Highway 61 to the downtown area within the city of White Bear Lake. Dependent on the outcome of the Rush Line BRT master planning process, realignment of the existing trail will likely be required within the former railway corridor. Connections to bus terminals, parking areas, and other recreational development opportunities will need to be planned in conjunction with the Rush Line BRT.

3. Trail Development

- **Pedestrian Trail Connections:** increase pedestrian access points to the regional trail corridor for improved connectivity to adjacent residential and commercial real estate.
- **Access points at Roadway Corridors:** Several access points to the regional trail are in existing roadway corridors. There has been a demand to redevelop many of these access points for improved access and safety while crossing roads. Proposed improvements may consist of the redevelopment of existing at-grade crossings, realignment of access points, safety signaling, and trail transition areas. A planning study may be required to identify necessary improvements for these crossings.
- **New Access Points:** There has been a demand to increase access points to adjacent residential neighbors and commercial real estate. Additional access points will be proposed for undeveloped trail sections as development occurs. A planning study may be required to identify additional trail connections to the corridor.

Existing Regional Trail: Redevelop existing sections of regional trail for more direct connections to amenities. Redevelopment of the existing trail will be required during implementation of the Rush Line BRT within the regional trail corridor. The regional trail is proposed to be shifted to allow construction of the Rush Line BRT, bus line terminals, and parking areas. Improvements shall consist of trail repaving and the re-alignment of trail sections to reduce sharp corners and steep slopes adjacent to trail sections.

PROPOSED DEVELOPMENT

New Trail Sections: Trail development is proposed for undeveloped sections of the Bruce Vento Regional Trail. A preliminary design study was completed in 2016 to identify the proposed trail alignment, preliminary design and engineering, impacts, cost, and site amenities for additional recreation opportunities of the trail extension from Buerkle Road to Highway 96 West in the city of White Bear Lake. Additional planning activities started in 2016 for possible trail alignment corridors for the extension of trail from Highway 96 West to County Road J. Additional planning activities will be required to determine the location of the regional trail corridor and will require a master plan amendment for proposed trail locations and improvements.

4. Trailhead Parking Lots

There are no trailhead parking lots. There has been a demand to increase parking for access to the regional trail corridor. Additional trailheads are proposed for new sections of trail from Buerkle Road to County Rd J. Additional planning studies may be required to determine parking opportunities for existing sections of trail, partnerships, and new trailhead locations.

5. Wayfinding

Improve pedestrian signage for improved wayfinding to trail accesses, trail crossings and other amenities. Provide interpretive signage in natural areas for increased nature education opportunities.

6. Recreation Opportunities

Public Art: Provide the opportunity and appropriate infrastructure to accommodate public art to improve community connections.

Culturally Significant Areas: Provide connections and interpretive education to culturally significant areas along the railway corridor. Proposed improvements would consist of interpretive educational signage and pedestrian connections for viewing opportunities.

Programming: Increase recreation and nature programming activities. This may be accomplished through interpretive and educational signage.

Wildlife Areas: Provide visual and interpretive educational signage and pedestrian connections to wildlife areas. If federally or state listed protected plants or animals are discovered statutes and guidelines will be followed.

7. Acquisitions

Identify properties for future regional trail acquisition when properties become available.

Appendix C
2018-2019 Railroad Engagement Meeting Summaries and Graphics

Bruce Vento Trail Design

Railroad Coordination Meeting

October 11, 2018

AGENDA

1. Introductions

2. Project Overview

- Project History and Background
- Bruce Vento Trail Master Plan

3. Buerkle Road to Hwy 96 Final Design Project

- Proposed Alignment
- Existing Rail Crossings
- Potential Encroachments of BNSF Property

4. Discussion

- Understanding Railroad Issues and Concerns
 - Plans to Improve Existing Facilities
 - Plans for Rail Service
 - Safety and Crossing Concerns
 - Other Issues and Concerns
- BNSF Design Guidelines for At-Grade Trails and Parallel Roadways
- Public Input on Trail Alignment Through Downtown White Bear Lake
- Opportunities for Flexible Design Solutions
- Continuing the Dialogue

5. Next Steps

Bruce Vento Trail Design

Railroad Coordination Meeting

February 26, 2019

AGENDA

1. Introductions

2. October 11, 2018 Meeting Recap

- Project history and background
- Railroad interests and concerns
- Trail alignment review

3. Project Activities Since Last Meeting

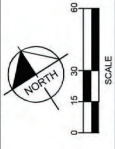
- Concept design and refinement
- Public engagement
- Rush Line coordination
- Topographical survey, geotechnical investigation

4. Trail Alignment Discussion

- Buerkle Road to County Road E
 - Buerkle Road crossing
- County Road E and Highway 61 bridge underpasses
- Hoffman Road corridor
- Hoffman Road/US 61 Area
 - Marina Triangle Rush Line station
 - Whitaker Street pedestrian track crossing
- Downtown White Bear Lake

5. Next Steps

- Concept layout refinement
- Encroachment permit process
- Final design



PARKING DATA

- EXISTING: (within ---) 129 SPACES
- REMOVED: 59 SPACES
- ADDED: 15 SPACES
- PROVIDED: 105 SPACES

BRUCE VENTO TRAIL
WHITE BEAR LAKE

1" = 30'
1/9/2018

REMOVE EXISTING
PARKING - 59 SPACES

MINN'S BURRILL
REMOVE EXISTING
PARKING - 2 SPACES

EDGE OF BALLAST
EDGE OF RAIL

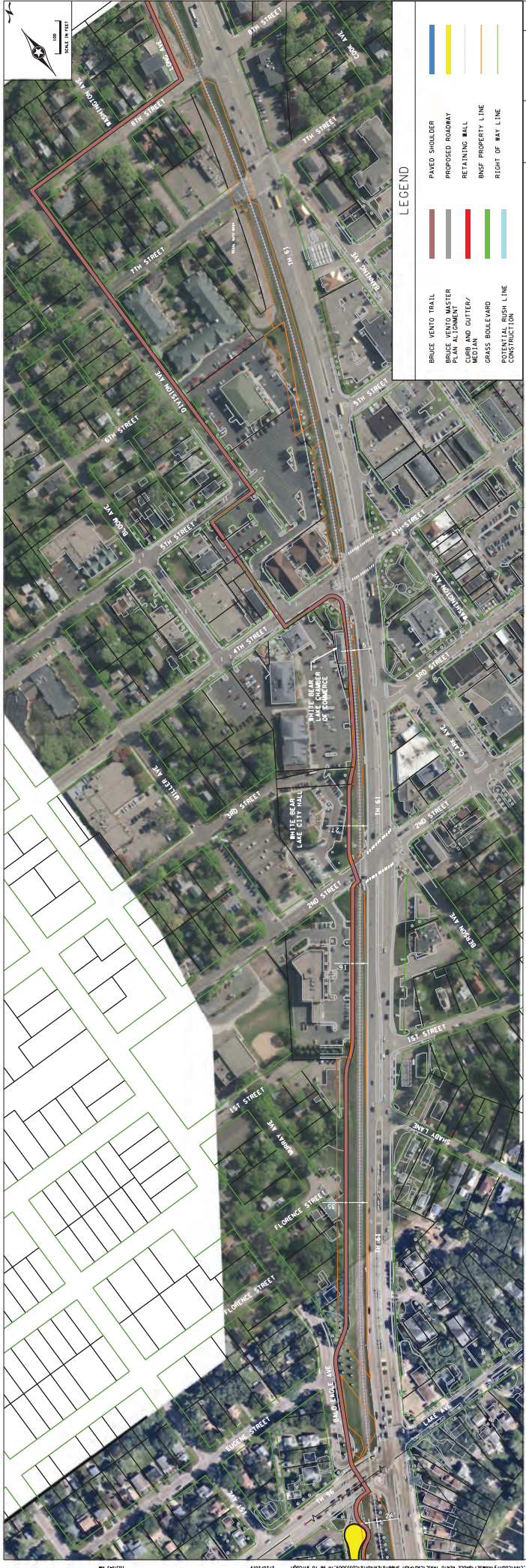
DEPOT
(CHANGE OF CHANGE)

CAROUSEL

BNSF

Hwy 61

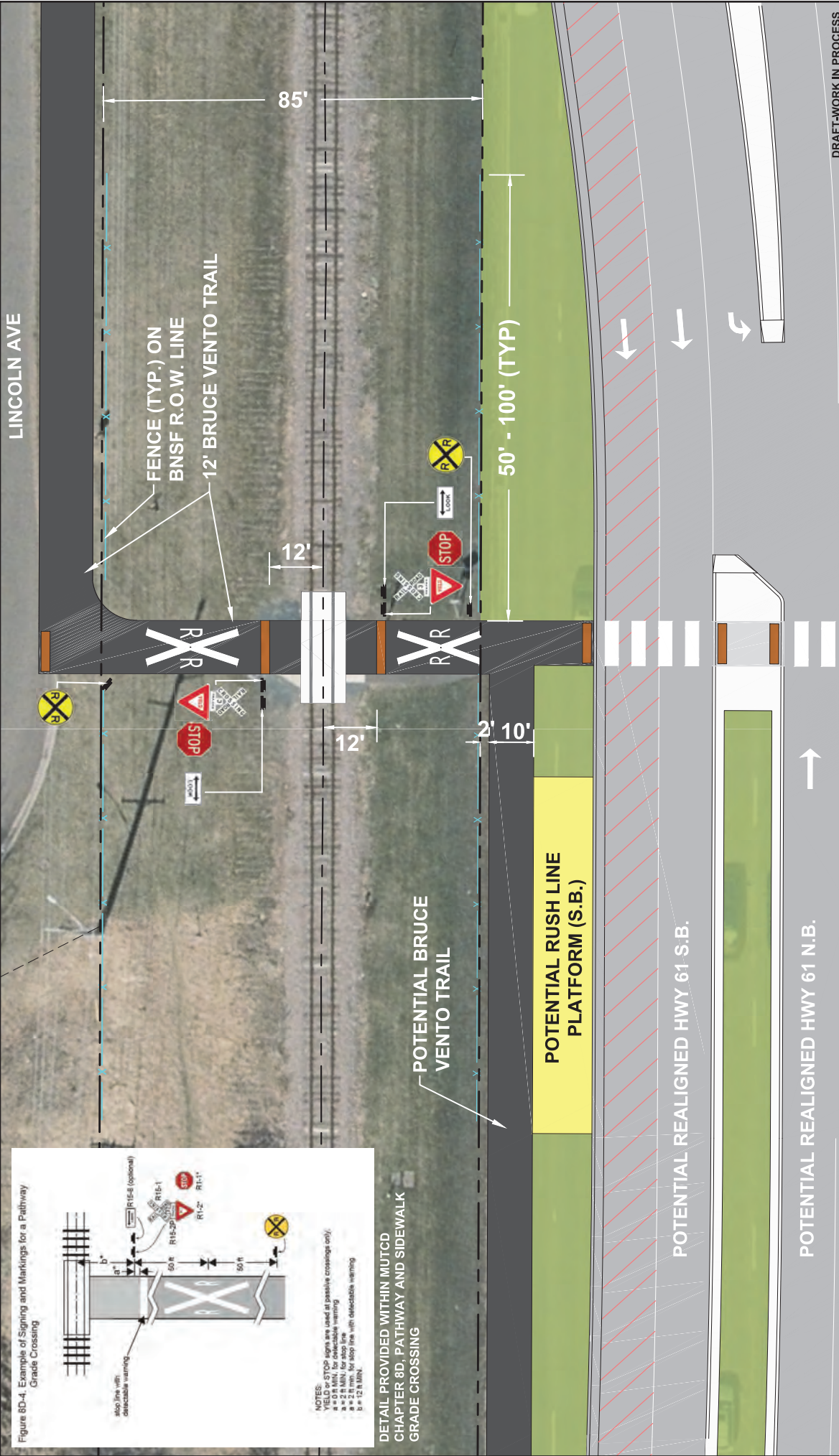
4th STREET



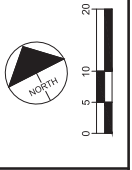
LEGEND

	BRUCE VENTO TRAIL		PAVED SHOULDER
	BRUCE VENTO MASTER PLAN AND GUTTER/MECHANICAL		PROPOSED ROADWAY
	GRASS BOULEVARD		RETAINING WALL
	POTENTIAL RIGHT OF WAY CONSTRUCTION		BNSF PROPERTY LINE
	POTENTIAL RIGHT OF WAY CONSTRUCTION		RIGHT OF WAY LINE

BRUCE VENTO TRAIL - TH 96 TO 8TH STREET



DRAFT-WORK IN PROCESS



REV 0
02/21/2019

BRUCE VENTO TRAIL
WHITE BEAR LAKE
RAMSEY COUNTY
POTENTIAL PEDESTRIAN CROSSING OF RAILROAD AT WHITAKER STREET

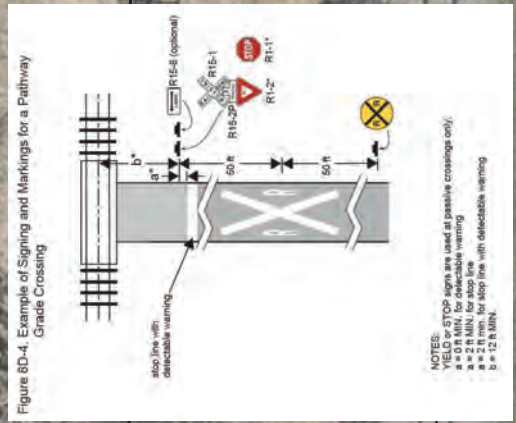


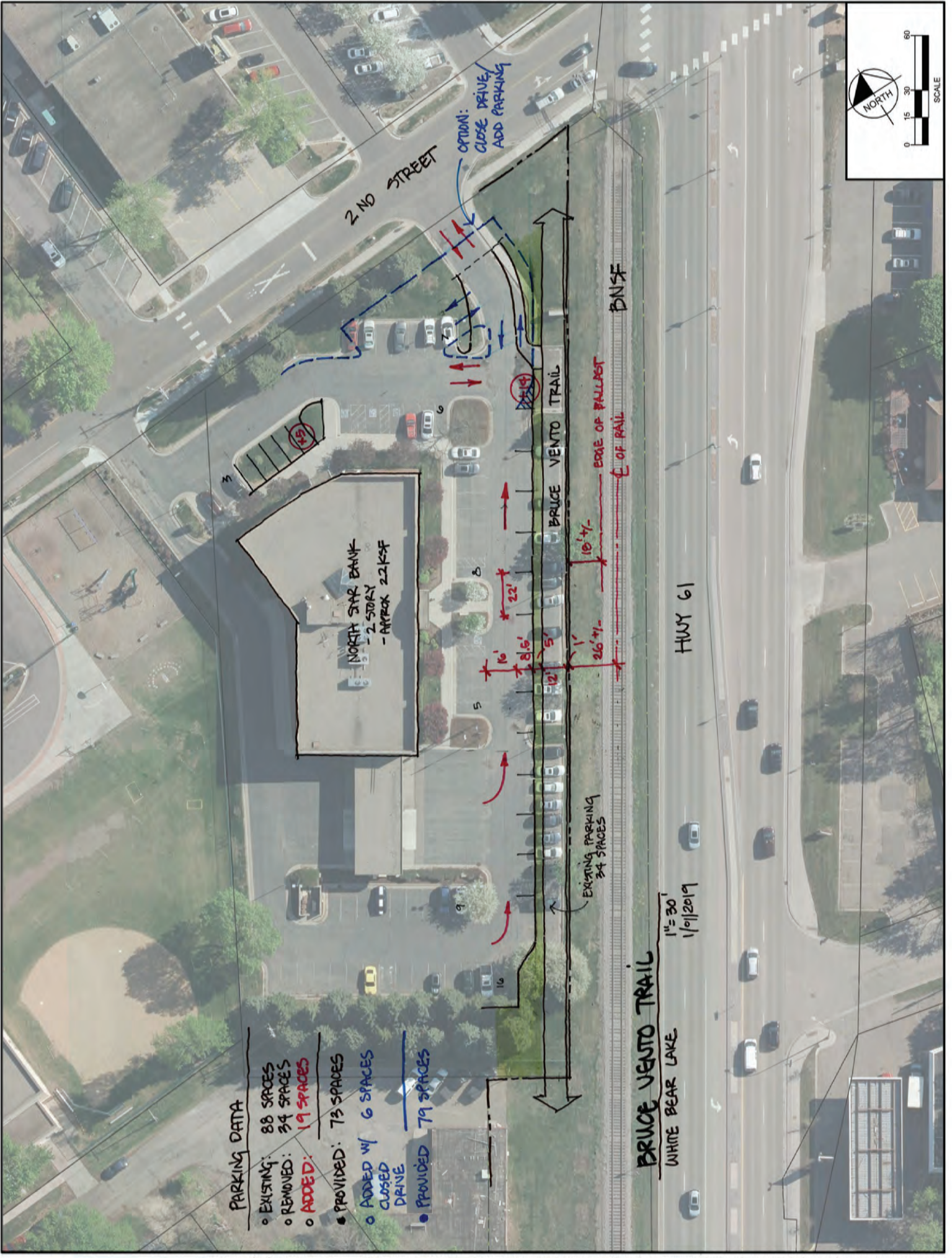
Figure 8D-4. Example of Signing and Markings for a Pathway Grade Crossing

NOTES:
YIELD or STOP signs are used at passive crossings only;
a = 5 ft MIN. for advance warning
b = 2 ft MIN. for stop line with deflatable warning
c = 12 ft MIN.

DETAIL PROVIDED WITHIN MUTCD
CHAPTER 8D, PATHWAY AND SIDEWALK
GRADE CROSSING

PARKING DATA

- EXISTING: 88 SPACES
- REMOVED: 34 SPACES
- ADDED: 19 SPACES
- PROVIDED: 73 SPACES
- ADDED w/ CLOSED DRIVE: 6 SPACES
- PROVIDED: 79 SPACES



Bruce Vento Trail Design

Railroad Coordination Meeting

June 11, 2019

AGENDA

1. Introduction/Safety Briefing

2. February 26, 2019 Meeting Recap

- Trail alignment refinements- Buerkle Road to Highway 96
- Downtown White Bear Lake
- Trail alignment review

3. Project Activities Since Last Meeting

- Concept design and refinement – downtown WBL
- Agency (City, County, Rush Line) coordination

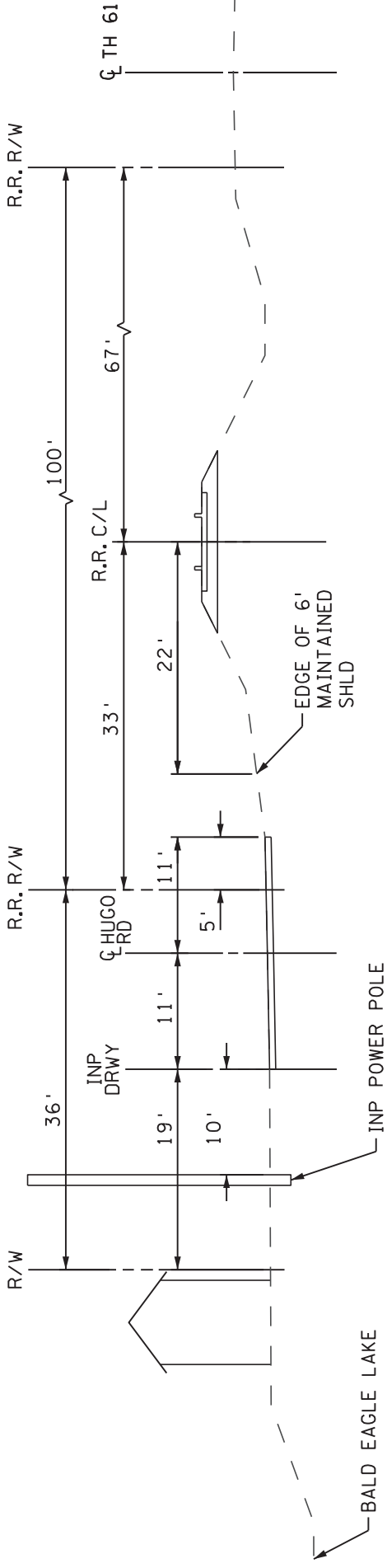
4. Trail Alignment Discussion

- Buerkle Road to Hoffman Road/US 61 Intersection
- US 61 Area (Hoffman Road to Highway 96)
- Downtown White Bear Lake Alternatives
 - East Side of US 61
 - West Side (along/within BNSF)
- Hugo Road frontage

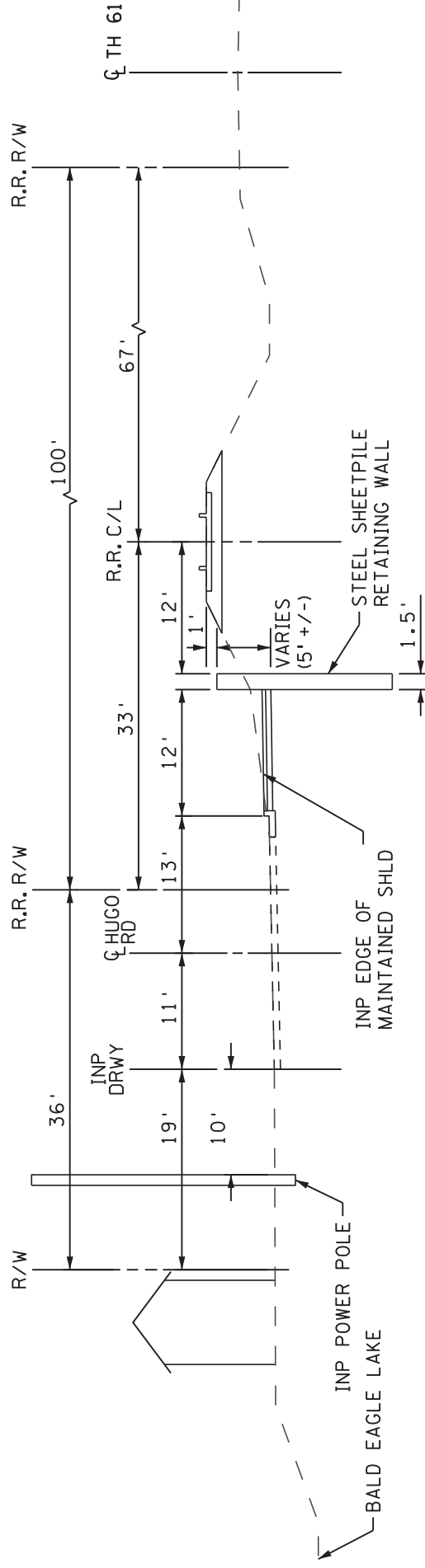
5. Next Steps

- Begin 30% design plans for trail (Buerckle to Highway 96)
- Clarify encroachment permit locations/limits
- Finalize trail corridor in downtown White Bear Lake
- Geotechnical borings at County Road E and Highway 61 bridges

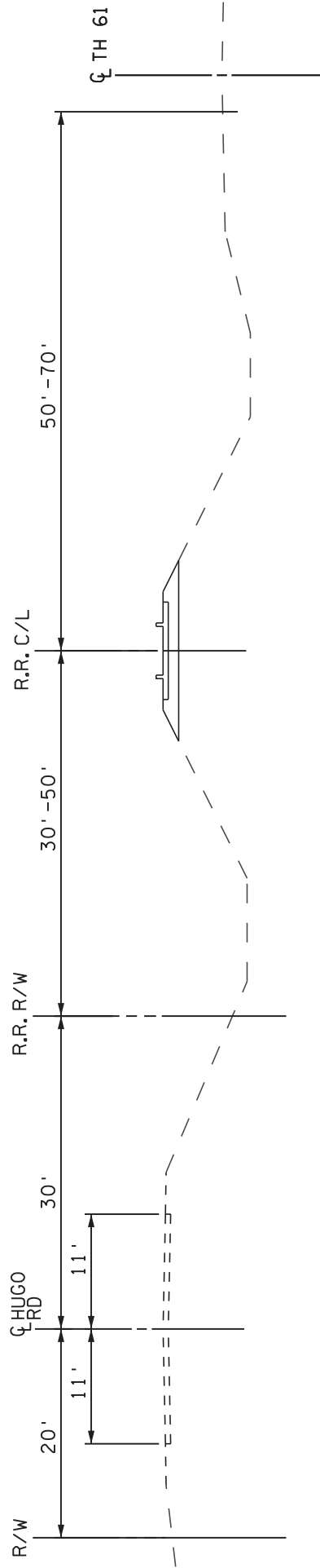




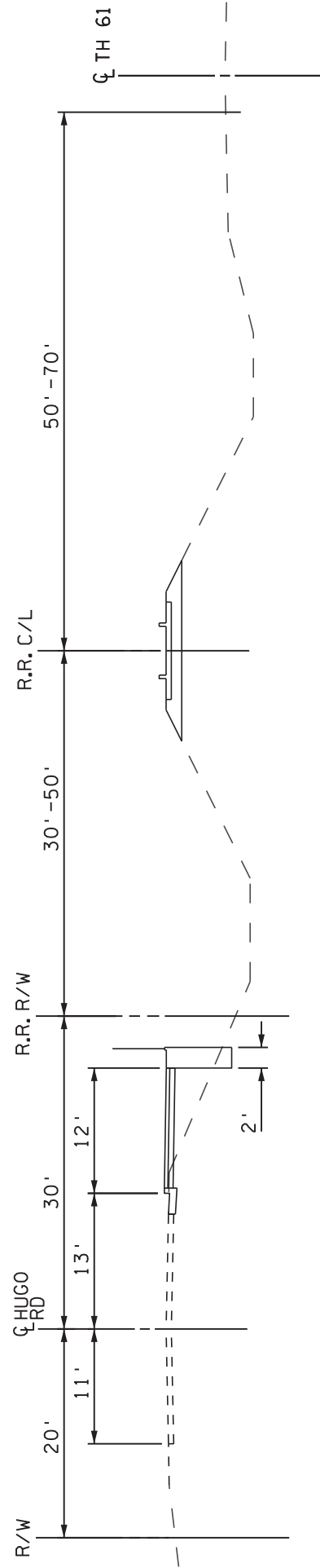
INPLACE TYPICAL SECTION



PROPOSED TYPICAL SECTION



INPLACE TYPICAL SECTION



PROPOSED TYPICAL SECTION

Bruce Vento Trail Design

Railroad Coordination Meeting

December 4, 2019

AGENDA

1. Introductions

2. Project Overview

- Project History and Background
- Project schedule
- Railroad coordination to date

3. Buerkle Road to Hwy 96 Final Design Project

- Proposed Trail Layout
- Areas of Encroachment within BNSF Property
 - North Marsh to County Road E
 - County Road E underpass
 - Highway 61 underpass
 - Hoffman Road
- Rush Line coordination
- Whitaker Street Crossing improvement

4. Highway 96 to County Road J Master Planning

- Downtown White Bear Lake
- Hugo Road pinch point

5. Discussion and Next Steps

- 30% Plan Review process with BNSF
- Funding application

Bruce Vento Trail Design

Railroad Coordination Meeting

June 22, 2020

AGENDA

1. Introductions

2. December 2019 Meeting Recap

- Review of project history and previous railroad coordination
- Review of Buerkle Road – White Bear Avenue project details
- Discussion of future trail extension through White Bear Lake to CR J

3. Buerkle Road to White Bear Avenue Project

- Trail/BNSF property interaction area focus
 - North Marsh to County Road E area
 - County Road E underpass area
 - Highway 61 underpass area
 - Hoffman Road frontage
- Design refinements since December
 - Minimized walls on RR side of trail
 - Shifted trail at underpasses to provide 50 feet of separation (vs. 25)
 - Drainage design
 - Shifted trail out of BNSF property near White Bear Avenue (in progress)
- Federal funding application in May 15, 2020 (2024 construction)
 - Coordination letter for funding application

4. Next Steps

- Coordination letter for funding application
- Preliminary Engineering Plan Review with BNSF

Appendix D
2019 Rush Line Corridor 15% Plans: Select Sheets

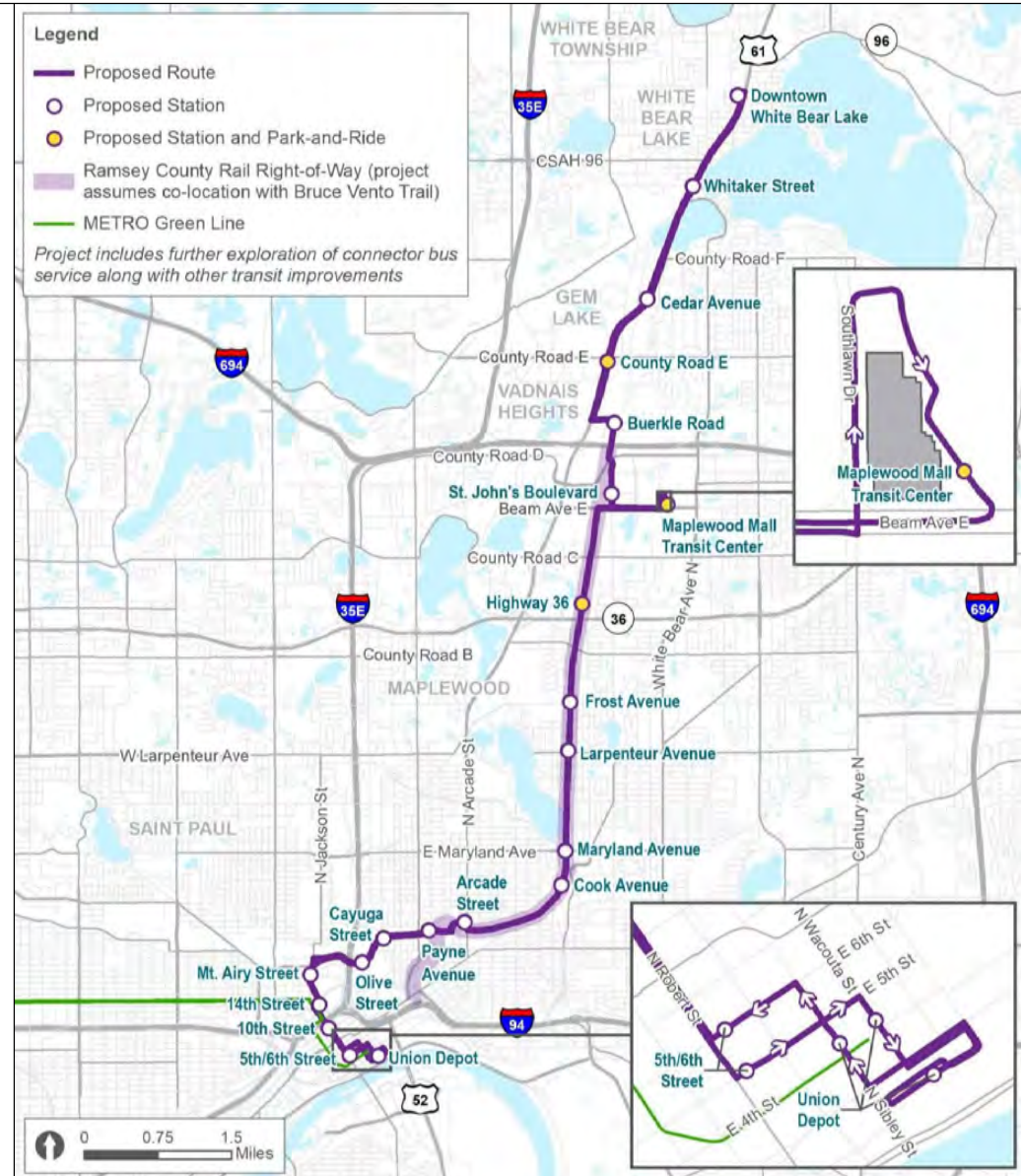
Rush Line

RAMSEY COUNTY

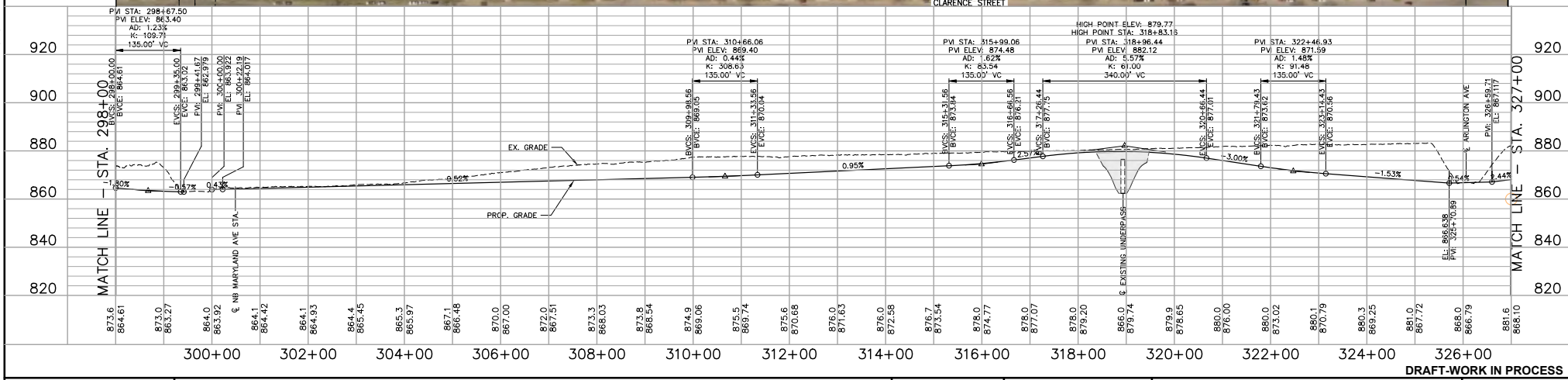
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AUGUST 07, 2020
15% PLANS - FINAL DRAFT



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RUSH LINE BRT PROJECT

15% PLANS - 08/07/2020

HORIZONTAL

VERTICAL

SCALE IN FEET

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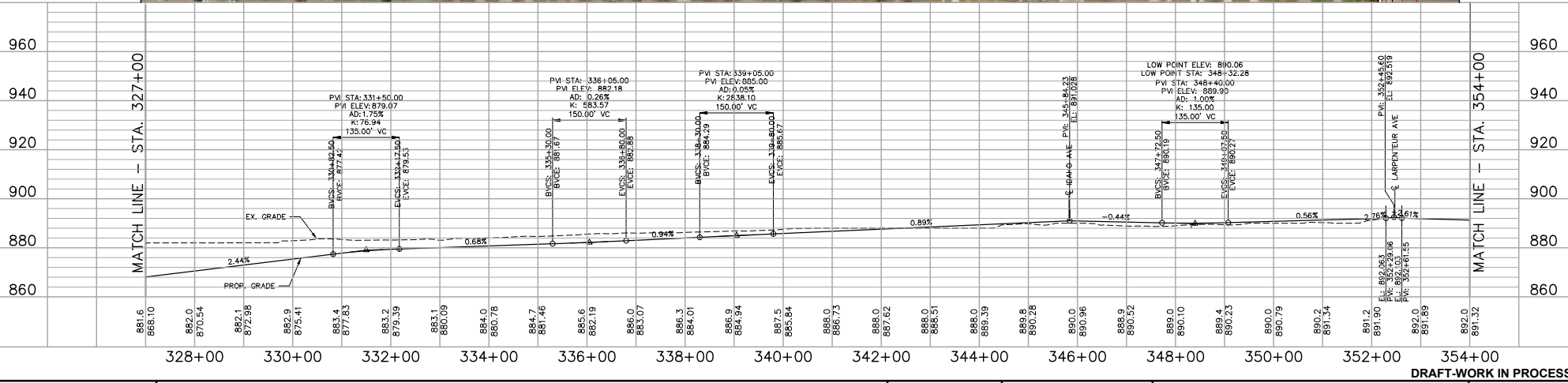
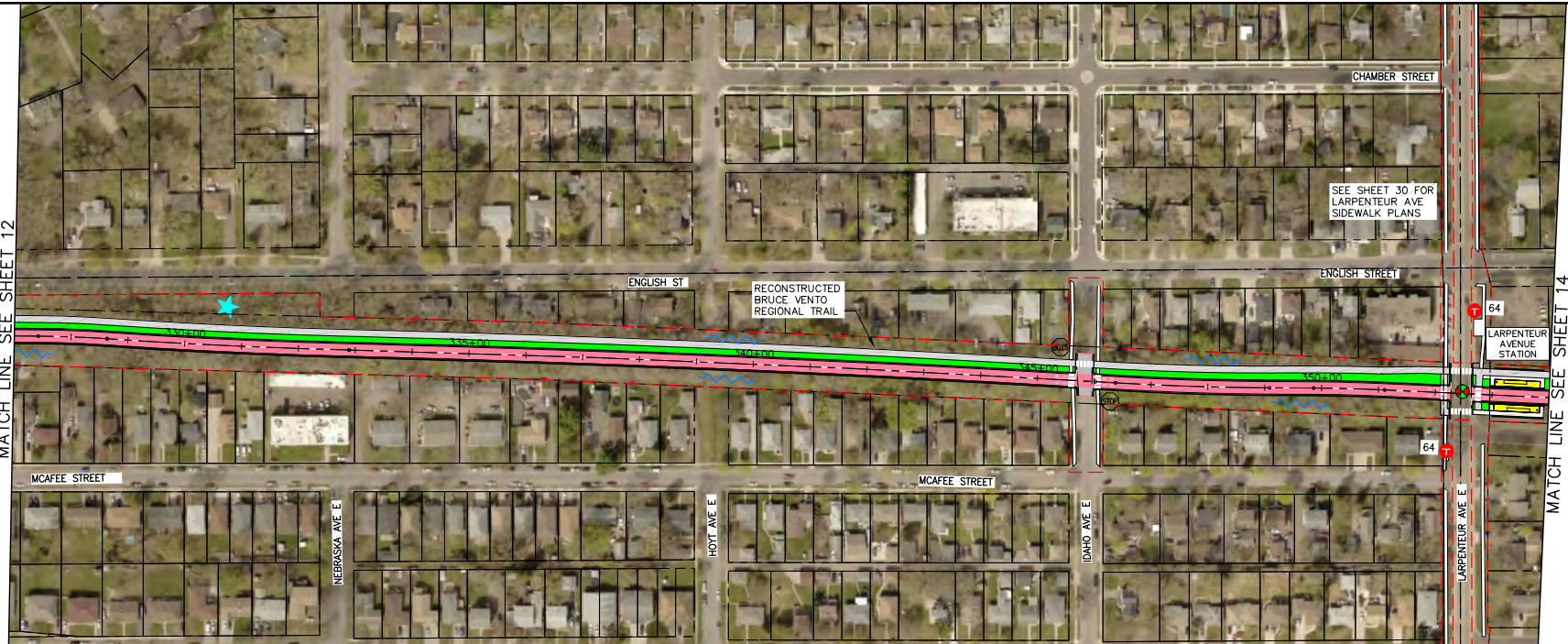
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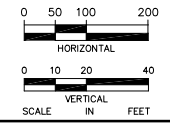
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RUSH LINE BRT PROJECT

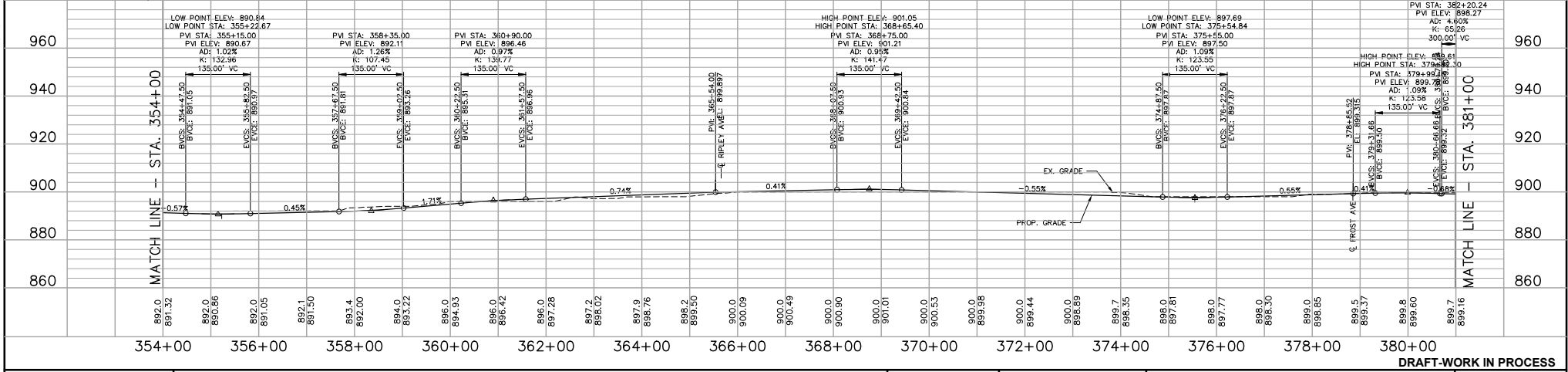
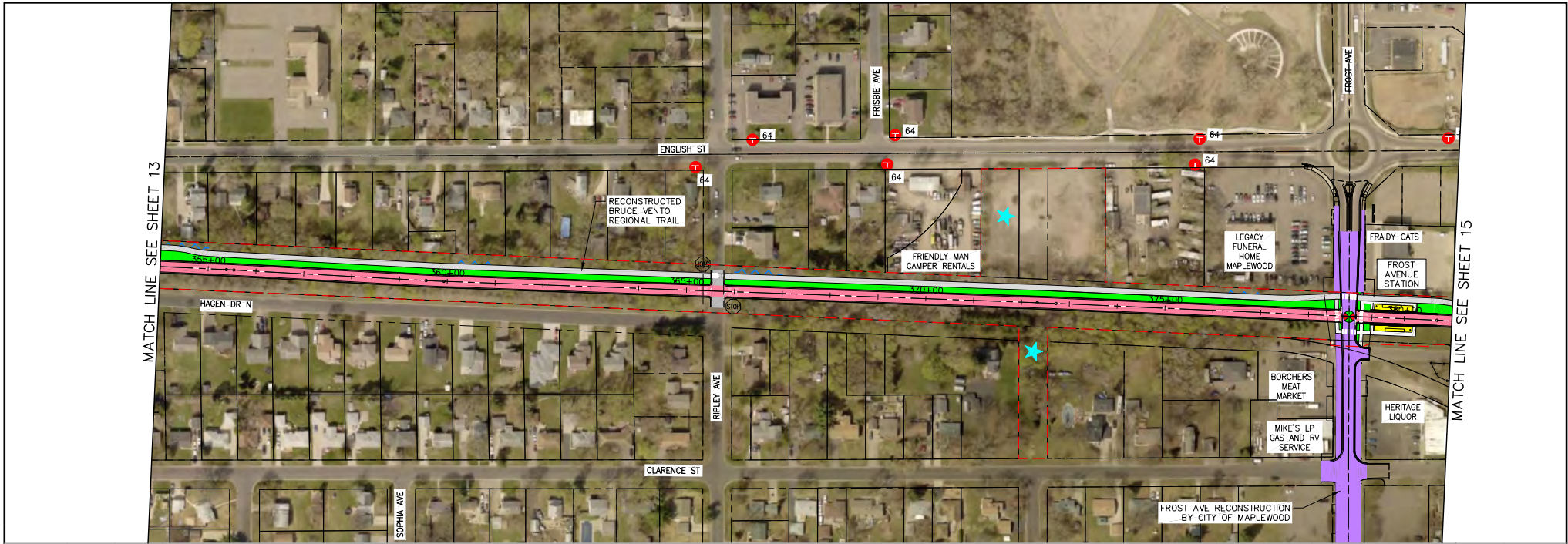
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RUSH LINE BRT PROJECT

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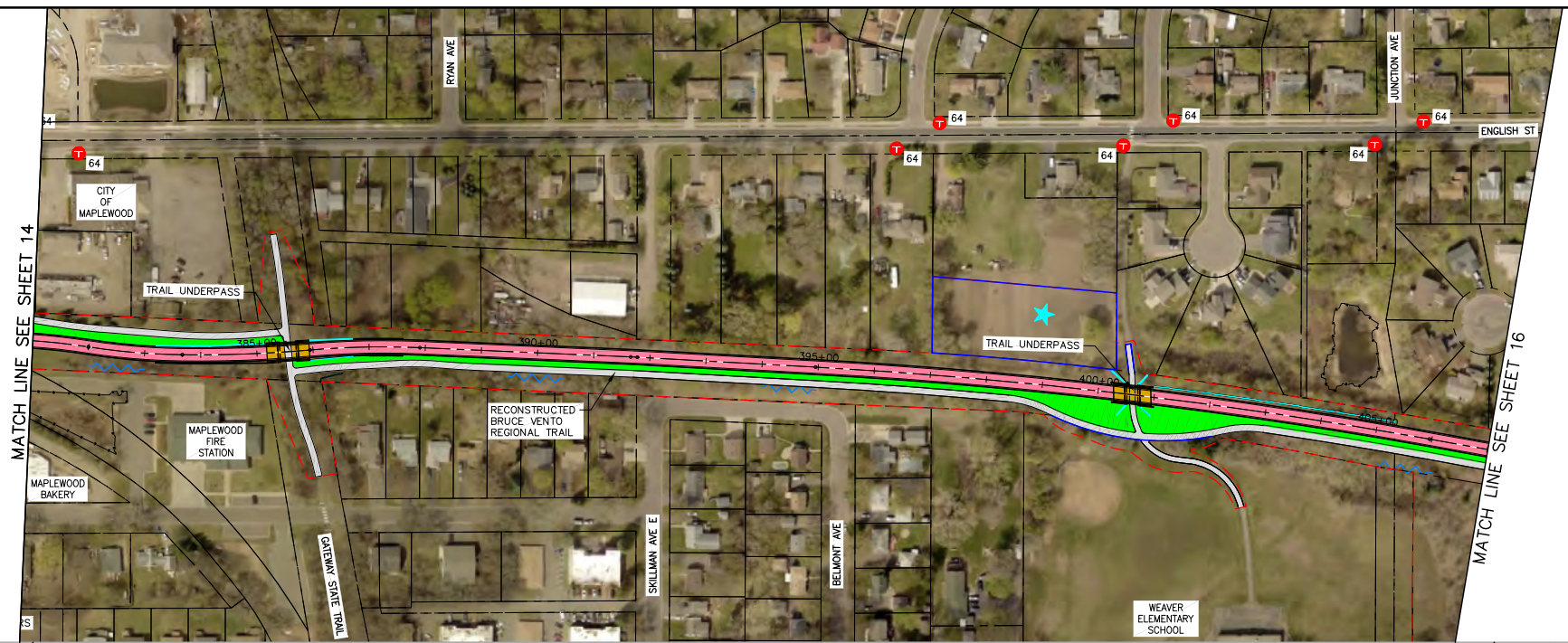
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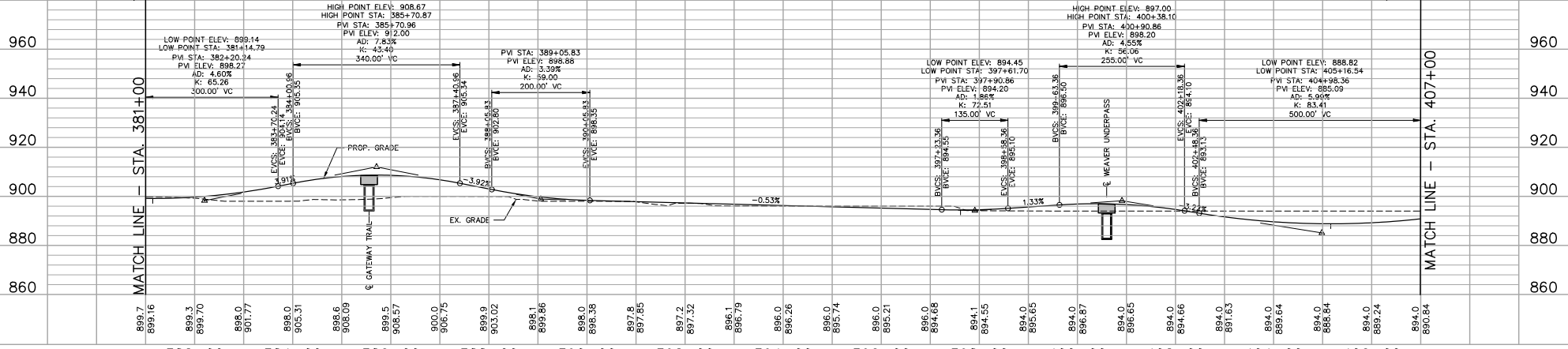
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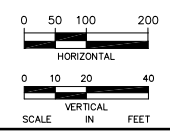
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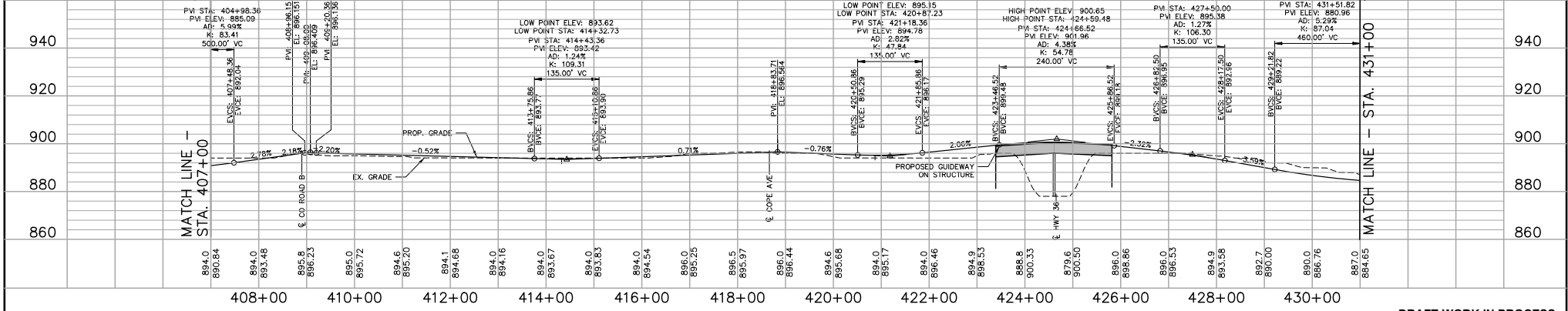
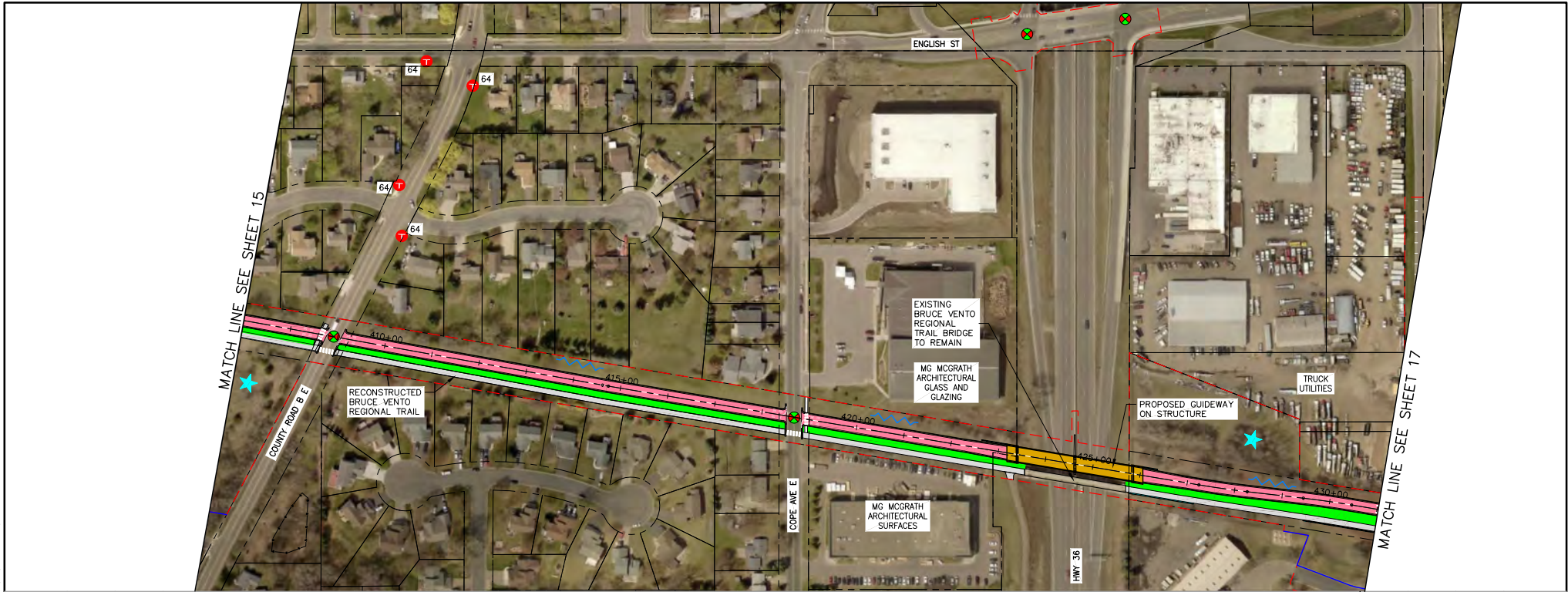


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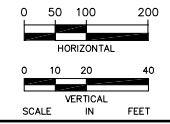


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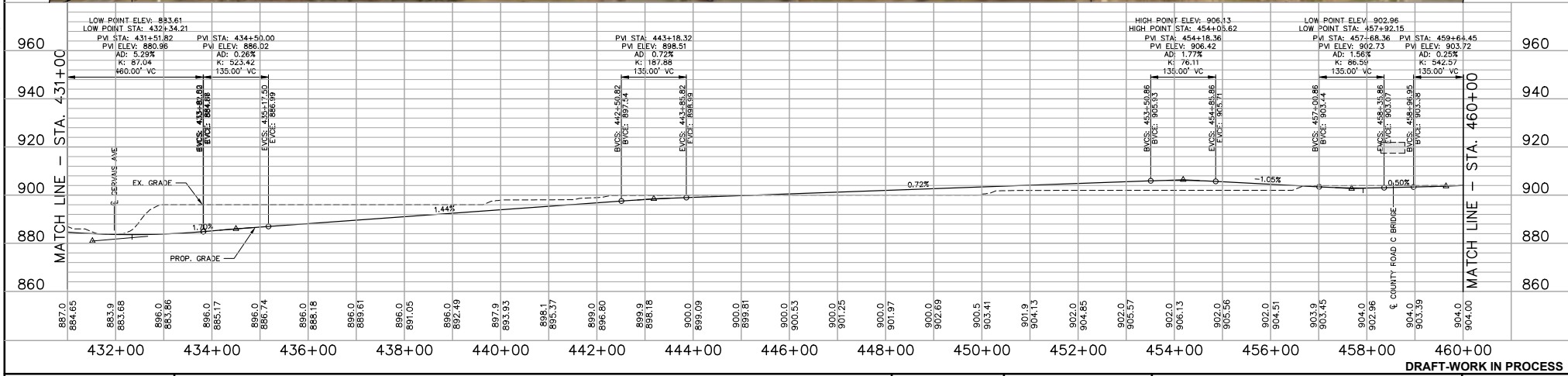
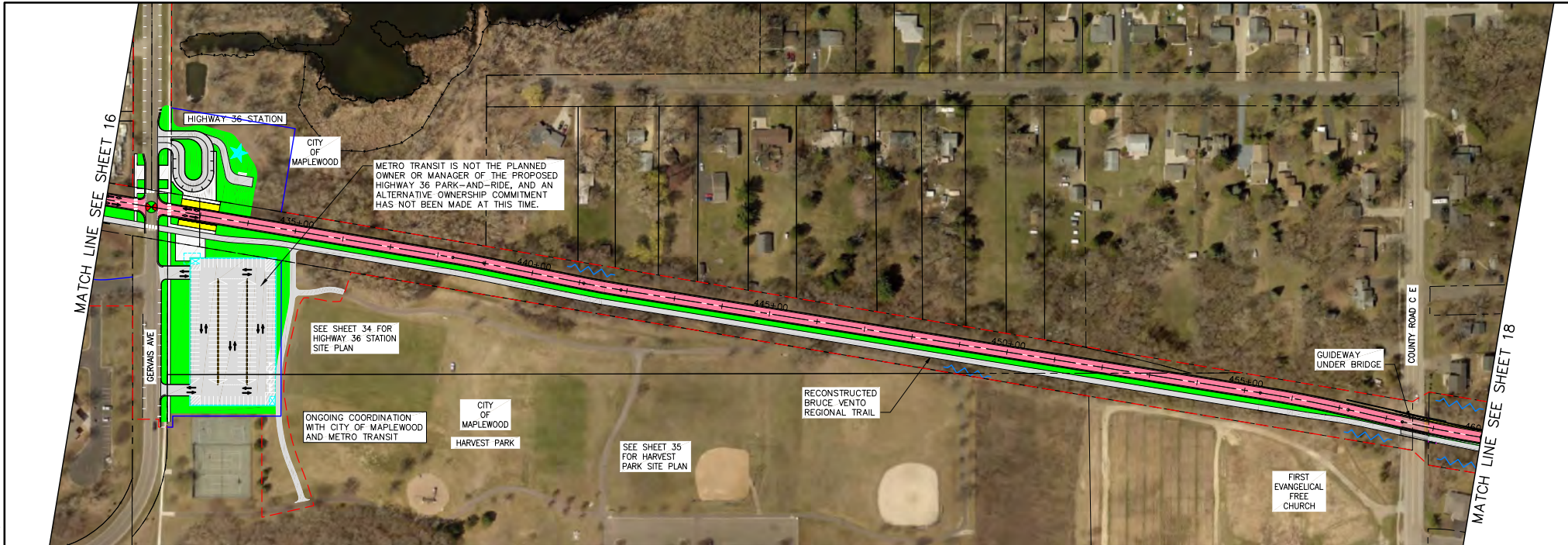
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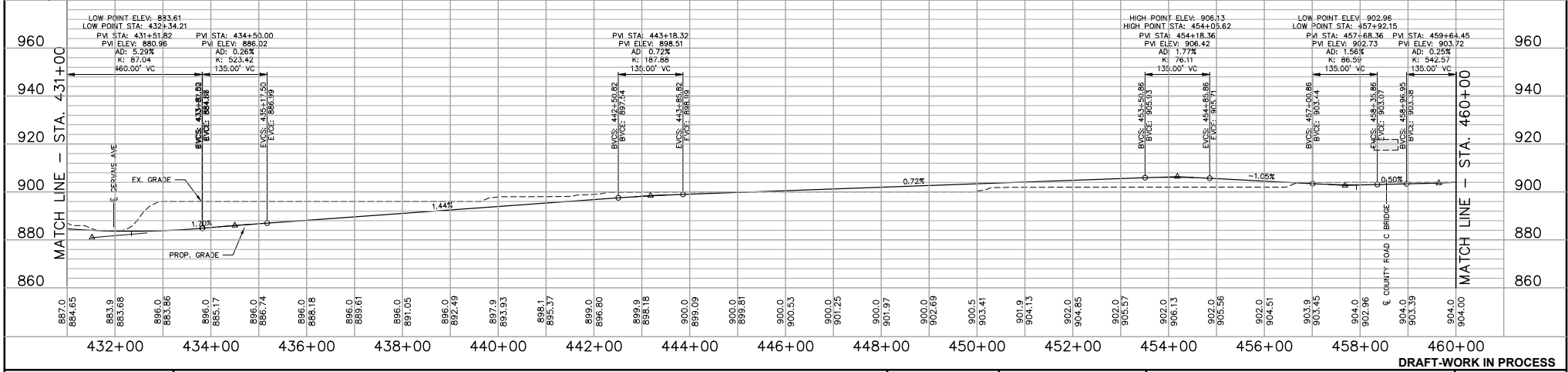
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RUSH LINE BRT PROJECT

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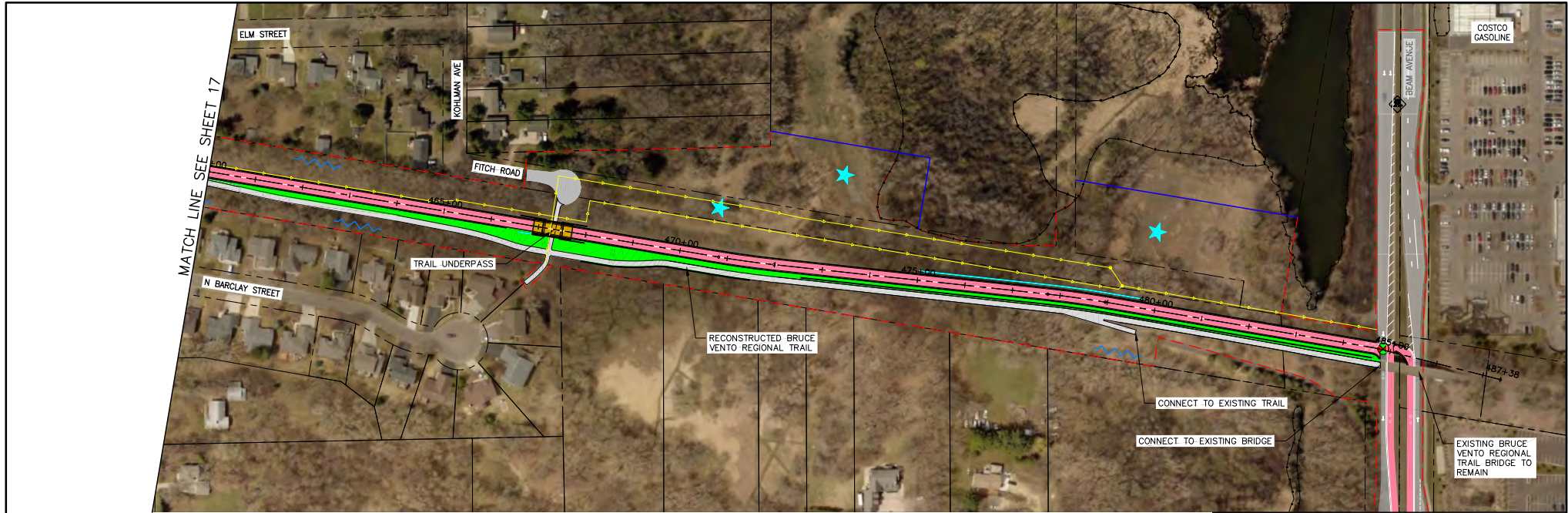
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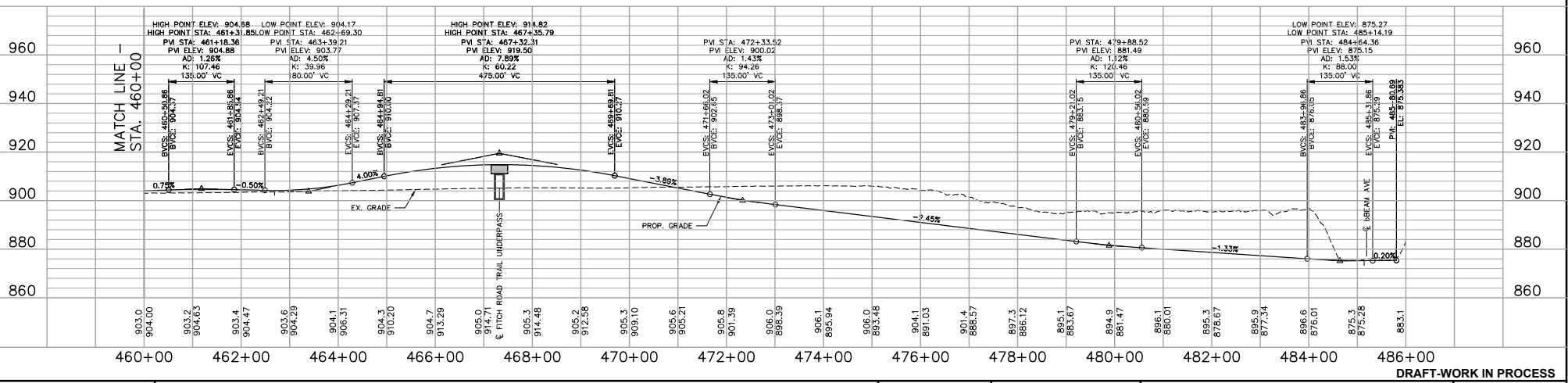
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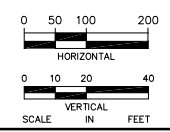


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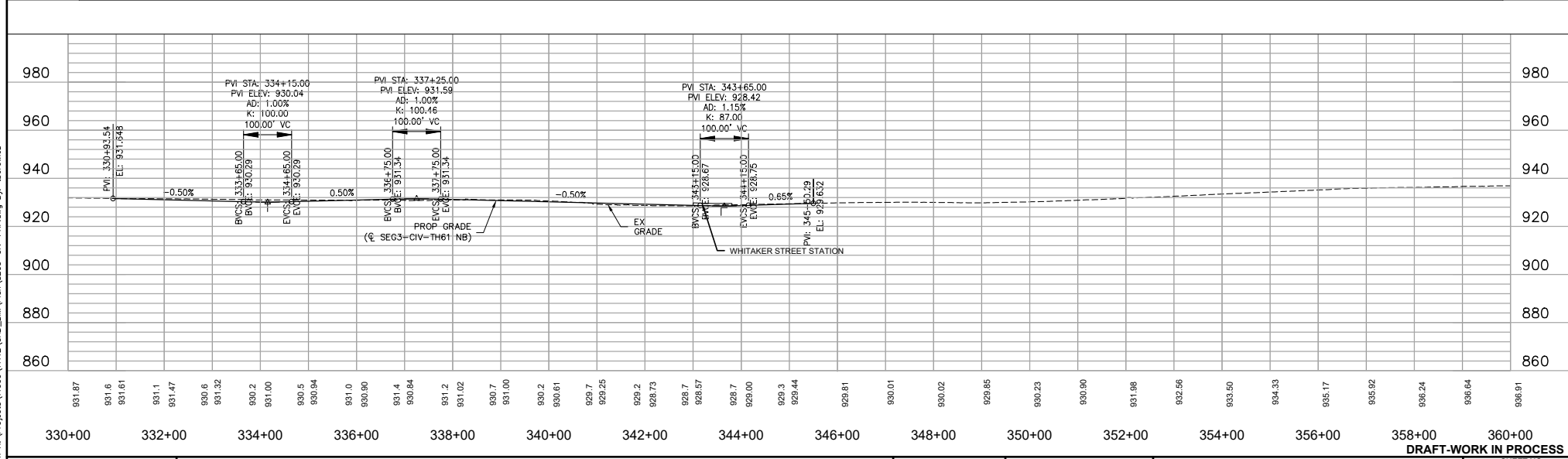
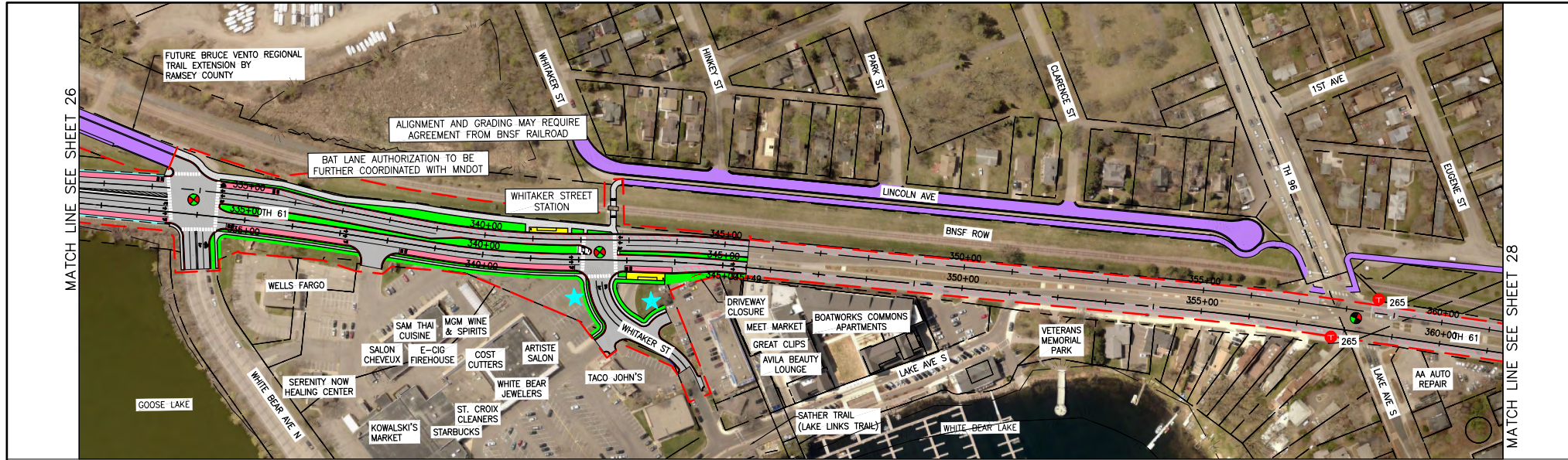


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RUSH LINE BRT PROJECT

15% PLANS - 08/07/2020

HORIZONTAL

VERTICAL

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Appendix E
2018-2019 Engagement Event Summaries and Comments Received

Bruce Vento Regional Trail

HIGHWAY 96 TO COUNTY ROAD J EXTENSION



Community Engagement Meetings

Ramsey County Parks & Recreation is initiating a planning study to refine alternative regional trail alignment corridors out of the rail right-of-way. This process will find one preferred trail alignment for the Bruce Vento Regional Trail.

OCTOBER 4

6 - 8 p.m.

*Present proposed corridors
for public input.*

OCTOBER 25

6 - 8 p.m.

*Present refined corridor
from first meeting and gain
additional public input.*

Meeting Location:

WHITE BEAR LAKE PUBLIC SAFETY BUILDING

4701 Highway 61, White Bear Lake, MN 55110



NEWS RELEASE

September 17, 2018

FOR IMMEDIATE RELEASE

Contact: Kristi Saksvig 651-486-2208

Bruce Vento Trail Extension: Highway 96 to County Road J

Ramsey County Parks & Recreation is initiating a planning study to refine alternative regional trail alignment corridors out of the rail right-of-way. This project area is located between Highway 96 and County Road J in the cities of White Bear Lake and White Bear Township. This process will find one preferred trail alignment for the Bruce Vento Regional Trail.

Community engagement meetings

Thursday, October 4, 2018

Proposed corridors will be presented for public input. Come and share your thoughts on the Bruce Vento Trail extension design options.

Thursday, October 25, 2018

Refined corridor drawings will be presented based on input from the first meeting.

Both meetings will be held from 6 to 8 p.m. at the White Bear Lake Public Safety Building, 4701 Highway 61, White Bear Lake, MN 55110.

Project goal

Extend trail from Highway 96 to County Road J:

- Determine if the Bruce Vento Regional Trail route can be routed through downtown White Bear Lake.
- Refine potential trail alignment search corridors.
- Provide trail connections to Rush Line Bus Rapid Transit and downtown White Bear Lake.
- Provide basis for Master Plan Amendment for the Bruce Vento Regional Trail north of Highway 96.

More information about the project can be found on the [Parks website](#).



Bruce Vento Regional Trail

Highway 96 to County Road J

Public Meeting No. 1

Presentation Contents and Agenda

- Open Time 6:00
- Presentation 6:15
 - Bruce Vento Trail Overview
 - Overview of Public Engagement Meetings & Master Planning Process
 - Project Goals
 - Possible Alignments
- Comments & Questions 6:30
- Open House Forum & Public Input 6:40

Bruce Vento Trail Overview

- Buerkle Road to Highway 96
 - Build on the preliminary design study completed in 2016
 - Complete Final Construction Plans
 - Align with 2018 Regional Solicitation Funding Opportunities
 - Anticipated Implementation in 2022
- Highway 96 to County Road J
 - Refine potential alternative trail alignment search corridors
 - Determine if the Bruce Vento Regional Trail can be routed through downtown White Bear Lake
- Bruce Vento Regional Trail Master Plan
 - Amend the Bruce Vento Regional Trail Master Plan to illustrate trail improvements, and trail re-alignment from Larpenteur Avenue to County Road J



RAMSEY COUNTY

Trail Extension - Highway 96 to County Road J

Master Plan Process





RAMSEY COUNTY

Trail Extension - Highway 96 to County Road J

Project Goals

Goals: Highway 96 to County Road J

- Refine potential alternate trail alignment search corridors
- Determine if the Bruce Vento Regional Trail route can be routed through downtown White Bear Lake
- Provide trail connections to Rush Line BRT and downtown White Bear Lake
- Additional community engagement meetings will take place to seek input and design options, fall 2018
- Provide basis for Master Plan Amendment for the Bruce Vento Regional Trail north of Highway 96

Possible Alignments



Alignment Concepts



Alignments West of Highway 61

- **Opportunities**
 - Provides connections to multiple schools
 - Mimics the Lake Links Regional Trail, offering a second lake shore destination trail in the local community
 - Minimizes major highway crossings
 - Provides connections to multiple parks
 - The route is already used by local pedestrians and bicyclists, and would provide improved access to Bald Eagle Blvd. E
- **Constraints**
 - Bald Eagle Blvd. E is a narrow two-way road with limited right-of-way making passage difficult in areas
 - More utilities, private driveways, etc. to contend with

Alignments East of Highway 61

- **Opportunities**
 - Utilize the existing Lake Links Regional Trail
 - Connects White Bear Lake County Park to the Regional Trail System, helping to achieve the goal of connecting regional facilities as outlined in Thrive 2040
 - More trail length along lake shore
 - Connections to Downtown White Bear Lake readily available
- **Constraints**
 - Requires two crossings of Highway 61

Forum Questions to Consider

- Which Alignment do you prefer most and why?
- Which Alignment do you prefer least and why?
- Are any alignments missing from the concepts that should be reviewed further?
- What trail amenities, local connections, etc. is most important to you that should be considered within the proposed alignments?

Break for Open House Forum

Next Meeting: Thursday October 25 6:00 P.M

Contact Information

PH: 651-748-2500

E-Mail: Parks@CO.ramsey.mn.us

THEMES

- ① Downtown Location
Master Plan
- ② Railway req.
 - can we use rail ROW.
- ③ Phased Approach
 - Downtown vs. OTHER AREAS
- ④ Cong Ave to CR ↓
- ⑤ Downtown Bike/Ped Friendly
- ⑥ Related with Rushline
 - Marina triangle
 - portion of L.L.

THEMES

7. FLEXIBLE TRAIL width
 - use of Bike lanes
8. Hwy 96 (Ped Bridge)
9. Case Study
 - Rail vs. trail
10. Combined Railway use
 - CP & BNSF
 - Bypass downtown



Bruce Vento Regional Trail

Highway 96 to County Road J

Public Meeting No. 2

Agenda

- Open Time 6:00
- Introduction 6:15
- Breakout into Work Groups 6:20
- Work Group Presentation 7:20
- Summary Discussion 7:40



Alignment Concepts

10/4/18



Break for Into Work Groups

Design Criteria:

- Identify trail route from Highway 96 to County Rd J.
- Realistic trail alignment design and location (public vs. private, infrastructure cost)
- 12-foot wide bituminous trail
- Conscience of active railway (impact on railway right-of-way)
- No negative effect on public parking or business

Work Group Presentations

Idea Sharing:

- Trail route location
- Why was that route chosen?
- What are the barriers and impacts?
- What are the opportunities?

Summary Discussion

Work Group Outcomes:

- Identify work group trail alignment(s)
 - Opportunities and Constraints
- Define next steps (trail alignment concepts)

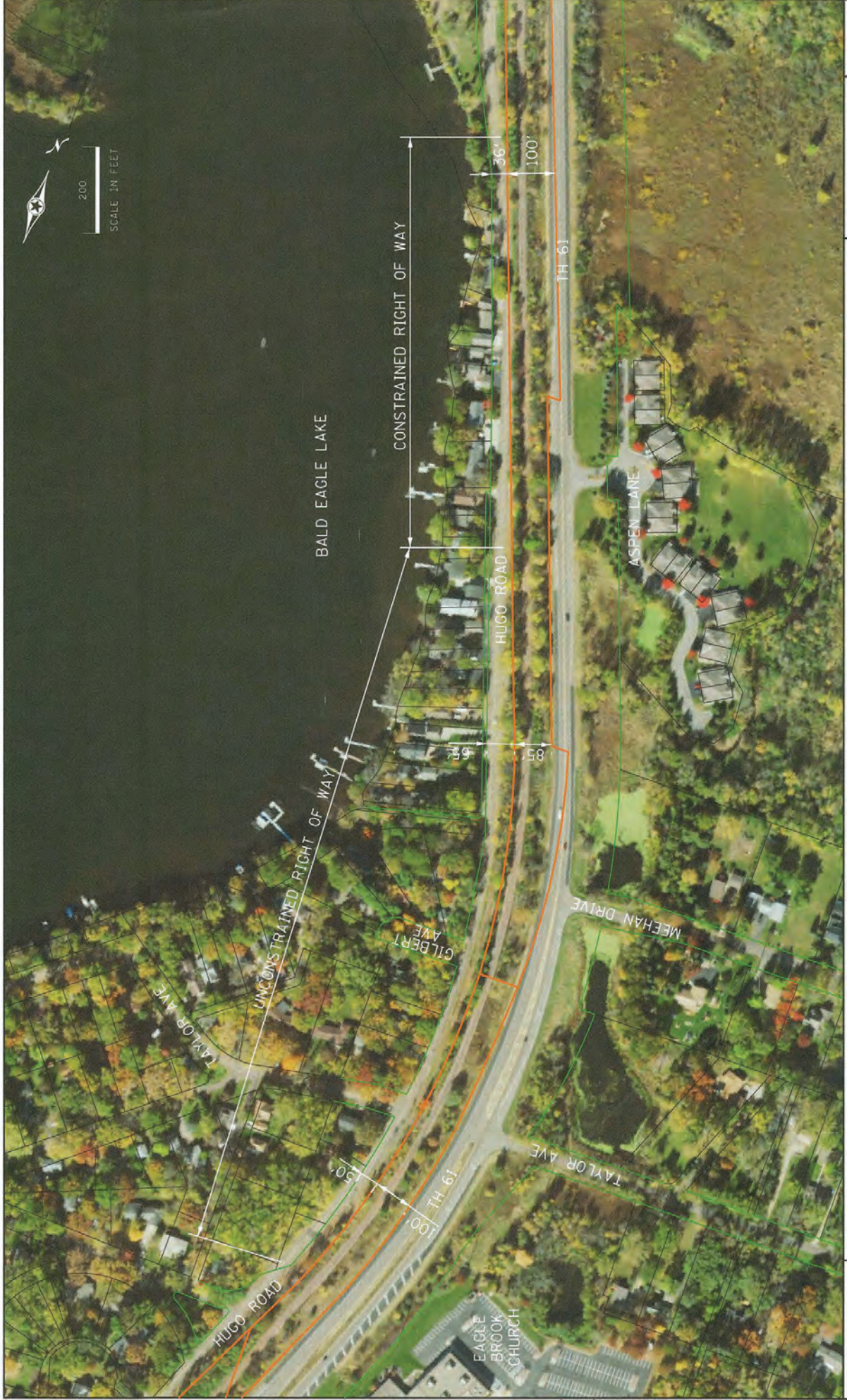
Contact Information

PH: 651-748-2500

E-Mail: Parks@CO.ramsey.mn.us

Next Meeting:

December (TBD)



10/19/2019 AM

6/11/2019

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Bruce Vento Regional Trail Corridor Search 2018



Bruce Vento Regional Trail Corridor Search 2018



Bruce Vento Regional Trail Corridor Search 2018





Appendix F

2020 Rush Line BRT Ramsey County Rail Right-of-Way Design Guide: Executive Summary

The full Rush Line BRT Ramsey County Rail Right-of-Way Design Guide can be accessed on the Ramsey County Roads and Transportation website, at <https://www.ramseycounty.us/residents/roads-transit/transit-corridors-studies/rush-line-brt-project/project-library>



RAMSEY COUNTY RAIL RIGHT-OF- WAY DESIGN GUIDE

FEBRUARY 2020

EXECUTIVE SUMMARY

The Rush Line Bus Rapid Transit (BRT) Project is a proposed 14-mile BRT route connecting Saint Paul, Maplewood, Vadnais Heights, Gem Lake, White Bear Township and White Bear Lake. Following a three-year pre-project development study of various routes and modes of transit that included light rail, BRT and commuter rail, Ramsey County, in coordination with the project area communities, selected the locally preferred alternative for the Rush Line BRT Project in September 2017. The identified route would generally run in dedicated guideway along Robert Street, Jackson Street, Phalen Boulevard, Ramsey County rail right-of-way (co-located with the Bruce Vento Trail) and Highway 61.

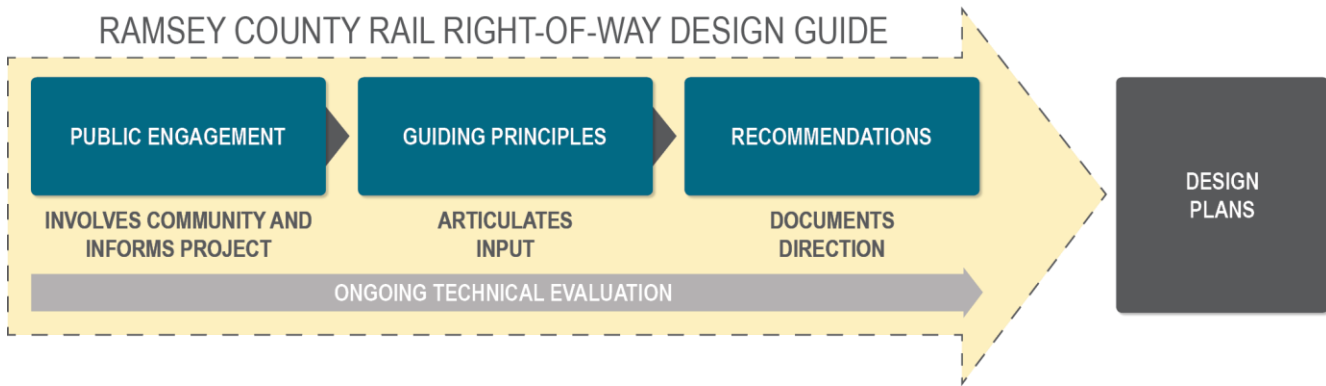
The Ramsey County rail right-of-way was once the Lake Superior & Mississippi Railroad corridor, which was active from the 1870s to 1980s. It was the first direct rail connection between Saint Paul and the Great Lakes Port of Duluth and is eligible for the National Register of Historic Places. This corridor would be impacted by modifications necessary to accommodate the Rush Line BRT Project and is subject to review under Section 106 of the National Historic Preservation Act. Ramsey County is working closely with the Minnesota Department of Transportation Cultural Resources Unit and the Federal Transit Administration to understand the effects to this resource.

Ramsey County purchased the rail right-of-way in the early 1990s to reserve it for future transit use. In 1993, Ramsey County and the city of Saint Paul developed the Bruce Vento Trail Master Plan for a regional trail to be located in the Ramsey County rail right-of-way, and the initial segment of the trail was completed between downtown Saint Paul and Beam Avenue in Maplewood. The Bruce Vento Trail was extended north to Buerkle Road in White Bear Lake in 2005.

In January 2019, Ramsey County adopted the Parks & Recreation System Plan, which identifies community priorities and system gaps, opportunities for development and redevelopment, planned system enhancements and expansions, and natural areas requiring proactive management. The Bruce Vento Trail section of the plan identified the need to adopt a master plan amendment later in 2019. The amendment is intended to identify the alignment for reconstructing and extending the Bruce Vento Trail from Arcade Street to County Road J, accounting for the selected Rush Line BRT route and continued active use of the railway. The amendment will also address other changes to the corridor such as trailhead development, improvements throughout the corridor to address changing trends and demographics and increased recreational opportunities.

The Ramsey County Rail Right-of-Way Design Guide is intended to be complementary to the Bruce Vento Trail Master Plan amendment process, and the goal is to develop a safe BRT guideway and shared-use trail within the Ramsey County rail right-of-way that fits in with the surrounding landscape and reflects relevant user, stakeholder and public guidance. The Ramsey County Rail Right-of-Way Design Guide process is illustrated in Figure 1.

Figure 1: Ramsey County Rail Right-of-Way Design Guide Process



The Ramsey County Rail Right-of-Way Design Guide area extends north along the proposed BRT route from the Arcade Street station to the Buerkle Road station (see Figure 2). A section of the Ramsey County rail right-of-way between Beam Avenue and County Road D where the BRT guideway separates from the right-of-way is not included in the design guide area.

The portions of the BRT route outside of the Ramsey County rail right-of-way are not included in this design guide. However, applicable guiding principles and recommendations developed for the Ramsey County rail right-of-way will inform the design of the entire project as design advances, taking into consideration the investments, character and design of the existing roadways the route would follow. To further guide the design of the BRT route and to supplement this design guide, a visual quality manual is being prepared to illustrate the aesthetic design of the primary project elements including bridges, retaining walls, fencing and barriers, and plantings. In addition, as part of the project’s environmental analysis phase, station area planning guides will be developed for each community along the route that includes contextual design considerations and recommendations based on a market assessment, health impact assessment and walkshed and bikeshed analysis.

PUBLIC ENGAGEMENT

This document is informed by in-depth public input. Stakeholders gathered at a workshop in March 2019 where they reviewed site-specific opportunities and challenges, discussed the vision and priorities for the Ramsey County rail right-of-way and provided input on potential design solutions. Public engagement activities, including pop-up events, specific stakeholder meetings and community presentations, validated conclusions from the stakeholder workshop and provided additional feedback used to establish the guiding principles.

GUIDING PRINCIPLES

Guiding principles articulate the input received through public engagement activities and help project planners and engineers develop recommendations for design. The public engagement activities related to the Ramsey County Rail Right-of-Way Design Guide identified five overarching themes of highest importance to the community, adjacent property owners and key stakeholders, and a guiding principle was developed for each of the five themes as summarized below.



Character and landscape impacts: Consider impacts to the historic character of the former rail corridor, minimize impacts to existing landscape and enhance the Ramsey County rail right-of-way with ecologically beneficial, resilient, seasonally diverse and low maintenance vegetation.



Safety and security: Address safety and security concerns by reducing and/or removing perceived security risks and minimizing actual physical safety conflicts.



Access and borders: Retain ease of access while promoting safe crossings of the guideway to access the trail, surrounding neighborhoods and transit.



Maintenance: Incorporate design strategies and materials that are durable, affordable and do not require excessive or unanticipated maintenance practices.



Operations: Provide a safe, high-quality trail and BRT user experience.

RECOMMENDATIONS

The guiding principles have been translated into recommendations for design, construction, operations and maintenance specific to the Ramsey County Rail Right-of-Way Design Guide area. The recommendations will be used to develop both preliminary and final plans for the project. They are organized into three design topic categories: proposed typical right-of-way conditions; safety and security; and environment.

The following is a summary of the primary recommendations of the Ramsey County Rail Right-of-Way Design Guide by design topic category.

Proposed Typical Right-of-Way

This design topic category includes recommendations for the basic components within the Ramsey County Rail Right-of-Way Design Guide area.

- Trail and BRT guideway:
 - BRT guideway will be 26 feet wide and used exclusively for buses and, when needed, emergency vehicles.

Figure 2: Ramsey County Rail Right-of-Way Design Guide Area



Project assumes co-location with Bruce Vento Trail

- Guideway and trail will be separated by a vegetated buffer.
- The trail is recommended to remain a 12-foot wide shared-use path.
- A narrower trail may be used near obstructions.
- Fences may be implemented where needed for safety.
- Buffers and screening:
 - Preserve existing vegetation as much as possible and add native, diverse plant sizes and species.
 - Use vegetated buffers to preserve privacy between right-of-way and surrounding properties.
 - Use topography, ditches, fencing and railings to deter crossing and access in unsafe locations.
 - Design elements such as fencing and walls with natural appearance and qualities.
- Landscape character:
 - Use hardy, native and low-maintenance vegetation.
 - Design plantings to be organically arranged and diverse in height and spacing.
 - Use ornamental and seasonally diverse plants in station areas.
 - Minimize density and height of plants in station and crossing areas to maintain visibility.

Safety and Security

This design topic category includes strategies for user safety and security.

- Use signage to promote safety and help navigation.
- Use lighting at stations and crossings. Limit lighting in corridor to maintain existing natural character.
- Avoid obstructing pathway illumination and lines of sight.
- Use pavements, signage and other tools to prevent motor vehicle access.

Environment

This design topic category includes elements and applications related to ecology and resilience as well as specific amenities that enhance the setting and user experience.

- Where possible, preserve existing vegetation and reestablish habitat.
- Manage stormwater using bioswales and other natural management options.
- Use engineered slopes where possible for mitigating steep grade changes.
- Coordinate stormwater treatment needs with community desire to daylight portions of Phalen Creek where applicable.
- Install amenities and wayfinding in a manner consistent with other Ramsey County and Saint Paul parks and trails – benches, trash and recycling receptacles, bicycle repair stations, dog waste pick-up stations, trail route maps, informational kiosks.

Appendix G

**2020 Bruce Vento Trail Construction (Current Ramsey County Project)
60% Plans: Select Sheets**

10/06/23 AM

7/18/2020

K:\1\TWC\CL\IN\County\RAMSEY\BRUCE_VENTO_TRAIL\CADD\Plan_Sheets\5\055\009_1.tbl.dgn

MINNESOTA DEPARTMENT OF TRANSPORTATION RAMSEY COUNTY PARKS DEPARTMENT

STATE AID PROJECT NUMBER xxx-xxx-xxx

CONSTRUCTION PLAN FOR BITUMINOUS TRAIL, BITUMINOUS MILL & OVERLAY, ADA IMPROVEMENTS AND SIGNAL IMPROVEMENTS,
LOCATED ON HOFFMAN ROAD FROM BUERKLE ROAD TO CASH 96 IN WHITE BEAR LAKE

STATE AID PROJ. NO. XXX-XXX-XXX
GROSS LENGTH.....12909.05 FEET..2.445 MILES
BRIDGES-LENGTH.....50.00.....FEET..0.010 MILES
EXCEPTIONS-LENGTH 0.00.....FEET..0.000 MILES
NET LENGTH.....12859.05 FEET..2.435 MILES

NOTE: LENGTH AND DESCRIPTION BASED ON



END SAP xxx-xxx-xxx
BRUCE VENTO TRAIL
STA. 179+09.05

BEGIN SAP xxx-xxx-xxx
BRUCE VENTO TRAIL
STA. 50+00.00



INDEX MAP

DESIGN DESIGNATION

TRAIL
Design Speed 20 MPH
Based on STOPPING Sight Distance
Height of eye 4.5', Height of object 0.0'

SCALES

- INDEX MAP 5000'
- GENERAL LAYOUT 500'
- ALIGNMENT PLAN 200'
- PLAN 50'
- PROFILE 50' HORIZONTAL, 10' VERTICAL

PLAN REVISIONS		
DATE	SHEET NO.	APPROVER

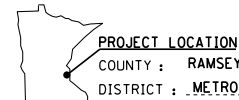
ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MOST RECENT VERSION OF THE MN MUTCD, INCLUDING FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

NOTE:
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

THE EXACT LOCATION OF UNDERGROUND UTILITIES SHOWN IN THIS PLAN SET ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE PRIOR TO STARTING ANY EXCAVATION.

GOPHER STATE ONE CALL SYSTEM.....1-800-252-1166



PROJECT LOCATION
COUNTY : RAMSEY
DISTRICT : METRO

SAP xxx-xxx-xxx

STATE/LOCAL FUNDS

GOVERNING SPECIFICATIONS

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS OF THIS PROJECT.

INDEX

- 1 TITLE SHEET
- 2 GENERAL LAYOUT
- 3 ESTIMATED QUANTITIES
- 4 SOIL & CONSTRUCTION NOTES
- 5 UTILITY TABULATION
- 6-8 TYPICAL SECTIONS
- 9-19 STANDARD PLAN SHEETS
- 20-22 ALIGNMENT PLAN
- 23-24 ALIGNMENT TABULATION
- 25-29 INPLACE UTILITY PLAN AND TOPOGRAPHY
- 30-34 REMOVAL PLAN
- 35-44 CONSTRUCTION PLAN & PROFILE
- 45-47 INTERSECTION DETAIL PLAN
- 48-52 RETAINING WALL PLAN & PROFILE
- 53-62 DRAINAGE & EROSION CONTROL PLAN
- 63-67 CONTOUR PLAN
- 68-70 STORM WATER POLLUTION PROTECTION PLAN
- 71-75 EROSION CONTROL/TURF ESTABLISHMENT PLAN
- 76 CROSS SECTION LAYOUT
- XI-X31 CROSS SECTIONS

THIS PLAN CONTAINS 76 SHEETS

Kimley Horn

767 EUSTIS ST, SUITE 100
SAINT PAUL, MINNESOTA 55114
Ph: 651-645-4197 www.kimley-horn.com

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: GREG BROWN LICENSE # XXXXX

DATE: SIGNATURE:

DESIGN SQUAD TIM, G. EMILY, B. KEVIN, C. GREG, K.

RECOMMENDED FOR APPROVAL RAMSEY COUNTY ENGINEER 2019

RECOMMENDED FOR APPROVAL CITY OF WHITE BEAR LAKE ENGINEER 2019

DISTRICT STATE AID ENGINEER REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY 2019

APPROVED FOR STATE AID FUNDING: STATE AID ENGINEER 2019

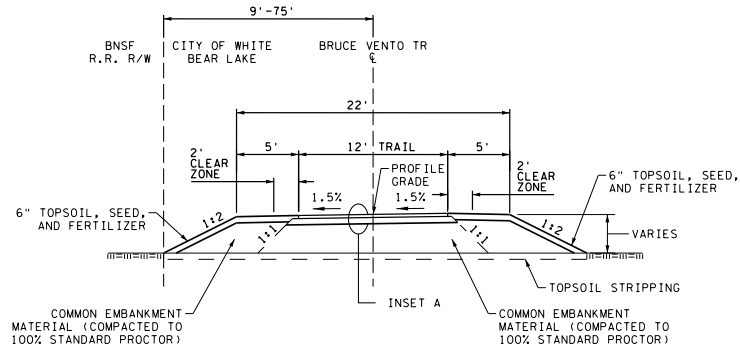
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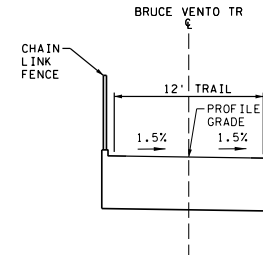
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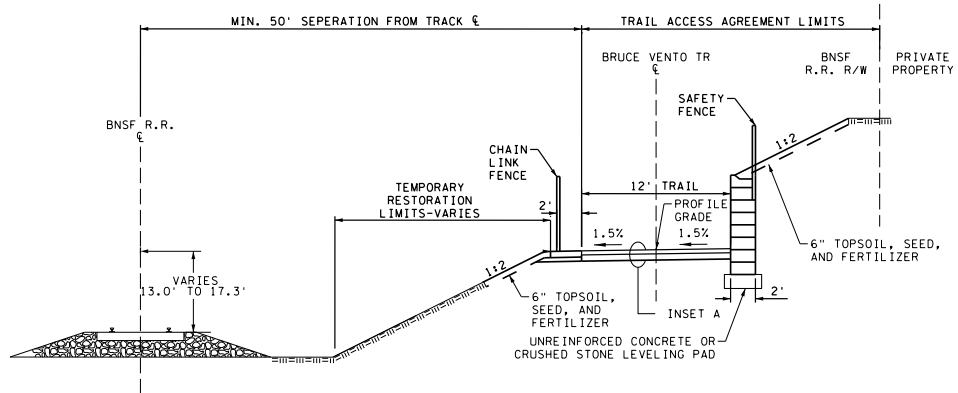
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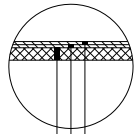
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PROPOSED TRAIL STA. 65+50 TO STA. 71+00 STA. 85+80 TO STA. 90+00 STA. 110+27 TO STA. 110+92



INSET A



- 1.5" TYPE 9.5 WEARING COURSE MIXTURE (SPWEA230B)
- 1.5" TYPE 9.5 WEARING COURSE MIXTURE (SPWEA230B)
- 6.0" AGGREGATE BASE, CLASS 5 (CV)

GENERAL NOTES:

1. MAXIMUM SLOPE OF 0.015 FOOT PER FOOT ON TRAIL.
2. UNLESS OTHERWISE SPECIFIED THE GRADING GRADE CROSS SLOPES SHALL BE THE SAME AS THE FINISHED GRADE.

DESIGNED BY:	RKM			
DRAWN BY:	KJC			
CHECKED BY:	CSB	NO.	BY	DATE
				REVISIONS

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

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 Printed Name: _____ Dates 7/18/2020



RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL
 STATE PROJ. NO. XXXX-XX (TH XX)

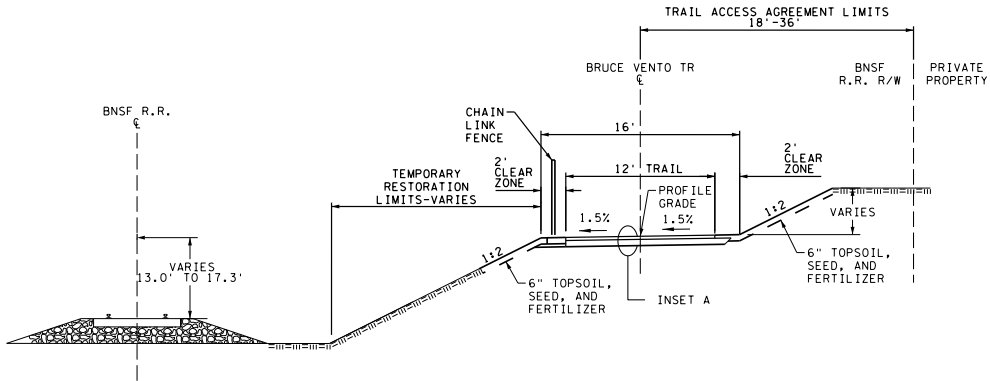
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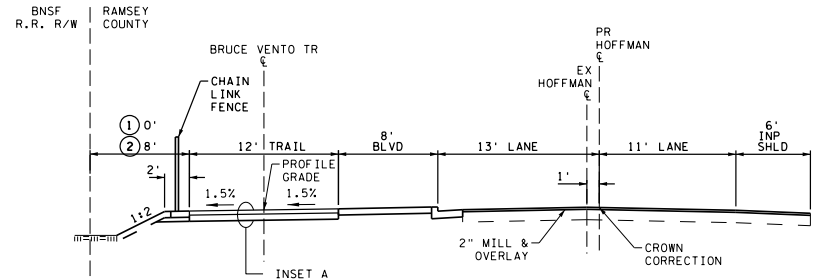
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 STA. 90+00 TO STA. 92+45
 STA. 106+57 TO STA. 109+00
 STA. 110+92 TO STA. 112+91

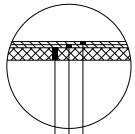


PROPOSED BRUCE VENTO TRAIL
 ① STA. 92+45 TO STA. 106+57
 ② STA. 112+91 TO STA. 145+00



PROPOSED TRAIL
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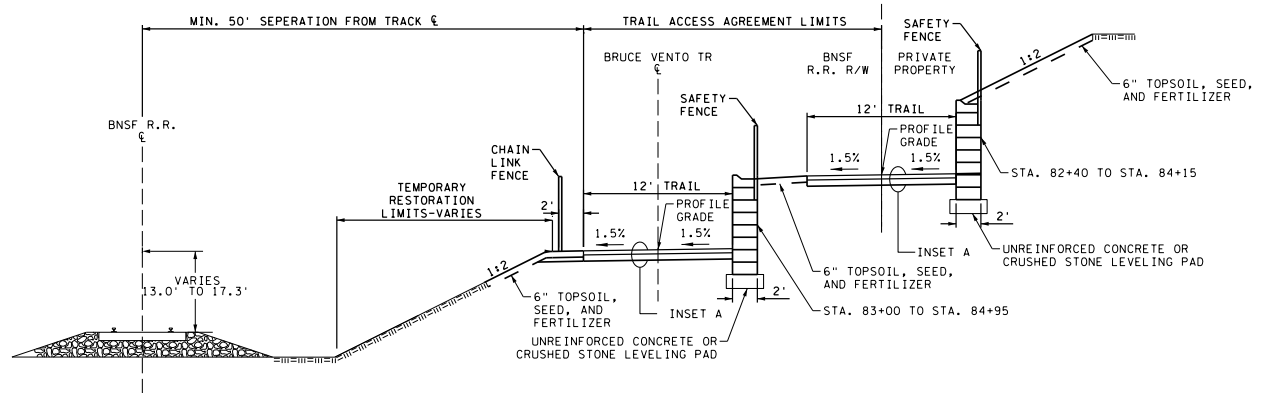
INSET A



- 1.5" TYPE 9.5 WEARING COURSE MIXTURE (SPWEA230B)
- 1.5" TYPE 9.5 WEARING COURSE MIXTURE (SPWEA230B)
- 6.0" AGGREGATE BASE, CLASS 5 (CV)

GENERAL NOTES:

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DRAWN BY:	KJC			
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				REVISIONS

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RAMSEY COUNTY, MINNESOTA
 BRUCE VENTO TRAIL

TYPICAL SECTIONS	STA	TO STA

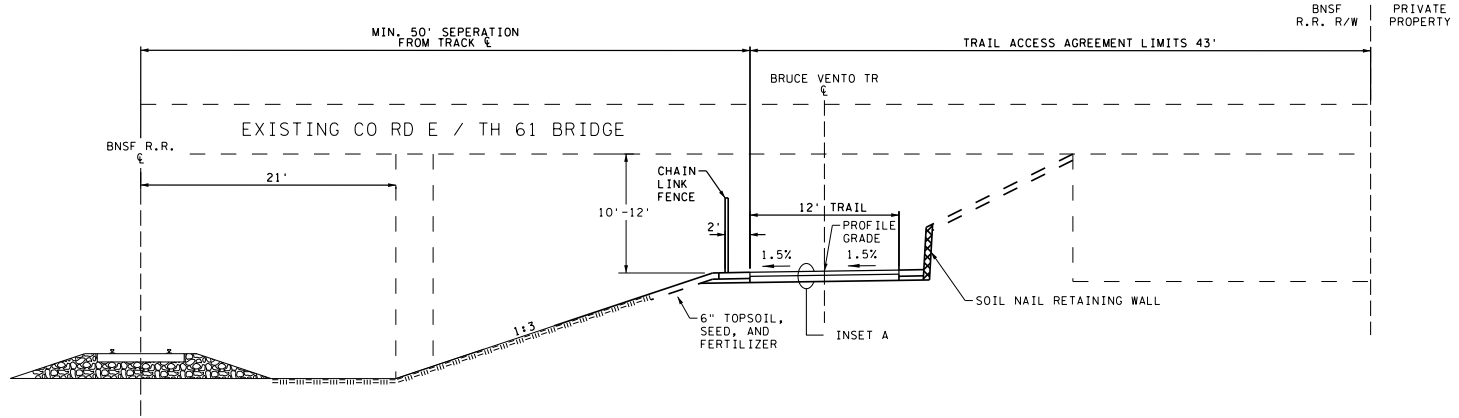
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 OF TS03
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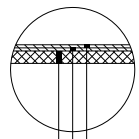
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PROPOSED TRAIL - UNDER TH 61 & CR E STA. 84+95 TO STA. 85+80 STA. 109+00 TO STA. 110+27



INSET A

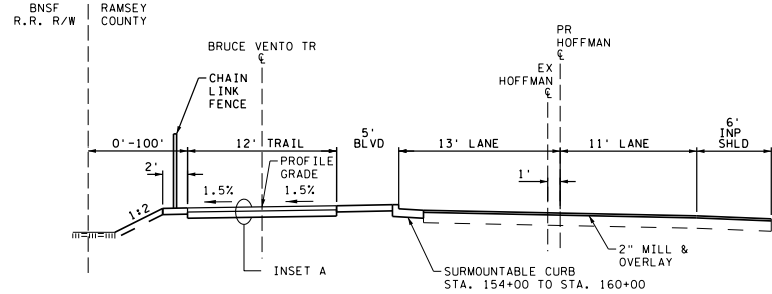


- 1.5" TYPE 9.5 WEARING COURSE MIXTURE (SPWEA230B)
- 1.5" TYPE 9.5 WEARING COURSE MIXTURE (SPWEA230B)
- 6.0" AGGREGATE BASE, CLASS 5 (CV)

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2. UNLESS OTHERWISE SPECIFIED THE GRADING GRADE CROSS SLOPES SHALL BE THE SAME AS THE FINISHED GRADE.

PROPOSED BRUCE VENTO TRAIL STA. 145+00 TO STA. 173+77



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				REVISIONS

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 Licensed Professional Engineer
 Printed Name: _____ Dates: 7/18/2020



RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL

TYPICAL SECTIONS	STA	TO STA
STATE PROJ. NO. XXXX-XX (TH XX)		

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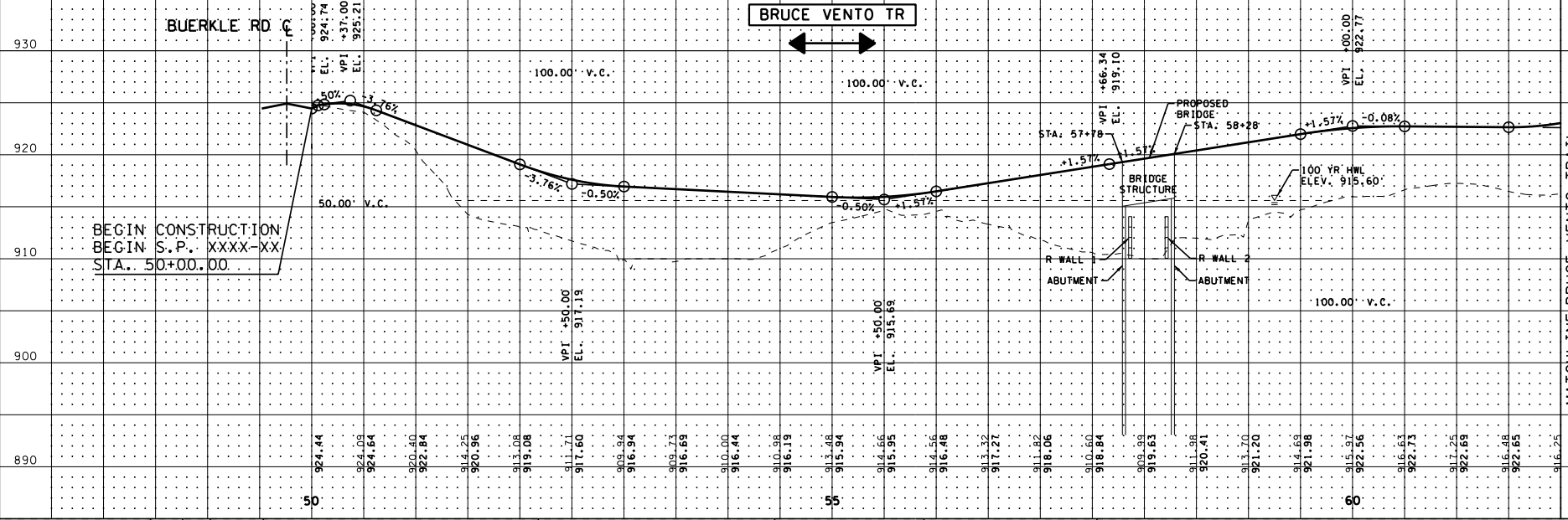
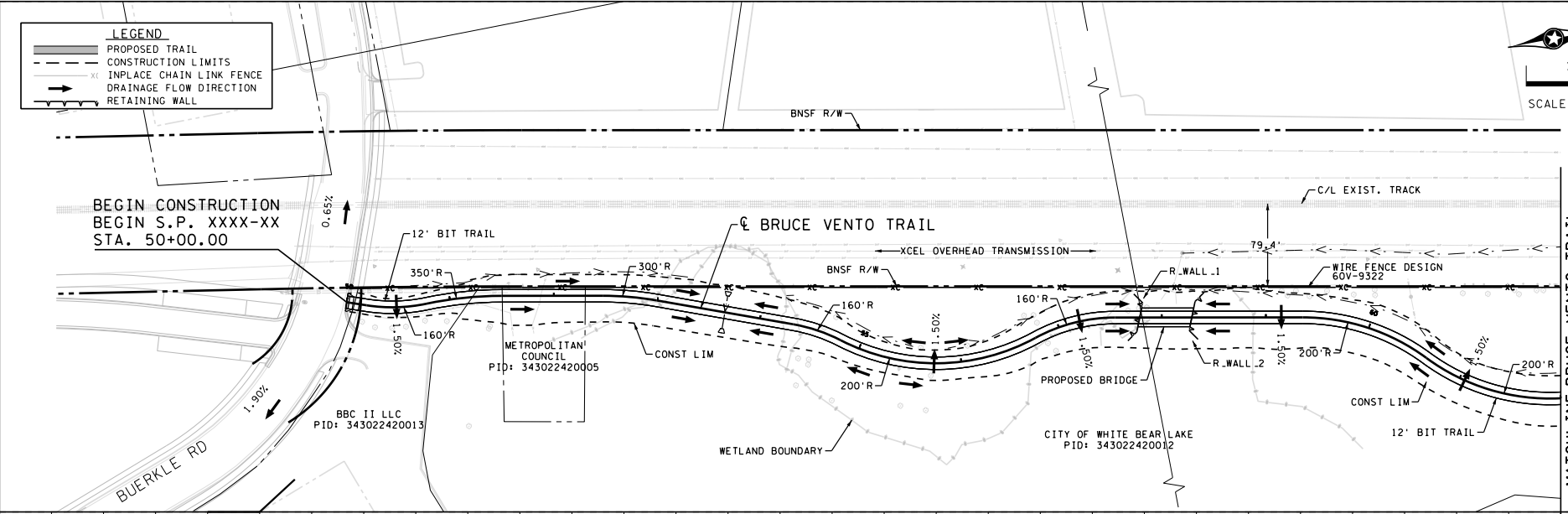
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MODEL NUMBER

LEGEND

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- - - CONSTRUCTION LIMITS
- x- INPLACE CHAIN LINK FENCE
- DRAINAGE FLOW DIRECTION
- ▬ RETAINING WALL

100
SCALE IN FEET



DESIGNED BY: RKM
DRAWN BY: KJC
CHECKED BY: GSB

NO.	BY	DATE	REVISIONS

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Printed Name: _____ Dates: 7/18/2020

200 UNIVERSITY AVENUE, SUITE 200
ST. PAUL, MINNESOTA 55105
PH: 651-451-7171 WWW.KIMLEY-HORN.COM

RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL
STATE PROJ. NO. XXXX-XX (TH XX)

CONSTRUCTION PLAN AND PROFILE
STA 50+00 TO STA 62+00

CP01
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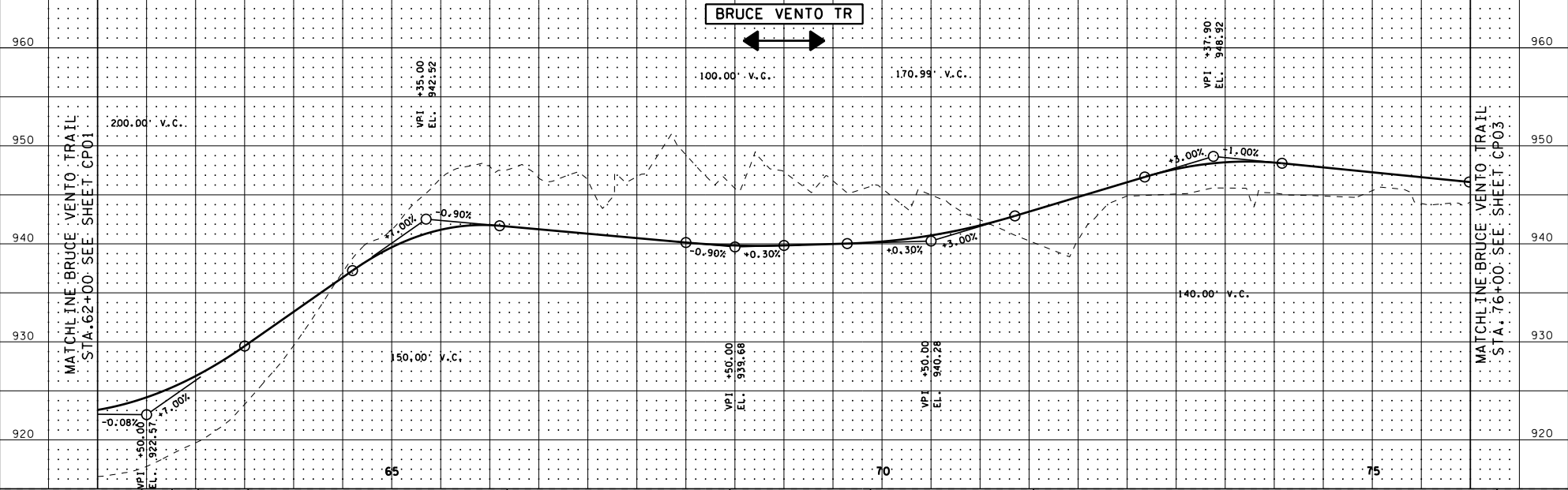
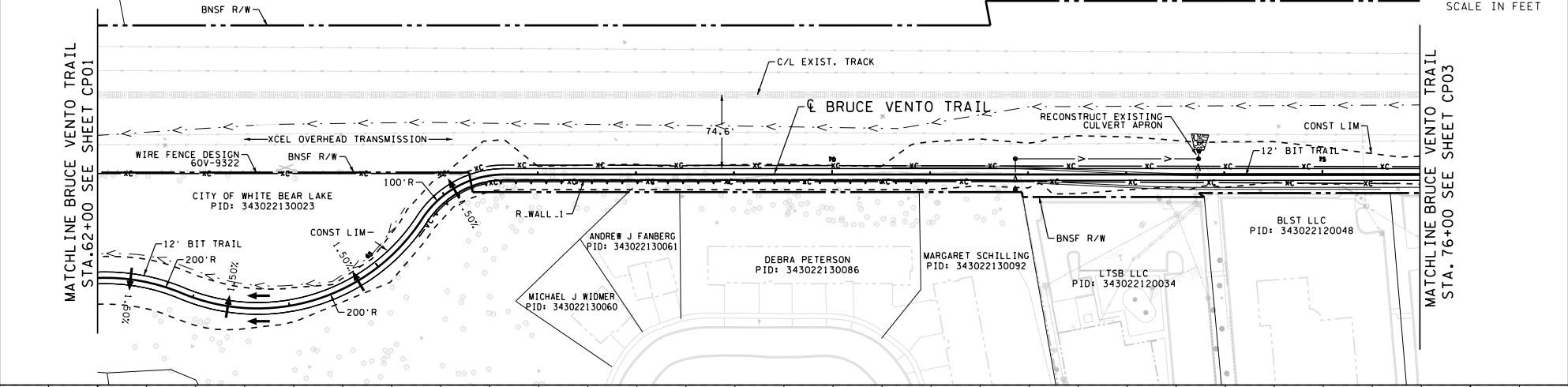
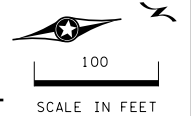
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- Xc INPLACE CHAIN LINK FENCE
- DRAINAGE FLOW DIRECTION
- ▬▬▬ RETAINING WALL



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CHECKED BY: GSB

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RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL
STATE PROJ. NO. XXXX-XX (TH XX)

CONSTRUCTION PLAN AND PROFILE
STA 62+00 TO STA 76+00

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OF CP10
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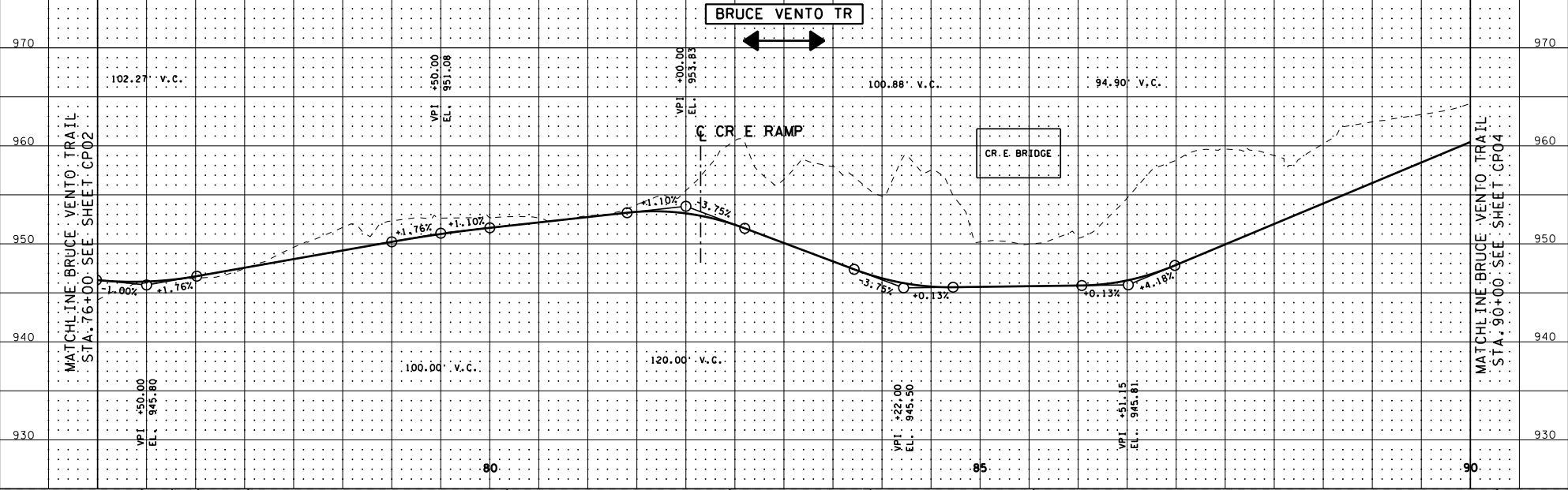
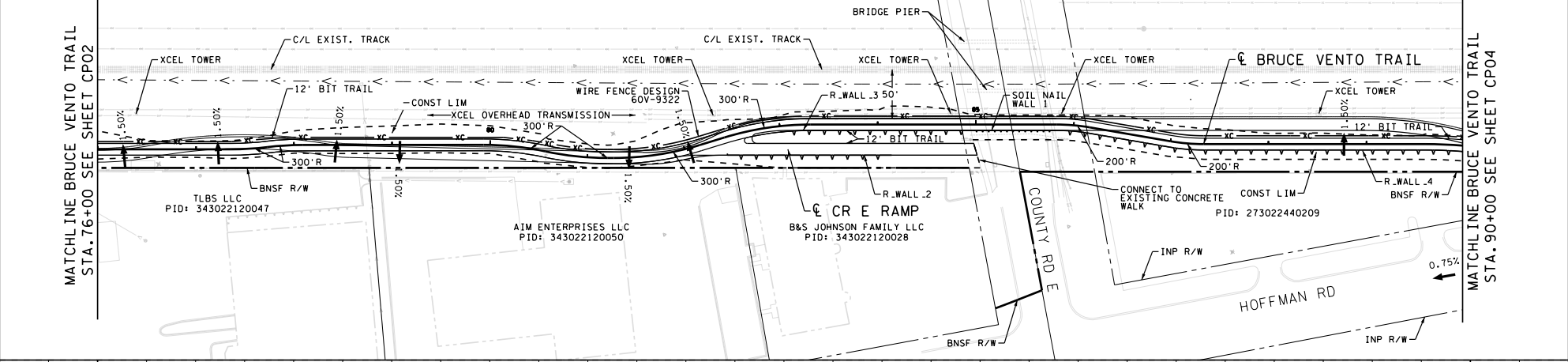
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- INPLACE CHAIN LINK FENCE
- DRAINAGE FLOW DIRECTION
- RETAINING WALL
- SOIL NAIL RETAINING WALL

100
SCALE IN FEET



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CHECKED BY:	CSB			
	NO.	BY	DATE	REVISIONS

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 Printed Name: _____ Dates: 7/18/2020



RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL
 STATE PROJ. NO. XXXX-XX (TH XX)

CONSTRUCTION PLAN AND PROFILE
 STA 76+00 TO STA 90+00

CP03
 OF CP10
 37 / 76

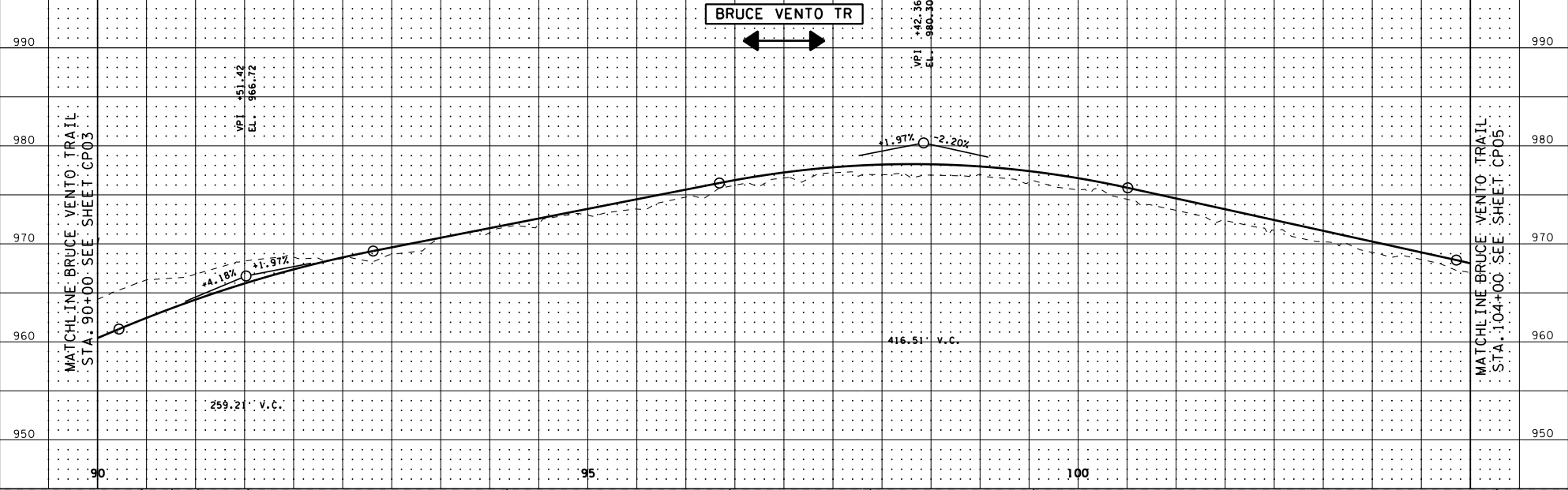
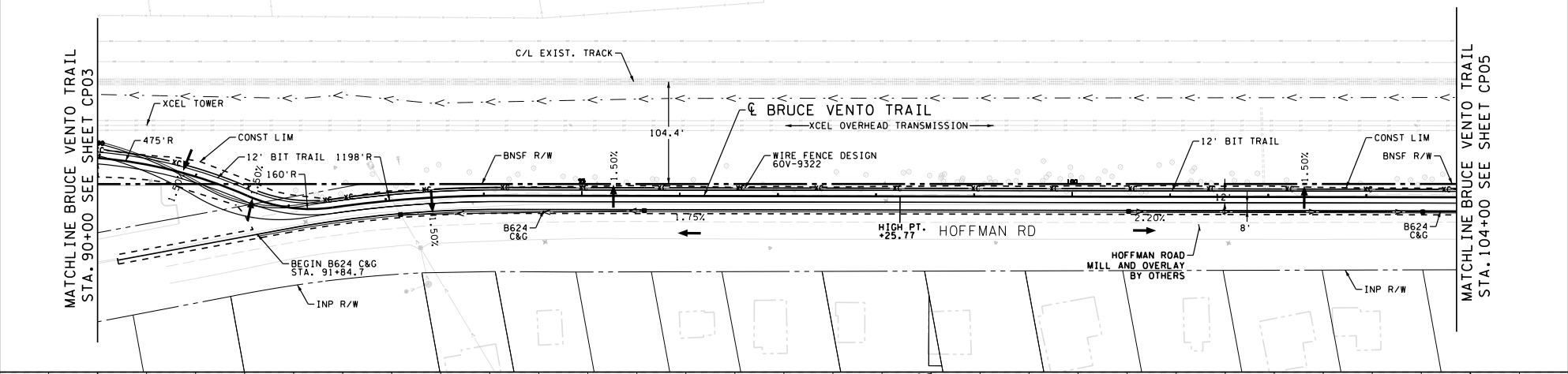
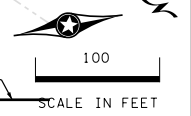
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- PROPOSED TRAIL
- CONSTRUCTION LIMITS
- INPLACE CHAIN LINK FENCE
- DRAINAGE FLOW DIRECTION
- RETAINING WALL



DESIGNED BY: RKM
 DRAWN BY: KJC
 CHECKED BY: GSB

NO.	BY	DATE	REVISIONS

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 Printed Name: _____ Date: 7/18/2020



RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL
 STATE PROJ. NO. XXXX-XX (TH XX)

CONSTRUCTION PLAN AND PROFILE
 STA 90+00 TO STA 104+00

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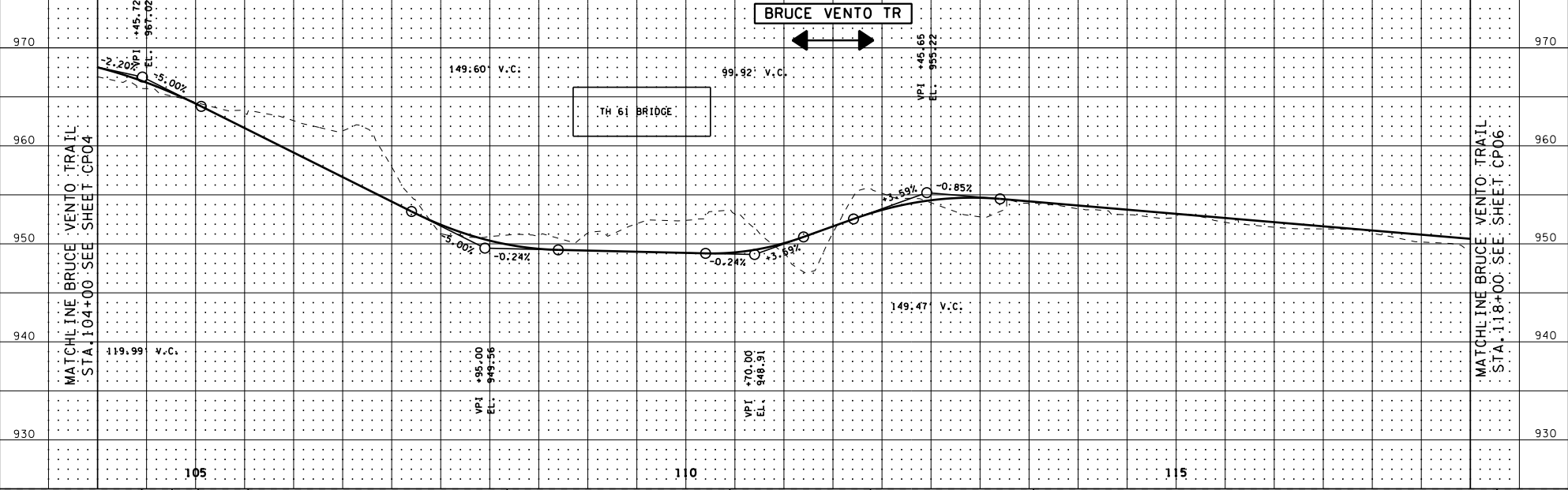
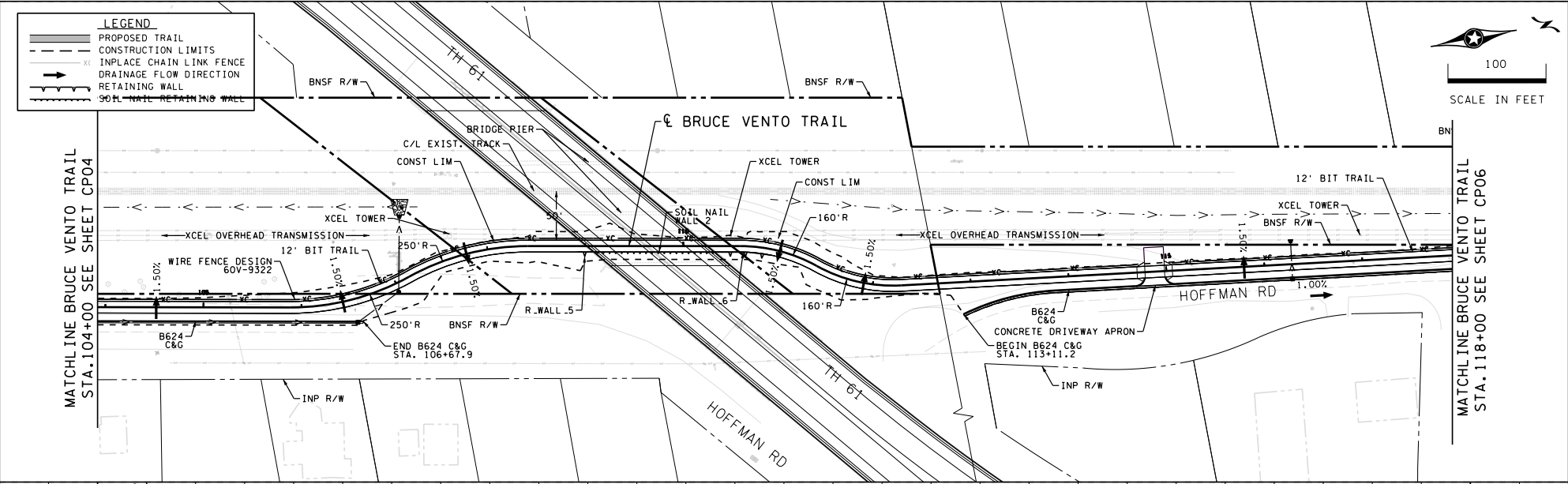
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- x- INPLACE CHAIN LINK FENCE
- >- DRAINAGE FLOW DIRECTION
- >- RETAINING WALL
- >- 90° RAIL RETAINING WALL

100
SCALE IN FEET



DESIGNED BY:	RKM			
DRAWN BY:	KJC			
CHECKED BY:	GSB	NO.	BY	DATE
				REVISIONS

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Certified By: _____ Lic. No. _____
 Printed Name: _____ Dates: 7/18/2020

Kimley Horn
 200 UNIVERSITY AVENUE, SUITE 200
 ST. PAUL, MINNESOTA 55105
 PH: 612-592-8777 www.kimleyhorn.com

RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL
 STATE PROJ. NO. XXXX-XX (TH XX)

CONSTRUCTION PLAN AND PROFILE
 STA 104+00 TO STA 118+00

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 OF CP10
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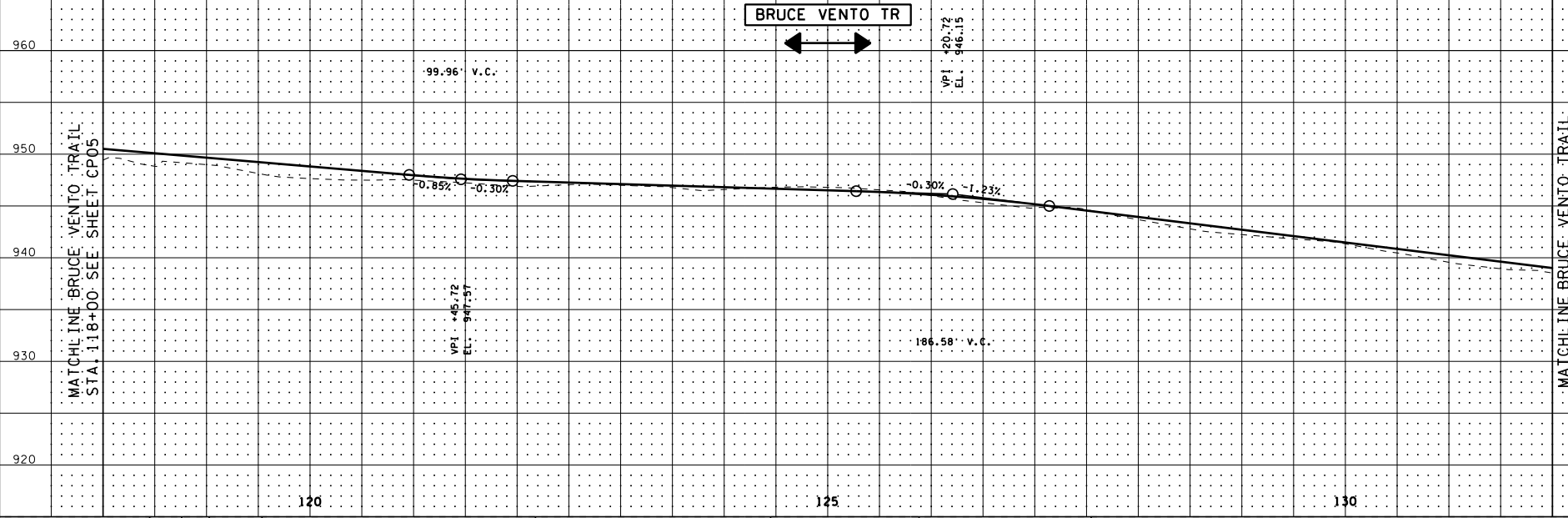
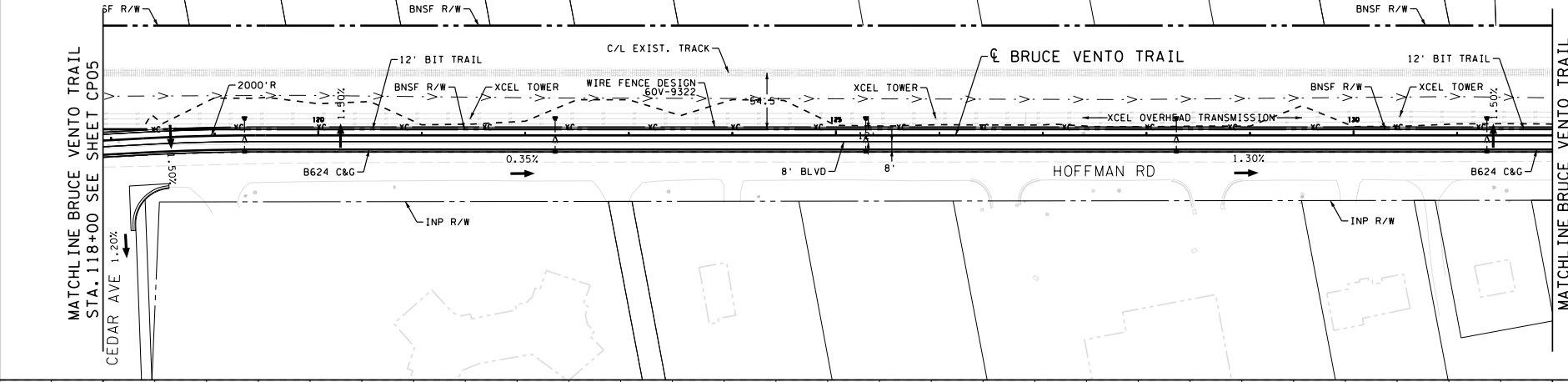
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- X INPLACE CHAIN LINK FENCE
- DRAINAGE FLOW DIRECTION
- RETAINING WALL

100
SCALE IN FEET



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DRAWN BY: KJC
CHECKED BY: GSB

NO.	BY	DATE	REVISIONS

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Printed Name: _____ Date: 7/18/2020



RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL
STATE PROJ. NO. XXXX-XX (TH XX)

CONSTRUCTION PLAN AND PROFILE
STA 118+00 TO STA 132+00

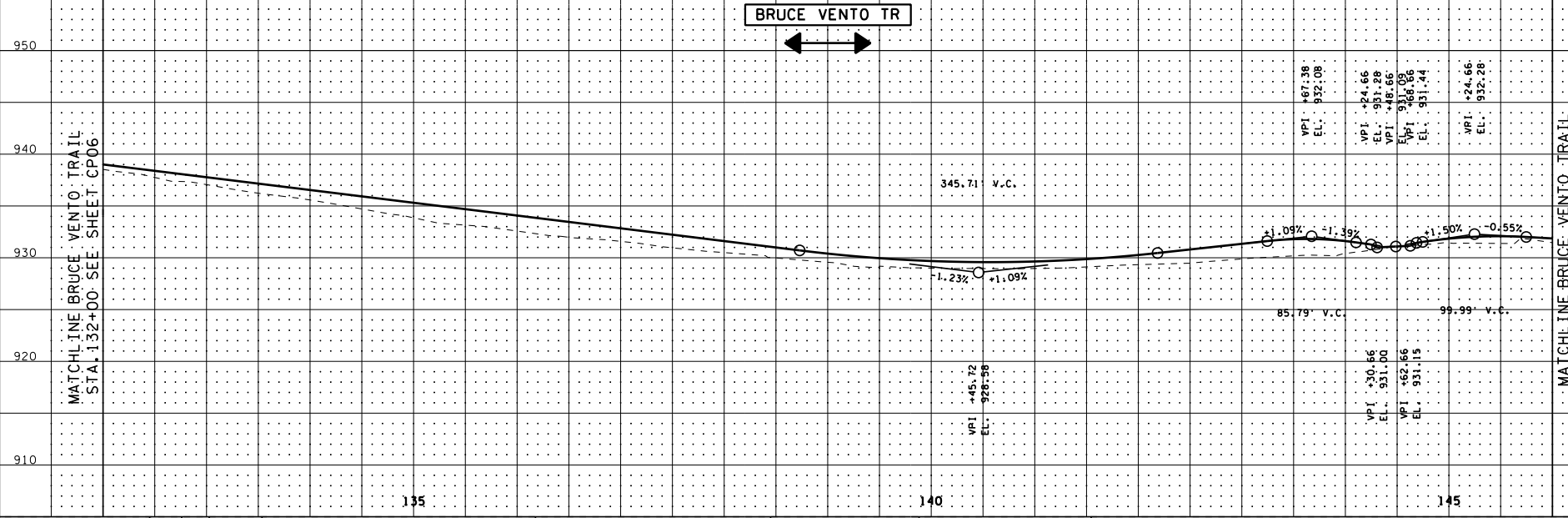
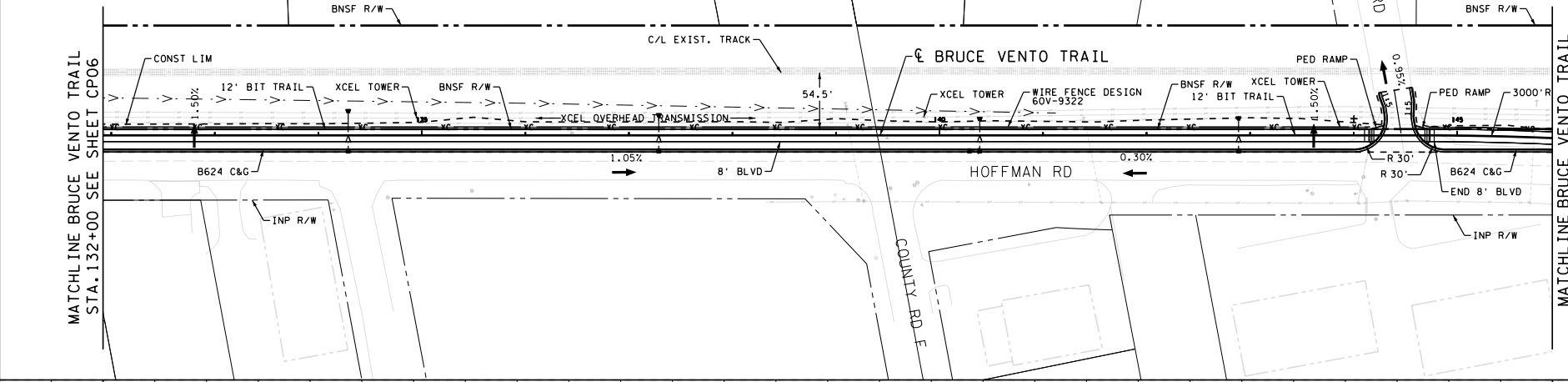
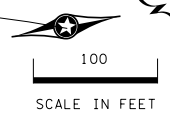
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#MODELNAME#

LEGEND	
	PROPOSED TRAIL
	CONSTRUCTION LIMITS
	INPLACE CHAIN LINK FENCE
	DRAINAGE FLOW DIRECTION
	RETAINING WALL



DESIGNED BY:	RKM
DRAWN BY:	KJC
CHECKED BY:	CSB

NO.	BY	DATE	REVISIONS

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Certified By: Lic. No. _____
 Licensed Professional Engineer
 Printed Name: _____ Dates 7/18/2020



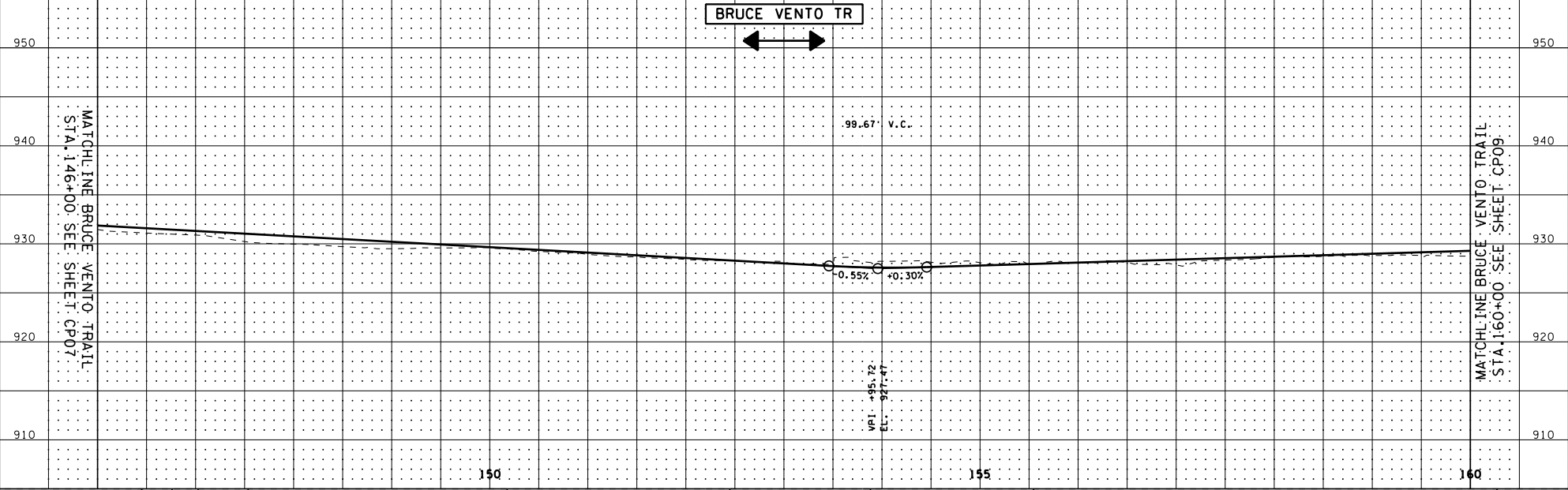
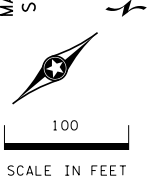
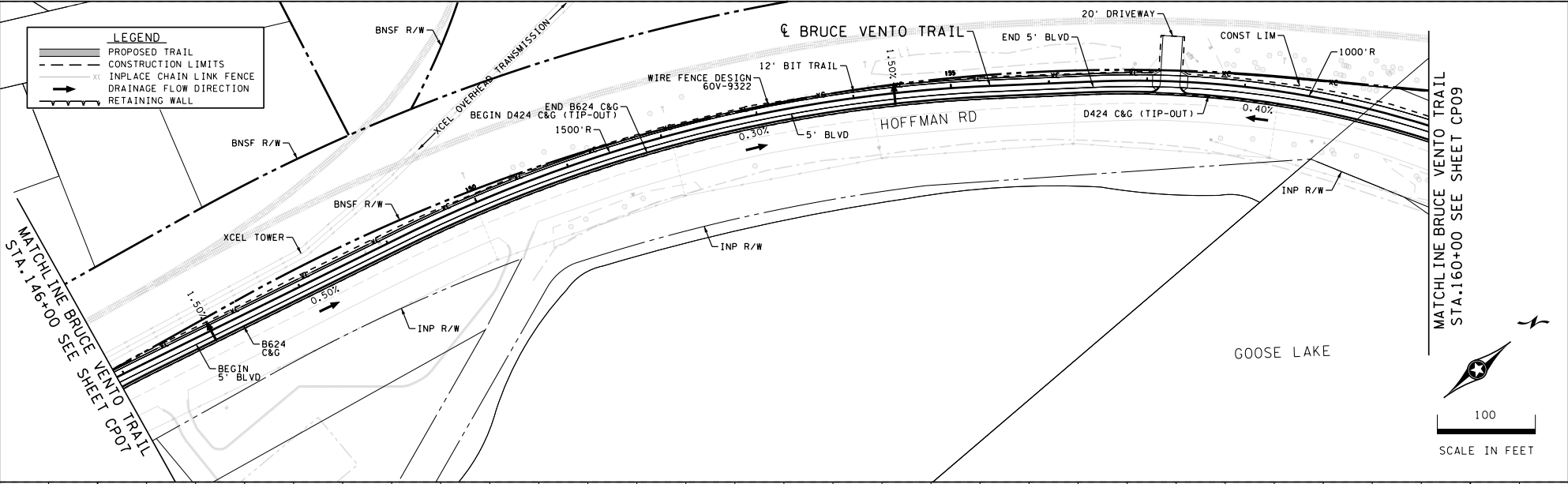
RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL
 STATE PROJ. NO. XXXX-XX (TH XX)

CONSTRUCTION PLAN AND PROFILE
 STA 132+00 TO STA 146+00

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 OF CP10
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10/01/2020 AM
7/18/2020

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MODEL NUMBER



DESIGNED BY: RKM
 DRAWN BY: KJC
 CHECKED BY: GSB

NO.	BY	DATE	REVISIONS

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 Certified By: _____ Lic. No. _____
 Printed Name: _____ Date: 7/18/2020



RAMSEY COUNTY, MINNESOTA
BRUCE VENTO TRAIL
 STATE PROJ. NO. XXXX-XX (TH XX)

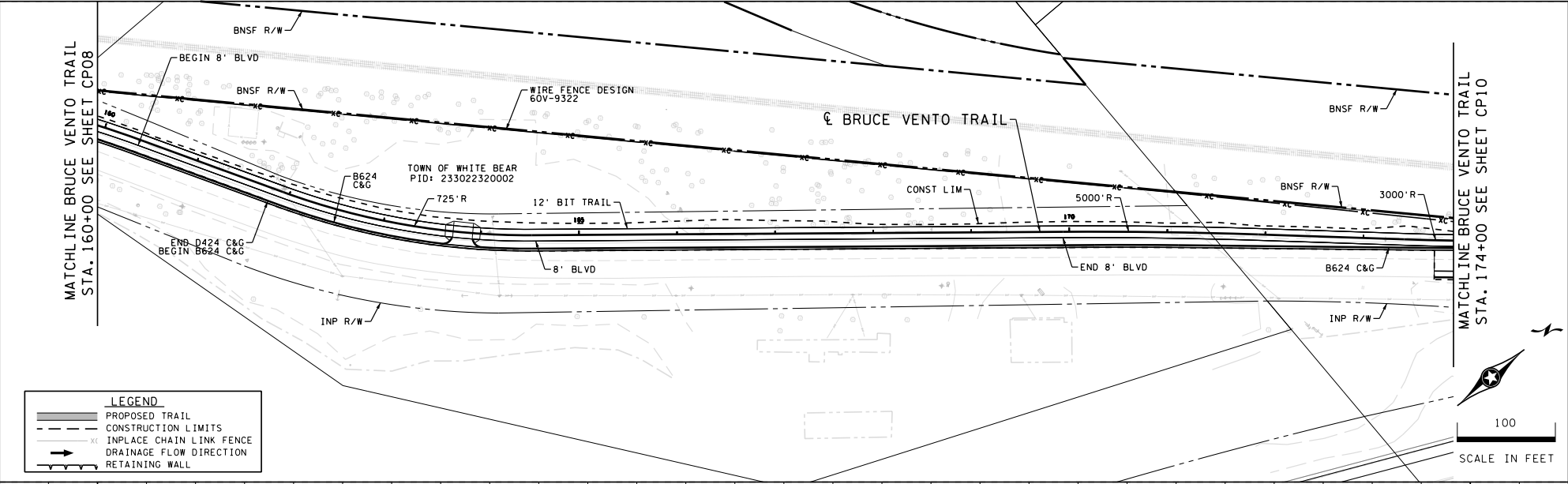
CONSTRUCTION PLAN AND PROFILE
 STA 146+00 TO STA 160+00

CP08
 OF CP10
 42 / 76

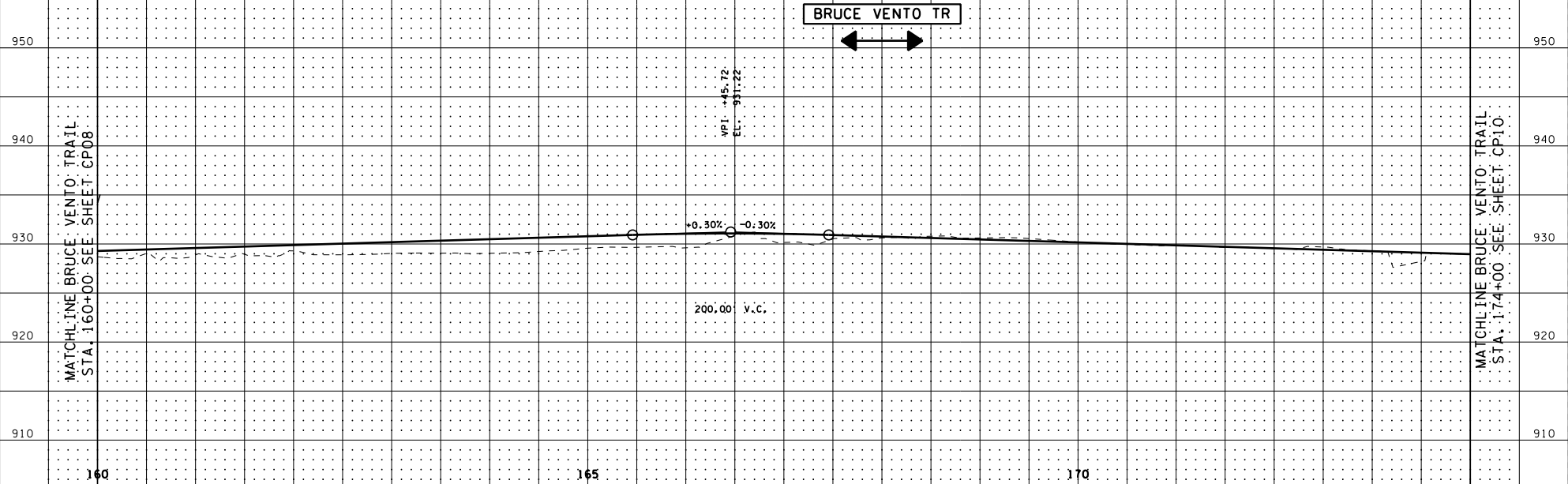
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#MODELNAME#



LEGEND	
	PROPOSED TRAIL
	CONSTRUCTION LIMITS
	INPLACE CHAIN LINK FENCE
	DRAINAGE FLOW DIRECTION
	RETAINING WALL

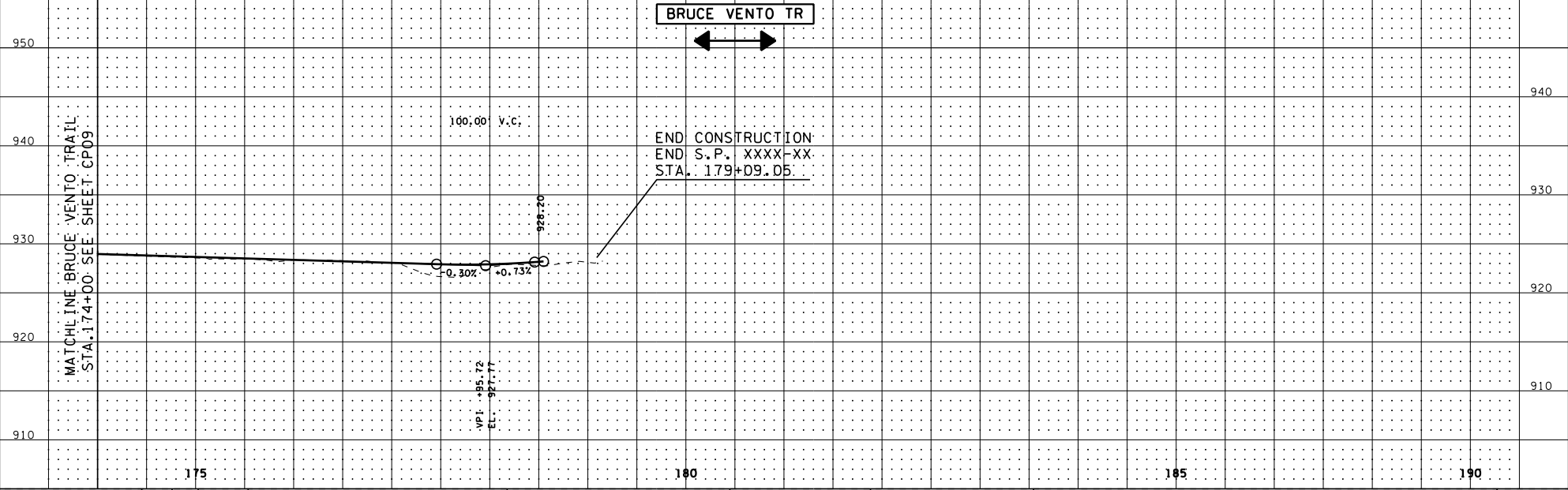
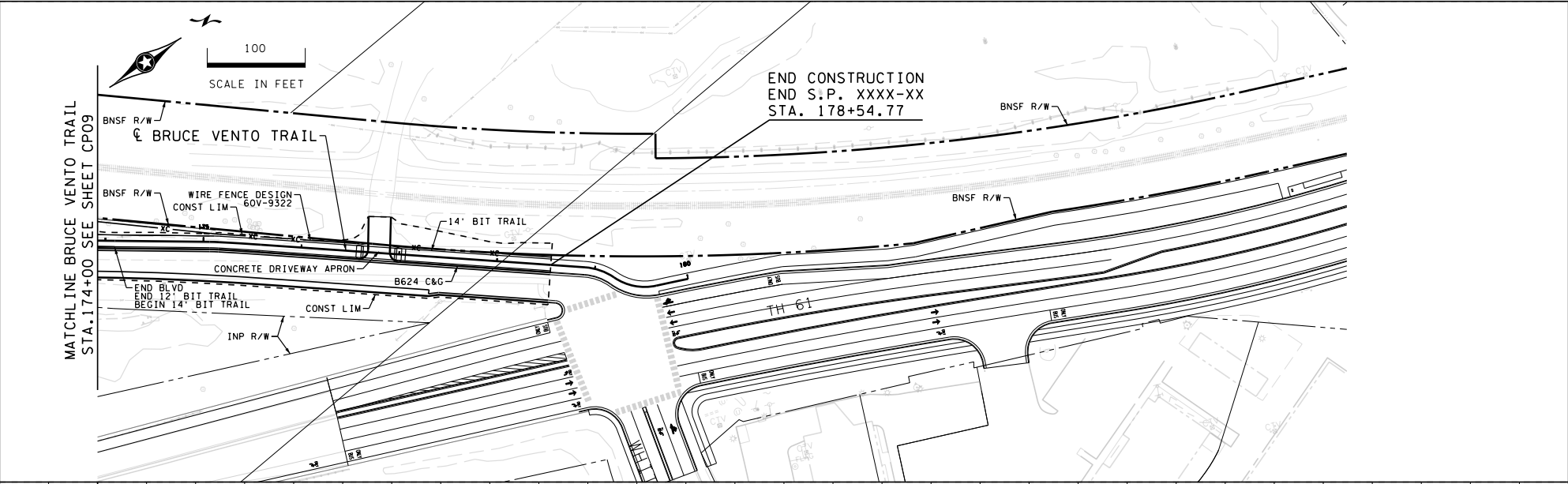


DESIGNED BY: RKM	I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota. Certified By: _____ Lic. No. _____ Printed Name: _____ Dates: 7/18/2020	Kimley»Horn <small>200 UNIVERSITY AVENUE, SUITE 200 ST. PAUL, MINNESOTA 55105 PH: 651-451-7171 WWW.KIMLEYHORN.COM</small>	RAMSEY COUNTY, MINNESOTA	CONSTRUCTION PLAN AND PROFILE BRUCE VENTO TRAIL STA 160+00 TO STA 174+00 STATE PROJ. NO. XXXX-XX (TH XX)	CP09
DRAWN BY: KJC			OF CP10		
CHECKED BY: GSB			43 / 76		

10/07/15 AM

7/18/2020

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#MODELNAME



DESIGNED BY: RKM
 DRAWN BY: KJC
 CHECKED BY: GSB

NO.	BY	DATE	REVISIONS

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 Certified By: _____ Lic. No. _____
 Printed Name: _____ Dates: 7/18/2020

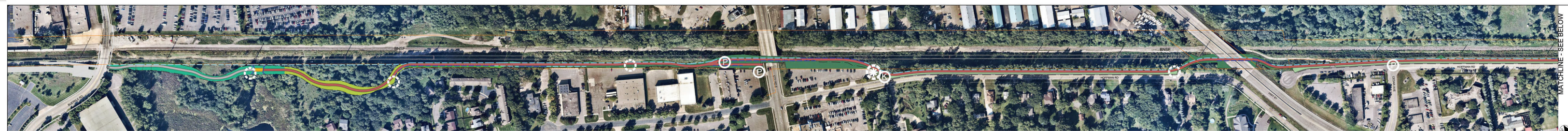


RAMSEY COUNTY, MINNESOTA
 BRUCE VENTO TRAIL
 STATE PROJ. NO. XXXX-XX (TH XX)

CONSTRUCTION PLAN AND PROFILE
 STA 174+00 TO STA 179+09.05

CP10
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Appendix H
2020 Bruce Vento Trail Corridor Improvements Diagram



LEGEND

- RAILROAD PROPERTY LIMITS
- NONRAILROAD PROPERTY LIMITS
- LIMITS OF DISTURBANCE
- WALLS AND FENCING
- 8 FT. BUFFER SEPARATION OF 4 FT. BLACK VINYL CLAD CHAIN LINK FENCE
- RETAINING WALL WITH FALL PROTECTION FENCE
- RETAINING WALL WITHOUT FALL PROTECTION FENCE

PLANTING CONDITIONS AND DESCRIPTION

- NATIVE WETLAND REVEGETATION**
REVEGETATION WITH NATIVE SPECIES PLANT TO WITHIN THREE FEET OF NORMAL SPACES AND SIDE TO SIDE TO MATCH EXISTING TREE CANOPY
- NATIVE UPLAND REVEGETATION**
REVEGETATION WITH NATIVE SPECIES PLANT TO WITHIN THREE FEET OF NORMAL SPACES AND SIDE TO SIDE TO MATCH EXISTING TREE CANOPY
- RAILROAD CORRIDOR/TOWNSHIP PROPERTY REVEGETATION**
REVEGETATION WITH NATIVE SPECIES PLANT TO WITHIN THREE FEET OF NORMAL SPACES AND SIDE TO SIDE TO MATCH EXISTING TREE CANOPY
- RESIDENTIAL BUFFER REVEGETATION**
REVEGETATION WITH NATIVE SPECIES PLANT TO WITHIN THREE FEET OF NORMAL SPACES AND SIDE TO SIDE TO MATCH EXISTING TREE CANOPY
- STREET BOULEVARD**
REVEGETATION WITH NATIVE SPECIES PLANT TO WITHIN THREE FEET OF NORMAL SPACES AND SIDE TO SIDE TO MATCH EXISTING TREE CANOPY

TRAIL SIGNAGE

- P TERTIARY PYLON SIGN
- K SECONDARY KIOSK SIGN
- TRAIL ARCADES
- TRAILHEAD

NOTES

- PROVIDE FENCE MIN. 2' OFF EDGE OF TRAIL WHEN TRAIL RUNS WITHIN RAILROAD PROPERTY
- WHERE TRAIL RUNS OUTSIDE OF RAILROAD PROPERTY PROVIDE FENCE ALONG RAILROAD PROPERTY LINE
- WHERE POSSIBLE, PULL FENCE AWAY FROM TRAIL TO ALLOW GREATER SEPARATION BETWEEN CYCLISTS AND VERTICAL BARRIER

LEGEND

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- NONRAILROAD PROPERTY LIMITS
- LIMITS OF DISTURBANCE
- WALLS AND FENCING
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BRUCE VENTO TRAIL
WATSEKA LAKE
RAMSEY COUNTY
CORRIDOR IMPROVEMENTS DIAGRAM

REV 0
08/11/2020
RAMSEY COUNTY
Kimley+Horn