

Natural Resources and Stewardship Plan

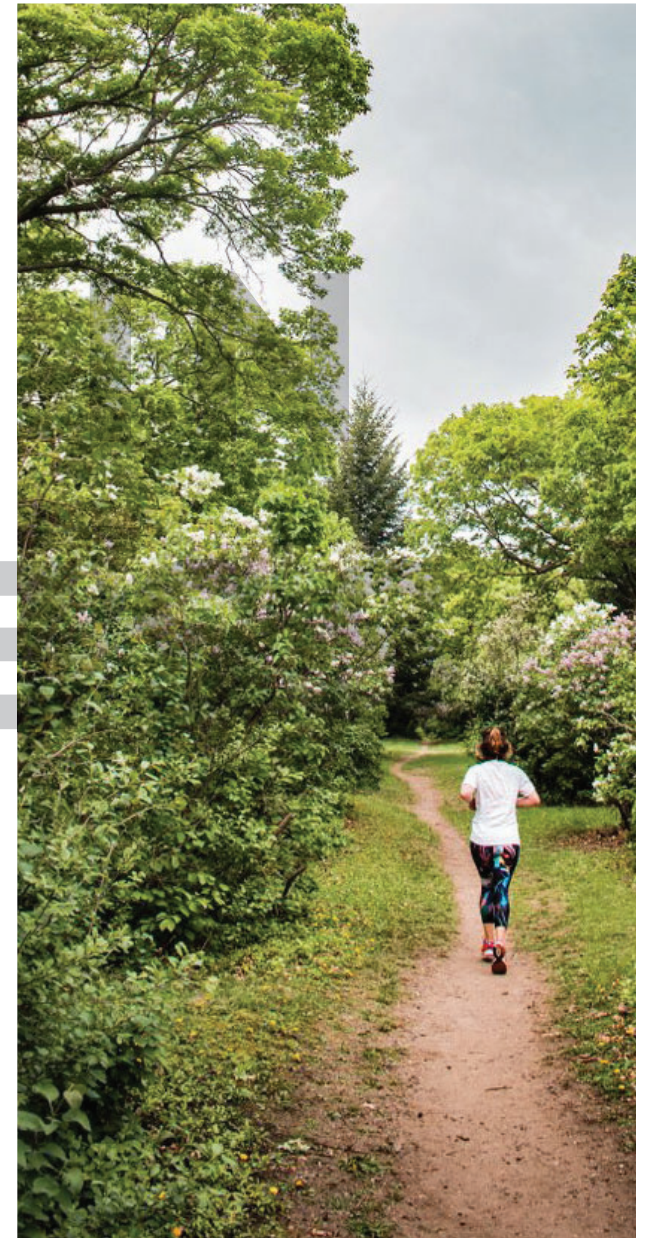
The Summit Avenue corridor is situated in a unique environment - adjacent to Saint Paul's downtown core, but defined by the greenspace and mature tree canopy that provide a natural, park-like feel. The stewardship plan for this regional trail prioritizes preservation of these special natural features, and an approach for the future that maintains and enhances the park-like character of the parkway while also accommodating recreational features.

A Tree Preservation Framework is included on the next page to provide guidance for tree protection during construction, ways to reduce negative impacts to trees, and strategies to mitigate construction impacts and tree loss. In planning for the future of the regional trail, the natural life-cycle of urban trees should be considered, as well as the potential for tree loss due to disease or damage. As trees are replaced, species diversity and age diversity should be a top priority to ensure a healthy and long-lived tree canopy.

The Summit Avenue tree canopy has experienced a number of changes in its history. Between 2009 and 2022, 448 trees were removed along Summit Avenue between Mississippi River Boulevard and Kellogg Boulevard. Reasons for these removals varied, with Emerald Ash Borer being a major factor. The general strategy for removals and replacements is one to

one ratio for removal to replacement. Site conditions are evaluated when replacement trees are planted to ensure the best growing conditions for the tree, safety considerations for people using the site, and future considerations to anticipate changes that may occur within the corridor over time.

The Citywide growing condition for street trees typically include planting in a 6' boulevard. The boulevards and medians along Summit Avenue vary, but generally boulevards are 16-20' wide, and medians are over 40' wide in Segments A, B, and C, giving these street trees more ideal growing conditions than what are typically found in urban conditions.



Natural Resources and Stewardship Plan

Natural Resources Toolkit

Tree Canopy

Ash Tree Removal

Since 2010, the City of Saint Paul has utilized the “Structured Removal” of ash trees to strategically reduce the total percentage of ash trees on boulevards and in parks throughout the City. By addressing the issue of Emerald Ash Borer before trees become infested, the City is reducing the number of dead or potentially hazardous ash trees in the City.

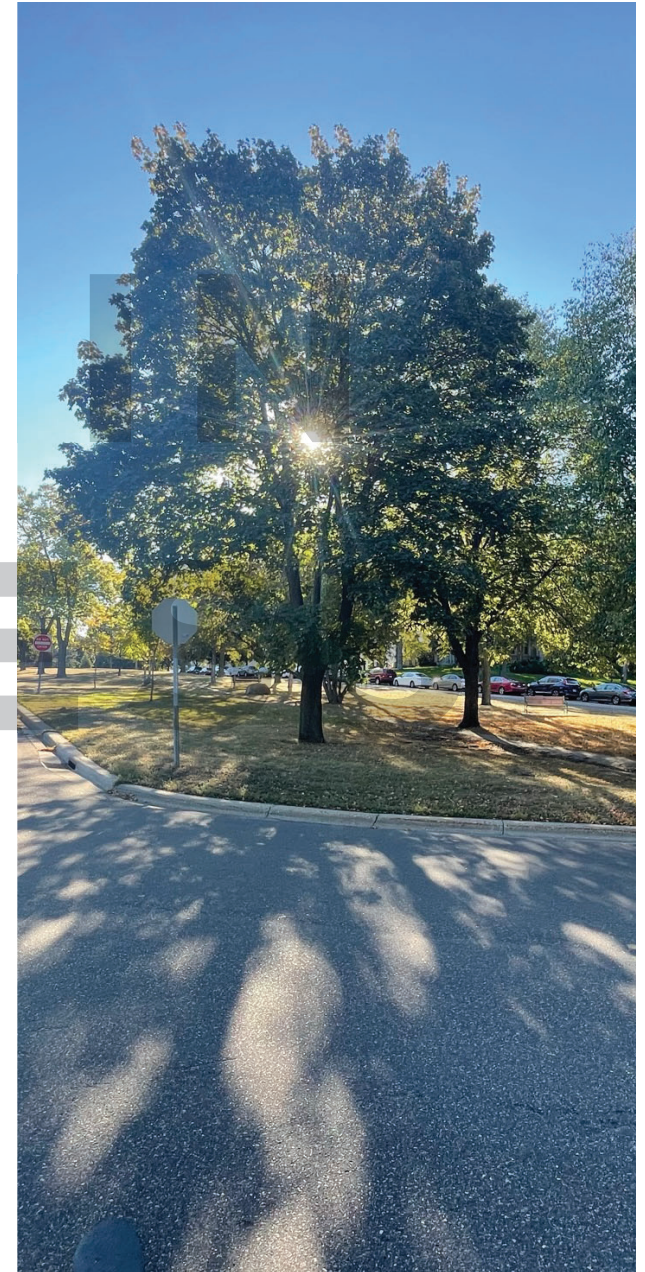
As of spring 2021, the removals process had begun on Summit Avenue, with the ash trees between Howell Street and Wheeler Street. In 2022, select ash trees between Mississippi River Boulevard and Ramsey Street were removed. The section of Summit Avenue between Arundel Street and Kellogg Boulevard is planned for removals in 2023. Additional updated information about ash tree removals and planting is available on the City Forestry website (stpaul.gov/Forestry).

Tree Preservation Strategies and Forestry Best Practices

To support the regional trail facility, preserving this tree canopy is a top priority and a major consideration in the planning and implementation of the facility. The Plan does not provide preservation strategies for each individual tree along the corridor, but

rather provides guidance for future project implementation and a corridor-wide vision. Guiding principles and strategies are listed below:

- To the extent possible, retaining the existing curb line on Summit Avenue will have the best outcome for long term tree health
- The existing tree canopy of Summit Avenue has a variety of tree species. Selection of new plantings should continue to prioritize species diversity.
- Construction impacts vary depending on tree species. As the Plan is implemented through construction, the City Forestry department should be consulted and should inform design in a way that limits negative impacts to existing trees as much as possible.
- Factors that may influence trail placement based on existing trees include health of existing trees, existing grades at boulevards and medians, and overall root space and distance between curb and trunk.
- As part of the implementation, consider including new trees in the right-of-way and work with the City Forestry department to include in future plans.



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Natural Resources Toolkit

Tree Canopy

Tree Preservation and Protection

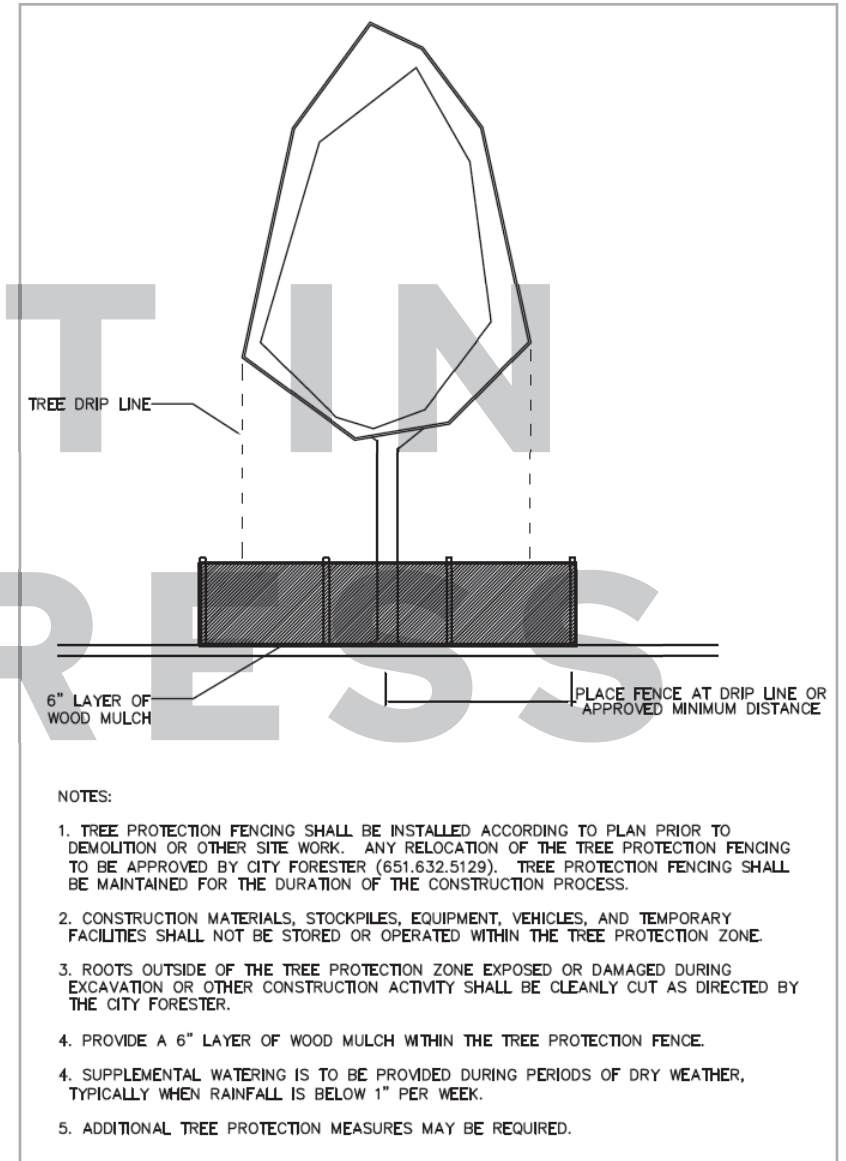
In addition to Chapter 176 of the Saint Paul Code of Ordinances, Chapter 74: the Heritage Preservation Districts and Programs also applies to this project area. Articles for both the Summit Avenue West Heritage Preservation District and Heritage Hill Historic Preservation District are contained within this chapter and provide some guidance concerning tree preservation and general landscaping.

The 2010 Park and Street Tree Master Plan is a guide to street tree planting, maintenance, and preservation. This document will assist with the future maintenance of trees and greenspace within the regional trail corridor. A City of Saint Paul standard tree protection detail is shown on this page to illustrate how tree protection can be ensured during construction.

Design and Mitigation of Impacts

When evaluating construction activity impacts to trees, there are several factors to consider, some including the critical and structural root zones, species, and condition of the tree. A more detailed approach to preservation is outlined in Chapter 5 of this document.

The 2010 Park and Street Tree Master Plan highlights the importance of species diversity within the public realm. A 30-20-10 model suggests that total tree inventory should contain no more than 30% of a single family, 20% of a single genus, and 10% of a single species. As trees are planted within the Summit Avenue corridor, this approach should be used to ensure a diverse and healthy tree canopy.



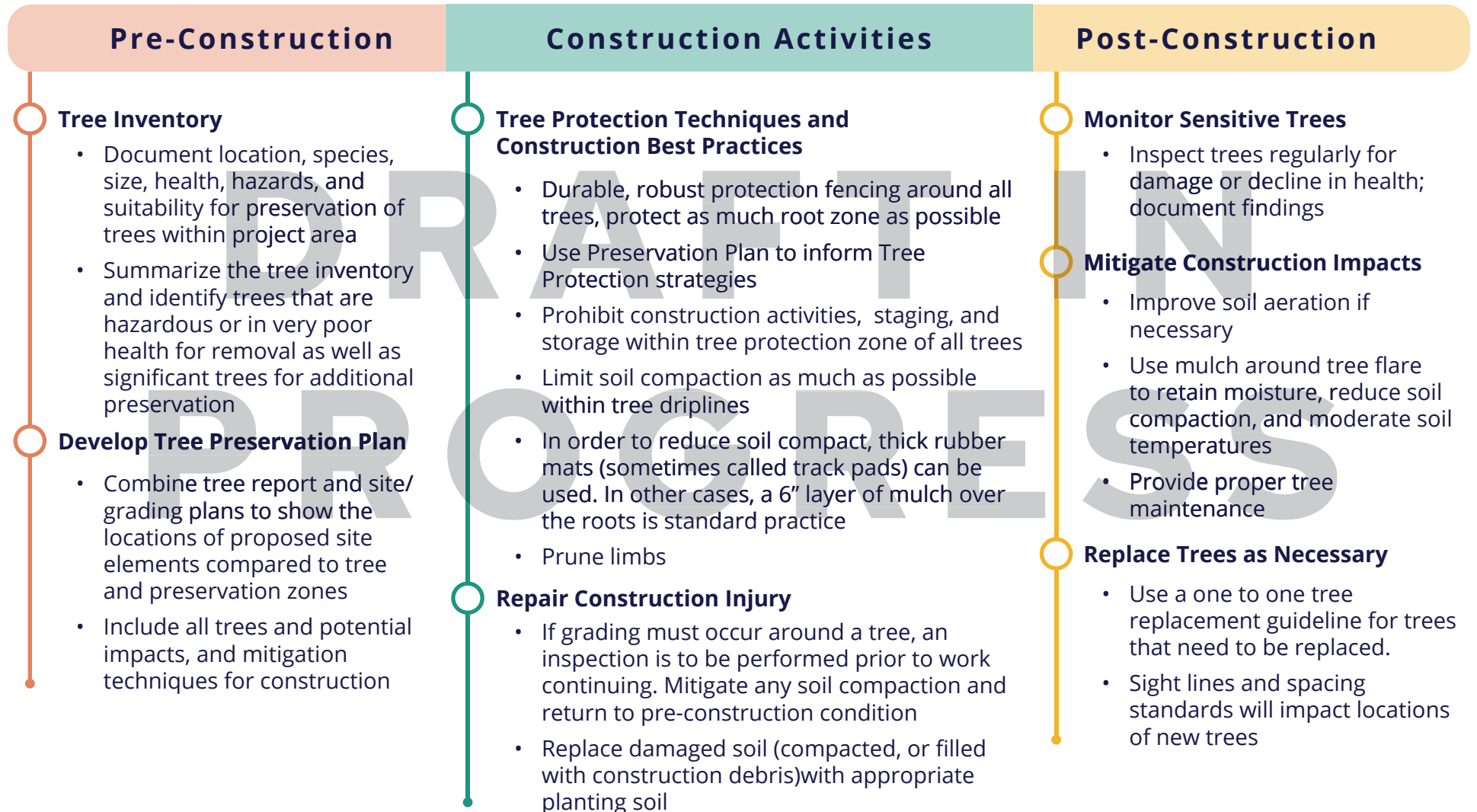
City of Saint Paul Standard Tree Protection Detail

Natural Resources and Stewardship Plan

Tree Preservation Framework



Plan document addresses community request for information about tree preservation measures.



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Watersheds and Wetlands

Several different sub-watershed intersect with the Summit Avenue Regional Trail corridor, all part of the larger Capitol Region Watershed District. The proposed trail route does not impact any delineated wetlands in the region. See regional map below showing regional watersheds and delineated wetlands.

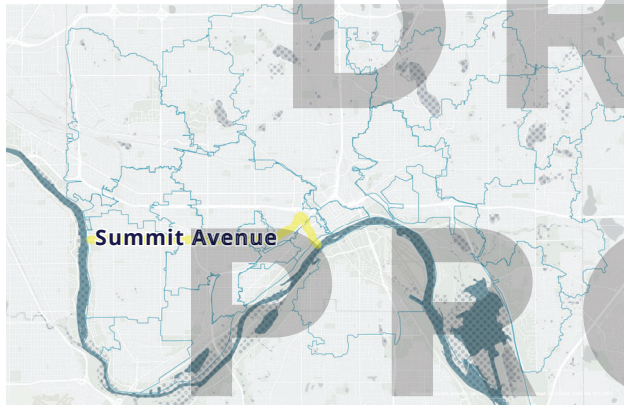


Fig. 5-77 | Regional Wetlands and Watersheds

Legend

- Watershed Boundary
- ▨ Delineated wetland *

* The delineated wetlands shown on this diagram are only considered likely wetlands as part of the National Wetland Inventory. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology, and geography¹. The accuracy of the mapping depends on several factors, and a more detailed evaluation may need to be conducted.

Stormwater Management

The Minnesota Pollution Control Agency identified several best management practices for stormwater management including flow controls, vegetation stabilization, bioengineering, structural stabilization, rip-rap stabilization, and filtration practices. Where necessary, as each segment of the regional trail is designed, stormwater management will be an integral part of the planning and implementation for the new facility. Future projects will adhere to requirements of the MN Pollution Control Agency, the City of Saint Paul, the Mississippi River Corridor Critical Area Program (MRCCA), the Capitol Region Watershed District (CRWD), and other specific governing bodies related to the project.

Additional Best Practices and Recommendations for Stormwater Management and Natural Resources

- The large greenspace area at the intersections of Summit Avenue, Marshall Avenue, Dayton Avenue, and Selby Avenue is within the “High Infiltration Potential” area identified in the 2014 Volume Reduction Plan and present an opportunity for construction of a stormwater treatment system that could be aesthetically pleasing and a public amenity.
- If segment wide reductions in street or buffer width in Segments A and C are considered infeasible, the design team should consider targeted reductions

in the bikeway buffer width and small bikeway alignment shifts around identified “landmark trees” to prioritize their protection.

- Any construction work associated with the Summit Avenue Regional Trail is subject to CRWD Rules. Project designers are encouraged to consider stormwater treatment and other environmental concerns early in the process of any design. Stormwater treatment that is above and beyond the volume required by rule is eligible for deposit in the City’s Stormwater Volume Bank or CRWD grant support.

¹ : U.S. Fish & Wildlife Service | <https://www.fws.gov/node/264582>