

Scope of Work

Addressing Tree/Sidewalk Conflicts

DRAFT — January 4, 2013

Project Overview

Purpose: With the assistance of a consultant, SDOT will develop and formalize a toolkit of options to address conflicts between trees and sidewalks citywide. This operational plan will use the Madrona corridor as a case study for the application of those tools.

Timeline: Work will be completed in 2013, with final deliverables due by December 15, 2013.

Values and Goals: The values that guide this effort are articulated in existing city policies and plans as well as by Seattle residents:

- Create a safe, accessible, and inviting walking environment
- Grow and maintain a healthy urban forest
- Preserve existing assets
- Implement programs and services in accordance with the City's Race and Social Justice Initiative, considering underserved communities as well as geographic balance

Objectives: Specific objectives will be refined as part of the planning process. Draft objectives for discussion include the following:

- Repair sidewalks damaged by street trees with long-term solutions
- Retain as many mature, desirable trees as possible
- Explore and implement alternative sidewalk repair approaches to preserve trees where feasible
- Evaluate repair approaches across a range of criteria, including lifecycle costs
- Implement tree removal, when necessary, in phases to enable continued canopy coverage
- Add to the urban canopy by planting new trees in vacant locations

Background

Throughout Seattle, there are locations where the existing planting strip or tree pit is too small to accommodate the tree that has been planted. This has caused adjacent sidewalks to heave and break, creating potential hazards for pedestrians. This condition typically occurs because the selected tree species needs a larger area of soil to achieve its mature canopy size or has an aggressive root system or trunk character that spreads at the base. It also may occur because the subgrade soils are severely compacted or dense and do not allow root penetration.

SDOT completed the Pedestrian Master Plan in September 2009. The plan included an issue paper on the topic of trees and sidewalks as well as targeted implementation actions to address the "walkable zone," including conflicts between trees and sidewalks. The walkable zone is a clear pedestrian zone that is a minimum of six feet wide by eight feet tall (6' x 8'). Strategy 2.4 deals specifically with trees and sidewalks, calling for policy and programmatic actions "to support the dual benefits of tree canopy coverage and walkability."

Draft Scope of Work

The draft scope of work is intended as a starting point for discussion with interested community groups and other stakeholders. It will be refined prior to solicitation of consultant support.

Task 1 — Project Management

The consultant will manage the project scope, schedule, and budget, including management of any subconsultants. Provide the SDOT project manager with monthly progress reports and submit monthly invoices to SDOT's Consultant Contracting Unit. Requests for scope changes should be submitted through SDOT's project manager.

Task 2 — Existing and Best Practices Research

The consultant will conduct existing and best practices research, building on the work done by SDOT staff and consultants (including the Pedestrian Master Plan's existing conditions report and issue papers). This research should include information on existing SDOT practices, providing an evaluation of current approaches to dealing with conflicts between trees and sidewalks, as well as research on national (and international, if appropriate) best practices. The existing practices research should also review DPD's and SDOT's processes for design review in conjunction with private development proposals and public capital projects. Summarize this research in a concise document with recommendations for areas of further exploration as well as recommendations for potential revisions to current SDOT practices.

Task 3 — Development of Long-Term Solutions and Approaches to Implementation

Although there is a need to further the development of strategies for new planting conditions, the focus of this scope of work is on the resolution of existing conflicts. There are many approaches available to address the root heave vs. sidewalk maintenance problem in new planting conditions, including planting the right tree in the right location, per the approved planting list. Further, the use of innovative technologies such as silva cell planting should be implemented where appropriate.

The consultant will develop and evaluate a comprehensive set of long-term solutions to address conflicts between existing trees and sidewalks, providing recommendations for a variety of conditions. Recommendations may include the following:

- Review existing field protocol/checklist for use in assessing conditions where the mature tree size and/or root upheaval results in less than 36" of clearance and revise as needed.
- Develop alternative surfacing and repair methods to accommodate heaving tree roots, exploring options such as sidewalk grinding, shims, cutouts, ramping/bridging/cantilevering; right-of-way redesign through sidewalk meandering, curb bulbs, "reverse" boulevards, expanded curblines, easements of private property; and flexible paving materials (rubber, poured-in-place rubberized, brick, interlocking pavers).
- Set target canopy percentages (e.g., by neighborhood, by block) to guide a corridor-specific approach to implementation.

Criteria will be established to evaluate the advantages and disadvantages of potential solutions, with lifecycle cost included as a component of the evaluation. The criteria should be presented as a matrix to facilitate comparison among the potential solutions.

Task 4 — Case Studies

The consultant will select five (5) locations for case studies including a mixture of spot and corridor locations. One corridor must be the 34th Avenue East Corridor in Madrona, and the 23rd Avenue Corridor

could also be considered as a potential study location. The case studies should provide a diverse set of conditions throughout the city. For the spot locations, the case studies should be easily generalized to similar situations, providing recommendations to address a single tree/sidewalk conflict. For the corridor locations, a conceptual plan should be developed as a test case for resolving issues at this scale. The SDOT project manager will approve the final set of case study locations prior to implementation of Task 4.

Task 5 — Public Outreach and Community Involvement

The consultant will develop an outreach plan to engage the public and select Seattle boards and commissions in the planning process. The plan should include an approach to engaging the following groups, at a minimum:

- Key community councils and neighborhood groups, including Safer Sidewalks, Mature Trees
- Seattle Urban Forestry Commission
- Seattle Commission for People with DisAbilities
- Seattle Pedestrian Advisory Board

Near-Term Milestones

January 8	SDOT meets with Madrona Community Council
January 31	Community and City Boards and Commissions provide feedback on draft scope of work
February 15	SDOT finalizes scope of work
February 16	SDOT begins roster solicitation process
March 30	SDOT gives NTP to consultant
April 15	Consultant completes project management plan and public outreach plan
June 1	Consultant completes existing and best practices research

Budget

There is \$100,000 available in 2013 to complete this consultant scope of work.

Reference Documents

- Urban Forest Management Plan (2007)
- Pedestrian Master Plan (2009)
- Right-of-Way Improvements Manual (2012)
- Safer Sidewalks, Mature Trees: A Madrona Demonstration Project (2012)