



DRAFT Seattle Pedestrian Master Plan
Issue Paper: Maintenance
November 1, 2008
April 29, 2009 update

Introduction

The following is a review of the role maintenance of pedestrian facilities plays in creating a walkable city. The Seattle Pedestrian Master Plan examined City of Seattle policies and practices related to the pedestrian environment and experience, specifically focusing on the American Disabilities Act (ADA) transition plan, construction zones, lighting, intersection design, maintenance, snow and icy conditions, speed and signage, street types, and trees and sidewalks. This process was also informed by discussions with staff of the Inter-Agency Team¹ and the Pedestrian Master Plan Advisory Group².

Without regular maintenance, pedestrian facilities can deteriorate and impede pedestrian mobility and safety. Pavement on pedestrian facilities such as sidewalks and stairs can crack or heave from tree roots, weather damage, or poor subgrade. Vegetation adjacent to pedestrian facilities often needs trimming or pruning. Crosswalk markings can chip or become worn due to motor vehicle traffic. Street lights can burn out or malfunction (see policy review summaries on lighting for more information). Pedestrian push button signal response time may need to be adjusted to better respond to peak pedestrian travel times. Obstructions such as signs, street furnishings, or garbage cans can inadvertently block passage and may require maintenance. Proper maintenance of pedestrian facilities helps ensure their accessibility and safety.

Information providing to and educating property owners is an important component of a successful maintenance program. Identifying City and private property owner maintenance responsibilities, as well as providing resources regarding those responsibilities, will clarify who needs to address maintenance issues. In addition, standards for what type maintenance activities are allowed are critical to make sure repairs and replacements meet requirements.

Current Programs and Goals

Programs

Responsibility for maintenance of pedestrian facilities varies. According to Seattle Municipal Code 15.72, property owners are responsible for maintenance of sidewalks, planting strips, and vegetation located in the right-of-way (ROW)

¹ The Inter-Agency Team consists of staff from eighteen agencies and departments within the City of Seattle, King County, and Washington State.

² The Pedestrian Master Plan Advisory Group (PMPAG) is an ad hoc group appointed by the City of Seattle, consisting of twenty-three members representing various groups and organizations.



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adjacent to their property. SDOT provides maintenance for street facilities such as marked crosswalks and pedestrian push buttons.

SDOT's website includes an online form and hotline (206-684-ROAD) for residents to request street maintenance for the following issues: minor paving repairs (e.g. potholes), street signs and traffic signals, and damaged sidewalks. According to this website, SDOT's "goal is to repair potholes within 48 hours (two business days) of receiving a report. Currently [their] success rate is 94%." Since sidewalks are the responsibility of adjacent property owners, SDOT will "investigate" the sidewalk in front of the reported address and "notify the property owner to make repairs."
(<http://www.seattle.gov/Transportation/potholereport.htm>)

Transportation infrastructure is a valuable asset to the City of Seattle, with an estimated replacement value of \$12.1 billion (City of Seattle, 2008, January 31). In its 2007 Annual Report, the Seattle Department of Transportation had a \$193.2 budget; of this, SDOT devoted 12% of its budget to street maintenance and 18-percent to major maintenance. *[Note - From TSP, page 105: The Seattle Department of Transportation (SDOT) spends approximately 75 to 80-percent of its annual operating budget on maintaining these facilities (City of Seattle, 2005, p. 105)]*

A major source of new funding for pedestrian facility maintenance comes from Bridging the Gap, a \$365 million levy for transportation maintenance and improvement that was passed by Seattle voters in 2006 (City of Seattle, 2008, July 29). Some of the maintenance-related Bridging the Gap nine year goals include:

- Repair or restore 144 blocks of sidewalks.
- Rehabilitate 40-50 stairways.
- Restripe 5,000 crosswalks.
- Prune 25,000 street trees to prevent safety and security hazards.

In 2007, the total Bridging the Gap budget was \$107.6 million (City of Seattle, 2007). The levy requires that no less than 67-percent of this budget be spent on maintenance. Actual spending on maintenance was 68-percent of the 2007 Bridging the Gap budget. The levy also requires that no less than 18-percent of the budget be spent on pedestrian and bike safety. Actual spending on pedestrian and bike safety was 19-percent of the 2007 budget (City of Seattle, 2007).

The 2008 Bridging the Gap work plan includes these maintenance related items: "Repairing 22 blocks of sidewalks, pruning 3,000 trees, and rehabilitating 5 stairways" (City of Seattle, 2008, July 29).

Goals

City of Seattle Comprehensive Plan (2005) goals related to the maintenance of pedestrian facilities (in the city in general and in specific adopted neighborhood plans) include:

- “T33: Accelerate the maintenance, development, and improvement of pedestrian facilities, including public stairways. Give special consideration to:
 - a. access to recommended school walking routes;
 - b. access to transit, public facilities, social services and community centers;
 - c. access within and between urban villages for people with disabilities and special needs;
 - d. areas with a history of pedestrian/motor vehicle crashes...; and
 - e. areas with high levels of growth” (p. 100).
- “CFG2: Preserve the physical integrity of the City’s valuable capital assets and gradually reduce the major maintenance backlog” (p. 125).
- “AL-P23: Seek to enhance and preserve alleys as safe, efficient local access corridors throughout the Aurora-Licton Planning Area. With the community seek to enhance alleys as safe pedestrian corridors to the extent consistent with city-wide policies. Work to develop minimum standards for alley construction, lighting, drainage and maintenance” (p. 160).
- “DB-P15: Strive for high quality roadway maintenance to [provide] safe and efficient travel for pedestrians and vehicles” (p. 189).
- “DT-OSP4: Establish procedures to address some issues related to the development of green streets, such as development of general design standards, approval mechanisms, and maintenance agreements to coordinate Green Street implementation with adjacent private development. Establish a design process to guide development of specific design plans for each Green Street (p. 208).

Chapter 3.7 of the *Transportation Strategic Plan (TSP) (2005)* provides a framework for Operations and Maintenance related to public infrastructure. The following SDOT divisions have responsibilities related to the maintenance of pedestrian facilities:

- Traffic Management Division is responsible for the pedestrian program.
- Street Maintenance Division is responsible for cleaning and repairing street pavement.
- Bridges and Roadway Structures Division is responsible for maintenance of City bridges, staircases, retaining walls, and other roadway structures.

The TSP outlines the following goals and guidelines related to maintenance of pedestrian facilities:

- “OM7. Improve Street Tree Pruning: Reduce the street tree pruning cycle from the current 19-year cycle to a six- to seven-year cycle, consistent with International Society of Arboricultural Standards in order to protect the public from overgrown trees and limit tree root damage to sidewalks. The Office of the City Arborist prunes city-



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owned trees in the rights-of-way" (p. 117). Street trees are typically owned and maintained by SDOT; however, some trees within the right-of-way are privately owned and maintained. In addition, some trees within and along the right-of-way are owned and maintained by other City departments such as Parks and Recreation.

- "OM10.2. Operate All Signals at Peak Efficiency Through the Traffic Management Center: Identify and implement a set of signal timing plans and procedures such that motor vehicles, pedestrians, transit, and bicyclists notice reductions in delay and travel time. Includes the following efforts:
 - Provide the appropriate number of timing plans for conditions (e.g., AM peak, PM peak, off-peak, weekend, and other peaking characteristics)
 - Provide the most efficient signal phasing
 - Provide for regular signal re-timing
 - Implement interconnect and coordination as appropriate
 - Move to a traffic-responsive operations system
 - Implement Transit Signal Priority on important transit corridors (see Transit section)" (p.118).

Applicable/Related Regulations – Guidelines

City of Seattle Municipal Code, Title 15.72 states:

Regarding sidewalk maintenance, whenever, in the judgment of the Director of Transportation, the condition of any sidewalk, or any portion thereof, in the City is such as to render the same unfit or unsafe for purposes of public travel, or require clearing, cleaning, repair or renewal, said official is authorized, empowered and directed to serve upon the owner of the property immediately abutting upon the sidewalk, a notice advising such owner of the condition thereof and instructing him/her to clear, clean, repair or renew the same (City of Seattle, 2008, May 29).

SDOT Client Assistance Memo (CAM) Form 2208 (2007) outlines the reasons why a property owner might be required to repair a sidewalk (e.g., cracks, movable pieces, discontinuity greater than ½-inch in the sidewalk, grade or slope of sidewalk creates a potential hazard). It also provides information about the process for repairing a sidewalk, including securing street use sidewalk repair permit type 55. This permit can be either obtained online or by visiting the Street Use Permit Counter located in the Seattle Municipal Tower. To obtain a street use permit, the following information must be provided: "name and address of applicant and owner, address of proposed site and description of the area to be repaired, drawings or plan of the site, and start date and length of construction time" (City of Seattle, 2007). Fees vary depending on size of the project:

- 100-square feet and less = \$150.00 inspection deposit
- 101-square feet up to 500-square feet = \$101.00 issuance fee and \$150.00 inspection deposit



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- 501-square feet and greater = \$150.00 deposit for field review prior to issuance. Upon issuance, \$101.00 issuance fee and \$150.00 inspection deposit (City of Seattle, 2007).

This CAM also provides suggestions for finding a concrete contractor. For sidewalk damage caused by street trees, owners are advised to arrange for a City arborist to do a site visit after the concrete is removed to determine whether street tree roots should be pruned or if alternative sidewalk materials may be appropriate.

Tree Pruning and Vegetation Removal - According to the Right of Way Improvement Manual (ROWIM), tree pruning and removal permits are required by City of Seattle Ordinance 9047. To obtain a permit to prune or remove a tree, an application is required. This application can be downloaded from the Web, but the required permit fee of \$101.00 and a \$150.00 deposit must be submitted in person at the permit counter at the Seattle Municipal Tower. The City Arborist or his/her representative may visit the site and may choose to waive the permit fee if the pruning and/or tree removal work "does not require the use of any specialized equipment and does not require the services of a hired person(s)."

Best Practices

- City of Tacoma – Sidewalk Maintenance Program: "The Public Works Department administers a sidewalk replacement program to assist property owners with the cost of replacing damaged sidewalk. Each year a different area of the City is targeted for hazardous sidewalk replacement. When the Public Works Department determines a sidewalk has become hazardous a letter is sent to the abutting property owner. This letter contains information on the amount of sidewalk replacement required and how to qualify for City sidewalk participation funds. Qualifying low-income property owners can request to have the sidewalk replaced by the City at no cost to them. Other property owners may hire a contractor to replace the sidewalk and receive partial reimbursement from the City" (City of Tacoma, 2008). There is a 24-hour phone call number to report sidewalks in repair. However, the website indicates that there is up to a 2-year waiting period for the City to do any repairs .
- City of New York – Citizen Pruner Program: The Parks and Recreation Department of the City of New York partners with the non-profit organization Trees New York to train and certify citizens in pruning of street trees and trees in parks (except in Central and Prospect parks) (Kirkby, 2000). Once certified, citizen pruners can prune trees with hand pruners, while only City-employed pruners can use ladders and ropes. Citizen pruner courses are offered in all five boroughs—the following is an excerpt of a spring 2009 course description: "The Trees New York's Citizen Pruner Tree Care Course trains and certifies New Yorkers in tree care and pruning. The course consists of eight hours of classroom training and four hours of hands-on experience in the field. The comprehensive curriculum covers street tree basics, street tree identification, and street tree care. The two-hour long classes meet once a week for four



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consecutive weeks, and for four hours of field training on a Saturday. Classes are held in the spring and fall of each year. The course fee is \$100 and includes a comprehensive manual and other materials." (New York City Department of Parks and Recreation, n.d.)

Gaps/Additions/Modifications

General comments (based on above review of policies and practices)

- It is difficult to navigate City of Seattle and Seattle Department of Transportation websites to find information on the process of repairing a sidewalk (see Online Sidewalk Information Investigation attachment).
- Transportation Strategic Plan does not appear to identify sidewalk maintenance responsibility.
- It is not clear from the form if marked crosswalk maintenance concerns are included in the street maintenance request form.
- Confusing permit fee structure for sidewalk improvements, repairs, and inspections.
 - Clarifying what materials are appropriate for repairs and where the materials are commonly available.
- As identified in the ROWIM, a permit fee for pruning and/or tree removal work can be waived if the work "does not require the use of any specialized equipment and does not require the services of a hired person(s)." Do these permit fees still apply for people who are not able to perform this work themselves due to age or disability?

The following comments regarding maintenance came out of meetings with the Inter-Agency Team, PMPAG, and the SDOT/SvR/TDG team:

Maintenance policies, standards, and practices

- Many property owners do not realize that sidewalk, planting strip, and adjacent vegetation maintenance is their responsibility.
- City has no efficient way to require property owners to maintain sidewalks (no way to bill an adjacent property owner for sidewalk repairs because current process involves sending a notice of a violation and then is followed up by litigation if repairs are not made; would be problematic to start billing individual property owners for these repairs unless everyone was billed)
- Need to improve the City's ability to enforce property owners' maintenance responsibilities or create alternative strategies to ensure that maintenance is performed and paid for; for example, by billing property owners for City performed maintenance (in locations where it is the responsibility of the property owner)
- City liability issues related to sidewalk maintenance even though maintenance is property owner's responsibility
- There is an online complaint form for maintenance, question about whether results are tracked.
- Not enough emphasis on maintenance of new facilities added as part of new development.



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- Developers are often required/allowed to plant trees near sidewalks, which will eventually lead to sidewalk damage; their responsibility for fixing in the future is not communicated up front.
- Potential issue where property developer is okay with maintenance responsibility but the property manager is not.
- Allowing shrubs instead of trees could help with maintenance in the future (however, also need to consider pedestrian personal security and safety in regards to tree and shrub choices within planting strips).
- Encroachments in the ROW can be addressed for new development, but it's harder for older developments.

“Alternative” Material Maintenance/Durability

- There is a desire for alternate treatments/materials, but this can make maintenance more difficult.
- Green Streets improvements could be hard to maintain by either City or property owners.
- Areas of Seattle that were annexed approximately 40 years ago (e.g., north of 85th street) have chip seal paved streets that were installed without controlling for grades; this creates challenges for sidewalk installation, drainage, and maintenance now.
- Need better understanding of the maintenance needs of different materials
- Constructing sidewalks for durability is critical.

Sidewalk Obstructions: Vegetation

- Current new development is putting in new trees, but there is not enough thought about location of trees and roots, especially in regards to future tree growth, potential sidewalk heaving, and maintenance needs
- If traditional sidewalks are typically damaged by trees, should we look into alternative materials or alternative planter strip, curb bulb configurations to better accommodate trees?
- Green Streets improvements could be hard to maintain by either City or property owners

Sidewalk Obstructions: Other

- Signs
- Waste receptacle locations
- Signal control/communication boxes

Utility Maintenance

- Question about how the new drainage code interacts with maintenance challenges
- Maintenance of utility vault lids to maintain a non-slip surface

Links as Applicable

- Online Sidewalk Information Investigation: SvR staff review of City of Seattle and SDOT websites related to sidewalk maintenance
- *Client assistance memo 2208: Sidewalk maintenance and repair*
<http://www.seattle.gov/transportation/cams/CAM2208.pdf>



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