# VANCOUVER





# A WALKING CITY

Sidewalk Safety, Access and Ambience for All Pedestrians

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EXECUTIVE SUMMARY i

## **EXECUTIVE SUMMARY**

City Council established the Sidewalk Task Force (STF) in response to increasing problems which pedestrians experience in using Vancouver's sidewalks, and in response to a policy shift towards prioritizing pedestrians. The STF was comprised of representatives from a range of interest groups and citizen volunteers appointed by Council.

The Sidewalk Task Force has concluded that it is necessary to change some existing City practices to properly recognize the importance of Vancouver's sidewalks to its residents and visitors. The following principles should guide development of all policy related to sidewalks:

- Design standards and practices regarding the use of sidewalk space should distinguish barrier-free pedestrian corridors from service corridors.
- Street trees need to be managed appropriately to achieve a balance between the retention of trees and the primary use of sidewalks for pedestrians.
- The function and appearance of sidewalks should be inviting and encourage life and activity on the street which enhances the pedestrian experience for all.
- There should be primacy of public uses over private uses of sidewalks.
- The sidewalk system should be economically sustainable through the provision of good design, and effective stewardship.
- Sidewalk maintenance should address safety first and not detract from sidewalk appearance.

This report makes recommendations which seek to establish or improve City standards and practices regarding:

- · design and installation of sidewalks
- maintenance
- stationary encroachments
- animate uses
- land use regulations
- organization and stewardship
- public education
- partnerships, volunteer programs and community involvement

Finally, this report asks Council to direct staff to develop an Implementation Plan which priorizes these recommendations and addresses cost, legal, resources and other implications. The Implementation Plan should be keyed to action items in the City's Transportation Plan and the new Downtown Transportation Plan. A Sidewalk Stewardship Group should be established to monitor implementation.

# INTRODUCTION

Vancouver's sidewalks provide service in many different ways:

- they act as transportation corridors for pedestrians including those with visual disabilities, people in wheelchairs and the elderly, all of whom require specific design features to be able to make full use of sidewalks.
- they provide space for utilities (e.g. fire hydrants, street light poles), public amenities (e.g. bus shelters, benches) and commercial encroachments (e.g. sidewalk cafes).
- they deliver customers to adjacent businesses.
- they are a major part of Vancouver's public realm and a venue for public life.

The processes by which Vancouver sidewalks are designed, built and maintained should reflect the priority the City places on pedestrian spaces. Better sidewalks create a more liveable City.

The City of Vancouver has adopted several policy documents that recognize the top priority of pedestrian spaces. These include the Vancouver Transportation Plan (1997), CityPlan (1995) and the Central Area Plan (1991). Although these Council policies have consistently given priority to pedestrian transportation, the Sidewalk Task Force has identified several examples of how current practices are inconsistent with these policies.

Council established the Sidewalk Task Force in response to increasing citizen concerns about problems which pedestrians are experiencing in using Vancouver's sidewalks.

Members of the Sidewalk Task Force are pleased to recommend ways that Council policies and improved City practices can be put into effect. This report concludes the work of the Sidewalk Task Force and summarizes its recommendations, which consist of suggested changes to current City practices. These recommendations are offered to Council with the sincere hope that Council will both support and adopt them, and direct staff to implement them.



sidewalks act as pedestrian corridors



sidewalks provide space for utilities



increasing sidewalk problems



poor sidewalk conditions

## BACKGROUND

#### A. MANDATE

The Council approved mandate of the Sidewalk Task Force was:

"This Task Force shall serve as a forum to bring together the various groups, agencies, and departments to discuss and coordinate their efforts to improve the safety, comfort, and convenience of pedestrians in the City of Vancouver.

The Task Force shall discuss a strategy for ensuring a high quality pedestrian space is provided, with street furniture appropriate to permit safe and comfortable passage, and which provides interest and excitement to the pedestrian environment.

Prior to completion of its term, the Task Force shall prepare a report to Council."

#### **B. MEMBERSHIP**

The Sidewalk Task Force was comprised of representatives from a range of interest groups and citizen volunteers appointed by Council. It was chaired by Councillor Sandy McCormick.

Councillor Sandy McCormick (Chair)
Colin Brander, Bicycle Advisory Committee
Dr. Harry Lazar, Advisory Committee on Seniors
Paul Tubbe, Advisory Committee on Disability Issues
Bonnie Lillies, Vancouver Coastal Health Authority
Dariusz Pac, Canadian National Institute for the Blind
Charles Gauthier, Downtown Vancouver BIA
Sharon Townsend, South Granville BIA

Council-appointed citizens: Michael Csupak and Al Tanzer

Michael Hudson, citizen
Paul Thiele, CNIB
Hansel Wang, Translink
Beatrice Leinbach, Seniors
Pam Andrews, citizen
Brad Waghorn, CNIB
Lisa Constable, VCHA
Mary Bosze, Seniors

The Sidewalk Task Force expresses its appreciation to the following individuals for their key contributions towards its work.

Don Brynildsen, Rowan Birch & Betty Omaye (Engineering Services)
Lance Berelowitz, Planning Consultant

In addition, valuable input and presentations were received from Planning, Engineering, Finance, Permits & Licenses, and Parks Board staff, as well as individual Sidewalk Task Force members.



the Sidewalk Task Force in session

#### C. PROCESS

To address the mandate of Council, the Sidewalk Task Force began its work with field studies to identify the scope of sidewalk issues throughout the city. Observations were made in commercial and residential areas with particular attention to existing barriers to safe sidewalk access by all pedestrians.

Problems were identified and grouped into categories such as maintenance, design and installation, stationary encroachments, animate uses, etc. The Sidewalk Task Force examined in depth each category, calling on City staff expertise from many departments. Many task force members conducted independent research regarding best practices and shared this information for discussion with the group.

As each category of issues was studied the task force made preliminary recommendations. Members found many interrelationships between areas of concern, such as design and maintenance, encroachments, etc., which added to the complexity of issues. Often examination of one area in depth led to a change of thinking in other problem areas.

At all times, the task force kept financial issues in mind and its recommendations, if implemented, could produce ultimate cost savings to the City as well as ensuring higher amenity and barrier-free access for all pedestrians.

Finally, ideas and recommendations were revised and regrouped and this report is the summation of the work of the Sidewalk Task Force.

## DISCUSSION

#### A. WHY ARE SIDEWALKS IMPORTANT?

Citizens of Vancouver want a safe, liveable and sustainable public realm, and sidewalks comprise a significant part of this environment. Sidewalks are important because everyone is a pedestrian at some point in their day. They have a particularly important role in Vancouver because of the city's year-round pedestrian-friendly climate.

Sidewalk space is limited. Often, different sidewalk uses compete for the same limited space. If not properly managed, these competing uses contribute to congestion and sidewalks filled with potentially hazardous obstructions. With projected development and growth, these problems will only worsen unless action is taken to resolve them.

The Sidewalk Task Force believes that it is necessary to change some existing City practices to properly recognize the importance of Vancouver's sidewalks to its citizens and visitors.



limited sidewalk space

#### B. GUIDING PRINCIPLES

During its research, the Sidewalk Task Force found recurring themes. Discussion of these themes led to an agreement that the following principles should guide the development of all policy related to sidewalks:

- Design standards and practices regarding the use of sidewalk space should distinguish barrier-free pedestrian corridors from service corridors.
- Sidewalk widths should be appropriate to the pedestrian needs of the location and should not be reduced to accommodate other transportation functions.
- Pedestrian corridors should be as consistent, predictable and detectable as possible to provide barrier-free access, and take advantage of guidelines, standards and best practices developed in other jurisdictions.
- While street trees are important features of city sidewalks, they need to be managed appropriately to achieve a balance between the retention of trees and the primary use of sidewalks for pedestrians. Street trees provide shade, rain protection, a visual and psychologi-



poor sidewalk conditions

# DISCUSSION

cal barrier between pedestrians and moving vehicles, help cool the sidewalk and improve air quality, and an aesthetic enhancement of the pedestrian environment. But street tree roots can cause sidewalks to heave and break, creating hazards, unsightly repairs and costly ongoing maintenance. Consideration must be given to sidewalk maintenance implications when selecting tree species, and in the spacing, planting methods, location and clearances of street trees.

- The appearance of sidewalks should be inviting and encourage life and activity on the street which enhances the pedestrian experience for all, including seniors and those with disabilities.
- There should be primacy of public uses over private uses. Anyone wanting to make use of public space for private gain such as commercial encroachments should pay for the privilege.
- The sidewalk system should be sustainable through good design and effective stewardship, taking into account life cycle cost factors and balancing initial capital costs against long term maintenance savings. Further, the City needs to ensure that adequate resources are available for the construction and maintenance of sidewalks and related public spaces to acknowledge their importance to citizens and businesses.
- Sidewalk maintenance should address safety first and not detract from sidewalk appearance.

#### C. EXISTING CITY PRACTICES

During its term, the Sidewalk Task Force discussion proposed some changes to existing City practices and processes. Several of these changes have been integrated into work programs and standards, including:

- use of root barriers
- green space design
- black asphalt patch standards
- curb ramp design standards revisions
- written maintenance standards
- improved coordination between construction and maintenance



street trees: an important sidewalk feature



sidewalk design should enhance pedestrian experience for all



maintenance should not detract from sidewalk saftey or appearance

The following are the recommendations to Council of the Sidewalk Task Force. A brief commentary is provided following each recommendation.

#### A. DESIGN AND INSTALLATION STANDARDS

#### **SIDEWALKS**

 Make increased use of textures, paving materials, contrasting colour and landscaping as options to distinguish the pedestrian corridor from the service and commercial use corridors and for giving pedestrians cues for where to walk. Innovative sidewalk design solutions should be encouraged and implemented.

> It is important to reserve an area along every sidewalk where pedestrians can expect to move free of obstruction. This area should be made obvious to pedestrians through the use of contrasting materials.



textures, paving materials and colour distinguish pedestrian corridor

2. Install curb ramps at all intersections, designed in accordance with current best-practice standards.

Curb ramps enable people in wheelchairs, or those using strollers, etc., to make full use of the City's sidewalks and should be installed at every intersection. Curb ramps must be designed with regard to the needs of both the visually impaired (e.g. through tactile warnings) and other pedestrians (e.g. protect pedestrians from vehicular traffic, ramps should not unduly compromise the regular use or amenity of sidewalks).



curb ramps - previous standard



curb ramps - new standard

3. Develop design standards for sidewalks that vary based upon pedestrian function and volume.

The draft Streetscape Design Standards proposes a classification of streetscapes that depends on sidewalk function (e.g. Ceremonial Street, Main Street (High Street), Waterfront Walkway, etc.). The Task Force supports this concept and suggests that future sidewalk designs should be standardized for each classification.



varied sidewalk designs for different conditions (Ceremonial Street)



varied sidewalk designs for different conditions (Neighbourhood Street)

4. Ensure minimum pedestrian corridor clearances on all sidewalks, consistent with the City's draft Streetscape Design Standards.

Minimum pedestrian corridor clearances ensure that the basic pedestrian transportation function of sidewalks is preserved.



minimum pedestrian clearance compromised (previous)



minimum pedestrian clearance maintained (new)

5. Ensure that future sidewalk and bus stop designs provide sufficient space to allow adequate waiting at bus stops without disrupting the flow of pedestrians.

To the extent possible, special consideration needs to be made for the design of bus stop zones when installing new sidewalks.



insufficient space for bus stop queuing



appropriate bus stop design for limited space

6. Ensure that pedestrian corridors are well connected through public and private shortcut connections, where demand is demonstrated.

Intersecting pathways (e.g. the John Street connector and portions of the Silk Road) allow pedestrians to make use of more direct routes (shortcuts) between origin and destination. Increased provision and use of such pathways should be encouraged.



pedestrian shortcut need demonstrated



an integrated pedestrian shortcut

 Undertake a cost-benefit analysis of sidewalk capital construction costs versus long term operations and maintenance expenditures.

The use of tough but durable materials that are initially more expensive, such as granite, may be an economically sound practice when examined on a long-term life cycle basis. This can only be determined if a proper cost-benefit analysis is done.

If pedestrians are our number one priority, then we should commit to an increased long-term investment in our sidewalks, where value can be demonstrated.

8. Review current cost-sharing practices for new and replacement sidewalk installations. Consider alternative cost-sharing formulae other than the curent 50/50 ratio between the City and property owners, to ensure that timely installations and replacements occur.

This review should include identifying ways to achieve:

- A resolution of existing problems experienced where property owners cannot or will not fund a share of sidewalk improvements or installation in areas without sidewalks.
- A response to equity concerns of property owners who have contributed to local improvement projects
- An efficient and cost-effective administration process
- An accelerated rate of sidewalk completion (current estimated 30 year build out is unacceptable)
- A pro-active replacement program
- prioritizing sidewalk completion based on high levels of use and public transit routes

#### **TREES**

9. Initiate a joint project between the Park Board, Planning and Engineering to identify appropriate species of trees, planting standards and procedures for the inspection of tree planting to ensure that trees are planted in ways that minimize ongoing damage to sidewalks.

Root damage from trees is currently causing millions of dollars of damage to sidewalks every year. This initiative should be undertaken quickly to avoid unnecessary further damage and repair costs.



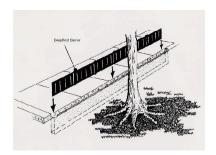
tree root damage can be extensive

 Install new root barriers wherever possible when constructing or repairing sidewalks to minimize damage from tree roots. If root barriers cannot be installed, evaluate other options such as tree relocation and alternative landscape material.

Root barriers offer a simple and cost-effective solution to many of the problems caused by roots damaging sidewalks. Their use should be expanded to ensure that costly root damage is minimized.



root damage to sidewalk



root barriers can limit sidewalk damage

11. Be more creative and innovative in designing green spaces in sidewalks (e.g. planters, groups of shrubs, single specimen trees).

The Task Force believes that the current standard practice of providing many small trees in all commercial areas needs to be changed. Some areas would benefit by having a few large specimen trees, and landscaping instead of the current standard treatment.

Planting should take into account pedestrian visibility and safety.



encourage creative sidewalk landscaping alternatives



an example of creative sidewalk landscaping

#### **AMENITIES**

12. Adopt a co-ordinated and modular street furniture program to supply appropriate types of amenities in which a contractor both installs and maintains the City's street furniture.

The City has recently received proposals from private contractors for providing street furniture. The Task Force supports the co-ordinated street furniture program option, and does not support the "bus-shelter only" option that is currently under consideration.



uncoordinated street furniture



coordinated street furniture (Sydney)

13. Size and locate all street furniture and amenities appropriately in defined corridors at curbside or adjacent to buildings, or in corner and mid-block bulges, consistent with the City's draft Streetscape Design Standards.

Street furniture, bus shelters, other amenities, and encroachments should not be placed in the pedestrian corridor, but limited to the Service Corridor or in the Commercial Use setback zone.



shelter compromises pedestrian corridor



integrated street furniture in defined corridors

14. Change street lighting practices to benefit pedestrians, not just vehicles.

This recommendation would have the effect of making street lighting design practices consistent with the City's policies regarding pedestrians as the top transportation priority. The provision of pedestrian lighting needs to take into account energy and maintenance cost implications, as well as current and projected levels of pedestrian use.



street lighting that benefits pedestrians

# B. MAINTENANCE AND CLEANING STANDARDS

1. Eliminate the use of black asphalt fillets as a long-term sidewalk repair method.

Although asphalt is a low cost, quick fix for concrete, it has a poor aesthetic appearance, does not last well, is difficult to see at night, and can cause a safety problem if it is not sloped properly. Other options such as matching patch materials and more durable repair materials need to be considered, particularly in commercial areas.



black asphalt is a poor repair solution

2. Improve the cleanliness of the pedestrian environment through new sidewalk cleaning standards and the cleaning of adjacent roads and gutters.

If sidewalks and adjacent roadways are clean, they become more inviting and appealing places for pedestrians. Current City sidewalk cleaning schedules should be improved, expanded and standardized, based on levels of pedestrian use and demonstrated need.

Higher maintenance levels will contribute towards:

- better air quality (road dust removal)
- higher pedestrian and tranist use



a well maintained sidewalk

 Examine options for providing differing cleaning and maintenance standards for residential and commercial sidewalks.

The level of pedestrian use should drive the level of service and standards. Sidewalks in high volume commercial areas should receive better levels of service than low-volume sidewalks in single-family neighbourhoods.

 Develop policies and practices on standards of maintenance of sidewalks and street furniture. Regularly reassess and compare these standards with "best practices" used by other cities.

> Standards are needed to ensure that public expectations are met and all staff are providing consistent levels of maintenance.



example of high sidewalk maintenance standards (JC Decaux, Sweden)

#### C. STATIONARY ENCROACHMENTS

1. Develop guidelines for establishing the pedestrian capacity of sidewalks.

Sidewalk widths should relate to pedestrian use. Currently, standards vary and consistency would support growth in pedestrian use.

2. Adopt a sidewalk encroachment policy that permits private encroachments only if there will be sufficient capacity for pedestrians in the remaining public space.

Preservation of pedestrian corridors should be a priority.



encroachments preserve insufficient space for pedestrian movement



ensure encroachments preserve sufficient space for pedestrians

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3. Prohibit freestanding advertising signs (e.g. sandwich boards) within the pedestrian corridor, but permit them elsewhere. Amend the Street & Traffic Bylaw to reflect these rules.

This requires changing current Council policy, but would be reflective of current enforcement practices. The size of such signs should be subject to specific design guidelines.



poorly placed advertising signs restrict the pedestrian corridor



restrict signs to adjacent properties

4. Collect fees for freestanding advertising signs in the same manner as fees are collected for other commercial encroachments, with revenues going toward management of sidewalk space and enforcement.

Again, this recommendation requires changing current Council policy.

5. Examine the viability of sidewalk cafes at the curbside (outside the pedestrian corridor).

Provided that sidewalk cafes do not adversely interfere with the pedestrian flow, there should be more flexibility in the permitted locations, including in expanded mid-block and corner bulges between the pedestrian corridor and the curb.



consider sidewalk cafe tables at curbside

#### D. ANIMATE SIDEWALK USES

 Designate a minimum 5-foot wide pedestrian corridor for pedestrians "on the move" on all sidewalks, consistent with the City's draft Streetscape Design Standards. All other uses should take place in the service corridor or the commercial use corridor adjacent to the building.

The designation of corridors along sidewalks will permit a more organized approach to the placement of amenities, and will give pedestrians more walkable sidewalks.

 Review the Street & Traffic Bylaw to determine whether the bylaw deals sufficiently with speed limits and other safety issues related to use of sidewalks by permitted devices (e.g. motorized wheelchairs).

The use of such vehicles on sidewalks needs to be managed appropriately to reduce conflicts with pedestrians.

3. Amend the Street & Traffic bylaw to prohibit tethering of animals in any way that the animal or the tether obstructs pedestrian traffic.

Responsibility for the control of animals rests with the owner and clear expectations need to be established.

 Require couriers, as a condition of their licence, to sign a contract stating that their cyclists must dismount and not ride on City sidewalks, except in locations where cycling is permitted.

Pedestrian safety should be of paramount importance to the delivery service industry and reasonable, practical rules need to be established to support this objective.

5. Enforce prohibition of mounted cyclists on sidewalks.

While prohibited, cyclists continue to ride on the sidewalk, and this creates hazards and safety problems for pedestrians. Promote better education, better enforcement, and creation of alternatives to cyclist use of sidewalks.



maintain minimum 5 ft. wide pedestrian corridor clearance



prohibit tethering of animals that obstruct pedestrians



cyclists should dismount when on sidewalks

6. Pursue additional opportunities for bicycle parking in areas which are outside of pedestrian corridors.

Pedestrian corridors should be kept free of obstructions such as those caused by bike racks, parked bikes, and other objects.

#### E. LAND USE REGULATIONS

 Review regulations for new building setbacks to ensure that they reflect the priority of public space and the pedestrian, taking into account requirements of the current and future public transit system.

Setbacks, rights of way, etc. on privately owned land can augment and enhance the pedestrian experience.

 Review weather protection policy and increase the areas where canopies are required to all commercial developments in the city.

Direct staff to consider incentive options for adding weather protection to existing buildings.

Where weather protection and trees are in conflict, a balanced resolution needs to be found, as both are enhancements of the pedestrian environment.



building setback requirements should ensure pedestrian priority



expand weather protection to all commercial street frontages

#### F. CIVIC MANAGEMENT AND STEWARDSHIP

1. Establish a single point of contact at City Hall for all issues regarding sidewalks.

The many activities that the City is involved in often lead the public to many different parts of the City's bureaucracy to deal with pedestrian-related concerns.

2. Develop and prioritize an inventory of all streets without sidewalks, and implement a program to complete sidewalk construction (on at least one side of each street) within a defined time frame.

There are still sections of the pedestrian network that are not complete, recognizing that some property owners do not want sidewalks installed (e.g. Southlands).

3. Identify sidewalk construction funds as a separate category in the City's Capital plan.

Sidewalks are currently funded in several areas of the Capital Plan.

- 4. Standardize policy on compensation paid to the City for use of public space for private benefit. If any additional revenues accrue to the City from implementing such standard rates, they should be used to enhance and beautify sidewalks and on additional enforcement.
- 5. Improve coordination of construction and maintenance projects in the city to avoid damaging recently constructed sidewalk facilities, and to inform the public about construction plans.

Examples of ways this could be achieved:

- developing horizontal linkages between various organizations that do construction and maintenance work on City sidewalks, such as Engineering Dept. branches, Park Board and utility companies, to achieve improved efficiency and cost savings.
- use of technology for facilities management, coordination and maintenance planning.



implement a program to complete sidewalk construction



standardize compensation for use of public space for commercial gain

#### G. PUBLIC EDUCATION

1. Encourage all property owners to care for adjacent sidewalks and boulevards, including ensuring barrier-free access for pedestrians.

This approach is used to deal with snow removal and landscape encroachment over sidewalks, but should be extended to other areas such as sidewalk cleanliness.



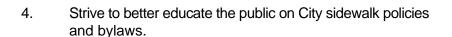
adjacent sidewalks need better care by property owners

2. Increase publicity of City contact numbers and the website address for reporting sidewalk maintenance requests.

Often, it is not apparent to the public which part of the organization they should contact to solve a particular problem. A "one-stop shopping" approach to customer service would be preferable.

3. Implement publicity programs to encourage cyclists not to ride on sidewalks.

The City should endeavor to advise cyclists of the location of bike routes in the City and encourage them to take a bicycle education course.



Review and advertise City policies for the public's information and seek feedback on how the policies are working.



encourage cyclists not to ride on sidewalks

# H. PARTNERSHIPS, VOLUNTEER PROGRAMS AND COMMUNITY INVOLVEMENT

1. Investigate corporate partnerships as means to generate enhancements for sidewalks.

Contributions by corporate partners and sponsors could offset the need for tax revenues while providing increased service.



explore corporate partnerships to generate sidewalk improvements

 Pursue opportunities such as "Adopt a Walk" with citizens and local businesses to take joint responsibility for specific sidewalks.

This would be similar to the "Adopt a traffic circle/bulge program" in Greenways. Experiences in other cities, including Surrey as a local example, show that much can be achieved by mobilizing volunteers.

#### I. IMPLEMENTATION

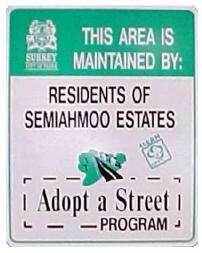
1. Direct staff to develop an Implementation Plan, which priorizes these recommendations, and addresses cost, legal, staffing resources and other implications.

The Sidewalk Task Force believes that the highest priority should be to improve maintenance and replacement standards and practices.

2. Strike a Sidewalk Stewardship Group to monitor implementation.

Members could include City staff and representatives from BIAs, Bicycle Committee, Neighbourhood Associations.

3. Key the Implementation Plan to action items in the City's Transportation Plan and the new Downtown Transportation Plan.



Surrey's Adopt-a-Street Program

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