



**STAFF REPORT  
ACTION REQUIRED**

**Wayfinding System Strategy for the City of Toronto**

<b>Date:</b>	August 23, 2012
<b>To:</b>	Public Works and Infrastructure Committee
<b>From:</b>	Acting General Manager, Transportation Services
<b>Wards:</b>	All
<b>Reference Number:</b>	p:\2012\ClusterB\tra\pr\pw12008pr

**SUMMARY**

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A wayfinding system makes streets, neighbourhoods and the city more 'legible', helping people to find their way. Wayfinding is more than signs – it includes names, maps, new media and elements of the public realm such as lighting, street furniture and public art. A comprehensive and integrated wayfinding system will consider the needs of residents, commuters and visitors alike. A unified, multi-modal Toronto wayfinding system has long been awaited by the tourism sector, city businesses, cultural and sports institutions, residents, commuters and tourists.

The creation of a multi-modal wayfinding system is a goal and key element of the City's Walking Strategy that was approved by City Council in 2009. In addition to making a more walkable city, a wayfinding system will have the likely effect of enhancing tourism with the added economic benefits that result from creating a more walkable, accessible, and navigable city. A coherent wayfinding system in Toronto should extend across transportation modes and include state of the art technologies. This will include updates to existing highway signage policies to provide consistent and continuous information for motorists such that they can find destinations safely and with confidence. The development of a wayfinding system is timely as the 2015 Pan/ParaPan Am Games will attract significant media attention and visitors to Toronto. Many cities such as London, New York, Bogota and Vancouver have developed wayfinding strategies in response to significant transportation challenges and/or major events such as the Olympics.

The purpose of this staff report is to present the results of Phase One of a Wayfinding System Strategy project for the development of a multimodal wayfinding system for the City of Toronto. The Phase One study titled "Toronto 360° Wayfinding Strategy" outlines a framework defining wayfinding principles and system elements, staged delivery, and requirements for a pilot implementation. It also includes a business case

which outlines costs and benefits and identifies potential funders and partners for implementation. This report recommends adoption of the vision and principles in the Phase One Study that will provide the guidance and direction in the subsequent phases of this strategy.

This report also recommends proceeding to the second phase - pilot implementation of the project. If approved, Phase Two will include design development, product prototyping and an evaluated pilot implementation. It also includes the development of a complementary digital strategy and updates to the city's existing highway destination signage policies. Phase Two is proposed to be in place in advance of the 2015 Pan/ParaPan Am Games and includes two proposed pilot areas that are important Games venues – the East Downtown area which includes the Pan/ParaPan Am Athletes' Village and the Morningside/Military Trail area in the vicinity of the University of Toronto (Scarborough) Pan Am Complex. The approved wayfinding strategy will be an attractive and important investment for a number of potential partners which will be the subject of a future staff report on funding for Phase Two of the strategy.

This report was prepared with the participation of staff in the Economic Development and Culture Division.

## **RECOMMENDATIONS**

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### **The Acting General Manager of Transportation Services recommends that:**

1. City Council adopt the vision and principles outlined in the final report, titled "Toronto 360° Wayfinding Strategy" (Appendix A).
2. City Council direct the Acting General Manager, Transportation Services to proceed to Phase Two (the pilot phase) of the Wayfinding System Strategy by undertaking the following actions:
  - a. consult with stakeholders and project partners on design features for Phase Two;
  - b. develop detailed graphic and product design and sign prototyping;
  - c. update and consolidate the various highway signage policies into one document;
  - d. develop a companion digital strategy as a key system element;
  - e. implement the Wayfinding System Strategy in the two identified pilot areas (Morningside/Military Trail and East Downtown);

- f. conduct comprehensive pre- and post-implementation evaluation of the pilots;
  - g. use the evaluation findings to develop a full business case and detailed report on Phase Three (city-wide roll-out); and
  - h. update the map design on existing InfoPillars in keeping with the Wayfinding Strategy.
3. City Council direct the Deputy City Manager, Cluster B, to work with any government, corporation, agency or otherwise, within the City of Toronto to ensure compliance with, and support for, the City's Wayfinding Strategy and the Phase Two implementation.
  4. City Council direct the Acting General Manager, Transportation Services to report back on funding for Phase Two of the Wayfinding System Strategy including direct and in-kind contributions from funders and partners.

### **Financial Impact**

While there are no financial impacts of this report, the implementation of Phase Two of the Wayfinding System Strategy (in advance of the 2015 Pan/ParaPan Am Games) is estimated to cost \$800,000. Adoption of the recommendations contained in this report will permit staff to approach potential partners and funders (for direct and in-kind contributions) and report back as to the sources of funding necessary for the implementation of Phase Two of the Wayfinding System Strategy.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

### **DECISION HISTORY**

Council has taken the following actions in support of wayfinding and improved signage and identification programs:

- Adopted a report in April 2003 on a policy and process for consideration of requests for neighbourhood/community identification, service organization information and commercial directional signing on City roads  
[http://insideto.toronto.ca/transportation/roads\\_operations/tsop/pdf/spm/tsop\\_2-4.pdf](http://insideto.toronto.ca/transportation/roads_operations/tsop/pdf/spm/tsop_2-4.pdf).
- Considered the need for visitor information services and wayfinding as part of the Tourism Action Plan: Report on 2005 Tourism Program Visitor Services Projects in February 2006.  
<http://www.toronto.ca/legdocs/2006/agendas/council/cc060131/edp1rpt/cl005.pdf>

- Considered tourist information/wayfinding (InfoToGo) facilities as part of the suite of street furniture of the Coordinated Street Furniture Report in June 2006. <http://www.toronto.ca/legdocs/2006/agendas/council/cc060627/wkscl001b.pdf> and more recent updates in reports (Item PW15.5) on InfoPillar placement guidelines in June 2012.
- Endorsed the "Premier Ranked Tourist Destination Project Summary and Recommendations" as a guide for strengthening Toronto's tourism sector in May 2008. The recommendations included "improve visitor-oriented wayfinding and directional signage."  
<http://www.toronto.ca/legdocs/mmis/2008/ed/bgrd/backgroundfile-12804.pdf>
- Adopted the Street Name Signage Program in March 2007 (Item PW3.4) to provide a high quality, coordinated and well designed public realm for the citizens of Toronto and its visitors.
- Adopted the Walking Strategy in May 2009 (Item PW24.6) including Recommendation 3.5 which identifies 'the need for a signage and information system to support walking in the city'.
- Adopted Creative Capital Gains: An Action Plan for Toronto in May 2011 (Item ED 3.3) including Recommendation 1.2 which states: *"Integrate culture and Toronto's cultural institutions into the City's Pedestrian Way-finding System strategy for both visitors and residents."*
- Funded the City Planning's PATH masterplan including a consultant study that included a review of wayfinding principles.

## ISSUE BACKGROUND

The Wayfinding Strategy is designed as a three-phase project:

**Phase One:** wayfinding strategy development and conceptual design

**Phase Two:** detailed design, pilot implementation and evaluation

**Phase Three:** full implementation/city-wide roll-out.

This approach was developed following research conducted by staff on the development and key elements of other urban wayfinding systems (e.g. London, Bristol, Vancouver, New York, Philadelphia) and a review of existing wayfinding systems in Toronto. Staff also conducted key stakeholder interviews with other city divisions, agencies, boards and commissions, and other related organizations to identify a) their interest in the project and participation on the Steering Committee, and b) any specific issues and comments on the approach taken to the strategy development and implementation.

A Steering Committee comprising city staff and representatives from Metrolinx, 2015 Pan /ParaPan Am Games, Registered Graphic Designers of Ontario (RGDO), Toronto Association of Business Improvement Associations (TABIA), TTC, and Tourism Toronto was set up to assist with the development of the Request for Proposal documents, selection of the consultant team, and to provide input and guidance on the study directions. The selected consultant team, Steer Davies Gleave and DIALOG were retained in September 2011 to complete Phase One – the development of a multi-modal wayfinding framework for Toronto, including design principles, a proposed implementation strategy, an outline business case and identification of possible funding sources.

The study included a number of outreach activities and events with stakeholders and the general public. Individual and group interviews were arranged with a broad range of stakeholders including agencies, associations, BIAs, cultural, educational, and sports institutions, residents and various city divisions. A full list of all contacts can be found on p. 64 of the final report titled "Toronto 360° Wayfinding Strategy" which is attached as Appendix A. The purpose of the interviews was to uncover issues, opportunities, and challenges. Half-way through the study process, a stakeholder workshop was held in order to help guide the development of the Strategy. In March 2012, a public open house was held in the Metro Hall rotunda, providing the public with a background to the study and an outline of the draft wayfinding strategy and framework. Feedback was positive and constructive and was used to refine the final set of recommendations.

## **COMMENTS**

### **Wayfinding in Toronto – The Need**

There are many objectives and motivations behind the development of a comprehensive and integrated wayfinding strategy for the City of Toronto. At a basic level, the implementation of a wayfinding system will:

- Identify and connect places;
- Provide positive guidance – making it easier to get to and around the City;
- Reduce reliance on the car and promote multi-modal trips;
- Stimulate economic growth; and
- Encourage exploration, wandering and discovery, and build confidence and trust to walk.

Currently, there are multiple formal and informal attempts to provide wayfinding information across the City of Toronto. Through a close analysis of the needs and opportunities present in Toronto, the study identified four important gaps in existing wayfinding efforts. Broadly, these include the need for continuity, consistency, connectivity and accessibility and are fully described on p. 22 of the final report attached as Appendix A.

Existing highway signage in Toronto, and especially signage for visitor attractions, is also fragmented, inconsistent, and sometimes lacking in continuity from first appearance on an expressway sign through to the final destination. Detailed examples of traffic sign issues are included in pp. 48-49 of the final report.

## **Wayfinding System – Return on Investment**

To supplement the Toronto 360° Wayfinding Strategy report, the study also developed an outline business case (OBC) to demonstrate the overall benefits of investing in the wayfinding strategy and identify potential funding sources for implementation in Phases Two and Three. The approach taken was a Multiple Account Evaluation (MAE) process which is common industry practice for transportation-related projects and is used in Greater Toronto and internationally. For the OBC, the team conducted a qualitative assessment using professional judgment and expertise, along with findings from the 'Legible London' wayfinding system post-stage pilot evaluation report the consultant had produced for Transport for London. The evaluation concludes that a wayfinding system has the potential to deliver wide-ranging benefits across the transportation, environment, economic development, urban realm and social community 'accounts'.

To summarize, an improved wayfinding system is expected to deliver the following benefits:

- Increase expenditures by visitors by informing them about more attractions and increasing confidence to explore the city. This, in turn, boosts the local economy, adds significant tax revenues and enhances the overall image of Toronto as a destination;
- Reduce walk times, increase confidence to walk, promote multi-modal trips, reduce local traffic congestion and improve auto travel times, reduce greenhouse gas emissions and increase healthy physical activity; and
- Improve the urban realm, enhance local community identities and enhance the experience for the public.

The OBC concludes that, in terms of transportation benefits, for every dollar spent the city can conservatively expect to receive between \$0.90-\$2.40 in return. These returns are largely due to reductions in congestion, deferred or reduced need for transit infrastructure and increased pedestrian traffic among retail areas. Further, an investment in wayfinding is expected to increase the number of visitors to the city (increased number of hotel rooms/visitors to destinations/retail and food sales). For every 0.5% increase in visitor expenditures, there is an estimated annual increase to tax revenues of \$50M per annum.

In addition, the OBC identifies that the proposed implementation of a companion digital strategy and a highway signage strategy offer additional potential benefits not costed within this study. There is potential for digital/mobile devices to be delivered in partnership with the private sector using the city's GIS mapping platform. A digital system can enhance and complement the existing physical systems and be particularly useful in areas that may not justify a high density of wayfinding infrastructure. It can

also fulfill requirements for groups such as the visual and mobility-impaired and those who require multilingual support. An updated highway destination signage strategy would mean that auto users would be able to reach destinations with greater confidence resulting in journey time savings, safety benefits, environmental benefits and improved multi-modal access. The implementation of both digital and highway strategies, when combined with the core wayfinding strategy, can deliver additional benefits that can be considered an up-side to the case set out in the evaluation.

## **Design Framework – Five Guiding Principles**

Through the stakeholder consultation process, best practice review, and review of legislative/required standards, the study developed a design framework tailored to the specific needs and gaps identified for Toronto. The design framework consists of five principles that will guide the detailed design and implementation process. A full description of the design framework can be found on pp. 29-35 in the final report. These principles are summarized as follows:

1. **Consistency.** Toronto's wayfinding system should use universal legible and accessible map conventions such as the display of walking distances and times, use of standardized pictograms, 'heads-up' maps on all fixed maps and 'north-up' for printed maps, and colour coding to represent information categories that is applied across all system components and media. Sign locations should avoid obstructions, and walking routes should be marked with repeater signs and allow users to anticipate further sign locations along their route. The system will be based on a hierarchical order to name areas, corridors, neighbourhoods, main streets and places of interest across the city. Places of interest should be organized in four tiers – city-wide landmarks (e.g. CN Tower), district attractions (e.g. U of T Scarborough), generic (e.g. local libraries), and detailed (e.g. shop to shop index). A consolidated GIS map base will become an important component of the strategy.

Information on directional highway signage will vary from the above hierarchy due to the nature of highway traffic signage where safety and reading time constraints, as well as existing regulations will apply. However, a consistent and continuous approach to highway directional signs which directs drivers to consistently-named areas will reduce sign clutter, minimize driver distraction and direct drivers to final destinations and/or parking as efficiently as possible. As well, an updated and consolidated highway signage policy will also provide appropriate selection criteria for commercial and non-commercial destinations, neighbourhoods and communities as well as sign design standards for all of the sign types covered in the policy.

2. **Inclusivity.** Toronto's wayfinding system should cater to the needs of all user types. Signs and information should be positioned to permit access whether standing or in a wheelchair. Sign content should be legible and of high contrast, and can include technologies (QR codes, RFID tags, NFC, Wi-Fi, etc...) which

support location-based services. Signed walking routes should be fully accessible and well-lit.

3. **Sustainability.** Old and obsolete signs and structures should be removed or adapted. Permanent signs should feature content not likely to change while ever-changing information (i.e. special events) would be included in short-run or digital media. Signage design should be low maintenance and durable. Wayfinding information should be incorporated into existing information products and third party systems.
4. **Transition.** Toronto's wayfinding system should connect places and enable people to move seamlessly from one mode, system or area to another. The system should include relevant information about other modes of transportation and identify entry points and, in turn, wayfinding elements should be integrated into third party multi-modal signage and systems. The inclusion of parking information (digital or signed) would facilitate transitions. Improvements to the public realm would support better route legibility (e.g. lighting, sidewalk treatments and other urban design features) and help to reconnect places or deconstruct artificial boundaries.
5. **Local Identity.** Existing and historic names should be used wherever possible. Community engagement will help define the Tier 1 (city-wide landmarks) and Tier 2 (district attractions) and validate local area names. Signage components could be customized to reflect local character while maintaining consistency across the city. 'Placemaking' through the use of public art or community interventions would aid orientation and navigation throughout the city, as would mapping the visual and architectural features of distinctive buildings and public spaces as landmarks of the city.

## Wayfinding System Components

The wayfinding strategy is built around a core family of on-street signage. Examples of these components can be found on pp. 38-40 of the final report. Signage ranges in size and content dependent on the locations (i.e. gateway, major destination, retail clusters, key decision points, heritage building, etc...) and the available right-of-way. The existing Street Furniture InfoPillar program will be integrated in terms of mapping and technology. Other system components would include digital applications for internet-enabled mobile devices, printed local area maps at mode transition points, and pocket maps for distribution at key visitor points. Highway signage should also feature consistent terminology to simplify the transition from highways to destinations. Examples of traffic signs can be found on p. 52 of the final report. Urban design can also improve connections to places, create new routes and improve existing spaces.



## **Next Steps – Phase Two (Pilot)**

Phase Two moves the wayfinding strategy into implementation and is designed to be in place for the 2015 Pan /ParaPan Am Games. Of the five case study areas considered in Phase One, East Downtown and Morningside/Military Trail were selected as the proposed Phase Two pilot areas that broadly represent the objectives, issues, and concerns identified in relation to implementation in urban and suburban locations, respectively. The East Downtown area includes the Athlete's Village while the Morningside/Military Trail area is home to the University of Toronto (Scarborough) Pan Am Complex. The components of Phase Two will include the development of the GIS map asset platform, detailed graphic and product design of the system elements, design testing and prototype development, stakeholder consultations, sign manufacture and installation, and pre and post-evaluation of the pilot areas. As well, the digital strategy and updates to the highway signage strategy will also proceed as part of the Phase Two implementation. The results of the evaluation of Phase Two will be used to modify the approach as required, verify and update the OBC and more accurately convey the costs and benefits to potential funders of Phase Three. Phase Three involves the city-wide roll-out of the wayfinding system infrastructure and is expected to commence by 2016. It includes the development of wayfinding system guidelines to be provided to potential partners for city-wide consistency and also addresses the need for ongoing maintenance of the maps and elements. Details on the implementation plan are found on pp. 56-57 of the final report.

The estimated cost of the Phase Two implementation is \$800,000. The digital strategy is not included in this estimate as it is expected to proceed in partnership with a private partner. This estimate includes updates and amendments to the highway signage policies but does not include the costs of actual highway signage – as these will be dependent on both the approach and transition costs.

## **Potential Partners**

The OBC identified a number of possible funding models, potential funders and partners of a future wayfinding system. Common funding models include:

- self-funding (city and/or other levels of government);
- funding through advertising on other city (non-wayfinding) sites;
- delivery partnerships with BIAs, other business associations and individual attractions and businesses;
- delivery partnerships with transportation agencies; and
- developer contributions.

Potential primary partners could provide contributions and property access for the infrastructure in their local areas while secondary partners might provide property access only.

The study recommends that the City should directly or indirectly manage the delivery of the wayfinding strategy and liaise and negotiate with funders and partners to achieve the goals of the wayfinding strategy. It is also important to identify opportunities at an early stage so that the wayfinding strategy can be incorporated into the planning and construction of new infrastructure.

Staff have worked with members of the Steering Committee to approach potential funders and partners as to their interest in Phase Two. The TTC advises that they would support the conversion of their subway station and bus shelter local area maps to any design developed under the Toronto wayfinding strategy. The 2015 Pan/ParaPan Am Games Secretariat has advised that they will use the proposed wayfinding strategy as the platform for their temporary signage and work closely with the Phase Two implementation to ensure there is no duplication of elements in the two pilot areas.

The implementation of the Wayfinding Strategy can also be seen as providing a significant benefit to the GTA and Province. Staff are in contact with various Ministries of the Province to discuss the positive impacts of wayfinding in terms of the upcoming 2015 Pan/ParaPan Am Games, as well as additional tax revenues generated through additional tourists, net transportation benefits, improved health outcomes and the promotion of accessibility as mandated under the Accessibility for Ontarians with Disabilities Act.

## **CONTACT**

Elyse Parker, Director  
Public Realm Section  
Transportation Services  
Tel: 416-338-2432  
E-mail: eparker@toronto.ca

Fiona Chapman, Manager  
Pedestrian Projects  
Transportation Services  
Tel: 416-392-0828  
E-mail: fchapma@toronto.ca

## **SIGNATURE**

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John Mende, P.Eng.  
Acting General Manager, Transportation Services

## **ATTACHMENT**

Appendix A – Toronto 360° Wayfinding Strategy Final Report