

# TORONTO STAFF REPORT

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November 16, 2005

To: Works Committee  
Planning & Transportation Committee

From: Fareed Amin, Deputy City Manager

Subject: Development Infrastructure Policy and Standards – Phase 2 Report

Purpose:

The purpose of this report is to:

- (i) inform Council of the completion of the inter-divisional Development Infrastructure Policy and Standards Review (DIPS) Process;
- (ii) report on the findings of the consultative process and cost implications of different design standards for local residential streets;
- (iii) recommend a set of design standards for public local residential streets and criteria for their use; and
- (iv) recommend criteria to identify where a private street may be considered and to establish the design features of such a street.

Financial Implications and Impact Statement:

There are no immediate financial implications arising from this report. However, the City's Official Plan policy that new streets should be public streets implies a continued commitment to publicly fund the servicing and maintenance of an expanding network of local residential streets.

The Deputy City Manager and Chief Financial Officer has reviewed this report and concurs with these financial conclusions.

Recommendations:

It is recommended that:

- (1) The range of design standards for new public local residential streets and the criteria for the use of the 20.0m, 18.5m and 16.5m right-of-way (ROW) widths and associated turning circles (including narrower ROW widths for single-loaded streets) and a 6.0m ROW width for public rear lanes, as described in Appendix A of this report, be adopted for application throughout the City;
- (2) The creation of new public streets be generally achieved through the plan of subdivision process;
- (3) The criteria for the approval and design of private streets (mews) described in Appendix A of this report be adopted to give effect to the Official Plan's policy of permitting appropriate exceptions to the general policy that all new streets should be public streets; and,
- (4) The appropriate City Officials be authorized and directed to take the necessary action to give effect thereto.

#### Background:

In 2004, the Development Infrastructure Policy and Standards Review (DIPS) process was initiated to develop a range of standardized designs for new local residential streets. The initiative has been led by staff of Technical Services and has included the close involvement of staff from different sections of City Planning, Toronto Water, Fire Services, Transportation Services, Solid Waste Management, Legal, and Parks, Forestry and Recreation.

The DIPS process arose in response to the growing concern that the amalgamated City does not have a uniform set of street design standards which resulted in different levels of municipal service delivery. In addition, new townhouse developments are increasingly being marketed as "freehold" townhouses that rely on common element condominium private streets. Many of these private streets have very narrow ROWs and often do not meet the design objectives of new streets as envisaged by the City's Official Plan. Developments on private streets create concerns at both the policy and the operational levels. These concerns have been fully described in a joint report entitled "Development Infrastructure Policy and Standards Review" that was brought before Council at its meeting of April 12, 13 and 14, 2005.

The joint report presented preliminary public street design prototypes with 20.0m, 18.5m and 16.5m ROW widths. At the April 2005 meeting, Council adopted the recommendations of the joint report, with amendments, and in so doing authorized staff to initiate Phase 2 of the DIPS process which includes a public consultation process and cost analysis of the preliminary cross-sections. Council also adopted the recommendation that staff develop criteria to identify where a private street may be considered as an appropriate exception to the Official Plan policy that all new streets should be public. In addition, Council adopted an amendment that all streets in new townhouse developments and subdivisions be designed to permit curbside garbage collection by City vehicles, as well as other City services, such as snow removal, street repair and maintenance, water and sewage maintenance, and Fire Services, etc. This effectively requires all new streets in townhouse developments to be public streets. While the benefits of residential

developments on public streets are evident, this report also explores situations where private streets can be considered as an appropriate exception to the Official Plan policy that all new streets be public streets, provided other City policies and goals can be supported.

In the report “Private Streets in New Residential Developments”, considered by Council at its meeting of September 28, 29 and 30, 2005, the following recommendations were adopted:

- (1) accelerate the process to develop a common standard for public roads; and
- (2) discourage any applications that involve private roads.

This report responds to the above recommendations.

### Comments:

#### 1. Public and Stakeholder Consultation

As part of the DIPS review, the project team members and staff of the Public Consultation Unit consulted with stakeholders, including the development industry; the general public, and other internal and external stakeholders/agencies. With the adoption of the previous DIPS report at the April 2005 Council meeting, the preliminary cross-sections formed the basis of the consultation. A separate report on the consultation process and its results, entitled “Designing Toronto’s Future Streets – Consultation Process”, is attached in Appendix B. That report fully describes the goals and objectives of the consultation process, the stakeholder groups, the various activities undertaken, the methods of communication, and the findings from the consultation. The following sections highlight the outcome of the consultation process:

#### Observations from Development Industry Workshop:

- Concern was expressed about the impact of street design on the financial viability of development schemes. Particular mention of ‘unit yield’ and the loss of grade related townhouses as a housing format were expressed.
- Participants believed that Council’s objectives could be achieved within ROWs at the narrower end of the range presented during the workshop. More preference was given towards the 16.5m ROW.
- Some participants believed that there is a role to be played for private streets, and while there was general agreement with the criteria for private streets, concern over the use of a “unit count threshold” was expressed.
- Overall the workshop results would appear to confirm some of the anecdotal issues that had been raised by representatives of the development industry prior to the consultation process.

#### Observations from General Public Workshops:

- Diversity of comment was greater in the public workshops and on some occasions preferences appeared to reflect the current design standards typical of the district within which the workshops were held. Personal preferences were diverse.
- However there were some preferred street design features common to participants across all four workshops. The two main ones were that streets should always have sidewalks,

preferably on both sides and that trees should be planted so that in the long term they create an extensive canopy.

- There were requests that street designs be pedestrian friendly and that walking be acknowledged as an important mode of transportation.
- Participants expressed a number of different street user challenges, the most frequent of which included snow storage and removal, and space for setting out waste and recyclables.
- The most important criteria highlighted for new street designs included street trees, compatibility with neighbourhood, and relationship to proposed housing.
- Residents acknowledged that the City needs to develop a range of street widths. However, some preferred the ROWs at the narrower end of the proposed range, while others would prefer the wider ROW options. Of those that supported the 20m ROW, their main concern was for adequate space for landscaping and sidewalks, rather than the pavement width.
- There was a clear message from workshop participants that they would prefer that residential streets be public streets.

#### Observations from On-line & Mail-out Public Surveys:

- Comments on street challenges were consistent with those expressed during the public workshops. For example, snow storage and removal, pedestrian access and space for setting waste and recyclables.
- When asked to identify most important considerations, greatest support was given to a safe and comfortable pedestrian environment, inclusion of street trees, environmentally sustainable designs, and a safe and comfortable cycling environment.
- As with the public workshops, there was no clear preference on ROW or pavement widths. A similar amount of support could be found for the 20m ROW and the narrower 16.5m ROW.
- On the issue of sidewalks, it would appear from the responses received that those residents who do not have sidewalks are fine without having any sidewalks. These findings run contrary to those received in the workshops that sidewalks on both sides are preferred.
- A majority of private street respondents were aware of their obligations for the maintenance of the street prior to purchasing the property. However, a third of respondents were not aware of this prior to purchasing the property.
- Snow storage and clearance appear to be the main operational challenges experienced by residents across all street contexts.

Appendix B provides a full review of the comments received from the following stakeholder groups: Feet on the Street; Film Ontario; Film Board; Greater Toronto Home Builder's Association; Habitat for Humanity; Roundtable on a Clean and Beautiful City, Toronto Community Housing Corporation; Toronto Cycling Committee; Toronto Pedestrian Committee; Toronto Public Utility Coordinating Committee; West Don Lands Committee; and members of the general public.

## 2. Public Streets

The competition for space in the ROW can be broken down into 2 areas; the pavement, and the boulevard. The pavement is required to accommodate everyday vehicular traffic, including bicycles, and on-street parking as well as underground municipal infrastructure. City maintenance vehicles (solid waste collection, winter maintenance, etc.) and emergency vehicles

also use the pavement and they require a certain pavement width in order to access properties and provide service on residential local streets. On the boulevard, space is required for sidewalks, trees, streetlights, utilities, snow storage, setting out waste and recyclables for collection, fire hydrants, and both above and below ground private utility appurtenances, such as gas, hydro, telecommunications.

As a result of the discussion and input received, the DIPS project team is proposing that the design standards set out in Table 1 below be used for new local residential streets in the City:

Table 1 – Standards for New Public Local Residential Streets/Rear Lanes

Street Type	ROW Width	Pavement Width	Sidewalk
Major Local Street – Option A	20.0m	8.5m	Both Sides – Adjacent to curb
Major Local Street – Option B	20.0m	8.5m	Both Sides – Away from curb
Intermediate Local Street – Option A	18.5m	8.5m	Both Sides – Adjacent to curb
Intermediate Local Street – Option B	18.5m	8.5m	Both Sides – Away from curb
Minor Local Street – Option A	16.5m	8.0m	Both Sides – Adjacent to curb
Minor Local Street – Option B	16.5m	8.0m	One Side – Adjacent to curb
Rear Lane	6.0m	6.0m	No sidewalk

Details of the proposed standards and the criteria for their use are provided as Appendix A to this report. For sidewalk located against the curb, a 2.0m wide monolithic sidewalk is provided to give additional space for snow storage and act as extra buffer between pedestrians and vehicles; otherwise, a 1.7m wide sidewalk is shown, which meets the City’s Accessibility Design Guidelines. The standard turning circle for residential streets will have a minimum radius of 12.5m to the curb with a minimum 2.75m boulevard and no sidewalk.

A well designed neighbourhood will generally consist of a range of street types. Each street type is chosen to meet the diverse role of that street, in relationship with the larger pattern of the public realm and fitting with the adjacent development. It is not intended that larger subdivisions containing a number of new streets will only have one type of street.

As indicated in Table 1, it is proposed that local residential streets be categorized into 3 types: major, intermediate and minor. Staff will apply two main considerations when determining which type of local residential street is required in a new residential development proposal:

- a) Function: traffic and pedestrian demands, continuity of road hierarchy, other design criteria such as space required for infrastructure or special functions not normally found in or associated with that design, and
- b) Context: the street design should integrate with the existing context of the neighbourhood such as in the case of extension of an existing street. In particular, the location of sidewalks will depend on the context and the pattern of the neighbourhood streetscape rather than on a technical design consideration.

2.1 Major Local Residential Streets (20.0m ROW) include some or all of the following functions and characteristics;

- a) Serve adjacent or lead to higher density developments which generate high pedestrian and vehicular traffic as well as requiring more municipal and utility services,
- b) Provide a higher proportion of “through” traffic,
- c) Connect arterial or collector roads to Intermediate or Minor local residential streets,
- d) Need to accommodate existing or future transit service,
- e) Meet other design needs: e.g. major trunk utility/municipal service corridors, major overland flow routes for conveyance of storm water,
- f) Extend existing streets with similar characteristics.

2.2 Intermediate Local Residential Streets (18.5m ROW) have functions and characteristics somewhere between the Major and Minor Local Street types. It serves as a link between the Major and Minor Local streets. It should be recognized that not all subdivisions will necessarily have both Major and Intermediate Local streets. In some cases, an Intermediate Local Street can be used to connect to arterial or collector roads.

2.3 Minor Local Residential Streets (16.5m ROW) include some or all of the following functions and characteristics:

- a) Serve grade-related, low density developments, i.e. singles, semis and townhouses,
- b) Provide access to adjacent property is the main function and accommodate local traffic only,
- c) Connect to other local streets (Major or Intermediate)
- d) Carry low pedestrian and vehicular volumes
- e) Extend existing streets with similar characteristics.

2.4 Single Loaded Streets

A single loaded street is one that has development only on one side. The other side could be facing a park, rail corridor or other non-development space. For any local street (Major, Intermediate or Minor) with no utilities or sidewalk on one side, the boulevard width on that side can be reduced to a minimum of 1.0m and where trees are planted, a minimum width of 3.0m is required.

2.5 Rear Lanes

Rear Lanes are the smallest public ROW for residential grade related developments that have frontages on another public street. The function of Rear Lanes is to provide vehicular access to parking garages/areas located at the rear of a house. Since the pavement takes up the whole ROW and Rear Lanes do not have sidewalks and boulevards, it is necessary to have a minimum setback of 0.5m to any structure. Space for street light poles will be located in easements. There will be no municipal infrastructure in rear lanes other than streetlighting and drainage. There may be some exceptional situations where solid waste and recyclables collection will be carried out from the rear lanes.

### 3. Creating New Public Streets

Section 51 of the Planning Act grants City Council the authority to regulate the division of land through Plans of Subdivision. This authority ensures the orderly division of larger parcels of land into lots and/or blocks and will typically include new municipal infrastructure (i.e. water mains, sewers and roads). City Council has delegated the subdivision approval authority to the Chief Planner.

Section 53 of the Planning Act permits the Committee of Adjustment to make decisions on applications for changes to the land ownership pattern in the form of a land severance. A land severance divides a piece of land to create two or more new adjoining properties. This is referred to as a consent application.

The consent process is appropriate to create separately conveyable parcels when a small number of lots are being created and there is no requirement for the creation or conveyance of a public street. However, creating public streets through the consent process is cumbersome and means that the City must enter into a consent agreement in order to ensure the construction and conveyance of streets are to the City's satisfaction. Once the street is constructed, a road dedication by-law must be enacted to dedicate the portion of land to the City as a public street.

The subdivision approval process is a more efficient process of creating new public streets and works well at co-ordinating conditions. The subdivision process provides the City and outside agencies, such as the Toronto and Region Conservation Authority, the TTC and utility companies, etc., the opportunity to review the proposal in its entirety and will allow all matters to be addressed in a coherent manner. This process allows lands to be dedicated for public highways and other public/community uses such as parkland and schools. The subdivision agreement which is required to be executed as part of this process is a contractual obligation to ensure the owner constructs municipal services and infrastructure such as roads, sidewalks, water mains, sewers, etc., to City's standards before those services are assumed by the City. The plan of subdivision process is generally to be used whenever new public streets are created.

### 4. Estimating the Amount of New Local Residential Streets

In order to determine the cost implications of different design standards for local residential streets, an estimate was made of the number of kilometres of new streets that can be expected to serve new grade-related residential developments. The housing projections are taken from the report "Flashforward: Projecting Population and Employment to 2031 in a Mature Urban Area" and they form the basis of this estimation.

Different approaches and assumptions were used, and the resulting estimate falls between 30km and 125km of new local residential streets by the year 2031. It is recognized that this projection is on the high side because a portion of the new residential developments will be in-fill developments or redevelopment of existing properties that will not require the creation of a new public street. This range translates to 1% to 4% increase in the number of kilometres of local residential street in an existing network of 3,000km.

## 5. Cost Implications

New streets with narrower right-of-way widths and pavement widths may have different cost implications to the different operating divisions:

### a) Toronto Water

When the boulevard width is reduced, water mains may have to be installed under the street pavement. This is less desirable because of the higher costs for any water main repair and disruption to traffic if a portion of a street has to be closed for water main break repair.

Based on the estimated maximum length of new local streets to be built and assumptions on breakage rate and repair costs, the cost implication will be between \$15,000 and \$20,500 per annum. Staff are of the opinion that this cost implication can be managed and will not be a factor in deciding what cross-section to use.

### b) Solid Waste Management

Cost implication to Solid Waste Management is related to access to the units especially for curbside collection of waste and recyclables. Operational inefficiencies can be the result of insufficient pavement width further aggravated by illegally parked vehicles, dead end streets without the proper design to allow solid waste collection vehicles to turnaround. Street dimensional requirements that are currently used by Solid Waste Management Division are being maintained for all the new street cross-sections and therefore, will not adversely impact the efficiency of solid waste collection. The use of a “hammerhead” as a safe turnaround point for small in-fill sites with private streets has also been adopted. This would allow City solid waste collection vehicles to provide curbside pickup for grade-related development on private streets when this type of development is supportable.

### c) Transportation Services

Transportation Services costs can be divided into two main components:

- operational maintenance such as sweeping, flushing, winter maintenance, roadside expenses, and
- capital maintenance such as resurfacing, reconstruction, sidewalk reconstruction.

For operational maintenance, the cost is generally proportional to the width of the pavement, i.e. the wider the pavement, the greater the cost. Roadside expenses such as grass cutting, sidewalk maintenance, they are also a function of the width of the boulevard and sidewalks. In terms of winter maintenance, the cost depends on the level of service that is provided. When a sidewalk is adjacent to the curb, the soft boulevard is not available for snow storage and the windrow created by the snow plough will partially block the sidewalk, making sidewalk clearing and windrow clearing at the driveway entrance locations operationally difficult and cost prohibitive. Therefore, it is concluded that where sidewalks are located adjacent to the curbs or where the ROW width is less than 18.5m, sidewalk snow clearing and driveway windrow clearing will not be carried out by the City. This is, in fact, consistent with current practices for sidewalk snow clearing and driveway windrow clearing in the older neighbourhoods of the City where sidewalks are typically located next to the curb. Toronto



Municipal Code Chapter 719 requires the owner or occupant of any building to clear snow and ice from the sidewalk within a certain time period after snowfall.

For capital maintenance, the main factor is the width of the pavement. Therefore, it follows that the cost implication between an 8.0m pavement and 8.5m pavement will not be the main factor when deciding which design to use.

d) Urban Forestry

Mature, healthy trees, planted in good conditions are less costly to maintain than are trees planted in poor conditions that limit growth. It has been established that about 30m<sup>3</sup> of soil is required to achieve a tree with a trunk of 40cm diameter and able to reach 50% to 60% of its full size and age. This would be the minimum expectation of a residential street tree. This soil volume can be achieved on all of the proposed design standards by providing an average of 15m<sup>3</sup> of soil per tree and by “sharing” soil between trees and establishing a minimum building setback from the property line in order to provide additional soil volume.

The narrower ROW options will limit tree growth and full development of the tree crown, which will result in additional pruning and maintenance cost. A narrower boulevard also provides less permeable surface area in proportion to hard surface, resulting in more compaction of the underlying soil and less water. While it is recognized that trees planted in less than ideal conditions will require more maintenance and possible replacement, it is not possible to quantify the incremental maintenance or replacement costs for trees planted in narrow cross-sections due to the many factors that influence the health of a tree.

6. Private Streets (Mews)

For the purpose of this section, it is important to distinguish between private streets and private shared driveways. Private streets provide the frontages and addresses of residential units and accommodate the typical range of services and utilities. Driveways, on the other hand, are functionally more limited, primarily providing vehicular access to rear garages and parking areas.

On small sites where the design standards for public streets may conflict with or compromise other City goals, privately owned streets or "mews" may be considered. Mews can be supported where grade-related intensification is desirable and where larger apartment types are not appropriate and adjacent land cannot be consolidated to allow for a subdivision with public streets. These short privately owned streets, typically perpendicular to an existing public street, will provide frontage and municipal address, private access and private utility connections to a small number of grade-related residential units. While mews are in private ownership, they are still required to meet the Official Plan goals on the role of streets and the design criteria for new streets. The mews and the associated private servicing infrastructure will form the common elements to be maintained by a single entity such as a condominium corporation. However, individual curbside solid waste and recyclables collection will be provided by the City on those mews where there is a “hammerhead” turn around facility or where there is through connection to another public street.

Developments on mews may be considered for small sites with less than 45m length of mews measured from the curb of the public street. The mews may serve 10 or fewer residential units,

and not counting those units on the same site that take their address and services directly from the existing public street.

Staff will endeavour to ensure future occupants of residential units on mews be informed that municipal services are typically not provided. Any private streets and infrastructure should generally be owned by a single entity such as a condominium corporation.

Conditions where a Development with Mews can be Considered:

a) Mews for small sites

The City has many lots that are deep enough to allow for more than a single building with a direct fronting relationship to the street. They may be too small to fit the design standards for public streets to access the full depth of the lot for grade-related residential development. On sites that meet planning criteria for development beyond a single row of houses along a street, the design standards for public streets may limit desirable grade-related intensification. This may result in lost opportunities for intensification or may encourage applications for higher density forms of development that may not fit as well with its neighbours. Other considerations when determining if mews are appropriate for a development include the presence of environmental features and heritage buildings.

Mews should be located perpendicular to the public street in such a manner that residential units are not lined up front to back.

b) Mews for Townhouses that front onto a park

The “Infill Townhouse Guidelines” recommend that townhouses be sited and organized to “define the edges of and face onto public parks and accessible open space in order to enclose and provide overlook for these spaces”. On large sites that include new parks and open spaces or development next to existing parks and open spaces the ideal relationship of new grade-related homes is to provide a new public street between the open spaces and the development sites. On smaller infill sites, the design standards for a new public street along the park and open space edge may make intensification with the proper fronting relationship not possible. Mews in the rear will provide vehicular access, utilities, fire access and City waste collection. Pedestrian access would be from a 1.7m wide walkway along the front of the units. The townhouses would be organized to front the park, with the rear of the units and garages facing the mews in response to the unique but recurring urban condition.

Examples of mews are illustrated in Appendix A.

### Standards for Private Streets or Mews

As noted earlier, private streets have to meet the Official Plan goals on the role of streets and the design criteria for new streets. The following are the design standards for private streets:

1. Pavement – minimum width of 8.0m for two way traffic with parking permitted on one side.
2. Length of Street – maximum 45m from the curb of existing a public street.
3. Number of Units – maximum 10 units (not counting units that front onto an existing public street.)
4. Sidewalk – one 1.7m sidewalk or no sidewalk if paved with upgraded paving materials, with appropriate drainage and appropriate safe refuge areas for pedestrians provided.
5. Tree planting – an average of one tree per eight metres of unit frontage for the development. Provide 15 m<sup>3</sup> of soil per tree and allow for “sharing” of soil between trees.
6. Lighting – appropriate levels of lighting to provide safe year round use of the space by cars and pedestrians. Light fixtures can be integrated into the landscape and or the buildings. Use of light triggered photo cells or other technologies are encouraged.
7. Solid Waste and Recyclables Collection – adequate space for setting out waste and recyclables for City curbside collection with a hammerhead turning arrangement where applicable.

Conclusions:

The DIPS exercise provided the forum for both internal and external stakeholders to discuss and debate the proposed standards for public local residential streets. This report summarizes the results of the public consultation process and cost implication of different design standards. A final set of proposed design standards for new public local residential streets, associated turning circles and public rear lanes are presented in Appendix A for Council's adoption. These design standards relate to typical cross-section widths of 20.0m, 18.5m and 16.5m. The conditions for the use of each cross-section are defined. Finally, it is recommended that new public streets be generally created through the plan of subdivision process.

Private streets or "mews" in small in-fill development sites can be supported where they are designed to integrate into the public realm and meet the design objectives for new streets as called for in the Official Plan. Criteria for approving mews are presented in Appendix A for Council's adoption.

Contact:

William G. Crowther, P.Eng.  
Executive Director  
Technical Services  
Tel. No.: (416) 392-8256  
Fax No.: (416) 392-4494  
E-mail: [wcrowth@toronto.ca](mailto:wcrowth@toronto.ca)

Ted Tyndorf  
Chief Planner & Executive Director  
City Planning  
Tel. No.: (416) 392-8772  
Fax No.: (416) 392-8115  
E-mail: [TTyndor@toronto.ca](mailto:TTyndor@toronto.ca)

Fareed Amin  
Deputy City Manager

List of Attachments:

Appendix "A" – City of Toronto Policy and Standards for Public Local Residential Streets and Private Streets  
Appendix "B" – Designing Toronto's Future Streets – Consultation Process