

#### 6.0

### PEDESTRIAN AND TRANSIT SUPPORTIVE DEVELOPMENT

It is important for all forms of urban development and redevelopment to be made more accessible by public transit. The design of our urban areas has a significant impact on people's ability/willingness to use public transit. While the development of high intensity, mixed use development at nodes and along corridors makes transit use more attractive, there needs to be transit and pedestrian orientations on the streets which feed those transit services.

Both the City of Kitchener and the Regional Municipality of Waterloo have sidewalk policies which may require either the installation of or the contribution of funds towards the construction of public sidewalks across the frontage of property subject to a development proposal. Please see current City and Regional policies for criteria and Engineering staff for current rates.

Grand River Transit staff should be contacted in the early stages of development to discuss what potential routings would be considered appropriate.

#### **Standards**

Arterial and Collector Roads are to be designed to be:

- Continuous across neighbourhoods, i.e. grid pattern.
- As straight and direct as possible.
- A maximum of 800 metres apart
- Accommodate transit vehicles, including:
  - A minimum turning curve radius for a bus of 15 metres.
  - A minimum paved road surface of 9 metres.
  - A maximum road grade of 5%, (this standard may not be achievable in all locations).
- Supportive of the efficient design of transit routes by:
  - Avoiding one way street systems.

- Avoiding bus bays.
- Providing a temporary bus turnaround at the end of partially constructed roads.
- Ensuring that intersections of local roads are spaced no more than 200 – 250 metres apart.
- Spacing bus stops 200 250 metres apart.
- Constructing collector and arterial roads with standards for surface and subsurface materials and depths that meet the needs for bus traffic
- Accommodate all pedestrians by:
  - Designing barrier free intersections and barrier free transit stops.
  - Ensuring a maximum distance of 200m to 250M between intersections.
  - Having sufficient, protected barrier free pedestrian crossing points (signalized intersections and crosswalks) where warrant criteria have been met.
  - Eliminating reverse-lotted development.
  - Orienting buildings to the street and to pedestrian traffic.
  - Locating buildings as close to the street as possible.
  - Locating parking lots in the rear or side yards of development sites.
  - Providing higher density and mixed uses along arterial roads.
  - Improving access between arterial roads and internal subdivisions by providing more local road access and midblock pedestrian walkways.
  - Providing sidewalks in accordance with City policy.
  - Provide pedestrian crossings in an alternate high contrast material.



Nodes and Corridors are to be designed in the following manner:

- Develop compact pedestrian oriented nodes that allow for the ease of use and access to transit by:
  - Designing building entrances to be oriented towards transit stops.
  - Designing arterial and collector roads to travel directly into the interior of the nodes, allowing transfers between transit routes where appropriate.
- Development should be oriented toward the street and include:
  - Location of buildings as close to the street as possible.
  - Location of parking lots in the rear or side yards of development sites.
  - Minimizing the number of mid-block vehicular access points that cross sidewalks.
  - Minimizing long stretches of walls, berms or solid fences along public roadways.
- Develop barrier free, pedestrian-supportive amenities along streets as follows:
  - Locate retail stores, service shops and restaurants at ground floor level.
  - Provide amenities to improve the microclimate along streets with features such as: canopies, arcades and landscaping.
  - Provide sidewalks sufficiently wide to accommodate bus shelters and waiting areas, street tree planters, through pedestrian traffic, and an area adjacent to buildings to allow for "window shopping".
  - Sidewalk ramps and curb ramps are to be constructed as outlined in Section 5.0.

Shopping Centres with transit facilities are to be designed to:

- Facilitate barrier free pedestrian access and future intensification.
- Have at least one building face or the main entrance adjacent to an arterial road.
- Have barrier free pedestrian access from the public sidewalk to the main building entrance.
- Have on-site lighting to maximize pedestrian safety.
- Provide pedestrian connections between buildings.

Subdivisions are to be designed to:

- Facilitate barrier free pedestrian access to transit stops.
- Provide sidewalks along both sides of transit routes and according to the City Sidewalk Policy.
- Provide curb cuts at all intersections and walkways including mid-block crosswalks and trail crossings (where safe and appropriate).
- Have barrier free pedestrian links to transit stops provided in either concrete or asphalt.
- Have the local road pattern provide direct pedestrian access to transit stops and transfer points.
- Provide for pedestrian safety and natural surveillance of pedestrian links to transit stops ensuring adequate lighting and year round maintenance.
- Have 95% of the residences, jobs and other activities / uses within 450 m walking distance of a transit stop.
- Have all multiple dwelling units (housing at a triplex level and up) be within 300 metres walking distance of a transit stop.
- Integrate neighbourhood features and public spaces with bus stop locations.



Transit Stop Waiting Areas and Shelters are to be designed to:

- Provide direct, convenient and barrier free connection from the sidewalk to the shelter/waiting area and to the bus loading and unloading doors.
- Provide sufficient lighting to allow for pedestrian safety, surveillance and adequate site lines.
- Maintain adequate distance to adjacent streets and driveways.

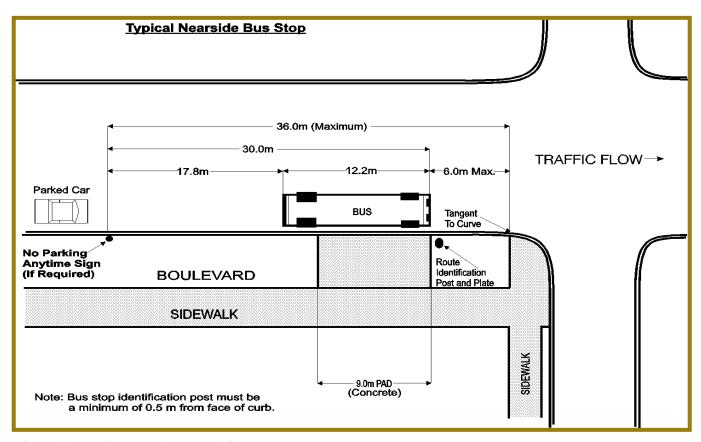


Figure 6.1: Typical Nearside Transit Stop



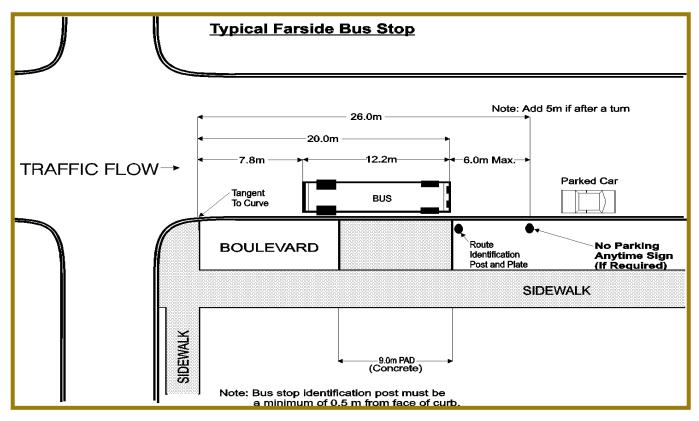


Figure 6.2: Typical Farside Transit Stop